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by D. E. Maunder (ed.)

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POSTAL SERVICE

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

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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^{o} of Wellington, and smaller earthquakes known to have been felt in New Zealand. Many other earthquakes have however been assigned serial numbers, so the serials of the shocks listed are often not consecutive.

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

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

Seismologists urgently requiring unpublished New Zealand data may apply to the Observatory.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

Although the Report for 1993 has not yet been published, the data have been analysed and are available from the Observatory.

D E Maunder
Editor

STAFF IN 2000

Wellington

Chief Seismologist:	T H Webb, BSc (Hons), PhD (Cant)
Scientists:	R A Benites, BSc (UNI Peru), PhD (MIT) M P Chadwick, MSc, PhD (VUW) W J Cousins, BSc (Hons), PhD (VUW) P N Davenport, BSc, BE (Hons)(Civil), PhD, MIPENZ G L Downes, BSc (Hons), MSc K R Gledhill, MSc (Hons), PhD G H McVerry, BE (Hons), ME (Hons) (Auck), PhD (Caltec) A Pancha, MSc M E Reyners, BSc (Hons), PhD R Robinson, MSc, PhD (Stanford)
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Technicians:	G J Campbell, NZCE S C Ede M Kopeykin
Technical Artist:	C Hume

STAFF IN 2000

Wairakei (Volcanic Networks)

Scientists:	C J Bryan, PhD (Hawaii) (until October) B J Scott NZCS, NZ Dip Sci S Sherburn, BSc (Hons)
Technician:	D E Keen

Christchurch

Technical Officer:	T J O'Neill, NZCE

Rarotonga

Observer in Charge:	R Taia

Raoul Island

Observer:	P Clerke

Scott Base

Observers:	A Ogilvie

NEW ZEALAND SEISMICITY IN 2000

Although more than 140 earthquakes were felt during 2000, there were few large earthquakes.

The largest earthquake within New Zealand (Event 2000/9839), magnitude 6.2, occurred on November 1. It was centred offshore near Thompson Sound about 70 km west-north-west of Te Anau. Although it was felt throughout Fiordland, the lower West Coast, Southland and Otago, damage was minor because it occurred in a sparsely populated area. The earthquake was followed within less than two minutes by an event of magnitude 5.0 (Event 2000/9840) and over 1000 aftershocks occurred during the next month. The largest aftershock (Event 2000/11032), magnitude 5.5, occurred on November 12 and was felt in Fiordland and Southland. A temporary network of three stations was installed to record these events. The earthquake was a thrust event on a fault above the subduction interface. A detailed study is underway (Robinson et al. 2002) because of the proximity of the earthquake to the offshore segment of the Alpine Fault.

The most damaging earthquake of the year, a shallow magnitude 5.4 event (Event 2000/2784), occurred on March 29 near Greytown in the Wairapapa. It was felt widely from Taranaki to Marlborough, causing minor damage in parts of the Wairarapa, Wellington and the Kapiti Coast. This earthquake was followed by a number of smaller aftershocks.

Several other earthquakes during the year caused minor damage. On March 31, an earthquake of magnitude 5.4 (Event 2000/3041), 43 km deep, was felt from New Plymouth to Marlborough. It was centred 23 km east of Picton and caused minor damage near Wellington and Picton. A larger earthquake (Event 2000/4167), magnitude 5.9, occurred on of April 27. It was 135 km deep centred off Taranaki, 64 km southwest of Patea. It was felt widely from Auckland to Christchurch and threw goods off shelves in Wellington. It was felt over a greater distance than the smaller event on March 29 but because of its depth caused less damage. An earthquake of magnitude 5.4 (Event 2000/4094) occurred 58 km west of Te Anau on April 25 and was felt throughout the lower South Island causing minor damage in Invercargill. On August 8 an earthquake (Event 2000/7415), 50 km deep and magnitude 6.1, was located 45 km east-south-east of Turangi and was felt from Bay of Plenty to Marlborough. It shook goods from shelves in Napier and Taupo. On August 14 a shallow (33 km deep) earthquake (Event 2000/7548) with a magnitude of 4.6 and located 12 km southeast of Otaki was felt from Horowhenua to Wairarapa and caused minor damage at Paraparaumu Beach. A deeper (51 km deep) earthquake (Event 2000/9780), magnitude 5.2, occurred 13 km west of Otaki on October 30. It caused minor damage at Whitby and was felt from Ohakune to Blenheim. On December 19 an earthquake (Event 2000/12591), 42 km deep, with a magnitude of 5.1, was located 30 km east of Picton. It was felt in the Wellington region, Wairarapa and northern Marlborough with minor damage reported near Wellington. A small shallow local event on July 29 (Event 2000/7131) caused minor damage in Taupo.

Other moderate-sized earthquakes, mostly deep, that occurred during the year were:- March 30 (Event 2000/2966), magnitude 5.1, 110 km north of Opotiki; May 16 (Event 2000/4853), 115 km deep, magnitude 5.5; May 17 (Event 2000/4916), 144 km deep, magnitude 5.4, 13 km north of Kawerau; June 5 ((Event 2000/5504), 156 km deep, magnitude 5.2, 230 km north of East Cape; June 7 (Event 2000/5577), 72 km deep, magnitude 5.3, 40 km east of Opotiki; August 29 (Event 2000/7938), 117 km deep, magnitude 5.3, 40 km north of Te Anau; September 24 (Event 2000/8720), 101 km deep, magnitude 5.6, 28 km east of Ohakune; October 27 (Event 2000/9674), 170 km deep, magnitude 5.3, 15 km southeast of Tokoroa; and a shallow earthquake (Event 2000/13050) on December 31, magnitude 5.4, 43 km east of Tokomaru Bay. Most of these events were felt but caused no damage.

An earthquake on August 15 (Event 2000/7563), magnitude 7.6 was located about 700 km north of East Cape (about 300 km south-south-west of Raoul Island in the Kermadec Group). Its distance from New Zealand meant that it caused no damage although it was felt from Whakatane to Christchurch.

Reference

Robinson, R.; Eberhart-Phillips, D.; Webb, T.H.; McGinty; P.J.; Cousins, W.J. The Thompson Sound, New Zealand, Earthquake, M_w 6.1, of 1 November 2000. *New Zealand Journal of Geology and Geophysics*. submitted.

INSTRUMENTATION IN 2000

By the end of 2000, the New Zealand network consisted of 33 digital stations (23 three-component and 10 single component), one analogue station (excluding the stations from regional networks that record visually as well as digitally), six regional networks and an IRIS system. As well there were 27 digitally recording strong-motion stations. We also received analogue records from stations outside New Zealand (RAO, SBA and VNDA). A temporary network of three stations operated for about three weeks in November.

A new kind of station was added to the National Seismograph Network in late 1998. It is intended that these stations will slowly replace the current EARSS based stations. The new stations record six components of ground motion (three components of weak motion and three components of strong motion) and telemeter data continuously to both Gracefield and Wairakei. The data are received on a Sun workstation at each centre and earthquake events are detected and added to the rest of the data for the appropriate events. The continuous record of ground motion is also archived at Gracefield. A pilot network of four sites (KNZ, TOZ, DSZ, MQZ) was installed late in 1998.

Each site consists of a vault and a small shed. The vault houses a Guralp CMG-40T broadband seismometer and a Kinemetrics EpiSensor force-balance accelerometer. The Kinemetrics EpiSensor can record strong ground shaking of up to 2g, and the Guralp CMG-40T has a bandwidth from 50 Hz to 30 or 60 seconds period. The data logger employed is a Quanterra Q4126 equipped with a GPS receiver for absolute timing, a hard disk for on-site recording, and an ethernet card so that data can be sent in real time using standard Internet protocols. The Quanterra Q4126 has a 24 bit digitiser and thus has a dynamic range of over 140 dB. The power supply for each site consists of a bank of 12 volt batteries on continuous charge using mains power. If the mains power fails the batteries have enough capacity to operate the site for about three days.

Each site has a very small aperture terminal (VSAT) satellite transceiver system comprising an indoor unit (IDU) housed inside the shed with the Quanterra data logger, and a small dish antenna (1.8 m in diameter) with an attached outdoor unit. The IDU contains an ethernet card so the Quanterra data logger plugs directly into it and sends data via satellite to data processing centres at both Gracefield and Wairakei.

Until new 6-component stations replace the existing stations, the main recording system is still the EARSS (Equipment for the Automatic Recording of Seismic Signals). EARSS data loggers come in two main types: a three channel system used at the standard National Network stations, and a 16 channel system used to record the telemetry networks at Rotorua, Wairakei, and Gracefield. The volcano-seismic networks run in Auckland and Taranaki by the respective regional councils also use 16 channel EARSS recorders. The three-channel EARSS system employs automatic magnification adjustment ("gain-ranging") to extend the dynamic range of the 13-bit (12 bit plus sign) digitiser giving a dynamic range of 120 dB. In contrast the 16-channel version just uses the digitisation system without the gain-ranging and thus has a dynamic range of 76 dB. However, this is sufficient as the dynamic range of telemetry networks is restricted by the current telemetry technology to less than 50 dB. A frequency-domain earthquake detector is used by both three and 16 channel EARSS systems to identify possible earthquake events which are then recorded on magnetic tape or computer hard disks.

The strong-motion stations are equipped with Kinemetrics "Etna" recorders and Kinemetrics FBA accelerometers. Instrument specifications are as follows, accelerometer: triaxial force-balance, range ±2g, natural frequency 50Hz and damping 70% of critical; recorder: 18 bit resolution @ 200 sps, on-site storage capacity 48 minutes, and threshold triggering. GPS timing is provided at all stations, and data transmission is by cellphone.

INSTRUMENTAL CHANGES IN 2000

There were few changes to the networks in 2000.

The Kinemetrics FBA23 instrument at Kokohu (KNZ) was replaced by a Kinemetrics Episensor accelerometer during January. In March, the single component Mark Products L4C instrument at Milford Sound (MSZ) was replaced by a 3-component Mark Products L4-3D.

The instrument at Omahuta (OUZ) became unserviceable during May and no data has been recorded there since.

Digital recording of the three stations of the Hawkes Bay network ceased in December. Pen-and-ink recording of data from Taradale Trig (TTH) continued at the Napier Museum.

INDEX OF STATION CODES AND POSITIONS

The number of seismograph stations has grown so much in recent years that it is not always possible to find short mnemonic codes that are unique in the world. Nearly all the codes used below are recognised and used by the United States NEIS and by ISC, but some of those for stations in the telemetered networks may not be. The coordinates for the New Zealand stations are NZGD49 on the Hayford (International) spheroid.

CODE	NAME	LATITUDE d	m	s		LONGITUDE d	m	s		ALTITUDE metres
	STANDARD NETWORK									
AXZ	Alexandra	45	16	02	S	169	19	52	E	260
BFZ	Birch Farm	40	40	54	S	176	14	46	E	318
BSZ	Bushy Park	39	47	55	S	174	55	52	E	150
BWZ	Berwen	44	32	02	S	169	53	13	E	500
DCZ	Deep Cove	45	28	04	S	167	09	15	E	20
DSZ	Denniston North	41	44	49	S	171	48	09	E	630
EWZ	Erewhon	43	30	42	S	170	51	09	E	650
FWVZ	Far West T-bar	39	15	23	S	175	33	07	E	2000
HBZ	Hicks Bay	37	35	57	S	178	18	05	E	0
KHZ	Kahutara	42	25	05	S	173	32	25	E	70
KNZ	Kokohu	39	01	17	S	177	40	25	E	20
KUZ	Kuaotunu	36	44	50	S	175	43	12	E	40
LMZ	Lake Moeraki	43	42	59.5	S	169	16	10	E	-50
LTZ	Lake Taylor	42	46	58	S	172	16	08	E	640
MLZ	Mavora Lakes	45	20	52	S	168	10	22	E	640
MOZ	Mahoenui	38	30	21	S	174	48	11	E	160
MQZ	McQueen's Valley	43	42	28	S	172	39	08	E	60
MRZ	Mangatainoka River	40	39	45	S	175	34	45	E	320
MSZ	Milford Sound	44	40	31.5	S	167	55	39	E	90
NOZ	North Gisborne	38	37	05	S	178	02	12	E	60
NRZ	Ngariki	39	20	15	S	173	55	59	E	250
ODZ	Otahua Downs	45	02	43	S	170	38	40	E	270
OIZ	Oio	39	02	48	S	175	23	33	E	470
OUZ	Omahuta	35	13	17	S	173	35	46	E	40
PUZ	Puketiti	38	04	24	S	178	15	26	E	420
QRZ	Quartz Range	40	49	39	S	172	31	44	E	260
RAO	Raoul Island	29	15	06	S	177	55	06	W	110
RTY	Rotoiti (until Sptember)	41	48	27	S	172	50	35	E	635
SIZ	Stewart Island	46	52	30	S	168	07	59	E	60
THZ	Top House	41	45	50	S	172	54	13	E	760
TOZ	Tahuroa Road	37	43	51	S	175	30	07	E	70
TUZ	Tuapeka	45	57	22	S	169	37	56	E	110
URZ	Urewera	38	15	37	S	177	06	37	E	100
WEL	Wellington	41	17	10	S	174	46	06	E	122
WHZ	Wether Hill	45	53	41	S	167	56	51	E	320
WVZ	Waitaha Valley	43	04	35	S	170	44	10	E	75

BROADBAND IRIS STATIONS

RAR	Rarotonga	21	12	45	S	159	46	24	W	28
SBA	Scott Base	77	50	57	S	166	45	26	E	48
SNZO	South Karori	41	18	37	S	174	42	17	E	-10
VNDA	Vanda	77	30	50.2	S	161	50	44.2	E	-2

AUCKLAND VOLCANO-SEISMIC NETWORK

KAAZ	Kauri Point	36	49	27	S	174	42	13	E	65
MKAZ	Moumoukai	37	06	41.1	S	175	09	59.6	E	120
MTAZ	Motutapu	36	47	17.3	S	174	54	36.2	E	60
OTAZ	Otara	36	57	04	S	174	55	29	E	140
WTAZ	Waiatarua	36	56	03.1	S	174	34	26.0	E	340

BAY OF PLENTY VOLCANO-SEISMIC NETWORK

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

HAWKES BAY NETWORK

PAHZ	Panekirikiri	38	51	33	S	177	06	15	E	563
TTH	Taradale Trig	39	32	29	S	176	49	34	E	120
WAHZ	Wakarara	39	41	57	S	176	21	19	E	657

TARANAKI VOLCANO-SEISMIC NETWORK

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

TAUPO VOLCANO-SEISMIC NETWORK

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

TONGARIRO VOLCANO-SEISMIC NETWORK

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

WELLINGTON NETWORK

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	48	S	174	42	00	E	235
MTW	Mount Morrison	41	09	34	S	175	30	07	E	282
OTW	Orongorongo Valley	41	16	39	S	175	00	15	E	230
TCW	Tory Channel	41	12	48	S	174	16	33	E	150
WEL	Wellington	41	17	10	S	174	46	06	E	122

INSTRUMENTATION AND LITHOLOGY

STANDARD NETWORK AND CONTRIBUTING STATIONS

Stations are listed in alphabetical order of their abbreviations. Free period, T_o, is given in seconds for moving coil seismometers. Long-period corner, T_c, is given in seconds for force-feedback seismometers. Damping, when not listed, may be assumed to be critical.

Magnifications listed are for the period of maximum response. Response curves for Mark Products L4-C seismometers with EARSS recorders and for Guralp seismometers with Quanterra recorders are shown at the end of this section.

	Instrument	Component	T_o	T_c	Magnification
AXZ	ALEXANDRA Foundation: Schist. Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0		
BFZ	BIRCH FARM Foundation: Greywacke. Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0		
BSZ	BUSHY PARK Foundation: Quaternary marine sediments. Mark Products L4-C (with EARSS digital gain-ranging recorder).	Z	1.0		
BWZ	BERWEN Foundation: Greywacke. Mark Products L4-C (with EARSS digital gain-ranging recorder).	Z	1.0		
DCZ	DEEP COVE Foundation: Granite. Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0		
DSZ	DENNISTON NORTH Foundation: Upper Precambrian greywacke. Guralp CMG-40T (with Quanterra Q4126 recorder).	ZNE		30	
	Kinematrics EpiSensor (with Quanterra Q4126 recorder).	ZNE		-	
EWZ	EREWHON Foundation: Triassic Greywacke. Mark Products L4-C (with EARSS digital gain-ranging recorder).	Z	1.0		
FWVZ	FAR WEST T-BAR Foundation: Andesite lava. Guralp CMG-40T (with Quanterra Q4126 recorder).	ZNE		30	
HBZ	HICKS BAY Foundation: Consolidated conglomerate. Mark Products L4-C in borehole (with EARSS digital gain-ranging recorder).	Z	1.0		67 500 at 0.10s

	Instrument	Component	T_o	T_c	Magnification
KHZ	KAHUTARA				
	Foundation: Jurassic Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
KNZ	KOKOHU				
	Foundation: Miocene Limestone.				
	Guralp CMG-40T (with Quanterra Q4126 recorder).				
		ZNE		30	
	Kinemetrics Episensor (with Quanterra Q4126 recorder).				
		ZNE		-	
KUZ	KUAOTUNU				
	Foundation: Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
LMZ	LAKE MOERAKI				
	Foundation: Precambrian Greywacke.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
LTZ	LAKE TAYLOR				
	Foundation: Triassic Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
MLZ	MAVORA LAKES				
	Foundation: Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
MOZ	MAHOENUI				
	Foundation: Jurassic Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
MQZ	McQUEEN'S VALLEY				
	Foundation: Miocene Volcanics.				
	Guralp CMG-40T (with Quanterra Q4126 recorder).				
		ZNE		30	
	Kinemetrics EpiSensor (with Quanterra Q4126 recorder).				
		ZNE		-	
MRZ	MANGATAINOKA				
	Foundation: Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
MSZ	MILFORD SOUND				
	Foundation: Gneiss.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
	Replaced in March by				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		

	Instrument	Component	T_o	T_c	Magnification
NOZ	NORTH GISBORNE				
	Foundation: Upper Miocene Siltstone.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
NRZ	NGARIKI				
	Foundation: Andesite.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
ODZ	OTAHUA DOWNS				
	Foundation: Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
OIZ	OIO				
	Foundation: Tertiary sandstone.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
OUZ	OMAHUTA				
	Foundation: Greywacke.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
PUZ	PUKETITI				
	Foundation: Cretaceous Greywacke.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
QRZ	QUARTZ RANGE				
	Foundation: Golden Bay Schist.				
	Mark Products L4-3D (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		
RAO	RAOUL ISLAND				
	Foundation: Volcanic rock.				
	Willmore II (with Kinemetrics VR-1 pen-recorder).				
		Z	1.0		4 800 at 0.25s
RTY	ROTOITI (until September)				
	Foundation: Glacial gravels.				
	Mark Products L4-C (with Kinemetrics VR-1 pen-recorder).				
		Z	1.0		Uncertain
SIZ	STEWART ISLAND				
	Foundation: Granite.				
	Mark Products L4-C (with EARSS digital gain-ranging recorder).				
		Z	1.0		
THZ	TOPHOUSE				
	Foundation: Permian Greywacke.				
	Willmore II (with EARSS digital gain-ranging recorder).				
		ZNE	1.0		

	Instrument	Component	T_0	T_c	Magnification
TOZ	TAHUROA ROAD Foundation: Jurassic Greywacke. Guralp CMG-40T (with Quanterra Q4126 recorder).	ZNE		30	
	Kinemetrics EpiSensor (with Quanterra Q4126 recorder).	ZNE		-	
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		
WEL	WELLINGTON (World-Wide Standard Station) Foundation: Greywacke. Kinemetrics force-balance accelerometer (with EARSS digital gain-ranging recorder).	ZNE	1.0		
	The signal is transmitted to Gracefield by spread-spectrum radio and received on a Sun computer.				
WHZ	WETHER HILL Foundation: Greywacke. Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0		
WVZ	WAITAHA VALLEY Foundation: Granite. Mark Products L4-3D (with EARSS digital gain-ranging recorder).	ZNE	1.0		

BROADBAND IRIS STATIONS

These stations are operated by the United States Geological Survey, with recorded data archived at the IRIS data centre (www.iris.edu). Data at all stations are recorded on Quanterra Q680 Dataloggers. More detailed information about the Global Seismic Network (GSN) can be found at www.cr.usgs.gov.

Code	Station	Instrument	Foundation
RAR	Rarotonga	Geotech 36000-I borehole seismometer Streckeisen STS-1 seismometer	Basalt
SBA	Scott Base	Geotech KS-54000 borehole seismometer Guralp CMG3-T seismometer Streckeisen STS-2 seismometer	Frozen basaltic debris resting on lava flows
SNZO	South Karori	GeoTech KS-36000-I BD seismometer (in 98m borehole) Guralp CMG-3ESP seismometer Kinemetrics FBA-23 strong motion sensor	Jurassic-Permian Greywacke
VNDA	Vanda	Geotech KS-54000 borehole seismometer Geotech GS-21 short period vertical seismometer Geotech K53 6000I broadband 3-D seismometer recorded at Scott Base.	Granite Gneiss intruded by quartz porphyry dykes

AUCKLAND VOLCANO-SEISMIC NETWORK

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

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

BAY OF PLENTY VOLCANO-SEISMIC NETWORK

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

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

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

HAWKES BAY NETWORK

The Hawkes Bay network was installed to monitor seismicity in an area which has not only some potential for hydroelectric power generation, but also a history of severe earthquakes. The network was recorded by a three-channel EARSS digital gain-ranging recorder at Havelock North. One of the stations is also recorded on a VR-1 pen-and-ink visual recorder.

This network was closed during December.

Code	Station	Component	Foundation
PAHZ	Panekirikiri	Z	Pumice tuff
TTH	Taradale Trig	Z	Calcareous mudstone
WAHZ	Wakarara	Z	Greywacke

TARANAKI VOLCANO-SEISMIC NETWORK

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

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

TAUPO VOLCANO-SEISMIC NETWORK

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

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

TONGARIRO VOLCANO-SEISMIC NETWORK

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

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

WELLINGTON NETWORK

The stations of the Wellington network are linked by radio or land-line to the Cotton Building at Victoria University of Wellington in Kelburn. The data is continuously recorded and transmitted to Gracefield via a spread-spectrum radio link. The data are received at Gracefield on a Sun workstation where event detection takes place. The instrument at WEL is a Kinemetrics force balance accelerometer and the seismometer at MRW is a Mark Products L4-3D. The seismometers for the rest of the network are Mark Products L4-C instruments with a period of 1.0 second. 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)
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

STRONG-MOTION STATION CODES AND POSITIONS

These strong motion instruments were installed to record ground acceleration, especially accelerations that might be strong enough to cause damage to buildings and contents. The data are used to help develop building codes and to facilitate design of special structures. The instruments at these sites are three-component "Etna" Kinemetrics. The data from these stations are now analysed with data from the weak-motion instruments.

These station codes are not internationally recognised.

CODE	NAME	LATITUDE d	m	s		LONGITUDE d	m	s	
ARPS	Arnold River Power Station	42	31	32	S	171	24	28	E
CACS	Christchurch Canterbury Aero Club	43	29	06	S	172	31	47	E
CBGS	Christchurch Botanic Gardens	43	31	52	S	172	37	11	E
CCPS	Christchurch Police Station	43	32	04	S	172	37	56	E
DUNS	Dunedin Corstophine Substation	45	54	24	S	170	28	14	E
GISS	Gisborne 2ZG	38	40	06	S	178	01	21	E
INSS	Lower Hutt INS	41	14	07	S	174	55	15	E
KAPS	Auckland Kauri Point	36	49	27	S	174	42	13	E
KIKS	Kaikoura South Bay	42	25	39	S	173	40	55	E
KOKS	Kokatahi	42	53	36	S	171	08	08	E
MAVS	Martinborough Wines Vineyard	41	12	45	S	175	27	41	E
MISS	Wellington Miramar School	41	19	00	S	174	49	06	E
MSZS	Milford Sound	44	40	29	S	167	55	32	E
NELS	Nelson Hospital	41	17	22	S	173	16	27	E
NGHS	Napier Girls High	39	29	15	S	176	54	53	E
NPCS	New Plymouth Civil Defence	39	03	51	S	174	04	24	E
PGMS	Petone Municipal Building	41	13	34	S	174	52	45	E
POTS	Wellington Pottery Association	41	16	26	S	174	46	28	E
REHS	Christchurch Resthaven	43	31	25	S	172	38	06	E
ROPS	Rotorua Police Station	38	08	17	S	176	15	15	E
RQGS	Wellington Aarque Graphics	41	17	54	S	174	46	52	E
TFSS	Wellington Thorndon Fire Stn	41	16	38	S	174	46	58	E
TPPS	Taupo Police Station	38	41	17	S	176	04	02	E
WCDS	Wanganui Civil Defence	39	56	07	S	175	02	52	E
WDPS	Woodville Police Station	40	20	24	S	175	52	11	E
WEMS	Wellington Emergency Management Office	41	16	35	S	174	46	46	E
WVZS	Waitaha Valley	43	04	34	S	170	44	12	E

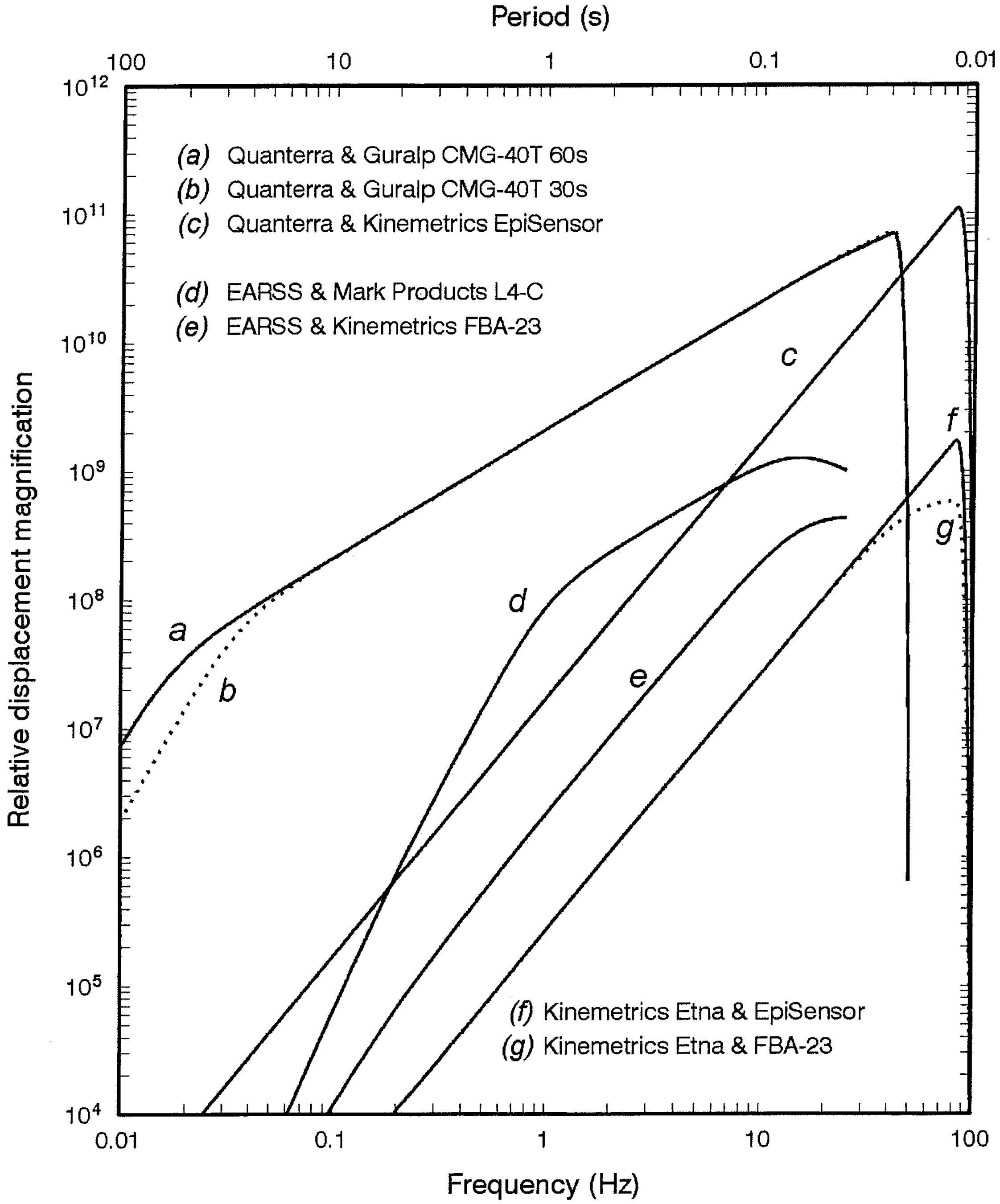
TEMPORARY NETWORK

THOMPSON SOUND

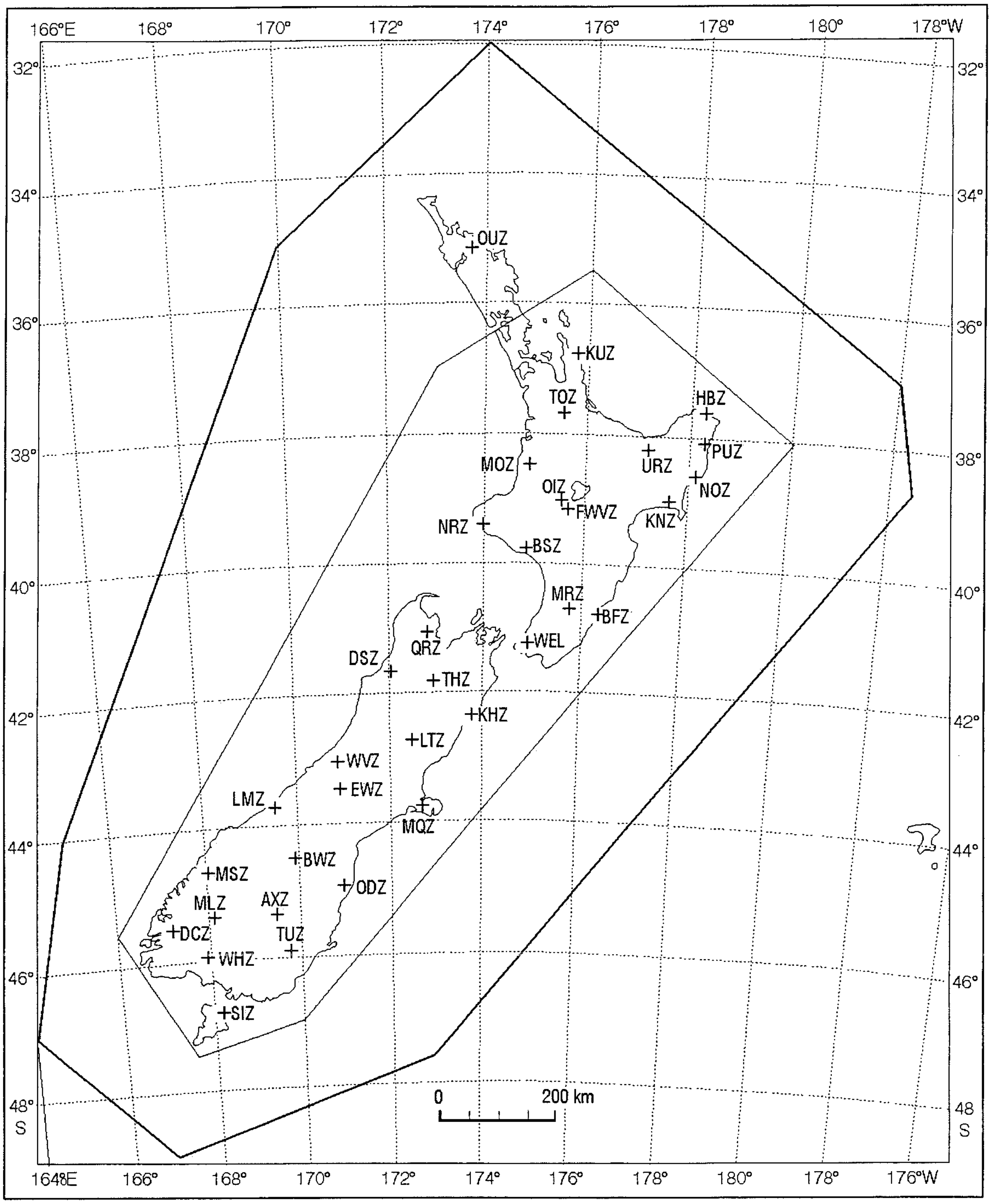
This network was installed to record the aftershocks of the Thompson Sound earthquake (Event 2000/9839) which occurred on November 1st. The instruments were three component short period seismometers recorded on an EARSS gain-ranging digital recorder.

The codes for these stations are not internationally recognised.

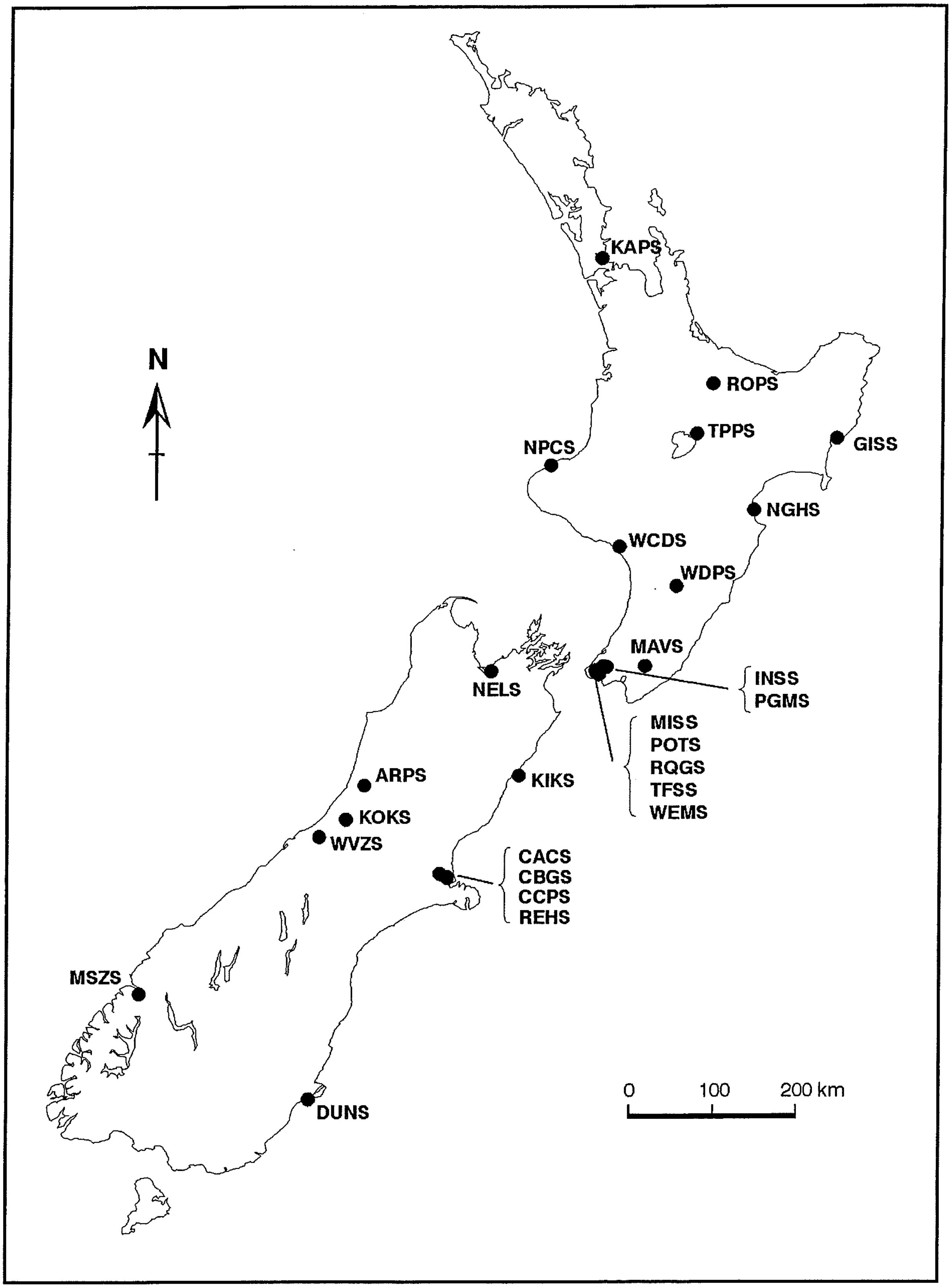
CODE	NAME	LATITUDE d	m	s		LONGITUDE d	m	s		ALTITUDE metres
FRBF	Mount Forbes	45	20	33	S	166	51	00	E	733
MTNF	Mount Napier	45	08	56	S	167	02	30.5	E	923
TLBF	Mount Tanilba	44	59	20	S	167	11	14	E	949



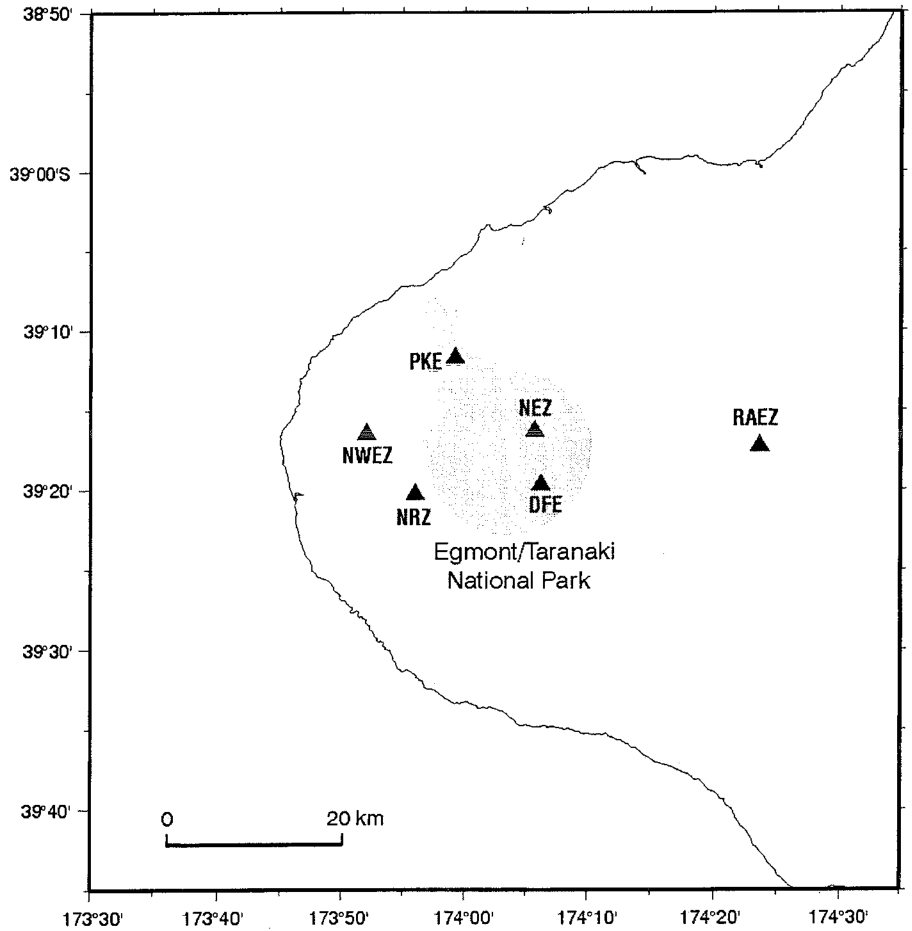
Period response curves of L4C seismometers with EARSS recorders; Guralp CMG-40T seismometers with Quanterra Q4126 recorders and Kinemetrics Etna sieismometers with Episensor or FBA-23 recorders.

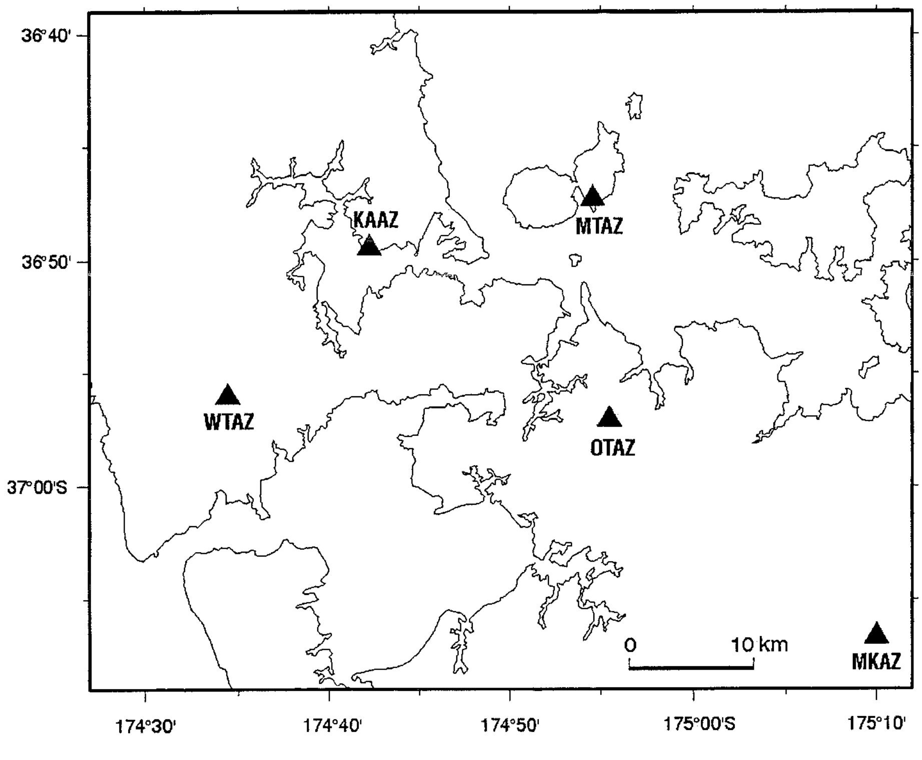


Stations of the National Seismograph Network. Some stations that are too closely spaced to show on this scale are shown instead on the map of the Volcanic and Hawke's Bay Networks. The inner and outer polygons define areas where accuracy of epicentre locations is considered reliable, less reliable and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

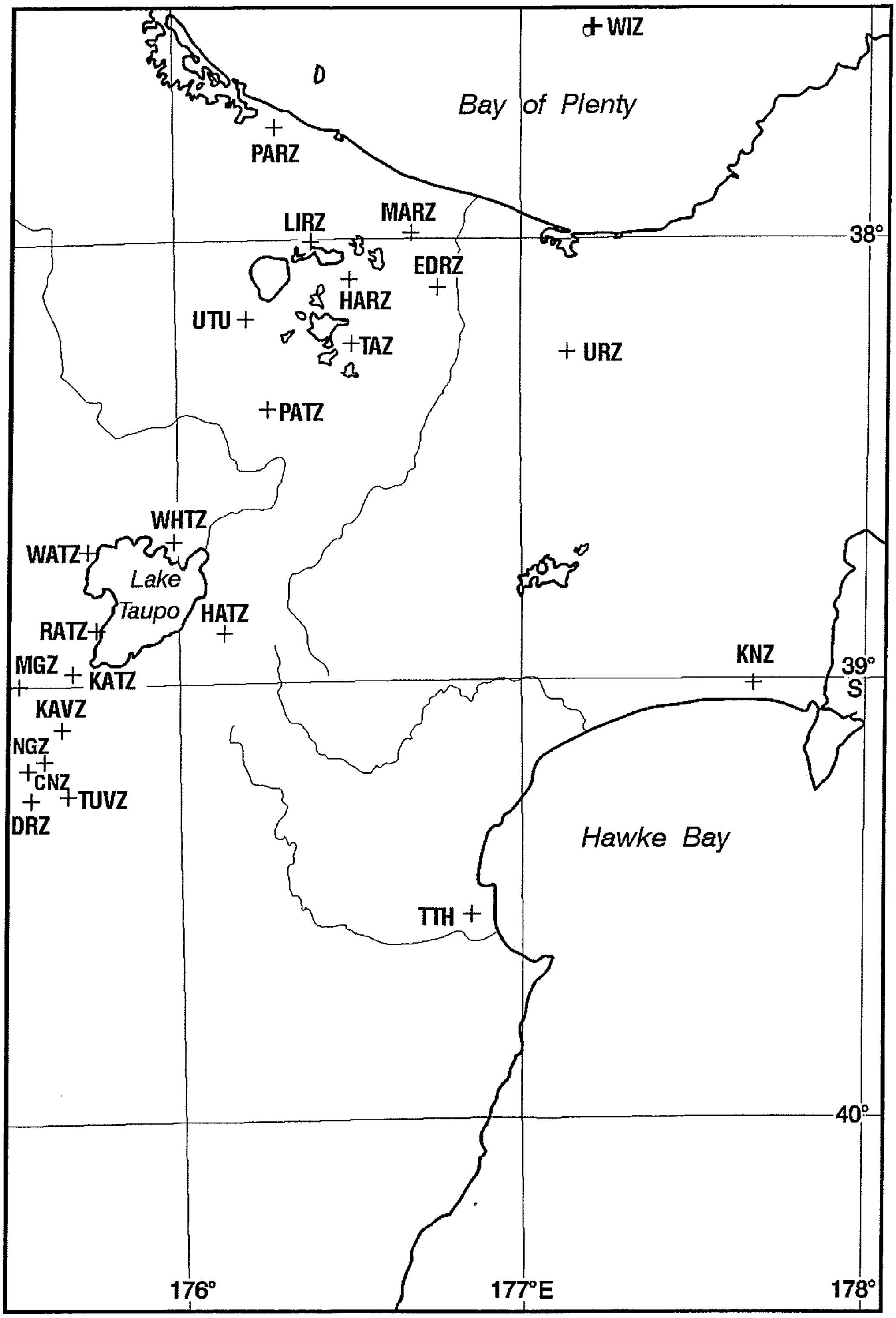


Stations of the Strong motion network with 'Etna' Kinematrics instruments. Some stations are too closely spaced to show on this scale and are indicated by a single spot.

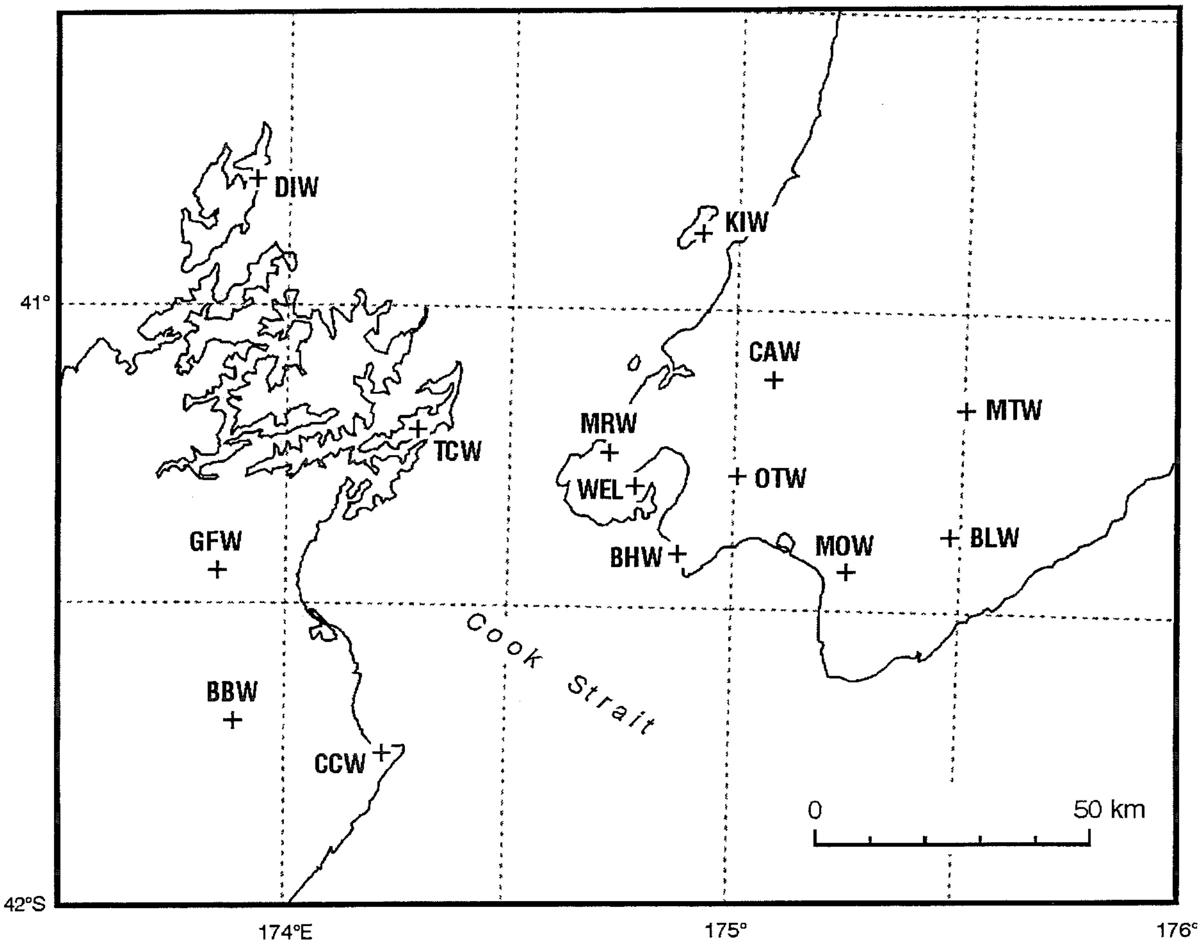




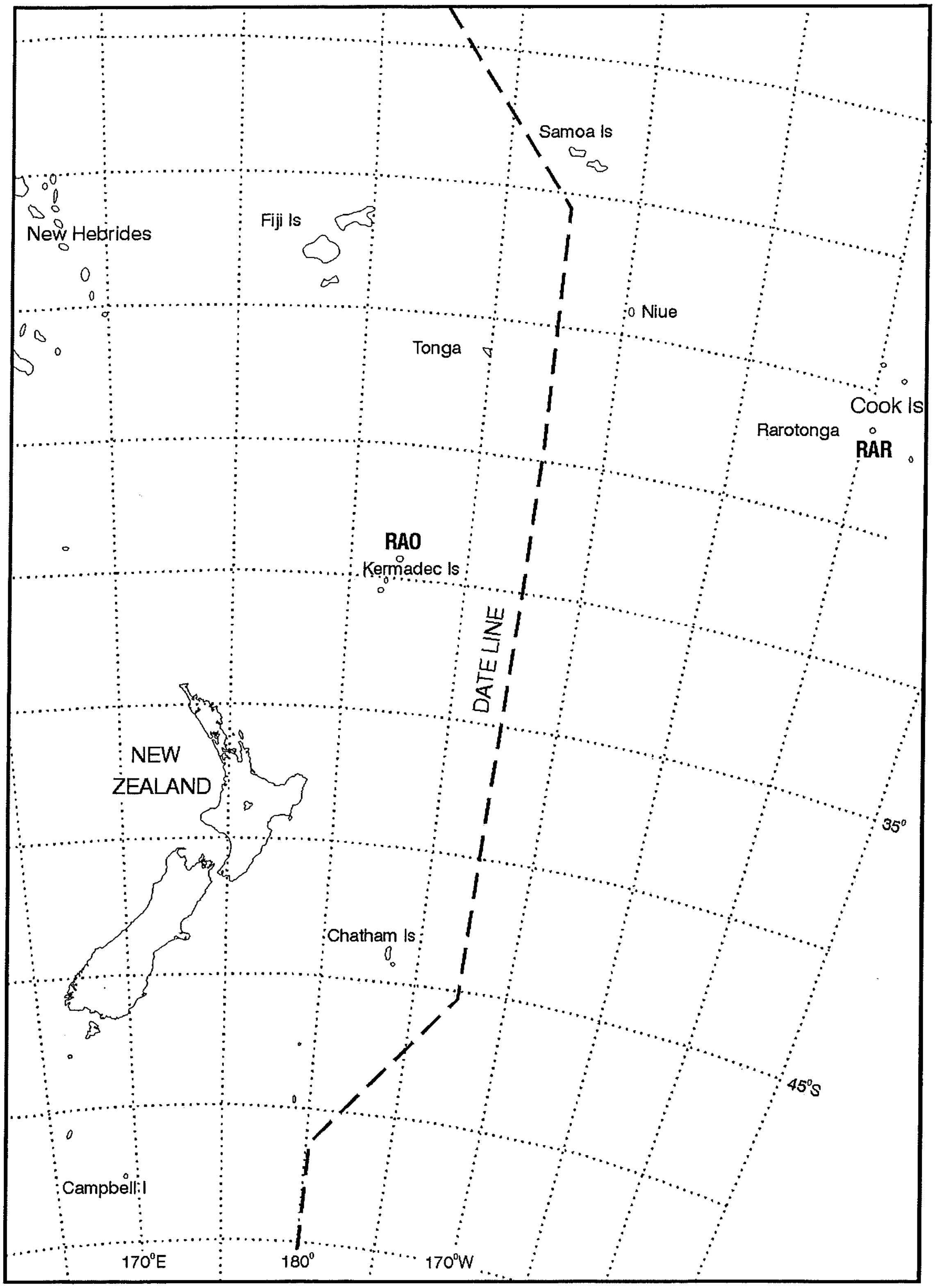
Stations of the Auckland and Taranaki Volcanic Networks.



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



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



Pacific Island Stations.

TIMING ARRANGEMENTS

Unless stated otherwise, times in this Report are given in Universal Time (U.T. or, more strictly, U.T.C., which is 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.

EARSS instruments are equipped with GPS receivers for timing purposes. A temperature-compensated quartz crystal clock is synchronised hourly with GPS time. The GPS time is extremely precise (nanosecond accuracy) but the crystal clock may drift between synchronisations at a rate of a few milliseconds per day. Arrival times in the CUSP analysis system are expressed to a precision of one hundredth of a second; only rarely would the time be inaccurate to that degree.

At Raoul Island, 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 2000 Daylight Time was in effect until 02h NZST on March 19th, and from 02h NZST on October 1st 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 that sometimes report earthquakes to the Observatory are listed below.

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

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

ORIGIN INFORMATION

CONTENT

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

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

DETERMINATION OF ORIGINS

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

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

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

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

In general, all four coordinates of the earthquake origin are calculated (origin time, latitude, longitude, and focal depth). In some cases, however, the focal depth is not allowed to vary, but restricted to some chosen depth. This is most commonly done for crustal earthquakes. Unless there is a station within 25 km of a shock in the upper crust, or within 50 km of a shock in the lower crust, a nominal depth of either 12 or 33 km is usually assigned, according to the crustal phases present and the goodness of fit of the resulting solution. Less often, the depth is restricted to a smaller value, particularly when the strengths of locally reported felt intensities indicate an uncommonly shallow focus. The letter R printed after the depth in the lists which follow indicates a restriction for any of the foregoing reasons. There are also times when data not suitable for input to the location program (e.g. overseas PKP readings), indicate the depth of focus; in such cases the depth is similarly fixed and the restriction shown by following the depth by the letter G (to indicate intervention by a Geophysicist). When convergence of the location program fails for lack of enough data, both epicentre and depth are fixed at values consistent with the available information, and computation limited to finding a compatible origin time. Such doubly-restricted origins have the letters RR printed after the depth.

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

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

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

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

MAGNITUDES

The magnitudes assigned to local earthquakes are intended to be the values of M_L as originally defined by C.F. Richter (Bull. Seism. Soc. Am. 25: 1-32, 1935), but his procedure for performing the magnitude calculation at other than the standard distance of 100 km has been modified, to take account of the observed characteristics of energy propagation in New Zealand, including the effect of focal depth (Haines, A.J., Bull. Seism. Soc. Am. 71: 275-94, 1981).

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

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

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

For all New Zealand crustal earthquakes N is 2 and α generally takes a value close to 0. With these values, the relationship describes head-wave propagation with no attenuation. In the Central Volcanic Region, however, (see Map, page 31), α takes values of 0.8 deg^{-1} for P waves and 1.05 deg^{-1} for S waves. Adjustments are therefore made according to the distance travelled in the volcanic region.

For deep earthquakes in the Main Seismic Region the same parameters as for crustal earthquakes apply ($N = 2$, $\alpha = 0$), provided that (i) R now measures the slant distance from the focus to the base of the crust, and (ii) stations to the west of the Volcanic Region or south of the Main Seismic Region are not used, because the structure there necessitates different spreading and attenuation terms.

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

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

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

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

Empirical corrections are applied to allow for differences in site effects. They are made in such a manner as to give the most consistent estimates of magnitude from the different stations, and their absolute level is adjusted to give a standard Wood-Anderson instrument at Wellington a zero correction, a procedure that can be justified on *a priori* grounds and provides a smooth connection with previously published New Zealand magnitudes. Station corrections (see Table on page 30 for synthetic Wood-Anderson values) are added to the individual estimates of magnitude, which are then averaged.

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

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

CALCULATION OF AMPLITUDES

Synthetic Wood-Anderson seismograms are computed for all horizontal components at non-telemetered EARSS stations having Mark Products L4-C 1 Hz seismometers or, in the case of WEL, a Kinemetrics force-balance accelerometer (see Map, page 31). 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.

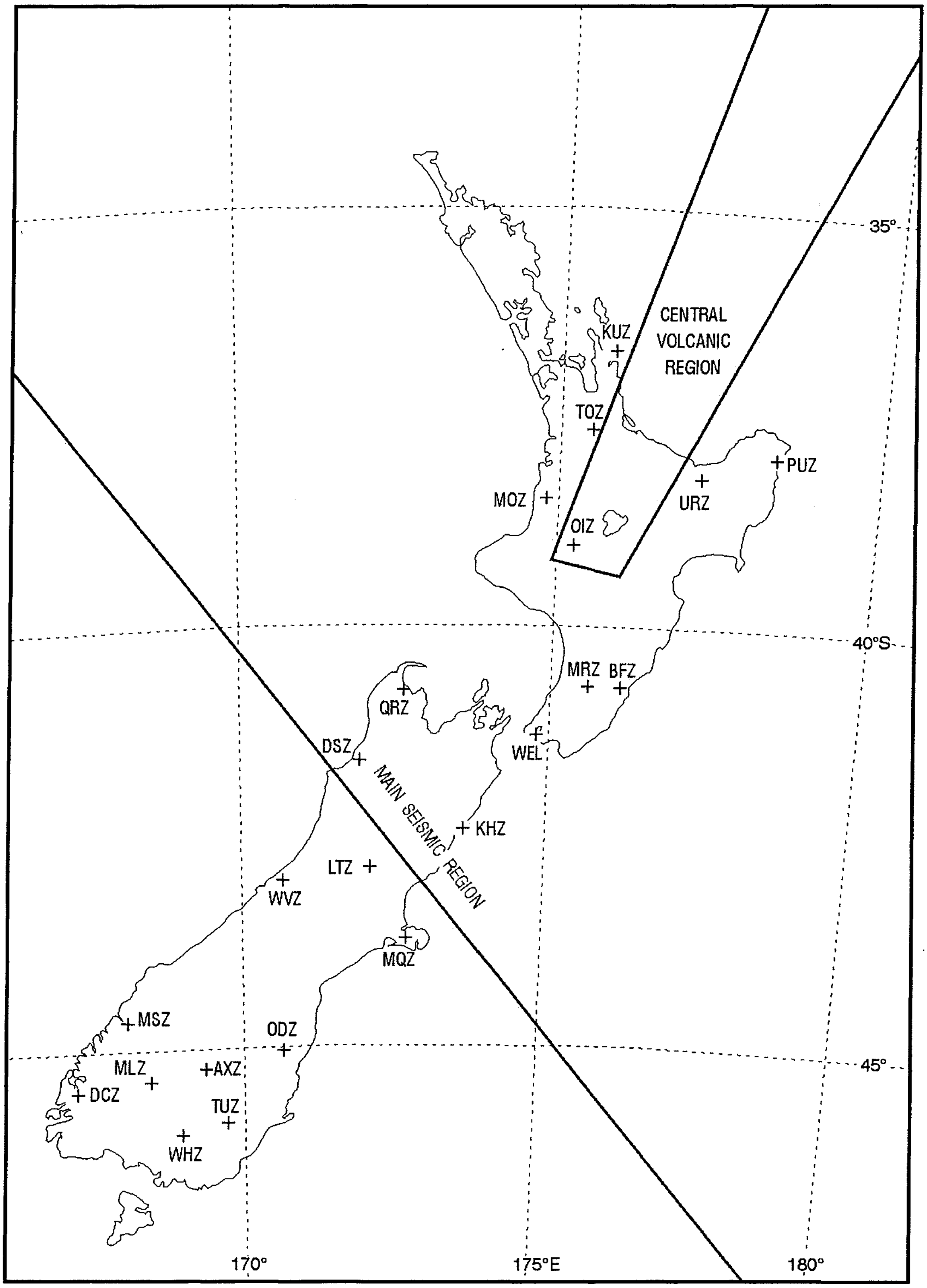
Note that there are usually two horizontal seismograms for each 3-component station, so that synthetic Wood-Anderson values tend to dominate the average magnitude.

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

Station	Component	Correction (h ≤ 33km)	Correction (h>33km)	Correction (h>33km Fiordland Only)
AXZ	H	+0.60		+0.74
BFZ	H	+0.48	+0.42	
DCZ	H	+0.60		+0.59
DSZ	H	+0.26		+0.26
KHZ	H	+0.43	+0.33	+0.43
KUZ	H	+0.36		
LTZ	H	+0.59		+0.59
MLZ	H	+0.61		+0.36
MOZ	H	+0.36		
MQZ	H	+0.51		+0.51
MRZ	H	+0.42	+0.49	
ODZ	H	+0.45		+0.45
OIZ	H	+0.42		
PUZ	H	+0.37	+0.37	
QRZ	H	+0.35		+0.35
TOZ	H	+0.54		
TUZ	H	+0.31		+0.31
URZ	H	+0.35	+0.67	
WEL	N	0.00	0.00	
WEL	E	+0.09	+0.09	
WHZ	H	+0.19		+0.35
WVZ	H	+0.52		+0.52

H refers to horizontal seismometers, either N/S or E/W.

Note that WEL E needs a slight empirical correction to agree with the N component and with the standard Wood-Anderson instrument.



Stations and regions used for determination of magnitudes from digital records.

DATA FROM THE NATIONAL NETWORK

LAYOUT

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

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

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

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

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

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

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

00/3
JAN 01 042906.1s 39.94S 173.94E 161km M=3.6
0.5 0.02 0.02 5
Rsd 0.3s 27ph/24stn Dmin 86km Az.gap 179°
Corr. -0.466 14M/14stn Msd 0.3 1↑

00/9
JAN 01 091208.4s 48.95S 165.46E 33km M=4.5
1.4 0.11 0.15 R
Rsd 0.6s 10ph/7stn Dmin 389km Az.gap 334°
Corr. -0.520 8M/4stn Msd 0.3

00/11
JAN 01 092920.8s 39.32S 177.97E 24km M=3.6
0.5 0.02 0.02 2
Rsd 0.2s 19ph/15stn Dmin 42km Az.gap 211°
Corr. -0.502 33M/31stn Msd 0.3 1↑

00/36
JAN 02 084008.5s 40.08S 175.05E 18km M=3.6
0.1 0.01 0.01 3
Rsd 0.3s 37ph/32stn Dmin 33km Az.gap 76°
Corr. -0.030 33M/30stn Msd 0.4 7↑ 3↓
Felt Marton (61) MM4.

00/48
JAN 02 220106.5s 37.39S 177.19E 5km M=3.7
0.5 0.03 0.03 R
Rsd 0.6s 13ph/9stn Dmin 15km Az.gap 165°
Corr. 0.257 11M/8stn Msd 0.2 1↑

00/60
JAN 03 112859.2s 37.75S 176.13E 194km M=3.8
0.3 0.04 0.03 3
Rsd 0.1s 11ph/9stn Dmin 103km Az.gap 225°
Corr. -0.748 14M/14stn Msd 0.2 1↑

00/63
JAN 03 115351.7s 39.15S 174.89E 218km M=4.3
0.3 0.02 0.01 2
Rsd 0.2s 41ph/33stn Dmin 46km Az.gap 140°
Corr. -0.241 21M/19stn Msd 0.2 1↑

00/82
JAN 04 050029.3s 38.32S 177.92E 26km M=3.6
0.1 0.01 0.01 2
Rsd 0.2s 15ph/12stn Dmin 35km Az.gap 116°
Corr. -0.381 16M/12stn Msd 0.2 1↑

00/83
JAN 04 052455.9s 37.62S 177.33E 124km M=3.6
0.3 0.04 0.03 3
Rsd 0.2s 7ph/4stn Dmin 73km Az.gap 245°
Corr. -0.773 6M/4stn Msd 0.1 1↓

00/101
JAN 04 184446.9s 37.71S 177.25E 65km M=4.5
0.2 0.01 0.01 2
Rsd 0.2s 35ph/31stn Dmin 20km Az.gap 99°
Corr. 0.178 10M/5stn Msd 0.1 1↑ 3↓

00/103
JAN 04 190344.4s 39.28S 174.86E 161km M=3.7
0.5 0.02 0.04 5
Rsd 0.2s 26ph/22stn Dmin 60km Az.gap 182°
Corr. -0.251 19M/17stn Msd 0.2 1↑

00/104
JAN 04 203049.9s 38.10S 176.35E 141km M=3.8
0.4 0.03 0.02 4
Rsd 0.2s 16ph/14stn Dmin 69km Az.gap 215°
Corr. -0.621 14M/12stn Msd 0.2 1↑

00/122
JAN 05 101715.4s 37.36S 176.44E 215km M=3.6
1.1 0.12 0.11 10
Rsd 0.4s 11ph/10stn Dmin 116km Az.gap 254°
Corr. -0.843 12M/12stn Msd 0.3 1↑ 1↓

00/139
JAN 05 232337.2s 45.43S 167.10E 77km M=3.6
0.8 0.04 0.07 6
Rsd 0.4s 9ph/6stn Dmin 6km Az.gap 280°
Corr. -0.188 13M/7stn Msd 0.2 2↑ 1↓

00/152
JAN 06 092541.2s 37.29S 177.42E 158km M=3.8
0.5 0.05 0.05 4
Rsd 0.2s 8ph/7stn Dmin 85km Az.gap 251°
Corr. -0.639 16M/15stn Msd 0.3 1↓

00/153
JAN 06 100053.1s 37.89S 176.18E 177km M=3.8
1.4 0.08 0.07 11
Rsd 0.5s 9ph/7stn Dmin 92km Az.gap 221°
Corr. -0.503 15M/14stn Msd 0.3 1↓

00/156
JAN 06 121305.4s 44.97S 167.54E 92km M=3.9
0.6 0.03 0.05 6
Rsd 0.4s 10ph/7stn Dmin 63km Az.gap 196°
Corr. -0.265 8M/4stn Msd 0.2 2↑ 1↓

00/165
JAN 06 191911.6s 40.25S 173.57E 196km M=4.0
0.4 0.02 0.02 4
Rsd 0.2s 33ph/26stn Dmin 68km Az.gap 155°
Corr. -0.148 17M/17stn Msd 0.4 2↑ 3↓

00/167
JAN 06 214810.6s 40.38S 173.48E 156km M=3.7
0.3 0.02 0.02 3
Rsd 0.2s 23ph/18stn Dmin 60km Az.gap 194°
Corr. -0.358 14M/14stn Msd 0.2 4↑ 1↓

00/189
JAN 07 123059.5s 38.14S 176.32E 158km M=4.5
0.2 0.01 0.01 2
Rsd 0.2s 41ph/33stn Dmin 12km Az.gap 49°
Corr. 0.258 10M/5stn Msd 0.2 24↑ 16↓

00/193
JAN 07 153001.5s 36.97S 177.02E 212km M=4.0
0.4 0.04 0.02 4
Rsd 0.2s 18ph/16stn Dmin 117km Az.gap 254°
Corr. -0.391 20M/19stn Msd 0.3 1↑ 1↓

00/198
JAN 07 194635.2s 40.40S 177.12E 71km M=4.0
0.2 0.02 0.03 5
Rsd 0.2s 29ph/24stn Dmin 80km Az.gap 200°
Corr. -0.798 28M/23stn Msd 0.2 6↑ 12↓

00/202
JAN 07 233145.7s 37.31S 176.33E 222km M=3.8
0.8 0.10 0.15 7
Rsd 0.3s 9ph/6stn Dmin 126km Az.gap 257°
Corr. -0.895 12M/12stn Msd 0.3 1↑

00/204
JAN 08 002356.0s 37.03S 177.41E 154km M=3.7
0.4 0.04 0.03 5
Rsd 0.2s 11ph/9stn Dmin 101km Az.gap 255°
Corr. -0.724 7M/5stn Msd 0.1 1↓

00/221
JAN 08 204508.6s 38.38S 179.15E 21km M=3.9
1.3 0.07 0.06 8
Rsd 0.4s 6ph/4stn Dmin 85km Az.gap 295°
Corr. -0.358 5M/3stn Msd 0.4 1↑ 1↓

00/224
JAN 08 233851.1s 37.74S 177.52E 39km M=3.6
0.2 0.02 0.01 4
Rsd 0.2s 19ph/17stn Dmin 38km Az.gap 128°
Corr. -0.035 14M/10stn Msd 0.2 1↓

00/225
JAN 09 010843.2s 38.38S 179.20E 12km M=3.9
0.6 0.04 0.03 R
Rsd 0.3s 6ph/3stn Dmin 90km Az.gap 316°
Corr. -0.129 5M/3stn Msd 0.4 1↑

00/230
JAN 09 043325.7s 39.61S 177.46E 25km M=3.9
0.3 0.02 0.02 2
Rsd 0.2s 28ph/24stn Dmin 49km Az.gap 199°
Corr. -0.668 35M/30stn Msd 0.3 3↑ 5↓

00/237
JAN 09 200451.0s 37.53S 176.85E 216km M=3.6
1.9 0.13 0.17 12
Rsd 0.5s 9ph/8stn Dmin 84km Az.gap 307°
Corr. -0.406 6M/6stn Msd 0.3 1↑ 1↓

00/239
JAN 09 212714.8s 41.10S 174.68E 59km M=3.6
0.1 0.01 0.01 2
Rsd 0.2s 31ph/25stn Dmin 15km Az.gap 45°
Corr. -0.050 8M/4stn Msd 0.0 6↑ 4↓
Felt Wellington (68).

00/241
JAN 09 224701.5s 45.67S 166.96E 33km M=3.8
0.8 0.04 0.05 R
Rsd 0.3s 9ph/6stn Dmin 27km Az.gap 286°
Corr. 0.040 10M/5stn Msd 0.2 1↓

00/251
JAN 10 105107.6s 35.50S 178.61E 188km M=4.0
0.3 0.03 0.04 7
Rsd 0.1s 7ph/3stn Dmin 235km Az.gap 335°
Corr. -0.123 7M/7stn Msd 0.3

00/256
JAN 10 164535.1s 35.10S 179.34E 195km M=4.5
0.3 0.06 0.05 11
Rsd 0.1s 6ph/4stn Dmin 293km Az.gap 338°
Corr. -0.624 15M/13stn Msd 0.2

00/257
JAN 10 192439.2s 39.51S 174.62E 212km M=3.6
0.2 0.01 0.02 2
Rsd 0.1s 14ph/12stn Dmin 42km Az.gap 270°
Corr. 0.158 12M/12stn Msd 0.3 1↑

00/258
JAN 10 223630.4s 37.06S 177.91E 33km M=3.7
0.4 0.03 0.02 R
Rsd 0.2s 10ph/8stn Dmin 69km Az.gap 271°
Corr. 0.529 16M/13stn Msd 0.2 1↓

00/265
JAN 11 063646.8s 37.86S 176.25E 181km M=3.9
0.9 0.07 0.04 6
Rsd 0.3s 12ph/11stn Dmin 67km Az.gap 160°
Corr. -0.599 18M/16stn Msd 0.2 1↑ 3↓

00/266
JAN 11 073750.4s 38.18S 176.91E 70km M=3.6
0.2 0.02 0.01 2
Rsd 0.3s 20ph/16stn Dmin 17km Az.gap 107°
Corr. -0.274 8M/6stn Msd 0.2 1↑ 1↓

00/278
JAN 11 155911.9s 36.03S 178.31E 239km M=3.9
0.5 0.06 0.07 6
Rsd 0.2s 10ph/8stn Dmin 175km Az.gap 329°
Corr. -0.675 9M/9stn Msd 0.2

00/280
JAN 11 163928.9s 38.14S 176.32E 165km M=4.6
0.4 0.02 0.02 4
Rsd 0.2s 28ph/23stn Dmin 12km Az.gap 128°
Corr. -0.467 27M/21stn Msd 0.4 14↑ 4↓

00/297
JAN 12 054041.9s 38.28S 175.85E 179km M=3.9
0.5 0.04 0.04 4
Rsd 0.2s 10ph/6stn Dmin 78km Az.gap 228°
Corr. -0.058 15M/13stn Msd 0.3

00/298
JAN 12 063240.5s 35.28S 179.02E 33km M=3.5
0.8 0.06 0.09 R
Rsd 0.2s 5ph/3stn Dmin 265km Az.gap 345°
Corr. -0.374 3M/3stn Msd 0.3

00/304
JAN 12 104008.4s 37.97S 176.01E 5km M=3.5
0.1 0.01 0.01 R
Rsd 0.3s 35ph/26stn Dmin 28km Az.gap 60°
Corr. 0.044 27M/25stn Msd 0.3 1↑ 1↓
Felt Tauranga (26).

00/307
JAN 12 150736.7s 39.15S 174.88E 198km M=3.8
1.1 0.04 0.08 10
Rsd 0.3s 16ph/14stn Dmin 45km Az.gap 267°
Corr. 0.404 13M/13stn Msd 0.4 1↑

00/318
JAN 13 020543.5s 39.78S 177.10E 38km M=3.5
0.3 0.01 0.02 4
Rsd 0.2s 25ph/19stn Dmin 35km Az.gap 219°
Corr. -0.590 18M/16stn Msd 0.2 3↑ 1↓

00/340
JAN 13 213427.1s 36.96S 176.96E 183km M=4.1
0.9 0.09 0.06 8
Rsd 0.3s 14ph/12stn Dmin 138km Az.gap 271°
Corr. -0.565 22M/22stn Msd 0.3

00/345
JAN 14 064457.5s 37.17S 177.10E 186km M=3.9
0.7 0.06 0.06 7
Rsd 0.3s 11ph/9stn Dmin 116km Az.gap 263°
Corr. -0.681 19M/19stn Msd 0.3 2↑ 1↓

00/356
JAN 14 180242.0s 37.16S 177.47E 130km M=4.4
0.3 0.02 0.01 4
Rsd 0.2s 22ph/19stn Dmin 48km Az.gap 198°
Corr. 0.421 9M/5stn Msd 0.2 2↑ 6↓

00/372
JAN 15 151556.8s 37.13S 177.36E 5km M=3.6
0.4 0.03 0.01 R
Rsd 0.2s 8ph/7stn Dmin 99km Az.gap 196°
Corr. 0.330 8M/7stn Msd 0.2

00/381
JAN 16 004823.6s 37.26S 177.40E 133km M=3.8
1.0 0.04 0.04 11
Rsd 0.3s 7ph/5stn Dmin 88km Az.gap 184°
Corr. 0.703 3M/2stn Msd 0.3 1↑ 2↓

00/387
JAN 16 063049.9s 45.18S 166.22E 5km M=3.6
0.5 0.02 0.03 R
Rsd 0.2s 9ph/5stn Dmin 80km Az.gap 291°
Corr. 0.453 7M/4stn Msd 0.1 1↑

00/391
JAN 16 084414.2s 45.01S 167.42E 110km M=3.5
0.6 0.03 0.06 4
Rsd 0.3s 8ph/5stn Dmin 55km Az.gap 204°
Corr. -0.255 12M/5stn Msd 0.2 1↑ 2↓

00/406
JAN 16 222729.1s 37.63S 179.74W 33km M=3.8
1.7 0.10 0.11 R
Rsd 0.6s 7ph/4stn Dmin 173km Az.gap 310°
Corr. -0.246 3M/3stn Msd 0.2

00/410
JAN 16 235743.1s 39.30S 175.33E 109km M=3.5
0.3 0.02 0.01 3
Rsd 0.2s 23ph/18stn Dmin 20km Az.gap 98°
Corr. 0.258 15M/15stn Msd 0.2 1↓

00/418
JAN 17 054323.8s 40.49S 174.46E 58km M=3.5
0.2 0.01 0.01 5
Rsd 0.3s 39ph/27stn Dmin 57km Az.gap 84°
Corr. -0.009 21M/17stn Msd 0.2 1↓

00/433
JAN 17 180631.9s 39.63S 174.30E 196km M=3.6
0.7 0.02 0.03 6
Rsd 0.2s 19ph/17stn Dmin 37km Az.gap 88°
Corr. -0.104 10M/10stn Msd 0.4

00/434
JAN 17 203440.2s 40.97S 172.87E 188km M=4.2
0.4 0.02 0.02 3
Rsd 0.3s 27ph/24stn Dmin 33km Az.gap 87°
Corr. -0.311 21M/17stn Msd 0.3 8↑ 7↓

00/437
JAN 18 023238.6s 38.68S 175.90E 131km M=3.5
1.0 0.04 0.01 7
Rsd 0.1s 9ph/9stn Dmin 15km Az.gap 170°
Corr. -0.548 14M/14stn Msd 0.2 1↑

00/439
JAN 18 053707.7s 45.08S 167.45E 5km M=4.2
0.3 0.01 0.02 R
Rsd 0.2s 10ph/6stn Dmin 49km Az.gap 191°
Corr. -0.345 8M/4stn Msd 0.2 1↑

00/442
JAN 18 134800.7s 39.43S 175.75E 14km M=3.7
0.2 0.01 0.01 2
Rsd 0.2s 35ph/31stn Dmin 19km Az.gap 66°
Corr. 0.010 38M/36stn Msd 0.3 9↑ 1↓
Felt Moawhango (58) MM3.

00/450
JAN 18 154145.6s 38.07S 176.54E 140km M=3.8
0.7 0.04 0.02 5
Rsd 0.3s 20ph/19stn Dmin 18km Az.gap 180°
Corr. -0.293 19M/18stn Msd 0.3 1↑

00/454
JAN 19 021440.9s 36.69S 176.97E 182km M=4.0
0.8 0.11 0.14 9
Rsd 0.2s 10ph/8stn Dmin 156km Az.gap 285°
Corr. -0.875 13M/13stn Msd 0.3

00/468
JAN 19 131239.2s 42.89S 171.45E 5km M=3.9
0.1 0.01 0.00 R
Rsd 0.1s 15ph/9stn Dmin 25km Az.gap 104°
Corr. -0.034 33M/28stn Msd 0.3 1↑

00/472
JAN 19 154252.1s 38.05S 176.03E 205km M=4.1
0.5 0.04 0.02 4
Rsd 0.2s 15ph/13stn Dmin 78km Az.gap 193°
Corr. -0.271 21M/19stn Msd 0.2

00/474
JAN 19 161018.3s 36.06S 178.08E 198km M=4.0
0.6 0.10 0.07 15
Rsd 0.1s 5ph/3stn Dmin 172km Az.gap 334°
Corr. -0.674 3M/3stn Msd 0.2

00/488
JAN 20 124224.6s 37.24S 176.71E 334km M=3.9
0.6 0.07 0.07 5
Rsd 0.2s 12ph/11stn Dmin 119km Az.gap 259°
Corr. -0.805 6M/6stn Msd 0.3 1↑

00/492
JAN 20 150448.3s 40.23S 176.44E 22km M=3.6
0.2 0.01 0.02 2
Rsd 0.2s 28ph/20stn Dmin 59km Az.gap 193°
Corr. -0.472 33M/31stn Msd 0.3

00/495
JAN 20 155717.8s 40.25S 173.48E 170km M=3.8
0.3 0.01 0.01 3
Rsd 0.2s 32ph/26stn Dmin 72km Az.gap 150°
Corr. 0.086 19M/17stn Msd 0.3 5↑ 2↓

00/499
JAN 20 183025.1s 37.74S 176.17E 284km M=4.6
0.6 0.04 0.03 5
Rsd 0.2s 30ph/26stn Dmin 35km Az.gap 106°
Corr. -0.174 8M/4stn Msd 0.2 3↑ 10↓

00/504
JAN 20 225757.4s 36.99S 177.56E 125km M=4.1
0.3 0.04 0.03 5
Rsd 0.1s 17ph/15stn Dmin 94km Az.gap 262°
Corr. -0.769 18M/14stn Msd 0.2 1↓

00/505
JAN 20 233024.2s 36.98S 176.33E 374km M=3.9
1.0 0.17 0.18 10
Rsd 0.3s 11ph/10stn Dmin 158km Az.gap 271°
Corr. -0.873 10M/10stn Msd 0.3

00/510
JAN 21 060222.0s 37.87S 176.71E 158km M=3.7
0.4 0.02 0.02 3
Rsd 0.1s 15ph/14stn Dmin 13km Az.gap 191°
Corr. -0.031 10M/10stn Msd 0.3 1↑

00/514
JAN 21 092454.9s 38.39S 175.82E 169km M=3.9
0.6 0.03 0.02 5
Rsd 0.2s 20ph/18stn Dmin 37km Az.gap 168°
Corr. 0.032 16M/16stn Msd 0.3 5↑ 1↓

00/524
JAN 21 143516.8s 39.03S 173.97E 5km M=3.5
0.2 0.01 0.01 R
Rsd 0.2s 16ph/13stn Dmin 34km Az.gap 227°
Corr. -0.730 14M/14stn Msd 0.4 1↓

00/525
JAN 21 144254.7s 40.11S 176.20E 40km M=3.5
0.1 0.01 0.01 4
Rsd 0.2s 32ph/27stn Dmin 47km Az.gap 166°
Corr. -0.263 18M/16stn Msd 0.3 3↑ 1↓

00/529
JAN 21 171210.0s 40.87S 175.13E 26km M=3.8
0.1 0.01 0.01 1
Rsd 0.2s 33ph/28stn Dmin 18km Az.gap 77°
Corr. -0.385 27M/22stn Msd 0.2 7↑ 3↓
Felt Kapiti Coast (65).

00/533
JAN 21 225015.8s 38.86S 175.81E 104km M=4.2
0.3 0.01 0.01 3
Rsd 0.2s 37ph/29stn Dmin 3km Az.gap 45°
Corr. -0.082 25M/20stn Msd 0.3 6↑ 2↓

00/537
JAN 22 013526.8s 36.81S 178.08E 233km M=3.8
1.0 0.15 0.20 6
Rsd 0.4s 7ph/6stn Dmin 90km Az.gap 316°
Corr. -0.866 5M/5stn Msd 0.1

00/567
JAN 23 090216.5s 38.53S 175.89E 181km M=5.0
0.5 0.02 0.02 5
Rsd 0.3s 47ph/39stn Dmin 16km Az.gap 55°
Corr. 0.060 9M/5stn Msd 0.3 18↑ 13↓

00/568
JAN 23 091620.0s 38.59S 176.14E 106km M=3.9
0.3 0.01 0.01 3
Rsd 0.2s 39ph/31stn Dmin 18km Az.gap 55°
Corr. -0.428 8M/4stn Msd 0.2 6↑ 4↓

00/573
JAN 23 101831.6s 37.73S 176.22E 218km M=4.2
0.9 0.09 0.06 7
Rsd 0.2s 15ph/14stn Dmin 98km Az.gap 224°
Corr. -0.606 19M/17stn Msd 0.2 1↑

00/579
JAN 23 142110.3s 37.87S 178.47E 12km M=3.8
0.3 0.01 0.02 R
Rsd 0.3s 12ph/9stn Dmin 29km Az.gap 230°
Corr. -0.281 19M/15stn Msd 0.3 1↑

00/580
JAN 23 155543.3s 36.32S 178.75E 256km M=3.7
0.3 0.05 0.07 2
Rsd 0.1s 8ph/4stn Dmin 148km Az.gap 342°
Corr. -0.905 3M/3stn Msd 0.5

00/581
JAN 23 155701.8s 41.86S 172.34E 80km M=3.5
0.2 0.01 0.01 2
Rsd 0.2s 19ph/15stn Dmin 46km Az.gap 102°
Corr. 0.056 12M/12stn Msd 0.2 1↑

00/587
JAN 23 201903.2s 38.58S 175.97E 130km M=3.6
0.4 0.02 0.02 4
Rsd 0.2s 17ph/13stn Dmin 25km Az.gap 157°
Corr. -0.283 12M/12stn Msd 0.2 2↑ 1↓

00/588
JAN 23 203944.0s 39.58S 174.08E 240km M=3.6
0.6 0.01 0.02 6
Rsd 0.1s 20ph/19stn Dmin 133km Az.gap 199°
Corr. -0.683 13M/13stn Msd 0.2

00/607
JAN 24 225555.8s 38.65S 175.05E 202km M=3.7
0.7 0.04 0.06 10
Rsd 0.4s 15ph/13stn Dmin 185km Az.gap 216°
Corr. -0.772 10M/10stn Msd 0.3 1↓
Poor station coverage.

00/612
JAN 25 113251.4s 43.84S 169.10E 5km M=3.6
0.4 0.03 0.03 R
Rsd 0.3s 11ph/8stn Dmin 99km Az.gap 181°
Corr. -0.666 9M/7stn Msd 0.2

00/628
JAN 26 074310.7s 37.10S 176.44E 302km M=3.9
0.8 0.08 0.11 10
Rsd 0.3s 13ph/10stn Dmin 141km Az.gap 265°
Corr. -0.855 9M/9stn Msd 0.2

00/629
JAN 26 074813.6s 45.37S 167.35E 106km M=4.5
0.5 0.03 0.03 3
Rsd 0.2s 12ph/8stn Dmin 19km Az.gap 167°
Corr. -0.215 10M/6stn Msd 0.1 4↑ 2↓

00/637
JAN 26 183817.5s 45.16S 167.50E 96km M=4.3
0.5 0.03 0.04 4
Rsd 0.3s 10ph/7stn Dmin 44km Az.gap 186°
Corr. -0.438 11M/6stn Msd 0.3 2↑ 3↓

00/638
JAN 26 202343.5s 38.47S 175.96E 173km M=3.5
1.5 0.06 0.06 12
Rsd 0.4s 9ph/8stn Dmin 70km Az.gap 225°
Corr. -0.015 13M/13stn Msd 0.3

00/639
JAN 26 211138.0s 38.54S 175.84E 136km M=3.6
0.4 0.03 0.02 3
Rsd 0.2s 17ph/13stn Dmin 21km Az.gap 220°
Corr. -0.762 14M/14stn Msd 0.3

00/694
JAN 28 170626.1s 41.27S 172.60E 197km M=4.0
0.3 0.02 0.02 2
Rsd 0.2s 27ph/20stn Dmin 49km Az.gap 122°
Corr. -0.257 17M/15stn Msd 0.3 4↑ 3↓

00/698
JAN 28 190634.0s 36.77S 179.88E 155km M=3.7
1.4 0.13 0.14 15
Rsd 0.3s 6ph/4stn Dmin 168km Az.gap 340°
Corr. -0.825 3M/3stn Msd 0.1

00/703
JAN 29 033507.8s 40.09S 178.59E 33km M=3.9
0.9 0.04 0.08 R
Rsd 0.5s 21ph/15stn Dmin 171km Az.gap 234°
Corr. -0.720 17M/17stn Msd 0.4

00/706
JAN 29 044823.2s 38.54S 175.78E 151km M=3.6
0.3 0.02 0.02 2
Rsd 0.1s 16ph/12stn Dmin 37km Az.gap 220°
Corr. -0.622 17M/17stn Msd 0.2 1↑

00/729
JAN 30 080909.7s 40.32S 174.13E 94km M=3.8
0.2 0.02 0.01 4
Rsd 0.1s 20ph/15stn Dmin 90km Az.gap 142°
Corr. -0.812 1M/1stn Msd 0.0

00/749
JAN 31 154051.8s 40.44S 177.09E 72km M=3.9
0.5 0.01 0.05 9
Rsd 0.2s 23ph/19stn Dmin 77km Az.gap 202°
Corr. -0.466 24M/22stn Msd 0.3 1↑ 3↓

00/775
FEB 01 125938.1s 37.78S 177.51E 99km M=4.3
0.3 0.01 0.01 2
Rsd 0.2s 35ph/29stn Dmin 39km Az.gap 120°
Corr. 0.473 27M/20stn Msd 0.3 4↑ 1↓

00/781
FEB 01 181501.7s 38.03S 176.39E 156km M=3.7
0.4 0.03 0.02 3
Rsd 0.2s 12ph/11stn Dmin 68km Az.gap 218°
Corr. -0.659 9M/9stn Msd 0.2

00/782
FEB 01 191455.7s 40.54S 173.73E 97km M=3.5
0.3 0.01 0.01 4
Rsd 0.3s 41ph/32stn Dmin 33km Az.gap 113°
Corr. 0.207 12M/12stn Msd 0.3 1↑ 2↓

00/789
FEB 02 032719.6s 44.46S 168.06E 5km M=4.5
0.2 0.01 0.01 R
Rsd 0.2s 13ph/6stn Dmin 26km Az.gap 197°
Corr. -0.822 14M/8stn Msd 0.2

00/793
FEB 02 042213.7s 38.33S 176.00E 150km M=3.7
0.6 0.04 0.03 5
Rsd 0.2s 13ph/11stn Dmin 84km Az.gap 216°
Corr. -0.623 18M/16stn Msd 0.2

00/797
FEB 02 072645.8s 40.36S 174.07E 93km M=3.5
0.3 0.01 0.01 4
Rsd 0.2s 37ph/29stn Dmin 51km Az.gap 104°
Corr. 0.309 16M/14stn Msd 0.3 4↑ 1↓

00/805
FEB 02 114008.1s 36.02S 179.72E 12km M=4.9
0.4 0.02 0.02 R
Rsd 0.1s 26ph/23stn Dmin 216km Az.gap 310°
Corr. 0.272 13M/7stn Msd 0.2 1↓

00/806
FEB 02 114832.4s 38.64S 175.62E 167km M=4.1
0.5 0.02 0.02 4
Rsd 0.2s 33ph/22stn Dmin 12km Az.gap 122°
Corr. -0.387 24M/22stn Msd 0.3 1↑

00/845
FEB 04 100003.5s 38.34S 176.38E 108km M=4.2
0.2 0.01 0.01 2
Rsd 0.2s 32ph/26stn Dmin 11km Az.gap 52°
Corr. -0.296 25M/20stn Msd 0.2 3↑ 2↓

00/853
FEB 04 155236.6s 38.24S 176.41E 153km M=3.6
0.3 0.06 0.04 3
Rsd 0.1s 10ph/8stn Dmin 61km Az.gap 205°
Corr. -0.968 12M/12stn Msd 0.2 1↑ 1↓

00/855
FEB 05 004346.9s 40.59S 178.74E 33km M=3.6
0.5 0.02 0.04 R
Rsd 0.2s 10ph/6stn Dmin 280km Az.gap 262°
Corr. -0.745 13M/13stn Msd 0.2

00/857
FEB 05 031815.5s 40.40S 175.61E 48km M=4.2
0.1 0.01 0.01 3
Rsd 0.2s 40ph/33stn Dmin 30km Az.gap 81°
Corr. -0.334 20M/15stn Msd 0.3 3↑ 3↓
Felt Mangaone Rd (62) and Waitarere Beach (65).

00/862
FEB 05 062749.9s 37.75S 176.33E 164km M=4.1
0.4 0.04 0.03 4
Rsd 0.2s 18ph/15stn Dmin 89km Az.gap 222°
Corr. -0.752 22M/21stn Msd 0.4 1↑

00/871
FEB 05 112828.2s 45.38S 167.12E 77km M=4.6
0.2 0.01 0.02 1
Rsd 0.1s 12ph/7stn Dmin 10km Az.gap 240°
Corr. -0.251 19M/11stn Msd 0.2 1↑ 6↓
Felt Queenstown (132).

00/893
FEB 06 202351.5s 36.47S 178.05E 115km M=4.6
0.4 0.03 0.02 6
Rsd 0.1s 14ph/11stn Dmin 127km Az.gap 269°
Corr. 0.296 26M/20stn Msd 0.3 2↑ 1↓

00/894
FEB 06 202829.1s 38.22S 179.83W 12km M=4.0
0.6 0.05 0.04 R
Rsd 0.2s 13ph/11stn Dmin 169km Az.gap 292°
Corr. -0.311 24M/19stn Msd 0.3

00/905
FEB 07 001251.7s 42.50S 173.77E 33km M=3.5
0.1 0.01 0.01 R
Rsd 0.2s 19ph/13stn Dmin 88km Az.gap 168°
Corr. -0.709 19M/17stn Msd 0.2

00/911
FEB 07 094620.7s 43.96S 169.49E 5km M=3.7
0.1 0.01 0.01 R
Rsd 0.2s 14ph/8stn Dmin 33km Az.gap 100°
Corr. 0.768 10M/5stn Msd 0.2 1↑

00/918
FEB 07 153246.9s 40.85S 175.87E 29km M=3.6
0.1 0.01 0.01 2
Rsd 0.3s 27ph/22stn Dmin 32km Az.gap 150°
Corr. -0.634 29M/25stn Msd 0.3 3↑ 4↓

00/932
FEB 08 043434.5s 35.79S 178.49E 33km M=3.5
0.1 0.01 0.01 R
Rsd 0.0s 5ph/3stn Dmin 201km Az.gap 341°
Corr. -0.209 3M/3stn Msd 0.2

00/940
FEB 08 094613.5s 39.38S 175.81E 70km M=4.1
0.2 0.01 0.01 2
Rsd 0.2s 46ph/38stn Dmin 18km Az.gap 40°
Corr. -0.301 10M/5stn Msd 0.3 8↑ 5↓
Felt Moawhango (58) MM4.

00/941
FEB 08 095712.7s 37.44S 179.44E 12km M=3.8
0.3 0.02 0.02 R
Rsd 0.1s 13ph/9stn Dmin 102km Az.gap 300°
Corr. -0.415 12M/9stn Msd 0.2

00/951
FEB 08 142726.2s 37.38S 179.45E 12km M=4.1
0.4 0.02 0.02 3
Rsd 0.1s 17ph/11stn Dmin 105km Az.gap 296°
Corr. -0.078 18M/14stn Msd 0.3

00/963
FEB 08 212904.0s 40.59S 174.21E 66km M=3.5
0.3 0.01 0.01 6
Rsd 0.3s 33ph/28stn Dmin 34km Az.gap 89°
Corr. 0.006 14M/12stn Msd 0.4 1↓

00/974
FEB 09 094103.4s 40.51S 173.88E 112km M=3.6
0.3 0.01 0.01 4
Rsd 0.3s 40ph/33stn Dmin 33km Az.gap 107°
Corr. 0.230 14M/14stn Msd 0.3 8↑ 1↓

00/975
FEB 09 095200.5s 40.16S 173.62E 175km M=3.6
0.4 0.02 0.02 4
Rsd 0.3s 34ph/27stn Dmin 76km Az.gap 178°
Corr. -0.106 10M/10stn Msd 0.1 1↑

00/983
FEB 09 151220.9s 37.92S 179.07E 23km M=3.6
0.4 0.02 0.02 2
Rsd 0.1s 5ph/3stn Dmin 74km Az.gap 319°
Corr. -0.501 5M/3stn Msd 0.3 1↑ 1↓

00/989
FEB 09 185815.7s 37.58S 176.84E 202km M=3.6
0.6 0.06 0.06 4
Rsd 0.2s 7ph/6stn Dmin 79km Az.gap 240°
Corr. -0.895 13M/13stn Msd 0.3

00/991
FEB 09 190936.7s 39.99S 176.83E 52km M=3.6
0.2 0.01 0.02 4
Rsd 0.2s 38ph/30stn Dmin 49km Az.gap 182°
Corr. -0.474 20M/16stn Msd 0.2 1↓

00/999
FEB 10 005156.0s 37.67S 177.08E 146km M=3.9
1.0 0.04 0.04 9
Rsd 0.6s 8ph/6stn Dmin 65km Az.gap 136°
Corr. -0.086 5M/4stn Msd 0.2 1↑

00/1016
FEB 10 114522.7s 37.54S 176.46E 199km M=4.1
0.4 0.03 0.03 4
Rsd 0.2s 25ph/20stn Dmin 53km Az.gap 130°
Corr. -0.259 21M/19stn Msd 0.2 1↑ 1↓

00/1027
FEB 10 175659.6s 48.66S 164.97E 33km M=4.0
1.1 0.10 0.10 R
Rsd 0.4s 9ph/5stn Dmin 381km Az.gap 342°
Corr. -0.554 6M/6stn Msd 0.2

00/1038
FEB 11 030757.8s 37.01S 177.82E 121km M=3.8
0.3 0.01 0.01 3
Rsd 0.1s 16ph/14stn Dmin 78km Az.gap 229°
Corr. 0.048 5M/4stn Msd 0.1

00/1041
FEB 11 044302.9s 38.03S 176.54E 148km M=4.6
0.2 0.01 0.01 2
Rsd 0.2s 51ph/43stn Dmin 8km Az.gap 73°
Corr. 0.059 12M/6stn Msd 0.2 17↑ 5↓

00/1056
FEB 11 103405.2s 42.10S 174.68E 32km M=4.1
0.3 0.02 0.01 2
Rsd 0.2s 26ph/21stn Dmin 55km Az.gap 183°
Corr. -0.688 14M/8stn Msd 0.1 4↑ 3↓

00/1061
FEB 11 131725.4s 40.41S 173.87E 133km M=4.0
0.3 0.01 0.01 3
Rsd 0.2s 42ph/32stn Dmin 43km Az.gap 115°
Corr. -0.199 18M/15stn Msd 0.3 6↑ 1↓

00/1079
FEB 12 011921.7s 38.67S 178.54E 29km M=3.8
0.3 0.01 0.02 2
Rsd 0.1s 22ph/19stn Dmin 44km Az.gap 230°
Corr. -0.721 32M/26stn Msd 0.3

00/1083
FEB 12 025806.9s 39.98S 175.23E 68km M=3.8
0.2 0.01 0.01 3
Rsd 0.3s 41ph/32stn Dmin 32km Az.gap 60°
Corr. -0.350 8M/4stn Msd 0.4 1↑
Felt Wanganui (57).

00/1086
FEB 12 042147.4s 39.50S 179.68E 33km M=4.0
0.7 0.03 0.05 R
Rsd 0.4s 22ph/17stn Dmin 173km Az.gap 259°
Corr. -0.270 31M/28stn Msd 0.3

00/1113
FEB 13 025522.2s 36.82S 177.57E 12km M=4.0
0.5 0.03 0.03 R
Rsd 0.3s 10ph/5stn Dmin 108km Az.gap 231°
Corr. 0.730 16M/11stn Msd 0.2 1↑ 1↓

00/1114
FEB 13 040937.0s 35.52S 178.70E 248km M=4.3
0.7 0.09 0.10 11
Rsd 0.2s 6ph/4stn Dmin 234km Az.gap 344°
Corr. -0.528 5M/4stn Msd 0.2

00/1118
FEB 13 100031.0s 37.75S 179.27E 33km M=4.1
0.6 0.03 0.04 R
Rsd 0.2s 12ph/9stn Dmin 87km Az.gap 290°
Corr. -0.151 30M/24stn Msd 0.3 1↓

00/1148
FEB 14 021148.7s 38.48S 175.61E 187km M=3.7
0.3 0.01 0.08 3
Rsd 0.0s 13ph/11stn Dmin 59km Az.gap 344°
Corr. -0.484 3M/3stn Msd 0.4

00/1154
FEB 14 051931.6s 37.96S 176.63E 164km M=3.7
0.4 0.05 0.04 3
Rsd 0.1s 11ph/10stn Dmin 53km Az.gap 265°
Corr. -0.773 9M/9stn Msd 0.2 1↑

00/1158
FEB 14 073611.8s 45.35S 167.39E 62km M=3.5
0.3 0.01 0.02 3
Rsd 0.1s 10ph/7stn Dmin 23km Az.gap 166°
Corr. 0.130 8M/4stn Msd 0.2 1↑ 1↓

00/1164
FEB 14 112233.7s 37.26S 177.28E 152km M=3.8
0.3 0.02 0.02 3
Rsd 0.2s 15ph/13stn Dmin 98km Az.gap 181°
Corr. 0.038 15M/13stn Msd 0.3 1↑

00/1165
FEB 14 112911.1s 37.06S 177.13E 376km M=4.3
1.1 0.19 0.09 11
Rsd 0.2s 16ph/15stn Dmin 111km Az.gap 258°
Corr. -0.543 16M/16stn Msd 0.3 1↑

00/1167
FEB 14 120616.3s 41.16S 174.52E 61km M=3.5
0.2 0.01 0.01 2
Rsd 0.3s 37ph/27stn Dmin 17km Az.gap 68°
Corr. -0.341 13M/10stn Msd 0.3 5↑ 3↓
Felt Whitby (68).

00/1210
FEB 15 041817.4s 37.04S 177.52E 145km M=3.9
0.3 0.04 0.02 4
Rsd 0.2s 14ph/12stn Dmin 93km Az.gap 257°
Corr. -0.590 22M/18stn Msd 0.2 1↓

00/1211
FEB 15 051628.7s 45.04S 167.63E 111km M=3.6
0.5 0.02 0.03 4
Rsd 0.3s 12ph/8stn Dmin 55km Az.gap 184°
Corr. -0.130 14M/8stn Msd 0.1 1↑ 1↓

00/1212
FEB 15 061106.5s 41.08S 174.16E 53km M=3.5
0.1 0.01 0.01 2
Rsd 0.2s 29ph/25stn Dmin 18km Az.gap 46°
Corr. -0.242 11M/10stn Msd 0.3 3↑ 4↓

00/1224
FEB 15 135044.6s 37.25S 177.50E 90km M=4.3
0.4 0.03 0.02 5
Rsd 0.2s 22ph/20stn Dmin 42km Az.gap 190°
Corr. 0.098 24M/20stn Msd 0.3 1↑

00/1227
FEB 15 143521.6s 40.41S 177.29E 12km M=3.8
0.3 0.01 0.02 R
Rsd 0.2s 30ph/28stn Dmin 93km Az.gap 207°
Corr. -0.453 34M/32stn Msd 0.2 1↓

00/1256
FEB 16 055641.3s 36.99S 176.88E 230km M=4.2
0.7 0.04 0.03 6
Rsd 0.2s 15ph/13stn Dmin 107km Az.gap 195°
Corr. 0.505 21M/21stn Msd 0.2 1↑ 1↓

00/1260
FEB 16 080841.4s 41.26S 172.69E 164km M=3.6
0.4 0.02 0.02 3
Rsd 0.2s 22ph/17stn Dmin 50km Az.gap 111°
Corr. -0.332 14M/14stn Msd 0.3 1↑ 2↓

00/1262
FEB 16 090707.9s 47.60S 165.21E 12km M=3.6
1.0 0.09 0.09 R
Rsd 0.4s 8ph/5stn Dmin 280km Az.gap 330°
Corr. -0.466 5M/5stn Msd 0.2

00/1280
FEB 16 183643.8s 45.03S 167.62E 86km M=3.8
0.5 0.03 0.03 5
Rsd 0.3s 12ph/8stn Dmin 56km Az.gap 185°
Corr. -0.431 10M/5stn Msd 0.2 1↑ 2↓

00/1281
FEB 16 193019.7s 38.23S 178.25E 5km M=3.7
0.7 0.03 0.05 R
Rsd 0.4s 14ph/13stn Dmin 18km Az.gap 199°
Corr. -0.780 27M/23stn Msd 0.3

00/1288
FEB 16 224310.9s 41.49S 172.35E 11km M=3.6
0.4 0.01 0.01 4
Rsd 0.2s 25ph/18stn Dmin 53km Az.gap 134°
Corr. -0.343 23M/18stn Msd 0.2 1↑ 2↓

00/1289
FEB 16 225144.3s 37.92S 176.54E 163km M=3.8
0.3 0.03 0.02 3
Rsd 0.1s 15ph/11stn Dmin 62km Az.gap 218°
Corr. -0.848 16M/15stn Msd 0.3 1↑ 1↓

00/1292
FEB 17 015450.3s 36.40S 179.97E 72km M=4.0
0.5 0.07 0.06 15
Rsd 0.2s 9ph/7stn Dmin 200km Az.gap 346°
Corr. -0.749 3M/3stn Msd 0.3

00/1293
FEB 17 022834.4s 37.88S 176.72E 138km M=3.6
0.2 0.05 0.03 3
Rsd 0.2s 12ph/10stn Dmin 55km Az.gap 215°
Corr. -0.900 12M/12stn Msd 0.3

00/1296
FEB 17 054045.9s 38.30S 176.17E 156km M=3.7
0.5 0.02 0.03 4
Rsd 0.1s 14ph/13stn Dmin 12km Az.gap 171°
Corr. -0.712 16M/15stn Msd 0.2 1↑

00/1298
FEB 17 055730.7s 38.09S 176.63E 5km M=3.5
0.2 0.02 0.01 R
Rsd 0.4s 25ph/22stn Dmin 10km Az.gap 54°
Corr. -0.071 21M/20stn Msd 0.2 1↑
Felt Kawerau (34); first of a small swarm felt there.

00/1340
FEB 17 071001.8s 38.08S 176.65E 5km M=3.5
0.2 0.02 0.01 R
Rsd 0.4s 29ph/25stn Dmin 9km Az.gap 47°
Corr. -0.073 20M/18stn Msd 0.2
Felt Kawerau (34).

00/1424
FEB 17 153623.4s 39.20S 174.53E 0km M=3.9
0.2 0.01 0.01 3
Rsd 0.3s 43ph/37stn Dmin 16km Az.gap 91°
Corr. -0.183 12M/8stn Msd 0.4 1↑
Felt Makahu (48).

00/1429
FEB 17 162627.6s 36.02S 179.53W 33km M=4.3
0.2 0.01 0.02 R
Rsd 0.1s 6ph/4stn Dmin 261km Az.gap 340°
Corr. -0.527 5M/3stn Msd 0.2

00/1436
FEB 17 185825.7s 39.18S 174.49E 5km M=3.3
0.2 0.01 0.01 2
Rsd 0.3s 35ph/28stn Dmin 15km Az.gap 113°
Corr. -0.319 25M/24stn Msd 0.3 1↑
Felt Makahu (48).

00/1437
FEB 17 190317.8s 39.19S 174.51E 5km M=3.6
0.1 0.01 0.00 R
Rsd 0.2s 34ph/29stn Dmin 15km Az.gap 110°
Corr. -0.388 35M/31stn Msd 0.3 1↑
Felt Makahu (48).

00/1474
FEB 18 052535.3s 37.52S 178.39E 33km M=3.6
0.7 0.04 0.07 R
Rsd 0.4s 4ph/3stn Dmin 12km Az.gap 315°
Corr. 0.311 3M/2stn Msd 0.1 1↑

00/1475
FEB 18 060145.0s 38.07S 176.73E 5km M=1.9
0.2 0.01 0.01 R
Rsd 0.2s 6ph/3stn Dmin 5km Az.gap 192°
Corr. 0.421 4M/4stn Msd 0.1
Felt Kawerau (34).

00/1478
FEB 18 062432.6s 41.74S 172.64E 76km M=3.6
0.3 0.01 0.01 4
Rsd 0.2s 21ph/15stn Dmin 70km Az.gap 86°
Corr. -0.179 11M/11stn Msd 0.3 1↑

00/1479
FEB 18 063035.2s 39.45S 174.69E 144km M=4.0
0.4 0.01 0.01 4
Rsd 0.2s 41ph/35stn Dmin 32km Az.gap 59°
Corr. -0.361 26M/22stn Msd 0.3 4↑ 1↓

00/1496
FEB 18 154131.3s 40.69S 174.22E 67km M=3.5
0.2 0.01 0.01 3
Rsd 0.3s 32ph/23stn Dmin 28km Az.gap 88°
Corr. 0.005 17M/14stn Msd 0.3 1↑

00/1507
FEB 18 191624.7s 39.09S 174.97E 168km M=3.6
0.6 0.01 0.07 6
Rsd 0.1s 19ph/16stn Dmin 37km Az.gap 239°
Corr. 0.104 10M/10stn Msd 0.3 1↑ 2↓

00/1511
FEB 18 195046.3s 38.53S 175.80E 152km M=4.0
0.6 0.03 0.02 5
Rsd 0.2s 21ph/20stn Dmin 20km Az.gap 154°
Corr. 0.141 20M/18stn Msd 0.2 1↑

00/1516
FEB 18 214440.5s 38.79S 178.74E 22km M=3.6
0.5 0.03 0.03 2
Rsd 0.1s 14ph/13stn Dmin 64km Az.gap 237°
Corr. -0.897 15M/15stn Msd 0.2

00/1541
FEB 19 072958.5s 38.16S 176.01E 180km M=3.9
0.5 0.03 0.02 4
Rsd 0.1s 14ph/13stn Dmin 66km Az.gap 210°
Corr. -0.261 18M/16stn Msd 0.3

00/1569
FEB 20 042921.2s 40.44S 176.41E 25km M=3.7
0.2 0.01 0.02 2
Rsd 0.2s 35ph/33stn Dmin 30km Az.gap 179°
Corr. -0.570 43M/38stn Msd 0.3 1↑

00/1573
FEB 20 070525.6s 39.14S 174.94E 224km M=3.7
0.4 0.01 0.01 3
Rsd 0.1s 22ph/20stn Dmin 53km Az.gap 176°
Corr. -0.214 13M/13stn Msd 0.3 1↓

00/1593
FEB 20 135300.5s 39.36S 177.60E 36km M=3.6
0.3 0.02 0.02 5
Rsd 0.2s 27ph/23stn Dmin 38km Az.gap 196°
Corr. -0.692 17M/15stn Msd 0.3 1↑

00/1599
FEB 20 182038.4s 39.40S 177.64E 33km M=3.8
0.2 0.01 0.01 R
Rsd 0.1s 27ph/23stn Dmin 42km Az.gap 199°
Corr. -0.804 33M/32stn Msd 0.3 1↑

00/1600
FEB 20 182620.8s 38.99S 175.78E 5km M=3.1
0.1 0.01 0.01 R
Rsd 0.3s 22ph/16stn Dmin 8km Az.gap 71°
Corr. -0.296 16M/16stn Msd 0.3 6↑ 3↓
Felt Turangi (40).

00/1612
FEB 20 202048.7s 39.35S 177.61E 40km M=3.8
0.4 0.03 0.03 4
Rsd 0.2s 29ph/26stn Dmin 37km Az.gap 196°
Corr. -0.816 22M/18stn Msd 0.3 1↑

00/1630
FEB 21 172654.9s 45.06S 167.54E 91km M=3.8
0.4 0.02 0.03 3
Rsd 0.2s 12ph/7stn Dmin 54km Az.gap 189°
Corr. -0.378 10M/5stn Msd 0.1 1↑ 3↓

00/1637
FEB 21 192528.5s 39.18S 174.50E 4km M=3.7
0.1 0.01 0.01 2
Rsd 0.2s 41ph/34stn Dmin 15km Az.gap 106°
Corr. -0.400 9M/6stn Msd 0.2 3↑ 2↓

00/1664
FEB 22 192810.0s 39.07S 174.89E 225km M=4.0
0.5 0.03 0.03 4
Rsd 0.2s 22ph/20stn Dmin 57km Az.gap 192°
Corr. -0.166 17M/17stn Msd 0.3 4↑ 2↓

00/1679
FEB 23 080212.0s 40.80S 173.58E 91km M=3.6
0.3 0.01 0.01 3
Rsd 0.3s 38ph/28stn Dmin 29km Az.gap 100°
Corr. 0.092 14M/13stn Msd 0.3 1↓

00/1699
FEB 24 074828.7s 40.24S 173.51E 164km M=4.0
0.3 0.01 0.01 2
Rsd 0.2s 41ph/32stn Dmin 72km Az.gap 145°
Corr. -0.065 17M/16stn Msd 0.3 4↑ 2↓

00/1707
FEB 24 135406.1s 40.27S 176.38E 61km M=4.2
0.2 0.01 0.02 3
Rsd 0.2s 44ph/40stn Dmin 48km Az.gap 160°
Corr. -0.504 19M/14stn Msd 0.3 5↑ 8↓
Felt Dannevirke (63).

00/1711
FEB 24 153834.0s 45.31S 166.92E 12km M=3.8
0.2 0.01 0.02 R
Rsd 0.1s 11ph/9stn Dmin 25km Az.gap 270°
Corr. 0.422 16M/10stn Msd 0.3 1↓

00/1716
FEB 24 191822.3s 44.47S 167.95E 10km M=3.6
0.2 0.01 0.03 1
Rsd 0.1s 12ph/8stn Dmin 23km Az.gap 198°
Corr. -0.826 13M/7stn Msd 0.3

00/1720
FEB 25 002501.7s 39.71S 174.16E 134km M=3.9
0.3 0.01 0.02 3
Rsd 0.3s 38ph/32stn Dmin 43km Az.gap 105°
Corr. -0.323 17M/16stn Msd 0.3 4↑ 2↓

00/1721
FEB 25 011408.5s 39.58S 173.98E 198km M=3.5
0.5 0.03 0.03 5
Rsd 0.2s 13ph/10stn Dmin 136km Az.gap 212°
Corr. -0.687 9M/9stn Msd 0.3

00/1725
FEB 25 015639.2s 38.07S 176.75E 5km M=2.9
0.2 0.01 0.01 R
Rsd 0.2s 6ph/4stn Dmin 4km Az.gap 200°
Corr. 0.605 4M/2stn Msd 0.2 1↑ 1↓
Felt Kawerau (34).

00/1727
FEB 25 035837.7s 37.62S 177.17E 126km M=4.1
0.2 0.01 0.01 2
Rsd 0.1s 26ph/21stn Dmin 67km Az.gap 172°
Corr. 0.354 22M/20stn Msd 0.3 2↑ 1↓

00/1737
FEB 25 084914.2s 37.97S 176.45E 153km M=3.5
0.6 0.03 0.04 5
Rsd 0.2s 9ph/7stn Dmin 66km Az.gap 262°
Corr. -0.419 13M/13stn Msd 0.4

00/1740
FEB 25 110618.3s 36.20S 179.99E 5km M=3.8
0.2 0.02 0.03 R
Rsd 0.1s 10ph/6stn Dmin 259km Az.gap 347°
Corr. -0.729 5M/5stn Msd 0.2
Poor station coverage.

00/1755
FEB 25 174249.7s 36.47S 179.34W 33km M=3.7
0.1 0.02 0.02 R
Rsd 0.0s 7ph/5stn Dmin 278km Az.gap 352°
Corr. -0.881 4M/4stn Msd 0.2

00/1764
FEB 26 025604.1s 40.93S 174.46E 74km M=4.5
0.2 0.01 0.01 3
Rsd 0.2s 46ph/37stn Dmin 35km Az.gap 57°
Corr. -0.160 10M/6stn Msd 0.3 10↑ 5↓
Felt Raumati (65), Nelson (76) and Rarangi (77).

00/1769
FEB 26 093901.3s 39.08S 177.67E 39km M=3.5
0.2 0.01 0.01 2
Rsd 0.2s 29ph/21stn Dmin 7km Az.gap 186°
Corr. -0.584 18M/16stn Msd 0.3 1↑

00/1773
FEB 26 143936.5s 38.48S 175.76E 154km M=4.2
0.3 0.02 0.01 3
Rsd 0.2s 38ph/33stn Dmin 26km Az.gap 91°
Corr. -0.384 9M/5stn Msd 0.2 7↑ 10↓

00/1776
FEB 26 170714.2s 38.29S 176.10E 179km M=3.6
0.5 0.03 0.03 4
Rsd 0.2s 11ph/9stn Dmin 70km Az.gap 236°
Corr. -0.439 11M/11stn Msd 0.2

00/1777
FEB 26 174928.0s 38.35S 176.11E 161km M=3.7
1.1 0.05 0.05 10
Rsd 0.3s 9ph/7stn Dmin 88km Az.gap 230°
Corr. -0.573 12M/12stn Msd 0.4

00/1785
FEB 26 224510.1s 40.46S 173.40E 160km M=4.1
0.4 0.01 0.01 4
Rsd 0.2s 37ph/33stn Dmin 58km Az.gap 136°
Corr. 0.031 18M/15stn Msd 0.3 3↑ 3↓

00/1787
FEB 27 003234.8s 39.66S 175.76E 12km M=1.9
0.3 0.02 0.03 R
Rsd 0.1s 7ph/5stn Dmin 45km Az.gap 342°
Corr. 0.431 3M/3stn Msd 0.1 1↓
Felt Moawhango (58) MM4.

00/1810
FEB 27 212733.2s 37.12S 176.95E 184km M=3.7
0.6 0.10 0.05 8
Rsd 0.2s 8ph/6stn Dmin 128km Az.gap 283°
Corr. -0.747 9M/9stn Msd 0.2

00/1825
FEB 28 055223.7s 41.26S 172.75E 156km M=3.6
0.4 0.02 0.02 4
Rsd 0.2s 23ph/17stn Dmin 51km Az.gap 104°
Corr. -0.341 13M/13stn Msd 0.3 1↑ 1↓

00/1853
FEB 29 011232.8s 37.46S 177.57E 112km M=3.9
0.3 0.04 0.01 2
Rsd 0.1s 18ph/17stn Dmin 97km Az.gap 278°
Corr. 0.263 18M/16stn Msd 0.3 1↓

00/1854
FEB 29 014817.8s 39.37S 173.67E 17km M=3.6
0.2 0.02 0.02 1
Rsd 0.2s 35ph/29stn Dmin 20km Az.gap 181°
Corr. -0.730 9M/6stn Msd 0.1 3↑ 1↓
Felt Paora Rd (46).

00/1863
FEB 29 053307.9s 38.12S 176.31E 162km M=3.8
0.6 0.05 0.02 4
Rsd 0.2s 16ph/14stn Dmin 72km Az.gap 223°
Corr. -0.508 15M/15stn Msd 0.3 1↑

00/1895
MAR 01 170252.7s 36.87S 177.04E 253km M=4.2
0.7 0.07 0.05 5
Rsd 0.2s 18ph/16stn Dmin 155km Az.gap 279°
Corr. -0.429 17M/17stn Msd 0.3 1↑

00/1907
MAR 02 052753.1s 38.54S 175.10E 229km M=3.8
0.7 0.03 0.04 8
Rsd 0.3s 16ph/13stn Dmin 178km Az.gap 221°
Corr. -0.625 9M/9stn Msd 0.2 2↑ 1↓
Poor station coverage.

00/1926
MAR 02 161044.8s 37.20S 177.54E 102km M=3.9
0.4 0.06 0.03 8
Rsd 0.2s 14ph/11stn Dmin 116km Az.gap 269°
Corr. -0.580 17M/14stn Msd 0.3

00/1964
MAR 03 211309.7s 38.52S 174.16E 17km M=3.6
0.2 0.01 0.01 1
Rsd 0.2s 24ph/18stn Dmin 57km Az.gap 206°
Corr. -0.648 19M/16stn Msd 0.3 1↓

00/1965
MAR 03 224628.8s 38.34S 176.18E 136km M=4.0
0.3 0.02 0.01 3
Rsd 0.2s 22ph/17stn Dmin 42km Az.gap 180°
Corr. -0.648 23M/19stn Msd 0.2 7↑ 1↓

00/1974
MAR 04 103144.4s 38.15S 176.30E 148km M=3.8
0.6 0.03 0.02 5
Rsd 0.3s 21ph/18stn Dmin 10km Az.gap 132°
Corr. -0.510 16M/16stn Msd 0.3

00/1992
MAR 04 231926.1s 36.26S 179.63E 12km M=3.8
0.6 0.06 0.06 R
Rsd 0.2s 6ph/4stn Dmin 235km Az.gap 344°
Corr. -0.621 3M/3stn Msd 0.1

00/1996
MAR 05 034940.7s 41.20S 172.64E 174km M=3.6
0.4 0.02 0.02 3
Rsd 0.2s 24ph/18stn Dmin 43km Az.gap 118°
Corr. -0.241 11M/11stn Msd 0.3 1↑

00/2000
MAR 05 052607.6s 45.16S 167.56E 102km M=3.6
0.9 0.22 0.05 17
Rsd 0.3s 5ph/3stn Dmin 46km Az.gap 256°
Corr. 0.357 5M/3stn Msd 0.1 2↑ 2↓

00/2001
MAR 05 064346.0s 38.02S 176.09E 170km M=3.7
0.7 0.05 0.03 5
Rsd 0.2s 11ph/10stn Dmin 93km Az.gap 244°
Corr. -0.618 16M/15stn Msd 0.2

00/2036
MAR 06 105522.0s 38.65S 175.43E 214km M=4.1
0.8 0.05 0.04 6
Rsd 0.4s 20ph/16stn Dmin 27km Az.gap 140°
Corr. -0.356 21M/20stn Msd 0.3 7↑ 2↓

00/2037
MAR 06 110046.6s 37.35S 176.79E 200km M=3.6
1.2 0.10 0.06 10
Rsd 0.3s 10ph/9stn Dmin 105km Az.gap 249°
Corr. -0.587 12M/12stn Msd 0.3

00/2048
MAR 06 221653.3s 38.43S 175.91E 163km M=3.8
0.9 0.05 0.03 6
Rsd 0.2s 11ph/9stn Dmin 64km Az.gap 214°
Corr. -0.324 14M/14stn Msd 0.3 1↓

00/2051
MAR 07 031234.4s 45.03S 166.88E 19km M=3.6
0.1 0.01 0.01 1
Rsd 0.0s 6ph/3stn Dmin 53km Az.gap 314°
Corr. 0.012 5M/5stn Msd 1.6 1↓

00/2067
MAR 07 132453.4s 36.73S 179.63E 12km M=3.6
2.6 1.14 0.95 R
Rsd 0.6s 8ph/6stn Dmin 152km Az.gap 356°
Corr. -0.978 6M/6stn Msd 0.3

00/2100
MAR 08 174559.6s 37.72S 176.43E 295km M=3.9
0.5 0.09 0.06 5
Rsd 0.1s 13ph/12stn Dmin 85km Az.gap 272°
Corr. -0.819 17M/17stn Msd 0.2 3↑ 1↓

00/2109
MAR 08 230812.1s 40.02S 174.12E 145km M=4.0
0.3 0.01 0.01 4
Rsd 0.2s 34ph/30stn Dmin 76km Az.gap 109°
Corr. -0.076 23M/20stn Msd 0.4 8↑ 5↓

00/2120
MAR 09 111748.6s 37.34S 177.44E 265km M=3.8
0.3 0.02 0.02 2
Rsd 0.1s 12ph/11stn Dmin 106km Az.gap 330°
Corr. -0.341 13M/13stn Msd 0.2 1↓

00/2126
MAR 09 132523.8s 40.03S 175.16E 12km M=3.6
0.1 0.01 0.01 R
Rsd 0.4s 40ph/33stn Dmin 78km Az.gap 83°
Corr. -0.028 37M/33stn Msd 0.3 5↑ 2↓
Felt Wanganui (57).

00/2130
MAR 09 144721.7s 40.03S 175.16E 12km M=3.6
0.1 0.01 0.01 R
Rsd 0.5s 36ph/31stn Dmin 79km Az.gap 82°
Corr. -0.096 37M/34stn Msd 0.3 6↑ 1↓
Felt Wanganui (57) and Marton (61), MM4.

00/2131
MAR 09 145756.6s 34.79S 178.64E 137km M=3.9
0.4 0.10 0.09 26
Rsd 0.0s 8ph/5stn Dmin 313km Az.gap 338°
Corr. -0.973 6M/6stn Msd 0.2

00/2137
MAR 09 153311.9s 38.63S 176.02E 5km M=2.9
0.1 0.01 0.01 R
Rsd 0.3s 20ph/16stn Dmin 7km Az.gap 100°
Corr. -0.631 10M/10stn Msd 0.4
Felt Waihora Rd (40) and Taupo (41).

00/2139
MAR 09 154222.2s 37.99S 176.51E 149km M=3.7
0.6 0.03 0.04 5
Rsd 0.2s 14ph/13stn Dmin 60km Az.gap 259°
Corr. -0.130 16M/16stn Msd 0.3 3↑ 1↓

00/2150
MAR 09 225145.4s 38.19S 178.81E 12km M=4.7
0.7 0.02 0.05 R
Rsd 0.3s 22ph/20stn Dmin 80km Az.gap 252°
Corr. -0.545 18M/11stn Msd 0.2 1↓

00/2158
MAR 10 064316.8s 39.21S 174.48E 12km M=3.6
0.1 0.01 0.00 R
Rsd 0.2s 34ph/25stn Dmin 12km Az.gap 108°
Corr. -0.309 38M/32stn Msd 0.3 1↑

00/2160
MAR 10 064723.7s 39.18S 174.50E 7km M=3.0
0.1 0.01 0.00 2
Rsd 0.2s 27ph/19stn Dmin 15km Az.gap 113°
Corr. -0.291 21M/21stn Msd 0.3 1↑
Felt Makahu (48).

00/2165
MAR 10 074936.8s 44.87S 167.62E 75km M=3.7
0.2 0.01 0.01 1
Rsd 0.1s 17ph/10stn Dmin 33km Az.gap 197°
Corr. -0.375 16M/10stn Msd 0.3 1↑ 2↓

00/2166
MAR 10 080206.7s 41.26S 172.74E 172km M=3.6
0.4 0.02 0.01 3
Rsd 0.2s 25ph/19stn Dmin 52km Az.gap 104°
Corr. -0.288 16M/15stn Msd 0.2 1↑

00/2170
MAR 10 091126.4s 39.15S 175.04E 151km M=3.8
0.4 0.02 0.02 4
Rsd 0.3s 32ph/26stn Dmin 33km Az.gap 82°
Corr. -0.038 22M/19stn Msd 0.3 5↑ 5↓

00/2188
MAR 10 140241.8s 39.20S 174.50E 9km M=4.5
0.1 0.01 0.01 2
Rsd 0.2s 42ph/33stn Dmin 13km Az.gap 98°
Corr. -0.278 23M/13stn Msd 0.3 13↑ 3↓
Felt Uruti (38) and Makahu (48).

00/2205
MAR 10 200040.6s 39.33S 175.77E 76km M=3.7
0.3 0.02 0.02 3
Rsd 0.4s 41ph/32stn Dmin 12km Az.gap 84°
Corr. -0.257 18M/16stn Msd 0.2 1↑ 2↓

00/2214
MAR 11 035654.6s 39.27S 174.83E 23km M=3.7
0.0 0.00 0.00 1
Rsd 0.1s 36ph/31stn Dmin 38km Az.gap 83°
Corr. -0.223 39M/34stn Msd 0.3 8↑ 6↓

00/2219
MAR 11 065257.2s 38.38S 175.94E 137km M=3.7
0.4 0.02 0.02 4
Rsd 0.2s 28ph/24stn Dmin 28km Az.gap 162°
Corr. -0.570 15M/14stn Msd 0.2 7↑ 3↓

00/2240
MAR 11 232502.6s 40.49S 174.96E 46km M=3.6
0.1 0.00 0.01 3
Rsd 0.2s 40ph/31stn Dmin 42km Az.gap 71°
Corr. -0.118 19M/16stn Msd 0.2 5↑ 3↓

00/2252
MAR 12 071213.5s 38.06S 176.81E 79km M=3.5
0.2 0.02 0.01 2
Rsd 0.2s 15ph/12stn Dmin 35km Az.gap 175°
Corr. -0.555 7M/5stn Msd 0.1 1↑

00/2255
MAR 12 082344.5s 38.01S 176.37E 163km M=3.7
0.3 0.02 0.02 2
Rsd 0.1s 9ph/8stn Dmin 71km Az.gap 228°
Corr. -0.845 11M/11stn Msd 0.3 1↑

00/2263
MAR 12 133131.4s 38.54S 176.72E 52km M=3.9
0.3 0.01 0.01 4
Rsd 0.3s 31ph/23stn Dmin 38km Az.gap 87°
Corr. -0.084 17M/14stn Msd 0.2 1↓

00/2266
MAR 12 172736.0s 37.86S 176.90E 153km M=3.7
0.2 0.03 0.02 2
Rsd 0.1s 10ph/9stn Dmin 48km Az.gap 210°
Corr. -0.847 7M/7stn Msd 0.3 1↑

00/2286
MAR 13 071905.6s 38.11S 175.93E 174km M=3.8
0.4 0.03 0.02 3
Rsd 0.2s 15ph/12stn Dmin 98km Az.gap 212°
Corr. -0.682 14M/14stn Msd 0.3

00/2290
MAR 13 105235.2s 38.66S 175.75E 162km M=3.7
0.4 0.02 0.04 3
Rsd 0.1s 11ph/8stn Dmin 35km Az.gap 310°
Corr. 0.539 2M/2stn Msd 0.1 1↑

00/2318
MAR 14 195911.3s 36.58S 179.28E 234km M=3.9
0.4 0.10 0.21 11
Rsd 0.1s 10ph/9stn Dmin 143km Az.gap 347°
Corr. -0.948 12M/12stn Msd 0.3

00/2321
MAR 14 235236.2s 38.58S 175.71E 174km M=3.7
0.3 0.01 0.01 3
Rsd 0.1s 14ph/12stn Dmin 80km Az.gap 189°
Corr. 0.117 12M/12stn Msd 0.3 1↑
Poor station coverage.

00/2325
MAR 15 042437.2s 44.50S 168.30E 5km M=4.0
0.3 0.02 0.01 R
Rsd 0.2s 18ph/12stn Dmin 35km Az.gap 166°
Corr. -0.167 13M/7stn Msd 0.2 1↑
Felt Glenorchy (121) MM4.

00/2343
MAR 15 144611.2s 38.57S 175.81E 138km M=4.0
0.4 0.02 0.02 4
Rsd 0.3s 17ph/12stn Dmin 34km Az.gap 160°
Corr. 0.078 19M/17stn Msd 0.3 2↑ 2↓

00/2349
MAR 15 185424.9s 36.49S 175.17E 12km M=4.1
0.4 0.02 0.01 R
Rsd 0.3s 15ph/8stn Dmin 40km Az.gap 252°
Corr. -0.206 23M/17stn Msd 0.3 1↑
Felt Auckland (16).

00/2351
MAR 15 225930.2s 38.15S 176.59E 138km M=4.9
0.2 0.01 0.01 2
Rsd 0.1s 42ph/34stn Dmin 12km Az.gap 49°
Corr. 0.024 8M/4stn Msd 0.2 13↑ 7↓
Felt Ruatuna Rd (35) MM4.

00/2353
MAR 16 000834.0s 38.14S 176.40E 146km M=3.7
0.1 0.01 0.01 1
Rsd 0.1s 11ph/8stn Dmin 64km Az.gap 210°
Corr. -0.814 10M/10stn Msd 0.3 1↑

00/2369
MAR 16 132138.1s 38.30S 175.94E 170km M=4.2
0.5 0.02 0.02 4
Rsd 0.2s 20ph/17stn Dmin 26km Az.gap 152°
Corr. -0.251 25M/20stn Msd 0.2 8↑ 5↓

00/2404
MAR 17 114213.8s 38.30S 176.00E 158km M=4.0
0.5 0.03 0.02 4
Rsd 0.3s 21ph/17stn Dmin 51km Az.gap 173°
Corr. -0.318 19M/17stn Msd 0.3 7↑ 1↓

00/2413
MAR 17 142159.5s 39.19S 174.50E 5km M=3.8
0.1 0.01 0.00 R
Rsd 0.2s 38ph/32stn Dmin 14km Az.gap 99°
Corr. -0.401 11M/7stn Msd 0.3 9↑ 1↓
Felt Stratford, Te Popo (47) and Makahu (48).

00/2446
MAR 18 094631.0s 38.57S 175.24E 271km M=3.5
1.1 0.02 0.09 7
Rsd 0.1s 8ph/8stn Dmin 256km Az.gap 322°
Corr. -0.354 5M/5stn Msd 0.2
Very poor station coverage.

00/2467
MAR 19 090346.0s 37.95S 176.82E 155km M=3.6
0.3 0.07 0.05 3
Rsd 0.2s 12ph/10stn Dmin 43km Az.gap 206°
Corr. -0.924 10M/10stn Msd 0.4 1↑

00/2468
MAR 19 091929.4s 45.12S 167.34E 91km M=3.6
0.2 0.01 0.01 2
Rsd 0.1s 14ph/8stn Dmin 42km Az.gap 202°
Corr. -0.122 12M/8stn Msd 0.3 2↑ 4↓

00/2473
MAR 19 113044.9s 36.59S 176.95E 12km M=3.6
0.4 0.02 0.02 R
Rsd 0.1s 7ph/6stn Dmin 164km Az.gap 291°
Corr. -0.303 6M/6stn Msd 0.3

00/2476
MAR 19 123035.1s 40.28S 174.96E 25km M=3.8
0.3 0.01 0.01 4
Rsd 0.4s 39ph/30stn Dmin 65km Az.gap 67°
Corr. -0.266 39M/34stn Msd 0.4 1↑ 4↓

00/2479
MAR 19 170213.4s 40.33S 176.25E 55km M=4.0
0.2 0.01 0.02 3
Rsd 0.2s 39ph/34stn Dmin 39km Az.gap 145°
Corr. -0.553 23M/19stn Msd 0.2 5↑ 4↓
Felt Marton (61) MM4.

00/2486
MAR 20 001213.6s 35.78S 178.12E 189km M=4.1
0.1 0.01 0.01 2
Rsd 0.0s 12ph/10stn Dmin 202km Az.gap 325°
Corr. -0.542 13M/12stn Msd 0.2

00/2490
MAR 20 031253.7s 38.27S 175.90E 201km M=3.5
0.6 0.05 0.04 6
Rsd 0.2s 11ph/8stn Dmin 87km Az.gap 225°
Corr. 0.294 9M/9stn Msd 0.2

00/2528
MAR 21 114703.2s 37.86S 176.09E 212km M=4.4
0.3 0.01 0.01 3
Rsd 0.2s 34ph/30stn Dmin 99km Az.gap 97°
Corr. 0.351 27M/22stn Msd 0.3 2↑ 1↓

00/2544
MAR 22 005914.4s 37.29S 179.51E 12km M=5.0
0.4 0.03 0.03 R
Rsd 0.2s 24ph/21stn Dmin 140km Az.gap 297°
Corr. -0.226 24M/13stn Msd 0.2

00/2545
MAR 22 011100.5s 37.28S 179.44E 12km M=3.7
0.5 0.02 0.04 R
Rsd 0.2s 7ph/4stn Dmin 107km Az.gap 310°
Corr. -0.420 6M/4stn Msd 0.2

00/2548
MAR 22 012624.1s 37.31S 179.46E 12km M=3.9
0.6 0.04 0.04 R
Rsd 0.2s 5ph/3stn Dmin 107km Az.gap 339°
Corr. -0.279 7M/3stn Msd 0.1

00/2554
MAR 22 054309.6s 39.20S 174.48E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.3s 36ph/29stn Dmin 12km Az.gap 110°
Corr. -0.300 36M/31stn Msd 0.3 1↑

00/2555
MAR 22 065442.7s 38.70S 176.10E 89km M=4.0
0.3 0.01 0.01 3
Rsd 0.2s 29ph/25stn Dmin 21km Az.gap 88°
Corr. -0.504 19M/18stn Msd 0.3 6↑ 2↓

00/2561
MAR 22 122804.6s 41.26S 172.81E 158km M=3.7
0.4 0.02 0.02 3
Rsd 0.3s 23ph/17stn Dmin 54km Az.gap 97°
Corr. -0.461 16M/15stn Msd 0.2 7↑ 3↓

00/2569
MAR 22 195553.6s 36.51S 177.79E 202km M=4.7
1.4 0.05 0.04 12
Rsd 0.3s 26ph/24stn Dmin 129km Az.gap 258°
Corr. 0.755 9M/5stn Msd 0.2 3↑ 9↓

00/2570
MAR 22 210805.2s 36.61S 178.12E 110km M=3.6
0.3 0.03 0.03 7
Rsd 0.1s 5ph/3stn Dmin 110km Az.gap 326°
Corr. -0.736 3M/3stn Msd 0.3 1↓

00/2587
MAR 23 115310.4s 38.48S 175.42E 230km M=4.1
0.8 0.06 0.05 6
Rsd 0.4s 17ph/12stn Dmin 54km Az.gap 163°
Corr. -0.181 22M/20stn Msd 0.3 1↑

00/2599
MAR 23 212810.1s 38.57S 175.86E 142km M=3.6
0.3 0.02 0.02 3
Rsd 0.1s 15ph/11stn Dmin 34km Az.gap 216°
Corr. -0.728 14M/13stn Msd 0.2 1↑

00/2608
MAR 24 052705.7s 38.35S 176.09E 147km M=3.5
1.0 0.05 0.04 8
Rsd 0.3s 8ph/6stn Dmin 90km Az.gap 226°
Corr. -0.419 10M/10stn Msd 0.3

00/2617
MAR 24 132822.0s 39.04S 174.90E 243km M=4.0
0.8 0.03 0.03 7
Rsd 0.2s 25ph/21stn Dmin 43km Az.gap 102°
Corr. 0.069 19M/17stn Msd 0.2 1↑

00/2619
MAR 24 141234.0s 38.95S 175.23E 247km M=3.6
1.6 0.06 0.13 14
Rsd 0.3s 14ph/11stn Dmin 18km Az.gap 223°
Corr. -0.052 12M/12stn Msd 0.3

00/2643
MAR 25 171132.8s 39.23S 175.00E 165km M=3.7
0.4 0.02 0.03 3
Rsd 0.2s 24ph/22stn Dmin 40km Az.gap 185°
Corr. 0.063 16M/16stn Msd 0.3 1↑ 1↓

00/2661
MAR 26 104739.8s 37.39S 177.47E 128km M=4.1
0.6 0.03 0.03 6
Rsd 0.4s 19ph/17stn Dmin 77km Az.gap 174°
Corr. 0.356 18M/14stn Msd 0.4 1↑

00/2674
MAR 26 192647.2s 38.02S 176.68E 134km M=3.7
0.4 0.03 0.02 3
Rsd 0.2s 16ph/13stn Dmin 46km Az.gap 259°
Corr. -0.538 15M/14stn Msd 0.2 2↑ 2↓

00/2683
MAR 27 054001.8s 40.31S 176.65E 49km M=3.8
0.3 0.01 0.03 5
Rsd 0.2s 28ph/23stn Dmin 54km Az.gap 194°
Corr. -0.482 20M/18stn Msd 0.2 1↑ 3↓

00/2686
MAR 27 104049.5s 38.12S 177.66E 49km M=3.9
0.2 0.01 0.01 3
Rsd 0.2s 24ph/20stn Dmin 51km Az.gap 95°
Corr. -0.001 19M/15stn Msd 0.3 1↑ 4↓

00/2691
MAR 27 115709.0s 45.58S 166.49E 19km M=4.4
0.2 0.01 0.01 1
Rsd 0.1s 10ph/5stn Dmin 54km Az.gap 268°
Corr. -0.235 9M/5stn Msd 0.1 1↑ 3↓

00/2698
MAR 27 155726.9s 39.32S 174.98E 30km M=3.6
0.0 0.01 0.00 1
Rsd 0.1s 34ph/29stn Dmin 47km Az.gap 71°
Corr. -0.167 33M/30stn Msd 0.2 2↑ 1↓

00/2699
MAR 27 162039.8s 37.99S 176.32E 174km M=3.6
0.6 0.06 0.05 5
Rsd 0.3s 9ph/8stn Dmin 76km Az.gap 226°
Corr. -0.772 14M/14stn Msd 0.3

00/2706
MAR 27 215811.9s 39.10S 174.95E 161km M=4.1
0.3 0.02 0.02 2
Rsd 0.2s 29ph/24stn Dmin 39km Az.gap 128°
Corr. 0.180 22M/19stn Msd 0.3 3↑ 1↓

00/2709
MAR 28 020848.9s 42.11S 174.18E 20km M=3.7
0.2 0.01 0.01 2
Rsd 0.2s 24ph/17stn Dmin 40km Az.gap 162°
Corr. -0.528 20M/16stn Msd 0.3 2↑ 5↓

00/2719
MAR 28 083030.6s 37.14S 177.50E 117km M=4.2
0.4 0.03 0.02 4
Rsd 0.2s 26ph/22stn Dmin 51km Az.gap 201°
Corr. 0.300 22M/18stn Msd 0.3 1↑ 2↓

00/2728
MAR 28 134124.4s 38.27S 177.81E 45km M=3.6
0.3 0.01 0.01 5
Rsd 0.3s 15ph/12stn Dmin 44km Az.gap 104°
Corr. -0.117 14M/10stn Msd 0.3 1↓

00/2732
MAR 28 143819.6s 41.20S 173.35E 105km M=3.5
0.3 0.02 0.01 3
Rsd 0.3s 26ph/19stn Dmin 50km Az.gap 74°
Corr. -0.073 12M/12stn Msd 0.2 4↑ 5↓

00/2741
MAR 28 163411.0s 45.10S 167.43E 74km M=4.4
0.3 0.01 0.02 2
Rsd 0.2s 16ph/9stn Dmin 47km Az.gap 192°
Corr. -0.231 16M/8stn Msd 0.3 2↑ 5↓

00/2742
MAR 28 163910.5s 41.72S 174.24E 12km M=3.6
0.2 0.01 0.01 R
Rsd 0.3s 23ph/17stn Dmin 4km Az.gap 138°
Corr. -0.092 8M/4stn Msd 0.3 2↑ 2↓

00/2760
MAR 28 214157.3s 39.19S 174.70E 183km M=3.6
0.7 0.02 0.04 6
Rsd 0.3s 18ph/16stn Dmin 73km Az.gap 142°
Corr. -0.109 13M/13stn Msd 0.2 1↑

00/2783
MAR 29 142713.7s 41.02S 175.45E 29km M=4.3
0.1 0.01 0.01 1
Rsd 0.1s 32ph/27stn Dmin 17km Az.gap 103°
Corr. -0.466 12M/7stn Msd 0.2 4↑ 4↓
Felt from Foxton (61) to Greytown (69).

00/2784
MAR 29 143058.9s 41.06S 175.44E 31km M=5.4
0.1 0.01 0.01 1
Rsd 0.2s 47ph/39stn Dmin 13km Az.gap 96°
Corr. -0.615 32M/17stn Msd 0.3 7↑ 6↓
Felt from northern Taranaki (38) to Christchurch (110), maximum intensity MM6 in the Wairarapa.

00/2785
MAR 29 143253.7s 40.99S 175.42E 29km M=3.8
0.2 0.02 0.01 3
Rsd 0.3s 13ph/10stn Dmin 20km Az.gap 137°
Corr. -0.506 7M/4stn Msd 0.2 1↓

00/2810
MAR 29 151345.5s 46.83S 166.18E 33km M=3.7
0.7 0.03 0.05 R
Rsd 0.4s 14ph/9stn Dmin 149km Az.gap 294°
Corr. 0.332 10M/8stn Msd 0.3

00/2872
MAR 29 210042.4s 41.41S 172.33E 5km M=3.7
0.1 0.01 0.01 R
Rsd 0.3s 12ph/9stn Dmin 58km Az.gap 146°
Corr. -0.518 28M/25stn Msd 0.3 1↑ 1↓

00/2946
MAR 30 093356.0s 41.01S 175.45E 30km M=3.4
0.1 0.01 0.01 1
Rsd 0.2s 19ph/15stn Dmin 17km Az.gap 137°
Corr. -0.370 17M/14stn Msd 0.3 3↑ 3↓
Felt Greytown (69).

00/2966
MAR 30 152732.1s 37.03S 177.36E 132km M=5.1
0.5 0.03 0.02 4
Rsd 0.2s 27ph/22stn Dmin 57km Az.gap 205°
Corr. 0.255 10M/5stn Msd 0.2 6↑ 7↓

00/3038
MAR 31 163401.9s 37.27S 177.31E 152km M=4.3
0.3 0.02 0.01 3
Rsd 0.1s 30ph/27stn Dmin 30km Az.gap 181°
Corr. 0.502 26M/20stn Msd 0.2 3↑ 3↓

00/3041
MAR 31 175606.2s 41.26S 174.28E 43km M=5.4
0.1 0.01 0.01 2
Rsd 0.2s 45ph/34stn Dmin 5km Az.gap 76°
Corr. -0.267 10M/5stn Msd 0.2 6↑ 6↓
Felt from New Plymouth to Marlborough, maximum intensity MM5.

00/3077
MAR 31 212710.1s 41.26S 174.29E 43km M=3.8
0.1 0.01 0.01 2
Rsd 0.2s 29ph/24stn Dmin 5km Az.gap 78°
Corr. -0.207 10M/7stn Msd 0.2 5↑ 2↓

00/3085
APR 01 005513.9s 41.22S 174.27E 44km M=4.2
0.1 0.01 0.01 1
Rsd 0.2s 40ph/31stn Dmin 1km Az.gap 73°
Corr. 0.311 12M/7stn Msd 0.1 9↑ 5↓
Felt Stokes Valley (68) and Fighting Bay (78).

00/3100
APR 01 063407.6s 38.61S 175.98E 5km M=2.5
0.2 0.01 0.01 R
Rsd 0.2s 11ph/9stn Dmin 6km Az.gap 190°
Corr. 0.330 8M/8stn Msd 0.4 1↑ 1↓
Felt Taupo (41).

00/3107
APR 01 104405.8s 36.83S 177.62E 158km M=3.8
0.6 0.03 0.02 6
Rsd 0.2s 16ph/14stn Dmin 104km Az.gap 232°
Corr. 0.599 14M/14stn Msd 0.3 1↓

00/3110
APR 01 130921.2s 41.23S 174.25E 44km M=4.1
0.1 0.01 0.01 1
Rsd 0.2s 29ph/23stn Dmin 3km Az.gap 72°
Corr. -0.162 8M/5stn Msd 0.1 5↑ 5↓
Felt from Raumati (65) to Rarangi (77).

00/3113
APR 01 140123.5s 41.26S 174.30E 43km M=3.7
0.1 0.01 0.01 2
Rsd 0.2s 28ph/23stn Dmin 6km Az.gap 78°
Corr. -0.309 12M/9stn Msd 0.2 6↑ 4↓

00/3142
APR 01 233935.8s 36.13S 178.11E 257km M=4.0
1.2 0.06 0.06 9
Rsd 0.4s 8ph/6stn Dmin 164km Az.gap 282°
Corr. 0.241 6M/6stn Msd 0.3

00/3145
APR 02 020433.4s 41.26S 174.29E 42km M=3.4
0.1 0.01 0.01 2
Rsd 0.2s 27ph/20stn Dmin 5km Az.gap 78°
Corr. -0.282 13M/10stn Msd 0.3 2↑ 2↓
Felt Whitby (68).

00/3148
APR 02 032132.0s 36.58S 177.41E 172km M=3.8
0.3 0.04 0.03 5
Rsd 0.1s 5ph/3stn Dmin 138km Az.gap 317°
Corr. -0.677 3M/3stn Msd 0.5

00/3158
APR 02 070738.6s 41.22S 174.25E 42km M=3.6
0.1 0.01 0.01 1
Rsd 0.2s 28ph/24stn Dmin 2km Az.gap 71°
Corr. -0.177 12M/9stn Msd 0.3 7↑ 4↓
Felt Rarangi (77) MM4.

00/3220
APR 03 091038.4s 44.08S 168.41E 5km M=3.9
0.3 0.02 0.02 R
Rsd 0.2s 17ph/9stn Dmin 76km Az.gap 191°
Corr. -0.857 12M/6stn Msd 0.2 1↑

00/3227
APR 03 094323.7s 44.10S 168.44E 5km M=4.2
0.2 0.02 0.02 R
Rsd 0.2s 15ph/9stn Dmin 76km Az.gap 191°
Corr. -0.799 13M/7stn Msd 0.1 1↑

00/3245
APR 03 124514.2s 44.12S 168.47E 5km M=3.7
0.3 0.02 0.02 R
Rsd 0.3s 17ph/10stn Dmin 75km Az.gap 190°
Corr. -0.669 11M/6stn Msd 0.1 1↑

00/3253
APR 03 194608.8s 40.84S 174.76E 45km M=3.8
0.1 0.01 0.01 1
Rsd 0.2s 31ph/22stn Dmin 13km Az.gap 88°
Corr. -0.122 11M/8stn Msd 0.2 4↑ 4↓

00/3261
APR 04 033111.2s 38.50S 175.95E 172km M=3.6
0.8 0.03 0.05 7
Rsd 0.4s 17ph/13stn Dmin 78km Az.gap 116°
Corr. -0.249 10M/10stn Msd 0.4 3↑ 1↓

00/3266
APR 04 073321.7s 41.02S 175.45E 27km M=4.2
0.1 0.01 0.01 1
Rsd 0.2s 35ph/28stn Dmin 16km Az.gap 103°
Corr. -0.588 12M/7stn Msd 0.1 1↑ 1↓
Felt Levin (65) to Wellington (68) and in the Wairarapa (69).

00/3284
APR 04 141808.9s 35.49S 179.31E 189km M=4.9
0.8 0.08 0.06 16
Rsd 0.3s 20ph/18stn Dmin 251km Az.gap 312°
Corr. 0.238 26M/20stn Msd 0.3

00/3288
APR 04 170946.1s 46.81S 165.64E 33km M=3.8
0.8 0.04 0.05 R
Rsd 0.3s 13ph/8stn Dmin 190km Az.gap 305°
Corr. 0.241 10M/8stn Msd 0.2

00/3289
APR 04 172511.6s 46.77S 165.85E 12km M=3.5
1.2 0.06 0.08 R
Rsd 0.5s 10ph/7stn Dmin 175km Az.gap 300°
Corr. 0.468 6M/6stn Msd 0.2 1↑

00/3320
APR 05 105811.9s 38.44S 175.98E 147km M=3.6
0.4 0.02 0.02 3
Rsd 0.2s 11ph/7stn Dmin 85km Az.gap 222°
Corr. -0.455 10M/9stn Msd 0.4 1↑

00/3321
APR 05 111436.8s 37.33S 177.77E 33km M=4.1
0.3 0.02 0.01 R
Rsd 0.2s 23ph/16stn Dmin 55km Az.gap 194°
Corr. 0.434 9M/5stn Msd 0.2 1↓

00/3327
APR 05 144356.3s 40.19S 174.90E 33km M=3.6
0.1 0.01 0.01 R
Rsd 0.3s 37ph/31stn Dmin 75km Az.gap 69°
Corr. 0.008 37M/33stn Msd 0.3 3↑ 3↓
Felt Kelburn (68).

00/3335
APR 05 213214.4s 45.02S 167.07E 5km M=3.5
0.3 0.01 0.02 R
Rsd 0.2s 11ph/6stn Dmin 50km Az.gap 249°
Corr. -0.666 9M/5stn Msd 0.2 1↑ 1↓

00/3344
APR 06 015143.6s 37.09S 177.41E 164km M=4.0
0.4 0.03 0.02 3
Rsd 0.2s 10ph/7stn Dmin 97km Az.gap 251°
Corr. -0.124 18M/17stn Msd 0.2

00/3349
APR 06 025654.0s 38.74S 177.39E 40km M=3.6
0.2 0.01 0.01 3
Rsd 0.2s 22ph/17stn Dmin 32km Az.gap 96°
Corr. -0.282 16M/13stn Msd 0.3 2↑ 1↓

00/3355
APR 06 065839.5s 39.58S 174.43E 202km M=3.9
0.4 0.01 0.02 3
Rsd 0.2s 31ph/26stn Dmin 32km Az.gap 109°
Corr. -0.228 18M/18stn Msd 0.2 1↑

00/3359
APR 06 082731.1s 44.56S 170.23E 12km M=4.5
0.1 0.01 0.01 R
Rsd 0.1s 17ph/12stn Dmin 28km Az.gap 84°
Corr. 0.298 15M/8stn Msd 0.3 1↑

00/3363
APR 06 120042.2s 38.28S 178.30E 12km M=4.1
0.3 0.02 0.02 R
Rsd 0.3s 19ph/16stn Dmin 24km Az.gap 214°
Corr. -0.642 40M/35stn Msd 0.3 1↑ 1↓

00/3369
APR 06 143949.5s 41.78S 174.41E 48km M=4.5
0.1 0.01 0.01 2
Rsd 0.2s 36ph/23stn Dmin 16km Az.gap 150°
Corr. -0.433 8M/4stn Msd 0.3 5↑ 9↓

00/3379
APR 06 223707.8s 38.92S 175.84E 224km M=3.7
0.6 0.04 0.07 6
Rsd 0.2s 11ph/9stn Dmin 35km Az.gap 185°
Corr. -0.857 12M/12stn Msd 0.3 1↑

00/3380
APR 06 233214.8s 37.37S 177.28E 176km M=3.5
1.3 0.10 0.10 10
Rsd 0.6s 9ph/6stn Dmin 94km Az.gap 258°
Corr. -0.573 4M/4stn Msd 0.1 1↑

00/3386
APR 07 012529.1s 38.01S 175.57E 169km M=3.8
0.7 0.05 0.08 11
Rsd 0.4s 19ph/14stn Dmin 138km Az.gap 261°
Corr. -0.735 16M/16stn Msd 0.2

00/3427
APR 08 000104.1s 39.03S 175.15E 213km M=3.5
1.8 0.10 0.11 14
Rsd 0.4s 13ph/10stn Dmin 39km Az.gap 222°
Corr. -0.871 9M/9stn Msd 0.2

00/3445
APR 08 114527.5s 38.15S 176.05E 156km M=3.8
0.4 0.02 0.02 3
Rsd 0.2s 10ph/6stn Dmin 93km Az.gap 238°
Corr. -0.654 13M/13stn Msd 0.4 1↑

00/3459
APR 08 183152.3s 38.09S 176.01E 164km M=4.1
0.4 0.03 0.01 4
Rsd 0.2s 14ph/10stn Dmin 98km Az.gap 204°
Corr. -0.093 25M/21stn Msd 0.2

00/3467
APR 08 225227.4s 38.58S 175.79E 135km M=3.8
0.5 0.02 0.02 4
Rsd 0.2s 19ph/15stn Dmin 32km Az.gap 219°
Corr. -0.610 19M/17stn Msd 0.2 1↑

00/3469
APR 08 231905.2s 38.03S 176.60E 142km M=3.6
0.5 0.03 0.02 4
Rsd 0.2s 10ph/8stn Dmin 52km Az.gap 229°
Corr. 0.285 13M/13stn Msd 0.3 1↑

00/3470
APR 08 232218.7s 45.40S 166.63E 23km M=4.9
0.2 0.01 0.01 1
Rsd 0.1s 9ph/5stn Dmin 42km Az.gap 264°
Corr. 0.214 19M/10stn Msd 0.2 1↑ 3↓

00/3473
APR 09 000321.7s 38.53S 175.78E 155km M=4.1
0.2 0.01 0.01 2
Rsd 0.1s 26ph/20stn Dmin 21km Az.gap 155°
Corr. -0.157 24M/22stn Msd 0.2 4↑ 1↓

00/3474
APR 09 000840.7s 36.95S 177.19E 199km M=3.9
0.2 0.02 0.02 2
Rsd 0.1s 15ph/11stn Dmin 146km Az.gap 309°
Corr. -0.013 12M/12stn Msd 0.2

00/3477
APR 09 021540.9s 37.80S 177.26E 138km M=3.9
0.5 0.04 0.02 5
Rsd 0.3s 8ph/6stn Dmin 53km Az.gap 188°
Corr. -0.646 7M/6stn Msd 0.2 1↑ 2↓

00/3480
APR 09 040351.6s 38.38S 177.17E 42km M=4.1
0.2 0.01 0.01 2
Rsd 0.2s 29ph/26stn Dmin 14km Az.gap 71°
Corr. 0.295 23M/18stn Msd 0.3 3↑ 7↓

00/3481
APR 09 044441.1s 38.57S 178.04E 25km M=3.8
0.2 0.02 0.03 2
Rsd 0.3s 9ph/6stn Dmin 5km Az.gap 162°
Corr. -0.823 9M/5stn Msd 0.4 2↑ 1↓

00/3506
APR 09 225114.8s 37.07S 177.12E 185km M=3.6
0.5 0.07 0.04 5
Rsd 0.2s 6ph/4stn Dmin 132km Az.gap 318°
Corr. -0.043 3M/3stn Msd 0.2 1↑

00/3508
APR 10 004930.0s 36.83S 176.97E 228km M=3.8
0.8 0.07 0.07 8
Rsd 0.3s 9ph/6stn Dmin 159km Az.gap 297°
Corr. -0.315 11M/11stn Msd 0.2

00/3512
APR 10 024613.1s 37.65S 175.92E 257km M=4.2
0.5 0.07 0.05 5
Rsd 0.2s 16ph/14stn Dmin 124km Az.gap 230°
Corr. -0.700 20M/17stn Msd 0.2 1↓

00/3525
APR 10 093011.5s 38.38S 175.81E 155km M=3.6
0.9 0.04 0.02 7
Rsd 0.2s 15ph/13stn Dmin 54km Az.gap 236°
Corr. -0.614 14M/14stn Msd 0.2 1↑

00/3526
APR 10 110235.7s 40.09S 175.58E 48km M=2.8
0.2 0.01 0.02 8
Rsd 0.2s 22ph/18stn Dmin 63km Az.gap 123°
Corr. 0.224 8M/6stn Msd 0.2 1↑ 2↓
Felt Marton (61).

00/3528
APR 10 124251.6s 37.45S 177.56E 107km M=3.9
0.4 0.03 0.02 4
Rsd 0.2s 10ph/8stn Dmin 68km Az.gap 238°
Corr. -0.537 6M/6stn Msd 0.6 1↓

00/3534
APR 10 162608.3s 38.85S 175.39E 123km M=4.0
0.5 0.02 0.01 4
Rsd 0.3s 29ph/26stn Dmin 21km Az.gap 58°
Corr. 0.080 25M/21stn Msd 0.2 6↑ 4↓

00/3558
APR 11 035506.9s 38.96S 174.98E 210km M=4.2
0.6 0.04 0.03 5
Rsd 0.4s 40ph/33stn Dmin 37km Az.gap 90°
Corr. -0.144 9M/5stn Msd 0.2 8↑ 3↓

00/3584
APR 11 183713.6s 38.24S 176.12E 138km M=4.2
0.3 0.02 0.01 3
Rsd 0.2s 25ph/20stn Dmin 50km Az.gap 175°
Corr. -0.355 25M/20stn Msd 0.7 7↑ 4↓

00/3591
APR 12 005734.5s 38.62S 175.98E 5km M=2.9
0.4 0.02 0.01 R
Rsd 0.3s 9ph/6stn Dmin 6km Az.gap 185°
Corr. -0.065 3M/3stn Msd 0.3
Felt Wairakei (41).

00/3592
APR 12 015147.1s 37.07S 176.89E 240km M=4.7
0.5 0.04 0.03 4
Rsd 0.1s 19ph/15stn Dmin 110km Az.gap 171°
Corr. 0.339 12M/6stn Msd 0.2 3↑ 5↓

00/3594
APR 12 034345.5s 38.56S 175.79E 152km M=4.6
0.3 0.02 0.01 2
Rsd 0.2s 37ph/29stn Dmin 18km Az.gap 127°
Corr. -0.228 12M/6stn Msd 0.3 2↑ 1↓

00/3604
APR 12 075742.3s 45.18S 167.36E 84km M=3.9
0.2 0.01 0.01 2
Rsd 0.1s 16ph/10stn Dmin 36km Az.gap 192°
Corr. -0.147 11M/6stn Msd 0.3 2↑ 4↓

00/3608
APR 12 114129.6s 36.56S 178.28E 144km M=4.0
0.6 0.05 0.08 6
Rsd 0.2s 14ph/11stn Dmin 115km Az.gap 305°
Corr. -0.605 14M/10stn Msd 0.3

00/3613
APR 12 141001.1s 38.57S 178.00E 24km M=3.8
0.2 0.02 0.02 2
Rsd 0.3s 23ph/19stn Dmin 6km Az.gap 124°
Corr. -0.660 28M/24stn Msd 0.2 1↑ 3↓

00/3615
APR 12 142401.9s 38.58S 178.00E 25km M=3.5
0.2 0.02 0.03 3
Rsd 0.3s 21ph/17stn Dmin 5km Az.gap 121°
Corr. -0.796 24M/20stn Msd 0.3 3↑ 2↓

00/3620
APR 12 172755.2s 37.12S 176.59E 243km M=3.7
0.5 0.04 0.04 5
Rsd 0.2s 12ph/10stn Dmin 135km Az.gap 265°
Corr. -0.587 12M/12stn Msd 0.3 1↓

00/3635
APR 12 222955.4s 36.70S 177.30E 199km M=3.9
0.4 0.04 0.04 4
Rsd 0.2s 8ph/5stn Dmin 134km Az.gap 314°
Corr. -0.137 4M/4stn Msd 0.3

00/3638
APR 13 005051.2s 36.94S 176.88E 265km M=3.7
1.1 0.13 0.08 9
Rsd 0.4s 10ph/8stn Dmin 148km Az.gap 291°
Corr. -0.708 4M/4stn Msd 0.1 1↑

00/3640
APR 13 021609.5s 37.41S 176.31E 224km M=3.7
0.3 0.02 0.03 3
Rsd 0.1s 11ph/8stn Dmin 118km Az.gap 252°
Corr. -0.551 7M/7stn Msd 0.2

00/3641
APR 13 024959.8s 38.60S 178.03E 28km M=4.5
0.2 0.01 0.02 1
Rsd 0.2s 33ph/28stn Dmin 2km Az.gap 137°
Corr. -0.766 11M/7stn Msd 0.2 4↑ 2↓
Felt Gisborne (45) MM4.

00/3654
APR 13 095917.8s 38.52S 175.05E 237km M=3.5
0.5 0.05 0.06 5
Rsd 0.2s 11ph/9stn Dmin 182km Az.gap 234°
Corr. -0.928 6M/6stn Msd 0.2

00/3679
APR 14 005156.9s 37.48S 176.88E 242km M=3.7
0.7 0.05 0.09 7
Rsd 0.2s 12ph/11stn Dmin 170km Az.gap 334°
Corr. 0.346 5M/5stn Msd 0.3 1↑ 3↓

00/3685
APR 14 030939.5s 45.52S 167.00E 57km M=3.9
0.3 0.01 0.02 2
Rsd 0.2s 13ph/8stn Dmin 13km Az.gap 248°
Corr. -0.090 10M/5stn Msd 0.2 1↑ 3↓

00/3690
APR 14 044200.1s 41.07S 174.37E 66km M=3.6
0.1 0.01 0.01 2
Rsd 0.2s 41ph/31stn Dmin 18km Az.gap 57°
Corr. -0.121 13M/12stn Msd 0.2 10↑ 2↓

00/3708
APR 14 170633.1s 38.52S 175.84E 166km M=4.5
0.2 0.02 0.01 2
Rsd 0.1s 34ph/29stn Dmin 20km Az.gap 86°
77 Corr. -0.174 10M/5stn Msd 0.3 19↑ 10↓

00/3737
APR 15 061806.5s 38.38S 175.68E 158km M=3.5
0.7 0.05 0.04 7
Rsd 0.2s 14ph/11stn Dmin 66km Az.gap 271°
Corr. 0.591 11M/10stn Msd 0.3 1↓

00/3747
APR 15 130531.7s 37.42S 176.67E 182km M=3.5
1.2 0.04 0.04 12
Rsd 0.4s 10ph/8stn Dmin 113km Az.gap 147°
Corr. 0.531 8M/8stn Msd 0.3

00/3839
APR 17 212042.2s 41.28S 174.14E 43km M=3.5
0.1 0.01 0.01 1
Rsd 0.2s 25ph/20stn Dmin 14km Az.gap 70°
Corr. -0.196 11M/10stn Msd 0.2 3↑ 4↓
Felt Picton (78).

00/3854
APR 18 041835.4s 36.48S 177.26E 12km M=4.1
1.3 0.11 0.05 R
Rsd 0.6s 7ph/4stn Dmin 141km Az.gap 247°
Corr. 0.716 8M/4stn Msd 0.2

00/3856
APR 18 092904.9s 38.20S 177.65E 57km M=3.6
0.2 0.01 0.01 3
Rsd 0.2s 18ph/14stn Dmin 56km Az.gap 116°
Corr. 0.192 9M/7stn Msd 0.2 1↑

00/3859
APR 18 114707.9s 41.48S 173.19E 82km M=3.8
0.3 0.02 0.01 4
Rsd 0.3s 28ph/21stn Dmin 54km Az.gap 68°
Corr. -0.301 11M/11stn Msd 0.3 4↑ 6↓

00/3869
APR 18 185228.7s 38.04S 176.87E 219km M=3.7
1.6 0.09 0.05 11
Rsd 0.2s 12ph/11stn Dmin 129km Az.gap 280°
Corr. 0.459 3M/3stn Msd 0.4 1↓

00/3882
APR 18 234605.3s 45.08S 166.17E 14km M=4.0
0.6 0.04 0.03 3
Rsd 0.3s 11ph/8stn Dmin 88km Az.gap 267°
Corr. 0.045 9M/5stn Msd 0.2 1↑

00/3885
APR 19 035022.7s 37.66S 179.46E 12km M=3.8
0.7 0.04 0.04 R
Rsd 0.3s 6ph/3stn Dmin 102km Az.gap 311°
Corr. 0.187 4M/2stn Msd 0.2

00/3886
APR 19 045207.0s 44.51S 168.80E 12km M=3.1
0.1 0.01 0.01 R
Rsd 0.3s 15ph/9stn Dmin 72km Az.gap 128°
Corr. -0.269 12M/11stn Msd 0.2 1↑
Felt Mt Aspiring Stn (113) MM 4.

00/3890
APR 19 054513.8s 40.70S 175.55E 31km M=3.6
0.2 0.01 0.01 3
Rsd 0.3s 22ph/19stn Dmin 51km Az.gap 105°
Corr. -0.614 29M/26stn Msd 0.2 6↑ 1↓

00/3892
APR 19 092510.9s 37.60S 177.23E 141km M=4.0
0.2 0.01 0.01 2
Rsd 0.1s 26ph/23stn Dmin 65km Az.gap 187°
Corr. 0.023 18M/16stn Msd 0.2 1↑

00/3899
APR 19 223859.8s 39.06S 175.51E 173km M=3.5
1.2 0.04 0.04 11
Rsd 0.2s 9ph/8stn Dmin 15km Az.gap 241°
Corr. -0.799 7M/7stn Msd 0.3

00/3936
APR 21 024330.8s 38.98S 178.00E 19km M=3.6
0.3 0.02 0.02 2
Rsd 0.2s 19ph/17stn Dmin 28km Az.gap 208°
Corr. -0.740 23M/22stn Msd 0.2 1↑

00/3947
APR 21 114733.6s 41.29S 174.14E 45km M=3.5
0.1 0.01 0.01 1
Rsd 0.2s 27ph/22stn Dmin 14km Az.gap 71°
Corr. -0.319 11M/10stn Msd 0.3 1↑

00/3952
APR 21 141529.2s 37.46S 176.87E 276km M=3.6
1.3 0.21 0.30 18
Rsd 0.6s 9ph/8stn Dmin 127km Az.gap 252°
Corr. -0.937 7M/7stn Msd 0.3
Poor station coverage.

00/3957
APR 21 145828.7s 45.13S 167.46E 110km M=4.5
0.4 0.02 0.02 3
Rsd 0.2s 17ph/10stn Dmin 45km Az.gap 183°
Corr. -0.015 15M/8stn Msd 0.2 1↑ 4↓

00/3970
APR 21 223706.9s 36.91S 177.41E 201km M=4.0
0.3 0.03 0.03 4
Rsd 0.1s 9ph/6stn Dmin 150km Az.gap 298°
Corr. -0.512 9M/9stn Msd 0.3

00/3975
APR 22 004213.2s 37.77S 176.56E 5km M=3.9
0.4 0.04 0.02 R
Rsd 0.3s 10ph/8stn Dmin 153km Az.gap 203°
Corr. -0.516 18M/18stn Msd 0.4

00/3979
APR 22 044511.5s 38.96S 175.72E 85km M=3.7
0.5 0.03 0.02 5
Rsd 0.3s 18ph/14stn Dmin 3km Az.gap 60°
Corr. 0.331 14M/14stn Msd 0.2 1↑

00/3987
APR 22 123142.1s 41.42S 171.90E 12km M=3.4
0.4 0.02 0.03 R
Rsd 0.3s 17ph/9stn Dmin 37km Az.gap 207°
Corr. -0.776 14M/11stn Msd 0.3 1↑
Felt Seddonville (79).

00/3992
APR 22 145251.9s 37.65S 176.23E 197km M=3.6
0.4 0.03 0.06 9
Rsd 0.1s 7ph/5stn Dmin 183km Az.gap 251°
Corr. -0.975 4M/4stn Msd 0.2 1↓
Poor station coverage.

00/4022
APR 23 120939.8s 36.96S 177.34E 217km M=3.9
0.6 0.04 0.05 7
Rsd 0.2s 9ph/7stn Dmin 111km Az.gap 276°
Corr. -0.615 9M/9stn Msd 0.2 1↑

00/4024
APR 23 132913.2s 41.44S 171.92E 12km M=3.7
0.2 0.01 0.02 R
Rsd 0.2s 17ph/12stn Dmin 35km Az.gap 177°
Corr. -0.753 22M/17stn Msd 0.3 1↑
Felt Seddonville (79).

00/4035
APR 24 004409.8s 37.43S 176.78E 33km M=3.7
0.5 0.04 0.03 R
Rsd 0.2s 10ph/9stn Dmin 136km Az.gap 249°
Corr. -0.456 8M/8stn Msd 0.4

00/4038
APR 24 013933.5s 37.99S 176.49E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.3s 28ph/22stn Dmin 9km Az.gap 101°
Corr. 0.244 21M/19stn Msd 0.3 2↑ 4↓
Felt Lake Rotoiti (33).

00/4079
APR 24 210939.4s 38.33S 174.44E 14km M=4.1
0.1 0.01 0.01 2
Rsd 0.2s 33ph/29stn Dmin 38km Az.gap 137°
Corr. -0.197 47M/41stn Msd 0.3 3↑ 1↓

00/4082
APR 24 221253.2s 37.66S 176.62E 190km M=3.7
1.3 0.12 0.14 22
Rsd 0.2s 10ph/9stn Dmin 176km Az.gap 300°
Corr. -0.693 7M/7stn Msd 0.3

00/4086
APR 25 004655.4s 38.33S 174.45E 12km M=3.6
0.1 0.01 0.01 R
Rsd 0.3s 28ph/24stn Dmin 37km Az.gap 159°
Corr. -0.194 24M/20stn Msd 0.4 1↑

00/4090
APR 25 031606.9s 36.77S 177.15E 189km M=4.8
1.0 0.03 0.03 9
Rsd 0.1s 16ph/15stn Dmin 127km Az.gap 195°
Corr. 0.477 25M/20stn Msd 0.2 1↓

00/4094
APR 25 042629.9s 45.48S 166.98E 65km M=5.4
0.5 0.02 0.03 4
Rsd 0.3s 15ph/9stn Dmin 13km Az.gap 237°
Corr. 0.138 18M/10stn Msd 0.3 2↑ 5↓
Felt from Te Anau (130) and Queenstown (132) to Stewart Is. (158), maximum intensity MM5 at Invercargill (149).

00/4105
APR 25 130547.9s 40.58S 173.43E 164km M=3.9
0.3 0.01 0.01 3
Rsd 0.2s 32ph/24stn Dmin 49km Az.gap 125°
Corr. 0.113 14M/14stn Msd 0.4 1↑

00/4108
APR 25 143034.6s 47.74S 165.38E 33km M=3.9
0.7 0.03 0.05 R
Rsd 0.2s 13ph/7stn Dmin 229km Az.gap 323°
Corr. -0.112 9M/8stn Msd 0.2

00/4116
APR 25 193244.8s 37.13S 177.63E 274km M=3.6
0.5 0.15 0.35 15
Rsd 0.1s 6ph/3stn Dmin 118km Az.gap 333°
Corr. -0.968 2M/2stn Msd 0.0

00/4119
APR 25 210327.5s 45.36S 167.01E 55km M=3.9
0.3 0.01 0.01 2
Rsd 0.1s 14ph/9stn Dmin 16km Az.gap 251°
Corr. -0.043 12M/6stn Msd 0.3 1↓

00/4138
APR 26 050332.5s 36.26S 178.52E 182km M=3.5
0.3 0.14 0.73 6
Rsd 0.1s 7ph/3stn Dmin 150km Az.gap 358°
Corr. -0.991 3M/3stn Msd 0.3 1↓

00/4140
APR 26 072652.6s 37.03S 177.51E 161km M=3.5
1.3 0.08 0.38 29
Rsd 0.3s 7ph/4stn Dmin 94km Az.gap 316°
Corr. -0.709 3M/3stn Msd 0.2 1↓

00/4141
APR 26 084729.5s 38.33S 176.08E 138km M=3.7
1.3 0.05 0.03 13
Rsd 0.4s 16ph/13stn Dmin 88km Az.gap 216°
Corr. -0.549 14M/14stn Msd 0.2 1↑

00/4147
APR 26 164417.4s 40.40S 173.34E 193km M=3.5
0.4 0.05 0.02 4
Rsd 0.2s 15ph/11stn Dmin 67km Az.gap 223°
Corr. 0.291 9M/9stn Msd 0.3 1↑

00/4148
APR 26 172131.1s 36.46S 177.99E 112km M=3.8
1.6 0.11 0.12 21
Rsd 0.3s 6ph/5stn Dmin 130km Az.gap 310°
Corr. -0.103 3M/2stn Msd 0.1

00/4158
APR 27 014040.1s 39.69S 173.96E 203km M=4.2
0.4 0.02 0.02 4
Rsd 0.2s 30ph/25stn Dmin 124km Az.gap 166°
Corr. -0.659 20M/19stn Msd 0.3 2↑ 3↓

00/4164
APR 27 055412.0s 40.59S 174.25E 90km M=3.6
0.3 0.01 0.01 4
Rsd 0.3s 28ph/23stn Dmin 36km Az.gap 90°
Corr. 0.196 14M/14stn Msd 0.3 7↑ 5↓

00/4167
APR 27 091445.9s 40.19S 173.98E 135km M=5.9
0.3 0.01 0.01 3
Rsd 0.2s 52ph/45stn Dmin 68km Az.gap 116°
Corr. -0.242 8M/4stn Msd 0.2 19↑ 17↓
Felt from Auckland (16) to Christchurch (110), maximum intensity MM5 in Wellington (68).

00/4173
APR 27 151813.7s 37.83S 177.93E 63km M=3.5
0.4 0.02 0.07 8
Rsd 0.2s 12ph/9stn Dmin 39km Az.gap 174°
Corr. -0.533 3M/3stn Msd 0.1 1↑

00/4176
APR 27 164141.9s 36.13S 178.45E 214km M=3.9
0.8 0.07 0.07 7
Rsd 0.2s 10ph/8stn Dmin 164km Az.gap 329°
Corr. -0.339 9M/9stn Msd 0.2

00/4183
APR 28 030725.3s 45.06S 167.56E 115km M=4.3
0.4 0.02 0.02 3
Rsd 0.3s 18ph/10stn Dmin 52km Az.gap 179°
Corr. -0.132 12M/6stn Msd 0.2 2↑ 4↓

00/4185
APR 28 033024.0s 44.14S 168.36E 5km M=3.9
0.3 0.02 0.02 R
Rsd 0.2s 14ph/8stn Dmin 69km Az.gap 191°
Corr. -0.772 12M/6stn Msd 0.1 3↑ 1↓

00/4187
APR 28 064147.3s 39.86S 177.01E 14km M=3.6
0.2 0.01 0.01 2
Rsd 0.2s 33ph/26stn Dmin 39km Az.gap 182°
Corr. -0.431 34M/29stn Msd 0.3 1↑ 2↓

00/4194
APR 28 095929.0s 35.46S 177.42E 226km M=3.9
0.5 0.06 0.16 16
Rsd 0.1s 10ph/7stn Dmin 250km Az.gap 323°
Corr. -0.945 8M/8stn Msd 0.2

00/4195
APR 28 111117.1s 40.29S 174.39E 95km M=4.0
0.3 0.01 0.01 4
Rsd 0.3s 33ph/30stn Dmin 69km Az.gap 90°
Corr. -0.284 22M/18stn Msd 0.3 5↑ 3↓

00/4196
APR 28 111902.2s 42.67S 173.21E 33km M=4.6
0.1 0.01 0.01 R
Rsd 0.1s 24ph/19stn Dmin 39km Az.gap 148°
Corr. -0.671 26M/14stn Msd 0.3 1↑ 7↓
Felt Hanmer Springs (88) to Banks Peninsula (111).

00/4205
APR 28 191623.7s 38.27S 175.75E 178km M=3.9
0.5 0.04 0.02 4
Rsd 0.2s 16ph/14stn Dmin 79km Az.gap 212°
Corr. -0.104 16M/16stn Msd 0.2 1↑

00/4218
APR 29 065929.0s 42.36S 177.90E 33km M=4.2
0.8 0.05 0.04 R
Rsd 0.3s 24ph/19stn Dmin 230km Az.gap 237°
Corr. -0.788 31M/27stn Msd 0.4

00/4221
APR 29 072752.2s 38.51S 176.19E 133km M=3.6
0.4 0.02 0.01 4
Rsd 0.3s 26ph/21stn Dmin 15km Az.gap 91°
Corr. -0.328 14M/14stn Msd 0.3 1↓

00/4227
APR 29 120512.9s 38.63S 176.02E 5km M=2.8
0.1 0.01 0.01 R
Rsd 0.3s 21ph/18stn Dmin 7km Az.gap 100°
Corr. -0.544 16M/16stn Msd 0.3 1↓
The largest of about ten events felt at Taupo (41).

00/4239
APR 29 201630.2s 41.58S 172.23E 12km M=3.9
0.1 0.01 0.01 R
Rsd 0.1s 18ph/15stn Dmin 40km Az.gap 135°
Corr. -0.464 9M/5stn Msd 0.1 5↑ 4↓
Felt Karamea (74).

00/4248
APR 30 075728.7s 41.35S 172.63E 188km M=3.6
0.6 0.02 0.03 4
Rsd 0.2s 16ph/14stn Dmin 59km Az.gap 114°
Corr. -0.517 11M/11stn Msd 0.3 2↑ 1↓

00/4261
APR 30 161518.3s 38.55S 175.82E 151km M=4.6
0.2 0.01 0.01 2
Rsd 0.1s 43ph/37stn Dmin 18km Az.gap 55°
Corr. 0.071 10M/5stn Msd 0.3 12↑ 9↓

00/4280
MAY 01 105227.3s 41.50S 173.01E 89km M=3.5
0.6 0.02 0.02 7
Rsd 0.4s 20ph/17stn Dmin 77km Az.gap 78°
Corr. -0.208 13M/13stn Msd 0.3 4↑ 3↓

00/4285
MAY 01 143207.4s 40.30S 176.43E 48km M=4.1
0.1 0.01 0.01 2
Rsd 0.1s 39ph/31stn Dmin 45km Az.gap 163°
Corr. -0.529 18M/13stn Msd 0.3 4↑ 4↓
Felt Takapau to Dannevirke (63).

00/4286
MAY 01 143228.1s 40.33S 176.44E 52km M=4.3
0.4 0.01 0.03 5
Rsd 0.3s 19ph/16stn Dmin 42km Az.gap 167°
Corr. -0.387 8M/4stn Msd 0.4

00/4288
MAY 01 154818.6s 36.65S 177.49E 220km M=3.8
0.6 0.05 0.06 7
Rsd 0.2s 11ph/10stn Dmin 127km Az.gap 295°
Corr. -0.484 13M/13stn Msd 0.3

00/4293
MAY 01 175321.1s 41.62S 174.68E 47km M=3.5
0.1 0.01 0.01 1
Rsd 0.2s 22ph/17stn Dmin 29km Az.gap 148°
Corr. -0.429 16M/13stn Msd 0.3 2↑ 4↓

00/4297
MAY 02 011636.0s 40.81S 176.84E 33km M=4.1
0.3 0.02 0.02 R
Rsd 0.2s 23ph/20stn Dmin 52km Az.gap 203°
Corr. -0.485 34M/28stn Msd 0.3 2↑ 1↓

00/4298
MAY 02 041157.9s 40.31S 176.39E 50km M=3.6
0.2 0.01 0.02 3
Rsd 0.2s 29ph/22stn Dmin 43km Az.gap 172°
Corr. -0.431 20M/16stn Msd 0.2 2↑ 1↓

00/4303
MAY 02 062905.7s 38.14S 176.23E 166km M=3.6
0.5 0.03 0.02 5
Rsd 0.2s 14ph/12stn Dmin 107km Az.gap 180°
Corr. -0.272 16M/15stn Msd 0.3 1↑

00/4323
MAY 03 074623.5s 40.09S 174.93E 24km M=3.8
0.2 0.01 0.01 2
Rsd 0.5s 41ph/34stn Dmin 20km Az.gap 67°
Corr. 0.091 9M/5stn Msd 0.2 5↑ 1↓
Felt Marton (61) MM4 and Tawa (68).

00/4339
MAY 03 121612.2s 35.77S 179.59E 114km M=4.6
1.0 0.06 0.06 19
Rsd 0.2s 24ph/21stn Dmin 233km Az.gap 288°
Corr. 0.546 18M/14stn Msd 0.2

00/4356
MAY 03 165550.7s 38.43S 176.36E 94km M=3.6
0.2 0.01 0.01 2
Rsd 0.1s 29ph/25stn Dmin 10km Az.gap 47°
Corr. -0.056 16M/16stn Msd 0.2 2↑ 4↓

00/4367
MAY 04 010214.6s 35.39S 178.41E 12km M=5.2
0.8 0.05 0.04 R
Rsd 0.3s 24ph/22stn Dmin 245km Az.gap 271°
Corr. 0.714 9M/5stn Msd 0.3
T-wave recorded on HBZ.

00/4368
MAY 04 010617.9s 38.97S 176.14E 82km M=3.6
0.2 0.01 0.01 3
Rsd 0.3s 44ph/34stn Dmin 10km Az.gap 44°
Corr. -0.175 14M/13stn Msd 0.2 1↑

00/4370
MAY 04 012904.5s 35.33S 178.46E 33km M=4.7
0.8 0.05 0.04 R
Rsd 0.2s 18ph/16stn Dmin 252km Az.gap 306°
Corr. 0.649 26M/24stn Msd 0.3

00/4380
MAY 04 100502.9s 35.49S 177.67E 179km M=4.1
0.3 0.03 0.07 9
Rsd 0.1s 7ph/5stn Dmin 240km Az.gap 323°
Corr. -0.896 3M/3stn Msd 0.3

00/4382
MAY 04 104123.6s 46.67S 165.06E 12km M=3.6
0.6 0.05 0.04 R
Rsd 0.3s 12ph/7stn Dmin 210km Az.gap 327°
Corr. -0.218 7M/7stn Msd 0.2 1↓

00/4393
MAY 04 152950.5s 40.17S 174.27E 89km M=4.2
0.3 0.01 0.01 4
Rsd 0.2s 43ph/33stn Dmin 76km Az.gap 98°
Corr. 0.164 8M/4stn Msd 0.2 5↑ 5↓
Felt Whitby (68).

00/4442
MAY 05 195057.5s 37.44S 176.60E 191km M=3.5
0.2 0.02 0.01 2
Rsd 0.1s 13ph/12stn Dmin 102km Az.gap 247°
Corr. -0.627 8M/8stn Msd 0.1 1↑

00/4453
MAY 06 041011.1s 38.41S 175.58E 235km M=3.8
0.6 0.04 0.02 5
Rsd 0.1s 16ph/13stn Dmin 54km Az.gap 169°
Corr. -0.370 19M/17stn Msd 0.3 1↓

00/4459
MAY 06 080624.4s 34.81S 179.93E 249km M=4.2
1.2 0.19 0.14 26
Rsd 0.4s 9ph/7stn Dmin 342km Az.gap 334°
Corr. -0.545 11M/11stn Msd 0.3

00/4473
MAY 06 210930.7s 38.62S 175.76E 142km M=4.1
0.2 0.01 0.01 2
Rsd 0.1s 24ph/18stn Dmin 11km Az.gap 146°
Corr. -0.375 24M/21stn Msd 0.2 1↑

00/4476
MAY 06 213156.7s 37.42S 177.64E 93km M=3.5
0.8 0.05 0.03 8
Rsd 0.3s 6ph/4stn Dmin 62km Az.gap 263°
Corr. -0.464 4M/4stn Msd 0.3

00/4507
MAY 07 195432.1s 40.41S 177.25E 33km M=4.0
0.3 0.01 0.02 R
Rsd 0.2s 26ph/21stn Dmin 90km Az.gap 205°
Corr. -0.750 36M/30stn Msd 0.2 1↓

00/4513
MAY 08 040437.4s 40.05S 175.01E 70km M=4.2
0.2 0.01 0.01 3
Rsd 0.3s 40ph/32stn Dmin 13km Az.gap 63°
Corr. -0.050 8M/4stn Msd 0.3 4↑ 8↓
Felt Marton (61) MM4.

00/4545
MAY 08 213541.0s 31.72S 178.35W 392km M=7.2
0.7 0.08 0.06 28
Rsd 0.3s 29ph/25stn Dmin 721km Az.gap 322°
Corr. 0.309 12M/6stn Msd 0.5 1↓
Felt Whakatane (26) and Wellington (68).

00/4597
MAY 10 122710.0s 40.27S 176.56E 62km M=4.0
0.1 0.01 0.01 3
Rsd 0.2s 41ph/34stn Dmin 53km Az.gap 175°
Corr. -0.509 26M/20stn Msd 0.2 5↑ 9↓

00/4606
MAY 10 181527.5s 37.04S 177.60E 132km M=3.6
0.3 0.03 0.02 4
Rsd 0.2s 14ph/12stn Dmin 87km Az.gap 259°
Corr. -0.485 13M/13stn Msd 0.2 1↑

00/4623
MAY 11 013611.7s 37.91S 176.30E 175km M=3.6
0.6 0.04 0.03 4
Rsd 0.2s 12ph/10stn Dmin 81km Az.gap 270°
Corr. -0.212 10M/10stn Msd 0.2

00/4627
MAY 11 030852.3s 37.30S 177.64E 122km M=4.3
0.4 0.03 0.02 4
Rsd 0.2s 22ph/19stn Dmin 67km Az.gap 225°
Corr. 0.340 27M/21stn Msd 0.2 1↑ 1↓

00/4642
MAY 11 094415.4s 38.33S 176.05E 157km M=3.8
0.5 0.03 0.02 4
Rsd 0.2s 17ph/15stn Dmin 50km Az.gap 187°
Corr. -0.356 16M/15stn Msd 0.2 1↑

00/4646
MAY 11 112421.1s 46.91S 165.39E 12km M=3.6
1.6 0.13 0.10 R
Rsd 0.5s 11ph/7stn Dmin 211km Az.gap 325°
Corr. -0.030 7M/7stn Msd 0.2

00/4647
MAY 11 122733.5s 46.94S 165.53E 12km M=3.5
0.5 0.04 0.03 R
Rsd 0.2s 9ph/5stn Dmin 207km Az.gap 325°
Corr. -0.172 6M/6stn Msd 0.1

00/4671
MAY 12 013711.9s 41.44S 175.00E 26km M=3.5
0.1 0.01 0.01 1
Rsd 0.2s 25ph/19stn Dmin 11km Az.gap 133°
Corr. -0.261 18M/15stn Msd 0.3 7↑ 2↓

00/4673
MAY 12 021846.6s 36.68S 177.30E 12km M=4.0
0.5 0.04 0.02 R
Rsd 0.3s 9ph/6stn Dmin 141km Az.gap 245°
Corr. 0.761 10M/6stn Msd 0.2

00/4684
MAY 12 075541.4s 44.97S 167.48E 87km M=3.8
0.2 0.01 0.01 2
Rsd 0.1s 12ph/7stn Dmin 48km Az.gap 199°
Corr. -0.266 14M/9stn Msd 0.3 2↑ 5↓

00/4701
MAY 12 231119.1s 38.96S 176.42E 190km M=3.6
2.1 0.28 0.35 20
Rsd 0.6s 9ph/6stn Dmin 56km Az.gap 201°
Corr. -0.961 8M/8stn Msd 0.3 1↑

00/4760
MAY 13 215157.8s 40.21S 174.21E 116km M=4.8
0.3 0.01 0.01 4
Rsd 0.3s 37ph/30stn Dmin 70km Az.gap 106°
Corr. -0.130 8M/4stn Msd 0.3 10↑ 4↓
Felt Marton (61) and Raumati South (65).

00/4800
MAY 14 070817.5s 44.51S 168.04E 83km M=3.8
0.2 0.01 0.01 2
Rsd 0.1s 12ph/9stn Dmin 21km Az.gap 191°
Corr. -0.465 14M/9stn Msd 0.2 1↑ 4↓

00/4803
MAY 14 085640.3s 36.73S 177.30E 25km M=4.7
0.5 0.03 0.01 3
Rsd 0.1s 19ph/17stn Dmin 90km Az.gap 203°
Corr. 0.618 8M/4stn Msd 0.1 1↓

00/4812
MAY 14 163018.4s 36.08S 178.55E 150km M=4.0
0.3 0.05 0.03 9
Rsd 0.1s 8ph/4stn Dmin 170km Az.gap 340°
Corr. -0.177 5M/4stn Msd 0.2

00/4823
MAY 15 014943.7s 36.54S 177.48E 12km M=4.2
0.9 0.07 0.05 R
Rsd 0.5s 10ph/5stn Dmin 138km Az.gap 247°
Corr. 0.718 19M/13stn Msd 0.2 1↓

00/4827
MAY 15 050710.1s 36.84S 176.92E 271km M=4.4
0.6 0.04 0.03 5
Rsd 0.3s 17ph/15stn Dmin 108km Az.gap 210°
Corr. 0.220 24M/21stn Msd 0.2 1↑

00/4841
MAY 15 161008.7s 39.04S 174.93E 247km M=3.7
0.5 0.03 0.03 4
Rsd 0.1s 19ph/15stn Dmin 40km Az.gap 201°
Corr. 0.141 11M/11stn Msd 0.3 4↑ 1↓

00/4842
MAY 15 165407.7s 37.30S 178.75E 22km M=3.6
0.3 0.02 0.02 1
Rsd 0.2s 8ph/4stn Dmin 52km Az.gap 330°
Corr. -0.091 7M/4stn Msd 0.2 1↑ 2↓

00/4851
MAY 16 044335.5s 38.55S 175.81E 175km M=3.7
0.2 0.01 0.01 1
Rsd 0.1s 17ph/13stn Dmin 66km Az.gap 255°
Corr. 0.157 11M/11stn Msd 0.2 1↑

00/4853
MAY 16 070326.7s 40.02S 174.79E 115km M=5.5
0.2 0.00 0.01 2
Rsd 0.2s 57ph/48stn Dmin 24km Az.gap 72°
Corr. 0.131 12M/6stn Msd 0.4 8↑ 2↓
Felt from Taranaki to Banks Peninsula, maximum intensity MM4.

00/4855
MAY 16 073941.1s 41.43S 173.46E 97km M=3.7
0.3 0.02 0.01 3
Rsd 0.3s 28ph/21stn Dmin 47km Az.gap 58°
Corr. -0.277 8M/4stn Msd 0.3 3↑ 8↓

00/4856
MAY 16 080239.4s 36.87S 177.29E 161km M=3.5
0.3 0.04 0.02 4
Rsd 0.1s 5ph/3stn Dmin 156km Az.gap 322°
Corr. -0.159 3M/3stn Msd 0.2 1↑

00/4859
MAY 16 081524.8s 45.43S 167.31E 133km M=3.6
0.5 0.02 0.03 3
Rsd 0.3s 13ph/8stn Dmin 13km Az.gap 138°
Corr. 0.064 9M/8stn Msd 0.2 4↑ 1↓

00/4861
MAY 16 101015.1s 37.67S 179.35W 12km M=3.7
1.0 0.13 0.07 R
Rsd 0.3s 6ph/4stn Dmin 208km Az.gap 333°
Corr. -0.398 4M/4stn Msd 0.2

00/4871
MAY 16 154213.3s 37.16S 177.35E 139km M=3.8
0.2 0.01 0.01 2
Rsd 0.1s 6ph/4stn Dmin 98km Az.gap 290°
Corr. -0.543 4M/4stn Msd 0.1 1↑

00/4887
MAY 17 042821.2s 36.54S 177.70E 180km M=3.6
0.4 0.04 0.04 4
Rsd 0.1s 5ph/3stn Dmin 129km Az.gap 321°
Corr. -0.577 3M/3stn Msd 0.4

00/4903
MAY 17 082657.2s 40.93S 178.20E 33km M=3.5
0.7 0.04 0.05 R
Rsd 0.3s 20ph/14stn Dmin 229km Az.gap 233°
Corr. -0.872 17M/17stn Msd 0.2

00/4913
MAY 17 085226.6s 38.06S 176.17E 5km M=2.9
0.1 0.01 0.01 R
Rsd 0.2s 17ph/10stn Dmin 14km Az.gap 132°
Corr. -0.073 17M/16stn Msd 0.3 1↑
Felt Ngongotaha and Rotorua (33).

00/4916
MAY 17 091012.2s 37.98S 176.66E 144km M=5.4
0.2 0.01 0.01 2
Rsd 0.2s 44ph/40stn Dmin 2km Az.gap 76°
Corr. -0.059 10M/5stn Msd 0.3 20↑ 8↓
Felt Patoka (52) to Marlborough (77), maximum intensity MM4.

00/4924
MAY 17 100949.7s 38.06S 176.18E 5km M=2.8
0.1 0.01 0.01 R
Rsd 0.2s 17ph/12stn Dmin 13km Az.gap 56°
Corr. 0.019 10M/10stn Msd 0.3 2↑ 1↓
Felt Ngongotaha and Rotorua (33).

00/4951
MAY 18 030043.7s 38.18S 176.26E 151km M=3.6
1.1 0.05 0.04 9
Rsd 0.3s 10ph/9stn Dmin 75km Az.gap 243°
Corr. -0.184 13M/13stn Msd 0.2 1↑

00/4968
MAY 18 122821.1s 41.24S 174.28E 43km M=3.6
0.1 0.01 0.01 1
Rsd 0.2s 28ph/24stn Dmin 3km Az.gap 74°
Corr. -0.319 12M/9stn Msd 0.3 1↑ 7↓
Felt Wellington (68).

00/4978
MAY 18 151850.0s 39.16S 174.80E 199km M=3.7
0.6 0.02 0.02 5
Rsd 0.2s 21ph/18stn Dmin 38km Az.gap 164°
Corr. -0.004 16M/16stn Msd 0.3 1↑

00/4983
MAY 18 203044.2s 40.19S 174.87E 48km M=3.5
0.2 0.01 0.01 9
Rsd 0.3s 31ph/25stn Dmin 75km Az.gap 70°
Corr. -0.111 18M/16stn Msd 0.2 1↑

00/4999
MAY 19 075000.4s 38.46S 175.78E 172km M=4.2
0.5 0.03 0.02 4
Rsd 0.2s 27ph/23stn Dmin 28km Az.gap 161°
Corr. -0.010 24M/20stn Msd 0.3 10↑ 2↓

00/5015
MAY 20 014121.0s 38.85S 175.33E 167km M=3.6
0.4 0.03 0.03 3
Rsd 0.1s 17ph/15stn Dmin 22km Az.gap 261°
Corr. -0.054 14M/14stn Msd 0.3 1↑

00/5016
MAY 20 021156.6s 40.00S 173.81E 186km M=3.7
0.7 0.02 0.02 6
Rsd 0.4s 28ph/23stn Dmin 79km Az.gap 135°
Corr. -0.190 13M/13stn Msd 0.4 1↑ 3↓

00/5019
MAY 20 052818.9s 40.10S 173.64E 211km M=4.4
0.4 0.01 0.02 4
Rsd 0.3s 39ph/34stn Dmin 82km Az.gap 143°
Corr. -0.060 24M/19stn Msd 0.3 8↑ 8↓

00/5033
MAY 20 171323.6s 38.63S 175.93E 5km M=3.2
0.1 0.01 0.01 R
Rsd 0.2s 24ph/21stn Dmin 13km Az.gap 62°
Corr. -0.295 27M/24stn Msd 0.3 4↑ 1↓
Felt Waihora Rd (40) and Taupo (41), MM4.

00/5067
MAY 22 053733.1s 38.36S 175.97E 135km M=3.7
0.9 0.07 0.04 7
Rsd 0.4s 18ph/15stn Dmin 59km Az.gap 204°
Corr. -0.776 13M/13stn Msd 0.3 1↑ 1↓

00/5069
MAY 22 074554.5s 41.11S 172.96E 139km M=3.5
0.5 0.03 0.02 4
Rsd 0.3s 18ph/14stn Dmin 48km Az.gap 79°
Corr. -0.274 10M/10stn Msd 0.3 2↑

00/5078
MAY 22 182735.9s 37.82S 176.66E 126km M=3.6
0.3 0.01 0.01 3
Rsd 0.2s 18ph/14stn Dmin 62km Az.gap 116°
Corr. 0.072 11M/8stn Msd 0.2 1↑

00/5088
MAY 22 211615.5s 41.23S 173.68E 79km M=4.2
0.2 0.02 0.01 2
Rsd 0.2s 21ph/16stn Dmin 28km Az.gap 81°
Corr. -0.045 9M/6stn Msd 0.2 3↑ 2↓
Felt Rarangi (77), Fighting Bay (78), MM4 and Kapiti Coast (65).

00/5100
MAY 23 042221.1s 46.70S 165.63E 12km M=4.0
1.3 0.07 0.10 R
Rsd 0.4s 10ph/8stn Dmin 181km Az.gap 325°
Corr. 0.028 17M/10stn Msd 0.2

00/5102
MAY 23 045014.2s 40.44S 174.85E 35km M=3.6
0.1 0.01 0.01 4
Rsd 0.2s 34ph/30stn Dmin 47km Az.gap 70°
Corr. 0.169 16M/13stn Msd 0.2 4↑ 1↓

00/5115
MAY 23 102040.5s 38.27S 176.21E 161km M=3.6
0.6 0.05 0.03 4
Rsd 0.2s 11ph/10stn Dmin 64km Az.gap 207°
Corr. -0.854 13M/13stn Msd 0.2 1↑

00/5127
MAY 23 135222.1s 44.87S 167.03E 5km M=4.4
0.3 0.01 0.01 R
Rsd 0.2s 14ph/7stn Dmin 67km Az.gap 234°
Corr. -0.625 20M/11stn Msd 0.2 1↑ 5↓

00/5138
MAY 23 183438.8s 41.71S 178.09E 33km M=3.9
0.8 0.05 0.05 R
Rsd 0.5s 43ph/36stn Dmin 222km Az.gap 230°
Corr. -0.716 36M/36stn Msd 0.3

00/5147
MAY 24 014457.2s 36.11S 178.10E 175km M=4.4
0.5 0.03 0.03 6
Rsd 0.2s 14ph/12stn Dmin 166km Az.gap 283°
Corr. 0.505 16M/14stn Msd 0.3

00/5169
MAY 24 114924.6s 44.87S 167.01E 12km M=3.6
0.3 0.01 0.02 R
Rsd 0.2s 13ph/7stn Dmin 68km Az.gap 236°
Corr. -0.692 8M/4stn Msd 0.2 1↑ 5↓

00/5177
MAY 24 163842.7s 38.50S 175.83E 148km M=3.7
0.6 0.04 0.02 5
Rsd 0.3s 17ph/15stn Dmin 22km Az.gap 157°
Corr. -0.483 14M/13stn Msd 0.2 1↑

00/5178
MAY 24 165253.6s 35.22S 179.17E 270km M=3.8
1.6 0.22 0.25 8
Rsd 0.3s 9ph/8stn Dmin 275km Az.gap 345°
Corr. -0.897 7M/7stn Msd 0.2

00/5195
MAY 25 082952.6s 45.21S 167.40E 132km M=3.9
0.4 0.02 0.02 3
Rsd 0.2s 15ph/8stn Dmin 34km Az.gap 181°
Corr. -0.089 16M/10stn Msd 0.3 3↑ 2↓

00/5229
MAY 26 055542.1s 37.17S 177.32E 5km M=4.0
0.3 0.02 0.02 R
Rsd 0.2s 18ph/13stn Dmin 41km Az.gap 191°
Corr. 0.729 34M/30stn Msd 0.2 1↑

00/5244
MAY 26 160329.5s 37.93S 176.95E 5km M=3.3
0.2 0.01 0.01 R
Rsd 0.3s 14ph/10stn Dmin 25km Az.gap 154°
Corr. 0.113 18M/16stn Msd 0.2 1↑
Felt Whakatane (26) MM4.

00/5250
MAY 26 210030.5s 39.66S 174.29E 187km M=3.5
0.5 0.02 0.03 5
Rsd 0.3s 24ph/20stn Dmin 40km Az.gap 107°
Corr. -0.154 14M/14stn Msd 0.3

00/5253
MAY 26 235238.4s 37.11S 177.48E 150km M=3.9
0.4 0.04 0.02 4
Rsd 0.2s 13ph/12stn Dmin 91km Az.gap 251°
Corr. -0.384 11M/11stn Msd 0.2

00/5254
MAY 27 002049.4s 45.17S 167.33E 121km M=3.8
0.2 0.01 0.01 2
Rsd 0.2s 12ph/8stn Dmin 36km Az.gap 199°
Corr. -0.103 9M/5stn Msd 0.2 4↑ 3↓

00/5269
MAY 27 113618.6s 38.48S 175.88E 146km M=3.8
0.5 0.04 0.02 4
Rsd 0.2s 19ph/16stn Dmin 22km Az.gap 158°
Corr. -0.548 16M/13stn Msd 0.2 3↑ 1↓

00/5271
MAY 27 124725.9s 37.65S 178.76E 25km M=4.0
0.6 0.04 0.04 3
Rsd 0.2s 14ph/10stn Dmin 41km Az.gap 281°
Corr. 0.551 39M/36stn Msd 0.2 1↓

00/5282
MAY 27 210812.2s 38.19S 176.09E 181km M=4.2
0.5 0.02 0.02 4
Rsd 0.2s 26ph/23stn Dmin 9km Az.gap 95°
Corr. -0.237 20M/16stn Msd 0.2 6↑ 1↓

00/5303
MAY 28 082953.9s 36.98S 178.90E 234km M=3.8
0.4 0.10 0.11 4
Rsd 0.1s 12ph/9stn Dmin 87km Az.gap 343°
Corr. -0.885 8M/8stn Msd 0.2

00/5313
MAY 28 111611.4s 38.61S 175.74E 146km M=3.6
0.3 0.03 0.01 3
Rsd 0.2s 21ph/16stn Dmin 29km Az.gap 210°
Corr. -0.637 14M/14stn Msd 0.2 4↑ 1↓

00/5327
MAY 28 180554.5s 37.72S 177.19E 124km M=3.9
0.5 0.03 0.02 4
Rsd 0.2s 14ph/12stn Dmin 54km Az.gap 196°
Corr. 0.372 12M/12stn Msd 0.3 1↑

00/5329
MAY 28 195814.3s 38.84S 175.19E 217km M=4.2
0.3 0.03 0.02 3
Rsd 0.2s 27ph/22stn Dmin 29km Az.gap 111°
Corr. -0.021 19M/16stn Msd 0.3 7↑ 2↓

00/5333
MAY 29 025300.6s 40.17S 173.63E 162km M=3.8
0.5 0.01 0.02 4
Rsd 0.3s 40ph/33stn Dmin 75km Az.gap 140°
Corr. -0.207 18M/17stn Msd 0.2 1↓

00/5353
MAY 29 164421.1s 45.44S 167.29E 134km M=3.8
0.4 0.02 0.02 3
Rsd 0.2s 12ph/7stn Dmin 11km Az.gap 138°
Corr. 0.029 9M/7stn Msd 0.3 2↑ 2↓

00/5360
MAY 30 013723.4s 38.37S 179.18E 12km M=3.6
0.4 0.01 0.03 R
Rsd 0.2s 10ph/7stn Dmin 103km Az.gap 263°
Corr. -0.134 6M/6stn Msd 0.2 1↓

00/5362
MAY 30 032557.9s 38.37S 179.23E 12km M=3.6
1.1 0.03 0.08 R
Rsd 0.5s 8ph/6stn Dmin 108km Az.gap 282°
Corr. -0.340 7M/5stn Msd 0.2 1↓

00/5374
MAY 30 123054.6s 42.97S 176.42E 33km M=4.0
0.4 0.02 0.02 R
Rsd 0.3s 32ph/24stn Dmin 194km Az.gap 229°
Corr. -0.681 32M/30stn Msd 0.3 1↑

00/5404
MAY 31 092254.3s 37.57S 179.37E 12km M=3.7
0.6 0.04 0.03 R
Rsd 0.3s 7ph/5stn Dmin 94km Az.gap 314°
Corr. 0.233 6M/4stn Msd 0.2 1↑

00/5405
MAY 31 103441.7s 46.37S 169.80E 5km M=3.5
0.4 0.02 0.02 R
Rsd 0.3s 10ph/5stn Dmin 48km Az.gap 271°
Corr. -0.217 8M/5stn Msd 0.2 1↑ 2↓
Felt Balclutha district (152).

00/5424
JUN 01 062239.2s 40.77S 174.04E 73km M=4.4
0.3 0.01 0.01 5
Rsd 0.3s 33ph/28stn Dmin 10km Az.gap 91°
Corr. 0.061 13M/7stn Msd 0.2 7↑ 2↓
Felt Paraparaumu (65).

00/5431
JUN 01 153426.9s 40.00S 175.18E 17km M=3.5
0.1 0.01 0.01 2
Rsd 0.3s 25ph/20stn Dmin 31km Az.gap 84°
Corr. 0.150 21M/18stn Msd 0.3 3↑ 3↓

00/5435
JUN 01 205501.9s 36.62S 177.49E 208km M=4.4
0.3 0.02 0.01 2
Rsd 0.1s 17ph/15stn Dmin 130km Az.gap 243°
Corr. 0.455 10M/6stn Msd 0.2 1↑

00/5436
JUN 01 210032.2s 37.17S 179.81W 33km M=3.6
0.7 0.09 0.06 R
Rsd 0.2s 5ph/3stn Dmin 174km Az.gap 346°
Corr. -0.663 3M/3stn Msd 0.2

00/5437
JUN 01 215040.0s 35.86S 178.43E 229km M=4.9
0.5 0.04 0.04 6
Rsd 0.2s 20ph/17stn Dmin 194km Az.gap 312°
Corr. -0.148 16M/9stn Msd 0.2 1↑

00/5438
JUN 01 222528.5s 38.13S 176.95E 74km M=4.7
0.2 0.01 0.01 2
Rsd 0.2s 38ph/32stn Dmin 19km Az.gap 54°
Corr. 0.069 12M/6stn Msd 0.2 5↑ 5↓

00/5441
JUN 02 031659.6s 41.37S 174.12E 40km M=3.9
0.1 0.02 0.01 6
Rsd 0.3s 14ph/11stn Dmin 44km Az.gap 121°
Corr. -0.424 8M/4stn Msd 0.2
Felt Lower Hutt (68) and Blenheim (77).

00/5445
JUN 02 085459.4s 37.98S 176.43E 141km M=3.6
0.6 0.04 0.04 4
Rsd 0.2s 11ph/8stn Dmin 67km Az.gap 231°
Corr. -0.697 5M/5stn Msd 0.3

00/5448
JUN 02 153015.6s 36.69S 178.17E 89km M=3.8
1.1 0.09 0.08 13
Rsd 0.4s 9ph/7stn Dmin 102km Az.gap 312°
Corr. -0.389 7M/4stn Msd 0.2

00/5458
JUN 03 110606.5s 45.65S 168.14E 30km M=3.6
0.1 0.01 0.01 1
Rsd 0.2s 13ph/7stn Dmin 31km Az.gap 101°
Corr. -0.031 10M/5stn Msd 0.2 2↑ 2↓

00/5466
JUN 03 203521.7s 38.24S 176.21E 219km M=3.5
0.8 0.20 0.33 20
Rsd 0.3s 8ph/5stn Dmin 154km Az.gap 323°
Corr. -0.951 2M/2stn Msd 0.1
Poor station coverage.

00/5470
JUN 04 032544.8s 38.55S 175.78E 200km M=3.9
0.4 0.02 0.03 4
Rsd 0.2s 10ph/8stn Dmin 72km Az.gap 298°
Corr. -0.206 2M/2stn Msd 0.0 1↓

00/5476
JUN 04 101628.2s 37.86S 178.34E 34km M=3.6
0.1 0.00 0.01 1
Rsd 0.0s 6ph/4stn Dmin 24km Az.gap 203°
Corr. -0.285 6M/4stn Msd 0.2 1↑ 1↓

00/5477
JUN 04 113400.9s 41.81S 172.51E 86km M=3.8
0.3 0.01 0.01 3
Rsd 0.2s 13ph/7stn Dmin 33km Az.gap 85°
Corr. 0.024 2M/2stn Msd 0.2 1↑

00/5492
JUN 05 093303.6s 37.95S 178.82E 41km M=3.7
0.3 0.01 0.02 4
Rsd 0.1s 13ph/10stn Dmin 52km Az.gap 266°
Corr. -0.336 7M/5stn Msd 0.2 1↑ 2↓

00/5502
JUN 05 152154.4s 38.58S 175.77E 147km M=4.0
0.6 0.03 0.02 5
Rsd 0.4s 26ph/20stn Dmin 15km Az.gap 150°
Corr. -0.250 17M/13stn Msd 0.2 4↑ 1↓

00/5504
JUN 05 152317.5s 35.70S 179.29E 156km M=5.2
1.6 0.15 0.11 34
Rsd 0.5s 12ph/10stn Dmin 229km Az.gap 310°
Corr. 0.131 8M/4stn Msd 1.5

00/5512
JUN 05 195247.2s 45.10S 167.50E 93km M=4.8
0.4 0.01 0.02 3
Rsd 0.2s 16ph/9stn Dmin 49km Az.gap 183°
Corr. -0.246 16M/8stn Msd 0.2 4↑ 5↓
Felt Te Anau Downs (130) and Queenstown (132).

00/5514
JUN 05 202218.6s 36.67S 177.42E 203km M=4.2
0.3 0.04 0.02 3
Rsd 0.1s 16ph/14stn Dmin 129km Az.gap 290°
Corr. -0.367 13M/12stn Msd 0.3

00/5521
JUN 06 024110.6s 38.23S 177.20E 162km M=3.8
1.5 0.07 0.27 21
Rsd 0.2s 11ph/10stn Dmin 144km Az.gap 324°
Corr. -0.366 5M/5stn Msd 0.4

00/5524
JUN 06 031550.9s 36.54S 178.01E 255km M=3.6
1.8 0.29 0.23 8
Rsd 0.2s 8ph/7stn Dmin 171km Az.gap 322°
Corr. -0.947 7M/7stn Msd 0.3
Poor station coverage.

00/5535
JUN 06 091905.8s 37.74S 177.27E 78km M=3.6
0.3 0.02 0.01 3
Rsd 0.2s 11ph/8stn Dmin 59km Az.gap 199°
Corr. -0.319 5M/4stn Msd 0.2 1↑

00/5575
JUN 07 074608.1s 37.35S 177.84E 12km M=4.1
0.5 0.03 0.02 R
Rsd 0.5s 15ph/11stn Dmin 49km Az.gap 195°
Corr. 0.395 32M/26stn Msd 0.2 1↑ 3↓

00/5577
JUN 07 085127.4s 37.98S 177.74E 72km M=5.3
0.2 0.01 0.01 2
Rsd 0.2s 36ph/31stn Dmin 47km Az.gap 94°
Corr. 0.385 10M/5stn Msd 0.3 10↑ 19↓
Felt Whakatane (27) to Gisborne (45).

00/5579
JUN 07 113435.5s 37.59S 175.56E 5km M=3.7
0.1 0.01 0.01 R
Rsd 0.3s 22ph/19stn Dmin 17km Az.gap 96°
Corr. 0.324 28M/22stn Msd 0.2 1↑ 2↓
Felt Morrinsville (25).

00/5582
JUN 07 135159.8s 38.49S 175.74E 160km M=4.0
0.3 0.03 0.02 3
Rsd 0.2s 22ph/16stn Dmin 42km Az.gap 201°
Corr. -0.662 15M/15stn Msd 0.3 1↓

00/5591
JUN 07 163844.0s 41.75S 174.43E 24km M=3.7
0.1 0.01 0.01 2
Rsd 0.2s 22ph/18stn Dmin 18km Az.gap 148°
Corr. -0.636 29M/23stn Msd 0.2 5↑ 6↓

00/5622
JUN 08 080336.0s 38.09S 176.26E 149km M=4.0
0.4 0.03 0.02 4
Rsd 0.2s 18ph/17stn Dmin 69km Az.gap 127°
Corr. -0.384 19M/15stn Msd 0.2 7↑ 2↓

00/5637
JUN 08 234340.8s 38.26S 175.93E 180km M=4.0
0.6 0.04 0.02 5
Rsd 0.2s 21ph/18stn Dmin 53km Az.gap 210°
Corr. -0.531 16M/14stn Msd 0.2 1↑

00/5645
JUN 09 042934.5s 38.54S 177.95E 45km M=4.2
0.3 0.02 0.02 3
Rsd 0.3s 23ph/18stn Dmin 11km Az.gap 112°
Corr. -0.572 12M/8stn Msd 0.4 2↑ 2↓

00/5651
JUN 09 054854.9s 38.54S 177.94E 45km M=4.3
0.4 0.02 0.02 4
Rsd 0.3s 21ph/17stn Dmin 12km Az.gap 106°
Corr. -0.594 21M/15stn Msd 0.3 2↑ 3↓

00/5656
JUN 09 061728.7s 38.71S 175.45E 174km M=3.8
0.5 0.04 0.02 4
Rsd 0.3s 22ph/19stn Dmin 33km Az.gap 139°
Corr. -0.429 14M/14stn Msd 0.3

00/5664
JUN 09 102338.8s 38.27S 175.41E 254km M=3.6
0.8 0.06 0.07 6
Rsd 0.2s 7ph/5stn Dmin 60km Az.gap 190°
Corr. -0.624 6M/6stn Msd 0.1

00/5670
JUN 09 133201.5s 38.27S 176.35E 152km M=3.7
0.1 0.03 0.02 1
Rsd 0.1s 9ph/8stn Dmin 66km Az.gap 206°
Corr. -0.978 9M/9stn Msd 0.3 1↑

00/5675
JUN 09 171745.6s 42.86S 176.11E 12km M=3.6
0.8 0.05 0.04 R
Rsd 0.1s 16ph/13stn Dmin 174km Az.gap 224°
Corr. -0.624 18M/18stn Msd 0.2 4↑ 1↓

00/5682
JUN 09 230212.5s 39.85S 176.93E 75km M=3.9
0.6 0.02 0.02 10
Rsd 0.2s 26ph/22stn Dmin 35km Az.gap 177°
Corr. -0.563 21M/15stn Msd 0.2 1↑

00/5683
JUN 09 234613.6s 37.43S 179.71E 12km M=4.1
0.3 0.02 0.02 R
Rsd 0.1s 18ph/13stn Dmin 126km Az.gap 298°
Corr. -0.046 21M/16stn Msd 0.2

00/5684
JUN 10 005222.4s 43.63S 177.54E 33km M=3.6
0.8 0.03 0.06 R
Rsd 0.3s 13ph/9stn Dmin 309km Az.gap 264°
Corr. -0.646 3M/3stn Msd 0.3

00/5703
JUN 11 021446.1s 37.98S 177.95E 52km M=3.6
1.1 0.07 0.04 9
Rsd 0.5s 6ph/4stn Dmin 29km Az.gap 225°
Corr. 0.327 7M/3stn Msd 0.1

00/5712
JUN 11 063038.1s 39.40S 175.42E 115km M=3.6
0.3 0.02 0.02 2
Rsd 0.2s 22ph/18stn Dmin 19km Az.gap 150°
Corr. -0.603 9M/9stn Msd 0.2 5↑ 2↓

00/5716
JUN 11 143717.6s 38.16S 178.43E 26km M=3.7
1.0 0.03 0.08 3
Rsd 0.4s 10ph/7stn Dmin 18km Az.gap 272°
Corr. 0.664 10M/6stn Msd 0.3 1↑ 2↓

00/5725
JUN 11 225103.8s 38.27S 175.80E 159km M=3.6
0.4 0.03 0.02 3
Rsd 0.1s 10ph/8stn Dmin 115km Az.gap 222°
Corr. -0.661 7M/7stn Msd 0.2 1↑

00/5736
JUN 12 080141.8s 36.93S 177.60E 138km M=3.6
0.7 0.05 0.05 5
Rsd 0.2s 6ph/4stn Dmin 97km Az.gap 304°
Corr. -0.726 3M/3stn Msd 0.3 3↑ 1↓

00/5739
JUN 12 110356.8s 37.70S 179.07E 23km M=3.8
0.2 0.01 0.01 1
Rsd 0.1s 12ph/8stn Dmin 69km Az.gap 286°
Corr. -0.192 14M/11stn Msd 0.2 1↓

00/5744
JUN 12 175623.4s 35.54S 178.32E 212km M=3.7
0.7 0.13 0.10 14
Rsd 0.1s 5ph/3stn Dmin 229km Az.gap 341°
Corr. -0.776 2M/2stn Msd 0.2

00/5746
JUN 12 230408.4s 38.20S 175.78E 155km M=3.7
0.5 0.04 0.05 7
Rsd 0.3s 12ph/9stn Dmin 117km Az.gap 226°
Corr. -0.420 8M/8stn Msd 0.3

00/5749
JUN 12 232420.8s 40.08S 174.64E 108km M=3.6
0.4 0.02 0.02 4
Rsd 0.2s 15ph/12stn Dmin 40km Az.gap 167°
Corr. -0.439 7M/7stn Msd 0.3 4↑ 1↓

00/5750
JUN 13 030453.6s 38.97S 175.20E 290km M=3.6
0.2 0.05 0.03 5
Rsd 0.1s 11ph/8stn Dmin 212km Az.gap 326°
Corr. 0.693 3M/3stn Msd 0.4
Poor station coverage.

00/5755
JUN 13 061613.5s 41.56S 173.49E 75km M=3.7
0.2 0.01 0.01 3
Rsd 0.2s 19ph/13stn Dmin 76km Az.gap 118°
Corr. -0.563 9M/8stn Msd 0.3 5↑ 2↓

00/5757
JUN 13 093711.3s 37.17S 177.50E 141km M=3.7
0.2 0.02 0.02 2
Rsd 0.1s 10ph/6stn Dmin 86km Az.gap 276°
Corr. -0.515 11M/8stn Msd 0.4

00/5759
JUN 13 100245.0s 38.30S 176.05E 153km M=3.8
0.4 0.03 0.02 3
Rsd 0.1s 13ph/12stn Dmin 54km Az.gap 171°
Corr. -0.739 11M/11stn Msd 0.2

00/5779
JUN 13 191210.8s 38.82S 175.93E 5km M=3.7
0.1 0.01 0.01 R
Rsd 0.4s 30ph/26stn Dmin 15km Az.gap 107°
Corr. -0.657 34M/31stn Msd 0.3 7↑ 2↓
Felt Waihora Rd (40) and Taupo (41).

00/5795
JUN 13 213156.5s 45.54S 166.19E 12km M=4.1
0.5 0.02 0.03 R
Rsd 0.2s 11ph/7stn Dmin 76km Az.gap 308°
Corr. 0.335 8M/4stn Msd 0.1 1↑

00/5807
JUN 14 043021.3s 35.46S 179.36E 270km M=4.0
0.6 0.07 0.09 5
Rsd 0.2s 10ph/8stn Dmin 255km Az.gap 346°
Corr. -0.457 4M/4stn Msd 0.1

00/5809
JUN 14 051417.3s 38.60S 175.86E 146km M=3.9
0.6 0.03 0.02 5
Rsd 0.3s 20ph/18stn Dmin 17km Az.gap 147°
Corr. -0.372 13M/13stn Msd 0.4

00/5821
JUN 14 123843.3s 35.32S 179.22E 260km M=4.0
0.4 0.07 0.14 7
Rsd 0.1s 10ph/7stn Dmin 266km Az.gap 345°
Corr. -0.766 5M/5stn Msd 0.1

00/5829
JUN 14 145635.2s 36.61S 177.05E 242km M=3.8
1.0 0.10 0.11 10
Rsd 0.5s 11ph/9stn Dmin 157km Az.gap 291°
Corr. -0.677 9M/9stn Msd 0.1

00/5834
JUN 14 175957.0s 35.69S 178.64E 234km M=4.2
1.4 0.10 0.18 13
Rsd 0.4s 9ph/7stn Dmin 214km Az.gap 339°
Corr. -0.628 5M/5stn Msd 0.1

00/5848
JUN 15 015848.4s 45.11S 166.85E 5km M=3.8
0.6 0.02 0.03 R
Rsd 0.3s 13ph/7stn Dmin 46km Az.gap 272°
Corr. -0.336 10M/5stn Msd 0.2 1↓

00/5857
JUN 15 063944.7s 45.52S 166.34E 12km M=4.6
0.5 0.02 0.03 R
Rsd 0.2s 9ph/5stn Dmin 64km Az.gap 296°
Corr. 0.212 14M/7stn Msd 0.2 3↑ 1↓

00/5895
JUN 16 134909.8s 38.01S 176.30E 164km M=4.7
0.3 0.01 0.01 2
Rsd 0.1s 44ph/37stn Dmin 8km Az.gap 76°
Corr. 0.027 10M/5stn Msd 0.2 11↑ 6↓

00/5897
JUN 16 144611.5s 38.49S 175.78E 156km M=3.6
1.0 0.05 0.03 7
Rsd 0.3s 15ph/13stn Dmin 42km Az.gap 170°
Corr. -0.192 9M/9stn Msd 0.3 5↑ 2↓

00/5925
JUN 17 130637.9s 39.31S 174.82E 217km M=3.8
0.7 0.03 0.06 6
Rsd 0.2s 13ph/10stn Dmin 55km Az.gap 198°
Corr. -0.432 11M/11stn Msd 0.3 1↑

00/5939
JUN 18 122638.6s 40.39S 176.66E 33km M=4.0
0.2 0.01 0.02 R
Rsd 0.2s 31ph/28stn Dmin 48km Az.gap 190°
Corr. -0.550 8M/5stn Msd 0.2 6↑ 2↓

00/5947
JUN 18 140416.4s 36.87S 177.43E 154km M=4.1
0.4 0.03 0.03 4
Rsd 0.2s 11ph/8stn Dmin 112km Az.gap 285°
Corr. -0.397 12M/9stn Msd 0.2 1↑

00/5958
JUN 19 085545.3s 36.80S 177.01E 240km M=4.0
0.5 0.04 0.04 5
Rsd 0.2s 12ph/9stn Dmin 145km Az.gap 278°
Corr. -0.480 11M/11stn Msd 0.2 1↓

00/5990
JUN 20 112018.0s 45.33S 166.68E 12km M=4.9
0.6 0.02 0.03 R
Rsd 0.3s 10ph/5stn Dmin 40km Az.gap 281°
Corr. 0.237 15M/8stn Msd 0.2 1↑ 4↓

00/5993
JUN 20 114901.0s 45.37S 166.78E 24km M=4.0
0.2 0.01 0.01 1
Rsd 0.1s 10ph/5stn Dmin 32km Az.gap 287°
Corr. 0.460 9M/5stn Msd 0.2 1↓

00/6000
JUN 20 144446.8s 38.63S 175.77E 137km M=3.5
0.4 0.02 0.02 4
Rsd 0.1s 16ph/13stn Dmin 10km Az.gap 201°
Corr. -0.727 8M/8stn Msd 0.3 2↑ 2↓

00/6015
JUN 21 033928.9s 41.93S 174.08E 23km M=3.5
0.2 0.02 0.02 3
Rsd 0.4s 20ph/17stn Dmin 23km Az.gap 148°
Corr. -0.619 27M/23stn Msd 0.3 6↑ 1↓

00/6024
JUN 21 085539.4s 45.20S 167.41E 115km M=3.7
0.5 0.03 0.02 4
Rsd 0.3s 11ph/7stn Dmin 36km Az.gap 181°
Corr. -0.064 8M/8stn Msd 0.4 1↑ 1↓

00/6053
JUN 21 220808.5s 36.87S 176.75E 275km M=4.3
0.4 0.05 0.04 5
Rsd 0.2s 18ph/15stn Dmin 158km Az.gap 264°
Corr. -0.526 12M/12stn Msd 0.3 1↑

00/6077
JUN 22 085315.0s 37.20S 176.66E 280km M=3.7
0.5 0.06 0.04 5
Rsd 0.2s 12ph/10stn Dmin 124km Az.gap 256°
Corr. -0.463 11M/11stn Msd 0.3

00/6098
JUN 23 004849.7s 35.98S 179.14E 121km M=4.9
0.8 0.06 0.04 13
Rsd 0.3s 22ph/18stn Dmin 195km Az.gap 305°
Corr. 0.686 20M/14stn Msd 0.3 1↓

00/6099
JUN 23 014223.1s 41.59S 174.42E 20km M=4.4
0.1 0.01 0.01 1
Rsd 0.1s 24ph/18stn Dmin 25km Az.gap 136°
Corr. -0.535 11M/6stn Msd 0.1 4↑ 5↓
Felt Wellington (68) and Blenheim (77).

00/6114
JUN 23 151539.3s 39.16S 175.10E 154km M=3.8
0.4 0.02 0.01 3
Rsd 0.2s 24ph/20stn Dmin 39km Az.gap 74°
Corr. -0.093 10M/10stn Msd 0.3 4↑ 1↓

00/6125
JUN 23 220750.6s 37.59S 179.88E 12km M=3.6
0.6 0.03 0.04 R
Rsd 0.3s 10ph/7stn Dmin 139km Az.gap 311°
Corr. -0.014 6M/6stn Msd 0.1

00/6128
JUN 24 002818.2s 37.84S 177.38E 97km M=3.5
0.8 0.08 0.04 8
Rsd 0.3s 6ph/3stn Dmin 52km Az.gap 225°
Corr. -0.643 4M/3stn Msd 0.1

00/6131
JUN 24 025856.4s 39.58S 174.23E 206km M=3.9
0.7 0.02 0.05 7
Rsd 0.3s 23ph/19stn Dmin 65km Az.gap 179°
Corr. -0.471 12M/12stn Msd 0.2 1↑

00/6134
JUN 24 040317.2s 37.83S 176.70E 137km M=3.8
0.4 0.03 0.01 3
Rsd 0.2s 19ph/16stn Dmin 59km Az.gap 195°
Corr. -0.249 9M/9stn Msd 0.3 4↑ 4↓

00/6142
JUN 24 083156.0s 38.14S 175.48E 225km M=3.7
0.7 0.07 0.06 5
Rsd 0.2s 9ph/7stn Dmin 117km Az.gap 220°
Corr. -0.608 9M/9stn Msd 0.3 1↓

00/6143
JUN 24 084150.7s 44.26S 171.28E 12km M=3.4
0.1 0.01 0.01 R
Rsd 0.2s 11ph/7stn Dmin 90km Az.gap 149°
Corr. -0.370 12M/9stn Msd 0.3 1↑
Felt Timaru (118).

00/6146
JUN 24 120119.1s 38.18S 179.49W 12km M=4.1
0.5 0.03 0.03 R
Rsd 0.2s 13ph/10stn Dmin 198km Az.gap 296°
Corr. -0.029 15M/11stn Msd 0.2

00/6153
JUN 24 165356.8s 36.41S 177.31E 12km M=3.5
1.1 0.08 0.05 R
Rsd 0.5s 7ph/4stn Dmin 147km Az.gap 251°
Corr. 0.762 4M/4stn Msd 0.2

00/6168
JUN 25 113629.5s 44.35S 169.31E 12km M=3.5
0.2 0.02 0.01 R
Rsd 0.3s 13ph/8stn Dmin 50km Az.gap 162°
Corr. -0.210 17M/10stn Msd 0.3 1↑

00/6169
JUN 25 123130.1s 40.97S 174.19E 58km M=3.5
0.2 0.03 0.01 3
Rsd 0.2s 20ph/14stn Dmin 28km Az.gap 194°
Corr. -0.785 10M/8stn Msd 0.2 1↑

00/6171
JUN 25 141036.5s 35.71S 178.65E 226km M=3.9
0.7 0.16 0.10 19
Rsd 0.3s 7ph/5stn Dmin 212km Az.gap 342°
Corr. -0.271 4M/4stn Msd 0.1

00/6178
JUN 25 192652.2s 35.76S 178.78E 12km M=4.3
1.0 0.07 0.09 R
Rsd 0.4s 9ph/6stn Dmin 209km Az.gap 334°
Corr. -0.348 12M/8stn Msd 0.2

00/6181
JUN 25 214138.5s 39.81S 174.16E 129km M=3.5
0.4 0.01 0.03 4
Rsd 0.3s 26ph/20stn Dmin 66km Az.gap 159°
Corr. -0.551 10M/10stn Msd 0.3 1↑

00/6189
JUN 26 002038.9s 37.34S 177.81E 89km M=4.5
0.5 0.03 0.02 3
Rsd 0.2s 17ph/14stn Dmin 59km Az.gap 257°
Corr. 0.676 12M/10stn Msd 0.3 3↑ 2↓

00/6214
JUN 26 215451.5s 37.73S 177.58E 32km M=3.8
0.2 0.02 0.01 2
Rsd 0.2s 21ph/15stn Dmin 41km Az.gap 135°
Corr. -0.026 24M/20stn Msd 0.2 1↓

00/6227
JUN 27 161541.1s 38.41S 176.05E 123km M=3.8
0.4 0.04 0.02 3
Rsd 0.2s 12ph/7stn Dmin 91km Az.gap 213°
Corr. -0.812 11M/11stn Msd 0.2 1↑

00/6229
JUN 27 183508.5s 39.98S 177.14E 12km M=3.6
0.4 0.02 0.03 R
Rsd 0.3s 17ph/15stn Dmin 55km Az.gap 196°
Corr. -0.564 19M/17stn Msd 0.3 1↓

00/6232
JUN 28 003444.7s 39.98S 177.06E 12km M=3.8
0.4 0.01 0.03 R
Rsd 0.3s 17ph/15stn Dmin 53km Az.gap 191°
Corr. -0.394 22M/19stn Msd 0.3 1↓

00/6234
JUN 28 025729.3s 38.63S 176.01E 5km M=2.7
0.1 0.01 0.01 R
Rsd 0.2s 20ph/17stn Dmin 6km Az.gap 86°
Corr. -0.480 12M/12stn Msd 0.3 1↓
Felt Taupo (41).

00/6237
JUN 28 033217.4s 37.85S 175.89E 206km M=3.9
0.4 0.03 0.03 3
Rsd 0.1s 13ph/11stn Dmin 117km Az.gap 253°
Corr. -0.577 10M/10stn Msd 0.3
Poor station coverage.

00/6247
JUN 28 073858.3s 38.59S 176.03E 8km M=2.7
0.2 0.01 0.01 1
Rsd 0.1s 8ph/6stn Dmin 8km Az.gap 251°
Corr. 0.155 3M/3stn Msd 0.4 1↑
Felt Taupo (41).

00/6267
JUN 28 185421.6s 40.40S 176.66E 33km M=4.0
0.2 0.01 0.02 R
Rsd 0.2s 26ph/25stn Dmin 47km Az.gap 191°
Corr. -0.580 10M/6stn Msd 0.2 8↑ 3↓
Felt southern Hawkes Bay.

00/6270
JUN 28 195158.5s 35.49S 178.44E 229km M=4.0
0.8 0.10 0.09 5
Rsd 0.1s 7ph/6stn Dmin 288km Az.gap 337°
Corr. -0.826 4M/4stn Msd 0.4

00/6275
JUN 28 235225.4s 38.20S 176.23E 152km M=3.7
1.0 0.06 0.03 7
Rsd 0.3s 11ph/9stn Dmin 77km Az.gap 238°
Corr. -0.442 9M/9stn Msd 0.3 1↑

00/6277
JUN 29 022037.3s 37.27S 177.43E 135km M=3.9
0.2 0.02 0.02 2
Rsd 0.1s 12ph/8stn Dmin 86km Az.gap 258°
Corr. -0.645 8M/6stn Msd 0.2 1↑

00/6282
JUN 29 054917.7s 36.16S 178.75E 258km M=3.7
0.8 0.08 0.10 2
Rsd 0.1s 9ph/8stn Dmin 275km Az.gap 352°
Corr. -0.414 7M/7stn Msd 0.3

00/6286
JUN 29 092521.9s 38.05S 176.62E 118km M=4.2
0.2 0.01 0.01 1
Rsd 0.1s 36ph/32stn Dmin 9km Az.gap 84°
Corr. 0.045 19M/14stn Msd 0.2 1↑

00/6291
JUN 29 140849.3s 39.28S 175.66E 79km M=3.7
0.2 0.02 0.01 2
Rsd 0.3s 28ph/25stn Dmin 1km Az.gap 56°
Corr. -0.543 7M/7stn Msd 0.4 1↑

00/6293
JUN 29 161352.7s 45.12S 167.46E 78km M=3.6
0.2 0.01 0.01 2
Rsd 0.2s 15ph/9stn Dmin 45km Az.gap 185°
Corr. -0.167 16M/10stn Msd 0.2 1↑

00/6315
JUN 30 065547.1s 45.05S 167.52E 126km M=4.2
0.4 0.02 0.02 3
Rsd 0.2s 16ph/9stn Dmin 52km Az.gap 186°
Corr. -0.221 10M/5stn Msd 0.1 3↑ 2↓

00/6318
JUN 30 103601.2s 38.70S 175.24E 203km M=4.2
0.5 0.03 0.02 4
Rsd 0.3s 30ph/26stn Dmin 41km Az.gap 174°
Corr. -0.589 15M/14stn Msd 0.3

00/6329
JUN 30 170831.7s 41.20S 172.75E 191km M=3.5
0.4 0.02 0.02 3
Rsd 0.3s 24ph/17stn Dmin 46km Az.gap 104°
Corr. -0.265 10M/10stn Msd 0.2 1↑

00/6338
JUN 30 223647.2s 39.26S 177.45E 33km M=3.8
0.2 0.01 0.02 R
Rsd 0.3s 30ph/24stn Dmin 33km Az.gap 176°
Corr. -0.633 32M/29stn Msd 0.3 2↑ 2↓

00/6370
JUL 02 033053.2s 38.03S 176.11E 205km M=4.5
0.5 0.02 0.03 5
Rsd 0.2s 34ph/30stn Dmin 18km Az.gap 112°
Corr. 0.124 20M/16stn Msd 0.3 5↑ 3↓

00/6375
JUL 02 081158.9s 37.70S 177.23E 117km M=3.8
0.2 0.01 0.01 3
Rsd 0.1s 9ph/6stn Dmin 63km Az.gap 135°
Corr. 0.308 6M/4stn Msd 0.1 1↑

00/6398
JUL 03 054950.4s 36.94S 177.43E 191km M=4.1
0.8 0.09 0.06 6
Rsd 0.3s 11ph/8stn Dmin 146km Az.gap 303°
Corr. -0.454 5M/5stn Msd 0.2 1↓

00/6399
JUL 03 055544.8s 38.96S 174.98E 210km M=4.0
2.3 0.20 0.17 18
Rsd 0.4s 13ph/10stn Dmin 37km Az.gap 203°
Corr. -0.864 10M/10stn Msd 0.3 1↑

00/6401
JUL 03 070609.5s 43.60S 170.04E 5km M=3.8
0.5 0.02 0.03 R
Rsd 0.2s 15ph/9stn Dmin 66km Az.gap 161°
Corr. -0.741 16M/11stn Msd 0.2 1↓

00/6423
JUL 04 035400.4s 38.11S 176.28E 146km M=3.8
0.8 0.04 0.02 5
Rsd 0.2s 12ph/11stn Dmin 74km Az.gap 246°
Corr. -0.220 6M/6stn Msd 0.3 1↑

00/6434
JUL 04 143224.3s 37.10S 176.85E 243km M=3.9
0.4 0.04 0.02 2
Rsd 0.1s 10ph/9stn Dmin 131km Az.gap 311°
Corr. -0.344 9M/9stn Msd 0.3 1↑

00/6437
JUL 04 181715.3s 38.48S 177.71E 33km M=3.6
0.2 0.02 0.01 R
Rsd 0.4s 12ph/10stn Dmin 32km Az.gap 106°
Corr. 0.145 12M/8stn Msd 0.2 1↑

00/6439
JUL 04 201400.4s 40.56S 173.02E 198km M=4.0
0.4 0.01 0.02 3
Rsd 0.2s 26ph/20stn Dmin 81km Az.gap 170°
Corr. -0.277 12M/11stn Msd 0.4 3↑ 5↓

00/6447
JUL 05 125054.6s 40.10S 177.08E 12km M=3.6
0.3 0.01 0.03 R
Rsd 0.2s 26ph/22stn Dmin 65km Az.gap 194°
Corr. -0.121 22M/22stn Msd 0.4 1↓

00/6486
JUL 07 032835.8s 40.55S 173.44E 165km M=4.5
0.3 0.01 0.01 3
Rsd 0.2s 35ph/29stn Dmin 49km Az.gap 127°
Corr. 0.150 13M/10stn Msd 0.2 10↑ 6↓

00/6494
JUL 07 085240.7s 39.27S 174.84E 27km M=3.6
0.0 0.01 0.00 1
Rsd 0.1s 29ph/25stn Dmin 39km Az.gap 103°
Corr. -0.378 27M/26stn Msd 0.3 1↑ 6↓

00/6498
JUL 07 104016.8s 36.94S 177.01E 212km M=4.0
0.3 0.03 0.02 3
Rsd 0.1s 9ph/6stn Dmin 147km Az.gap 288°
Corr. -0.301 4M/4stn Msd 0.1

00/6505
JUL 07 132714.3s 37.94S 176.52E 141km M=3.7
0.4 0.03 0.03 4
Rsd 0.2s 10ph/6stn Dmin 63km Az.gap 227°
Corr. -0.632 13M/13stn Msd 0.2 1↑ 1↓

00/6510
JUL 07 183755.7s 37.30S 177.46E 144km M=4.1
0.3 0.02 0.02 3
Rsd 0.2s 13ph/10stn Dmin 82km Az.gap 191°
Corr. 0.237 15M/12stn Msd 0.2 1↑

00/6545
JUL 09 002156.8s 40.60S 175.12E 41km M=3.6
0.1 0.01 0.01 3
Rsd 0.2s 33ph/28stn Dmin 34km Az.gap 79°
Corr. -0.112 13M/10stn Msd 0.3 3↑ 2↓

00/6555
JUL 09 061145.6s 36.92S 177.37E 193km M=4.0
0.4 0.04 0.03 3
Rsd 0.1s 6ph/4stn Dmin 150km Az.gap 320°
Corr. -0.186 3M/3stn Msd 0.2 1↑

00/6579
JUL 09 202851.4s 38.23S 175.66E 177km M=3.6
0.4 0.03 0.02 3
Rsd 0.1s 9ph/8stn Dmin 86km Az.gap 250°
Corr. -0.801 10M/10stn Msd 0.3

00/6606
JUL 11 024051.1s 41.34S 173.12E 103km M=3.8
0.4 0.02 0.01 4
Rsd 0.3s 27ph/22stn Dmin 75km Az.gap 71°
Corr. -0.350 14M/13stn Msd 0.3 1↑

00/6609
JUL 11 074640.1s 36.93S 179.50E 33km M=3.6
0.2 0.01 0.01 R
Rsd 0.1s 12ph/10stn Dmin 168km Az.gap 302°
Corr. -0.092 9M/8stn Msd 0.2

00/6610
JUL 11 080444.2s 40.33S 176.47E 55km M=3.7
0.1 0.01 0.01 2
Rsd 0.1s 30ph/27stn Dmin 44km Az.gap 169°
Corr. -0.473 15M/13stn Msd 0.2 2↑ 3↓

00/6617
JUL 11 112416.6s 37.02S 177.55E 134km M=3.7
0.4 0.04 0.02 5
Rsd 0.2s 13ph/10stn Dmin 132km Az.gap 277°
Corr. -0.065 9M/7stn Msd 0.2

00/6618
JUL 11 115220.7s 36.87S 177.28E 207km M=3.7
0.4 0.05 0.04 4
Rsd 0.2s 6ph/4stn Dmin 155km Az.gap 300°
Corr. -0.106 10M/10stn Msd 0.3 1↑

00/6622
JUL 11 142706.9s 41.28S 172.69E 192km M=3.6
0.3 0.01 0.01 2
Rsd 0.2s 23ph/18stn Dmin 52km Az.gap 111°
Corr. -0.408 10M/10stn Msd 0.3 1↑ 8↓

00/6627
JUL 11 170121.3s 38.06S 176.32E 164km M=4.5
0.2 0.01 0.01 2
Rsd 0.2s 45ph/37stn Dmin 8km Az.gap 63°
Corr. 0.047 20M/14stn Msd 0.2 10↑ 6↓

00/6636
JUL 11 231546.7s 38.60S 176.20E 184km M=3.6
0.9 0.07 0.05 7
Rsd 0.2s 14ph/12stn Dmin 72km Az.gap 190°
Corr. -0.809 9M/9stn Msd 0.3 1↓

00/6639
JUL 12 003124.8s 37.59S 179.30E 16km M=4.1
0.5 0.02 0.03 3
Rsd 0.1s 13ph/10stn Dmin 89km Az.gap 292°
Corr. -0.381 25M/21stn Msd 0.3 1↓

00/6652
JUL 12 122626.4s 45.40S 167.07E 65km M=3.6
0.2 0.01 0.01 2
Rsd 0.1s 12ph/7stn Dmin 10km Az.gap 246°
Corr. -0.130 15M/9stn Msd 0.2 1↑ 1↓

00/6664
JUL 12 221541.1s 40.90S 173.23E 135km M=3.6
0.3 0.02 0.01 3
Rsd 0.3s 24ph/17stn Dmin 59km Az.gap 133°
Corr. -0.204 11M/11stn Msd 0.3 1↓

00/6665
JUL 12 224117.5s 37.35S 177.09E 135km M=3.8
0.9 0.03 0.03 10
Rsd 0.4s 15ph/12stn Dmin 111km Az.gap 167°
Corr. 0.417 13M/12stn Msd 0.2

00/6686
JUL 13 212017.8s 40.85S 175.69E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.2s 23ph/19stn Dmin 38km Az.gap 128°
Corr. -0.529 26M/22stn Msd 0.3 1↑ 8↓
Felt north of Masterton (66).

00/6689
JUL 13 213816.8s 45.31S 166.74E 5km M=4.2
0.5 0.02 0.02 R
Rsd 0.4s 13ph/8stn Dmin 37km Az.gap 265°
Corr. 0.029 8M/4stn Msd 0.2 1↑ 1↓

00/6695
JUL 14 042003.4s 36.08S 177.43E 243km M=3.9
0.3 0.02 0.12 9
Rsd 0.1s 11ph/10stn Dmin 252km Az.gap 328°
Corr. 0.671 7M/7stn Msd 0.2

00/6696
JUL 14 080853.7s 47.66S 165.34E 33km M=4.2
0.5 0.04 0.03 R
Rsd 0.2s 11ph/8stn Dmin 229km Az.gap 322°
Corr. 0.086 15M/8stn Msd 0.2

00/6697
JUL 14 082932.2s 47.63S 165.25E 33km M=3.8
0.6 0.03 0.04 R
Rsd 0.2s 11ph/8stn Dmin 234km Az.gap 322°
Corr. 0.087 9M/8stn Msd 0.3

00/6699
JUL 14 100347.4s 35.25S 179.01E 218km M=4.4
1.0 0.07 0.07 13
Rsd 0.3s 11ph/8stn Dmin 269km Az.gap 312°
Corr. 0.574 13M/12stn Msd 0.2

00/6703
JUL 14 141153.8s 38.72S 175.49E 173km M=3.8
0.2 0.03 0.01 2
Rsd 0.2s 17ph/13stn Dmin 37km Az.gap 143°
Corr. 0.064 12M/12stn Msd 0.2 1↑

00/6710
JUL 14 194703.4s 38.98S 175.22E 144km M=4.7
0.2 0.01 0.01 1
Rsd 0.2s 38ph/33stn Dmin 17km Az.gap 79°
Corr. -0.321 8M/4stn Msd 0.3 11↑ 2↓

00/6730
JUL 15 210550.8s 36.57S 177.65E 12km M=3.6
0.6 0.04 0.04 R
Rsd 0.2s 6ph/4stn Dmin 129km Az.gap 333°
Corr. 0.160 4M/3stn Msd 0.3 1↓

00/6748
JUL 16 142415.0s 38.24S 178.24E 12km M=3.6
0.7 0.05 0.18 R
Rsd 0.2s 6ph/3stn Dmin 19km Az.gap 206°
Corr. -0.988 4M/2stn Msd 0.1 1↓

00/6760
JUL 17 034838.9s 37.42S 176.76E 330km M=4.0
0.4 0.05 0.03 4
Rsd 0.1s 11ph/9stn Dmin 195km Az.gap 308°
Corr. -0.390 4M/4stn Msd 0.2

00/6763
JUL 17 061458.5s 37.44S 178.02E 52km M=4.7
0.5 0.03 0.02 5
Rsd 0.2s 22ph/19stn Dmin 31km Az.gap 202°
Corr. 0.674 19M/15stn Msd 0.3 1↑ 2↓

00/6764
JUL 17 064836.3s 42.99S 171.48E 5km M=3.6
0.1 0.01 0.01 R
Rsd 0.2s 18ph/11stn Dmin 61km Az.gap 110°
Corr. -0.172 24M/18stn Msd 0.2 1↑

00/6779
JUL 17 153502.6s 37.13S 178.44E 33km M=4.4
0.9 0.05 0.05 R
Rsd 0.2s 13ph/11stn Dmin 53km Az.gap 273°
Corr. 0.781 47M/45stn Msd 0.3 1↑

00/6780
JUL 17 163656.3s 37.53S 176.64E 195km M=3.8
0.6 0.04 0.04 8
Rsd 0.2s 8ph/5stn Dmin 147km Az.gap 241°
Corr. -0.612 10M/10stn Msd 0.2 1↓

00/6782
JUL 17 220526.9s 38.16S 176.83E 193km M=3.6
0.3 0.02 0.02 3
Rsd 0.1s 11ph/10stn Dmin 121km Az.gap 203°
Corr. -0.758 6M/6stn Msd 0.2

00/6783
JUL 17 222435.0s 47.65S 165.76E 12km M=4.0
0.8 0.06 0.05 R
Rsd 0.3s 11ph/6stn Dmin 200km Az.gap 323°
Corr. 0.006 11M/7stn Msd 0.2

00/6785
JUL 18 024342.0s 38.52S 176.02E 187km M=3.6
0.3 0.02 0.03 3
Rsd 0.0s 11ph/8stn Dmin 91km Az.gap 339°
Corr. -0.550 5M/5stn Msd 0.3

00/6788
JUL 18 064403.5s 40.24S 173.53E 165km M=4.4
0.3 0.01 0.01 3
Rsd 0.2s 48ph/37stn Dmin 71km Az.gap 143°
Corr. -0.132 18M/15stn Msd 0.3 12↑ 9↓

00/6792
JUL 18 095446.3s 37.21S 179.33E 33km M=4.2
0.8 0.04 0.06 R
Rsd 0.1s 11ph/8stn Dmin 101km Az.gap 325°
Corr. 0.271 18M/16stn Msd 0.2 1↓

00/6798
JUL 18 150533.0s 39.29S 178.82E 12km M=3.7
0.2 0.01 0.01 R
Rsd 0.1s 10ph/7stn Dmin 103km Az.gap 248°
Corr. -0.612 10M/10stn Msd 0.1 1↑

00/6802
JUL 18 163955.4s 39.83S 173.90E 214km M=3.9
0.9 0.03 0.04 8
Rsd 0.4s 26ph/21stn Dmin 58km Az.gap 149°
Corr. -0.437 12M/12stn Msd 0.4 7↑ 3↓

00/6805
JUL 18 185530.0s 37.25S 176.83E 230km M=4.4
0.2 0.01 0.01 2
Rsd 0.1s 15ph/11stn Dmin 135km Az.gap 245°
Corr. -0.752 17M/15stn Msd 0.3

00/6810
JUL 18 220328.5s 38.75S 178.94E 12km M=3.6
0.7 0.02 0.04 R
Rsd 0.3s 6ph/3stn Dmin 96km Az.gap 278°
Corr. -0.523 5M/3stn Msd 0.1 1↑

00/6813
JUL 19 021818.3s 38.24S 178.30E 12km M=3.8
0.3 0.01 0.04 R
Rsd 0.3s 10ph/7stn Dmin 19km Az.gap 212°
Corr. -0.749 15M/13stn Msd 0.2 1↓

00/6823
JUL 19 085007.6s 38.37S 176.24E 206km M=3.6
0.9 0.06 0.05 7
Rsd 0.3s 13ph/10stn Dmin 115km Az.gap 214°
Corr. -0.627 9M/9stn Msd 0.3 2↑ 2↓

00/6836
JUL 19 223210.1s 44.79S 167.51E 5km M=3.7
0.3 0.01 0.02 R
Rsd 0.2s 13ph/8stn Dmin 36km Az.gap 237°
Corr. -0.649 18M/11stn Msd 0.3 1↑ 1↓

00/6840
JUL 20 015047.7s 41.60S 174.46E 9km M=3.6
0.1 0.01 0.01 2
Rsd 0.2s 24ph/20stn Dmin 26km Az.gap 138°
Corr. -0.575 8M/4stn Msd 0.3 5↑ 7↓

00/6847
JUL 20 095552.0s 45.28S 166.89E 12km M=4.0
0.6 0.02 0.04 R
Rsd 0.4s 14ph/8stn Dmin 101km Az.gap 259°
Corr. -0.280 9M/5stn Msd 0.2 1↓

00/6853
JUL 20 125015.0s 36.58S 177.56E 12km M=4.1
2.5 0.19 0.08 R
Rsd 0.8s 6ph/4stn Dmin 131km Az.gap 282°
Corr. 0.491 5M/3stn Msd 0.2

00/6869
JUL 21 002602.4s 40.30S 173.54E 168km M=3.7
0.5 0.02 0.02 5
Rsd 0.3s 22ph/18stn Dmin 64km Az.gap 182°
Corr. -0.216 12M/12stn Msd 0.3 2↑ 4↓

00/6877
JUL 21 132302.6s 39.20S 174.73E 209km M=4.5
0.4 0.02 0.02 3
Rsd 0.2s 41ph/35stn Dmin 31km Az.gap 95°
Corr. -0.125 19M/16stn Msd 0.3 8↑ 3↓

00/6886
JUL 21 164338.2s 37.91S 179.20E 21km M=3.9
1.1 0.03 0.06 7
Rsd 0.2s 12ph/11stn Dmin 85km Az.gap 285°
Corr. -0.601 10M/8stn Msd 0.2 1↓

00/6887
JUL 21 164941.6s 39.35S 174.84E 25km M=4.4
0.0 0.01 0.00 1
Rsd 0.2s 39ph/35stn Dmin 39km Az.gap 72°
Corr. -0.260 16M/9stn Msd 0.2 4↑ 6↓
Felt Taumarunui (39), New Plymouth (47) and Marton (61).

00/6888
JUL 21 165026.9s 39.16S 175.24E 70km M=4.0
0.4 0.02 0.02 4
Rsd 0.3s 14ph/11stn Dmin 18km Az.gap 74°
Corr. 0.259 1M/1stn Msd 0.0

00/6928
JUL 22 074745.9s 38.22S 178.27E 12km M=4.0
0.7 0.03 0.13 R
Rsd 0.3s 6ph/3stn Dmin 16km Az.gap 208°
Corr. -0.945 4M/2stn Msd 0.4 1↓

00/6934
JUL 22 122810.5s 37.79S 176.43E 213km M=4.0
0.8 0.05 0.04 7
Rsd 0.3s 9ph/6stn Dmin 164km Az.gap 219°
Corr. -0.600 12M/12stn Msd 0.3 1↑

00/6940
JUL 22 151320.9s 38.21S 178.24E 12km M=3.7
1.0 0.08 0.25 R
Rsd 0.4s 7ph/3stn Dmin 15km Az.gap 204°
Corr. -0.980 4M/2stn Msd 0.4 1↓

00/6942
JUL 22 171553.2s 37.32S 177.54E 137km M=3.7
0.2 0.01 0.01 2
Rsd 0.0s 11ph/9stn Dmin 74km Az.gap 251°
Corr. -0.449 2M/2stn Msd 0.2 1↓

00/6945
JUL 22 222038.9s 38.75S 175.61E 153km M=3.8
0.3 0.03 0.03 3
Rsd 0.1s 14ph/12stn Dmin 29km Az.gap 131°
Corr. 0.878 11M/11stn Msd 0.2 1↑

00/6962
JUL 23 150406.0s 37.73S 175.85E 249km M=3.8
0.7 0.07 0.08 12
Rsd 0.2s 19ph/14stn Dmin 214km Az.gap 228°
Corr. -0.934 12M/12stn Msd 0.3
Poor station coverage.

00/6976
JUL 24 011309.0s 38.28S 176.15E 178km M=4.1
0.5 0.02 0.02 4
Rsd 0.2s 27ph/22stn Dmin 12km Az.gap 119°
Corr. -0.339 17M/14stn Msd 0.5 1↓

00/7003
JUL 24 055738.5s 38.90S 175.38E 170km M=4.1
0.4 0.03 0.02 3
Rsd 0.2s 25ph/21stn Dmin 17km Az.gap 105°
Corr. 0.059 18M/16stn Msd 0.2 1↑

00/7011
JUL 24 073848.0s 41.43S 172.25E 5km M=3.7
0.2 0.01 0.01 R
Rsd 0.3s 23ph/16stn Dmin 52km Az.gap 153°
Corr. -0.432 8M/5stn Msd 0.1 5↑ 3↓
Felt Karamea (74).

00/7026
JUL 24 154711.2s 37.95S 176.60E 151km M=4.0
0.4 0.02 0.01 5
Rsd 0.2s 13ph/10stn Dmin 113km Az.gap 213°
Corr. -0.504 15M/15stn Msd 0.3 1↑

00/7032
JUL 24 212119.7s 39.68S 173.53E 12km M=3.7
0.3 0.01 0.03 3
Rsd 0.2s 34ph/29stn Dmin 53km Az.gap 180°
Corr. -0.675 28M/27stn Msd 0.4 1↑

00/7056
JUL 25 112545.7s 41.93S 172.07E 96km M=3.6
0.3 0.01 0.02 2
Rsd 0.2s 21ph/14stn Dmin 31km Az.gap 85°
Corr. 0.010 12M/12stn Msd 0.3

00/7059
JUL 25 150613.1s 38.65S 176.02E 5km M=2.8
0.1 0.01 0.01 R
Rsd 0.2s 18ph/15stn Dmin 6km Az.gap 98°
Corr. -0.700 10M/10stn Msd 0.4
Felt Taupo (41).

00/7060
JUL 25 155203.0s 38.63S 176.02E 5km M=2.5
0.2 0.01 0.01 R
Rsd 0.2s 12ph/9stn Dmin 7km Az.gap 180°
Corr. 0.123 5M/5stn Msd 0.5 1↓
Felt Acacia Bay (41).

00/7082
JUL 26 202139.0s 40.44S 177.33E 30km M=4.1
0.4 0.02 0.02 4
Rsd 0.2s 23ph/18stn Dmin 96km Az.gap 206°
Corr. -0.825 9M/6stn Msd 0.2 1↓

00/7083
JUL 26 222750.0s 39.22S 174.87E 193km M=4.1
0.4 0.03 0.05 4
Rsd 0.1s 22ph/18stn Dmin 49km Az.gap 218°
Corr. -0.694 10M/10stn Msd 0.3 3↑ 1↓

00/7086
JUL 27 050848.2s 37.77S 176.97E 138km M=4.2
1.0 0.05 0.04 13
Rsd 0.5s 11ph/7stn Dmin 118km Az.gap 195°
Corr. -0.368 16M/15stn Msd 0.3 1↑

00/7087
JUL 27 070635.6s 35.22S 178.89E 200km M=4.0
0.2 0.07 0.19 7
Rsd 0.1s 7ph/4stn Dmin 269km Az.gap 356°
Corr. -0.921 3M/3stn Msd 0.2

00/7089
JUL 27 185153.3s 44.57S 168.46E 5km M=3.5
0.2 0.02 0.01 R
Rsd 0.3s 13ph/7stn Dmin 44km Az.gap 194°
Corr. -0.155 13M/9stn Msd 0.3 1↑

00/7092
JUL 27 224543.1s 37.84S 177.59E 65km M=4.1
0.4 0.02 0.01 4
Rsd 0.2s 19ph/16stn Dmin 49km Az.gap 114°
Corr. 0.454 5M/3stn Msd 0.3 1↑

00/7099
JUL 28 075835.8s 37.66S 179.32E 66km M=3.6
0.1 0.01 0.03 4
Rsd 0.0s 5ph/3stn Dmin 90km Az.gap 309°
Corr. -0.831 4M/2stn Msd 0.2 1↑ 1↓

00/7121
JUL 29 133813.4s 36.93S 176.92E 290km M=3.9
0.9 0.07 0.06 8
Rsd 0.2s 14ph/13stn Dmin 71km Az.gap 262°
Corr. -0.183 12M/12stn Msd 0.2

00/7126
JUL 29 161501.9s 40.12S 175.13E 60km M=3.8
0.1 0.00 0.01 4
Rsd 0.2s 38ph/34stn Dmin 40km Az.gap 62°
Corr. -0.015 14M/11stn Msd 0.3 6↑ 1↓

00/7127
JUL 29 165919.4s 40.09S 175.09E 28km M=3.7
0.2 0.01 0.01 2
Rsd 0.3s 42ph/34stn Dmin 17km Az.gap 66°
Corr. -0.143 10M/6stn Msd 0.1 1↑ 2↓
Felt Wanganui (57) and Marton (61).

00/7130
JUL 29 195020.8s 38.36S 175.98E 172km M=3.7
1.3 0.06 0.03 10
Rsd 0.1s 13ph/12stn Dmin 25km Az.gap 206°
Corr. -0.761 10M/10stn Msd 0.2

00/7131
JUL 29 202517.9s 38.62S 176.02E 5km M=3.7
0.1 0.01 0.01 R
Rsd 0.4s 34ph/31stn Dmin 8km Az.gap 59°
Corr. -0.569 33M/30stn Msd 0.3 1↓
Felt Acacia Bay (41) MM5, Waihora Rd (40) and Taupo (41).

00/7136
JUL 30 010633.1s 39.65S 174.06E 187km M=3.6
0.3 0.01 0.02 3
Rsd 0.1s 24ph/19stn Dmin 128km Az.gap 196°
Corr. -0.626 11M/11stn Msd 0.3

00/7138
JUL 30 055049.6s 38.58S 175.75E 160km M=3.9
0.3 0.03 0.02 3
Rsd 0.1s 18ph/13stn Dmin 32km Az.gap 238°
Corr. -0.193 12M/12stn Msd 0.2

00/7156
JUL 30 224757.8s 35.82S 177.72E 192km M=4.1
0.7 0.06 0.23 20
Rsd 0.1s 13ph/9stn Dmin 204km Az.gap 318°
Corr. -0.819 11M/10stn Msd 0.3

00/7160
JUL 31 025757.7s 38.64S 175.69E 125km M=3.6
0.3 0.02 0.03 3
Rsd 0.1s 15ph/12stn Dmin 8km Az.gap 206°
Corr. -0.690 13M/13stn Msd 0.2 1↑

00/7162
JUL 31 031630.1s 37.99S 176.72E 137km M=4.3
0.2 0.01 0.01 2
Rsd 0.2s 33ph/27stn Dmin 4km Az.gap 90°
Corr. -0.242 20M/16stn Msd 0.3 6↑ 1↓

00/7231
AUG 02 075121.8s 39.62S 174.38E 210km M=3.5
0.6 0.02 0.03 5
Rsd 0.2s 24ph/19stn Dmin 37km Az.gap 102°
Corr. -0.380 11M/11stn Msd 0.4

00/7233
AUG 02 092805.4s 38.53S 176.07E 232km M=3.5
0.8 0.07 0.04 7
Rsd 0.2s 13ph/11stn Dmin 40km Az.gap 150°
Corr. -0.499 10M/10stn Msd 0.3 1↑

00/7238
AUG 02 150053.3s 36.98S 177.06E 266km M=4.5
0.4 0.03 0.02 4
Rsd 0.2s 21ph/18stn Dmin 129km Az.gap 264°
Corr. -0.443 20M/16stn Msd 0.2 1↑

00/7257
AUG 03 052256.7s 37.88S 179.40E 12km M=3.6
0.6 0.03 0.03 R
Rsd 0.3s 6ph/4stn Dmin 101km Az.gap 302°
Corr. 0.179 11M/9stn Msd 0.3 1↓

00/7267
AUG 03 112024.4s 45.15S 175.05W 33km M=5.1
0.8 0.05 0.05 R
Rsd 0.4s 43ph/34stn Dmin 867km Az.gap 292°
Corr. -0.345 51M/45stn Msd 0.3 1↑

00/7282
AUG 03 192602.1s 41.53S 172.75E 110km M=3.6
0.6 0.02 0.02 6
Rsd 0.3s 21ph/15stn Dmin 82km Az.gap 133°
Corr. -0.436 13M/13stn Msd 0.4 1↑ 1↓

00/7296
AUG 04 073842.9s 37.71S 176.90E 144km M=3.6
0.5 0.03 0.03 4
Rsd 0.2s 10ph/7stn Dmin 64km Az.gap 231°
Corr. -0.428 4M/4stn Msd 0.2 1↓

00/7301
AUG 04 105343.9s 41.48S 174.91E 31km M=3.8
0.1 0.01 0.00 1
Rsd 0.1s 28ph/23stn Dmin 9km Az.gap 139°
Corr. 0.013 10M/7stn Msd 0.2 5↑ 4↓
Felt Paraparaumu (65) to Wellington (68).

00/7312
AUG 04 183913.6s 38.14S 176.95E 74km M=4.6
0.2 0.01 0.01 2
Rsd 0.2s 35ph/30stn Dmin 19km Az.gap 68°
Corr. -0.016 10M/5stn Msd 0.4 7↑ 1↓
Felt Ruatuna Rd (35).

00/7320
AUG 05 042418.2s 44.98S 167.18E 18km M=4.0
0.3 0.01 0.02 2
Rsd 0.2s 11ph/7stn Dmin 55km Az.gap 226°
Corr. -0.726 12M/6stn Msd 0.3 2↑ 3↓

00/7325
AUG 05 080021.4s 38.20S 176.34E 160km M=4.3
0.4 0.02 0.01 3
Rsd 0.2s 29ph/22stn Dmin 22km Az.gap 65°
Corr. -0.395 22M/18stn Msd 0.3 5↑ 2↓

00/7332
AUG 05 115411.3s 38.90S 175.67E 218km M=3.6
0.8 0.08 0.07 6
Rsd 0.3s 17ph/14stn Dmin 29km Az.gap 185°
Corr. -0.882 10M/10stn Msd 0.3 1↑ 2↓

00/7367
AUG 06 162021.6s 39.56S 174.44E 134km M=3.6
0.4 0.01 0.01 4
Rsd 0.3s 29ph/24stn Dmin 30km Az.gap 80°
Corr. -0.103 11M/11stn Msd 0.2 1↓

00/7375
AUG 07 014721.6s 35.87S 177.23E 12km M=4.4
0.2 0.02 0.02 R
Rsd 0.0s 4ph/3stn Dmin 214km Az.gap 340°
Corr. 0.173 4M/4stn Msd 0.9

00/7379
AUG 07 050233.6s 37.84S 178.51E 5km M=3.5
0.5 0.01 0.04 R
Rsd 0.3s 6ph/4stn Dmin 33km Az.gap 240°
Corr. -0.176 9M/5stn Msd 0.4 1↑ 1↓

00/7384
AUG 07 092057.6s 46.08S 165.93E 12km M=4.2
0.9 0.03 0.06 R
Rsd 0.4s 12ph/8stn Dmin 117km Az.gap 288°
Corr. -0.200 16M/10stn Msd 0.2 1↑ 1↓

00/7415
AUG 08 103119.6s 39.16S 176.28E 50km M=6.1
0.1 0.01 0.01 3
Rsd 0.2s 37ph/32stn Dmin 54km Az.gap 57°
Corr. -0.430 8M/4stn Msd 0.2 7↑ 9↓
Felt widely in the North Island, maximum intensity MM5.

00/7416
AUG 08 103306.5s 39.07S 176.17E 56km M=4.6
0.2 0.02 0.02 3
Rsd 0.1s 10ph/7stn Dmin 50km Az.gap 200°
Corr. -0.825 4M/2stn Msd 0.0

00/7417
AUG 08 104420.2s 39.16S 176.24E 58km M=3.5
0.3 0.02 0.01 3
Rsd 0.2s 18ph/13stn Dmin 52km Az.gap 220°
Corr. -0.715 1M/1stn Msd 0.0 1↑ 3↓

00/7422
AUG 08 162059.7s 45.69S 167.51E 12km M=4.2
0.3 0.02 0.01 R
Rsd 0.3s 10ph/7stn Dmin 37km Az.gap 151°
Corr. 0.338 10M/5stn Msd 0.2 2↑ 2↓

00/7425
AUG 08 175137.7s 40.28S 173.97E 13km M=3.8
0.1 0.00 0.01 2
Rsd 0.2s 33ph/30stn Dmin 59km Az.gap 128°
Corr. 0.282 27M/26stn Msd 0.3 1↓

00/7430
AUG 08 211641.3s 42.93S 171.82E 5km M=3.5
0.1 0.01 0.01 R
Rsd 0.3s 12ph/8stn Dmin 40km Az.gap 100°
Corr. -0.183 15M/12stn Msd 0.3 2↑ 3↓

00/7435
AUG 09 043108.0s 44.11S 168.72E 12km M=4.1
0.2 0.02 0.01 R
Rsd 0.2s 12ph/8stn Dmin 89km Az.gap 176°
Corr. -0.478 13M/7stn Msd 0.1 2↑ 1↓

00/7442
AUG 09 122549.0s 41.56S 173.87E 43km M=3.6
0.1 0.02 0.01 2
Rsd 0.3s 22ph/15stn Dmin 12km Az.gap 94°
Corr. -0.604 12M/11stn Msd 0.2 5↑ 1↓

00/7452
AUG 09 224259.1s 40.02S 176.85E 76km M=3.6
0.3 0.01 0.01 5
Rsd 0.2s 31ph/25stn Dmin 90km Az.gap 182°
Corr. -0.321 15M/13stn Msd 0.2 1↓

00/7453
AUG 09 231523.3s 41.06S 172.90E 199km M=3.7
0.7 0.04 0.02 6
Rsd 0.3s 16ph/13stn Dmin 89km Az.gap 174°
Corr. -0.466 12M/12stn Msd 0.3

00/7459
AUG 10 061325.2s 37.16S 176.87E 244km M=3.6
0.3 0.04 0.03 3
Rsd 0.1s 6ph/4stn Dmin 124km Az.gap 301°
Corr. -0.423 3M/3stn Msd 0.0

00/7461
AUG 10 070407.2s 38.30S 177.59E 47km M=3.9
0.2 0.01 0.01 3
Rsd 0.2s 23ph/19stn Dmin 42km Az.gap 90°
Corr. 0.375 11M/7stn Msd 0.4 1↑ 2↓

00/7468
AUG 10 172128.2s 45.52S 166.68E 12km M=3.6
0.5 0.03 0.03 R
Rsd 0.3s 11ph/8stn Dmin 107km Az.gap 263°
Corr. -0.078 8M/4stn Msd 0.2 1↓

00/7476
AUG 11 055738.9s 38.55S 175.92E 5km M=2.5
0.6 0.02 0.04 R
Rsd 0.3s 5ph/3stn Dmin 14km Az.gap 218°
Corr. -0.842 3M/3stn Msd 0.4
Felt Taupo (41).

00/7478
AUG 11 073914.7s 37.90S 176.08E 174km M=3.6
0.5 0.04 0.03 4
Rsd 0.2s 14ph/12stn Dmin 54km Az.gap 151°
Corr. -0.387 11M/11stn Msd 0.3

00/7482
AUG 11 085311.7s 38.70S 174.56E 21km M=4.2
0.2 0.01 0.01 2
Rsd 0.3s 26ph/22stn Dmin 30km Az.gap 134°
Corr. -0.113 35M/33stn Msd 0.2 2↑ 2↓
Felt Uruti and New Plymouth (47).

00/7483
AUG 11 091234.4s 39.22S 175.04E 24km M=3.6
0.1 0.01 0.01 2
Rsd 0.1s 18ph/15stn Dmin 36km Az.gap 138°
Corr. -0.171 26M/24stn Msd 0.2 1↑ 2↓

00/7488
AUG 11 183951.4s 39.35S 177.74E 29km M=3.6
0.5 0.03 0.03 2
Rsd 0.3s 14ph/9stn Dmin 37km Az.gap 254°
Corr. -0.416 15M/15stn Msd 0.2 1↑

00/7499
AUG 12 062047.6s 40.11S 174.88E 12km M=3.5
0.1 0.01 0.02 R
Rsd 0.3s 31ph/24stn Dmin 35km Az.gap 132°
Corr. -0.440 22M/21stn Msd 0.3 1↓
Felt Wanganui (57).

00/7500
AUG 12 062255.6s 38.65S 176.11E 126km M=5.0
0.4 0.01 0.01 3
Rsd 0.2s 39ph/32stn Dmin 2km Az.gap 70°
Corr. -0.401 10M/5stn Msd 0.2 9↑ 4↓

00/7510
AUG 12 151322.3s 37.91S 176.68E 144km M=4.3
0.4 0.02 0.01 3
Rsd 0.2s 31ph/25stn Dmin 9km Az.gap 127°
Corr. -0.176 23M/17stn Msd 0.3 1↑

00/7514
AUG 12 174340.6s 38.35S 175.96E 136km M=3.5
0.5 0.06 0.03 4
Rsd 0.2s 15ph/13stn Dmin 45km Az.gap 229°
Corr. -0.938 11M/11stn Msd 0.3 1↑

00/7525
AUG 13 034616.1s 41.22S 172.97E 122km M=3.6
0.5 0.02 0.02 5
Rsd 0.3s 22ph/17stn Dmin 57km Az.gap 81°
Corr. -0.336 13M/13stn Msd 0.3 3↑ 2↓

00/7529
AUG 13 101635.2s 39.68S 173.96E 203km M=4.7
0.4 0.02 0.03 4
Rsd 0.3s 35ph/28stn Dmin 84km Az.gap 167°
Corr. -0.587 15M/9stn Msd 0.3 8↑ 6↓

00/7530
AUG 13 104747.3s 40.60S 178.64E 33km M=3.8
0.6 0.03 0.05 R
Rsd 0.4s 14ph/11stn Dmin 194km Az.gap 238°
Corr. -0.623 12M/12stn Msd 0.2

00/7531
AUG 13 123432.1s 39.92S 175.40E 56km M=3.7
0.2 0.01 0.01 4
Rsd 0.2s 33ph/26stn Dmin 43km Az.gap 76°
Corr. -0.155 18M/15stn Msd 0.2

00/7533
AUG 13 143938.7s 35.35S 179.22E 270km M=4.5
0.4 0.06 0.07 6
Rsd 0.1s 11ph/9stn Dmin 263km Az.gap 338°
Corr. -0.167 16M/12stn Msd 0.3

00/7535
AUG 13 173250.7s 39.87S 173.75E 175km M=3.7
0.5 0.02 0.02 5
Rsd 0.3s 18ph/14stn Dmin 101km Az.gap 167°
Corr. -0.159 11M/11stn Msd 0.3 1↑

00/7537
AUG 13 224540.3s 38.16S 176.35E 167km M=4.1
0.4 0.02 0.01 3
Rsd 0.2s 28ph/23stn Dmin 14km Az.gap 68°
Corr. 0.001 8M/4stn Msd 0.1 6↑ 3↓

00/7538
AUG 13 231234.1s 38.61S 176.68E 58km M=3.6
0.3 0.01 0.01 4
Rsd 0.2s 25ph/22stn Dmin 44km Az.gap 71°
Corr. -0.536 11M/9stn Msd 0.2

00/7542
AUG 14 091708.4s 37.34S 176.70E 200km M=4.6
0.5 0.03 0.02 5
Rsd 0.2s 30ph/27stn Dmin 48km Az.gap 171°
Corr. 0.137 8M/4stn Msd 0.2 1↑

00/7548
AUG 14 140217.0s 40.84S 175.25E 33km M=4.6
0.1 0.00 0.01 1
Rsd 0.2s 38ph/33stn Dmin 29km Az.gap 75°
Corr. -0.207 11M/5stn Msd 0.2 8↑ 5↓
Felt from Marton (61) to Greytown (69), maximum intensity MM5 at Paraparaumu.

00/7552
AUG 14 182829.3s 39.97S 176.85E 72km M=3.6
0.3 0.01 0.02 5
Rsd 0.2s 30ph/23stn Dmin 95km Az.gap 179°
Corr. -0.341 14M/12stn Msd 0.2 1↑

00/7563
AUG 15 043005.0s 31.94S 178.55W 436km M=7.6
1.0 0.09 0.07 19
Rsd 0.2s 28ph/24stn Dmin 691km Az.gap 335°
Corr. 0.377 8M/4stn Msd 0.2
Felt from Whakatane to Christchurch.

00/7569
AUG 15 101922.4s 39.27S 174.96E 228km M=3.6
0.3 0.02 0.02 2
Rsd 0.1s 15ph/13stn Dmin 59km Az.gap 292°
Corr. 0.000 9M/9stn Msd 0.2 1↑

00/7570
AUG 15 102306.2s 38.29S 176.56E 137km M=3.6
0.6 0.04 0.03 5
Rsd 0.3s 11ph/8stn Dmin 28km Az.gap 193°
Corr. -0.709 7M/7stn Msd 0.2

00/7576
AUG 15 200404.2s 37.10S 176.92E 211km M=3.7
0.3 0.04 0.02 3
Rsd 0.1s 9ph/7stn Dmin 130km Az.gap 287°
Corr. -0.468 7M/7stn Msd 0.2

00/7586
AUG 16 050001.1s 38.47S 176.17E 133km M=4.1
0.4 0.02 0.01 3
Rsd 0.2s 30ph/23stn Dmin 12km Az.gap 74°
Corr. -0.341 17M/11stn Msd 0.2 6↑ 4↓

00/7601
AUG 16 185614.1s 38.21S 176.43E 150km M=3.8
0.3 0.02 0.01 2
Rsd 0.2s 20ph/16stn Dmin 7km Az.gap 105°
Corr. -0.679 15M/12stn Msd 0.3 1↑

00/7606
AUG 17 041709.5s 36.89S 176.88E 257km M=3.8
0.8 0.08 0.08 8
Rsd 0.3s 9ph/7stn Dmin 154km Az.gap 291°
Corr. -0.430 9M/9stn Msd 0.2 1↑

00/7607
AUG 17 054817.5s 38.53S 175.77E 172km M=3.8
0.5 0.03 0.02 4
Rsd 0.2s 17ph/13stn Dmin 38km Az.gap 165°
Corr. -0.250 12M/12stn Msd 0.4 1↓

00/7609
AUG 17 065446.7s 37.23S 176.62E 228km M=4.1
0.3 0.04 0.03 3
Rsd 0.1s 12ph/9stn Dmin 122km Az.gap 273°
Corr. -0.026 15M/10stn Msd 0.2 1↑

00/7611
AUG 17 072607.7s 38.40S 176.05E 153km M=4.0
0.3 0.02 0.01 3
Rsd 0.1s 16ph/11stn Dmin 58km Az.gap 177°
Corr. -0.306 11M/9stn Msd 0.3 1↑

00/7614
AUG 17 113039.2s 37.92S 176.11E 176km M=3.8
0.7 0.04 0.06 5
Rsd 0.3s 6ph/4stn Dmin 95km Az.gap 250°
Corr. -0.629 11M/9stn Msd 0.3 1↑ 1↓

00/7620
AUG 17 141057.2s 39.17S 175.41E 143km M=3.6
0.4 0.02 0.02 3
Rsd 0.3s 26ph/20stn Dmin 12km Az.gap 125°
Corr. -0.272 11M/10stn Msd 0.3 1↓

00/7622
AUG 17 144831.9s 40.03S 175.17E 19km M=3.6
0.1 0.01 0.01 2
Rsd 0.3s 33ph/25stn Dmin 33km Az.gap 128°
Corr. -0.096 25M/22stn Msd 0.3 3↑ 1↓

00/7624
AUG 17 151758.6s 38.42S 176.37E 91km M=3.6
0.2 0.01 0.01 2
Rsd 0.1s 23ph/16stn Dmin 64km Az.gap 169°
Corr. -0.533 11M/9stn Msd 0.2

00/7627
AUG 17 163834.7s 39.81S 174.56E 106km M=3.5
0.3 0.01 0.01 4
Rsd 0.2s 30ph/25stn Dmin 32km Az.gap 79°
Corr. -0.212 12M/10stn Msd 0.2 1↑

00/7644
AUG 18 041434.8s 36.31S 177.53E 221km M=4.0
0.4 0.05 0.05 6
Rsd 0.1s 7ph/3stn Dmin 206km Az.gap 332°
Corr. -0.062 3M/3stn Msd 0.1

00/7647
AUG 18 062642.7s 45.13S 167.49E 120km M=3.9
0.3 0.01 0.02 2
Rsd 0.2s 14ph/8stn Dmin 59km Az.gap 229°
Corr. -0.043 9M/8stn Msd 0.2 3↑ 1↓

00/7649
AUG 18 110236.3s 37.03S 177.48E 155km M=3.7
0.5 0.04 0.04 4
Rsd 0.2s 11ph/8stn Dmin 96km Az.gap 276°
Corr. -0.294 5M/5stn Msd 0.1

00/7654
AUG 18 141207.9s 40.09S 179.76W 33km M=4.0
0.8 0.04 0.05 R
Rsd 0.5s 23ph/17stn Dmin 251km Az.gap 267°
Corr. -0.216 20M/19stn Msd 0.2

00/7658
AUG 18 154422.1s 40.08S 173.61E 215km M=3.5
0.7 0.04 0.02 6
Rsd 0.2s 14ph/12stn Dmin 84km Az.gap 189°
Corr. -0.056 8M/8stn Msd 0.3

00/7659
AUG 18 165651.8s 38.51S 178.84E 12km M=3.5
0.8 0.02 0.05 R
Rsd 0.4s 10ph/6stn Dmin 70km Az.gap 254°
Corr. -0.273 9M/5stn Msd 0.2

00/7662
AUG 18 183409.9s 37.65S 176.72E 163km M=4.0
0.3 0.02 0.01 3
Rsd 0.1s 20ph/17stn Dmin 38km Az.gap 208°
Corr. 0.053 17M/16stn Msd 0.3 1↑

00/7670
AUG 19 020916.9s 38.72S 175.16E 239km M=4.0
2.0 0.07 0.06 17
Rsd 0.3s 12ph/11stn Dmin 39km Az.gap 127°
Corr. -0.471 12M/12stn Msd 0.3 1↑

00/7675
AUG 19 043627.0s 38.15S 176.49E 142km M=4.4
0.2 0.01 0.01 2
Rsd 0.2s 35ph/30stn Dmin 7km Az.gap 38°
Corr. -0.090 8M/4stn Msd 0.2 2↑

00/7677
AUG 19 054554.2s 38.19S 176.13E 147km M=4.0
0.4 0.02 0.01 3
Rsd 0.2s 15ph/11stn Dmin 53km Az.gap 211°
Corr. -0.446 14M/12stn Msd 0.2 1↑

00/7683
AUG 19 092016.4s 36.95S 177.68E 138km M=4.6
0.5 0.06 0.03 8
Rsd 0.2s 19ph/16stn Dmin 78km Az.gap 258°
Corr. 0.069 18M/12stn Msd 0.4 1↓

00/7689
AUG 19 121246.8s 45.38S 167.30E 110km M=3.5
0.3 0.01 0.02 2
Rsd 0.2s 13ph/8stn Dmin 69km Az.gap 233°
Corr. 0.091 9M/8stn Msd 0.2 2↑ 1↓

00/7703
AUG 20 105007.5s 36.92S 177.12E 203km M=4.2
0.4 0.03 0.03 4
Rsd 0.2s 13ph/9stn Dmin 129km Az.gap 265°
Corr. -0.488 15M/12stn Msd 0.3

00/7710
AUG 20 150134.0s 39.55S 174.42E 205km M=3.8
0.5 0.02 0.02 4
Rsd 0.2s 21ph/17stn Dmin 29km Az.gap 85°
Corr. 0.051 11M/11stn Msd 0.3 1↑

00/7713
AUG 20 153246.1s 36.16S 179.34E 149km M=4.6
0.7 0.06 0.05 10
Rsd 0.3s 23ph/20stn Dmin 185km Az.gap 305°
Corr. 0.089 19M/14stn Msd 0.3 1↑ 1↓

00/7715
AUG 20 163909.7s 38.34S 176.39E 160km M=3.6
1.0 0.06 0.05 7
Rsd 0.3s 10ph/8stn Dmin 64km Az.gap 208°
Corr. -0.617 8M/8stn Msd 0.3 1↑

00/7717
AUG 20 171403.3s 37.43S 176.79E 185km M=3.9
0.5 0.04 0.02 5
Rsd 0.2s 14ph/11stn Dmin 62km Az.gap 238°
Corr. -0.209 12M/12stn Msd 0.2

00/7722
AUG 20 193210.0s 39.55S 174.21E 191km M=3.6
0.6 0.02 0.06 7
Rsd 0.3s 19ph/15stn Dmin 68km Az.gap 195°
Corr. -0.295 12M/12stn Msd 0.3 1↓

00/7741
AUG 21 100026.5s 38.13S 176.38E 147km M=3.8
0.4 0.03 0.01 4
Rsd 0.2s 15ph/12stn Dmin 30km Az.gap 214°
Corr. -0.494 13M/12stn Msd 0.4 3↑ 2↓

00/7742
AUG 21 114856.6s 40.38S 174.19E 81km M=4.0
0.3 0.01 0.01 4
Rsd 0.3s 31ph/26stn Dmin 52km Az.gap 97°
Corr. 0.103 12M/9stn Msd 0.4 2↑ 2↓

00/7750
AUG 21 161752.3s 35.70S 178.84E 239km M=4.2
0.8 0.15 0.25 13
Rsd 0.2s 11ph/7stn Dmin 216km Az.gap 338°
Corr. -0.903 7M/7stn Msd 0.2

00/7775
AUG 22 060109.1s 37.51S 178.89E 23km M=4.1
0.9 0.06 0.05 3
Rsd 0.4s 14ph/9stn Dmin 53km Az.gap 314°
Corr. 0.341 11M/8stn Msd 0.3 1↑

00/7790
AUG 23 022130.4s 38.64S 176.09E 188km M=3.6
0.6 0.03 0.03 5
Rsd 0.1s 14ph/11stn Dmin 63km Az.gap 195°
Corr. -0.309 11M/11stn Msd 0.3 1↓

00/7792
AUG 23 024308.5s 37.26S 177.41E 138km M=3.6
0.5 0.03 0.03 5
Rsd 0.2s 7ph/4stn Dmin 88km Az.gap 282°
Corr. -0.550 4M/3stn Msd 0.2 1↑

00/7796
AUG 23 043508.3s 38.76S 175.88E 136km M=4.2
0.3 0.01 0.01 2
Rsd 0.2s 30ph/24stn Dmin 12km Az.gap 86°
Corr. -0.662 17M/11stn Msd 0.3 8↑ 7↓

00/7809
AUG 23 225046.7s 40.08S 174.42E 105km M=4.0
0.4 0.01 0.02 5
Rsd 0.3s 28ph/23stn Dmin 54km Az.gap 90°
Corr. -0.016 12M/11stn Msd 0.3 1↑ 9↓

00/7810
AUG 24 000659.6s 38.16S 176.34E 161km M=3.7
0.4 0.03 0.01 4
Rsd 0.2s 15ph/12stn Dmin 18km Az.gap 146°
Corr. -0.475 12M/12stn Msd 0.3 1↑

00/7819
AUG 24 095951.2s 44.97S 168.09E 63km M=4.2
0.2 0.01 0.01 2
Rsd 0.1s 13ph/9stn Dmin 35km Az.gap 152°
Corr. 0.114 16M/10stn Msd 0.3 5↑ 4↓
Felt Queenstown (132) to Te Anau (130).

00/7830
AUG 24 151636.1s 37.74S 176.07E 269km M=4.1
0.6 0.08 0.04 5
Rsd 0.2s 10ph/8stn Dmin 108km Az.gap 241°
Corr. -0.634 14M/12stn Msd 0.3 1↓

00/7834
AUG 24 213925.6s 41.49S 174.92E 30km M=3.2
0.1 0.01 0.01 1
Rsd 0.2s 25ph/19stn Dmin 10km Az.gap 141°
Corr. -0.181 20M/17stn Msd 0.3 3↑ 4↓
Felt Wellington (68).

00/7837
AUG 25 015217.1s 45.08S 167.53E 80km M=3.8
0.2 0.01 0.01 2
Rsd 0.1s 15ph/9stn Dmin 55km Az.gap 228°
Corr. -0.025 15M/11stn Msd 0.3 1↑ 2↓

00/7848
AUG 25 130306.3s 37.47S 178.79E 24km M=4.0
0.4 0.01 0.02 1
Rsd 0.1s 11ph/8stn Dmin 46km Az.gap 302°
Corr. -0.006 19M/15stn Msd 0.4 1↑ 1↓

00/7888
AUG 27 150942.2s 38.68S 175.98E 174km M=3.7
0.4 0.02 0.02 3
Rsd 0.1s 17ph/14stn Dmin 53km Az.gap 202°
Corr. -0.480 14M/12stn Msd 0.3 1↑

00/7900
AUG 28 021609.6s 44.79S 169.69E 5km M=4.4
0.1 0.01 0.01 R
Rsd 0.2s 16ph/11stn Dmin 32km Az.gap 71°
Corr. -0.354 16M/9stn Msd 0.2 2↑ 2↓

00/7915
AUG 28 121536.4s 42.24S 172.67E 5km M=1.9
0.1 0.00 0.01 R
Rsd 0.1s 6ph/3stn Dmin 56km Az.gap 187°
Corr. -0.425 1M/1stn Msd 0.0 1↑
Felt Hanmer Springs (95).

00/7917
AUG 28 140038.7s 38.27S 177.22E 57km M=4.0
0.1 0.01 0.00 1
Rsd 0.1s 27ph/22stn Dmin 10km Az.gap 104°
Corr. -0.048 18M/12stn Msd 0.3 8↑ 2↓

00/7918
AUG 28 145247.7s 36.72S 178.00E 116km M=4.0
1.0 0.08 0.08 11
Rsd 0.3s 10ph/6stn Dmin 102km Az.gap 308°
Corr. -0.613 10M/6stn Msd 0.3

00/7938
AUG 29 035042.5s 45.07S 167.60E 117km M=5.3
0.3 0.01 0.02 2
Rsd 0.2s 15ph/9stn Dmin 51km Az.gap 223°
Corr. 0.193 19M/10stn Msd 0.1 1↑
Felt Queenstown (132) and Manapouri (138).

00/7943
AUG 29 083556.2s 44.95S 167.50E 115km M=4.3
0.5 0.02 0.04 3
Rsd 0.2s 13ph/9stn Dmin 46km Az.gap 239°
Corr. -0.364 10M/5stn Msd 0.3 1↑

00/7969
AUG 30 110316.8s 38.16S 176.23E 155km M=4.1
0.3 0.02 0.01 3
Rsd 0.1s 15ph/12stn Dmin 75km Az.gap 180°
Corr. -0.376 20M/16stn Msd 0.3 4↑ 1↓

00/7972
AUG 30 133820.9s 38.03S 178.64E 53km M=4.1
0.3 0.02 0.02 2
Rsd 0.2s 10ph/7stn Dmin 34km Az.gap 249°
Corr. -0.109 19M/13stn Msd 0.2 1↓

00/7978
AUG 30 154731.5s 41.67S 174.50E 33km M=2.2
0.1 0.01 0.01 4
Rsd 0.1s 11ph/7stn Dmin 52km Az.gap 199°
Corr. -0.465 2M/2stn Msd 0.2
Felt Eastbourne (68).

00/7981
AUG 30 175250.3s 45.23S 167.48E 132km M=4.0
0.4 0.02 0.03 3
Rsd 0.2s 16ph/9stn Dmin 56km Az.gap 225°
Corr. 0.040 17M/11stn Msd 0.3 1↑

00/8003
AUG 31 104944.9s 38.52S 177.50E 62km M=4.0
0.2 0.01 0.01 2
Rsd 0.2s 22ph/18stn Dmin 45km Az.gap 112°
Corr. -0.202 14M/10stn Msd 0.2 1↓

00/8016
AUG 31 214155.6s 37.31S 177.05E 214km M=3.6
0.5 0.05 0.04 3
Rsd 0.2s 15ph/12stn Dmin 106km Az.gap 275°
Corr. -0.455 8M/8stn Msd 0.3

00/8036
SEP 01 151009.7s 39.06S 174.94E 221km M=4.4
0.5 0.02 0.02 4
Rsd 0.2s 42ph/35stn Dmin 39km Az.gap 94°
Corr. -0.309 10M/6stn Msd 0.2 16↑ 11↓

00/8055
SEP 02 092818.3s 35.77S 178.24E 198km M=3.6
1.0 0.15 0.10 23
Rsd 0.3s 5ph/3stn Dmin 203km Az.gap 338°
Corr. -0.532 3M/3stn Msd 0.2

00/8056
SEP 02 105025.0s 40.16S 173.57E 209km M=3.6
0.4 0.01 0.02 3
Rsd 0.2s 32ph/26stn Dmin 77km Az.gap 144°
Corr. -0.013 15M/15stn Msd 0.3 1↑

00/8089
SEP 03 204013.7s 37.26S 177.69E 128km M=3.6
0.4 0.03 0.03 4
Rsd 0.2s 17ph/14stn Dmin 66km Az.gap 259°
Corr. -0.500 9M/8stn Msd 0.2 1↓

00/8144
SEP 05 033253.4s 44.98S 167.63E 129km M=3.7
0.4 0.02 0.03 3
Rsd 0.3s 13ph/7stn Dmin 41km Az.gap 229°
Corr. 0.067 11M/10stn Msd 0.4 1↓

00/8152
SEP 05 075326.0s 36.97S 177.17E 230km M=4.0
0.6 0.05 0.04 6
Rsd 0.2s 17ph/14stn Dmin 122km Az.gap 263°
Corr. -0.364 15M/15stn Msd 0.2

00/8159
SEP 05 092348.9s 37.72S 177.28E 79km M=3.5
0.2 0.01 0.01 2
Rsd 0.1s 19ph/16stn Dmin 22km Az.gap 103°
Corr. 0.193 10M/8stn Msd 0.2 1↓

00/8174
SEP 05 202414.3s 35.66S 178.94E 277km M=4.1
0.5 0.08 0.08 5
Rsd 0.2s 7ph/5stn Dmin 223km Az.gap 344°
Corr. -0.661 3M/3stn Msd 0.2

00/8176
SEP 05 213011.2s 45.23S 167.29E 59km M=4.1
0.3 0.01 0.02 3
Rsd 0.2s 15ph/9stn Dmin 29km Az.gap 198°
Corr. -0.019 16M/9stn Msd 0.3 1↓
Felt Manapouri (138).

00/8181
SEP 05 235552.0s 38.49S 176.26E 187km M=3.6
1.8 0.09 0.19 14
Rsd 0.2s 13ph/12stn Dmin 59km Az.gap 324°
Corr. -0.599 7M/7stn Msd 0.3

00/8183
SEP 06 033206.8s 38.35S 177.19E 43km M=4.0
0.1 0.01 0.01 2
Rsd 0.2s 28ph/24stn Dmin 12km Az.gap 85°
Corr. 0.234 15M/11stn Msd 0.3 2↑ 2↓

00/8184
SEP 06 064701.4s 38.03S 178.82E 33km M=3.6
0.4 0.02 0.03 R
Rsd 0.3s 10ph/5stn Dmin 50km Az.gap 266°
Corr. 0.034 8M/4stn Msd 0.2 1↓

00/8185
SEP 06 090453.5s 40.84S 174.10E 91km M=3.5
0.2 0.01 0.01 2
Rsd 0.3s 26ph/19stn Dmin 15km Az.gap 82°
Corr. -0.032 12M/12stn Msd 0.2 2↑ 2↓

00/8189
SEP 06 151714.2s 37.87S 177.99E 56km M=3.9
0.6 0.03 0.04 8
Rsd 0.4s 10ph/6stn Dmin 33km Az.gap 102°
Corr. -0.030 8M/4stn Msd 0.1 2↑ 1↓

00/8190
SEP 06 154414.8s 37.25S 177.20E 5km M=4.8
0.2 0.02 0.01 R
Rsd 0.3s 26ph/24stn Dmin 30km Az.gap 179°
Corr. 0.528 9M/5stn Msd 0.2 1↑ 1↓

00/8195
SEP 06 170646.2s 35.61S 178.57E 263km M=4.0
0.9 0.09 0.13 8
Rsd 0.3s 6ph/4stn Dmin 275km Az.gap 338°
7 Corr. -0.716 2M/2stn Msd 0.0

00/8202
SEP 06 204854.6s 37.60S 176.63E 165km M=4.2
0.3 0.01 0.01 3
Rsd 0.2s 35ph/30stn Dmin 43km Az.gap 132°
Corr. 0.456 8M/4stn Msd 0.1 1↓

00/8210
SEP 07 043841.8s 37.19S 177.60E 205km M=3.5
0.3 0.03 0.03 2
Rsd 0.1s 8ph/4stn Dmin 114km Az.gap 305°
Corr. -0.576 3M/3stn Msd 0.0

00/8221
SEP 07 102941.7s 38.82S 177.43E 30km M=4.5
0.2 0.01 0.01 2
Rsd 0.2s 28ph/26stn Dmin 33km Az.gap 139°
Corr. 0.043 12M/8stn Msd 0.2 5↑ 2↓
Felt Tuai (43).

00/8224
SEP 07 154304.3s 41.34S 172.94E 109km M=3.5
0.4 0.01 0.01 4
Rsd 0.3s 22ph/15stn Dmin 48km Az.gap 86°
Corr. -0.165 9M/9stn Msd 0.3 1↑ 2↓

00/8226
SEP 07 174133.3s 39.46S 174.41E 207km M=3.8
0.7 0.03 0.08 7
Rsd 0.2s 16ph/11stn Dmin 59km Az.gap 194°
Corr. -0.659 13M/13stn Msd 0.3

00/8229
SEP 07 231823.6s 38.50S 175.76E 178km M=3.7
0.6 0.02 0.02 6
Rsd 0.2s 16ph/12stn Dmin 76km Az.gap 134°
Corr. -0.436 13M/11stn Msd 0.3 1↓

00/8235
SEP 08 050538.1s 38.81S 175.97E 105km M=4.1
0.4 0.01 0.01 3
Rsd 0.2s 29ph/22stn Dmin 16km Az.gap 50°
Corr. -0.384 9M/5stn Msd 0.2 10↑ 2↓

00/8244
SEP 08 100302.3s 38.06S 176.29E 138km M=3.8
0.4 0.04 0.02 3
Rsd 0.2s 10ph/7stn Dmin 75km Az.gap 255°
Corr. -0.758 8M/8stn Msd 0.3 1↑

00/8255
SEP 08 180308.0s 39.14S 178.70E 33km M=4.0
0.3 0.02 0.02 R
Rsd 0.1s 14ph/11stn Dmin 81km Az.gap 235°
Corr. -0.447 27M/21stn Msd 0.3 1↑

00/8257
SEP 08 204258.2s 35.77S 177.83E 12km M=3.9
1.4 0.10 0.11 R
Rsd 0.3s 5ph/4stn Dmin 207km Az.gap 335°
Corr. 0.122 3M/3stn Msd 0.4

00/8258
SEP 08 211705.0s 40.53S 173.43E 170km M=3.8
0.3 0.02 0.01 3
Rsd 0.2s 29ph/22stn Dmin 51km Az.gap 160°
Corr. -0.203 11M/11stn Msd 0.3 1↑ 1↓

00/8272
SEP 10 021334.5s 40.21S 176.09E 56km M=4.4
0.1 0.00 0.01 3
Rsd 0.2s 40ph/33stn Dmin 54km Az.gap 122°
Corr. -0.122 11M/6stn Msd 0.3 6↑ 7↓
Felt Waipawa (60).

00/8305
SEP 11 031250.8s 41.26S 172.78E 149km M=4.3
0.5 0.02 0.02 4
Rsd 0.3s 33ph/27stn Dmin 52km Az.gap 100°
Corr. -0.305 21M/15stn Msd 0.2 1↑ 1↓

00/8308
SEP 11 065437.0s 36.82S 177.35E 177km M=3.5
0.3 0.06 0.02 5
Rsd 0.1s 5ph/3stn Dmin 161km Az.gap 322°
Corr. -0.043 3M/3stn Msd 0.3

00/8309
SEP 11 070956.9s 39.78S 174.43E 124km M=3.6
0.3 0.01 0.01 4
Rsd 0.2s 34ph/28stn Dmin 43km Az.gap 85°
Corr. -0.374 9M/9stn Msd 0.2 7↑ 3↓

00/8317
SEP 11 101636.5s 38.54S 175.39E 223km M=4.5
0.3 0.01 0.01 3
Rsd 0.2s 38ph/34stn Dmin 50km Az.gap 99°
Corr. -0.396 10M/5stn Msd 0.2 5↑ 8↓

00/8318
SEP 11 142021.8s 37.75S 178.29E 48km M=4.1
0.2 0.01 0.01 1
Rsd 0.1s 16ph/12stn Dmin 17km Az.gap 181°
Corr. 0.160 15M/11stn Msd 0.3 3↑ 1↓

00/8321
SEP 11 152244.0s 39.69S 176.84E 26km M=3.5
0.4 0.03 0.02 1
Rsd 0.2s 20ph/18stn Dmin 16km Az.gap 176°
Corr. -0.796 12M/12stn Msd 0.3 1↓

00/8330
SEP 11 202119.9s 37.69S 179.68W 12km M=3.7
0.3 0.03 0.02 R
Rsd 0.1s 8ph/4stn Dmin 179km Az.gap 334°
Corr. -0.552 6M/6stn Msd 0.1

00/8334
SEP 12 015619.1s 39.31S 174.68E 189km M=3.9
0.5 0.02 0.02 4
Rsd 0.2s 30ph/26stn Dmin 25km Az.gap 125°
Corr. -0.075 16M/16stn Msd 0.2 1↑

00/8340
SEP 12 070814.8s 37.15S 177.41E 136km M=4.2
0.4 0.02 0.02 4
Rsd 0.2s 19ph/17stn Dmin 46km Az.gap 196°
Corr. 0.325 21M/16stn Msd 0.2 1↑ 2↓

00/8342
SEP 12 090050.7s 38.50S 175.76E 142km M=3.7
0.3 0.03 0.02 2
Rsd 0.1s 17ph/14stn Dmin 24km Az.gap 205°
Corr. -0.897 16M/14stn Msd 0.3 2↑ 1↓

00/8346
SEP 12 114956.7s 37.30S 177.64E 111km M=4.2
0.2 0.02 0.01 2
Rsd 0.1s 17ph/14stn Dmin 47km Az.gap 225°
Corr. 0.179 20M/14stn Msd 0.2 1↓

00/8347
SEP 12 121227.6s 41.19S 174.64E 38km M=3.6
0.1 0.01 0.01 2
Rsd 0.2s 45ph/35stn Dmin 7km Az.gap 68°
Corr. -0.346 12M/9stn Msd 0.2 5↑ 2↓
Felt Wellington (68).

00/8351
SEP 12 163653.0s 45.14S 167.42E 120km M=4.0
0.4 0.02 0.02 3
Rsd 0.3s 16ph/9stn Dmin 42km Az.gap 188°
Corr. -0.172 10M/5stn Msd 0.1 2↑ 4↓

00/8384
SEP 14 094228.0s 37.34S 177.56E 152km M=3.7
1.3 0.07 0.09 14
Rsd 0.4s 10ph/8stn Dmin 102km Az.gap 283°
Corr. -0.509 11M/11stn Msd 0.2 1↑

00/8406
SEP 15 063105.9s 36.57S 177.32E 173km M=3.7
0.6 0.12 0.05 13
Rsd 0.2s 8ph/6stn Dmin 186km Az.gap 306°
Corr. -0.204 6M/6stn Msd 0.3

00/8435
SEP 16 023728.7s 37.79S 178.27E 64km M=4.6
0.3 0.01 0.02 3
Rsd 0.2s 21ph/18stn Dmin 21km Az.gap 172°
Corr. 0.166 10M/5stn Msd 0.4 2↑ 2↓

00/8441
SEP 16 072133.6s 36.13S 178.23E 12km M=3.7
1.0 0.07 0.05 R
Rsd 0.4s 9ph/7stn Dmin 163km Az.gap 321°
Corr. 0.183 10M/8stn Msd 0.3 1↓

00/8447
SEP 16 093300.5s 38.62S 175.97E 6km M=2.7
0.2 0.02 0.01 2
Rsd 0.3s 20ph/17stn Dmin 5km Az.gap 155°
Corr. -0.462 12M/12stn Msd 0.4 2↑ 2↓
Felt Waihora Rd (40).

00/8456
SEP 16 141720.6s 38.08S 176.31E 166km M=3.6
1.0 0.09 0.06 6
Rsd 0.3s 11ph/9stn Dmin 73km Az.gap 252°
Corr. -0.706 7M/7stn Msd 0.3

00/8466
SEP 16 185621.9s 44.62S 167.73E 32km M=4.5
0.2 0.02 0.01 1
Rsd 0.1s 18ph/10stn Dmin 16km Az.gap 199°
Corr. -0.273 19M/11stn Msd 0.2 3↑ 3↓

00/8475
SEP 16 235317.4s 37.73S 177.00E 155km M=3.8
0.7 0.05 0.05 7
Rsd 0.7s 10ph/7stn Dmin 60km Az.gap 130°
Corr. 0.137 10M/7stn Msd 0.4 3↑ 1↓

00/8498
SEP 17 201711.9s 38.35S 176.20E 139km M=3.6
0.5 0.02 0.02 5
Rsd 0.1s 11ph/10stn Dmin 81km Az.gap 125°
Corr. 0.253 5M/5stn Msd 0.1 1↑

00/8505
SEP 18 041752.4s 38.84S 175.20E 236km M=3.7
0.3 0.01 0.03 2
Rsd 0.1s 15ph/13stn Dmin 50km Az.gap 208°
Corr. -0.115 8M/8stn Msd 0.3

00/8510
SEP 18 092108.9s 37.60S 176.61E 230km M=3.5
0.6 0.12 0.05 7
Rsd 0.2s 6ph/3stn Dmin 86km Az.gap 302°
Corr. -0.608 3M/3stn Msd 0.1 1↑

00/8517
SEP 18 212526.0s 38.35S 176.20E 173km M=3.9
0.3 0.03 0.02 3
Rsd 0.1s 21ph/15stn Dmin 30km Az.gap 155°
Corr. -0.840 13M/12stn Msd 0.4 1↑ 2↓

00/8523
SEP 18 235914.7s 45.44S 167.08E 49km M=3.7
0.3 0.02 0.02 2
Rsd 0.2s 13ph/8stn Dmin 7km Az.gap 246°
Corr. 0.362 10M/5stn Msd 0.2 2↑ 1↓

00/8528
SEP 19 031155.0s 37.37S 176.65E 215km M=3.7
0.4 0.04 0.03 4
Rsd 0.2s 10ph/8stn Dmin 107km Az.gap 248°
Corr. -0.778 11M/11stn Msd 0.3

00/8548
SEP 19 170939.3s 38.10S 176.22E 152km M=4.2
0.3 0.02 0.01 2
Rsd 0.1s 10ph/6stn Dmin 80km Az.gap 118°
Corr. 0.377 18M/14stn Msd 0.3 2↑ 4↓

00/8563
SEP 20 083904.2s 38.26S 176.77E 81km M=3.7
0.3 0.01 0.01 3
Rsd 0.2s 27ph/23stn Dmin 18km Az.gap 72°
Corr. 0.206 6M/4stn Msd 0.3 2↑ 3↓

00/8568
SEP 20 141254.8s 41.03S 173.51E 93km M=4.0
0.3 0.02 0.01 4
Rsd 0.3s 33ph/27stn Dmin 43km Az.gap 84°
Corr. -0.086 13M/10stn Msd 0.3 6↑ 8↓
Felt Nelson(76), Blenheim (77) and Havelock (78).

00/8569
SEP 20 145237.7s 37.52S 177.62E 104km M=3.6
0.1 0.02 0.01 2
Rsd 0.1s 6ph/4stn Dmin 61km Az.gap 231°
Corr. -0.775 4M/3stn Msd 0.2 1↑ 2↓

00/8572
SEP 20 192611.6s 37.33S 177.14E 129km M=4.1
0.4 0.02 0.01 3
Rsd 0.2s 28ph/26stn Dmin 23km Az.gap 170°
Corr. 0.171 15M/11stn Msd 0.2 1↑ 2↓

00/8590
SEP 21 070447.0s 37.12S 177.50E 184km M=3.6
0.6 0.10 0.04 9
Rsd 0.2s 5ph/3stn Dmin 89km Az.gap 292°
Corr. -0.560 3M/3stn Msd 0.2 1↑

00/8606
SEP 21 192614.8s 45.20S 167.39E 93km M=3.9
0.3 0.01 0.01 2
Rsd 0.2s 15ph/9stn Dmin 35km Az.gap 184°
Corr. -0.184 10M/5stn Msd 0.2 1↑

00/8608
SEP 21 223358.7s 35.90S 178.68E 226km M=4.5
0.7 0.07 0.08 10
Rsd 0.2s 9ph/7stn Dmin 192km Az.gap 330°
Corr. -0.556 16M/13stn Msd 0.4

00/8617
SEP 22 065208.4s 36.48S 177.01E 242km M=3.8
0.4 0.08 0.04 6
Rsd 0.2s 9ph/5stn Dmin 198km Az.gap 308°
Corr. -0.084 7M/7stn Msd 0.2

00/8620
SEP 22 104842.8s 38.29S 176.05E 156km M=4.0
0.5 0.03 0.02 4
Rsd 0.2s 20ph/17stn Dmin 18km Az.gap 177°
Corr. -0.753 16M/16stn Msd 0.3 1↑

00/8624
SEP 22 124032.3s 38.82S 175.12E 12km M=3.6
0.1 0.01 0.00 R
Rsd 0.2s 27ph/23stn Dmin 34km Az.gap 74°
Corr. 0.118 38M/36stn Msd 0.3 2↑ 2↓

00/8632
SEP 22 140446.5s 36.57S 177.51E 138km M=3.7
0.5 0.07 0.02 7
Rsd 0.1s 7ph/5stn Dmin 191km Az.gap 319°
Corr. -0.362 2M/2stn Msd 0.2

00/8641
SEP 22 183301.0s 47.67S 165.02E 33km M=5.0
0.6 0.03 0.05 R
Rsd 0.2s 12ph/7stn Dmin 252km Az.gap 324°
Corr. 0.098 13M/7stn Msd 0.3 1↓

00/8650
SEP 22 221504.5s 47.54S 165.55E 12km M=3.8
0.6 0.04 0.04 R
Rsd 0.2s 10ph/5stn Dmin 209km Az.gap 331°
Corr. -0.182 5M/5stn Msd 0.2

00/8679
SEP 23 111803.2s 37.52S 177.18E 5km M=3.5
0.8 0.06 0.02 R
Rsd 0.6s 13ph/10stn Dmin 2km Az.gap 251°
Corr. -0.129 17M/14stn Msd 0.2 1↑

00/8686
SEP 23 162453.5s 40.69S 174.20E 68km M=3.7
0.2 0.01 0.01 3
Rsd 0.2s 39ph/31stn Dmin 27km Az.gap 86°
Corr. 0.129 16M/12stn Msd 0.2 4↑ 1↓

00/8703
SEP 24 040219.3s 38.51S 175.72E 140km M=3.5
0.3 0.03 0.02 2
Rsd 0.1s 15ph/12stn Dmin 40km Az.gap 232°
Corr. -0.923 10M/10stn Msd 0.3 2↑ 2↓

00/8720
SEP 24 152621.0s 39.40S 175.65E 101km M=5.6
0.1 0.01 0.01 1
Rsd 0.2s 55ph/46stn Dmin 15km Az.gap 92°
Corr. -0.383 10M/5stn Msd 0.2 15↑ 15↓
Felt central North Island to Wellington.

00/8721
SEP 24 152808.9s 39.39S 175.63E 98km M=4.0
0.4 0.02 0.03 3
Rsd 0.3s 20ph/14stn Dmin 14km Az.gap 99°
Corr. -0.155 11M/5stn Msd 0.1

00/8722
SEP 24 162154.2s 37.25S 177.19E 174km M=4.3
0.4 0.03 0.02 4
Rsd 0.1s 24ph/22stn Dmin 31km Az.gap 189°
Corr. 0.301 8M/4stn Msd 0.1 1↑

00/8729
SEP 25 011431.1s 38.19S 176.56E 116km M=3.8
0.2 0.02 0.01 2
Rsd 0.1s 16ph/13stn Dmin 49km Az.gap 196°
Corr. -0.887 12M/10stn Msd 0.2 1↑

00/8731
SEP 25 015348.8s 37.20S 177.40E 138km M=4.1
0.4 0.04 0.03 4
Rsd 0.2s 11ph/8stn Dmin 91km Az.gap 263°
Corr. -0.635 18M/12stn Msd 0.2

00/8733
SEP 25 042544.0s 37.55S 177.11E 5km M=4.8
0.2 0.01 0.01 R
Rsd 0.2s 24ph/22stn Dmin 7km Az.gap 142°
Corr. -0.312 14M/8stn Msd 0.3 1↑ 3↓
Felt Tauranga (26).

00/8740
SEP 25 121611.4s 38.43S 176.07E 156km M=3.8
0.4 0.03 0.04 4
Rsd 0.2s 11ph/6stn Dmin 93km Az.gap 235°
Corr. -0.847 9M/7stn Msd 0.3 1↑

00/8748
SEP 26 022825.3s 38.52S 177.84E 51km M=3.7
0.4 0.02 0.01 4
Rsd 0.2s 7ph/4stn Dmin 20km Az.gap 172°
Corr. -0.391 5M/3stn Msd 0.3 1↑

00/8754
SEP 26 112717.8s 47.68S 165.58E 12km M=3.8
0.5 0.03 0.03 R
Rsd 0.2s 10ph/6stn Dmin 213km Az.gap 323°
Corr. -0.008 6M/6stn Msd 0.2 1↓

00/8758
SEP 26 142017.7s 38.63S 177.43E 53km M=3.8
0.2 0.02 0.01 4
Rsd 0.1s 14ph/11stn Dmin 49km Az.gap 121°
Corr. -0.380 12M/8stn Msd 0.3 1↓

00/8760
SEP 26 164545.0s 42.07S 172.90E 85km M=3.8
0.3 0.01 0.01 4
Rsd 0.2s 22ph/15stn Dmin 65km Az.gap 78°
Corr. -0.112 13M/11stn Msd 0.3

00/8773
SEP 27 033747.4s 36.63S 177.01E 183km M=3.7
0.5 0.08 0.05 11
Rsd 0.2s 8ph/6stn Dmin 157km Az.gap 288°
Corr. -0.690 7M/7stn Msd 0.3

00/8799
SEP 28 052711.7s 36.33S 178.07E 174km M=4.0
0.7 0.04 0.03 9
Rsd 0.2s 6ph/4stn Dmin 143km Az.gap 275°
Corr. 0.390 4M/3stn Msd 0.1

00/8805
SEP 28 082149.2s 38.84S 177.97E 39km M=4.3
0.2 0.01 0.02 2
Rsd 0.2s 22ph/18stn Dmin 20km Az.gap 202°
Corr. -0.648 8M/4stn Msd 0.2 3↑ 2↓
Felt Gisborne (45).

00/8808
SEP 28 141755.8s 35.81S 178.84E 250km M=3.8
1.2 0.10 0.17 10
Rsd 0.4s 6ph/4stn Dmin 204km Az.gap 342°
Corr. -0.718 3M/3stn Msd 0.1 1↑ 1↓

00/8810
SEP 28 191624.3s 40.96S 175.16E 26km M=3.5
0.1 0.01 0.01 1
Rsd 0.2s 23ph/19stn Dmin 19km Az.gap 81°
Corr. -0.451 17M/13stn Msd 0.3 3↑ 3↓
Felt Raumati South (65).

00/8817
SEP 29 051015.5s 38.40S 175.77E 184km M=3.8
0.2 0.01 0.07 2
Rsd 0.1s 12ph/9stn Dmin 79km Az.gap 339°
Corr. 0.236 9M/9stn Msd 0.4 1↑

00/8821
SEP 29 111301.8s 41.58S 172.80E 102km M=3.7
0.5 0.02 0.02 6
Rsd 0.3s 24ph/17stn Dmin 85km Az.gap 88°
Corr. -0.285 12M/12stn Msd 0.2 3↑ 2↓

00/8823
SEP 29 114909.3s 38.45S 175.85E 151km M=3.9
0.3 0.02 0.01 3
Rsd 0.2s 23ph/18stn Dmin 31km Az.gap 201°
Corr. -0.476 16M/13stn Msd 0.2 3↑ 2↓

00/8824
SEP 29 121431.7s 38.66S 175.93E 130km M=3.8
1.2 0.07 0.03 10
Rsd 0.4s 13ph/10stn Dmin 51km Az.gap 200°
Corr. -0.602 12M/12stn Msd 0.3

00/8827
SEP 29 152013.9s 39.17S 175.03E 204km M=3.8
0.7 0.04 0.05 7
Rsd 0.3s 20ph/15stn Dmin 49km Az.gap 194°
Corr. -0.832 16M/14stn Msd 0.3 2↑ 3↓

00/8829
SEP 29 165744.2s 38.41S 176.06E 141km M=4.1
0.5 0.02 0.02 5
Rsd 0.3s 15ph/10stn Dmin 90km Az.gap 104°
Corr. 0.009 15M/13stn Msd 0.3 1↑

00/8832
SEP 29 191517.3s 42.11S 172.84E 78km M=4.2
0.3 0.01 0.01 5
Rsd 0.3s 27ph/20stn Dmin 67km Az.gap 64°
Corr. -0.192 16M/13stn Msd 0.3 4↑ 1↓

00/8848
SEP 30 201907.6s 45.21S 167.42E 123km M=3.8
0.4 0.02 0.02 3
Rsd 0.3s 15ph/9stn Dmin 35km Az.gap 178°
Corr. -0.113 12M/10stn Msd 0.3 1↑

00/8870
OCT 01 150452.7s 41.56S 174.37E 12km M=4.7
0.1 0.01 0.01 2
Rsd 0.2s 28ph/23stn Dmin 25km Az.gap 132°
Corr. -0.581 19M/11stn Msd 0.3 10↑ 7↓
Felt Raumati (65) to Blenheim (77).

00/8885
OCT 01 235525.4s 41.56S 174.39E 10km M=3.6
0.1 0.01 0.01 2
Rsd 0.3s 22ph/19stn Dmin 26km Az.gap 132°
Corr. -0.519 9M/5stn Msd 0.1 7↑ 2↓

00/8901
OCT 02 150422.6s 41.18S 175.06E 19km M=3.6
0.1 0.01 0.01 1
Rsd 0.2s 24ph/18stn Dmin 8km Az.gap 54°
Corr. -0.425 15M/11stn Msd 0.2 4↑ 2↓
Felt Porirua to Eastbourne (68).

00/8907
OCT 02 165854.2s 43.20S 171.05E 5km M=4.2
0.1 0.01 0.01 R
Rsd 0.2s 16ph/10stn Dmin 29km Az.gap 75°
Corr. 0.019 17M/10stn Msd 0.3 3↑ 5↓

00/8913
OCT 02 185505.6s 35.60S 178.95E 205km M=3.8
0.6 0.17 0.06 27
Rsd 0.1s 5ph/3stn Dmin 230km Az.gap 345°
Corr. -0.073 1M/1stn Msd 0.0

00/8919
OCT 03 001501.1s 43.19S 171.08E 5km M=4.5
0.1 0.01 0.01 R
Rsd 0.2s 16ph/9stn Dmin 31km Az.gap 75°
Corr. 0.027 20M/11stn Msd 0.3 4↑ 3↓

00/8943
OCT 03 230945.6s 40.26S 173.53E 163km M=3.8
0.4 0.02 0.02 4
Rsd 0.2s 29ph/24stn Dmin 69km Az.gap 178°
Corr. -0.134 16M/14stn Msd 0.3 6↑ 1↓

00/8962
OCT 04 214145.6s 37.45S 177.34E 132km M=3.8
0.3 0.02 0.02 2
Rsd 0.1s 5ph/3stn Dmin 86km Az.gap 269°
Corr. -0.574 2M/1stn Msd 0.2 1↑

00/8969
OCT 05 102549.1s 43.21S 171.04E 5km M=3.6
0.1 0.01 0.00 R
Rsd 0.1s 14ph/8stn Dmin 29km Az.gap 80°
Corr. 0.202 17M/12stn Msd 0.3 1↓

00/8970
OCT 05 112655.8s 36.93S 177.03E 222km M=3.8
0.7 0.06 0.03 4
Rsd 0.2s 8ph/7stn Dmin 147km Az.gap 307°
Corr. -0.453 4M/4stn Msd 0.3

00/8972
OCT 05 135845.6s 36.70S 176.90E 272km M=3.7
0.4 0.04 0.05 3
Rsd 0.1s 5ph/3stn Dmin 160km Az.gap 315°
Corr. -0.628 1M/1stn Msd 0.0

00/8979
OCT 06 004036.9s 37.83S 176.31E 178km M=3.9
0.3 0.03 0.02 3
Rsd 0.2s 7ph/5stn Dmin 84km Az.gap 231°
Corr. -0.426 10M/10stn Msd 0.2 1↑

00/8980
OCT 06 011529.2s 37.38S 177.04E 157km M=3.5
0.8 0.04 0.06 5
Rsd 0.2s 5ph/4stn Dmin 98km Az.gap 287°
Corr. -0.591 2M/2stn Msd 0.3

00/9029
OCT 07 125602.2s 45.13S 167.54E 117km M=3.6
0.4 0.02 0.02 3
Rsd 0.2s 14ph/8stn Dmin 55km Az.gap 224°
Corr. -0.058 8M/8stn Msd 0.2 2↑ 2↓

00/9032
OCT 07 164921.1s 39.88S 175.27E 30km M=4.1
0.1 0.00 0.01 1
Rsd 0.3s 52ph/44stn Dmin 20km Az.gap 60°
Corr. -0.043 16M/9stn Msd 0.2
Felt Wanganui (57) and Hunterville (58) to Bulls (61).

00/9055
OCT 08 125923.5s 39.14S 176.13E 56km M=3.6
0.2 0.02 0.01 4
Rsd 0.3s 26ph/21stn Dmin 42km Az.gap 86°
Corr. -0.457 12M/10stn Msd 0.3 3↑ 3↓

00/9058
OCT 08 172159.4s 36.68S 177.09E 209km M=4.2
1.3 0.11 0.12 11
Rsd 0.5s 10ph/8stn Dmin 148km Az.gap 287°
Corr. -0.603 6M/6stn Msd 0.2 1↑ 1↓

00/9061
OCT 08 204746.4s 39.19S 176.11E 60km M=3.6
0.2 0.02 0.02 3
Rsd 0.2s 17ph/13stn Dmin 41km Az.gap 196°
Corr. -0.823 2M/1stn Msd 0.0 1↑ 1↓

00/9066
OCT 09 071049.6s 38.09S 175.75E 157km M=3.7
0.3 0.02 0.03 3
Rsd 0.1s 15ph/12stn Dmin 121km Az.gap 234°
Corr. -0.867 12M/11stn Msd 0.3 1↓

00/9069
OCT 09 125209.1s 45.00S 167.54E 120km M=3.6
0.4 0.02 0.03 3
Rsd 0.2s 11ph/8stn Dmin 47km Az.gap 232°
Corr. -0.175 13M/8stn Msd 0.2 3↑ 2↓

00/9096
OCT 10 111622.9s 40.12S 173.58E 164km M=3.8
0.4 0.02 0.02 4
Rsd 0.2s 29ph/23stn Dmin 81km Az.gap 188°
Corr. -0.179 13M/13stn Msd 0.3 4↑ 1↓

00/9107
OCT 10 214507.0s 41.15S 174.60E 32km M=3.8
0.1 0.01 0.01 1
Rsd 0.2s 26ph/21stn Dmin 12km Az.gap 51°
Corr. -0.060 11M/6stn Msd 0.2 5↑ 6↓
Felt Lower Hutt (68).

00/9119
OCT 11 080755.8s 38.98S 177.35E 65km M=3.5
0.4 0.01 0.02 4
Rsd 0.2s 14ph/12stn Dmin 28km Az.gap 116°
Corr. -0.183 3M/1stn Msd 0.1 1↓

00/9125
OCT 11 140521.0s 37.82S 176.11E 211km M=4.0
0.7 0.05 0.08 6
Rsd 0.2s 14ph/10stn Dmin 100km Az.gap 221°
Corr. -0.805 14M/13stn Msd 0.2 1↓

00/9131
OCT 11 171207.6s 40.16S 173.63E 165km M=3.7
0.5 0.02 0.02 4
Rsd 0.3s 25ph/21stn Dmin 75km Az.gap 181°
Corr. -0.119 11M/11stn Msd 0.4

00/9142
OCT 12 084002.9s 46.43S 169.24E 15km M=4.4
0.2 0.01 0.01 3
Rsd 0.2s 15ph/8stn Dmin 61km Az.gap 196°
Corr. -0.573 10M/5stn Msd 0.4 4↑ 3↓
Felt southern Southland.

00/9148
OCT 12 231939.2s 38.65S 176.04E 5km M=2.5
0.3 0.02 0.02 R
Rsd 0.4s 5ph/3stn Dmin 5km Az.gap 135°
Corr. 0.194 3M/3stn Msd 0.4
Felt Wairakei (41).

00/9152
OCT 13 010628.4s 44.63S 168.22E 76km M=3.5
0.4 0.02 0.02 4
Rsd 0.3s 14ph/8stn Dmin 24km Az.gap 160°
Corr. -0.300 11M/7stn Msd 0.2 4↑ 1↓

00/9167
OCT 13 131601.5s 41.23S 172.74E 164km M=3.7
0.4 0.02 0.02 3
Rsd 0.2s 25ph/18stn Dmin 48km Az.gap 104°
Corr. -0.312 13M/13stn Msd 0.2 4↑ 2↓

00/9173
OCT 13 170809.3s 37.58S 175.80E 5km M=4.0
0.1 0.00 0.01 R
Rsd 0.2s 29ph/24stn Dmin 31km Az.gap 109°
Corr. 0.547 36M/33stn Msd 0.3 1↓
Felt Katikati (25) and Tauranga (26).

00/9174
OCT 13 170954.6s 37.58S 175.79E 5km M=3.8
0.1 0.01 0.01 R
Rsd 0.3s 24ph/20stn Dmin 30km Az.gap 115°
Corr. 0.485 24M/21stn Msd 0.3 1↓
Felt Te Aroha (25) to Tauranga (26).

00/9185
OCT 13 202907.3s 45.11S 167.56E 115km M=3.7
0.3 0.02 0.02 3
Rsd 0.2s 14ph/8stn Dmin 55km Az.gap 224°
Corr. -0.053 11M/8stn Msd 0.2 1↓

00/9188
OCT 13 231036.8s 42.00S 174.05E 12km M=4.4
0.4 0.02 0.01 3
Rsd 0.4s 27ph/21stn Dmin 31km Az.gap 151°
Corr. -0.488 18M/10stn Msd 0.2 5↑ 8↓

00/9214
OCT 14 170154.5s 40.59S 173.13E 232km M=3.5
0.4 0.04 0.02 3
Rsd 0.2s 19ph/13stn Dmin 57km Az.gap 211°
Corr. -0.194 9M/9stn Msd 0.3

00/9215
OCT 14 173730.0s 40.45S 174.68E 68km M=4.5
0.2 0.00 0.01 3
Rsd 0.2s 45ph/38stn Dmin 50km Az.gap 76°
Corr. 0.053 10M/6stn Msd 0.2 6↑ 1↓
Felt Wanganui (57) and Feilding (62) to the Kapiti Coast (65).

00/9219
OCT 14 202652.3s 40.60S 174.09E 80km M=3.6
0.2 0.01 0.01 4
Rsd 0.3s 35ph/27stn Dmin 27km Az.gap 93°
Corr. 0.049 14M/14stn Msd 0.3 1↓

00/9229
OCT 15 142312.2s 36.92S 177.63E 209km M=3.8
0.8 0.09 0.09 7
Rsd 0.4s 11ph/7stn Dmin 96km Az.gap 290°
Corr. -0.475 5M/5stn Msd 0.3 1↓

00/9243
OCT 16 070745.5s 39.23S 174.87E 194km M=3.6
0.4 0.02 0.04 4
Rsd 0.2s 17ph/12stn Dmin 59km Az.gap 249°
Corr. -0.278 6M/6stn Msd 0.3

00/9261
OCT 16 203446.9s 39.94S 176.85E 33km M=3.7
0.1 0.01 0.01 R
Rsd 0.3s 29ph/22stn Dmin 44km Az.gap 177°
Corr. -0.300 26M/22stn Msd 0.3 3↑ 1↓

00/9268
OCT 16 235554.3s 38.88S 175.42E 236km M=3.6
0.2 0.03 0.02 4
Rsd 0.1s 15ph/12stn Dmin 199km Az.gap 326°
Corr. -0.100 9M/9stn Msd 0.3
Very poor station coverage.

00/9288
OCT 17 142545.9s 45.07S 167.55E 126km M=3.5
0.4 0.02 0.02 3
Rsd 0.3s 16ph/9stn Dmin 53km Az.gap 179°
Corr. -0.161 9M/9stn Msd 0.2 3↑ 1↓

00/9311
OCT 18 104434.4s 45.98S 170.33E 5km M=3.5
0.3 0.02 0.01 R
Rsd 0.4s 14ph/8stn Dmin 13km Az.gap 185°
Corr. -0.547 15M/9stn Msd 0.3 1↑ 3↓
Felt Dunedin (145).

00/9315
OCT 18 121713.9s 36.42S 177.16E 252km M=4.3
0.2 0.04 0.02 3
Rsd 0.1s 11ph/8stn Dmin 205km Az.gap 294°
Corr. -0.675 15M/15stn Msd 0.3

00/9316
OCT 18 130319.3s 38.62S 175.26E 212km M=3.8
0.5 0.04 0.05 4
Rsd 0.2s 15ph/12stn Dmin 42km Az.gap 214°
Corr. -0.839 11M/11stn Msd 0.3 1↑

00/9330
OCT 18 225711.3s 44.48S 168.09E 5km M=3.7
0.4 0.02 0.02 R
Rsd 0.3s 15ph/9stn Dmin 25km Az.gap 195°
Corr. -0.656 17M/10stn Msd 0.3 1↑

00/9350
OCT 19 140139.1s 37.31S 176.37E 276km M=4.0
0.4 0.10 0.05 6
Rsd 0.1s 13ph/12stn Dmin 124km Az.gap 242°
Corr. -0.745 14M/14stn Msd 0.3 1↑

00/9360
OCT 19 220711.6s 41.56S 178.09E 33km M=4.1
0.5 0.03 0.03 R
Rsd 0.3s 27ph/23stn Dmin 183km Az.gap 238°
Corr. -0.727 38M/38stn Msd 0.2

00/9361
OCT 19 222128.8s 36.60S 177.42E 179km M=4.2
0.4 0.03 0.03 5
Rsd 0.2s 14ph/9stn Dmin 136km Az.gap 294°
Corr. -0.387 17M/14stn Msd 0.3 1↑

00/9381
OCT 20 091827.6s 38.19S 176.16E 196km M=4.5
0.4 0.02 0.02 3
Rsd 0.2s 34ph/30stn Dmin 3km Az.gap 93°
Corr. -0.112 21M/16stn Msd 0.3 13↑ 2↓

00/9384
OCT 20 160548.6s 37.94S 176.55E 146km M=3.8
0.5 0.03 0.02 4
Rsd 0.3s 21ph/18stn Dmin 12km Az.gap 190°
Corr. -0.182 12M/11stn Msd 0.3 1↓

00/9398
OCT 21 003410.8s 44.10S 168.73E 5km M=4.7
0.3 0.02 0.01 R
Rsd 0.2s 15ph/11stn Dmin 90km Az.gap 176°
Corr. -0.402 21M/11stn Msd 0.2 1↑
Felt Mt Aspiring Homestead (113).

00/9404
OCT 21 035511.3s 37.20S 179.41E 12km M=3.6
0.2 0.02 0.01 R
Rsd 0.1s 6ph/3stn Dmin 140km Az.gap 338°
Corr. -0.609 3M/2stn Msd 0.3

00/9422
OCT 21 135737.2s 45.16S 171.18E 22km M=3.9
0.4 0.02 0.02 2
Rsd 0.2s 14ph/10stn Dmin 44km Az.gap 194°
Corr. -0.630 9M/5stn Msd 0.2 1↓
Felt Oamaru (136).

00/9438
OCT 21 223319.1s 37.89S 176.78E 142km M=3.6
0.4 0.02 0.02 3
Rsd 0.2s 16ph/14stn Dmin 14km Az.gap 131°
Corr. -0.139 3M/3stn Msd 0.1 1↑

00/9449
OCT 22 034135.7s 37.74S 176.40E 293km M=4.7
0.5 0.03 0.03 4
Rsd 0.2s 32ph/27stn Dmin 30km Az.gap 193°
Corr. -0.118 9M/5stn Msd 0.2 7↑ 1↓

00/9475
OCT 22 173339.1s 37.23S 176.69E 192km M=3.7
0.4 0.04 0.02 3
Rsd 0.2s 10ph/8stn Dmin 120km Az.gap 278°
Corr. -0.401 11M/11stn Msd 0.2 1↑

00/9504
OCT 23 100234.7s 38.29S 176.36E 147km M=3.5
0.5 0.04 0.03 4
Rsd 0.1s 10ph/8stn Dmin 66km Az.gap 219°
Corr. -0.737 8M/8stn Msd 0.3 1↑

00/9533
OCT 24 041857.0s 41.42S 173.42E 101km M=3.9
0.2 0.01 0.01 2
Rsd 0.3s 36ph/26stn Dmin 34km Az.gap 58°
Corr. -0.346 12M/12stn Msd 0.3 6↑ 8↓

00/9536
OCT 24 051352.2s 44.66S 168.24E 69km M=3.7
0.4 0.02 0.02 4
Rsd 0.2s 11ph/6stn Dmin 25km Az.gap 135°
Corr. -0.171 18M/11stn Msd 0.2 2↑ 3↓

00/9547
OCT 24 140609.5s 40.03S 175.17E 12km M=3.6
0.1 0.01 0.01 R
Rsd 0.4s 30ph/25stn Dmin 33km Az.gap 58°
Corr. 0.011 8M/6stn Msd 0.2 2↑ 1↓
Felt Wanganui 957) and Marton (61).

00/9556
OCT 24 184830.8s 37.69S 177.47E 106km M=3.6
0.3 0.02 0.02 3
Rsd 0.2s 10ph/8stn Dmin 71km Az.gap 219°
Corr. -0.584 5M/4stn Msd 0.2 1↑

00/9567
OCT 25 011352.4s 38.91S 175.67E 105km M=3.6
0.3 0.02 0.02 3
Rsd 0.2s 25ph/18stn Dmin 7km Az.gap 71°
Corr. -0.169 11M/10stn Msd 0.2 1↑ 1↓

00/9572
OCT 25 050301.4s 40.22S 173.44E 177km M=4.1
0.3 0.01 0.01 3
Rsd 0.2s 41ph/34stn Dmin 77km Az.gap 150°
Corr. -0.094 18M/14stn Msd 0.2 1↑

00/9573
OCT 25 063831.9s 44.21S 168.61E 5km M=3.9
0.3 0.02 0.01 R
Rsd 0.2s 12ph/9stn Dmin 75km Az.gap 176°
Corr. -0.365 9M/5stn Msd 0.2 1↑

00/9577
OCT 25 101751.2s 37.11S 179.93E 12km M=3.9
0.7 0.07 0.05 R
Rsd 0.2s 6ph/4stn Dmin 182km Az.gap 340°
Corr. -0.432 5M/4stn Msd 0.4

00/9604
OCT 26 024849.4s 38.19S 176.13E 164km M=4.4
0.2 0.01 0.01 2
Rsd 0.2s 33ph/24stn Dmin 25km Az.gap 79°
Corr. -0.034 20M/15stn Msd 0.3 1↑ 1↓

00/9610
OCT 26 063241.6s 38.44S 175.83E 165km M=3.6
0.3 0.04 0.02 3
Rsd 0.1s 16ph/12stn Dmin 31km Az.gap 175°
Corr. -0.805 13M/13stn Msd 0.2 2↑ 2↓

00/9628
OCT 26 142836.7s 38.12S 176.08E 197km M=3.7
0.5 0.03 0.02 4
Rsd 0.2s 14ph/12stn Dmin 67km Az.gap 139°
Corr. -0.041 14M/14stn Msd 0.2 1↑

00/9635
OCT 26 170931.6s 38.19S 179.26E 12km M=3.6
1.5 0.08 0.09 R
Rsd 0.6s 5ph/3stn Dmin 118km Az.gap 329°
Corr. 0.058 2M/2stn Msd 0.5

00/9636
OCT 26 171113.5s 40.04S 173.69E 230km M=3.7
0.7 0.03 0.03 6
Rsd 0.4s 26ph/23stn Dmin 87km Az.gap 154°
Corr. -0.251 13M/13stn Msd 0.3 1↑

00/9643
OCT 26 231925.2s 38.93S 178.03E 39km M=3.7
0.2 0.02 0.01 2
Rsd 0.1s 14ph/11stn Dmin 33km Az.gap 207°
Corr. -0.659 15M/10stn Msd 0.3 1↑ 2↓

00/9646
OCT 27 002937.0s 36.95S 177.39E 179km M=3.8
1.4 0.14 0.10 9
Rsd 0.6s 8ph/5stn Dmin 147km Az.gap 309°
Corr. -0.517 4M/4stn Msd 0.2 1↑

00/9648
OCT 27 020416.5s 37.31S 177.10E 5km M=3.9
0.3 0.02 0.02 R
Rsd 0.3s 15ph/11stn Dmin 25km Az.gap 193°
Corr. 0.535 16M/11stn Msd 0.2 1↑ 2↓

00/9659
OCT 27 085338.0s 41.19S 174.76E 30km M=3.5
0.1 0.01 0.00 1
Rsd 0.1s 32ph/25stn Dmin 7km Az.gap 42°
Corr. -0.184 23M/20stn Msd 0.4 6↑ 1↓
Felt Whitby (68).

00/9662
OCT 27 094542.6s 39.69S 174.06E 146km M=3.5
0.5 0.01 0.02 5
Rsd 0.3s 34ph/28stn Dmin 40km Az.gap 115°
Corr. -0.369 10M/10stn Msd 0.3 1↑

00/9665
OCT 27 123114.8s 37.89S 176.44E 183km M=3.9
0.7 0.06 0.03 6
Rsd 0.4s 17ph/13stn Dmin 22km Az.gap 214°
Corr. -0.221 14M/13stn Msd 0.3 1↑

00/9674
OCT 27 163418.8s 38.33S 175.98E 170km M=5.3
0.3 0.01 0.01 2
Rsd 0.2s 46ph/38stn Dmin 25km Az.gap 62°
Corr. -0.220 10M/6stn Msd 0.2 15↑ 13↓
Felt Whitby (68).

00/9675
OCT 27 165229.2s 37.07S 177.34E 157km M=4.9
0.4 0.03 0.02 4
Rsd 0.2s 24ph/20stn Dmin 53km Az.gap 221°
Corr. 0.654 10M/6stn Msd 0.3 3↑ 6↓

00/9676
OCT 27 171110.2s 42.91S 176.89E 12km M=3.6
1.0 0.05 0.07 R
Rsd 0.4s 22ph/16stn Dmin 207km Az.gap 242°
Corr. -0.431 18M/18stn Msd 0.3

00/9681
OCT 27 204852.5s 37.64S 177.30E 123km M=3.7
0.3 0.03 0.01 3
Rsd 0.2s 14ph/11stn Dmin 67km Az.gap 242°
Corr. 0.116 11M/9stn Msd 0.2 1↑

00/9687
OCT 28 003937.3s 37.08S 177.50E 116km M=4.4
0.4 0.03 0.03 6
Rsd 0.2s 16ph/13stn Dmin 57km Az.gap 226°
Corr. 0.693 20M/15stn Msd 0.3 1↑

00/9688
OCT 28 004208.7s 37.98S 176.72E 129km M=3.7
0.8 0.05 0.06 6
Rsd 0.3s 7ph/4stn Dmin 46km Az.gap 310°
Corr. -0.174 4M/3stn Msd 0.2

00/9711
OCT 28 154626.7s 38.51S 176.16E 101km M=3.8
0.2 0.01 0.01 2
Rsd 0.2s 27ph/23stn Dmin 16km Az.gap 76°
Corr. -0.298 12M/12stn Msd 0.2 1↑

00/9713
OCT 28 171655.0s 38.30S 176.22E 157km M=4.0
0.4 0.02 0.01 3
Rsd 0.2s 17ph/12stn Dmin 36km Az.gap 125°
Corr. -0.399 13M/13stn Msd 0.3 6↑ 1↓

00/9723
OCT 28 214608.9s 39.34S 175.71E 94km M=3.5
0.2 0.01 0.01 2
Rsd 0.2s 31ph/24stn Dmin 9km Az.gap 105°
Corr. -0.422 15M/13stn Msd 0.2 1↓

00/9732
OCT 29 054411.0s 38.70S 175.42E 167km M=3.7
0.3 0.03 0.07 2
Rsd 0.1s 12ph/10stn Dmin 35km Az.gap 241°
Corr. 0.075 11M/11stn Msd 0.3 2↑ 1↓

00/9736
OCT 29 100117.9s 37.94S 176.09E 271km M=3.7
0.7 0.04 0.06 6
Rsd 0.2s 10ph/9stn Dmin 96km Az.gap 266°
Corr. -0.618 7M/7stn Msd 0.1
Poor station coverage.

00/9741
OCT 29 131428.0s 38.17S 176.23E 138km M=3.6
0.5 0.03 0.02 5
Rsd 0.3s 11ph/8stn Dmin 74km Az.gap 124°
Corr. 0.064 10M/10stn Msd 0.2 1↑ 2↓

00/9762
OCT 30 012458.9s 39.83S 173.92E 212km M=4.0
0.4 0.02 0.02 4
Rsd 0.3s 36ph/27stn Dmin 54km Az.gap 135°
Corr. -0.364 14M/12stn Msd 0.3 8↑ 1↓

00/9769
OCT 30 104723.7s 37.83S 176.61E 141km M=3.9
0.3 0.02 0.01 3
Rsd 0.2s 22ph/17stn Dmin 18km Az.gap 114°
Corr. -0.030 14M/12stn Msd 0.2 2↑ 1↓

00/9770
OCT 30 110523.4s 38.05S 176.14E 178km M=4.1
0.4 0.02 0.01 3
Rsd 0.2s 19ph/14stn Dmin 15km Az.gap 150°
Corr. -0.179 19M/15stn Msd 0.2 1↑

00/9778
OCT 30 144247.0s 38.33S 176.17E 166km M=3.8
0.5 0.02 0.02 4
Rsd 0.2s 19ph/14stn Dmin 10km Az.gap 110°
Corr. 0.228 12M/11stn Msd 0.3 2↑ 1↓

00/9779
OCT 30 154505.5s 37.37S 177.37E 136km M=3.6
0.3 0.02 0.02 3
Rsd 0.2s 8ph/5stn Dmin 86km Az.gap 274°
Corr. -0.506 3M/3stn Msd 0.2 1↑

00/9780
OCT 30 163219.1s 40.78S 175.00E 51km M=5.2
0.1 0.00 0.01 2
Rsd 0.2s 53ph/42stn Dmin 12km Az.gap 62°
Corr. -0.144 10M/6stn Msd 0.2 15↑ 14↓
Felt from Ohakune (49) to Blenheim (68), maximum intensity MM5

00/9783
OCT 30 190220.1s 41.84S 172.98E 66km M=3.9
0.2 0.01 0.01 2
Rsd 0.2s 28ph/19stn Dmin 11km Az.gap 64°
Corr. -0.249 12M/10stn Msd 0.3 2↑ 4↓

00/9802
OCT 31 135147.4s 41.00S 174.69E 39km M=4.2
0.1 0.01 0.01 2
Rsd 0.2s 39ph/34stn Dmin 24km Az.gap 52°
Corr. 0.162 12M/7stn Msd 0.4 9↑ 4↓
Felt Raumati (65) to Wellington (68).

00/9812
OCT 31 155426.2s 36.81S 176.81E 260km M=4.1
0.4 0.04 0.04 4
Rsd 0.2s 12ph/9stn Dmin 163km Az.gap 281°
Corr. -0.212 14M/13stn Msd 0.2 1↑

00/9817
OCT 31 175003.6s 39.49S 174.27E 211km M=3.9
0.5 0.02 0.04 5
Rsd 0.3s 29ph/21stn Dmin 66km Az.gap 158°
Corr. -0.445 14M/14stn Msd 0.3 3↑ 2↓

00/9823
OCT 31 213144.7s 38.38S 176.08E 153km M=3.6
0.3 0.02 0.02 3
Rsd 0.1s 11ph/9stn Dmin 47km Az.gap 215°
Corr. -0.685 8M/8stn Msd 0.2 1↑

00/9836
NOV 01 080332.5s 38.34S 176.07E 148km M=3.9
0.9 0.04 0.02 6
Rsd 0.3s 19ph/15stn Dmin 17km Az.gap 185°
Corr. 0.151 11M/9stn Msd 0.2 1↑

00/9839
NOV 01 103555.8s 45.12S 166.95E 9km M=6.2
0.3 0.01 0.01 R
Rsd 0.1s 13ph/8stn Dmin 42km Az.gap 218°
Corr. -0.402 36M/19stn Msd 0.3 8↑ 6↓
Felt West Coast to Invercargill, maximum intensity MM5 at Manapouri (139).

00/9840
NOV 01 103734.3s 45.25S 167.12E 9km M=5.0
0.5 0.02 0.03 R
Rsd 0.4s 12ph/6stn Dmin 25km Az.gap 233°
Corr. -0.262 12M/6stn Msd 0.3

00/9841
NOV 01 103848.8s 45.10S 166.95E 9km M=4.3
0.2 R R R
Rsd 0.5s 8ph/4stn Dmin 44km Az.gap 277°
Corr. R 8M/4stn Msd 0.3

00/9842
NOV 01 103910.9s 45.16S 167.05E 9km M=4.3
0.4 0.01 0.02 R
Rsd 0.3s 15ph/6stn Dmin 35km Az.gap 246°
Corr. -0.434 12M/6stn Msd 0.3

00/9843
NOV 01 103938.5s 45.06S 166.89E 9km M=3.8
0.9 0.03 0.05 R
Rsd 0.4s 9ph/5stn Dmin 49km Az.gap 268°
Corr. -0.265 7M/4stn Msd 0.3

00/9844
NOV 01 104016.0s 45.18S 167.08E 9km M=4.4
0.3 0.01 0.02 R
Rsd 0.2s 14ph/8stn Dmin 33km Az.gap 242°
Corr. -0.279 14M/7stn Msd 0.2

00/9845
NOV 01 104113.2s 45.17S 167.06E 9km M=3.8
0.7 0.02 0.04 R
Rsd 0.4s 10ph/6stn Dmin 34km Az.gap 243°
Corr. -0.533 9M/5stn Msd 0.2

00/9846
NOV 01 104116.2s 45.13S 167.02E 9km M=4.3
0.5 0.01 0.03 R
Rsd 0.3s 12ph/7stn Dmin 39km Az.gap 242°
Corr. -0.496 14M/8stn Msd 0.3

00/9848
NOV 01 104348.7s 45.14S 167.05E 9km M=3.5
0.4 0.01 0.02 R
Rsd 0.3s 14ph/6stn Dmin 37km Az.gap 246°
Corr. -0.488 11M/6stn Msd 0.2

00/9860
NOV 01 105131.2s 45.13S 167.03E 9km M=4.2
0.3 0.01 0.02 R
Rsd 0.2s 14ph/8stn Dmin 39km Az.gap 240°
Corr. -0.450 17M/10stn Msd 0.2

00/9861
NOV 01 105251.8s 45.13S 167.05E 9km M=3.5
0.3 0.01 0.02 R
Rsd 0.2s 12ph/8stn Dmin 38km Az.gap 246°
Corr. -0.469 8M/4stn Msd 0.2

00/9868
NOV 01 105607.1s 45.15S 167.03E 9km M=3.6
0.4 0.01 0.02 R
Rsd 0.2s 12ph/6stn Dmin 37km Az.gap 240°
Corr. -0.602 17M/11stn Msd 0.2

00/9869
NOV 01 105610.3s 45.10S 166.95E 9km M=3.6
0.1 R R R
Rsd 0.4s 10ph/5stn Dmin 44km Az.gap 249°
Corr. R 14M/8stn Msd 0.2

00/9889
NOV 01 111203.4s 45.13S 167.01E 9km M=3.7
0.3 0.01 0.02 R
Rsd 0.2s 12ph/8stn Dmin 39km Az.gap 242°
Corr. -0.304 10M/5stn Msd 0.2

00/9890
NOV 01 111305.5s 45.15S 167.11E 9km M=3.7
0.4 0.01 0.02 R
Rsd 0.2s 14ph/8stn Dmin 35km Az.gap 237°
Corr. -0.553 10M/5stn Msd 0.2

00/9891
NOV 01 111311.1s 45.22S 167.05E 9km M=3.7
0.8 0.02 0.05 R
Rsd 0.4s 9ph/7stn Dmin 29km Az.gap 246°
Corr. -0.087 10M/7stn Msd 0.2

00/9912
NOV 01 113913.9s 45.12S 167.04E 9km M=3.8
0.4 0.01 0.02 R
Rsd 0.2s 12ph/8stn Dmin 40km Az.gap 238°
Corr. -0.531 10M/5stn Msd 0.1 2↑ 3↓

00/9918
NOV 01 114441.1s 45.17S 167.10E 9km M=4.4
0.5 0.02 0.03 R
Rsd 0.3s 13ph/8stn Dmin 34km Az.gap 230°
Corr. -0.590 21M/11stn Msd 0.2 1↓
Felt Manapouri (139).

00/9933
NOV 01 120959.5s 45.20S 167.10E 9km M=4.9
0.6 0.02 0.03 R
Rsd 0.3s 13ph/8stn Dmin 30km Az.gap 231°
Corr. -0.672 23M/12stn Msd 0.2 1↓
Felt Manapouri (139).

00/9943
NOV 01 123214.9s 40.67S 173.57E 115km M=4.0
0.2 0.01 0.01 3
Rsd 0.2s 46ph/33stn Dmin 33km Az.gap 111°
Corr. 0.223 9M/9stn Msd 0.1 6↑ 4↓

00/9950
NOV 01 125031.5s 45.15S 167.06E 9km M=3.8
0.3 0.01 0.02 R
Rsd 0.2s 13ph/8stn Dmin 36km Az.gap 236°
Corr. -0.473 13M/7stn Msd 0.3 1↓

00/9954
NOV 01 125534.7s 45.15S 167.07E 9km M=3.6
0.4 0.02 0.02 R
Rsd 0.3s 11ph/8stn Dmin 36km Az.gap 235°
Corr. -0.498 19M/12stn Msd 0.3 1↓

00/9956
NOV 01 125734.6s 45.22S 167.14E 9km M=3.8
0.3 0.01 0.02 R
Rsd 0.2s 11ph/9stn Dmin 28km Az.gap 226°
Corr. -0.698 11M/7stn Msd 0.2 1↓

00/9991
NOV 01 144626.5s 45.15S 167.08E 9km M=4.4
0.3 0.01 0.01 R
Rsd 0.2s 14ph/8stn Dmin 35km Az.gap 232°
Corr. -0.596 19M/11stn Msd 0.2 1↓

00/10014
NOV 01 162306.9s 45.13S 167.07E 9km M=3.6
0.3 0.01 0.02 R
Rsd 0.2s 13ph/8stn Dmin 38km Az.gap 235°
Corr. -0.591 10M/5stn Msd 0.1 1↓

00/10065
NOV 01 203040.3s 45.15S 166.98E 9km M=4.1
0.4 0.01 0.02 R
Rsd 0.2s 12ph/9stn Dmin 38km Az.gap 246°
Corr. -0.127 13M/7stn Msd 0.2 1↓

00/10070
NOV 01 220545.9s 45.12S 167.10E 9km M=4.3
0.4 0.02 0.03 R
Rsd 0.3s 12ph/8stn Dmin 39km Az.gap 231°
Corr. -0.595 21M/11stn Msd 0.2 1↓

00/10093
NOV 02 045218.5s 45.11S 167.02E 9km M=3.9
0.7 0.02 0.04 R
Rsd 0.4s 12ph/9stn Dmin 42km Az.gap 240°
Corr. -0.708 12M/7stn Msd 0.2 1↓

00/10116
NOV 02 124446.5s 38.58S 176.20E 164km M=3.6
0.8 0.04 0.04 6
Rsd 0.3s 13ph/11stn Dmin 74km Az.gap 193°
Corr. -0.544 7M/6stn Msd 0.1 1↑ 1↓

00/10140
NOV 02 173524.6s 39.87S 174.49E 107km M=4.1
0.3 0.01 0.01 3
Rsd 0.3s 45ph/34stn Dmin 38km Az.gap 84°
Corr. -0.150 15M/10stn Msd 0.3 5↑ 4↓

00/10142
NOV 02 175953.2s 38.58S 175.04E 207km M=3.5
1.0 0.08 0.14 18
Rsd 0.2s 8ph/7stn Dmin 184km Az.gap 241°
Corr. -0.941 6M/6stn Msd 0.2
Poor station coverage.

00/10144
NOV 02 190100.9s 36.93S 177.45E 166km M=3.6
0.4 0.05 0.03 4
Rsd 0.2s 7ph/4stn Dmin 145km Az.gap 320°
Corr. -0.253 3M/3stn Msd 0.2

00/10164
NOV 03 011044.7s 45.14S 167.04E 9km M=3.9
0.4 0.01 0.02 R
Rsd 0.2s 13ph/8stn Dmin 38km Az.gap 238°
Corr. -0.484 11M/6stn Msd 0.2 2↑ 1↓

00/10167
NOV 03 014353.8s 39.19S 174.89E 222km M=4.1
0.5 0.02 0.02 4
Rsd 0.2s 26ph/22stn Dmin 47km Az.gap 161°
Corr. -0.050 11M/9stn Msd 0.3 7↑ 1↓

00/10189
NOV 03 090354.8s 45.23S 167.36E 70km M=3.5
0.2 0.01 0.01 2
Rsd 0.2s 18ph/10stn Dmin 27km Az.gap 106°
Corr. -0.082 9M/5stn Msd 0.2 1↑ 3↓

00/10199
NOV 03 114512.6s 45.17S 167.02E 24km M=3.7
0.2 0.01 0.02 1
Rsd 0.2s 9ph/6stn Dmin 3km Az.gap 160°
Corr. -0.050 14M/7stn Msd 0.3 2↑ 2↓

00/10268
NOV 04 035505.0s 45.10S 167.39E 87km M=3.7
0.2 0.01 0.01 2
Rsd 0.2s 21ph/12stn Dmin 20km Az.gap 94°
Corr. -0.044 14M/8stn Msd 0.2 4↑ 3↓

00/10281
NOV 04 054151.2s 45.14S 166.99E 26km M=4.6
0.3 0.01 0.02 2
Rsd 0.2s 19ph/11stn Dmin 4km Az.gap 176°
Corr. -0.509 25M/14stn Msd 0.2 4↑ 6↓

00/10322
NOV 04 105023.2s 35.65S 178.43E 33km M=3.6
0.3 0.02 0.02 R
Rsd 0.1s 5ph/3stn Dmin 269km Az.gap 341°
Corr. -0.176 3M/3stn Msd 0.3

00/10324
NOV 04 112055.2s 38.68S 175.93E 121km M=4.1
0.4 0.02 0.01 4
Rsd 0.3s 26ph/23stn Dmin 3km Az.gap 83°
Corr. -0.442 11M/9stn Msd 0.1 5↑ 3↓

00/10340
NOV 04 132028.7s 40.59S 174.98E 43km M=3.8
0.1 0.00 0.01 2
Rsd 0.2s 38ph/31stn Dmin 31km Az.gap 65°
Corr. 0.001 11M/6stn Msd 0.2 3↑ 5↓

00/10374
NOV 04 181928.3s 39.21S 175.38E 12km M=3.8
0.1 0.01 0.01 1
Rsd 0.2s 30ph/25stn Dmin 15km Az.gap 61°
Corr. 0.147 9M/5stn Msd 0.2 5↑ 2↓
Felt Ohakune (49) MM4.

00/10411
NOV 05 020602.0s 39.66S 174.16E 201km M=3.9
0.5 0.02 0.03 4
Rsd 0.3s 26ph/18stn Dmin 68km Az.gap 187°
Corr. -0.506 8M/8stn Msd 0.1 1↑

00/10448
NOV 05 101559.7s 41.94S 174.05E 18km M=3.8
0.2 0.02 0.01 3
Rsd 0.4s 23ph/19stn Dmin 25km Az.gap 155°
Corr. -0.511 15M/8stn Msd 0.2 5↑ 9↓
Felt Wellington (65).

00/10456
NOV 05 113702.4s 45.07S 167.03E 22km M=3.9
0.2 0.01 0.01 1
Rsd 0.2s 11ph/7stn Dmin 8km Az.gap 203°
Corr. -0.694 16M/8stn Msd 0.2 1↓

00/10458
NOV 05 113852.0s 45.10S 167.05E 20km M=3.9
0.2 0.01 0.01 1
Rsd 0.2s 12ph/8stn Dmin 5km Az.gap 189°
Corr. -0.723 15M/8stn Msd 0.2 1↑ 3↓

00/10463
NOV 05 114141.4s 37.61S 176.42E 192km M=4.3
0.5 0.02 0.02 5
Rsd 0.2s 17ph/14stn Dmin 48km Az.gap 123°
Corr. 0.243 14M/10stn Msd 0.1 1↑ 1↓

00/10467
NOV 05 120243.1s 36.97S 176.57E 267km M=3.7
0.2 0.02 0.02 2
Rsd 0.1s 11ph/9stn Dmin 150km Az.gap 289°
Corr. -0.614 5M/5stn Msd 0.1

00/10487
NOV 05 152118.9s 37.92S 177.59E 12km M=3.7
0.2 0.01 0.01 R
Rsd 0.3s 20ph/17stn Dmin 55km Az.gap 100°
Corr. 0.193 17M/15stn Msd 0.3 2↑ 3↓

00/10490
NOV 05 153911.6s 37.11S 177.10E 198km M=3.7
0.4 0.03 0.02 2
Rsd 0.1s 7ph/5stn Dmin 128km Az.gap 293°
Corr. -0.558 3M/3stn Msd 0.2 2↑ 1↓

00/10527
NOV 05 234728.0s 45.20S 166.03E 23km M=3.8
0.9 0.05 0.05 4
Rsd 0.4s 13ph/7stn Dmin 66km Az.gap 296°
Corr. 0.117 9M/5stn Msd 0.3 1↓

00/10564
NOV 06 072113.2s 39.75S 173.92E 189km M=4.0
0.6 0.02 0.03 6
Rsd 0.3s 27ph/21stn Dmin 86km Az.gap 165°
Corr. -0.469 10M/8stn Msd 0.3 8↑ 4↓

00/10568
NOV 06 093648.7s 38.44S 175.69E 156km M=3.8
0.4 0.02 0.02 4
Rsd 0.2s 14ph/12stn Dmin 30km Az.gap 136°
Corr. -0.240 11M/9stn Msd 0.3 1↑

00/10572
NOV 06 103914.0s 37.35S 176.52E 262km M=4.0
0.5 0.05 0.05 4
Rsd 0.2s 12ph/9stn Dmin 114km Az.gap 272°
Corr. -0.655 7M/7stn Msd 0.1 1↑

00/10628
NOV 07 080614.0s 40.04S 175.18E 12km M=3.5
0.1 0.01 0.01 R
Rsd 0.4s 36ph/27stn Dmin 34km Az.gap 113°
Corr. -0.128 27M/23stn Msd 0.3 3↑ 1↓
Felt Wanganui (57) MM4.

00/10641
NOV 07 105302.2s 38.33S 176.17E 141km M=3.7
0.7 0.03 0.03 7
Rsd 0.4s 12ph/9stn Dmin 82km Az.gap 127°
Corr. -0.335 8M/8stn Msd 0.3 1↑

00/10693
NOV 08 071743.1s 39.06S 175.33E 219km M=4.0
0.6 0.03 0.05 5
Rsd 0.2s 22ph/18stn Dmin 6km Az.gap 191°
Corr. -0.589 8M/8stn Msd 0.2 6↑ 2↓

00/10757
NOV 09 032927.6s 38.15S 176.09E 157km M=3.6
0.4 0.03 0.02 4
Rsd 0.2s 12ph/10stn Dmin 91km Az.gap 227°
Corr. -0.584 7M/7stn Msd 0.3 1↑

00/10775
NOV 09 073711.2s 38.20S 176.03E 156km M=3.9
0.2 0.02 0.01 1
Rsd 0.1s 13ph/9stn Dmin 95km Az.gap 221°
Corr. -0.799 12M/10stn Msd 0.2

00/10783
NOV 09 081408.8s 40.30S 175.37E 72km M=3.7
0.1 0.01 0.01 3
Rsd 0.2s 45ph/35stn Dmin 44km Az.gap 63°
Corr. -0.253 15M/10stn Msd 0.4 10↑ 1↓

00/10834
NOV 09 202317.5s 38.82S 174.85E 193km M=3.7
0.6 0.03 0.04 9
Rsd 0.3s 18ph/14stn Dmin 207km Az.gap 212°
Corr. -0.795 7M/7stn Msd 0.1
Poor station coverage.

00/10880
NOV 10 122113.4s 38.75S 175.16E 175km M=3.7
0.4 0.01 0.05 3
Rsd 0.1s 14ph/12stn Dmin 38km Az.gap 304°
Corr. 0.233 6M/6stn Msd 0.2

00/10925
NOV 11 064556.1s 37.41S 178.98E 12km M=4.9
0.5 0.02 0.03 R
Rsd 0.2s 16ph/13stn Dmin 63km Az.gap 288°
Corr. 0.411 23M/12stn Msd 0.2 1↑

00/10973
NOV 11 195152.6s 39.05S 175.08E 220km M=3.7
0.4 0.02 0.01 3
Rsd 0.1s 20ph/17stn Dmin 40km Az.gap 165°
Corr. 0.105 9M/9stn Msd 0.2 1↑

00/10978
NOV 11 204126.0s 41.38S 174.20E 44km M=3.7
0.1 0.01 0.01 2
Rsd 0.2s 27ph/22stn Dmin 20km Az.gap 85°
Corr. -0.429 10M/7stn Msd 0.2 7↑ 8↓
Felt Wellington (65).

00/10979
NOV 11 204901.5s 37.43S 178.97E 22km M=3.6
1.0 0.06 0.06 5
Rsd 0.4s 11ph/8stn Dmin 62km Az.gap 319°
Corr. -0.055 10M/9stn Msd 0.3

00/10991
NOV 11 235714.0s 44.26S 168.17E 5km M=4.3
0.2 0.01 0.01 R
Rsd 0.1s 20ph/12stn Dmin 50km Az.gap 180°
Corr. -0.520 21M/11stn Msd 0.2 2↑ 1↓

00/11001
NOV 12 031101.0s 42.08S 172.91E 79km M=4.2
0.2 0.01 0.01 3
Rsd 0.2s 28ph/22stn Dmin 35km Az.gap 115°
Corr. -0.454 12M/9stn Msd 0.2 3↑ 6↓

00/11023
NOV 12 084013.2s 37.56S 176.19E 203km M=3.7
0.4 0.06 0.02 3
Rsd 0.1s 13ph/10stn Dmin 113km Az.gap 264°
Corr. -0.656 8M/8stn Msd 0.2 1↓

00/11032
NOV 12 114915.3s 45.15S 167.06E 26km M=5.5
0.3 0.01 0.02 2
Rsd 0.2s 17ph/10stn Dmin 1km Az.gap 100°
Corr. -0.524 29M/15stn Msd 0.2 1↓
Felt Fiordland and Southland.

00/11042
NOV 12 115732.8s 37.36S 176.68E 234km M=3.8
0.5 0.06 0.03 4
Rsd 0.2s 9ph/7stn Dmin 107km Az.gap 275°
Corr. -0.655 3M/3stn Msd 0.2 1↑

00/11086
NOV 12 130750.4s 36.29S 178.96E 182km M=3.9
1.0 0.10 0.07 13
Rsd 0.2s 9ph/7stn Dmin 208km Az.gap 315°
Corr. 0.596 2M/2stn Msd 0.3

00/11138
NOV 12 182002.1s 34.24S 179.17E 246km M=4.4
0.5 0.13 0.09 24
Rsd 0.1s 13ph/10stn Dmin 381km Az.gap 339°
Corr. -0.689 4M/4stn Msd 0.1

00/11146
NOV 12 190946.2s 45.35S 166.65E 21km M=4.9
0.3 0.01 0.02 1
Rsd 0.2s 13ph/7stn Dmin 16km Az.gap 286°
Corr. 0.185 27M/14stn Msd 0.2 1↓

00/11170
NOV 12 224847.6s 39.58S 174.42E 147km M=3.7
0.5 0.01 0.02 5
Rsd 0.3s 29ph/23stn Dmin 32km Az.gap 87°
Corr. -0.150 6M/6stn Msd 0.2 1↑ 5↓

00/11213
NOV 13 090424.5s 45.15S 167.07E 17km M=3.5
0.1 0.01 0.01 1
Rsd 0.1s 12ph/7stn Dmin 2km Az.gap 116°
Corr. -0.614 14M/7stn Msd 0.3 2↑ 1↓

00/11222
NOV 13 105549.6s 45.35S 166.67E 21km M=3.8
0.3 0.01 0.02 1
Rsd 0.2s 12ph/6stn Dmin 14km Az.gap 284°
Corr. 0.234 15M/8stn Msd 0.2 1↓

00/11251
NOV 13 170432.8s 38.62S 175.93E 250km M=3.6
0.5 0.03 0.04 4
Rsd 0.1s 12ph/9stn Dmin 54km Az.gap 200°
Corr. -0.790 5M/5stn Msd 0.2

00/11285
NOV 14 050251.2s 37.26S 177.26E 202km M=4.0
0.8 0.08 0.06 7
Rsd 0.4s 10ph/7stn Dmin 112km Az.gap 282°
Corr. -0.382 3M/3stn Msd 0.2 1↑

00/11287
NOV 14 053434.9s 38.10S 177.10E 63km M=3.7
0.2 0.01 0.01 2
Rsd 0.2s 19ph/15stn Dmin 18km Az.gap 82°
Corr. 0.280 5M/3stn Msd 0.2 2↑ 3↓

00/11290
NOV 14 065345.8s 36.52S 177.13E 12km M=4.1
1.0 0.08 0.04 R
Rsd 0.7s 7ph/4stn Dmin 128km Az.gap 241°
Corr. 0.639 10M/8stn Msd 0.2

00/11300
NOV 14 095524.6s 38.04S 177.50E 54km M=3.6
0.6 0.04 0.03 6
Rsd 0.4s 10ph/6stn Dmin 43km Az.gap 220°
Corr. -0.369 6M/4stn Msd 0.2 1↓

00/11302
NOV 14 104051.1s 36.77S 176.98E 12km M=3.9
0.6 0.05 0.03 R
Rsd 0.4s 9ph/6stn Dmin 112km Az.gap 231°
Corr. 0.835 10M/8stn Msd 0.2

00/11307
NOV 14 125557.1s 41.27S 172.71E 166km M=3.7
0.4 0.03 0.02 3
Rsd 0.2s 25ph/18stn Dmin 52km Az.gap 108°
Corr. -0.200 7M/7stn Msd 0.1 1↑

00/11312
NOV 14 145322.2s 40.28S 173.54E 160km M=4.0
0.3 0.01 0.01 3
Rsd 0.2s 38ph/32stn Dmin 66km Az.gap 144°
Corr. -0.004 10M/10stn Msd 0.2 12↑ 2↓

00/11318
NOV 14 172635.0s 45.10S 167.04E 17km M=4.8
0.2 0.01 0.01 1
Rsd 0.2s 16ph/10stn Dmin 6km Az.gap 197°
Corr. -0.592 25M/14stn Msd 0.2 3↑ 4↓

00/11327
NOV 14 220952.2s 37.30S 177.10E 5km M=3.9
0.3 0.02 0.02 R
Rsd 0.3s 14ph/10stn Dmin 26km Az.gap 194°
Corr. 0.468 18M/13stn Msd 0.2 1↓

00/11341
NOV 15 050404.3s 37.35S 177.12E 5km M=3.7
0.4 0.03 0.03 R
Rsd 0.5s 7ph/5stn Dmin 101km Az.gap 167°
Corr. 0.544 4M/4stn Msd 0.4

00/11349
NOV 15 081431.2s 39.76S 174.26E 144km M=3.9
0.3 0.01 0.01 3
Rsd 0.2s 43ph/36stn Dmin 49km Az.gap 96°
Corr. -0.283 15M/12stn Msd 0.3 5↑ 2↓

00/11351
NOV 15 090455.8s 38.12S 176.56E 123km M=4.5
0.3 0.01 0.01 2
Rsd 0.2s 29ph/24stn Dmin 6km Az.gap 86°
Corr. 0.175 8M/4stn Msd 0.2 9↑ 7↓

00/11357
NOV 15 095901.9s 37.83S 176.17E 192km M=3.8
0.5 0.05 0.03 4
Rsd 0.2s 10ph/9stn Dmin 95km Az.gap 253°
Corr. -0.649 6M/6stn Msd 0.2 1↓

00/11388
NOV 15 221735.8s 37.58S 175.78E 5km M=3.5
0.1 0.01 0.01 R
Rsd 0.3s 19ph/15stn Dmin 30km Az.gap 124°
Corr. 0.367 17M/15stn Msd 0.2 1↓
Felt Katikati (26).

00/11391
NOV 16 003333.3s 37.28S 176.87E 239km M=3.9
0.5 0.04 0.04 5
Rsd 0.2s 10ph/8stn Dmin 111km Az.gap 246°
Corr. -0.550 7M/7stn Msd 0.2

00/11392
NOV 16 003639.3s 38.62S 175.60E 112km M=3.7
0.4 0.02 0.02 3
Rsd 0.1s 20ph/14stn Dmin 15km Az.gap 199°
Corr. -0.628 12M/10stn Msd 0.2 3↑ 2↓

00/11411
NOV 16 085042.5s 38.68S 175.94E 122km M=3.6
0.8 0.09 0.03 8
Rsd 0.3s 11ph/9stn Dmin 50km Az.gap 191°
Corr. -0.298 9M/7stn Msd 0.2 3↑ 1↓

00/11417
NOV 16 105638.7s 35.93S 179.08E 178km M=3.7
0.2 0.08 0.46 11
Rsd 0.1s 6ph/3stn Dmin 197km Az.gap 357°
Corr. -0.965 2M/2stn Msd 0.3

00/11420
NOV 16 115634.5s 38.10S 176.40E 148km M=4.0
0.4 0.02 0.01 4
Rsd 0.2s 28ph/24stn Dmin 9km Az.gap 68°
Corr. -0.301 8M/7stn Msd 0.1 1↑

00/11447
NOV 17 075002.5s 41.81S 172.57E 81km M=3.6
0.3 0.01 0.02 4
Rsd 0.3s 20ph/14stn Dmin 28km Az.gap 93°
Corr. -0.300 7M/7stn Msd 0.1 3↑ 3↓

00/11461
NOV 17 123846.5s 36.82S 178.42E 195km M=3.6
0.4 0.09 0.39 4
Rsd 0.1s 6ph/3stn Dmin 87km Az.gap 357°
Corr. -0.856 2M/2stn Msd 0.0 1↑

00/11464
NOV 17 133808.1s 45.17S 167.07E 15km M=3.7
0.2 0.01 0.01 2
Rsd 0.3s 16ph/10stn Dmin 3km Az.gap 95°
Corr. -0.423 17M/9stn Msd 0.2 2↑ 2↓

00/11472
NOV 17 203822.8s 40.57S 176.90E 32km M=4.8
0.2 0.01 0.01 2
Rsd 0.1s 31ph/28stn Dmin 56km Az.gap 199°
Corr. -0.551 21M/11stn Msd 0.2 2↑
Felt Hawkes Bay.

00/11487
NOV 18 144243.2s 38.46S 178.64E 27km M=4.1
1.0 0.03 0.07 7
Rsd 0.3s 11ph/8stn Dmin 55km Az.gap 237°
Corr. -0.609 16M/14stn Msd 0.2 1↓

00/11491
NOV 18 195229.9s 42.16S 172.19E 12km M=4.3
0.1 0.01 0.01 R
Rsd 0.2s 23ph/14stn Dmin 56km Az.gap 93°
Corr. -0.316 13M/7stn Msd 0.3 3↑ 1↓
Felt Maruia (87) MM4.

00/11498
NOV 19 051917.4s 45.33S 167.13E 72km M=3.5
0.2 0.01 0.01 1
Rsd 0.1s 14ph/8stn Dmin 22km Az.gap 111°
Corr. 0.148 8M/4stn Msd 0.1 3↑ 1↓

00/11509
NOV 19 115502.3s 37.36S 177.14E 5km M=3.7
0.5 0.03 0.03 R
Rsd 0.7s 13ph/10stn Dmin 20km Az.gap 167°
Corr. 0.376 13M/12stn Msd 0.2

00/11525
NOV 19 202739.0s 40.07S 174.91E 33km M=3.7
0.2 0.01 0.02 2
Rsd 0.4s 32ph/26stn Dmin 30km Az.gap 85°
Corr. 0.040 26M/21stn Msd 0.2 1↓

00/11532
NOV 19 232549.2s 45.25S 167.36E 105km M=4.1
0.3 0.02 0.01 3
Rsd 0.2s 15ph/8stn Dmin 27km Az.gap 109°
Corr. 0.304 12M/6stn Msd 0.1 2↑ 2↓

00/11535
NOV 20 033206.4s 38.22S 176.16E 217km M=3.5
0.9 0.03 0.02 7
Rsd 0.1s 9ph/8stn Dmin 102km Az.gap 269°
Corr. -0.359 1M/1stn Msd 0.0

00/11551
NOV 21 011313.5s 40.81S 172.40E 5km M=3.7
0.4 0.03 0.02 R
Rsd 0.3s 12ph/8stn Dmin 11km Az.gap 207°
Corr. -0.704 18M/13stn Msd 0.2 1↓
Felt Bainham (72) MM 4.

00/11560
NOV 21 110754.7s 45.17S 167.01E 21km M=4.5
0.3 0.03 0.01 2
Rsd 0.2s 12ph/8stn Dmin 23km Az.gap 192°
Corr. -0.352 21M/11stn Msd 0.2 1↓

00/11569
NOV 21 123034.7s 37.20S 177.28E 12km M=3.8
0.2 0.03 0.02 R
Rsd 0.3s 7ph/5stn Dmin 101km Az.gap 188°
Corr. 0.802 3M/3stn Msd 0.2

00/11573
NOV 21 180840.7s 38.61S 175.74E 202km M=3.7
0.3 0.01 0.10 3
Rsd 0.1s 13ph/12stn Dmin 47km Az.gap 329°
Corr. -0.082 5M/5stn Msd 0.1 1↑

00/11578
NOV 22 014216.8s 37.26S 177.17E 5km M=4.2
0.3 0.02 0.02 R
Rsd 0.3s 19ph/16stn Dmin 30km Az.gap 201°
Corr. 0.583 21M/18stn Msd 0.2 1↓

00/11580
NOV 22 020500.4s 37.33S 177.16E 5km M=3.6
0.2 0.02 0.01 R
Rsd 0.1s 7ph/4stn Dmin 127km Az.gap 195°
Corr. 0.828 3M/3stn Msd 0.1

00/11589
NOV 22 104325.6s 39.28S 176.43E 65km M=4.7
0.2 0.01 0.01 3
Rsd 0.2s 48ph/43stn Dmin 45km Az.gap 56°
Corr. 0.052 14M/9stn Msd 0.2 6↑ 9↓
Felt Patoka (52) and Moawhango 958), MM4.

00/11592
NOV 22 124920.8s 37.26S 177.17E 5km M=3.7
0.4 0.09 0.06 R
Rsd 0.2s 5ph/3stn Dmin 132km Az.gap 200°
Corr. 0.978 3M/3stn Msd 0.1

00/11593
NOV 22 134536.7s 37.32S 177.14E 5km M=3.8
0.5 0.03 0.03 R
Rsd 0.5s 12ph/9stn Dmin 23km Az.gap 194°
Corr. 0.584 11M/10stn Msd 0.3 1↓

00/11596
NOV 22 162101.6s 37.28S 177.17E 5km M=3.7
0.2 0.02 0.01 R
Rsd 0.2s 7ph/5stn Dmin 106km Az.gap 176°
Corr. 0.751 3M/3stn Msd 0.1

00/11600
NOV 22 184150.6s 45.08S 167.35E 58km M=3.7
0.5 0.03 0.03 8
Rsd 0.3s 12ph/7stn Dmin 72km Az.gap 251°
Corr. -0.483 10M/5stn Msd 0.1 1↓

00/11640
NOV 23 200552.4s 38.38S 176.07E 186km M=3.8
0.5 0.01 0.02 4
Rsd 0.1s 14ph/12stn Dmin 83km Az.gap 212°
Corr. -0.760 5M/5stn Msd 0.2 1↑

00/11655
NOV 23 234243.8s 37.36S 177.09E 5km M=3.6
0.3 0.02 0.02 R
Rsd 0.4s 13ph/10stn Dmin 21km Az.gap 165°
Corr. 0.508 9M/9stn Msd 0.3 1↓

00/11658
NOV 24 010556.1s 35.36S 179.13E 281km M=4.7
0.5 0.10 0.07 10
Rsd 0.1s 13ph/12stn Dmin 311km Az.gap 327°
Corr. -0.098 10M/10stn Msd 0.1

00/11689
NOV 24 213753.9s 38.15S 176.12E 171km M=4.2
0.5 0.02 0.01 5
Rsd 0.2s 19ph/17stn Dmin 7km Az.gap 182°
Corr. -0.343 11M/9stn Msd 0.2 7↑ 2↓

00/11690
NOV 24 215843.7s 38.36S 176.13E 175km M=3.9
0.4 0.03 0.01 3
Rsd 0.1s 11ph/10stn Dmin 52km Az.gap 257°
Corr. 0.431 6M/6stn Msd 0.2 1↑

00/11696
NOV 25 023349.3s 38.77S 175.46E 261km M=3.9
0.3 0.05 0.03 3
Rsd 0.1s 16ph/14stn Dmin 27km Az.gap 219°
Corr. -0.503 9M/8stn Msd 0.1 1↑

00/11697
NOV 25 030541.5s 38.52S 175.94E 169km M=3.8
0.3 0.03 0.01 3
Rsd 0.1s 17ph/12stn Dmin 28km Az.gap 216°
Corr. -0.231 11M/9stn Msd 0.1 4↑ 3↓

00/11710
NOV 25 110820.7s 40.03S 175.22E 21km M=3.9
0.1 0.01 0.01 2
Rsd 0.3s 42ph/33stn Dmin 35km Az.gap 106°
Corr. 0.069 16M/8stn Msd 0.2 6↑ 2↓
Felt Wanganui (57) and Marton (61).

00/11722
NOV 25 181209.1s 38.71S 177.96E 27km M=3.7
0.2 0.02 0.02 2
Rsd 0.2s 18ph/15stn Dmin 13km Az.gap 183°
Corr. -0.857 12M/12stn Msd 0.3 3↑ 1↓

00/11723
NOV 25 184627.1s 38.53S 176.09E 115km M=3.5
0.5 0.05 0.02 7
Rsd 0.3s 15ph/11stn Dmin 71km Az.gap 210°
Corr. -0.504 10M/8stn Msd 0.1 1↓

00/11741
NOV 26 041209.6s 40.27S 174.12E 104km M=3.7
0.2 0.01 0.01 3
Rsd 0.3s 41ph/32stn Dmin 62km Az.gap 104°
Corr. 0.062 10M/7stn Msd 0.3 4↑ 6↓

00/11774
NOV 27 001540.6s 38.91S 175.38E 215km M=3.9
0.2 0.01 0.03 1
Rsd 0.1s 16ph/12stn Dmin 17km Az.gap 226°
Corr. -0.115 9M/7stn Msd 0.2

00/11780
NOV 27 093247.2s 36.08S 178.17E 160km M=4.1
0.5 0.05 0.03 12
Rsd 0.1s 11ph/10stn Dmin 282km Az.gap 315°
Corr. 0.197 4M/4stn Msd 0.1

00/11794
NOV 27 155638.0s 37.39S 176.08E 187km M=3.5
0.4 0.06 0.09 18
Rsd 0.1s 11ph/7stn Dmin 206km Az.gap 269°
Corr. -0.977 3M/3stn Msd 0.4 1↑

00/11801
NOV 27 195729.3s 44.76S 167.52E 9km M=4.6
0.6 0.02 0.04 R
Rsd 0.3s 10ph/7stn Dmin 34km Az.gap 259°
Corr. -0.665 20M/11stn Msd 0.2 2↑ 1↓
Felt Milford Sound (120) MM4.

00/11807
NOV 28 002721.2s 40.42S 177.28E 33km M=4.0
0.2 0.02 0.02 R
Rsd 0.2s 29ph/24stn Dmin 92km Az.gap 207°
Corr. -0.776 12M/7stn Msd 0.2 1↓

00/11824
NOV 28 161207.3s 37.94S 176.21E 207km M=4.5
0.4 0.02 0.02 3
Rsd 0.2s 30ph/26stn Dmin 17km Az.gap 165°
Corr. -0.042 11M/9stn Msd 0.2 1↑ 1↓

00/11826
NOV 28 184239.1s 38.53S 176.14E 115km M=4.1
0.2 0.01 0.01 2
Rsd 0.2s 32ph/25stn Dmin 20km Az.gap 78°
Corr. -0.673 10M/8stn Msd 0.3 1↑

00/11841
NOV 29 144159.2s 38.14S 176.09E 241km M=3.6
0.5 0.02 0.07 4
Rsd 0.1s 10ph/9stn Dmin 108km Az.gap 341°
Corr. -0.097 3M/3stn Msd 0.1

00/11848
NOV 29 225054.7s 44.98S 167.62E 97km M=4.8
0.3 0.01 0.02 2
Rsd 0.2s 14ph/9stn Dmin 41km Az.gap 225°
Corr. -0.307 13M/7stn Msd 0.2 2↑ 3↓
Felt Dunedin (145).

00/11852
NOV 30 040512.6s 37.80S 179.19E 33km M=3.8
0.7 0.05 0.04 R
Rsd 0.3s 10ph/7stn Dmin 87km Az.gap 334°
Corr. -0.156 5M/5stn Msd 0.3 1↑

00/11881
NOV 30 212541.7s 45.45S 167.07E 76km M=3.8
0.5 0.04 0.05 6
Rsd 0.3s 11ph/8stn Dmin 84km Az.gap 250°
Corr. -0.628 8M/4stn Msd 0.2 1↑ 4↓

00/11883
NOV 30 213109.5s 41.41S 173.50E 97km M=4.0
0.2 0.02 0.01 3
Rsd 0.2s 24ph/21stn Dmin 29km Az.gap 60°
Corr. -0.394 6M/6stn Msd 0.2 4↑ 7↓

00/11886
NOV 30 231218.4s 43.46S 173.25E 12km M=3.8
0.2 0.01 0.01 R
Rsd 0.2s 20ph/18stn Dmin 56km Az.gap 188°
Corr. -0.655 8M/4stn Msd 0.1 4↑ 5↓

00/11905
DEC 01 235111.2s 39.55S 174.03E 182km M=3.7
0.7 0.02 0.04 8
Rsd 0.2s 17ph/14stn Dmin 136km Az.gap 205°
Corr. -0.656 4M/4stn Msd 0.4

00/11913
DEC 02 060517.8s 36.88S 177.33E 101km M=5.0
0.4 0.02 0.01 4
Rsd 0.1s 14ph/14stn Dmin 73km Az.gap 254°
Corr. 0.208 15M/10stn Msd 0.2 1↓

00/11946
DEC 03 080424.4s 40.85S 172.49E 12km M=3.1
0.3 0.02 0.02 R
Rsd 0.3s 11ph/8stn Dmin 4km Az.gap 207°
Corr. -0.304 9M/6stn Msd 0.1 1↑
Felt Bainham (72).

00/11964
DEC 03 203028.8s 39.05S 174.93E 211km M=3.6
0.4 0.01 0.03 3
Rsd 0.1s 12ph/11stn Dmin 56km Az.gap 255°
Corr. -0.473 5M/5stn Msd 0.2

00/11973
DEC 04 003721.4s 39.23S 174.75E 185km M=4.2
0.7 0.03 0.03 6
Rsd 0.3s 24ph/20stn Dmin 32km Az.gap 90°
Corr. 0.072 5M/5stn Msd 0.2 1↑

00/11976
DEC 04 041116.3s 35.88S 179.84E 192km M=4.3
0.6 0.09 0.10 10
Rsd 0.1s 10ph/9stn Dmin 281km Az.gap 342°
Corr. -0.784 2M/2stn Msd 0.1

00/11986
DEC 04 094047.3s 45.01S 167.56E 128km M=3.8
0.5 0.02 0.04 4
Rsd 0.2s 12ph/8stn Dmin 61km Az.gap 236°
Corr. -0.330 12M/10stn Msd 0.2

00/11992
DEC 04 123835.7s 37.87S 176.90E 136km M=4.2
0.3 0.02 0.01 3
Rsd 0.2s 21ph/16stn Dmin 23km Az.gap 141°
Corr. 0.479 9M/7stn Msd 0.2 4↑ 1↓

00/11996
DEC 04 141801.9s 39.79S 174.68E 114km M=4.2
0.2 0.01 0.01 3
Rsd 0.2s 43ph/38stn Dmin 22km Az.gap 71°
Corr. -0.219 9M/7stn Msd 0.3 6↑ 9↓

00/12010
DEC 05 020903.1s 36.99S 177.70E 127km M=3.9
0.2 0.01 0.01 2
Rsd 0.1s 15ph/12stn Dmin 86km Az.gap 266°
Corr. -0.446 8M/7stn Msd 0.1

00/12022
DEC 05 080025.7s 41.79S 171.91E 13km M=3.7
0.2 0.01 0.01 2
Rsd 0.3s 20ph/13stn Dmin 10km Az.gap 87°
Corr. -0.354 10M/5stn Msd 0.2 1↑ 1↓

00/12039
DEC 05 132701.2s 41.92S 172.02E 86km M=3.6
0.2 0.01 0.01 2
Rsd 0.2s 18ph/13stn Dmin 26km Az.gap 89°
Corr. -0.522 5M/5stn Msd 0.2 1↑

00/12046
DEC 05 171651.7s 38.42S 176.05E 154km M=4.4
0.3 0.01 0.01 3
Rsd 0.2s 40ph/34stn Dmin 19km Az.gap 63°
Corr. -0.039 9M/5stn Msd 0.3 17↑ 4↓

00/12055
DEC 05 223504.2s 38.53S 176.00E 128km M=4.6
0.2 0.01 0.01 2
Rsd 0.2s 42ph/36stn Dmin 15km Az.gap 63°
Corr. -0.315 9M/5stn Msd 0.1 15↑ 9↓

00/12060
DEC 06 003252.4s 41.28S 172.58E 212km M=4.5
0.3 0.02 0.02 2
Rsd 0.2s 33ph/25stn Dmin 50km Az.gap 125°
Corr. -0.515 10M/8stn Msd 0.3 9↑ 4↓

00/12073
DEC 06 093659.0s 38.19S 177.14E 62km M=4.0
0.1 0.01 0.01 2
Rsd 0.2s 27ph/21stn Dmin 8km Az.gap 121°
Corr. 0.158 5M/2stn Msd 0.3 1↑ 1↓

00/12114
DEC 07 153647.0s 45.65S 167.19E 98km M=3.7
0.3 0.02 0.02 2
Rsd 0.2s 11ph/7stn Dmin 65km Az.gap 250°
Corr. -0.394 12M/7stn Msd 0.2 3↑ 1↓

00/12117
DEC 07 180551.9s 38.29S 176.01E 198km M=4.3
0.8 0.05 0.03 6
Rsd 0.3s 23ph/20stn Dmin 42km Az.gap 187°
Corr. -0.094 9M/5stn Msd 0.2 1↑

00/12120
DEC 07 195030.9s 37.66S 176.72E 151km M=3.9
0.4 0.03 0.02 3
Rsd 0.2s 8ph/6stn Dmin 75km Az.gap 279°
Corr. -0.032 1M/1stn Msd 0.0 1↑

00/12122
DEC 07 201701.6s 45.10S 167.59E 132km M=3.6
0.4 0.03 0.03 3
Rsd 0.3s 12ph/7stn Dmin 54km Az.gap 264°
Corr. -0.431 7M/7stn Msd 0.3 1↑ 2↓

00/12137
DEC 08 011725.3s 36.66S 177.43E 33km M=3.5
1.0 0.08 0.04 R
Rsd 0.6s 8ph/5stn Dmin 130km Az.gap 238°
Corr. 0.677 5M/5stn Msd 0.4

00/12180
DEC 09 061128.4s 38.90S 176.05E 107km M=3.6
0.3 0.02 0.01 3
Rsd 0.2s 17ph/11stn Dmin 35km Az.gap 137°
Corr. -0.536 8M/6stn Msd 0.2 1↑

00/12193
DEC 09 114904.0s 37.10S 177.71E 94km M=3.7
0.3 0.02 0.01 1
Rsd 0.1s 11ph/10stn Dmin 139km Az.gap 292°
Corr. 0.066 3M/3stn Msd 0.1 1↓

00/12216
DEC 10 030141.9s 36.47S 177.25E 5km M=3.8
1.5 0.09 0.07 R
Rsd 0.6s 6ph/3stn Dmin 140km Az.gap 287°
Corr. 0.685 3M/3stn Msd 0.3

00/12239
DEC 10 154402.1s 39.87S 174.50E 106km M=3.7
0.3 0.01 0.02 4
Rsd 0.2s 31ph/23stn Dmin 115km Az.gap 133°
Corr. -0.426 8M/6stn Msd 0.4 4↑ 1↓

00/12242
DEC 10 183931.2s 35.78S 178.14E 194km M=3.6
0.4 0.07 0.05 7
Rsd 0.1s 5ph/3stn Dmin 202km Az.gap 338°
Corr. -0.613 2M/2stn Msd 0.1

00/12246
DEC 11 022851.7s 37.37S 177.31E 137km M=4.0
0.3 0.02 0.02 3
Rsd 0.2s 10ph/7stn Dmin 91km Az.gap 251°
Corr. -0.546 5M/3stn Msd 0.2 1↑ 1↓

00/12255
DEC 11 054038.9s 41.55S 174.28E 11km M=3.7
0.1 0.01 0.01 1
Rsd 0.2s 20ph/18stn Dmin 23km Az.gap 114°
Corr. -0.486 14M/7stn Msd 0.2 8↑ 3↓

00/12258
DEC 11 070722.0s 39.63S 174.34E 192km M=4.5
0.5 0.01 0.02 4
Rsd 0.2s 36ph/32stn Dmin 38km Az.gap 83°
Corr. -0.351 10M/5stn Msd 0.2 10↑ 6↓

00/12277
DEC 11 214725.0s 38.33S 176.33E 5km M=2.7
0.1 0.00 0.00 R
Rsd 0.1s 8ph/4stn Dmin 9km Az.gap 143°
Corr. -0.314 5M/5stn Msd 0.3 1↑
Felt Waiotapu (33).

00/12290
DEC 12 070753.5s 36.71S 177.59E 203km M=4.1
0.2 0.04 0.04 3
Rsd 0.1s 5ph/3stn Dmin 177km Az.gap 336°
Corr. 0.593 1M/1stn Msd 0.0 1↑

00/12296
DEC 12 094938.9s 37.20S 177.44E 163km M=3.7
0.2 0.03 0.03 3
Rsd 0.1s 5ph/3stn Dmin 121km Az.gap 328°
Corr. 0.581 1M/1stn Msd 0.0 1↑

00/12298
DEC 12 105048.7s 36.94S 177.60E 146km M=4.3
0.3 0.01 0.01 3
Rsd 0.1s 14ph/11stn Dmin 96km Az.gap 223°
Corr. 0.592 16M/10stn Msd 0.2 2↑ 1↓

00/12300
DEC 12 112429.6s 39.06S 177.61E 39km M=4.5
0.2 0.01 0.02 2
Rsd 0.1s 27ph/24stn Dmin 7km Az.gap 161°
Corr. -0.677 9M/5stn Msd 0.4 1↑ 2↓
Felt Otoko (36) and Tuai (43).

00/12312
DEC 12 155802.2s 39.02S 177.48E 28km M=3.6
0.2 0.02 0.02 3
Rsd 0.3s 13ph/11stn Dmin 16km Az.gap 126°
Corr. -0.307 12M/9stn Msd 0.2 2↑ 1↓

00/12363
DEC 13 125459.4s 39.90S 179.13E 33km M=3.8
0.7 0.03 0.04 R
Rsd 0.4s 16ph/12stn Dmin 159km Az.gap 263°
Corr. -0.425 14M/12stn Msd 0.2

00/12370
DEC 13 163911.4s 39.73S 178.82E 12km M=3.6
0.7 0.04 0.05 R
Rsd 0.4s 15ph/11stn Dmin 127km Az.gap 254°
Corr. -0.190 8M/8stn Msd 0.2

00/12377
DEC 13 212117.0s 38.63S 175.57E 187km M=3.6
0.2 0.01 0.03 2
Rsd 0.0s 14ph/13stn Dmin 41km Az.gap 324°
Corr. -0.166 3M/3stn Msd 0.1

00/12379
DEC 13 230433.0s 38.33S 176.09E 132km M=4.0
0.1 0.01 0.01 1
Rsd 0.0s 5ph/3stn Dmin 89km Az.gap 325°
Corr. 0.714 1M/1stn Msd 0.0 1↑
Poor station coverage.

00/12382
DEC 14 014527.1s 39.01S 177.49E 29km M=3.9
0.2 0.02 0.03 3
Rsd 0.3s 23ph/21stn Dmin 16km Az.gap 122°
Corr. -0.551 21M/18stn Msd 0.3 1↑

00/12383
DEC 14 015554.4s 38.32S 176.00E 173km M=4.2
0.6 0.05 0.02 4
Rsd 0.2s 15ph/12stn Dmin 85km Az.gap 188°
Corr. -0.658 8M/7stn Msd 0.3 1↑

00/12394
DEC 14 064029.2s 37.84S 175.55E 277km M=3.5
0.7 0.06 0.09 10
Rsd 0.2s 10ph/9stn Dmin 149km Az.gap 272°
Corr. -0.760 2M/2stn Msd 0.2

00/12416
DEC 15 030955.1s 38.33S 175.89E 156km M=3.6
0.5 0.04 0.02 4
Rsd 0.2s 11ph/6stn Dmin 80km Az.gap 188°
Corr. -0.632 8M/6stn Msd 0.2 1↑

00/12427
DEC 15 094028.2s 44.47S 167.74E 5km M=3.9
0.2 0.01 0.02 R
Rsd 0.2s 13ph/9stn Dmin 27km Az.gap 204°
Corr. -0.280 11M/7stn Msd 0.2 1↓

00/12434
DEC 15 122814.6s 38.14S 175.69E 263km M=4.2
0.6 0.05 0.03 5
Rsd 0.2s 18ph/15stn Dmin 88km Az.gap 194°
Corr. -0.386 8M/8stn Msd 0.2 1↑ 1↓

00/12445
DEC 15 191848.8s 36.81S 177.44E 166km M=3.5
1.0 0.11 0.05 9
Rsd 0.3s 8ph/6stn Dmin 164km Az.gap 312°
Corr. -0.172 2M/2stn Msd 0.0

00/12452
DEC 15 234753.9s 45.47S 166.71E 11km M=4.0
0.6 0.02 0.02 3
Rsd 0.2s 12ph/8stn Dmin 35km Az.gap 260°
Corr. -0.209 10M/6stn Msd 0.2 1↓

00/12457
DEC 16 031334.1s 36.40S 177.69E 216km M=4.1
0.7 0.07 0.04 6
Rsd 0.2s 8ph/7stn Dmin 144km Az.gap 305°
Corr. -0.418 5M/5stn Msd 0.4

00/12459
DEC 16 042745.4s 37.13S 176.99E 187km M=3.6
0.9 0.10 0.04 7
Rsd 0.3s 9ph/7stn Dmin 126km Az.gap 300°
Corr. -0.013 5M/5stn Msd 0.2

00/12476
DEC 16 142459.8s 37.68S 176.20E 278km M=4.0
0.4 0.06 0.02 3
Rsd 0.1s 12ph/11stn Dmin 103km Az.gap 258°
Corr. -0.594 5M/5stn Msd 0.1

00/12478
DEC 16 150925.0s 38.75S 177.59E 53km M=3.7
0.1 0.01 0.01 2
Rsd 0.1s 18ph/15stn Dmin 31km Az.gap 97°
Corr. -0.193 10M/7stn Msd 0.2 1↑

00/12484
DEC 16 195540.1s 45.37S 166.94E 28km M=3.9
0.6 0.03 0.04 2
Rsd 0.3s 10ph/6stn Dmin 20km Az.gap 260°
Corr. -0.280 11M/7stn Msd 0.1 1↑

00/12488
DEC 16 212605.8s 39.94S 179.14E 33km M=4.0
0.5 0.02 0.03 R
Rsd 0.3s 18ph/14stn Dmin 162km Az.gap 261°
Corr. -0.348 16M/12stn Msd 0.2

00/12501
DEC 17 073006.9s 36.85S 177.94E 139km M=4.5
0.7 0.04 0.03 7
Rsd 0.2s 16ph/13stn Dmin 89km Az.gap 246°
Corr. 0.685 13M/9stn Msd 0.2 1↑ 1↓

00/12503
DEC 17 084921.0s 40.24S 174.21E 84km M=3.7
0.2 0.01 0.01 3
Rsd 0.3s 45ph/34stn Dmin 67km Az.gap 100°
Corr. -0.049 11M/8stn Msd 0.3 3↑ 1↓

00/12506
DEC 17 095352.7s 38.36S 176.01E 153km M=3.6
0.4 0.02 0.01 3
Rsd 0.1s 18ph/16stn Dmin 82km Az.gap 182°
Corr. -0.057 6M/6stn Msd 0.2 1↑

00/12508
DEC 17 102432.1s 39.67S 174.28E 209km M=3.5
0.5 0.02 0.04 5
Rsd 0.2s 22ph/18stn Dmin 57km Az.gap 187°
Corr. -0.577 7M/7stn Msd 0.2 1↑

00/12520
DEC 17 143724.6s 38.31S 176.07E 150km M=3.8
0.4 0.03 0.01 3
Rsd 0.2s 17ph/14stn Dmin 53km Az.gap 207°
Corr. -0.573 11M/8stn Msd 0.2

00/12546
DEC 18 053415.6s 39.02S 177.48E 27km M=4.4
0.1 0.01 0.01 1
Rsd 0.1s 28ph/24stn Dmin 17km Az.gap 117°
Corr. -0.414 22M/12stn Msd 0.2 2↑ 1↓

00/12556
DEC 18 100039.6s 38.18S 176.25E 5km M=2.6
0.1 0.01 0.01 R
Rsd 0.3s 9ph/6stn Dmin 5km Az.gap 126°
Corr. -0.491 5M/5stn Msd 0.1 1↑
Felt Rotorua (33).

00/12557
DEC 18 100157.9s 38.16S 176.24E 5km M=2.5
0.1 0.01 0.01 R
Rsd 0.2s 11ph/9stn Dmin 3km Az.gap 130°
Corr. -0.591 6M/6stn Msd 0.3 1↑
Felt Rotorua (33).

00/12569
DEC 18 164710.8s 41.65S 174.78E 28km M=3.5
0.1 0.01 0.01 1
Rsd 0.2s 25ph/19stn Dmin 38km Az.gap 155°
Corr. -0.384 18M/15stn Msd 0.3 4↑ 2↓

00/12577
DEC 18 183857.2s 39.92S 179.12E 33km M=3.9
0.7 0.04 0.05 R
Rsd 0.4s 16ph/11stn Dmin 172km Az.gap 246°
Corr. -0.563 7M/7stn Msd 0.2 1↑

00/12590
DEC 19 044744.7s 38.55S 175.89E 175km M=3.7
0.8 0.12 0.08 5
Rsd 0.3s 13ph/10stn Dmin 58km Az.gap 206°
Corr. -0.896 6M/6stn Msd 0.4 1↑

00/12591
DEC 19 050337.5s 41.35S 174.35E 42km M=5.1
0.1 0.01 0.01 1
Rsd 0.2s 36ph/32stn Dmin 17km Az.gap 98°
Corr. -0.590 10M/5stn Msd 0.2 11↑ 5↓
Felt Foxton (61) to Blenheim (77), maximum intensity MM5 in Wellington.

00/12594
DEC 19 051934.5s 41.31S 174.33E 42km M=3.5
0.1 0.01 0.01 2
Rsd 0.2s 26ph/22stn Dmin 12km Az.gap 92°
Corr. -0.359 8M/5stn Msd 0.2 6↑ 1↓
Felt Wellington (68).

00/12605
DEC 19 112440.1s 39.11S 175.88E 73km M=3.6
0.2 0.01 0.01 2
Rsd 0.2s 28ph/23stn Dmin 20km Az.gap 101°
Corr. -0.470 7M/5stn Msd 0.2 1↑ 1↓

00/12610
DEC 19 150920.9s 41.77S 172.52E 81km M=3.9
0.3 0.01 0.01 3
Rsd 0.2s 23ph/15stn Dmin 32km Az.gap 89°
Corr. -0.341 8M/6stn Msd 0.2 4↑ 3↓

00/12618
DEC 19 225204.4s 35.97S 179.26E 136km M=4.5
0.5 0.02 0.03 6
Rsd 0.1s 9ph/7stn Dmin 200km Az.gap 308°
Corr. 0.500 8M/8stn Msd 0.2

00/12619
DEC 19 230105.1s 38.35S 178.08E 64km M=3.9
0.2 0.01 0.01 3
Rsd 0.2s 19ph/14stn Dmin 83km Az.gap 192°
Corr. 0.035 8M/6stn Msd 0.2 3↑ 1↓

00/12653
DEC 20 152318.3s 36.10S 177.36E 12km M=4.1
1.0 0.07 0.04 R
Rsd 0.5s 8ph/4stn Dmin 164km Az.gap 276°
Corr. 0.544 4M/4stn Msd 0.4

00/12692
DEC 21 142612.3s 37.32S 177.41E 131km M=3.6
0.4 0.02 0.03 4
Rsd 0.2s 7ph/4stn Dmin 84km Az.gap 278°
Corr. -0.519 3M/3stn Msd 0.3 1↑ 3↓

00/12696
DEC 21 200305.8s 41.25S 172.77E 133km M=4.6
0.4 0.02 0.02 3
Rsd 0.3s 33ph/26stn Dmin 51km Az.gap 101°
Corr. -0.549 8M/4stn Msd 0.3 8↑ 7↓

00/12703
DEC 22 004912.3s 46.06S 166.86E 5km M=3.7
0.4 0.02 0.02 R
Rsd 0.2s 11ph/7stn Dmin 70km Az.gap 291°
Corr. 0.578 12M/6stn Msd 0.2 1↓

00/12722
DEC 22 095700.7s 37.92S 176.23E 193km M=3.7
0.6 0.05 0.03 5
Rsd 0.3s 11ph/7stn Dmin 68km Az.gap 188°
Corr. 0.254 5M/5stn Msd 0.2 1↑

00/12726
DEC 22 125740.5s 36.82S 177.54E 153km M=3.7
0.5 0.04 0.04 5
Rsd 0.2s 10ph/8stn Dmin 110km Az.gap 289°
Corr. -0.460 6M/6stn Msd 0.1 1↑

00/12734
DEC 22 153654.1s 44.51S 170.96E 12km M=4.2
0.2 0.01 0.02 R
Rsd 0.2s 10ph/7stn Dmin 65km Az.gap 145°
Corr. -0.540 14M/8stn Msd 0.2 4↑ 1↓
Felt Timaru (118).

00/12750
DEC 22 215721.7s 38.76S 175.91E 150km M=3.5
0.3 0.03 0.04 3
Rsd 0.1s 13ph/10stn Dmin 42km Az.gap 199°
Corr. -0.296 3M/3stn Msd 0.1

00/12784
DEC 23 184433.8s 36.70S 177.46E 198km M=3.8
0.8 0.08 0.07 8
Rsd 0.3s 9ph/7stn Dmin 125km Az.gap 293°
Corr. -0.377 6M/6stn Msd 0.2 1↑

00/12793
DEC 24 062424.1s 40.30S 173.45E 194km M=3.6
0.8 0.05 0.03 7
Rsd 0.2s 13ph/11stn Dmin 69km Az.gap 244°
Corr. 0.090 4M/4stn Msd 0.1 3↑ 1↓

00/12804
DEC 24 120339.4s 45.38S 167.01E 64km M=3.7
0.2 0.01 0.01 1
Rsd 0.1s 11ph/6stn Dmin 15km Az.gap 298°
Corr. 0.017 14M/7stn Msd 0.2 1↑ 1↓

00/12824
DEC 25 032209.6s 38.09S 176.23E 157km M=4.0
0.4 0.03 0.02 3
Rsd 0.2s 8ph/5stn Dmin 76km Az.gap 133°
Corr. 0.549 9M/7stn Msd 0.2 1↑ 1↓

00/12825
DEC 25 033602.5s 38.57S 175.36E 260km M=4.0
0.7 0.04 0.05 6
Rsd 0.2s 16ph/14stn Dmin 78km Az.gap 145°
Corr. -0.797 7M/7stn Msd 0.2 1↑ 3↓

00/12826
DEC 25 061044.7s 37.90S 176.11E 191km M=4.3
0.2 0.01 0.01 2
Rsd 0.1s 15ph/11stn Dmin 97km Az.gap 126°
Corr. -0.183 16M/12stn Msd 0.1 1↑

00/12862
DEC 26 084118.2s 37.44S 177.05E 33km M=3.6
0.2 0.03 0.02 R
Rsd 0.4s 8ph/4stn Dmin 91km Az.gap 156°
Corr. 0.560 4M/4stn Msd 0.3

00/12902
DEC 26 194815.1s 38.38S 176.12E 157km M=4.0
0.4 0.03 0.02 4
Rsd 0.2s 16ph/12stn Dmin 85km Az.gap 117°
Corr. -0.709 10M/8stn Msd 0.2 1↑

00/12918
DEC 27 090334.7s 35.06S 178.52E 286km M=4.3
0.5 0.11 0.08 12
Rsd 0.2s 10ph/8stn Dmin 283km Az.gap 332°
Corr. -0.087 6M/6stn Msd 0.2

00/12922
DEC 27 105537.0s 38.62S 175.76E 148km M=3.7
0.6 0.05 0.04 4
Rsd 0.2s 17ph/13stn Dmin 47km Az.gap 197°
Corr. -0.851 7M/7stn Msd 0.2 3↑ 1↓

00/12927
DEC 27 162332.4s 41.74S 178.15E 33km M=3.7
1.5 0.11 0.06 R
Rsd 0.4s 9ph/8stn Dmin 247km Az.gap 306°
Corr. -0.673 5M/5stn Msd 0.3

00/12936
DEC 28 052512.8s 38.55S 175.90E 150km M=4.4
0.4 0.02 0.01 3
Rsd 0.3s 30ph/24stn Dmin 14km Az.gap 69°
Corr. -0.231 13M/9stn Msd 0.2 5↑ 3↓

00/12949
DEC 28 150202.5s 37.58S 179.28E 12km M=3.5
0.6 0.04 0.03 R
Rsd 0.3s 7ph/5stn Dmin 86km Az.gap 313°
Corr. 0.128 3M/3stn Msd 0.5 1↑

00/12956
DEC 28 191958.4s 38.47S 175.99E 122km M=3.8
0.5 0.03 0.03 6
Rsd 0.3s 14ph/11stn Dmin 101km Az.gap 229°
Corr. -0.648 6M/6stn Msd 0.2 1↑ 1↓

00/12963
DEC 29 013003.7s 42.69S 172.44E 8km M=4.8
0.2 0.01 0.01 2
Rsd 0.2s 16ph/14stn Dmin 17km Az.gap 110°
Corr. -0.429 26M/14stn Msd 0.3 6↑ 1↓
Felt central South Island.

00/12966
DEC 29 020003.7s 38.69S 174.99E 201km M=3.9
1.3 0.07 0.06 19
Rsd 0.5s 18ph/16stn Dmin 242km Az.gap 217°
Corr. -0.582 4M/4stn Msd 0.1
Poor station coverage.

00/12978
DEC 29 063756.7s 38.72S 175.92E 5km M=2.5
0.1 0.01 0.01 R
Rsd 0.3s 16ph/12stn Dmin 6km Az.gap 133°
Corr. -0.451 7M/7stn Msd 0.3 2↑ 5↓
Felt Waihora Rd (40).

00/12982
DEC 29 075342.2s 42.67S 172.47E 5km M=4.4
0.1 0.01 0.01 R
Rsd 0.2s 16ph/10stn Dmin 20km Az.gap 116°
Corr. -0.631 14M/7stn Msd 0.4 1↑
Felt Hanmer Springs (88) and Lake Taylor (94).

00/12986
DEC 29 111829.7s 39.71S 179.10E 33km M=3.7
0.4 0.02 0.02 R
Rsd 0.2s 10ph/8stn Dmin 145km Az.gap 295°
Corr. -0.282 6M/6stn Msd 0.2

00/12988
DEC 29 121016.6s 41.31S 172.80E 138km M=4.2
0.3 0.02 0.02 3
Rsd 0.2s 32ph/24stn Dmin 51km Az.gap 97°
Corr. -0.541 13M/9stn Msd 0.3 8↑ 8↓

00/12993
DEC 29 200016.1s 38.65S 175.96E 5km M=2.3
0.2 0.02 0.01 R
Rsd 0.3s 9ph/6stn Dmin 10km Az.gap 195°
Corr. 0.144 4M/4stn Msd 0.1 3↑ 2↓
Felt Acacia Bay (41).

00/13005
DEC 30 065010.9s 38.59S 175.90E 5km M=2.4
0.6 0.03 0.02 R
Rsd 0.3s 8ph/5stn Dmin 10km Az.gap 231°
Corr. -0.010 5M/5stn Msd 0.2
Felt Waihora Rd (40).

00/13008
DEC 30 071345.7s 38.64S 175.86E 147km M=4.3
0.3 0.03 0.01 3
Rsd 0.3s 25ph/19stn Dmin 49km Az.gap 143°
Corr. -0.409 13M/9stn Msd 0.2 4↑ 1↓

00/13035
DEC 31 134526.2s 45.16S 167.54E 116km M=3.7
0.4 0.03 0.02 3
Rsd 0.2s 13ph/7stn Dmin 53km Az.gap 237°
Corr. -0.492 10M/7stn Msd 0.2 2↑ 2↓

00/13038
DEC 31 155516.8s 38.24S 176.24E 144km M=4.3
0.4 0.02 0.01 3
Rsd 0.2s 21ph/17stn Dmin 8km Az.gap 105°
Corr. -0.561 13M/9stn Msd 0.2 4↑ 4↓

00/13047
DEC 31 203736.5s 37.91S 178.67E 12km M=3.9
0.5 0.01 0.03 R
Rsd 0.2s 14ph/10stn Dmin 40km Az.gap 258°
Corr. -0.521 14M/12stn Msd 0.3 1↓

00/13050
DEC 31 215650.8s 38.07S 178.80E 30km M=5.4
0.5 0.02 0.03 3
Rsd 0.2s 16ph/13stn Dmin 47km Az.gap 256°
Corr. -0.231 35M/19stn Msd 0.2 14↑ 8↓
Felt Gisborne (45).

00/13051
DEC 31 220700.8s 38.10S 178.72E 35km M=4.1
0.3 0.02 0.03 6
Rsd 0.2s 13ph/9stn Dmin 41km Az.gap 252°
Corr. -0.192 12M/8stn Msd 0.1 1↓

LISTS OF ORIGINS AND MAGNITUDE DETERMINATIONS

HIGHER MAGNITUDE EARTHQUAKES

A chronological list of New Zealand earthquakes of $M_L \geq 5.0$ in 2000 follows. A reference number at the beginning of each entry identifies the origin with the instrumental data summary, and also with the listing of non-instrumental data (if there is any) that appears in a later section.

The letter "R" following a depth indicates that the depth was restricted to some likely value because the data did not provide sufficient constraint for the depth to be determined by calculation. Choice of the depth of restriction is usually made on the basis of the crustal phases observed or the predominant depth of shallow earthquakes in the epicentral area. (For sub-crustal earthquakes, depth restriction is seldom necessary.) The letter "G" after a depth shows that the depth was restricted on the basis of information that could not be used by the location program, such as macroseismic information, overseas PKP observations etc.

The letter "F" following a magnitude indicates that at least one report of the earthquake being felt has been received by the Observatory.

In the following table, Rsd is as defined on page 32 and NP phases from NS recording stations have been used to determine the origins.

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
2544	MAR 22	0059 14.4	37.29S	179.51E	12R	5.0	0.2	24	21
2784	MAR 29	1430 58.9	41.06S	175.44E	31	5.4F	0.2	47	39
2966	MAR 30	1527 32.1	37.03S	177.36E	132	5.1	0.2	27	22
3041	MAR 31	1756 6.2	41.26S	174.28E	43	5.4F	0.2	45	34
4094	APR 25	0426 29.9	45.48S	166.98E	65	5.4F	0.3	15	9
4167	APR 27	0914 45.9	40.19S	173.98E	135	5.9F	0.2	52	45
4367	MAY 04	0102 14.6	35.39S	178.41E	12R	5.2	0.3	24	22
4853	MAY 16	0703 26.7	40.02S	174.79E	115	5.5F	0.2	57	48
4916	MAY 17	0910 12.2	37.98S	176.66E	144	5.4F	0.2	44	40
5504	JUN 05	1523 17.5	35.70S	179.29E	156	5.2	0.5	12	10
5577	JUN 07	0851 27.4	37.98S	177.74E	72	5.3F	0.2	36	31
7415	AUG 08	1031 19.6	39.16S	176.28E	50	6.1F	0.2	37	32
7500	AUG 12	0622 55.6	38.65S	176.11E	126	5.0	0.2	39	32
7563	AUG 15	0430 5.0	31.94S	178.55W	436	7.6F	0.2	28	24
7938	AUG 29	0350 42.5	45.07S	167.60E	117	5.3F	0.2	15	9
8641	SEP 22	1833 1.0	47.67S	165.02E	33R	5.0	0.2	12	7
8720	SEP 24	1526 21.0	39.40S	175.65E	101	5.6F	0.2	55	46
9674	OCT 27	1634 18.8	38.33S	175.98E	170	5.3F	0.2	46	38
9780	OCT 30	1632 19.1	40.78S	175.00E	51	5.2F	0.2	53	42
9839	NOV 01	1035 55.8	45.12S	166.95E	9R	6.2F	0.1	13	8
9840	NOV 01	1037 34.3	45.25S	167.12E	9R	5.0	0.4	12	6
11032	NOV 12	1149 15.3	45.15S	167.06E	26	5.5F	0.2	17	10
12591	DEC 19	0503 37.5	41.35S	174.35E	42	5.1F	0.2	36	32
13050	DEC 31	2156 50.8	38.07S	178.80E	30	5.4F	0.2	16	13

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 is a list of all earthquakes of magnitude (M_L) 2.0 or more in the area surrounding Wellington, including those of magnitude 3.5 or more that 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 32 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 27.

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
002	JAN 01	0241 34.4	40.99S	174.32E	54	2.1	0.2	9	6
004	JAN 01	0716 58.7	40.97S	174.74E	33	2.0	0.1	8	6
014	JAN 01	1142 46.6	40.90S	174.75E	42	2.3	0.2	10	8
016	JAN 01	1207 48.6	41.41S	175.00E	25	2.1	0.1	11	8
020	JAN 01	1635 3.7	40.89S	175.78E	33	2.1	0.2	7	6
022	JAN 01	1657 48.7	41.42S	175.01E	24	2.2	0.1	12	8
023	JAN 01	1855 22.3	41.67S	174.49E	40	2.3	0.2	10	9
026	JAN 01	2235 43.7	41.38S	174.76E	72	2.1	0.2	8	5
032	JAN 02	0214 55.6	41.47S	174.42E	56	2.7	0.1	11	9
037	JAN 02	1019 31.3	40.88S	175.15E	29	2.1	0.1	8	7
038	JAN 02	1405 13.0	41.13S	173.54E	140	2.3	0.2	8	7
039	JAN 02	1448 59.5	41.78S	174.37E	31	2.4	0.2	13	9
045	JAN 02	1745 50.0	41.24S	174.06E	47	2.4	0.0	9	6
046	JAN 02	2021 11.0	40.57S	175.88E	36	2.6	0.3	11	8
049	JAN 02	2330 46.3	40.65S	174.58E	51	2.2	0.3	6	5
051	JAN 03	0233 45.3	41.30S	175.27E	25	2.2	0.1	8	6
054	JAN 03	0702 27.0	41.01S	174.18E	56	2.6	0.1	9	7
056	JAN 03	0919 52.1	40.91S	175.70E	23	3.1	0.3	18	15
057	JAN 03	0926 25.3	41.71S	173.75E	16	2.4	0.2	13	9
058	JAN 03	0938 22.3	40.89S	175.84E	30	2.3	0.2	13	7
061	JAN 03	1131 13.0	41.20S	173.64E	77	2.6	0.5	10	7
070	JAN 03	1944 52.7	40.90S	175.27E	48	2.3	0.1	8	6
094	JAN 04	1221 34.2	41.41S	174.61E	21	2.2	0.2	12	11
100	JAN 04	1842 20.2	40.91S	175.19E	28	2.5	0.2	10	8
102	JAN 04	1848 30.4	41.17S	174.51E	36	2.2	0.1	8	6
108	JAN 04	2335 13.1	41.76S	174.58E	27	2.3	0.2	12	9
110	JAN 05	0333 59.2	41.23S	175.04E	21	2.1	0.1	11	7
114	JAN 05	0448 16.5	41.00S	174.41E	51	2.1	0.2	8	6
119	JAN 05	0938 3.9	40.61S	174.30E	81	3.3	0.2	30	25
120	JAN 05	0939 0.8	40.86S	175.17E	29	2.7	0.2	14	10

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
125	JAN 05	1108 31.3	41.40S	174.98E	26	2.2	0.1	11	9
129	JAN 05	1252 51.3	41.01S	175.22E	29	2.6	0.1	15	11
138	JAN 05	2133 3.6	41.74S	174.23E	23	2.3	0.2	11	7
140	JAN 06	0044 14.2	41.65S	174.31E	18	2.5	0.2	15	12
144	JAN 06	0258 19.0	41.55S	174.26E	5R	2.3	0.3	13	10
145	JAN 06	0342 43.6	41.58S	174.64E	32	2.0	0.1	8	6
147	JAN 06	0504 5.2	41.57S	174.28E	5R	2.2	0.4	12	9
160	JAN 06	1437 3.9	41.28S	174.52E	33	2.6	0.2	16	14
168	JAN 06	2208 22.5	41.30S	175.19E	21	2.5	0.2	14	10
205	JAN 08	0046 5.7	41.12S	175.31E	26	2.2	0.1	10	7
207	JAN 08	0611 10.5	40.80S	175.83E	32	2.6	0.2	9	6
208	JAN 08	0630 51.1	41.55S	175.21E	25	2.3	0.1	9	5
212	JAN 08	0818 8.5	40.87S	174.74E	14	2.2	0.1	9	7
215	JAN 08	1156 39.6	41.04S	174.62E	61	2.7	0.1	15	10
220	JAN 08	1719 53.7	41.38S	173.78E	67	2.5	0.3	10	8
228	JAN 09	0230 17.7	41.07S	174.18E	45	2.0	0.2	5	3
239	JAN 09	2127 14.8	41.10S	174.68E	59	3.6F	0.2	31	25
242	JAN 09	2256 30.9	41.38S	174.63E	38	2.4	0.5	11	8
248	JAN 10	0626 57.1	40.54S	174.86E	55	2.1	0.2	6	4
249	JAN 10	1012 30.5	41.61S	174.76E	31	2.3	0.1	10	9
260	JAN 11	0143 9.6	41.09S	175.47E	12	2.1	0.2	10	7
263	JAN 11	0422 37.7	41.64S	174.28E	5R	2.4	0.2	11	8
264	JAN 11	0440 2.9	40.55S	174.16E	99	2.9	0.2	9	8
268	JAN 11	0949 10.2	41.36S	175.11E	26	2.1	0.1	10	7
274	JAN 11	1345 26.7	41.93S	174.08E	33R	2.2	0.3	8	6
296	JAN 12	0520 57.7	41.26S	174.44E	59	2.3	0.1	10	8
309	JAN 12	1735 35.5	41.96S	174.30E	24	2.4	0.2	10	7
311	JAN 12	1847 1.2	41.25S	175.04E	21	2.2	0.1	11	8
314	JAN 12	2339 4.3	41.21S	175.44E	22	2.9	0.2	19	14
315	JAN 13	0009 56.0	41.02S	174.23E	54	3.1	0.2	19	16
319	JAN 13	0254 18.4	41.77S	174.37E	5R	2.6	0.2	15	13
322	JAN 13	0605 33.6	40.98S	175.60E	20	2.4	0.3	14	11
325	JAN 13	0753 53.9	40.58S	174.20E	67	2.9	0.2	33	24
353	JAN 14	1523 55.3	40.84S	173.88E	5R	2.2	0.2	11	8
354	JAN 14	1641 26.9	41.20S	173.70E	69	2.4	0.2	14	10
357	JAN 14	2000 41.1	41.39S	173.90E	52	2.8	0.2	18	14
362	JAN 15	0333 54.7	41.47S	175.32E	19	2.9	0.3	18	14
364	JAN 15	0422 27.7	41.48S	175.31E	18	2.5	0.2	14	11
365	JAN 15	0625 32.7	41.43S	175.30E	15	2.1	0.1	11	9
366	JAN 15	0736 36.9	41.47S	175.32E	18	2.3	0.3	12	10
369	JAN 15	1244 8.9	41.59S	173.68E	45	2.8	0.4	21	16
384	JAN 16	0335 25.4	40.87S	175.75E	29	2.8	0.2	13	9
392	JAN 16	0908 12.9	41.80S	174.76E	35	2.0	0.2	7	5
396	JAN 16	1159 38.1	40.74S	173.82E	74	2.8	0.3	20	17
405	JAN 16	2142 48.5	41.18S	175.74E	20	2.8	0.2	13	9

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407	JAN 16	2302 36.6	41.03S	174.63E	37	2.7	0.2	22	15
416	JAN 17	0530 41.5	41.71S	174.89E	31	2.5	0.1	8	5
425	JAN 17	0953 38.7	41.36S	174.19E	36	2.3	0.2	11	8
435	JAN 17	2103 37.9	40.86S	174.71E	16	2.3	0.1	10	8
444	JAN 18	1508 26.2	41.26S	175.22E	10	2.8	0.2	16	12
445	JAN 18	1510 8.3	41.34S	174.02E	68	2.7	0.2	13	8
449	JAN 18	1536 38.2	40.97S	174.96E	28	2.0	0.1	11	8
455	JAN 19	0248 30.6	41.10S	174.39E	56	2.2	0.1	7	6
476	JAN 19	2310 29.5	40.95S	174.47E	45	2.4	0.1	11	7
480	JAN 20	0209 30.9	40.61S	173.96E	77	2.6	0.2	11	8
481	JAN 20	0211 24.7	41.59S	174.24E	5R	2.1	0.2	13	10
509	JAN 21	0510 0.5	40.91S	175.72E	26	2.2	0.2	9	7
516	JAN 21	1014 26.1	41.20S	173.61E	65	3.0	0.2	18	13
518	JAN 21	1124 12.1	41.25S	173.89E	56	2.5	0.2	11	7
519	JAN 21	1156 14.9	41.41S	175.01E	25	2.2	0.1	13	10
521	JAN 21	1343 11.0	41.44S	174.97E	28	3.1	0.2	20	15
522	JAN 21	1422 33.2	41.43S	174.27E	33	2.2	0.2	9	5
529	JAN 21	1712 10.0	40.87S	175.13E	26	3.8F	0.2	33	28
539	JAN 22	0419 18.6	41.14S	174.82E	28	2.1	0.0	6	5
540	JAN 22	0457 20.5	40.91S	175.51E	20	3.1	0.2	19	13
543	JAN 22	0858 57.8	40.72S	174.48E	62	2.7	0.2	10	6
548	JAN 22	1352 38.6	41.31S	175.19E	24	2.4	0.1	13	10
555	JAN 22	1859 38.2	41.63S	174.66E	30	3.1	0.3	17	12
558	JAN 22	2255 15.9	41.65S	173.59E	76	3.0	0.2	20	13
559	JAN 23	0218 14.5	41.57S	174.65E	33	2.2	0.4	14	10
563	JAN 23	0523 48.8	41.26S	175.33E	25	2.1	0.1	9	6
570	JAN 23	0940 40.4	40.83S	174.18E	52	2.0	0.1	9	5
576	JAN 23	1216 53.4	40.64S	175.66E	28	2.1	0.2	9	6
577	JAN 23	1246 54.9	40.61S	175.75E	33R	2.1	0.1	8	4
593	JAN 24	0003 37.3	41.74S	174.27E	12R	2.5	0.3	12	8
598	JAN 24	0607 6.8	40.60S	174.20E	70	3.1	0.3	14	11
599	JAN 24	1152 9.7	41.68S	174.19E	35	2.1	0.1	8	6
601	JAN 24	1207 7.3	40.93S	175.18E	35	2.6	0.3	14	11
602	JAN 24	1210 12.6	41.28S	175.30E	28	2.1	0.1	9	7
604	JAN 24	1238 56.0	41.12S	174.30E	57	2.9	0.1	15	13
611	JAN 25	0940 34.5	41.07S	174.03E	54	2.8	0.1	9	7
614	JAN 25	1813 49.0	41.02S	174.95E	27	2.4	0.2	10	8
617	JAN 25	2043 43.6	40.51S	173.61E	139	3.4	0.2	31	25
618	JAN 26	0041 40.1	41.07S	174.61E	55	2.1	0.0	7	4
622	JAN 26	0228 16.5	40.57S	174.21E	64	3.2	0.2	31	24
633	JAN 26	1400 16.6	40.52S	175.15E	5R	2.0	0.2	6	4
636	JAN 26	1630 32.5	40.64S	174.33E	5R	2.3	0.4	10	8
647	JAN 27	0329 2.1	40.67S	174.55E	20	2.1	0.1	7	5
652	JAN 27	0924 6.4	41.19S	175.80E	22	2.5	0.2	12	9
660	JAN 27	1221 9.9	41.10S	174.36E	68	3.3	0.2	33	25

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666	JAN 27	1730 53.5	40.68S	173.96E	86	2.6	0.4	9	6
669	JAN 27	1938 53.3	40.87S	175.14E	28	3.1	0.2	23	20
681	JAN 28	0224 32.0	40.66S	173.81E	79	2.8	0.4	14	9
682	JAN 28	0558 7.7	41.94S	173.89E	12R	2.3	0.2	10	9
683	JAN 28	0718 35.6	40.89S	174.74E	12	3.3	0.2	37	27
684	JAN 28	0800 38.5	41.65S	173.93E	19	2.1	0.2	6	4
686	JAN 28	0926 52.8	41.65S	174.59E	29	2.0	0.1	9	7
687	JAN 28	0937 38.7	40.79S	174.62E	60	2.4	0.1	12	8
692	JAN 28	1625 53.3	40.51S	173.90E	99	2.6	0.2	15	11
705	JAN 29	0425 17.0	41.83S	174.42E	19	2.2	0.1	11	9
713	JAN 29	1252 57.5	40.53S	173.95E	85	2.6	0.2	15	10
714	JAN 29	1259 29.9	41.53S	174.60E	18	2.4	0.1	13	10
724	JAN 30	0609 28.1	41.44S	175.85E	33R	3.3	0.2	8	5
759	FEB 01	0052 32.2	40.99S	175.56E	18	2.1	0.1	8	6
768	FEB 01	0759 26.5	41.41S	175.01E	24	2.4	0.1	17	11
774	FEB 01	1242 58.4	41.00S	174.59E	35	2.7	0.2	18	15
778	FEB 01	1451 21.6	41.12S	174.45E	65	2.4	0.2	11	8
782	FEB 01	1914 55.7	40.54S	173.73E	97	3.5	0.3	41	32
785	FEB 02	0153 17.0	41.10S	174.19E	51	2.5	0.1	11	8
799	FEB 02	0828 20.5	40.92S	175.19E	25	3.0	0.3	21	19
803	FEB 02	1025 19.8	40.97S	174.91E	30	2.4	0.1	11	8
804	FEB 02	1050 23.9	40.53S	175.49E	42	2.7	0.1	17	14
817	FEB 03	0407 40.7	41.04S	174.75E	33	2.1	0.1	9	6
819	FEB 03	0445 22.2	41.10S	174.87E	28	2.0	0.1	8	7
821	FEB 03	0941 7.3	41.20S	174.03E	54	2.3	0.1	9	6
823	FEB 03	1114 4.2	40.96S	175.44E	24	2.4	0.1	12	9
831	FEB 03	2123 57.9	41.58S	174.23E	10	2.2	0.3	14	10
832	FEB 03	2139 2.6	41.34S	174.87E	28	2.1	0.1	10	7
833	FEB 04	0013 55.2	41.06S	174.56E	62	2.2	0.1	8	6
835	FEB 04	0124 59.8	40.88S	174.73E	15	2.2	0.1	8	5
837	FEB 04	0446 18.9	40.86S	175.48E	38	2.5	0.1	9	7
847	FEB 04	1048 26.1	40.91S	174.95E	36	2.2	0.0	8	6
860	FEB 05	0513 28.9	41.57S	174.18E	18	2.0	0.2	9	6
866	FEB 05	1027 42.8	40.86S	175.17E	31	2.2	0.1	13	9
867	FEB 05	1047 23.8	40.97S	173.53E	115	3.0	0.3	17	14
870	FEB 05	1115 38.5	40.67S	175.03E	19	2.2	0.2	10	7
873	FEB 05	1456 32.5	40.66S	175.02E	19	2.2	0.1	9	6
888	FEB 06	0709 33.5	41.82S	174.10E	12R	2.5	0.3	12	8
890	FEB 06	1252 47.8	41.13S	175.34E	25	2.6	0.1	14	10
891	FEB 06	1720 13.2	41.09S	175.52E	12	2.0	0.1	10	7
899	FEB 06	2223 21.3	40.94S	174.94E	33R	3.4	0.1	19	14
900	FEB 06	2229 44.9	40.94S	174.94E	31	3.5	0.1	21	15
901	FEB 06	2230 47.3	40.95S	174.94E	31	3.1	0.2	18	12
902	FEB 06	2231 45.7	40.93S	174.91E	36	2.2	0.0	5	4
907	FEB 07	0441 33.7	41.06S	173.61E	76	2.9	0.2	14	9

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910	FEB	07	0939	29.1	41.27S	174.99E	25	2.2	0.1	10	7
912	FEB	07	1001	14.8	41.65S	174.19E	31	2.4	0.1	10	7
914	FEB	07	1305	20.3	40.65S	175.07E	5R	2.4	0.2	11	8
918	FEB	07	1532	46.9	40.85S	175.87E	29	3.6	0.3	27	22
926	FEB	07	2041	2.3	40.94S	175.15E	28	2.2	0.1	10	7
927	FEB	07	2150	2.6	40.97S	175.47E	29	2.3	0.1	10	8
937	FEB	08	0839	7.3	40.91S	175.70E	27	2.2	0.1	11	8
946	FEB	08	1216	35.9	40.84S	175.84E	32	2.1	0.2	7	6
954	FEB	08	1533	2.9	41.59S	174.07E	13	2.4	0.2	11	8
963	FEB	08	2129	4.0	40.59S	174.21E	66	3.5	0.3	33	28
964	FEB	08	2155	5.6	40.95S	174.94E	31	2.7	0.1	16	13
965	FEB	09	0027	40.2	40.54S	174.21E	64	2.8	0.4	14	10
974	FEB	09	0941	3.4	40.51S	173.88E	112	3.6	0.3	40	33
986	FEB	09	1558	41.4	40.60S	174.29E	90	2.6	0.4	8	7
992	FEB	09	2027	4.1	40.78S	173.80E	83	2.5	0.3	12	8
996	FEB	09	2231	32.3	41.96S	174.40E	31	2.5	0.1	8	6
998	FEB	09	2353	6.4	40.67S	175.07E	33	2.1	0.2	9	6
1004	FEB	10	0330	11.2	40.69S	175.32E	31	2.3	0.2	9	7
1009	FEB	10	0725	46.3	40.85S	175.17E	30	2.1	0.1	12	9
1031	FEB	10	2007	49.9	40.89S	173.87E	84	2.8	0.3	15	10
1054	FEB	11	0932	11.2	40.69S	174.37E	48	2.0	0.2	11	6
1063	FEB	11	1415	35.8	41.27S	175.25E	28	2.2	0.1	14	9
1065	FEB	11	1521	35.4	41.01S	174.60E	35	3.5	0.1	29	25
1085	FEB	12	0417	42.9	40.57S	175.52E	36	2.3	0.0	7	5
1091	FEB	12	1020	20.0	41.27S	175.24E	25	2.2	0.1	10	7
1111	FEB	13	0112	32.4	40.57S	174.38E	60	2.8	0.2	11	8
1121	FEB	13	1104	46.4	41.57S	174.19E	5R	3.1	0.3	23	16
1123	FEB	13	1107	9.2	41.57S	174.18E	5R	3.4	0.3	26	18
1124	FEB	13	1113	32.2	41.59S	174.18E	5R	2.3	0.3	10	7
1126	FEB	13	1201	12.8	41.57S	174.18E	5R	2.9	0.3	18	16
1127	FEB	13	1202	21.7	41.57S	174.18E	5R	3.3	0.3	24	19
1135	FEB	13	1923	13.9	41.31S	175.18E	25	2.5	0.1	15	10
1136	FEB	13	1926	25.7	41.31S	175.18E	24	2.1	0.1	11	7
1138	FEB	13	2006	9.2	41.59S	174.21E	5R	2.3	0.3	14	10
1139	FEB	13	2006	40.6	41.59S	174.19E	5R	2.3	0.3	13	11
1141	FEB	13	2225	50.8	41.41S	174.64E	20	2.2	0.2	15	11
1144	FEB	13	2319	46.5	41.26S	174.34E	38	2.3	0.1	9	6
1155	FEB	14	0619	38.1	41.19S	174.13E	49	3.2	0.2	25	19
1157	FEB	14	0655	36.5	41.20S	175.75E	18	2.4	0.2	12	8
1167	FEB	14	1206	16.3	41.16S	174.52E	61	3.5F	0.3	37	27
1169	FEB	14	1239	23.0	41.28S	175.26E	30	3.4	0.2	17	14
1174	FEB	14	1549	26.6	41.26S	175.25E	26	2.2	0.1	11	8
1175	FEB	14	1551	35.4	40.97S	174.81E	48	2.1	0.1	8	7
1176	FEB	14	1559	43.2	40.88S	174.62E	62	2.8	0.1	18	15
1183	FEB	14	2012	19.1	41.07S	174.05E	58	3.1	0.3	19	15

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1205	FEB	15	0202	37.0	41.38S	174.96E	25	2.3	0.1	15	10
1206	FEB	15	0233	0.2	41.22S	174.65E	34	2.4	0.2	10	9
1207	FEB	15	0313	52.0	41.03S	174.21E	64	2.3	0.1	7	6
1212	FEB	15	0611	6.5	41.08S	174.16E	53	3.5	0.2	29	25
1213	FEB	15	0648	9.8	41.26S	175.25E	27	2.0	0.1	11	9
1215	FEB	15	0812	49.8	41.36S	175.70E	18	2.5	0.1	12	9
1216	FEB	15	0902	50.6	41.26S	175.25E	26	2.1	0.1	11	8
1240	FEB	15	2111	30.2	40.69S	175.97E	32	2.1	0.2	10	7
1248	FEB	16	0150	26.3	41.89S	174.69E	30	2.3	0.2	14	10
1252	FEB	16	0439	16.7	41.02S	174.04E	59	2.1	0.2	10	7
1254	FEB	16	0521	22.4	41.43S	174.79E	29	2.0	0.1	13	11
1265	FEB	16	1113	27.5	41.08S	174.76E	32	2.4	0.1	14	11
1268	FEB	16	1329	44.8	41.28S	175.45E	16	2.0	0.1	9	8
1272	FEB	16	1401	2.7	41.21S	174.12E	47	2.1	0.3	10	7
1276	FEB	16	1540	35.4	41.08S	174.15E	44	2.6	0.3	18	13
1335	FEB	17	0653	21.7	40.63S	174.51E	44	2.5	0.2	19	14
1430	FEB	17	1658	51.7	41.07S	174.49E	40	2.9	0.2	18	14
1438	FEB	17	2008	7.4	40.61S	175.05E	14	3.1	0.2	26	21
1455	FEB	18	0100	24.4	41.42S	173.73E	53	3.0	0.2	21	15
1488	FEB	18	1319	37.7	41.30S	175.29E	26	2.0	0.1	10	8
1496	FEB	18	1541	31.3	40.69S	174.22E	67	3.5	0.3	32	23
1502	FEB	18	1750	16.0	40.99S	173.59E	84	2.7	0.2	12	8
1515	FEB	18	2021	24.0	40.63S	173.60E	150	3.2	0.2	14	12
1525	FEB	19	0054	43.1	40.84S	174.74E	12R	2.8	0.3	21	14
1538	FEB	19	0619	9.3	40.77S	175.69E	28	2.5	0.1	12	8
1543	FEB	19	0917	33.4	41.26S	175.25E	25	2.4	0.1	16	11
1570	FEB	20	0517	34.8	40.97S	174.15E	59	3.0	0.2	21	15
1586	FEB	20	1146	40.8	40.52S	174.06E	73	2.8	0.2	17	11
1610	FEB	20	2017	10.9	40.62S	175.85E	28	2.8	0.3	19	15
1614	FEB	20	2142	32.3	41.72S	174.67E	21	2.3	0.1	11	10
1618	FEB	21	0323	27.0	41.16S	174.76E	31	2.2	0.1	11	9
1619	FEB	21	0645	24.3	41.09S	174.95E	29	2.1	0.1	10	9
1634	FEB	21	1902	4.8	41.42S	175.59E	24	2.1	0.1	8	6
1641	FEB	21	2341	26.8	40.69S	174.43E	46	2.4	0.2	11	7
1654	FEB	22	1100	12.1	41.41S	175.03E	27	2.2	0.1	15	10
1658	FEB	22	1332	26.4	40.86S	174.15E	63	2.9	0.2	25	18
1659	FEB	22	1520	8.8	41.58S	174.18E	5R	2.4	0.3	15	12
1661	FEB	22	1601	26.4	41.50S	173.67E	55	2.5	0.3	13	10
1679	FEB	23	0802	12.0	40.80S	173.58E	91	3.6	0.3	38	28
1686	FEB	23	1836	37.5	41.46S	175.57E	24	2.0	0.3	8	6
1726	FEB	25	0337	52.5	41.01S	175.21E	26	2.1	0.1	11	8
1734	FEB	25	0701	17.5	41.70S	174.53E	28	2.6	0.2	14	11
1742	FEB	25	1203	52.8	41.18S	175.34E	16	2.1	0.1	10	8
1749	FEB	25	1533	15.0	40.78S	173.51E	99	3.0	0.5	16	12
1753	FEB	25	1715	19.7	41.34S	175.50E	43	2.3	0.1	11	7

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1758	FEB 25	1835 57.7	41.74S	174.31E	32	2.3	0.1	13	9
1764	FEB 26	0256 4.1	40.93S	174.46E	74	4.5F	0.2	46	37
1770	FEB 26	1324 57.7	41.69S	174.17E	29	2.5	0.4	18	12
1778	FEB 26	1814 42.9	41.03S	175.20E	22	2.4	0.2	11	9
1779	FEB 26	1858 27.1	40.52S	173.84E	99	2.9	0.3	17	12
1788	FEB 27	0114 57.5	41.58S	174.18E	5R	2.7	0.3	18	14
1789	FEB 27	0139 42.6	40.91S	174.12E	55	2.5	0.2	10	8
1792	FEB 27	0611 11.8	41.02S	175.19E	27	2.1	0.2	10	7
1797	FEB 27	1047 22.8	41.46S	174.26E	56	2.4	0.1	9	6
1801	FEB 27	1434 15.5	40.59S	174.56E	43	2.6	0.1	11	9
1803	FEB 27	1552 30.0	41.05S	174.50E	61	2.4	0.1	12	9
1807	FEB 27	1752 30.7	40.67S	175.31E	25	2.2	0.2	10	8
1809	FEB 27	2053 1.5	40.61S	174.67E	44	2.4	0.1	7	6
1815	FEB 27	2209 16.7	41.28S	175.20E	23	2.1	0.1	12	9
1819	FEB 28	0113 44.7	41.21S	173.82E	62	2.5	0.2	11	9
1827	FEB 28	0615 41.8	41.16S	175.06E	21	2.3	0.1	13	10
1829	FEB 28	0626 30.7	41.65S	174.27E	5R	3.0	0.3	25	18
1836	FEB 28	1114 18.1	41.22S	173.60E	50	2.5	0.3	10	7
1837	FEB 28	1136 1.6	41.77S	174.50E	35	2.0	0.1	9	7
1839	FEB 28	1822 37.6	41.50S	173.74E	50	3.0	0.2	19	17
1845	FEB 28	2149 46.4	41.10S	174.03E	55	2.2	0.2	8	7
1846	FEB 28	2317 14.9	41.23S	174.60E	38	2.9	0.1	17	15
1847	FEB 28	2322 17.2	41.23S	174.60E	38	3.0	0.2	18	16
1861	FEB 29	0457 51.1	41.48S	174.22E	21	2.2	0.1	7	5
1867	FEB 29	1301 27.3	41.66S	174.31E	13	2.2	0.2	13	9
1870	FEB 29	1614 30.1	41.55S	174.72E	29	2.3	0.1	6	4
1896	MAR 01	1721 33.9	41.21S	173.80E	59	2.9	0.2	17	12
1903	MAR 02	0251 37.5	41.11S	174.69E	31	2.6	0.2	11	10
1904	MAR 02	0343 10.1	40.57S	175.86E	21	2.3	0.2	10	6
1912	MAR 02	0712 37.9	41.61S	174.27E	5R	2.2	0.1	10	7
1923	MAR 02	1433 31.3	41.59S	174.23E	12R	2.1	0.3	13	11
1933	MAR 03	0115 41.5	41.20S	174.30E	42	2.5	0.1	9	7
1943	MAR 03	0604 14.7	41.09S	175.48E	27	3.0	0.3	20	13
1954	MAR 03	1255 6.0	41.62S	174.31E	31	3.0	0.2	24	18
1962	MAR 03	1928 42.8	41.20S	174.55E	39	2.0	0.1	8	6
1981	MAR 04	1438 33.4	40.57S	174.12E	88	2.2	0.2	9	7
1982	MAR 04	1439 38.8	40.91S	175.73E	26	2.9	0.1	16	12
1989	MAR 04	1858 53.6	40.91S	175.47E	21	2.6	0.2	21	16
1997	MAR 05	0452 26.9	40.61S	174.14E	76	2.3	0.2	13	8
2010	MAR 05	1229 6.0	40.73S	174.67E	70	3.2	0.2	31	24
2017	MAR 05	1755 18.2	41.05S	174.55E	41	2.3	0.1	12	9
2020	MAR 05	1853 55.6	41.09S	174.51E	59	2.6	0.1	13	10
2022	MAR 05	2020 34.0	40.79S	175.30E	29	2.2	0.2	13	10
2023	MAR 05	2042 30.0	41.08S	174.60E	35	3.1	0.3	24	18
2025	MAR 05	2323 55.7	41.37S	175.12E	28	2.1	0.1	11	8

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2026	MAR 06	0012 46.4	41.15S	173.99E	53	2.7	0.2	15	11
2039	MAR 06	1116 28.3	41.28S	174.98E	26	2.1	0.1	7	5
2049	MAR 06	2340 45.4	41.60S	174.37E	27	2.2	0.3	14	11
2052	MAR 07	0508 15.1	41.61S	173.59E	43	2.5	0.2	13	8
2058	MAR 07	0855 19.5	41.08S	175.48E	26	2.4	0.1	13	9
2062	MAR 07	1118 56.1	40.96S	174.86E	45	2.2	0.2	13	10
2066	MAR 07	1222 43.4	41.56S	175.15E	15	2.1	0.1	11	8
2075	MAR 07	2239 32.7	40.60S	174.35E	54	2.6	0.3	14	10
2078	MAR 07	2306 25.5	41.29S	174.14E	45	2.2	0.1	9	6
2084	MAR 08	0611 12.2	41.26S	174.84E	31	2.2	0.2	14	11
2107	MAR 08	2008 22.6	41.60S	174.65E	30	2.4	0.2	12	11
2121	MAR 09	1126 5.7	41.46S	174.21E	14	2.6	0.4	17	13
2149	MAR 09	2013 12.7	41.56S	174.69E	47	3.4	0.2	27	19
2155	MAR 10	0421 56.0	41.19S	175.08E	29	3.0	0.2	19	14
2157	MAR 10	0619 42.4	41.11S	175.09E	28	2.5	0.2	18	12
2163	MAR 10	0720 51.5	41.78S	174.33E	29	2.4	0.2	13	10
2212	MAR 11	0239 45.5	40.94S	173.69E	65	2.4	0.2	11	8
2220	MAR 11	0710 18.8	40.85S	175.85E	30	2.6	0.3	11	9
2223	MAR 11	1139 16.0	41.76S	174.34E	30	3.4	0.2	23	19
2239	MAR 11	2317 53.4	40.62S	175.96E	27	2.4	0.2	14	11
2241	MAR 11	2328 2.2	40.90S	175.54E	22	2.4	0.2	11	9
2242	MAR 11	2344 11.1	41.15S	174.09E	59	2.4	0.2	10	7
2243	MAR 12	0210 19.4	41.60S	174.39E	15	2.1	0.2	12	10
2244	MAR 12	0446 33.9	41.73S	174.33E	29	2.0	0.1	10	7
2248	MAR 12	0535 25.2	41.13S	174.83E	50	2.6	0.1	13	11
2265	MAR 12	1720 21.9	40.62S	175.01E	32	2.9	0.3	23	17
2271	MAR 13	0009 28.4	41.33S	174.89E	28	2.0	0.1	10	8
2274	MAR 13	0132 25.8	40.87S	174.69E	49	2.5	0.1	9	7
2276	MAR 13	0311 48.0	40.90S	174.07E	50	2.2	0.1	9	7
2289	MAR 13	1004 55.1	40.60S	174.47E	80	2.2	0.1	7	5
2300	MAR 14	0145 21.2	41.21S	175.39E	16	2.4	0.1	13	9
2311	MAR 14	1339 58.8	41.29S	173.70E	79	2.5	0.2	10	7
2317	MAR 14	1831 42.2	41.98S	174.21E	14	2.9	0.3	15	12
2324	MAR 15	0114 56.4	41.01S	175.49E	5R	2.2	0.2	13	10
2335	MAR 15	1153 44.7	40.99S	174.72E	57	2.1	0.1	10	7
2337	MAR 15	1338 37.5	41.28S	175.27E	26	2.3	0.1	14	8
2348	MAR 15	1750 4.5	40.95S	175.09E	29	2.2	0.1	8	6
2350	MAR 15	1910 46.7	41.04S	174.86E	30	2.5	0.3	17	11
2357	MAR 16	0214 10.4	40.78S	174.65E	42	2.4	0.1	12	9
2358	MAR 16	0228 52.4	40.69S	175.51E	27	2.1	0.1	10	6
2359	MAR 16	0240 25.4	41.88S	174.70E	23	2.9	0.3	18	12
2363	MAR 16	0612 22.7	41.10S	174.86E	51	2.9	0.1	19	16
2365	MAR 16	0712 8.1	40.72S	174.41E	72	3.0	0.2	19	14
2386	MAR 16	2357 50.7	41.69S	174.26E	12R	2.0	0.1	9	7
2405	MAR 17	1148 53.1	40.82S	175.47E	32	2.5	0.1	10	8

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2426	MAR 17	1630 19.9	40.87S	174.70E	50	2.3	0.1	12	9
2432	MAR 17	1930 4.8	41.71S	174.46E	23	2.8	0.3	23	15
2451	MAR 18	1242 8.8	41.02S	173.79E	64	2.7	0.2	13	8
2455	MAR 18	1852 18.2	41.53S	174.55E	14	2.8	0.2	20	15
2466	MAR 19	0826 32.2	41.69S	174.23E	15	2.2	0.2	10	8
2470	MAR 19	1022 10.6	41.42S	175.01E	24	2.4	0.1	16	12
2480	MAR 19	1709 29.1	41.01S	174.92E	49	2.2	0.1	15	8
2483	MAR 19	1921 35.1	41.29S	174.99E	24	2.1	0.1	9	8
2493	MAR 20	0435 7.3	40.68S	175.95E	25	2.5	0.3	16	12
2497	MAR 20	0623 53.5	41.76S	174.51E	34	2.6	0.1	11	9
2499	MAR 20	0633 36.1	40.65S	174.35E	5R	2.1	0.1	9	5
2501	MAR 20	0710 18.1	41.88S	174.13E	2	2.4	0.3	13	9
2502	MAR 20	0728 18.2	41.41S	175.02E	24	2.5	0.1	15	11
2505	MAR 20	0935 35.2	40.55S	174.32E	5R	2.8	0.3	23	16
2506	MAR 20	1059 33.0	40.78S	174.78E	38	2.0	0.1	8	6
2522	MAR 21	0845 41.2	40.86S	174.50E	74	2.1	0.1	9	5
2523	MAR 21	0946 40.0	41.31S	174.73E	27	2.1	0.1	7	5
2534	MAR 21	1437 55.3	41.40S	175.46E	14	2.2	0.1	7	5
2538	MAR 21	1615 52.8	41.77S	174.11E	12	2.6	0.3	15	12
2541	MAR 21	2100 37.7	41.02S	175.42E	28	2.1	0.1	10	7
2546	MAR 22	0112 3.4	41.06S	175.40E	27	2.2	0.1	13	9
2562	MAR 22	1544 26.6	41.87S	173.88E	30	3.1	0.3	23	16
2573	MAR 23	0048 24.9	41.73S	174.33E	27	2.3	0.1	13	10
2578	MAR 23	0614 38.1	41.67S	174.27E	5R	2.1	0.2	15	9
2579	MAR 23	0632 44.8	41.06S	174.81E	52	2.5	0.1	15	11
2584	MAR 23	0940 41.1	41.16S	173.81E	57	2.4	0.2	11	8
2586	MAR 23	1145 32.2	40.64S	174.32E	80	2.7	0.2	13	10
2590	MAR 23	1529 30.1	40.51S	174.66E	79	2.2	0.1	13	7
2591	MAR 23	1702 14.9	40.70S	173.90E	83	3.1	0.2	35	27
2611	MAR 24	0906 43.7	41.73S	174.50E	38	2.3	0.1	11	9
2616	MAR 24	1319 34.3	40.86S	174.73E	15	2.1	0.1	7	5
2622	MAR 24	1733 28.7	41.24S	174.46E	34	2.0	0.2	10	7
2623	MAR 24	1933 54.2	40.58S	174.42E	51	2.6	0.3	12	8
2626	MAR 24	2346 35.7	40.50S	175.94E	32	2.5	0.2	11	7
2631	MAR 25	0900 22.8	40.84S	175.60E	25	2.1	0.2	10	7
2633	MAR 25	1048 41.8	41.45S	174.40E	20	2.0	0.2	8	6
2645	MAR 25	1822 2.7	41.15S	173.69E	42	2.3	0.4	13	9
2647	MAR 25	1919 43.7	40.91S	175.75E	29	2.7	0.3	14	10
2650	MAR 25	2223 36.1	41.32S	174.81E	24	2.5	0.2	16	12
2652	MAR 26	0132 11.1	40.91S	174.89E	62	2.2	0.1	10	8
2653	MAR 26	0148 42.5	41.06S	175.18E	27	2.2	0.1	12	8
2673	MAR 26	1919 48.2	41.74S	174.51E	33	2.2	0.1	13	9
2692	MAR 27	1210 27.8	40.65S	174.60E	37	2.0	0.2	7	5
2694	MAR 27	1327 56.7	41.14S	173.70E	95	2.4	0.1	10	7
2708	MAR 28	0131 18.8	41.32S	174.82E	24	2.6	0.2	16	13

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2731	MAR 28	1428 51.6	40.78S	175.10E	31	2.1	0.1	8	7
2737	MAR 28	1505 17.2	40.59S	174.21E	67	3.0	0.3	24	19
2742	MAR 28	1639 10.5	41.72S	174.24E	12R	3.6	0.3	23	17
2743	MAR 28	1642 55.7	41.74S	174.22E	13	2.7	0.3	21	15
2747	MAR 28	1730 13.1	41.71S	174.23E	11	2.1	0.2	11	8
2754	MAR 28	1924 12.0	41.72S	174.25E	11	3.2	0.3	23	17
2755	MAR 28	1929 4.0	41.73S	174.23E	13	2.1	0.1	10	7
2761	MAR 28	2215 31.6	40.75S	174.60E	36	2.3	0.1	9	5
2763	MAR 29	0115 28.7	41.27S	174.87E	26	2.7	0.2	16	13
2772	MAR 29	0614 57.4	41.66S	174.26E	5R	2.0	0.2	12	8
2781	MAR 29	1411 52.0	40.62S	174.24E	60	2.9	0.2	20	14
2783	MAR 29	1427 13.7	41.02S	175.45E	29	4.3F	0.1	32	27
2784	MAR 29	1430 58.9	41.06S	175.44E	31	5.4F	0.2	47	39
2785	MAR 29	1432 53.7	40.99S	175.42E	29	3.8	0.3	13	10
2786	MAR 29	1434 40.2	41.03S	175.39E	22	2.8	0.1	13	9
2787	MAR 29	1435 43.1	41.02S	175.36E	14	2.0	0.2	9	7
2788	MAR 29	1437 30.2	41.02S	175.40E	23	2.5	0.2	15	9
2789	MAR 29	1438 20.6	41.03S	175.40E	25	2.5	0.2	13	8
2790	MAR 29	1441 10.9	41.02S	175.40E	26	2.5	0.1	13	9
2791	MAR 29	1442 43.4	41.04S	175.50E	24	2.5	0.3	14	10
2792	MAR 29	1444 24.3	41.02S	175.40E	26	2.2	0.1	10	7
2793	MAR 29	1445 35.0	41.00S	175.42E	28	2.1	0.2	11	7
2794	MAR 29	1446 23.9	41.02S	175.40E	26	2.1	0.1	10	8
2795	MAR 29	1446 38.0	41.03S	175.40E	25	2.7	0.1	11	7
2796	MAR 29	1448 10.2	41.04S	175.38E	25	2.5	0.1	14	8
2797	MAR 29	1451 39.1	41.03S	175.38E	24	2.3	0.1	12	8
2798	MAR 29	1452 37.4	41.04S	175.38E	22	2.0	0.1	10	7
2799	MAR 29	1454 27.8	41.03S	175.41E	26	2.2	0.1	11	9
2800	MAR 29	1457 42.8	41.02S	175.40E	23	2.2	0.1	13	8
2801	MAR 29	1458 5.6	41.01S	175.41E	26	2.6	0.1	11	8
2802	MAR 29	1502 19.8	41.03S	175.40E	24	2.1	0.1	9	8
2804	MAR 29	1507 20.2	41.03S	175.40E	24	2.5	0.1	11	8
2805	MAR 29	1507 36.8	41.00S	175.43E	31	2.1	0.2	8	5
2806	MAR 29	1508 37.0	41.02S	175.43E	32	2.0	0.2	9	7
2808	MAR 29	1510 35.9	41.02S	175.40E	26	2.9	0.2	11	9
2809	MAR 29	1512 52.3	41.03S	175.41E	24	2.1	0.1	10	8
2813	MAR 29	1518 43.6	40.99S	175.42E	27	2.4	0.1	10	8
2814	MAR 29	1523 24.4	41.03S	175.39E	24	2.2	0.1	10	8
2816	MAR 29	1529 11.2	41.02S	175.42E	24	2.1	0.1	8	7
2819	MAR 29	1529 57.9	41.03S	175.39E	20	2.4	0.1	11	9
2820	MAR 29	1538 6.0	41.04S	175.37E	23	2.6	0.1	15	11
2821	MAR 29	1545 35.9	41.03S	175.39E	23	2.0	0.1	8	7
2822	MAR 29	1549 39.8	41.03S	175.40E	23	2.5	0.1	14	9
2823	MAR 29	1549 57.8	41.01S	175.42E	22	2.5	0.1	11	8
2824	MAR 29	1552 5.1	41.02S	175.41E	25	2.1	0.1	11	7

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2828	MAR 29	1559 58.7	41.03S	175.40E	25	2.4	0.1	11	9
2829	MAR 29	1601 48.5	41.01S	175.42E	28	2.5	0.1	12	10
2830	MAR 29	1602 21.1	41.03S	175.41E	26	2.0	0.1	9	5
2831	MAR 29	1603 49.1	41.02S	175.42E	25	2.2	0.1	12	8
2832	MAR 29	1605 4.5	41.03S	175.40E	22	2.2	0.1	11	8
2833	MAR 29	1613 0.2	41.02S	175.40E	27	2.0	0.1	10	7
2834	MAR 29	1619 20.6	41.02S	175.41E	25	2.6	0.1	15	10
2838	MAR 29	1632 38.3	41.04S	175.40E	23	2.3	0.3	11	8
2839	MAR 29	1636 52.4	41.02S	175.40E	26	2.3	0.1	9	8
2844	MAR 29	1646 52.1	41.04S	175.38E	24	2.3	0.1	11	8
2846	MAR 29	1653 43.9	41.01S	175.44E	27	2.7	0.1	14	10
2847	MAR 29	1657 10.4	41.02S	175.40E	24	2.7	0.1	13	9
2849	MAR 29	1721 4.9	41.02S	175.40E	26	2.0	0.1	11	7
2850	MAR 29	1724 48.4	41.02S	175.40E	24	2.4	0.1	13	10
2851	MAR 29	1730 31.6	41.02S	175.40E	26	2.3	0.0	11	8
2852	MAR 29	1732 0.7	41.01S	175.43E	27	2.1	0.1	12	8
2853	MAR 29	1745 22.9	41.03S	175.39E	25	2.2	0.1	12	9
2854	MAR 29	1746 13.3	41.02S	175.41E	26	3.1	0.2	19	14
2855	MAR 29	1818 28.6	41.03S	175.39E	22	2.6	0.3	12	9
2857	MAR 29	1825 55.9	41.02S	175.44E	27	2.0	0.1	8	5
2863	MAR 29	1935 20.9	41.03S	175.40E	23	2.4	0.2	12	9
2865	MAR 29	2010 27.4	41.02S	175.40E	26	2.5	0.1	11	7
2866	MAR 29	2012 26.3	41.01S	175.45E	28	2.2	0.1	8	6
2867	MAR 29	2016 6.5	41.03S	175.42E	27	2.3	0.1	8	6
2868	MAR 29	2019 16.6	41.04S	175.40E	25	2.2	0.1	8	6
2869	MAR 29	2023 38.6	41.04S	175.40E	25	2.1	0.1	7	6
2870	MAR 29	2027 56.8	41.02S	175.44E	29	2.0	0.0	6	4
2871	MAR 29	2050 12.6	41.01S	175.45E	31	2.0	0.1	8	7
2878	MAR 29	2121 16.1	41.02S	175.40E	25	2.2	0.1	9	6
2879	MAR 29	2137 9.1	41.04S	174.55E	48	2.0	0.1	11	5
2880	MAR 29	2143 2.4	41.01S	175.42E	28	2.3	0.1	9	7
2882	MAR 29	2214 16.0	41.03S	175.40E	25	2.2	0.1	11	8
2883	MAR 29	2233 15.8	41.02S	175.41E	27	2.3	0.1	10	7
2884	MAR 29	2245 27.1	41.02S	175.40E	26	2.6	0.1	12	8
2885	MAR 29	2245 50.7	41.01S	175.41E	27	2.5	0.1	9	6
2889	MAR 29	2252 47.1	41.02S	175.41E	26	2.4	0.2	10	7
2901	MAR 30	0010 9.0	41.03S	175.39E	23	2.3	0.1	13	9
2902	MAR 30	0015 51.0	41.01S	175.42E	24	2.1	0.1	11	7
2915	MAR 30	0259 39.2	41.02S	175.41E	26	2.4	0.1	13	8
2918	MAR 30	0439 51.9	41.03S	175.40E	26	2.2	0.1	11	7
2919	MAR 30	0441 19.3	41.02S	175.40E	23	2.1	0.1	12	7
2923	MAR 30	0534 47.2	41.01S	175.41E	25	2.0	0.1	13	8
2924	MAR 30	0548 17.1	41.04S	175.40E	27	2.2	0.2	14	8
2929	MAR 30	0620 50.4	41.01S	175.42E	28	2.4	0.1	14	9
2931	MAR 30	0652 24.7	41.02S	175.39E	23	2.3	0.1	14	9

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2932	MAR 30	0702 32.8	41.02S	175.41E	27	2.0	0.1	12	8
2938	MAR 30	0841 21.1	41.00S	175.43E	26	2.3	0.1	15	9
2940	MAR 30	0905 31.3	41.28S	175.21E	19	2.1	0.1	13	9
2943	MAR 30	0920 51.5	41.01S	175.42E	28	2.1	0.1	11	8
2944	MAR 30	0925 1.0	40.55S	174.41E	83	2.3	0.2	10	7
2945	MAR 30	0931 37.3	41.01S	175.43E	26	2.1	0.1	13	10
2946	MAR 30	0933 56.0	41.01S	175.45E	30	3.4F	0.2	19	15
2947	MAR 30	0935 7.2	41.01S	175.45E	28	2.5	0.2	14	10
2948	MAR 30	0943 59.3	41.01S	175.43E	26	2.8	0.2	14	11
2955	MAR 30	1156 56.1	41.00S	175.42E	26	2.1	0.1	12	9
2957	MAR 30	1159 54.1	41.02S	175.40E	28	2.2	0.1	12	8
2960	MAR 30	1257 57.1	41.01S	175.43E	27	2.1	0.1	13	9
2962	MAR 30	1409 51.5	41.01S	175.40E	23	2.1	0.1	13	9
2969	MAR 30	1619 3.7	41.02S	175.40E	25	2.3	0.1	12	8
2971	MAR 30	1647 2.4	41.02S	175.40E	26	2.1	0.1	12	8
2974	MAR 30	1708 4.5	41.00S	175.43E	29	2.1	0.1	11	8
2978	MAR 30	1747 34.8	41.01S	175.42E	28	2.3	0.1	13	9
2992	MAR 30	1941 47.3	41.01S	175.42E	27	2.5	0.1	14	9
2994	MAR 30	2037 3.9	41.59S	174.44E	9	2.7	0.3	21	15
2995	MAR 30	2048 14.8	41.01S	175.42E	26	2.5	0.1	13	9
3000	MAR 30	2255 55.0	41.01S	175.42E	26	2.4	0.1	14	9
3007	MAR 31	0305 19.8	41.01S	175.43E	29	2.1	0.1	10	8
3011	MAR 31	0350 54.7	41.02S	175.41E	22	2.0	0.1	12	9
3012	MAR 31	0403 32.7	41.01S	175.43E	24	2.3	0.1	13	9
3013	MAR 31	0428 1.5	41.24S	174.65E	33	2.9	0.2	19	14
3014	MAR 31	0438 36.6	40.99S	175.44E	28	2.3	0.2	13	9
3017	MAR 31	0527 57.1	41.01S	175.43E	27	2.6	0.1	14	10
3018	MAR 31	0530 6.0	41.04S	175.36E	24	2.4	0.2	14	9
3020	MAR 31	0803 57.9	41.01S	175.42E	27	2.1	0.1	16	9
3021	MAR 31	0832 40.6	41.04S	175.39E	26	2.1	0.1	11	7
3022	MAR 31	0845 13.1	40.87S	174.73E	14	2.1	0.2	11	7
3027	MAR 31	1042 41.7	41.00S	175.43E	29	2.7	0.1	16	10
3033	MAR 31	1431 32.2	41.02S	175.40E	26	2.3	0.1	13	8
3037	MAR 31	1531 58.9	41.00S	175.41E	22	2.7	0.2	18	12
3039	MAR 31	1643 23.9	41.00S	175.42E	26	2.0	0.1	13	9
3040	MAR 31	1644 3.3	41.02S	175.42E	27	2.1	0.1	13	8
3041	MAR 31	1756 6.2	41.26S	174.28E	43	5.4F	0.2	45	34
3042	MAR 31	1759 36.0	41.19S	174.24E	42	2.7	0.2	13	10
3046	MAR 31	1804 57.5	41.24S	174.27E	41	3.3	0.3	25	18
3047	MAR 31	1806 32.2	41.22S	174.26E	42	2.5	0.2	14	10
3048	MAR 31	1807 32.3	41.00S	175.44E	27	2.3	0.1	12	9
3049	MAR 31	1807 34.7	41.26S	174.29E	42	2.2	0.1	6	3
3050	MAR 31	1810 19.2	41.24S	174.27E	41	2.9	0.2	20	15
3051	MAR 31	1810 36.2	41.17S	174.32E	37	2.7	0.2	13	11
3052	MAR 31	1811 6.4	41.18S	174.23E	40	2.4	0.2	13	9

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3053	MAR 31	1811 51.2	41.19S	174.25E	41	2.2	0.1	10	8
3058	MAR 31	1824 54.5	41.23S	174.26E	42	2.9	0.2	19	15
3061	MAR 31	1840 10.7	41.26S	174.26E	38	2.2	0.1	11	8
3062	MAR 31	1841 50.1	41.22S	174.27E	40	2.7	0.2	14	11
3063	MAR 31	1848 15.8	41.21S	174.26E	39	2.1	0.2	8	5
3064	MAR 31	1853 15.5	41.20S	174.25E	41	2.4	0.2	10	6
3065	MAR 31	1853 54.0	41.20S	174.26E	40	2.6	0.2	13	10
3068	MAR 31	1942 14.8	41.20S	174.25E	41	2.2	0.2	11	7
3070	MAR 31	1956 50.0	41.22S	174.27E	41	3.2	0.2	21	18
3071	MAR 31	2018 49.2	41.20S	174.24E	40	2.3	0.2	13	10
3072	MAR 31	2020 9.9	41.19S	174.25E	42	2.2	0.1	9	7
3074	MAR 31	2033 17.9	41.26S	174.25E	40	2.2	0.0	7	5
3075	MAR 31	2041 2.1	41.77S	174.33E	30	3.2	0.3	21	16
3076	MAR 31	2112 2.0	41.20S	174.25E	40	2.5	0.2	12	10
3077	MAR 31	2127 10.1	41.26S	174.29E	43	3.8	0.2	29	24
3078	MAR 31	2129 17.7	41.00S	175.46E	31	2.4	0.2	11	9
3079	MAR 31	2154 32.9	41.25S	174.25E	40	2.2	0.1	8	5
3080	MAR 31	2242 35.6	41.20S	174.24E	41	2.3	0.2	12	8
3081	MAR 31	2306 31.1	41.21S	174.26E	42	2.1	0.2	10	6
3082	MAR 31	2319 8.3	41.22S	174.25E	42	3.0	0.2	17	13
3083	MAR 31	2347 21.8	41.21S	174.24E	42	2.2	0.2	10	6
3085	APR 01	0055 13.9	41.22S	174.27E	44	4.2F	0.2	40	31
3086	APR 01	0115 56.6	41.21S	174.24E	42	2.5	0.2	13	9
3087	APR 01	0146 31.6	41.21S	174.25E	40	2.7	0.2	14	11
3090	APR 01	0242 36.4	40.56S	173.79E	96	2.8	0.3	12	8
3092	APR 01	0254 55.3	41.18S	174.24E	40	2.2	0.3	9	6
3093	APR 01	0324 46.2	41.01S	175.42E	27	2.5	0.1	13	9
3095	APR 01	0442 43.9	41.28S	174.27E	38	2.0	0.1	10	7
3096	APR 01	0524 11.6	40.57S	173.85E	78	2.8	0.2	12	10
3097	APR 01	0531 36.1	41.02S	175.41E	23	3.0	0.3	23	18
3099	APR 01	0628 7.9	41.22S	174.24E	43	3.2	0.2	18	13
3101	APR 01	0734 59.1	41.24S	174.27E	39	2.6	0.2	15	11
3102	APR 01	0836 40.8	41.00S	175.44E	30	2.8	0.1	16	12
3104	APR 01	0901 54.2	41.20S	174.23E	41	2.1	0.2	10	7
3106	APR 01	1004 0.8	41.22S	174.27E	41	2.7	0.2	14	12
3110	APR 01	1309 21.2	41.23S	174.25E	44	4.1F	0.2	29	23
3112	APR 01	1354 49.7	41.22S	174.25E	42	2.4	0.2	12	9
3113	APR 01	1401 23.5	41.26S	174.30E	43	3.7	0.2	28	23
3114	APR 01	1405 54.1	41.23S	174.25E	41	2.4	0.1	10	7
3115	APR 01	1413 18.6	41.21S	174.25E	41	2.2	0.1	10	7
3116	APR 01	1429 49.0	41.26S	174.28E	40	2.8	0.3	15	11
3120	APR 01	1616 0.3	41.02S	175.43E	27	2.0	0.1	10	7
3121	APR 01	1645 48.6	40.84S	175.87E	28	2.5	0.2	9	6
3128	APR 01	1835 56.9	41.23S	174.26E	42	2.2	0.2	11	8
3130	APR 01	1931 12.4	41.58S	174.20E	17	2.1	0.2	8	6

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3134	APR 01	2130 38.7	41.01S	175.41E	26	2.0	0.1	10	7
3137	APR 01	2202 3.6	41.01S	175.41E	25	2.2	0.1	9	7
3139	APR 01	2258 32.9	41.23S	174.26E	40	2.1	0.1	8	5
3143	APR 02	0011 19.4	41.00S	175.44E	30	2.1	0.1	9	7
3145	APR 02	0204 33.4	41.26S	174.29E	42	3.4F	0.2	27	20
3146	APR 02	0224 12.1	41.21S	174.25E	41	2.2	0.1	9	6
3149	APR 02	0325 59.1	41.01S	175.40E	23	2.2	0.2	10	7
3150	APR 02	0352 4.4	41.01S	175.43E	27	2.7	0.2	15	11
3153	APR 02	0619 49.8	41.23S	174.28E	41	2.8	0.3	18	14
3154	APR 02	0625 13.2	41.20S	174.27E	39	2.7	0.2	18	14
3158	APR 02	0707 38.6	41.22S	174.25E	42	3.6F	0.2	28	24
3159	APR 02	0711 40.3	41.22S	174.25E	40	2.1	0.2	10	7
3160	APR 02	0725 42.1	41.00S	175.42E	25	2.3	0.1	14	10
3162	APR 02	0802 28.7	41.25S	174.25E	41	2.4	0.1	10	6
3168	APR 02	1235 40.0	40.97S	175.43E	23	2.9	0.3	22	17
3169	APR 02	1237 3.9	40.96S	175.44E	24	2.4	0.2	13	9
3170	APR 02	1247 50.2	40.96S	175.44E	25	2.1	0.1	12	8
3173	APR 02	1525 23.5	41.26S	174.28E	38	2.0	0.1	8	5
3176	APR 02	1619 31.1	41.22S	174.28E	43	2.6	0.2	18	13
3183	APR 02	1840 25.6	41.21S	174.23E	40	2.4	0.2	11	8
3185	APR 02	1925 22.9	41.01S	175.41E	27	2.6	0.1	14	9
3187	APR 02	2100 19.5	41.05S	174.17E	55	2.9	0.2	21	15
3190	APR 02	2112 18.6	41.22S	174.26E	43	3.0	0.2	23	17
3193	APR 02	2150 38.8	40.79S	175.07E	32	2.3	0.1	10	7
3196	APR 02	2254 5.3	41.27S	175.14E	28	2.4	0.1	14	11
3197	APR 02	2329 2.4	41.22S	174.28E	41	2.8	0.2	15	10
3200	APR 02	2357 17.6	41.66S	174.27E	5R	3.0	0.3	22	15
3205	APR 03	0251 10.4	41.23S	174.24E	41	2.4	0.2	12	10
3208	APR 03	0352 4.8	41.01S	175.43E	30	2.1	0.1	12	8
3213	APR 03	0451 13.6	41.01S	175.41E	24	2.3	0.2	13	9
3215	APR 03	0613 39.4	41.01S	174.81E	57	2.3	0.1	8	5
3217	APR 03	0705 39.1	41.00S	175.43E	27	2.9	0.1	18	12
3218	APR 03	0741 36.2	41.02S	175.41E	30	2.1	0.1	12	8
3244	APR 03	1228 37.1	40.57S	174.39E	85	2.5	0.2	11	8
3247	APR 03	1318 43.3	40.83S	174.79E	16	2.0	0.1	9	7
3250	APR 03	1412 10.7	41.00S	175.41E	27	2.0	0.1	9	7
3253	APR 03	1946 8.8	40.84S	174.76E	45	3.8	0.2	31	22
3254	APR 03	2017 54.4	41.22S	174.24E	42	2.6	0.1	15	12
3256	APR 03	2340 8.2	41.01S	175.42E	27	3.0	0.2	20	14
3258	APR 04	0033 27.8	41.73S	174.74E	29	2.5	0.1	12	10
3262	APR 04	0450 15.4	41.02S	175.40E	26	2.1	0.1	13	9
3263	APR 04	0503 43.6	41.72S	174.73E	24	2.2	0.1	11	9
3264	APR 04	0513 18.8	41.22S	174.25E	43	2.9	0.2	13	10
3265	APR 04	0535 7.9	41.74S	174.74E	28	2.5	0.2	13	11
3266	APR 04	0733 21.7	41.02S	175.45E	27	4.2F	0.2	35	28

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3267	APR 04	0735 7.8	41.00S	175.43E	25	2.4	0.1	6	5
3271	APR 04	0859 5.8	41.01S	175.42E	27	2.4	0.1	14	9
3272	APR 04	0934 15.6	41.24S	174.27E	41	2.9	0.2	21	15
3277	APR 04	1103 35.3	41.01S	175.43E	31	2.3	0.1	13	8
3279	APR 04	1132 30.4	41.77S	173.87E	13	2.4	0.3	10	7
3281	APR 04	1159 37.3	40.94S	174.68E	38	2.1	0.0	8	6
3283	APR 04	1349 47.6	41.00S	175.42E	27	2.1	0.1	11	8
3287	APR 04	1633 4.3	41.21S	174.24E	42	2.4	0.1	10	7
3291	APR 04	1806 43.1	41.83S	173.90E	11	3.0	0.3	19	14
3298	APR 04	2119 3.0	41.60S	174.79E	27	2.1	0.0	8	6
3300	APR 04	2239 2.7	41.72S	173.90E	11	2.9	0.3	19	14
3308	APR 05	0447 3.4	41.75S	173.96E	9	2.3	0.2	13	9
3310	APR 05	0518 50.2	41.01S	175.41E	27	2.4	0.1	13	9
3313	APR 05	0657 59.2	41.23S	174.26E	41	2.9	0.3	21	14
3314	APR 05	0737 3.6	41.03S	175.41E	28	2.4	0.1	15	11
3315	APR 05	0819 24.0	41.65S	174.39E	5R	2.0	0.1	13	10
3317	APR 05	0953 39.7	41.00S	175.43E	28	2.7	0.1	13	9
3323	APR 05	1225 50.3	40.98S	175.57E	29	3.0	0.1	22	15
3325	APR 05	1300 47.1	40.95S	175.63E	28	2.3	0.2	11	7
3326	APR 05	1436 30.5	41.04S	174.81E	53	2.4	0.1	10	8
3329	APR 05	1516 9.9	41.01S	175.43E	28	2.2	0.1	12	9
3333	APR 05	2056 38.0	40.79S	174.78E	15	2.9	0.3	17	13
3336	APR 05	2225 38.1	41.04S	175.32E	23	2.9	0.2	16	12
3337	APR 05	2235 52.0	41.01S	175.42E	28	2.5	0.1	13	10
3338	APR 05	2300 17.0	41.77S	174.53E	31	2.2	0.2	11	7
3345	APR 06	0159 31.4	40.55S	174.63E	26	2.4	0.2	9	7
3351	APR 06	0322 21.3	40.79S	174.68E	34	2.6	0.3	11	9
3360	APR 06	0837 12.2	41.01S	175.41E	26	2.3	0.1	12	9
3362	APR 06	1031 8.6	41.03S	174.08E	52	2.7	0.2	13	8
3368	APR 06	1410 50.6	41.56S	175.33E	15	2.2	0.2	12	9
3369	APR 06	1439 49.5	41.78S	174.41E	48	4.5	0.2	36	23
3371	APR 06	1524 50.6	40.71S	174.03E	75	2.5	0.2	9	7
3373	APR 06	1750 1.9	41.01S	175.42E	25	2.0	0.1	12	7
3378	APR 06	2228 18.4	41.41S	175.02E	25	2.6	0.1	19	12
3385	APR 07	0014 42.7	41.02S	175.41E	22	2.4	0.1	13	8
3387	APR 07	0232 2.9	40.64S	175.90E	18	2.9	0.2	15	10
3389	APR 07	0441 6.9	41.21S	174.26E	39	2.3	0.2	12	9
3395	APR 07	0659 34.8	41.23S	174.24E	41	2.4	0.1	11	8
3397	APR 07	0907 36.6	41.20S	174.27E	42	2.7	0.2	18	15
3404	APR 07	1209 25.2	40.96S	176.00E	32	2.3	0.2	10	7
3405	APR 07	1217 59.4	40.80S	174.78E	18	2.2	0.1	8	6
3406	APR 07	1247 8.6	40.84S	175.03E	36	2.2	0.1	9	6
3412	APR 07	1526 6.0	41.39S	174.34E	34	2.4	0.1	11	8
3415	APR 07	1619 43.9	41.17S	174.75E	31	2.5	0.1	14	11
3418	APR 07	1649 31.1	41.00S	175.45E	33	2.2	0.2	9	7

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3423	APR 07	1836 17.5	41.02S	175.41E	26	2.5	0.1	11	7
3428	APR 08	0116 54.1	41.29S	175.31E	27	3.0	0.1	14	11
3429	APR 08	0236 4.0	40.79S	174.79E	19	2.0	0.0	5	4
3433	APR 08	0647 1.5	40.83S	174.75E	13	3.4	0.3	21	16
3440	APR 08	1016 34.5	41.24S	175.16E	24	2.7	0.2	19	13
3441	APR 08	1019 44.3	40.95S	175.08E	33	2.4	0.1	11	8
3444	APR 08	1031 28.7	41.34S	175.02E	24	2.3	0.0	12	8
3448	APR 08	1320 13.0	41.01S	175.42E	28	2.3	0.1	11	8
3450	APR 08	1433 17.4	41.01S	175.42E	26	2.3	0.1	14	9
3452	APR 08	1459 33.8	40.83S	174.78E	17	2.1	0.1	7	4
3453	APR 08	1536 26.8	41.01S	175.41E	27	2.3	0.1	14	10
3458	APR 08	1812 29.7	41.01S	175.43E	25	2.4	0.1	11	8
3463	APR 08	1938 15.8	41.52S	173.72E	56	2.2	0.2	9	6
3464	APR 08	2105 54.6	41.11S	174.23E	51	2.4	0.2	11	8
3472	APR 08	2357 38.0	40.78S	174.78E	18	2.7	0.2	14	10
3475	APR 09	0048 28.5	41.01S	175.43E	23	2.3	0.2	12	9
3483	APR 09	0455 14.6	41.02S	175.40E	20	2.1	0.2	13	9
3484	APR 09	0638 25.2	41.08S	175.34E	25	2.4	0.1	15	10
3491	APR 09	1043 26.9	41.01S	175.41E	26	2.4	0.2	10	6
3495	APR 09	1348 58.1	41.03S	175.39E	23	2.6	0.1	12	7
3497	APR 09	1510 0.6	41.11S	174.84E	26	2.0	0.1	8	6
3507	APR 10	0034 55.3	41.36S	174.35E	58	2.6	0.1	11	8
3509	APR 10	0153 17.8	41.01S	175.43E	25	2.0	0.2	10	7
3517	APR 10	0521 39.0	41.01S	175.44E	26	2.2	0.1	13	9
3523	APR 10	0816 36.1	41.01S	175.43E	26	2.2	0.1	11	8
3527	APR 10	1110 56.0	40.74S	175.35E	38	2.1	0.1	11	9
3530	APR 10	1421 14.4	41.71S	174.25E	10	2.8	0.3	20	15
3537	APR 10	1756 50.1	41.42S	173.77E	50	2.5	0.2	9	6
3540	APR 10	1834 42.6	41.57S	174.90E	28	2.7	0.2	18	13
3542	APR 10	1859 36.3	40.98S	175.47E	33	2.4	0.2	11	8
3543	APR 10	2002 32.7	41.28S	175.19E	23	2.3	0.1	9	7
3548	APR 10	2211 45.8	41.47S	174.68E	54	2.3	0.1	10	8
3552	APR 10	2342 47.4	41.20S	174.28E	39	2.2	0.2	7	5
3553	APR 10	2342 55.6	41.70S	174.25E	17	2.0	0.1	7	5
3555	APR 11	0132 59.7	41.02S	175.41E	26	2.2	0.1	11	8
3557	APR 11	0317 58.3	41.24S	174.25E	39	2.6	0.2	13	9
3559	APR 11	0429 3.3	40.60S	174.81E	34	2.7	0.2	19	14
3561	APR 11	0613 57.3	41.26S	175.24E	27	2.4	0.1	12	9
3574	APR 11	1255 27.4	40.89S	175.74E	29	2.2	0.2	11	8
3581	APR 11	1735 50.4	41.73S	174.50E	32	2.4	0.1	14	11
3583	APR 11	1833 37.7	40.64S	175.48E	30	2.0	0.2	10	8
3586	APR 11	1901 43.8	41.77S	174.51E	25	2.0	0.1	10	7
3587	APR 11	2257 8.0	41.20S	174.28E	40	2.2	0.1	12	9
3588	APR 11	2316 25.2	41.63S	174.65E	29	2.6	0.2	14	12
3595	APR 12	0412 35.8	40.65S	175.50E	28	2.1	0.1	7	5

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
3599	APR 12	0610 38.6	41.23S	174.27E	41	3.0	0.2	25	17
3625	APR 12	1906 4.5	41.02S	175.41E	21	2.2	0.1	13	9
3633	APR 12	2220 2.2	41.03S	175.39E	25	2.0	0.1	10	7
3637	APR 12	2345 36.3	41.02S	175.43E	27	2.8	0.2	14	11
3639	APR 13	0121 39.7	41.01S	175.40E	28	2.0	0.1	12	9
3648	APR 13	0615 8.1	40.57S	174.18E	54	2.5	0.2	23	16
3658	APR 13	1218 50.6	41.01S	175.41E	23	2.0	0.1	12	7
3661	APR 13	1430 51.6	41.22S	174.27E	41	3.3	0.2	27	24
3665	APR 13	1709 59.7	41.02S	175.41E	26	2.2	0.1	9	7
3667	APR 13	1729 8.0	41.30S	175.24E	29	3.1	0.1	17	13
3672	APR 13	2054 53.6	41.04S	175.38E	24	2.2	0.1	13	10
3673	APR 13	2135 0.8	41.30S	174.96E	28	2.0	0.2	9	6
3676	APR 13	2322 37.8	41.17S	175.77E	21	2.5	0.2	13	8
3682	APR 14	0225 11.3	41.30S	174.41E	35	2.3	0.2	12	9
3687	APR 14	0333 15.3	41.77S	174.53E	31	2.4	0.1	14	9
3689	APR 14	0347 47.0	41.42S	173.99E	41	2.3	0.1	9	8
3690	APR 14	0442 0.1	41.07S	174.37E	66	3.6	0.2	41	31
3700	APR 14	1305 17.6	41.22S	174.88E	19	2.1	0.2	12	9
3705	APR 14	1611 25.6	41.03S	175.41E	25	3.2	0.3	24	18
3725	APR 15	0306 12.8	41.23S	174.25E	39	2.7	0.2	16	12
3728	APR 15	0405 45.0	41.03S	175.39E	20	2.7	0.2	11	9
3736	APR 15	0608 3.8	40.53S	174.27E	104	2.4	0.4	10	9
3741	APR 15	0823 36.9	41.02S	175.43E	33	2.2	0.2	11	8
3745	APR 15	1142 10.3	40.91S	175.19E	31	2.5	0.2	13	10
3755	APR 15	1838 37.6	40.94S	174.77E	54	3.3	0.1	27	22
3756	APR 15	1847 39.5	41.34S	173.60E	96	2.6	0.2	10	8
3761	APR 16	0125 0.6	41.17S	175.07E	29	3.2	0.2	22	16
3765	APR 16	0557 51.7	40.83S	174.86E	8	2.6	0.2	14	11
3768	APR 16	0743 28.3	41.02S	175.41E	26	2.3	0.1	12	7
3775	APR 16	1049 56.0	40.83S	175.01E	33	2.0	0.2	7	5
3780	APR 16	1321 5.7	40.74S	173.52E	94	2.7	0.2	13	9
3787	APR 16	1724 44.1	41.04S	174.83E	25	3.1	0.2	26	20
3790	APR 16	1929 53.1	41.29S	174.50E	57	2.1	0.1	8	6
3793	APR 16	2115 52.2	41.29S	175.29E	27	2.1	0.1	11	9
3794	APR 16	2121 1.1	41.31S	175.29E	31	2.4	0.1	10	9
3797	APR 16	2342 31.1	41.02S	175.39E	22	2.5	0.1	12	10
3799	APR 17	0013 19.0	41.01S	174.93E	28	2.9	0.2	14	13
3803	APR 17	0421 9.9	41.03S	175.41E	23	2.0	0.2	10	8
3806	APR 17	0628 52.7	41.67S	174.26E	5R	2.3	0.3	17	12
3811	APR 17	0840 16.2	41.19S	174.43E	38	2.2	0.2	12	8
3817	APR 17	1130 4.5	40.84S	175.81E	43	2.7	0.3	16	13
3831	APR 17	1754 51.3	41.01S	175.44E	30	2.1	0.2	9	8
3833	APR 17	1841 38.0	41.03S	175.40E	24	2.0	0.2	10	7
3835	APR 17	1915 53.2	41.02S	175.40E	24	2.5	0.1	16	11
3839	APR 17	2120 42.2	41.28S	174.14E	43	3.5F	0.2	25	20

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
3846	APR 17	2340 31.5	40.79S	175.95E	33R	2.7	0.3	13	10
3862	APR 18	1359 57.8	41.60S	174.21E	33	2.1	0.1	9	7
3863	APR 18	1437 18.5	40.89S	174.45E	49	2.1	0.2	9	6
3864	APR 18	1443 46.9	41.03S	175.39E	27	2.5	0.1	13	9
3867	APR 18	1557 29.3	41.24S	175.68E	25	2.6	0.2	11	8
3870	APR 18	1856 34.6	41.74S	174.95E	33	2.1	0.2	10	7
3874	APR 18	2022 23.0	40.84S	174.04E	68	2.6	0.3	10	7
3876	APR 18	2110 14.4	41.10S	174.14E	48	2.0	0.1	10	8
3877	APR 18	2143 29.2	41.21S	174.25E	40	2.0	0.2	11	7
3878	APR 18	2147 28.3	40.83S	174.76E	13	2.5	0.2	13	10
3880	APR 18	2220 39.8	41.02S	175.42E	28	2.0	0.1	10	8
3881	APR 18	2252 5.2	40.90S	175.49E	25	2.0	0.1	9	7
3890	APR 19	0545 13.8	40.70S	175.55E	31	3.6	0.3	22	19
3893	APR 19	1039 13.7	40.63S	175.95E	33R	2.2	0.3	9	6
3897	APR 19	1432 33.4	41.57S	173.62E	75	2.3	0.2	9	6
3905	APR 20	0403 46.5	40.97S	175.09E	29	2.5	0.1	13	10
3909	APR 20	0651 53.7	40.55S	175.22E	55	2.3	0.2	9	7
3920	APR 20	1523 4.8	40.83S	174.75E	12R	2.4	0.2	15	10
3927	APR 20	1848 24.7	40.72S	175.93E	33R	2.4	0.2	14	10
3933	APR 21	0011 33.1	41.28S	174.95E	24	2.4	0.3	14	9
3934	APR 21	0058 30.9	41.20S	174.25E	41	2.7	0.2	16	12
3943	APR 21	0558 46.1	41.10S	174.75E	52	2.0	0.2	8	6
3945	APR 21	0921 32.6	41.60S	174.78E	24	2.0	0.1	10	7
3947	APR 21	1147 33.6	41.29S	174.14E	45	3.5	0.2	27	22
3950	APR 21	1312 12.7	41.04S	175.39E	26	3.0	0.2	20	15
3956	APR 21	1455 45.0	41.29S	174.11E	45	2.3	0.2	9	6
3958	APR 21	1549 0.1	40.92S	174.54E	44	2.6	0.2	17	12
3959	APR 21	1608 34.0	41.38S	174.32E	44	2.9	0.2	21	16
3966	APR 21	1823 3.9	41.23S	173.91E	60	2.1	0.1	8	6
3969	APR 21	2203 45.4	41.45S	174.56E	20	2.0	0.2	11	7
3971	APR 21	2313 59.4	41.34S	175.70E	21	2.3	0.2	11	7
3972	APR 22	0011 47.2	40.88S	174.54E	45	2.0	0.2	8	5
3974	APR 22	0025 46.6	41.03S	175.40E	23	2.5	0.1	15	10
3978	APR 22	0438 22.2	41.29S	174.13E	45	2.6	0.3	14	11
3980	APR 22	0505 43.1	41.29S	174.13E	43	2.7	0.2	15	11
3993	APR 22	1508 55.2	41.20S	174.36E	38	2.1	0.1	9	6
4001	APR 22	2016 1.4	41.02S	175.42E	28	2.2	0.1	11	8
4005	APR 22	2257 4.1	41.03S	175.40E	24	2.2	0.1	12	9
4013	APR 23	0601 33.1	40.57S	175.76E	42	3.4	0.3	22	16
4017	APR 23	0841 39.5	41.42S	174.97E	28	2.6	0.1	16	11
4018	APR 23	0856 3.7	41.02S	175.59E	25	2.1	0.1	10	7
4020	APR 23	0914 58.1	40.51S	173.84E	72	2.6	0.2	15	11
4027	APR 23	1411 14.2	41.16S	173.85E	68	3.0	0.1	14	11
4030	APR 23	1827 24.7	41.68S	174.29E	5R	2.1	0.2	11	7
4032	APR 23	2049 7.7	41.23S	174.26E	43	2.3	0.1	10	7

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
4037	APR 24	0123 44.7	41.01S	175.55E	28	2.8	0.2	17	12
4071	APR 24	1612 12.2	41.13S	174.53E	44	3.3	0.2	23	20
4077	APR 24	1915 30.4	41.19S	174.28E	39	2.3	0.2	8	6
4083	APR 24	2233 13.5	41.55S	174.13E	32	2.1	0.1	10	7
4084	APR 24	2335 12.1	41.01S	175.43E	27	3.3	0.2	25	20
4091	APR 25	0316 39.1	41.02S	175.42E	27	2.5	0.1	11	9
4098	APR 25	0716 39.4	41.00S	175.41E	23	2.1	0.2	12	8
4113	APR 25	1656 51.0	41.29S	175.27E	26	2.2	0.1	11	8
4115	APR 25	1901 3.4	41.04S	175.38E	25	2.3	0.1	11	8
4124	APR 25	2315 32.1	41.07S	174.54E	60	2.8	0.1	15	10
4128	APR 26	0129 42.7	41.15S	173.88E	57	2.4	0.2	12	9
4132	APR 26	0234 34.4	40.81S	175.32E	30	2.3	0.1	10	8
4145	APR 26	1434 54.2	41.02S	175.40E	24	2.0	0.2	9	7
4155	APR 27	0013 13.7	41.02S	175.40E	25	2.5	0.1	12	8
4157	APR 27	0051 40.3	40.85S	175.77E	27	2.7	0.2	9	7
4164	APR 27	0554 12.0	40.59S	174.25E	90	3.6	0.3	28	23
4165	APR 27	0714 32.2	41.41S	175.01E	22	2.2	0.1	14	10
4166	APR 27	0856 15.4	40.86S	174.73E	68	2.1	0.1	9	5
4190	APR 28	0829 30.7	41.21S	174.15E	47	2.4	0.1	8	6
4191	APR 28	0838 46.1	41.06S	174.81E	28	2.2	0.1	9	8
4200	APR 28	1319 7.4	40.56S	175.63E	12R	2.3	0.3	10	8
4206	APR 28	2015 35.6	41.02S	175.41E	27	2.4	0.1	10	8
4208	APR 29	0016 1.9	41.61S	173.70E	45	3.2	0.2	18	13
4214	APR 29	0628 53.3	41.01S	175.42E	27	2.0	0.1	9	7
4224	APR 29	1152 33.0	41.72S	174.45E	5R	2.0	0.2	8	6
4230	APR 29	1337 37.6	41.01S	175.42E	27	2.4	0.1	11	9
4231	APR 29	1540 12.7	40.88S	175.48E	24	2.3	0.1	7	5
4238	APR 29	1952 55.2	41.47S	173.50E	47	2.3	0.1	6	4
4246	APR 30	0437 44.7	41.72S	174.64E	30	2.6	0.1	11	9
4249	APR 30	0952 50.0	41.22S	173.52E	97	3.0	0.3	14	11
4250	APR 30	1006 39.5	40.89S	174.82E	35	2.8	0.1	18	14
4253	APR 30	1135 52.8	41.17S	174.91E	31	2.2	0.1	8	6
4257	APR 30	1402 52.9	40.87S	175.73E	34	2.5	0.1	7	6
4263	APR 30	1645 0.1	40.91S	175.16E	25	2.6	0.2	16	13
4269	MAY 01	0302 57.6	40.51S	175.00E	5R	2.8	0.3	17	14
4272	MAY 01	0618 28.3	41.37S	174.18E	44	3.3	0.2	20	17
4291	MAY 01	1741 7.6	41.65S	173.99E	14	2.6	0.1	14	9
4292	MAY 01	1746 37.0	40.95S	175.37E	24	2.1	0.2	11	8
4293	MAY 01	1753 21.1	41.62S	174.68E	47	3.5	0.2	22	17
4295	MAY 02	0057 43.2	40.61S	174.89E	33	2.5	0.1	13	10
4299	MAY 02	0447 57.0	41.50S	174.53E	20	2.0	0.2	7	6
4301	MAY 02	0525 56.9	41.72S	174.20E	5R	2.3	0.2	9	7
4304	MAY 02	0735 28.8	41.00S	175.42E	27	2.4	0.1	12	8
4306	MAY 02	1336 12.2	40.90S	175.67E	29	2.5	0.1	11	7
4319	MAY 03	0332 15.7	41.34S	175.26E	24	2.7	0.2	17	12

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
4322	MAY 03	0555 20.5	41.33S	175.26E	23	2.4	0.1	13	10
4340	MAY 03	1220 1.0	41.19S	174.32E	40	2.3	0.1	8	6
4341	MAY 03	1301 12.5	41.42S	175.02E	25	2.7	0.1	18	13
4342	MAY 03	1302 27.9	41.42S	175.01E	25	2.5	0.2	17	11
4352	MAY 03	1640 15.1	41.32S	173.73E	49	2.0	0.2	6	4
4358	MAY 03	1748 6.6	40.96S	175.64E	18	2.2	0.1	10	6
4369	MAY 04	0106 19.7	41.63S	174.38E	24	2.4	0.2	13	10
4372	MAY 04	0323 52.9	40.99S	173.66E	78	2.6	0.2	12	7
4376	MAY 04	0647 14.3	41.17S	174.31E	37	2.2	0.2	9	6
4377	MAY 04	0715 0.2	41.26S	175.25E	26	2.5	0.1	14	9
4379	MAY 04	0948 59.0	41.12S	173.73E	89	2.2	0.1	9	5
4384	MAY 04	1130 45.6	40.52S	173.60E	111	2.8	0.4	14	9
4400	MAY 04	1947 14.1	41.13S	173.62E	75	2.7	0.3	9	6
4405	MAY 05	0012 24.5	41.26S	174.94E	21	2.4	0.2	12	8
4407	MAY 05	0226 54.3	40.66S	174.10E	66	2.6	0.3	11	8
4408	MAY 05	0249 37.2	41.12S	173.98E	53	2.6	0.2	12	8
4415	MAY 05	0820 18.6	41.27S	174.77E	40	2.0	0.1	7	5
4421	MAY 05	0951 37.3	40.95S	174.52E	44	2.3	0.2	8	6
4425	MAY 05	1306 25.5	41.38S	174.61E	28	3.3	0.2	20	16
4441	MAY 05	1930 45.6	40.62S	174.28E	52	2.3	0.3	13	8
4452	MAY 06	0138 59.3	41.31S	175.29E	29	2.3	0.2	13	9
4455	MAY 06	0505 4.3	41.14S	174.77E	29	2.1	0.1	9	8
4463	MAY 06	1519 7.4	41.10S	175.02E	27	2.2	0.1	13	9
4464	MAY 06	1523 19.4	41.38S	174.60E	28	2.2	0.1	9	8
4470	MAY 06	1850 9.5	40.57S	175.91E	30	3.3	0.2	27	21
4508	MAY 07	2330 0.5	40.66S	173.73E	187	3.1	0.2	10	8
4516	MAY 08	0608 44.4	41.10S	174.58E	31	2.7	0.3	16	11
4538	MAY 08	1644 30.8	40.84S	174.79E	14	2.6	0.3	18	14
4542	MAY 08	1826 30.0	41.01S	175.40E	27	2.2	0.1	11	9
4560	MAY 09	0546 31.4	40.55S	173.99E	107	3.0	0.2	15	12
4571	MAY 09	1643 34.3	41.04S	175.39E	24	2.1	0.1	9	6
4577	MAY 09	2014 53.9	41.03S	174.59E	59	2.4	0.2	11	10
4580	MAY 10	0013 57.5	41.30S	175.30E	17	3.2	0.1	10	7
4591	MAY 10	0944 9.6	41.30S	175.30E	31	3.0	0.2	16	12
4592	MAY 10	1027 4.9	41.57S	174.01E	13	2.0	0.2	9	7
4593	MAY 10	1051 21.9	41.01S	175.43E	27	2.2	0.1	11	8
4594	MAY 10	1104 46.5	41.10S	173.77E	66	2.4	0.2	9	7
4596	MAY 10	1139 38.9	41.26S	174.79E	29	2.6	0.1	14	12
4613	MAY 10	1935 23.1	41.39S	174.59E	30	2.6	0.2	18	13
4618	MAY 10	2025 45.4	41.94S	174.03E	14	2.4	0.2	12	10
4619	MAY 10	2201 27.8	41.24S	173.81E	62	2.7	0.2	16	12
4625	MAY 11	0157 6.4	41.22S	174.24E	39	2.3	0.2	12	9
4631	MAY 11	0539 33.3	41.71S	174.52E	30	2.6	0.2	14	12
4634	MAY 11	0648 13.4	41.56S	174.24E	5R	2.5	0.4	15	12
4635	MAY 11	0651 58.6	41.77S	174.54E	30	2.4	0.2	14	11

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
4641	MAY 11	0847 50.8	40.51S	174.03E	70	2.6	0.2	9	7
4648	MAY 11	1249 11.4	41.23S	174.26E	40	2.8	0.2	20	15
4650	MAY 11	1315 6.4	40.56S	174.01E	69	2.4	0.2	8	6
4651	MAY 11	1332 24.5	40.57S	175.84E	53	2.8	0.2	10	8
4662	MAY 11	1850 38.0	41.60S	174.65E	31	2.2	0.0	8	5
4668	MAY 12	0002 23.6	41.42S	175.00E	26	2.0	0.1	10	7
4669	MAY 12	0037 55.1	41.42S	175.00E	24	2.1	0.1	12	9
4671	MAY 12	0137 11.9	41.44S	175.00E	26	3.5	0.2	25	19
4674	MAY 12	0333 27.2	41.01S	175.44E	29	2.1	0.1	12	8
4681	MAY 12	0714 45.4	41.19S	174.27E	39	2.0	0.1	8	5
4688	MAY 12	1530 39.3	41.46S	173.59E	102	2.5	0.3	10	8
4690	MAY 12	1617 48.2	40.64S	174.01E	124	2.4	0.0	6	5
4705	MAY 13	0101 9.8	41.78S	174.32E	32	3.4	0.3	27	19
4727	MAY 13	1030 19.7	41.29S	174.91E	21	2.1	0.1	12	10
4732	MAY 13	1228 49.4	41.35S	175.81E	14	2.6	0.2	10	7
4736	MAY 13	1542 35.2	40.52S	174.75E	73	2.3	0.1	9	6
4738	MAY 13	1642 22.1	41.16S	174.58E	60	2.2	0.1	8	6
4757	MAY 13	1937 47.5	41.10S	174.19E	60	2.2	0.1	8	6
4780	MAY 14	0043 55.2	40.71S	174.82E	14	2.3	0.2	9	7
4796	MAY 14	0519 3.1	41.41S	174.21E	36	2.2	0.3	12	9
4797	MAY 14	0523 19.6	41.23S	175.19E	26	2.2	0.1	10	8
4817	MAY 14	2245 42.7	41.27S	175.24E	27	2.3	0.1	11	8
4819	MAY 14	2310 45.2	41.01S	175.43E	25	2.3	0.1	14	9
4830	MAY 15	0813 58.8	41.24S	175.25E	27	2.4	0.1	13	10
4831	MAY 15	0815 5.5	41.00S	175.42E	26	2.3	0.2	11	8
4833	MAY 15	0900 18.7	41.23S	175.27E	27	2.7	0.3	17	13
4834	MAY 15	0904 11.8	40.91S	173.71E	80	2.3	0.3	11	8
4844	MAY 15	1935 42.3	41.43S	174.33E	35	2.7	0.3	13	11
4850	MAY 16	0436 22.9	41.42S	175.04E	28	2.7	0.2	17	13
4864	MAY 16	1241 6.0	40.87S	175.52E	29	2.3	0.2	9	7
4878	MAY 16	1820 6.3	41.52S	175.02E	30	2.5	0.2	11	8
4879	MAY 16	2004 58.4	40.94S	174.66E	59	2.0	0.1	8	5
4880	MAY 16	2017 0.8	41.23S	173.53E	91	2.8	0.2	10	8
4886	MAY 17	0403 59.2	41.00S	174.62E	56	2.4	0.1	11	8
4889	MAY 17	0505 21.4	41.01S	175.42E	25	2.0	0.1	12	8
4890	MAY 17	0515 30.2	40.98S	174.20E	49	2.4	0.2	13	10
4892	MAY 17	0611 39.2	40.82S	174.90E	34	2.4	0.1	12	8
4894	MAY 17	0637 42.9	40.75S	173.65E	85	2.5	0.2	12	8
4938	MAY 17	1749 28.2	41.72S	174.53E	28	2.2	0.1	11	10
4942	MAY 17	2033 26.9	41.00S	174.96E	26	2.1	0.2	7	5
4944	MAY 18	0013 31.8	41.42S	175.00E	25	2.6	0.1	16	11
4947	MAY 18	0140 1.2	41.70S	173.71E	43	2.3	0.1	14	9
4949	MAY 18	0236 54.0	41.51S	173.64E	62	2.7	0.2	19	15
4957	MAY 18	0525 50.7	41.12S	174.68E	17	2.0	0.1	9	7
4963	MAY 18	0950 4.4	41.68S	174.13E	28	2.4	0.2	13	10

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4968	MAY 18	1228 21.1	41.24S	174.28E	43	3.6F	0.2	28	24
4972	MAY 18	1257 11.5	40.91S	174.29E	45	2.7	0.2	17	13
4980	MAY 18	1648 54.2	40.76S	175.12E	32	2.5	0.3	13	9
4985	MAY 18	2041 33.8	40.61S	175.42E	27	2.0	0.2	6	5
4987	MAY 18	2104 8.7	40.81S	175.11E	28	2.5	0.2	14	11
4989	MAY 18	2219 27.9	40.82S	174.70E	5R	2.4	0.2	9	6
4995	MAY 19	0403 25.4	41.24S	174.28E	41	3.0	0.3	21	16
5001	MAY 19	1403 18.6	40.89S	175.29E	28	2.3	0.1	11	8
5002	MAY 19	1426 57.1	41.64S	174.00E	39	2.2	0.1	8	5
5004	MAY 19	1603 43.1	40.57S	174.21E	62	2.6	0.3	11	8
5005	MAY 19	1641 38.4	41.54S	174.12E	61	3.3	0.2	28	18
5007	MAY 19	2114 11.2	40.92S	174.94E	58	2.2	0.1	12	8
5009	MAY 19	2219 8.1	40.53S	174.68E	25	2.8	0.2	22	19
5020	MAY 20	0625 53.0	41.42S	175.02E	24	2.0	0.0	15	9
5021	MAY 20	0625 59.0	41.40S	175.01E	24	2.2	0.1	13	9
5027	MAY 20	0853 6.1	41.04S	173.92E	59	2.7	0.2	15	9
5028	MAY 20	1015 5.6	41.29S	174.96E	27	2.6	0.1	16	11
5032	MAY 20	1513 33.8	41.14S	174.78E	25	2.7	0.2	15	13
5036	MAY 20	2132 7.3	41.69S	174.30E	14	2.2	0.1	11	7
5050	MAY 21	1330 21.5	41.22S	175.22E	27	2.0	0.1	10	7
5054	MAY 21	1518 15.0	41.46S	174.29E	12R	2.1	0.3	10	8
5079	MAY 22	1842 24.0	41.23S	175.05E	20	2.3	0.2	10	8
5081	MAY 22	1911 50.1	41.24S	175.04E	21	2.1	0.1	9	6
5088	MAY 22	2116 15.5	41.23S	173.68E	79	4.2F	0.2	21	16
5089	MAY 22	2130 38.6	41.63S	174.02E	5R	2.2	0.2	6	4
5091	MAY 23	0155 48.3	41.48S	173.63E	89	2.7	0.2	9	6
5093	MAY 23	0213 45.2	41.20S	173.66E	61	2.8	0.2	11	7
5094	MAY 23	0214 51.3	41.21S	173.66E	57	3.0	0.3	11	7
5117	MAY 23	1026 55.1	41.06S	174.44E	56	2.8	0.1	20	15
5121	MAY 23	1103 4.0	40.60S	175.45E	5R	2.8	0.2	20	16
5137	MAY 23	1824 6.4	40.69S	174.63E	46	2.6	0.2	14	11
5141	MAY 23	2108 49.3	40.67S	174.54E	60	3.4	0.2	33	25
5143	MAY 23	2305 2.4	41.27S	175.22E	27	2.1	0.1	8	7
5151	MAY 24	0345 58.4	40.96S	174.55E	60	2.2	0.0	9	5
5157	MAY 24	0655 27.7	41.72S	174.55E	26	2.3	0.1	11	8
5184	MAY 25	0337 28.5	41.39S	174.31E	64	2.3	0.3	17	12
5188	MAY 25	0522 5.3	41.22S	175.60E	23	2.3	0.1	14	9
5189	MAY 25	0528 58.8	41.44S	174.08E	67	2.5	0.1	15	10
5217	MAY 25	2045 12.5	41.01S	175.42E	31	2.2	0.1	11	8
5219	MAY 25	2115 36.8	40.62S	173.83E	101	2.4	0.2	11	7
5242	MAY 26	1553 6.0	40.59S	174.06E	87	2.7	0.3	13	10
5248	MAY 26	2005 0.5	40.89S	175.81E	34	2.0	0.2	9	7
5249	MAY 26	2043 3.2	40.61S	174.30E	77	2.2	0.2	8	6
5258	MAY 27	0438 30.2	41.29S	175.28E	24	2.1	0.1	12	9
5262	MAY 27	0731 27.4	41.02S	174.49E	61	2.1	0.2	8	7

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5263	MAY 27	0755 26.3	41.17S	174.60E	35	3.4	0.2	26	19
5284	MAY 27	2204 53.4	41.70S	173.70E	5R	2.3	0.2	10	8
5285	MAY 27	2204 59.8	41.70S	173.71E	5R	2.2	0.1	6	5
5290	MAY 28	0027 9.9	41.77S	173.68E	12	2.8	0.2	21	15
5292	MAY 28	0055 0.0	41.02S	174.53E	41	2.3	0.1	11	8
5293	MAY 28	0156 47.4	41.78S	173.68E	12	2.6	0.2	15	11
5295	MAY 28	0250 33.6	41.72S	174.34E	29	2.5	0.2	15	12
5296	MAY 28	0345 17.1	40.81S	174.63E	55	2.0	0.1	9	6
5307	MAY 28	0903 43.0	41.04S	175.39E	25	2.1	0.2	9	8
5317	MAY 28	1220 55.7	41.73S	174.30E	15	2.2	0.1	9	6
5324	MAY 28	1622 27.0	41.68S	174.22E	15	2.3	0.2	9	6
5326	MAY 28	1755 52.5	40.94S	175.06E	57	2.2	0.1	8	6
5332	MAY 29	0247 28.9	41.22S	175.29E	31	2.8	0.2	12	9
5336	MAY 29	0344 57.3	41.48S	174.87E	28	2.5	0.2	18	13
5347	MAY 29	0917 27.9	40.73S	174.49E	89	2.4	0.1	7	5
5367	MAY 30	0612 6.7	41.70S	174.60E	12R	2.0	0.1	8	5
5368	MAY 30	0657 23.0	41.02S	175.42E	27	2.4	0.1	13	9
5371	MAY 30	0855 58.6	40.76S	173.53E	169	2.7	0.1	8	6
5381	MAY 30	1527 48.6	40.68S	174.15E	58	2.8	0.2	13	9
5382	MAY 30	1722 0.5	41.66S	175.04E	29	2.1	0.1	11	8
5383	MAY 30	1835 48.7	41.92S	175.39E	33R	2.3	0.1	7	5
5394	MAY 30	2256 42.4	40.94S	174.16E	54	2.7	0.2	15	12
5396	MAY 31	0045 37.4	40.92S	174.01E	60	3.0	0.2	15	11
5397	MAY 31	0216 34.9	41.31S	174.50E	19	3.4	0.3	25	20
5399	MAY 31	0426 55.1	41.28S	175.25E	28	3.1	0.2	17	12
5403	MAY 31	0914 46.0	41.60S	174.14E	5R	2.2	0.3	11	8
5416	MAY 31	2308 56.0	40.88S	175.48E	24	2.9	0.2	13	10
5424	JUN 01	0622 39.2	40.77S	174.04E	73	4.4F	0.3	33	28
5425	JUN 01	0632 20.1	40.73S	174.05E	61	2.5	0.2	10	7
5434	JUN 01	2017 20.0	41.25S	174.32E	48	2.8	0.3	11	7
5441	JUN 02	0316 59.6	41.37S	174.12E	40	3.9F	0.3	14	11
5453	JUN 03	0334 29.1	40.55S	174.47E	33R	3.1	0.3	9	6
5479	JUN 04	1322 57.4	41.40S	174.91E	27	2.7	0.2	6	3
5497	JUN 05	1318 10.1	41.06S	174.18E	51	2.2	0.1	5	3
5499	JUN 05	1344 7.0	40.69S	175.72E	26	2.3	0.2	8	6
5501	JUN 05	1436 13.0	41.17S	174.76E	29	2.2	0.1	9	8
5513	JUN 05	2015 56.0	40.65S	175.47E	29	2.2	0.2	10	7
5515	JUN 05	2221 40.1	40.71S	174.01E	69	2.8	0.2	9	7
5527	JUN 06	0458 16.2	40.71S	174.82E	5R	3.1	0.2	25	21
5528	JUN 06	0552 16.9	40.63S	174.37E	72	2.4	0.1	7	5
5533	JUN 06	0830 12.9	40.88S	174.75E	14	2.2	0.1	6	4
5536	JUN 06	0948 54.5	41.49S	174.68E	13	2.1	0.2	9	6
5537	JUN 06	1006 39.2	40.91S	175.54E	27	2.4	0.1	9	7
5538	JUN 06	1103 7.0	41.84S	174.44E	19	2.2	0.2	7	5
5548	JUN 06	1522 54.9	40.53S	173.55E	91	2.6	0.1	8	5

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5549	JUN	06	1558	59.5	40.91S	175.54E	27	2.5	0.1	10	7
5552	JUN	06	1841	11.0	41.24S	175.23E	24	2.1	0.1	8	6
5553	JUN	06	2035	11.6	41.01S	175.42E	28	2.8	0.1	9	6
5554	JUN	06	2143	5.4	41.02S	175.41E	27	2.6	0.1	9	7
5588	JUN	07	1540	35.4	41.65S	174.63E	29	2.7	0.2	11	8
5591	JUN	07	1638	44.0	41.75S	174.43E	24	3.7	0.2	22	18
5592	JUN	07	1659	11.3	40.84S	174.71E	12	2.5	0.3	14	10
5593	JUN	07	1728	24.5	41.73S	174.42E	23	2.9	0.3	20	14
5597	JUN	07	1822	0.7	41.73S	174.42E	25	2.2	0.2	8	6
5598	JUN	07	1836	51.9	40.73S	174.02E	76	3.0	0.2	15	10
5599	JUN	07	1854	50.2	41.69S	174.46E	23	2.2	0.2	9	7
5612	JUN	08	0313	26.3	40.55S	173.85E	112	3.2	0.2	17	13
5615	JUN	08	0435	43.2	41.70S	174.56E	33	2.9	0.3	17	13
5619	JUN	08	0647	25.8	40.92S	174.76E	45	2.3	0.0	6	5
5627	JUN	08	1411	33.7	40.88S	174.75E	14	2.0	0.1	5	3
5628	JUN	08	1416	25.4	40.99S	175.92E	30	2.0	0.2	6	5
5630	JUN	08	1440	21.6	40.92S	175.71E	29	2.5	0.1	10	8
5633	JUN	08	1804	16.9	40.82S	174.80E	12R	2.2	0.3	8	7
5636	JUN	08	2224	51.9	40.97S	175.07E	25	2.2	0.1	8	7
5639	JUN	09	0018	50.8	40.84S	175.20E	29	2.5	0.2	12	10
5647	JUN	09	0437	35.3	41.03S	175.40E	25	2.0	0.1	9	6
5676	JUN	09	1915	8.5	41.01S	175.43E	27	2.2	0.1	9	8
5680	JUN	09	2159	58.1	40.73S	175.43E	45	2.7	0.1	7	6
5681	JUN	09	2240	48.9	41.38S	175.11E	27	2.5	0.2	11	9
5685	JUN	10	0227	17.8	40.90S	173.58E	94	3.0	0.1	7	5
5691	JUN	10	1403	15.7	41.24S	173.62E	74	2.8	0.3	8	5
5693	JUN	10	1522	31.8	41.31S	174.41E	46	2.0	0.1	5	3
5697	JUN	10	1927	9.2	41.30S	173.69E	100	2.6	0.1	11	8
5698	JUN	10	2029	59.6	41.43S	174.62E	21	2.9	0.2	18	13
5706	JUN	11	0318	15.9	41.29S	175.00E	25	2.6	0.1	7	5
5720	JUN	11	1917	23.1	41.15S	174.82E	28	2.3	0.0	6	5
5722	JUN	11	2043	45.9	41.37S	174.37E	55	2.5	0.3	9	7
5731	JUN	12	0512	10.0	41.72S	174.81E	39	2.4	0.2	7	5
5732	JUN	12	0514	13.1	41.33S	173.95E	56	3.0	0.2	11	7
5735	JUN	12	0646	11.5	40.61S	175.44E	43	2.5	0.2	7	5
5745	JUN	12	1927	47.2	41.94S	173.82E	39	3.1	0.2	12	9
5761	JUN	13	1051	1.1	41.16S	174.76E	30	2.2	0.1	9	8
5768	JUN	13	1548	53.9	41.63S	173.57E	71	3.0	0.2	17	13
5769	JUN	13	1603	6.6	41.11S	175.34E	23	2.2	0.2	11	7
5827	JUN	14	1452	54.6	40.88S	174.73E	11	3.1	0.1	25	22
5831	JUN	14	1522	22.2	41.19S	174.52E	35	2.0	0.1	7	6
5846	JUN	15	0120	56.5	41.03S	175.39E	25	2.1	0.1	10	8
5851	JUN	15	0315	17.2	41.12S	174.47E	34	2.3	0.2	12	9
5859	JUN	15	0653	16.7	41.02S	175.40E	26	2.4	0.1	10	7
5863	JUN	15	1049	18.7	40.67S	173.92E	76	2.4	0.1	8	5

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5865	JUN 15	1132 13.1	41.02S	175.41E	22	2.8	0.2	14	10
5874	JUN 15	1652 5.5	41.60S	174.69E	33	2.8	0.2	14	11
5883	JUN 16	0000 5.3	40.54S	175.45E	28	2.1	0.2	7	5
5899	JUN 16	1534 59.7	41.74S	174.51E	28	2.6	0.2	14	11
5903	JUN 16	1820 27.0	41.81S	174.12E	36	2.9	0.2	16	12
5904	JUN 16	1834 38.9	41.60S	175.21E	15	2.3	0.2	12	10
5913	JUN 17	0316 39.8	41.65S	174.58E	29	2.1	0.1	7	5
5915	JUN 17	0558 10.0	40.96S	175.49E	19	2.6	0.1	11	7
5918	JUN 17	0928 24.1	40.57S	173.66E	118	3.4	0.2	23	18
5923	JUN 17	1214 34.9	40.62S	174.30E	12R	2.4	0.2	10	6
5942	JUN 18	1251 46.3	40.94S	174.94E	31	3.0	0.2	15	11
5954	JUN 18	2207 10.4	41.15S	175.14E	21	2.5	0.1	8	6
5960	JUN 19	1116 6.6	41.97S	173.84E	13	2.5	0.3	11	7
5965	JUN 19	1653 56.0	41.73S	174.25E	42	2.4	0.1	8	5
5971	JUN 19	1948 12.9	41.86S	174.45E	26	2.4	0.1	9	5
5984	JUN 20	0600 57.8	40.71S	174.20E	50	2.9	0.3	15	11
5995	JUN 20	1239 16.0	41.01S	175.42E	27	2.3	0.1	10	7
6004	JUN 20	1727 47.9	41.41S	175.02E	23	2.5	0.1	14	10
6006	JUN 20	1757 13.4	40.59S	174.37E	21	2.6	0.2	18	15
6011	JUN 21	0104 44.2	40.95S	174.69E	64	2.1	0.1	7	5
6015	JUN 21	0339 28.9	41.93S	174.08E	23	3.5	0.4	20	17
6019	JUN 21	0553 38.1	41.03S	173.83E	56	2.8	0.5	14	11
6039	JUN 21	1827 55.3	41.74S	173.78E	13	3.2	0.2	18	14
6048	JUN 21	1952 50.0	41.63S	173.52E	70	3.2	0.2	19	12
6062	JUN 22	0208 31.0	41.70S	174.29E	11	2.8	0.3	16	12
6073	JUN 22	0725 58.3	41.05S	175.43E	27	3.4	0.3	22	19
6076	JUN 22	0847 25.6	41.71S	174.27E	13	2.1	0.2	11	7
6083	JUN 22	1352 4.7	41.29S	175.29E	21	2.1	0.1	10	7
6097	JUN 23	0018 9.0	41.03S	175.42E	25	2.2	0.2	11	7
6099	JUN 23	0142 23.1	41.59S	174.42E	20	4.4F	0.1	24	18
6100	JUN 23	0159 33.2	41.57S	174.41E	14	2.8	0.2	14	12
6101	JUN 23	0357 22.5	40.58S	175.72E	12R	2.7	0.1	6	5
6102	JUN 23	0444 48.8	41.58S	174.42E	17	2.8	0.2	18	13
6103	JUN 23	0445 18.2	41.26S	175.22E	25	2.3	0.1	15	8
6104	JUN 23	0525 11.8	41.58S	174.43E	16	3.0	0.2	19	13
6110	JUN 23	1035 3.6	41.29S	175.29E	20	2.3	0.1	10	7
6118	JUN 23	1733 11.3	41.74S	174.94E	24	2.4	0.2	8	6
6122	JUN 23	2130 20.5	41.01S	175.43E	25	2.3	0.2	10	7
6124	JUN 23	2145 9.5	40.63S	173.98E	58	2.8	0.2	12	8
6126	JUN 23	2211 7.5	40.58S	174.25E	76	2.6	0.2	10	6
6130	JUN 24	0120 27.1	41.56S	174.39E	17	2.1	0.1	7	5
6137	JUN 24	0537 31.6	41.41S	175.34E	20	2.3	0.1	10	6
6145	JUN 24	1156 13.4	40.89S	175.83E	47	3.4	0.2	21	17
6150	JUN 24	1359 19.1	41.01S	174.66E	34	2.2	0.1	7	6
6151	JUN 24	1406 32.0	41.51S	174.24E	60	2.2	0.2	6	3

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6156	JUN 24	1842 52.6	40.84S	173.63E	164	3.1	0.2	9	7
6169	JUN 25	1231 30.1	40.97S	174.19E	58	3.5	0.2	20	14
6186	JUN 25	2304 52.0	41.01S	174.39E	64	2.4	0.1	8	6
6198	JUN 26	0653 49.0	41.03S	175.41E	26	2.3	0.1	8	6
6209	JUN 26	1843 41.4	41.55S	174.12E	9	2.8	0.2	14	10
6215	JUN 26	2213 46.8	41.79S	174.39E	24	2.4	0.1	11	9
6216	JUN 27	0007 1.1	41.20S	173.59E	93	2.6	0.1	11	7
6217	JUN 27	0301 12.8	41.55S	174.13E	5R	2.4	0.2	12	8
6219	JUN 27	0546 7.1	41.44S	173.63E	64	3.3	0.3	23	16
6220	JUN 27	0644 28.6	41.38S	173.78E	61	3.2	0.2	23	15
6221	JUN 27	0807 2.6	41.11S	175.36E	24	3.0	0.1	11	7
6226	JUN 27	1608 52.2	41.04S	175.37E	22	2.1	0.1	10	5
6230	JUN 27	2016 35.7	40.84S	175.06E	33	2.8	0.1	9	7
6240	JUN 28	0431 46.6	40.55S	175.72E	30	2.3	0.1	8	6
6243	JUN 28	0637 36.0	40.83S	174.58E	21	2.3	0.1	9	6
6244	JUN 28	0655 38.0	40.92S	175.16E	26	2.0	0.2	8	6
6249	JUN 28	0818 38.3	40.61S	175.00E	34	3.0	0.2	18	13
6257	JUN 28	1408 57.4	40.57S	174.94E	5R	2.4	0.1	10	8
6262	JUN 28	1526 52.3	41.40S	174.09E	44	2.1	0.2	8	6
6263	JUN 28	1536 34.9	41.37S	173.77E	67	3.2	0.2	23	16
6265	JUN 28	1625 27.0	41.23S	173.65E	63	2.4	0.2	9	6
6269	JUN 28	1939 24.6	41.02S	175.40E	27	2.1	0.1	10	8
6273	JUN 28	2300 44.8	41.03S	175.38E	23	2.4	0.1	11	9
6278	JUN 29	0223 4.3	40.91S	174.06E	57	2.5	0.2	9	5
6280	JUN 29	0423 54.1	41.38S	174.17E	66	2.6	0.2	14	11
6281	JUN 29	0453 8.1	41.02S	175.42E	25	2.2	0.1	11	7
6284	JUN 29	0727 17.4	40.56S	174.71E	50	2.1	0.1	8	5
6287	JUN 29	0939 40.2	40.68S	175.46E	24	2.5	0.2	16	10
6288	JUN 29	1007 16.6	41.46S	175.44E	26	2.9	0.1	12	11
6304	JUN 30	0121 41.5	40.85S	175.09E	32	3.3	0.2	25	21
6306	JUN 30	0215 2.3	41.02S	174.85E	45	2.1	0.1	8	7
6307	JUN 30	0244 36.1	41.00S	175.11E	28	2.1	0.1	11	8
6312	JUN 30	0554 7.5	41.06S	173.86E	54	2.1	0.2	11	8
6319	JUN 30	1052 52.9	40.91S	174.29E	46	2.8	0.2	21	17
6321	JUN 30	1257 42.2	40.97S	174.50E	63	2.5	0.2	9	7
6331	JUN 30	2047 10.0	41.02S	175.41E	26	2.2	0.1	11	8
6345	JUL 01	0720 14.8	40.80S	174.04E	64	2.0	0.1	7	5
6347	JUL 01	0923 29.5	41.69S	174.53E	28	2.1	0.2	11	9
6356	JUL 01	1432 20.8	41.59S	173.99E	9	2.2	0.2	13	8
6357	JUL 01	1457 39.6	40.59S	175.75E	30	2.1	0.2	9	6
6361	JUL 01	1703 19.8	41.48S	174.00E	39	2.5	0.2	16	12
6362	JUL 01	2022 22.9	41.37S	174.60E	28	2.2	0.1	11	8
6373	JUL 02	0446 55.8	41.00S	174.99E	42	2.7	0.1	13	11
6380	JUL 02	1202 51.4	41.41S	175.00E	23	2.1	0.1	11	8
6384	JUL 02	1719 12.5	41.08S	173.90E	60	2.8	0.2	15	11

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6389	JUL	02	2034	7.6	41.15S	174.50E	33	3.3	0.2	22	17
6390	JUL	02	2115	0.4	41.18S	174.50E	33	3.0	0.2	17	14
6397	JUL	03	0457	34.9	41.10S	175.46E	17	2.7	0.2	11	7
6400	JUL	03	0647	29.3	41.09S	174.04E	50	2.2	0.2	8	6
6402	JUL	03	0809	16.1	40.96S	175.51E	22	2.3	0.1	8	6
6407	JUL	03	1403	47.4	41.01S	174.28E	54	3.0	0.2	17	14
6410	JUL	03	1706	58.1	41.04S	175.39E	25	3.0	0.1	11	8
6421	JUL	04	0352	43.3	40.61S	174.71E	27	2.6	0.1	11	9
6424	JUL	04	0416	15.8	41.47S	174.42E	28	2.1	0.2	9	5
6427	JUL	04	0547	31.1	41.23S	175.38E	17	2.1	0.2	14	9
6436	JUL	04	1722	5.7	41.04S	175.40E	27	2.8	0.1	11	8
6440	JUL	04	2029	28.5	40.77S	173.80E	86	2.8	0.1	10	7
6445	JUL	05	1205	19.9	41.20S	174.28E	39	2.1	0.2	7	5
6461	JUL	06	0458	3.7	41.01S	175.42E	27	2.1	0.1	9	7
6464	JUL	06	0603	9.5	40.89S	175.50E	26	2.2	0.1	11	9
6472	JUL	06	1153	42.6	41.01S	175.42E	24	2.1	0.2	8	6
6483	JUL	06	2208	47.8	41.02S	175.40E	23	2.5	0.1	12	9
6488	JUL	07	0404	58.1	41.43S	173.52E	91	3.4	0.4	21	15
6491	JUL	07	0605	51.8	41.04S	174.78E	55	2.1	0.1	9	6
6499	JUL	07	1040	28.9	41.36S	174.64E	32	2.7	0.2	15	13
6504	JUL	07	1307	14.2	40.79S	174.77E	12R	2.0	0.2	6	4
6527	JUL	08	0324	50.6	41.39S	174.47E	12	2.9	0.3	16	13
6529	JUL	08	0331	37.3	41.40S	174.48E	12	2.5	0.2	16	13
6544	JUL	08	2318	9.8	41.55S	174.53E	12R	2.0	0.2	9	7
6545	JUL	09	0021	56.8	40.60S	175.12E	41	3.6	0.2	33	28
6550	JUL	09	0339	31.8	40.91S	175.45E	27	2.2	0.1	9	7
6552	JUL	09	0421	41.2	41.04S	174.51E	64	2.6	0.2	13	11
6554	JUL	09	0442	10.1	41.50S	175.57E	17	2.2	0.2	10	8
6561	JUL	09	0739	9.3	41.26S	175.24E	25	2.1	0.1	9	8
6567	JUL	09	1542	40.2	41.63S	174.60E	29	2.0	0.0	6	5
6573	JUL	09	1756	0.5	40.60S	174.51E	31	2.6	0.3	11	9
6589	JUL	10	0606	17.6	40.61S	174.01E	110	2.4	0.0	10	8
6590	JUL	10	0629	6.4	41.09S	174.25E	48	2.1	0.2	8	6
6594	JUL	10	1007	45.6	41.18S	175.53E	21	2.2	0.2	11	8
6595	JUL	10	1017	40.5	40.56S	174.52E	68	2.3	0.0	6	4
6599	JUL	10	1331	36.8	41.19S	173.99E	57	2.2	0.2	10	8
6608	JUL	11	0733	35.3	40.99S	175.49E	25	3.0	0.3	22	19
6612	JUL	11	0930	17.0	40.84S	175.12E	32	3.5	0.2	35	28
6613	JUL	11	0932	9.1	40.79S	175.14E	27	2.0	0.1	10	8
6623	JUL	11	1441	21.7	41.18S	174.79E	30	2.1	0.1	11	8
6631	JUL	11	1905	53.9	40.75S	174.11E	31	2.2	0.3	8	6
6637	JUL	11	2323	40.6	41.77S	174.35E	30	2.7	0.3	17	14
6655	JUL	12	1430	12.6	40.72S	175.83E	31	2.2	0.1	9	8
6656	JUL	12	1433	41.7	40.87S	175.74E	30	2.5	0.2	12	8
6658	JUL	12	1505	51.3	40.87S	174.64E	36	2.6	0.2	16	14

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6667	JUL	12	2313	28.6	41.08S	174.06E	85	2.3	0.1	8	5
6671	JUL	13	0539	31.6	41.44S	174.18E	31	2.3	0.2	12	9
6672	JUL	13	0707	8.8	41.64S	174.60E	31	2.1	0.1	8	6
6674	JUL	13	0812	7.5	40.71S	176.00E	39	2.5	0.2	15	10
6676	JUL	13	1148	29.4	41.20S	173.93E	55	3.4	0.2	25	20
6686	JUL	13	2120	17.8	40.85S	175.69E	5R	3.6F	0.2	23	19
6692	JUL	14	0043	5.8	40.80S	175.70E	18	2.9	0.3	16	12
6700	JUL	14	1020	59.7	40.70S	174.69E	70	2.4	0.2	9	6
6704	JUL	14	1422	31.8	41.55S	174.37E	12R	2.7	0.3	20	15
6706	JUL	14	1503	4.6	41.97S	174.07E	22	2.5	0.4	13	9
6708	JUL	14	1731	43.8	41.03S	174.17E	53	2.3	0.0	9	7
6713	JUL	14	2341	27.5	41.02S	175.41E	25	2.4	0.1	14	7
6714	JUL	14	2356	42.3	41.15S	174.61E	36	2.9	0.1	16	14
6718	JUL	15	0814	39.7	41.01S	175.41E	26	2.5	0.1	12	8
6721	JUL	15	1156	10.2	41.71S	173.92E	33	2.8	0.3	21	13
6728	JUL	15	1930	59.7	41.40S	173.83E	97	2.2	0.1	8	5
6731	JUL	15	2154	50.4	41.69S	173.95E	15	2.5	0.2	9	5
6735	JUL	16	0334	43.8	41.03S	175.40E	23	2.4	0.1	10	8
6736	JUL	16	0458	25.3	41.91S	173.99E	15	2.5	0.2	15	10
6741	JUL	16	0824	36.7	41.27S	174.23E	37	2.2	0.2	10	7
6742	JUL	16	0848	38.3	40.53S	174.17E	32	2.4	0.2	12	9
6746	JUL	16	1402	38.3	41.38S	174.37E	60	2.3	0.2	10	7
6747	JUL	16	1420	14.7	41.01S	175.40E	16	2.1	0.1	12	7
6749	JUL	16	1524	53.5	40.81S	174.65E	37	2.2	0.1	12	8
6755	JUL	16	2147	55.0	40.62S	174.37E	21	2.3	0.2	12	9
6762	JUL	17	0557	34.9	41.32S	174.40E	20	2.2	0.2	16	11
6766	JUL	17	0820	14.5	40.97S	174.71E	57	2.4	0.1	13	11
6769	JUL	17	0936	46.8	41.59S	174.65E	32	2.7	0.1	15	12
6772	JUL	17	1213	4.0	41.02S	175.41E	26	2.1	0.1	9	7
6776	JUL	17	1420	18.2	40.93S	175.48E	21	2.2	0.2	13	9
6804	JUL	18	1759	11.9	41.24S	175.27E	31	2.9	0.2	18	12
6806	JUL	18	1909	30.8	41.53S	174.52E	54	2.1	0.1	9	7
6809	JUL	18	1958	6.1	41.30S	173.88E	56	2.6	0.2	11	8
6811	JUL	18	2213	42.0	41.38S	174.73E	34	2.2	0.1	11	8
6821	JUL	19	0733	38.4	41.61S	173.97E	14	2.3	0.2	10	7
6826	JUL	19	1108	29.2	41.65S	174.63E	30	3.3	0.2	26	18
6827	JUL	19	1210	55.1	41.04S	175.41E	28	3.0	0.3	26	20
6828	JUL	19	1407	1.7	40.92S	175.73E	30	2.3	0.2	9	6
6832	JUL	19	1618	12.9	41.39S	173.61E	75	2.6	0.2	11	8
6835	JUL	19	2136	40.3	40.69S	174.36E	45	2.3	0.2	10	6
6840	JUL	20	0150	47.7	41.60S	174.46E	9	3.6	0.2	24	20
6842	JUL	20	0453	43.1	41.02S	175.40E	26	2.4	0.1	7	6
6846	JUL	20	0909	57.1	41.05S	173.91E	49	2.2	0.2	8	6
6856	JUL	20	1412	46.3	41.47S	173.93E	43	2.3	0.1	8	6
6861	JUL	20	1737	50.2	41.40S	173.94E	47	2.7	0.2	18	13

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6878	JUL 21	1328 9.2	40.88S	174.74E	47	2.0	0.1	9	5
6881	JUL 21	1555 36.3	41.71S	174.39E	12R	2.3	0.3	13	10
6882	JUL 21	1605 19.9	41.72S	174.40E	12R	2.1	0.2	12	9
6883	JUL 21	1607 14.5	41.07S	175.40E	26	2.5	0.2	11	8
6884	JUL 21	1611 26.9	41.99S	174.37E	37	2.0	0.2	8	6
6906	JUL 21	2050 18.1	40.54S	174.19E	78	3.0	0.2	16	13
6922	JUL 22	0400 50.2	41.70S	174.44E	23	2.0	0.1	11	8
6924	JUL 22	0407 20.2	40.81S	174.64E	68	2.1	0.1	7	4
6925	JUL 22	0431 42.6	41.73S	174.24E	11	2.1	0.2	9	6
6939	JUL 22	1505 47.2	41.19S	174.66E	33	2.1	0.1	10	7
6959	JUL 23	1233 1.4	41.10S	175.48E	24	2.3	0.1	10	7
7001	JUL 24	0524 56.6	40.51S	173.82E	82	3.0	0.2	23	16
7008	JUL 24	0703 28.8	41.64S	174.61E	30	2.4	0.1	12	10
7014	JUL 24	1051 38.0	41.36S	174.90E	28	2.1	0.1	14	10
7028	JUL 24	1734 21.6	41.03S	175.38E	25	2.1	0.1	10	8
7048	JUL 25	0324 1.7	41.94S	174.19E	5R	2.3	0.1	11	8
7055	JUL 25	1041 53.2	41.03S	175.40E	21	2.2	0.1	9	8
7064	JUL 25	1920 10.7	41.31S	174.76E	49	2.1	0.1	11	8
7069	JUL 26	0050 22.9	41.06S	175.41E	25	2.2	0.1	11	8
7071	JUL 26	0248 16.3	41.02S	175.21E	23	2.1	0.1	11	8
7076	JUL 26	1119 2.2	41.22S	175.31E	25	3.0	0.2	15	12
7088	JUL 27	1621 9.1	41.00S	174.75E	48	2.4	0.1	11	8
7093	JUL 27	2246 26.9	40.53S	174.97E	41	2.6	0.2	12	9
7095	JUL 28	0110 11.6	41.76S	174.45E	28	2.4	0.1	10	5
7097	JUL 28	0305 52.6	40.71S	174.22E	53	2.7	0.2	12	9
7098	JUL 28	0328 0.4	41.20S	174.28E	41	2.1	0.2	10	7
7102	JUL 28	1238 54.1	41.23S	175.22E	18	2.0	0.1	9	7
7109	JUL 28	2136 41.4	40.91S	175.81E	32	2.5	0.2	12	8
7110	JUL 28	2312 10.5	40.68S	175.98E	55	2.2	0.1	8	4
7111	JUL 28	2332 34.5	40.59S	174.60E	73	2.4	0.1	12	8
7113	JUL 29	0116 42.2	41.01S	174.03E	56	2.6	0.1	12	7
7116	JUL 29	0617 19.6	41.67S	174.13E	32	2.4	0.2	13	11
7120	JUL 29	1136 55.3	41.43S	175.00E	22	2.8	0.1	14	10
7134	JUL 29	2351 46.7	40.56S	174.14E	95	2.9	0.2	13	9
7140	JUL 30	0841 33.0	41.69S	174.45E	34	2.0	0.2	9	6
7145	JUL 30	1009 35.7	41.02S	175.41E	25	2.2	0.1	9	7
7155	JUL 30	2208 43.0	41.18S	174.29E	66	2.3	0.1	9	6
7164	JUL 31	0648 17.8	41.68S	174.51E	25	2.5	0.1	8	6
7168	JUL 31	1343 23.9	41.97S	173.64E	12R	2.1	0.4	9	6
7174	JUL 31	1916 49.0	40.55S	174.31E	50	2.3	0.3	10	7
7175	JUL 31	1930 16.9	40.57S	174.65E	27	2.2	0.2	10	7
7204	AUG 01	1600 27.4	40.88S	174.75E	15	2.1	0.1	12	8
7213	AUG 02	0034 2.6	41.38S	174.58E	59	2.3	0.1	10	7
7222	AUG 02	0524 20.5	40.97S	175.60E	30	2.1	0.1	11	6
7226	AUG 02	0617 38.6	41.07S	174.14E	49	2.7	0.1	14	11

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7228	AUG 02	0728 52.5	41.08S	174.12E	50	2.1	0.2	11	7
7252	AUG 03	0154 44.9	40.97S	174.53E	39	2.3	0.1	12	10
7268	AUG 03	1127 25.3	41.01S	175.43E	20	2.3	0.2	12	9
7275	AUG 03	1552 46.7	41.36S	175.76E	26	3.1	0.1	21	15
7280	AUG 03	1903 23.4	41.33S	175.15E	22	2.0	0.1	9	7
7281	AUG 03	1905 33.7	41.35S	175.73E	22	2.1	0.1	9	7
7284	AUG 03	2110 3.5	40.93S	175.95E	32	3.1	0.2	8	5
7285	AUG 03	2120 8.4	41.35S	174.20E	39	2.4	0.1	7	4
7288	AUG 03	2242 24.6	40.91S	175.49E	27	2.9	0.1	16	12
7290	AUG 04	0049 14.0	40.55S	174.44E	56	2.3	0.1	9	6
7294	AUG 04	0609 22.2	41.42S	175.71E	14	2.3	0.1	10	7
7298	AUG 04	0800 51.3	41.05S	174.71E	59	2.5	0.1	13	11
7301	AUG 04	1053 43.9	41.48S	174.91E	31	3.8F	0.1	28	23
7315	AUG 04	1952 33.0	41.13S	173.79E	61	3.3	0.3	23	17
7317	AUG 04	2343 12.7	41.75S	174.02E	31	2.6	0.2	12	8
7318	AUG 05	0209 50.2	40.90S	174.47E	39	2.0	0.1	8	6
7333	AUG 05	1319 42.7	40.92S	174.01E	60	2.8	0.1	10	6
7344	AUG 06	0109 12.6	41.01S	175.42E	28	2.6	0.2	18	12
7348	AUG 06	0255 9.6	41.59S	174.27E	12R	3.0	0.2	19	15
7350	AUG 06	0324 30.1	41.85S	174.47E	27	2.1	0.2	10	9
7357	AUG 06	1041 43.5	41.41S	175.30E	16	2.1	0.1	10	7
7360	AUG 06	1125 17.9	40.73S	173.89E	85	3.1	0.2	23	19
7361	AUG 06	1248 9.3	41.21S	174.54E	57	2.6	0.1	16	12
7362	AUG 06	1513 49.6	40.90S	174.93E	51	2.2	0.0	10	8
7365	AUG 06	1604 43.4	41.69S	174.16E	20	3.0	0.2	20	16
7366	AUG 06	1606 21.0	41.68S	174.14E	21	2.4	0.2	11	9
7373	AUG 06	2037 42.8	40.55S	174.30E	30	2.3	0.2	11	8
7381	AUG 07	0550 5.9	40.55S	174.33E	73	3.3	0.2	27	23
7387	AUG 07	1108 32.9	41.40S	174.23E	34	2.6	0.2	17	13
7404	AUG 07	2053 52.1	41.82S	174.14E	12R	2.5	0.3	10	8
7406	AUG 07	2139 19.4	41.14S	174.53E	33	3.3	0.2	21	17
7411	AUG 08	0811 21.8	41.56S	174.39E	10	2.6	0.2	16	11
7414	AUG 08	1010 44.1	41.16S	173.59E	73	2.8	0.2	12	8
7418	AUG 08	1147 33.4	40.96S	175.19E	25	2.3	0.2	12	10
7423	AUG 08	1643 52.4	40.90S	175.70E	31	2.6	0.2	11	9
7428	AUG 08	1928 46.0	41.59S	174.44E	18	3.3	0.2	17	14
7440	AUG 09	0852 56.0	41.60S	174.11E	33	3.0	0.3	23	17
7441	AUG 09	0903 29.4	40.64S	174.82E	26	2.2	0.2	11	9
7442	AUG 09	1225 49.0	41.56S	173.87E	43	3.6	0.3	22	15
7454	AUG 10	0232 56.3	41.23S	174.26E	34	2.5	0.2	13	11
7457	AUG 10	0527 24.4	40.54S	173.97E	110	2.9	0.1	12	10
7458	AUG 10	0554 18.6	41.27S	173.97E	48	2.7	0.1	10	8
7462	AUG 10	0857 21.4	41.75S	174.47E	27	2.5	0.3	13	11
7463	AUG 10	0942 25.8	41.49S	174.91E	30	3.1	0.2	14	13
7464	AUG 10	1458 36.4	40.61S	174.86E	28	2.2	0.2	10	8

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7472	AUG 11	0120 38.9	41.68S	173.98E	9	2.6	0.3	10	8
7474	AUG 11	0124 55.0	41.67S	173.96E	12	2.8	0.3	12	10
7477	AUG 11	0612 8.6	41.08S	174.64E	56	2.4	0.1	13	9
7479	AUG 11	0746 9.2	41.28S	175.31E	30	2.8	0.1	14	11
7480	AUG 11	0810 10.2	41.21S	174.25E	39	2.5	0.2	11	8
7487	AUG 11	1738 42.5	41.18S	174.25E	40	2.2	0.1	11	7
7490	AUG 11	2009 42.9	41.01S	175.43E	28	2.2	0.1	10	8
7494	AUG 11	2346 40.5	41.15S	173.83E	57	3.0	0.2	15	10
7497	AUG 12	0135 35.9	41.19S	173.88E	50	2.4	0.1	8	5
7515	AUG 12	1824 46.7	40.98S	175.61E	23	2.0	0.2	9	7
7516	AUG 12	1927 30.9	41.48S	174.92E	30	3.1	0.2	15	12
7519	AUG 12	2041 28.5	41.63S	174.21E	20	3.1	0.2	16	13
7524	AUG 13	0336 33.7	40.77S	175.10E	31	2.9	0.1	13	11
7545	AUG 14	1231 6.0	41.56S	174.47E	17	2.6	0.2	14	12
7546	AUG 14	1250 30.1	41.90S	174.51E	21	2.4	0.1	11	9
7548	AUG 14	1402 17.0	40.84S	175.25E	33	4.6F	0.2	38	33
7551	AUG 14	1756 43.4	40.72S	174.71E	119	2.5	0.3	7	5
7557	AUG 14	1931 11.0	40.93S	175.47E	24	2.1	0.1	8	5
7562	AUG 15	0425 55.7	41.93S	174.53E	35	2.4	0.1	9	7
7564	AUG 15	0620 37.4	41.36S	175.46E	16	3.1	0.2	20	14
7565	AUG 15	0947 42.8	40.79S	175.61E	30	2.3	0.1	9	7
7578	AUG 16	0113 7.9	41.38S	174.61E	29	2.3	0.2	11	8
7580	AUG 16	0229 39.6	40.75S	175.70E	30	3.0	0.1	6	4
7585	AUG 16	0439 24.5	40.72S	174.33E	81	2.5	0.4	7	5
7587	AUG 16	0537 36.5	41.46S	174.92E	26	2.0	0.1	7	5
7589	AUG 16	0943 38.6	41.18S	174.55E	87	2.2	0.1	6	4
7593	AUG 16	1330 35.1	41.36S	175.11E	29	2.9	0.2	15	10
7608	AUG 17	0621 49.5	41.70S	174.58E	27	2.1	0.3	9	8
7633	AUG 17	2031 43.4	41.30S	175.14E	20	2.3	0.1	9	8
7643	AUG 18	0306 26.6	40.76S	174.81E	34	2.7	0.2	15	11
7645	AUG 18	0523 41.6	41.53S	175.21E	24	2.4	0.1	13	8
7661	AUG 18	1801 54.2	41.42S	174.73E	26	2.2	0.1	11	9
7663	AUG 18	1932 14.3	40.59S	174.52E	17	2.6	0.2	11	9
7664	AUG 18	2115 9.5	40.65S	174.05E	77	3.1	0.2	8	6
7682	AUG 19	0906 34.4	41.00S	175.57E	22	2.3	0.2	12	8
7685	AUG 19	1101 34.7	40.67S	175.83E	28	2.7	0.2	16	11
7687	AUG 19	1133 7.8	40.77S	174.42E	46	2.3	0.1	10	6
7707	AUG 20	1325 14.3	41.26S	175.62E	27	3.1	0.1	15	9
7716	AUG 20	1709 32.6	41.21S	174.26E	42	2.0	0.2	9	6
7721	AUG 20	1841 24.2	41.80S	174.50E	31	2.5	0.1	11	8
7726	AUG 20	2357 11.2	40.65S	174.58E	81	2.5	0.1	11	8
7730	AUG 21	0352 10.2	41.60S	173.52E	65	2.7	0.3	12	8
7731	AUG 21	0359 30.0	40.95S	175.51E	25	2.8	0.2	14	10
7740	AUG 21	0945 8.5	40.51S	173.93E	84	2.3	0.3	9	6
7746	AUG 21	1324 4.7	41.45S	175.52E	12R	3.1	0.1	11	7

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7752	AUG 21	1721 12.0	41.01S	175.42E	28	2.7	0.1	12	8
7781	AUG 22	1659 32.0	40.59S	174.24E	82	3.5	0.2	26	22
7785	AUG 22	2333 43.0	41.00S	175.42E	19	2.0	0.1	7	5
7788	AUG 23	0044 37.3	41.45S	173.53E	69	2.5	0.3	8	5
7799	AUG 23	0615 39.9	40.98S	174.66E	38	2.0	0.1	9	8
7800	AUG 23	0617 36.2	40.51S	174.46E	24	2.3	0.2	10	7
7808	AUG 23	2117 57.8	41.27S	175.29E	26	2.3	0.1	10	7
7811	AUG 24	0110 46.0	40.97S	175.61E	22	2.2	0.2	12	8
7813	AUG 24	0409 36.2	40.90S	174.66E	44	2.3	0.1	13	10
7824	AUG 24	1235 34.0	40.84S	174.71E	48	2.7	0.1	13	10
7829	AUG 24	1411 13.4	41.67S	174.61E	29	2.7	0.2	16	13
7834	AUG 24	2139 25.6	41.49S	174.92E	30	3.2F	0.2	25	19
7841	AUG 25	0423 28.6	41.71S	174.54E	30	3.0	0.2	17	14
7852	AUG 25	2047 15.6	41.10S	173.82E	73	3.2	0.3	19	15
7854	AUG 26	0123 10.9	40.91S	174.04E	60	2.8	0.2	10	7
7858	AUG 26	0933 43.4	41.09S	175.37E	23	2.8	0.1	14	11
7860	AUG 26	1143 49.6	41.47S	173.84E	47	3.0	0.2	20	13
7861	AUG 26	1231 8.9	41.26S	174.65E	58	2.1	0.2	12	9
7862	AUG 26	1422 42.7	40.56S	174.17E	65	2.1	0.2	12	7
7869	AUG 26	2326 55.6	40.73S	175.59E	31	2.3	0.1	10	6
7871	AUG 27	0253 10.9	41.66S	174.30E	5R	2.2	0.2	11	7
7872	AUG 27	0417 18.7	40.51S	174.84E	21	2.1	0.1	10	7
7885	AUG 27	1353 17.9	41.14S	174.09E	65	2.3	0.1	11	7
7889	AUG 27	1712 45.9	41.61S	174.15E	12R	2.2	0.2	12	8
7892	AUG 27	1839 40.3	40.74S	174.35E	61	2.6	0.2	11	7
7893	AUG 27	1918 59.6	40.97S	174.94E	30	2.1	0.1	10	7
7894	AUG 27	1943 58.1	40.60S	174.06E	75	2.8	0.3	25	19
7897	AUG 27	2155 28.1	41.27S	174.57E	32	2.2	0.2	12	8
7905	AUG 28	0419 46.2	41.06S	175.31E	43	2.4	0.1	12	8
7910	AUG 28	0823 15.2	41.12S	175.49E	22	2.2	0.1	11	7
7920	AUG 28	1652 19.1	41.25S	175.32E	29	2.2	0.1	10	7
7921	AUG 28	1734 51.6	41.57S	174.53E	16	2.3	0.2	16	12
7927	AUG 28	1913 12.0	41.58S	174.55E	12R	2.1	0.3	11	9
7929	AUG 28	2213 58.8	41.56S	174.05E	12R	2.3	0.2	11	8
7932	AUG 28	2315 2.7	40.55S	174.28E	81	3.0	0.2	17	12
7936	AUG 29	0126 44.0	41.02S	175.40E	24	2.2	0.2	13	8
7941	AUG 29	0756 10.9	41.10S	173.88E	50	2.1	0.1	6	3
7944	AUG 29	0848 12.7	41.15S	173.59E	106	2.4	0.1	11	8
7949	AUG 29	1433 7.0	41.55S	174.53E	15	2.6	0.2	15	12
7957	AUG 30	0250 20.6	40.61S	175.39E	30	2.5	0.1	11	8
7961	AUG 30	0558 50.7	41.16S	174.64E	39	2.8	0.1	17	13
7978	AUG 30	1547 31.5	41.67S	174.50E	33	2.2F	0.1	11	7
7985	AUG 30	2111 19.5	41.25S	175.23E	25	2.3	0.1	14	10
7989	AUG 30	2222 43.1	40.51S	175.45E	39	2.3	0.2	8	6
7990	AUG 30	2304 21.0	41.66S	174.49E	33R	2.1	0.2	7	5

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7991	AUG 31	0101 47.2	41.23S	175.04E	22	2.0	0.1	7	5
7996	AUG 31	0450 22.5	41.11S	174.13E	49	2.7	0.2	16	12
8000	AUG 31	0952 0.7	40.71S	173.89E	82	3.3	0.2	38	27
8006	AUG 31	1300 7.8	41.98S	174.03E	12R	2.5	0.3	16	12
8007	AUG 31	1326 6.8	40.82S	174.82E	64	3.3	0.2	38	29
8011	AUG 31	1549 60.0	40.84S	174.72E	13	2.5	0.3	15	11
8014	AUG 31	1936 6.5	40.80S	175.44E	24	2.2	0.2	12	8
8020	SEP 01	0251 7.8	41.58S	174.69E	28	2.5	0.1	12	10
8021	SEP 01	0311 51.7	41.65S	174.95E	26	2.8	0.2	15	11
8042	SEP 01	2148 35.8	40.89S	175.97E	30	2.6	0.3	16	11
8044	SEP 01	2317 16.4	41.02S	175.44E	5R	2.1	0.1	8	6
8046	SEP 02	0035 51.4	41.00S	174.86E	31	2.0	0.1	10	7
8049	SEP 02	0501 16.7	40.77S	175.35E	29	2.7	0.2	12	10
8051	SEP 02	0640 9.4	41.25S	174.75E	50	2.4	0.1	15	12
8053	SEP 02	0836 30.7	41.03S	175.41E	26	2.2	0.1	13	11
8061	SEP 02	1907 22.0	41.13S	174.19E	51	2.2	0.1	9	6
8069	SEP 03	0716 56.5	40.98S	175.59E	27	2.2	0.1	14	8
8070	SEP 03	0750 9.5	41.78S	174.37E	15	2.2	0.1	8	6
8074	SEP 03	0900 17.2	40.84S	174.55E	5R	2.7	0.2	16	12
8077	SEP 03	1032 35.4	41.24S	174.64E	33	2.4	0.1	16	12
8081	SEP 03	1149 22.0	41.04S	174.56E	57	2.6	0.1	12	9
8102	SEP 04	0204 58.0	41.27S	174.66E	58	2.1	0.1	9	6
8103	SEP 04	0222 38.3	41.08S	174.37E	66	2.9	0.1	14	11
8107	SEP 04	0649 5.5	40.64S	173.51E	114	2.9	0.3	14	11
8109	SEP 04	0655 43.6	41.01S	175.43E	26	2.0	0.1	13	8
8118	SEP 04	1029 45.1	41.33S	173.75E	51	2.1	0.1	8	5
8120	SEP 04	1147 30.2	41.64S	175.34E	26	2.1	0.1	8	5
8124	SEP 04	1514 23.8	41.61S	174.75E	27	3.1	0.2	19	14
8125	SEP 04	1608 7.2	41.05S	174.53E	54	2.6	0.1	13	11
8134	SEP 04	2023 0.6	41.15S	174.74E	29	3.1	0.2	20	16
8138	SEP 04	2347 30.5	41.70S	173.96E	32	2.3	0.2	11	7
8156	SEP 05	0850 13.8	40.89S	174.48E	43	3.1	0.2	21	16
8157	SEP 05	0853 13.8	41.75S	174.39E	26	2.5	0.2	10	7
8163	SEP 05	1126 28.2	41.74S	174.37E	25	2.3	0.1	12	7
8178	SEP 05	2144 27.9	40.92S	175.78E	32	2.5	0.1	11	8
8179	SEP 05	2251 44.3	41.57S	174.15E	32	2.6	0.2	20	14
8185	SEP 06	0904 53.5	40.84S	174.10E	91	3.5	0.3	26	19
8191	SEP 06	1624 46.6	41.63S	174.39E	12R	2.1	0.2	12	8
8197	SEP 06	1727 25.3	41.15S	175.20E	23	2.0	0.1	12	8
8199	SEP 06	1907 57.2	40.50S	174.44E	48	2.5	0.2	7	5
8206	SEP 07	0200 8.4	40.71S	174.82E	14	2.6	0.1	12	8
8214	SEP 07	0614 58.4	41.39S	174.87E	32	2.2	0.2	6	3
8215	SEP 07	0641 24.0	41.31S	173.98E	49	2.8	0.2	10	6
8218	SEP 07	0821 27.2	41.01S	175.43E	27	2.1	0.1	10	7
8219	SEP 07	0821 57.9	41.01S	175.42E	24	2.3	0.1	10	7

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8222	SEP 07	1344 35.6	41.02S	175.44E	26	2.6	0.1	13	9
8227	SEP 07	1847 53.8	41.03S	174.91E	51	3.1	0.2	19	14
8228	SEP 07	2209 55.2	40.88S	174.56E	12	2.8	0.2	13	10
8236	SEP 08	0551 47.8	40.58S	174.38E	54	2.9	0.3	18	12
8243	SEP 08	0908 48.4	41.75S	174.52E	30	2.4	0.1	12	8
8259	SEP 08	2251 4.0	41.02S	174.86E	30	2.3	0.1	10	8
8265	SEP 09	0929 30.1	41.12S	174.79E	31	2.5	0.0	8	6
8266	SEP 09	1123 52.8	40.94S	175.79E	29	2.2	0.1	8	5
8279	SEP 10	0951 13.6	40.90S	175.07E	33	2.1	0.1	10	5
8281	SEP 10	1058 54.1	40.59S	174.12E	78	3.1	0.3	19	16
8288	SEP 10	1346 39.0	40.88S	175.70E	31	2.9	0.2	16	9
8297	SEP 10	1806 30.9	41.71S	174.50E	32	2.5	0.1	9	7
8302	SEP 11	0031 10.4	41.30S	175.16E	26	2.9	0.1	17	11
8310	SEP 11	0733 1.9	41.55S	174.28E	12R	2.0	0.2	8	5
8320	SEP 11	1450 15.2	41.61S	174.77E	29	2.0	0.1	12	9
8322	SEP 11	1625 41.0	41.22S	174.28E	41	2.1	0.1	9	6
8344	SEP 12	1016 30.7	40.90S	174.67E	41	2.9	0.2	19	15
8347	SEP 12	1212 27.6	41.19S	174.64E	38	3.6F	0.2	45	35
8354	SEP 12	1857 43.5	41.02S	175.42E	27	2.2	0.1	9	8
8357	SEP 12	2356 34.1	41.08S	174.17E	53	2.4	0.1	9	6
8360	SEP 13	0145 2.9	41.69S	174.24E	11	2.4	0.2	12	10
8385	SEP 14	0958 35.2	41.56S	174.29E	5R	2.4	0.3	17	12
8388	SEP 14	1155 8.6	41.61S	173.71E	41	2.7	0.3	21	14
8390	SEP 14	1726 50.2	40.55S	173.80E	107	2.8	0.3	17	12
8400	SEP 15	0043 30.9	41.03S	175.92E	30	2.7	0.2	13	10
8404	SEP 15	0543 1.6	41.27S	174.44E	34	2.2	0.1	10	8
8411	SEP 15	0811 17.2	41.12S	175.07E	20	2.8	0.2	15	11
8420	SEP 15	1326 46.4	40.86S	174.72E	15	2.4	0.2	11	8
8422	SEP 15	1659 0.1	40.82S	173.96E	39	2.3	0.3	10	5
8424	SEP 15	1714 12.5	41.72S	173.72E	76	2.3	0.1	10	7
8427	SEP 15	2017 41.4	41.32S	173.79E	48	2.3	0.2	8	6
8444	SEP 16	0748 38.4	40.93S	174.11E	57	2.3	0.2	8	6
8454	SEP 16	1324 26.7	41.74S	174.65E	29	2.7	0.1	17	12
8455	SEP 16	1342 15.5	41.70S	174.30E	11	2.3	0.3	16	12
8459	SEP 16	1542 1.1	40.76S	174.41E	5R	2.5	0.4	14	10
8463	SEP 16	1828 26.4	40.94S	175.65E	29	2.0	0.1	9	6
8484	SEP 17	0855 28.2	41.24S	175.25E	27	2.8	0.1	13	9
8499	SEP 17	2035 37.1	40.83S	175.50E	25	2.5	0.2	12	8
8508	SEP 18	0847 39.4	41.67S	174.25E	5R	2.2	0.1	9	6
8514	SEP 18	1535 9.2	40.90S	175.09E	30	2.7	0.1	12	9
8524	SEP 19	0016 37.7	41.04S	174.57E	48	2.4	0.1	12	8
8525	SEP 19	0143 41.7	40.53S	175.55E	31	2.2	0.2	6	5
8532	SEP 19	0554 30.6	41.51S	173.65E	59	3.0	0.2	18	12
8536	SEP 19	0901 12.9	41.20S	173.58E	61	2.4	0.3	8	6
8543	SEP 19	1257 51.6	41.02S	175.40E	21	2.1	0.1	10	7

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8544	SEP	19	1302	56.1	41.61S	174.17E	15	2.1	0.1	9	5
8547	SEP	19	1635	25.1	41.19S	174.68E	60	2.2	0.1	8	6
8550	SEP	19	1732	13.8	41.86S	174.05E	17	2.4	0.2	11	7
8551	SEP	19	1826	28.3	41.31S	175.28E	29	2.3	0.1	11	8
8552	SEP	19	1834	41.1	40.65S	175.55E	27	2.5	0.3	10	8
8553	SEP	19	1918	20.2	41.21S	173.60E	68	2.7	0.2	14	9
8559	SEP	20	0400	47.9	40.99S	174.43E	45	2.4	0.1	10	8
8568	SEP	20	1412	54.8	41.03S	173.51E	93	4.0F	0.3	33	27
8571	SEP	20	1819	33.0	41.71S	174.52E	27	2.2	0.2	14	12
8578	SEP	20	2343	14.6	41.73S	174.54E	26	2.8	0.3	15	12
8579	SEP	20	2344	45.3	41.52S	174.40E	56	3.3	0.2	21	18
8581	SEP	21	0045	47.5	41.25S	175.25E	29	2.3	0.1	12	9
8584	SEP	21	0305	36.8	41.94S	174.53E	31	2.6	0.1	10	8
8587	SEP	21	0510	1.3	41.40S	174.43E	56	2.6	0.1	12	9
8592	SEP	21	0916	37.6	41.32S	173.76E	53	2.4	0.1	10	6
8595	SEP	21	1110	10.1	41.72S	174.50E	32	2.1	0.1	8	6
8596	SEP	21	1126	32.3	41.28S	173.91E	51	2.8	0.3	19	15
8599	SEP	21	1421	22.1	41.70S	174.52E	27	2.2	0.1	11	9
8600	SEP	21	1438	50.9	41.70S	174.52E	26	2.1	0.1	7	5
8610	SEP	21	2248	51.8	40.85S	174.49E	43	3.1	0.2	26	19
8613	SEP	22	0539	8.2	41.61S	175.38E	12	2.2	0.2	9	7
8614	SEP	22	0541	33.5	41.56S	175.34E	15	2.4	0.1	11	8
8618	SEP	22	0823	58.8	41.59S	175.36E	15	2.3	0.1	10	6
8625	SEP	22	1244	38.1	40.56S	174.35E	65	2.1	0.2	11	6
8629	SEP	22	1342	20.4	40.95S	175.19E	31	2.2	0.1	10	8
8639	SEP	22	1735	9.5	41.64S	173.76E	45	2.6	0.2	14	10
8643	SEP	22	1951	51.4	41.55S	174.28E	5R	2.1	0.2	11	7
8656	SEP	23	0215	29.0	41.72S	173.91E	18	2.3	0.2	9	6
8680	SEP	23	1145	6.9	40.60S	174.11E	81	2.9	0.3	20	15
8686	SEP	23	1624	53.5	40.69S	174.20E	68	3.7	0.2	39	31
8689	SEP	23	1951	46.8	41.15S	174.51E	39	3.3	0.3	28	20
8693	SEP	23	2040	51.3	41.70S	174.28E	5R	2.6	0.2	16	13
8702	SEP	24	0334	46.2	41.27S	173.71E	87	2.6	0.2	11	8
8719	SEP	24	1502	59.3	41.12S	174.02E	53	2.8	0.2	20	14
8739	SEP	25	1201	8.1	41.21S	174.33E	45	2.2	0.1	9	5
8741	SEP	25	1217	13.2	41.49S	174.17E	32	2.5	0.2	9	6
8743	SEP	25	1302	38.1	41.09S	174.04E	54	2.7	0.2	11	7
8747	SEP	26	0137	24.7	40.70S	174.44E	69	2.2	0.1	6	4
8749	SEP	26	0605	52.4	41.67S	173.94E	15	2.8	0.3	19	14
8755	SEP	26	1255	41.4	41.08S	174.55E	37	2.3	0.1	12	9
8759	SEP	26	1622	55.6	40.68S	175.84E	25	2.5	0.1	7	5
8761	SEP	26	1700	44.0	41.01S	175.61E	26	2.8	0.1	16	10
8775	SEP	27	0446	29.2	41.00S	175.43E	28	2.2	0.2	10	7
8777	SEP	27	0723	26.9	41.01S	175.42E	22	2.5	0.2	15	10
8789	SEP	27	1557	51.2	41.83S	174.60E	12R	2.2	0.3	13	10

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
8796	SEP 28	0058 16.1	40.82S	174.56E	42	2.6	0.2	14	11
8802	SEP 28	0714 25.9	40.95S	175.51E	26	2.6	0.1	13	10
8806	SEP 28	0922 21.4	40.89S	174.54E	9	2.0	0.2	8	6
8810	SEP 28	1916 24.3	40.96S	175.16E	26	3.5F	0.2	23	19
8811	SEP 28	1922 50.6	41.01S	175.41E	28	2.6	0.1	10	8
8812	SEP 28	2202 6.3	40.95S	175.17E	29	3.1	0.2	15	12
8816	SEP 29	0350 18.2	41.63S	173.99E	33R	2.3	0.1	7	4
8822	SEP 29	1123 34.0	41.13S	174.69E	29	2.0	0.1	5	4
8839	SEP 30	0803 57.2	41.73S	174.31E	30	2.1	0.0	7	6
8840	SEP 30	0810 36.5	41.39S	175.02E	23	2.1	0.1	8	6
8841	SEP 30	1308 50.8	40.91S	175.87E	41	3.1	0.2	12	10
8856	OCT 01	0305 17.5	40.56S	174.17E	91	3.0	0.2	13	10
8870	OCT 01	1504 52.7	41.56S	174.37E	12	4.7F	0.2	28	23
8871	OCT 01	1506 14.5	41.55S	174.37E	11	3.1	0.3	18	14
8872	OCT 01	1508 29.8	41.56S	174.38E	12R	2.2	0.2	12	9
8873	OCT 01	1515 39.2	41.57S	174.39E	10	2.4	0.2	14	11
8874	OCT 01	1520 8.8	41.56S	174.38E	12	2.4	0.2	13	9
8875	OCT 01	1523 52.3	41.55S	174.35E	13	2.2	0.2	10	7
8879	OCT 01	1711 22.4	41.55S	174.37E	13	2.8	0.2	18	14
8882	OCT 01	2205 21.0	41.55S	174.39E	12R	2.3	0.3	12	9
8885	OCT 01	2355 25.4	41.56S	174.39E	10	3.6	0.3	22	19
8888	OCT 02	0049 47.3	41.56S	174.38E	14	2.1	0.2	11	8
8889	OCT 02	0139 14.7	41.55S	174.39E	11	2.8	0.2	19	13
8893	OCT 02	0711 32.8	41.41S	175.00E	28	2.3	0.1	20	12
8894	OCT 02	0852 31.1	41.55S	174.37E	17	2.0	0.1	12	9
8900	OCT 02	1445 39.3	41.58S	174.41E	15	2.8	0.2	23	16
8901	OCT 02	1504 22.6	41.18S	175.06E	19	3.6F	0.2	24	18
8903	OCT 02	1522 10.1	41.17S	175.06E	22	2.3	0.2	14	9
8904	OCT 02	1528 31.0	41.17S	175.06E	21	3.1	0.2	16	13
8910	OCT 02	1729 18.3	41.45S	174.37E	13	2.1	0.1	10	6
8914	OCT 02	1921 10.9	41.56S	174.39E	10	2.8	0.2	20	15
8918	OCT 02	2336 16.2	41.08S	174.92E	50	2.2	0.1	8	6
8928	OCT 03	0912 51.0	41.58S	174.39E	14	2.2	0.2	12	8
8931	OCT 03	1121 41.3	41.01S	175.44E	26	2.2	0.1	10	6
8932	OCT 03	1356 59.6	41.80S	174.25E	14	3.4	0.4	22	17
8937	OCT 03	1548 57.2	41.56S	174.37E	14	2.3	0.2	12	9
8938	OCT 03	1625 10.4	40.71S	174.32E	56	3.1	0.3	16	12
8940	OCT 03	1703 39.7	41.57S	174.39E	5R	2.2	0.2	12	9
8953	OCT 04	1051 54.2	41.02S	175.20E	21	2.0	0.2	10	5
8955	OCT 04	1121 7.5	41.56S	174.38E	14	2.6	0.2	17	13
8956	OCT 04	1127 56.1	41.26S	175.25E	25	2.2	0.1	14	9
8963	OCT 04	2216 15.5	40.97S	175.44E	22	2.4	0.2	11	9
8976	OCT 05	2123 26.2	40.57S	175.96E	54	2.6	0.2	10	8
8977	OCT 05	2242 56.4	40.86S	175.09E	40	2.3	0.2	12	8
8978	OCT 05	2254 45.3	41.83S	174.07E	5R	2.6	0.2	14	11

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8984	OCT 06	0802 38.5	41.64S	174.85E	22	2.2	0.1	7	6
8988	OCT 06	0957 24.7	40.92S	174.92E	45	2.7	0.1	14	11
8994	OCT 06	1509 17.2	41.36S	173.87E	59	2.7	0.2	16	10
8995	OCT 06	1627 45.3	40.62S	174.78E	25	2.1	0.2	14	9
8998	OCT 06	1858 17.1	41.62S	173.93E	10	2.6	0.3	16	12
9000	OCT 06	1945 4.3	41.00S	175.44E	25	2.0	0.2	11	8
9001	OCT 06	2011 21.1	41.61S	174.77E	29	2.1	0.2	11	7
9003	OCT 06	2142 55.4	41.73S	174.53E	28	3.0	0.3	18	14
9005	OCT 06	2235 13.3	41.56S	174.32E	25	2.0	0.1	10	9
9010	OCT 07	0321 25.4	41.66S	174.22E	26	2.5	0.2	12	9
9012	OCT 07	0402 23.0	41.65S	174.19E	29	2.5	0.1	16	11
9015	OCT 07	0539 35.5	40.89S	174.55E	12R	2.3	0.2	8	6
9020	OCT 07	0944 22.5	41.72S	174.02E	9	2.4	0.2	11	8
9031	OCT 07	1537 8.9	40.54S	175.94E	25	2.5	0.3	12	9
9034	OCT 07	1703 17.4	41.57S	174.39E	12R	2.2	0.3	12	8
9038	OCT 07	1908 53.2	41.57S	174.38E	12R	2.0	0.2	10	8
9042	OCT 07	2046 34.4	41.09S	174.66E	60	2.6	0.1	11	9
9049	OCT 08	0733 33.1	41.29S	174.32E	39	2.7	0.2	14	10
9059	OCT 08	1929 40.1	41.54S	174.37E	22	2.2	0.2	11	7
9064	OCT 09	0423 35.7	41.52S	174.36E	29	2.2	0.3	11	8
9065	OCT 09	0429 44.1	41.56S	174.38E	14	2.4	0.2	13	10
9068	OCT 09	1101 28.4	41.65S	173.86E	15	2.4	0.2	10	8
9076	OCT 09	1624 14.3	40.77S	174.74E	39	3.3	0.2	25	21
9083	OCT 09	2247 59.5	41.04S	174.34E	67	2.5	0.1	10	7
9090	OCT 10	0605 19.5	41.01S	175.43E	27	2.5	0.1	12	9
9092	OCT 10	0955 34.1	41.44S	174.56E	31	2.1	0.2	10	8
9100	OCT 10	1509 40.6	41.75S	174.17E	11	2.0	0.2	9	7
9107	OCT 10	2145 7.0	41.15S	174.60E	32	3.8F	0.2	26	21
9112	OCT 11	0021 45.0	41.56S	174.22E	5R	2.6	0.3	18	12
9113	OCT 11	0113 1.2	41.15S	174.60E	33	2.8	0.1	17	14
9115	OCT 11	0325 15.5	40.97S	175.61E	26	2.2	0.1	10	7
9118	OCT 11	0650 58.8	41.64S	173.64E	54	2.9	0.2	16	10
9121	OCT 11	0908 27.8	40.84S	175.14E	29	2.7	0.2	14	10
9127	OCT 11	1423 46.7	41.64S	174.28E	14	2.6	0.2	17	12
9132	OCT 11	1845 44.1	40.75S	175.87E	12	2.2	0.2	11	8
9133	OCT 11	1918 45.9	41.90S	174.75E	33	2.9	0.2	16	12
9134	OCT 11	2013 20.5	41.87S	174.74E	25	2.4	0.1	13	9
9135	OCT 11	2249 46.2	41.56S	174.39E	9	2.9	0.2	22	15
9139	OCT 12	0604 5.2	41.56S	174.38E	16	2.5	0.1	14	10
9140	OCT 12	0707 3.8	41.58S	174.40E	7	2.9	0.2	19	13
9144	OCT 12	2037 8.6	41.72S	174.14E	14	2.5	0.1	11	7
9145	OCT 12	2040 31.0	40.84S	173.95E	64	2.6	0.2	8	5
9154	OCT 13	0252 24.3	41.57S	174.37E	22	2.2	0.1	10	6
9155	OCT 13	0532 24.0	41.01S	175.43E	26	2.2	0.1	10	7
9161	OCT 13	1112 24.7	40.98S	175.27E	28	2.1	0.1	15	10

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9162	OCT 13	1144 57.2	40.60S	173.96E	83	2.7	0.1	6	5
9172	OCT 13	1647 45.8	41.96S	173.89E	18	2.1	0.3	11	6
9190	OCT 13	2359 28.9	41.60S	174.06E	19	2.1	0.2	9	6
9196	OCT 14	0447 5.3	42.00S	174.02E	12R	2.7	0.3	20	15
9199	OCT 14	0547 25.5	40.57S	174.39E	82	3.2	0.2	22	15
9208	OCT 14	1054 0.8	41.96S	173.96E	12R	2.2	0.2	10	7
9212	OCT 14	1413 17.1	41.39S	174.35E	31	2.2	0.1	14	8
9219	OCT 14	2026 52.3	40.60S	174.09E	80	3.6	0.3	35	27
9231	OCT 15	1736 44.4	41.47S	174.51E	21	2.3	0.2	14	11
9239	OCT 16	0234 4.8	41.48S	174.25E	16	2.3	0.1	13	8
9240	OCT 16	0257 22.0	40.56S	174.41E	43	2.4	0.1	9	6
9241	OCT 16	0325 0.4	41.66S	174.09E	32	2.6	0.1	14	10
9247	OCT 16	1030 42.7	41.56S	174.38E	14	2.4	0.1	17	12
9255	OCT 16	1700 2.2	40.88S	174.55E	12	2.4	0.2	15	11
9256	OCT 16	1722 7.0	41.63S	174.58E	28	2.3	0.1	11	9
9262	OCT 16	2118 20.6	40.53S	174.71E	73	3.2	0.2	25	19
9272	OCT 17	0212 28.4	41.56S	174.38E	11	2.5	0.2	16	12
9282	OCT 17	1229 27.7	41.35S	174.32E	57	2.3	0.1	9	6
9289	OCT 17	1458 42.2	40.98S	174.59E	65	2.5	0.3	11	9
9290	OCT 17	1703 8.5	41.43S	174.29E	23	2.0	0.2	9	6
9291	OCT 17	1954 7.5	40.72S	175.96E	29	2.6	0.2	9	7
9292	OCT 17	2000 58.6	40.57S	174.49E	24	2.8	0.2	15	11
9296	OCT 17	2118 39.9	41.68S	174.18E	33R	2.3	0.1	8	6
9297	OCT 17	2155 22.0	40.70S	175.45E	24	2.3	0.3	9	6
9299	OCT 17	2340 31.5	41.36S	173.70E	64	2.7	0.2	14	9
9300	OCT 17	2349 21.2	41.42S	174.63E	22	2.2	0.2	12	10
9303	OCT 18	0204 50.7	40.98S	175.00E	40	2.0	0.1	9	7
9306	OCT 18	0630 50.4	41.07S	174.00E	52	2.4	0.2	13	8
9313	OCT 18	1105 56.3	40.72S	174.61E	42	2.4	0.2	11	8
9323	OCT 18	1819 43.7	41.48S	173.95E	40	3.0	0.2	24	18
9326	OCT 18	2104 3.8	41.38S	175.11E	29	3.1	0.1	21	15
9333	OCT 19	0016 7.1	40.56S	174.92E	28	2.3	0.1	10	8
9336	OCT 19	0414 46.7	40.81S	173.64E	130	2.7	0.3	9	8
9342	OCT 19	0829 18.9	40.90S	174.88E	20	2.1	0.2	13	11
9345	OCT 19	0831 11.5	41.29S	174.51E	33	2.0	0.1	13	11
9353	OCT 19	1652 39.3	41.69S	173.94E	18	2.5	0.2	15	10
9362	OCT 19	2322 12.6	40.96S	175.17E	25	3.0	0.3	25	17
9373	OCT 20	0629 10.4	41.59S	173.53E	59	2.7	0.3	22	15
9388	OCT 20	1815 21.7	41.48S	175.56E	24	2.2	0.1	9	6
9390	OCT 20	1857 1.8	40.57S	174.66E	26	2.0	0.2	8	6
9392	OCT 20	1934 5.2	41.68S	174.22E	5R	2.9	0.3	20	17
9394	OCT 20	2147 43.3	41.31S	173.56E	60	2.6	0.2	8	5
9395	OCT 20	2203 6.0	40.79S	174.90E	11	2.8	0.2	19	16
9397	OCT 20	2346 44.1	40.95S	174.15E	57	2.3	0.2	12	9
9407	OCT 21	0414 24.9	40.56S	174.15E	84	3.1	0.3	38	25

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9427	OCT 21	1758 6.6	40.83S	174.62E	41	3.1	0.3	30	23
9430	OCT 21	1911 44.1	40.72S	174.24E	57	2.3	0.2	10	6
9433	OCT 21	1951 40.2	40.93S	175.29E	25	3.0	0.3	31	21
9437	OCT 21	2159 39.9	40.56S	175.74E	38	3.2	0.2	28	24
9445	OCT 22	0153 4.0	40.82S	175.75E	31	2.6	0.2	14	10
9448	OCT 22	0338 35.7	41.72S	174.45E	54	3.2	0.1	28	19
9453	OCT 22	0719 24.9	41.69S	174.53E	31	2.5	0.2	19	14
9455	OCT 22	0901 23.0	40.69S	175.11E	33	2.0	0.1	12	8
9463	OCT 22	1139 18.5	40.90S	175.49E	26	2.1	0.1	10	7
9464	OCT 22	1149 18.0	40.90S	175.50E	29	2.2	0.1	10	7
9467	OCT 22	1303 55.4	41.01S	174.16E	53	2.1	0.1	8	5
9493	OCT 23	0513 26.7	41.72S	173.88E	12R	2.5	0.3	16	12
9496	OCT 23	0646 39.8	41.77S	173.89E	13	2.2	0.2	9	6
9501	OCT 23	0912 59.5	41.75S	173.89E	8	3.0	0.3	24	18
9517	OCT 23	1840 14.7	41.11S	174.52E	55	2.0	0.0	6	4
9518	OCT 23	1955 36.3	41.33S	174.34E	33	2.2	0.1	11	8
9519	OCT 23	2057 42.4	40.92S	175.29E	29	2.8	0.2	16	11
9529	OCT 24	0306 25.2	40.59S	174.39E	52	2.7	0.2	18	15
9557	OCT 24	1921 51.5	40.60S	175.66E	29	2.1	0.2	11	7
9564	OCT 24	2321 2.4	41.02S	175.40E	26	2.1	0.1	10	7
9582	OCT 25	1053 54.7	40.77S	173.72E	82	2.8	0.2	17	10
9587	OCT 25	1718 16.0	41.43S	174.36E	62	2.9	0.1	26	19
9609	OCT 26	0551 27.3	40.91S	175.19E	30	2.0	0.1	9	7
9616	OCT 26	1135 34.1	41.66S	174.22E	5R	2.1	0.3	10	8
9620	OCT 26	1212 29.8	41.40S	173.71E	49	2.4	0.1	8	5
9637	OCT 26	1736 59.7	41.66S	174.28E	5R	2.4	0.2	17	12
9644	OCT 26	2321 35.0	41.47S	174.26E	34	2.6	0.2	14	11
9650	OCT 27	0308 32.5	41.65S	174.72E	30	2.3	0.2	11	9
9659	OCT 27	0853 38.0	41.19S	174.76E	30	3.5F	0.1	32	25
9666	OCT 27	1259 42.9	41.69S	174.24E	5R	2.2	0.3	11	7
9668	OCT 27	1409 48.7	41.17S	174.76E	31	2.2	0.0	11	9
9677	OCT 27	1712 35.1	41.03S	175.39E	22	2.3	0.1	10	8
9679	OCT 27	1821 48.2	40.55S	174.20E	80	2.5	0.1	9	7
9680	OCT 27	2028 59.5	41.27S	174.45E	18	2.2	0.3	12	9
9682	OCT 27	2123 31.3	41.40S	174.61E	27	2.0	0.2	10	8
9684	OCT 27	2244 35.4	41.70S	173.99E	12	2.6	0.2	14	11
9686	OCT 27	2344 54.0	40.94S	174.71E	51	2.2	0.1	8	6
9694	OCT 28	0739 42.2	41.01S	175.41E	28	2.0	0.2	14	8
9695	OCT 28	0823 24.3	41.38S	175.60E	17	2.6	0.1	14	9
9704	OCT 28	1309 55.6	40.82S	174.76E	17	3.1	0.2	17	14
9705	OCT 28	1310 0.1	40.80S	174.74E	13	3.1	0.2	19	13
9706	OCT 28	1336 12.1	41.38S	175.59E	18	2.1	0.1	13	9
9708	OCT 28	1413 9.2	40.57S	174.68E	28	2.5	0.3	18	13
9715	OCT 28	1810 25.2	41.03S	173.78E	59	2.5	0.2	7	4
9718	OCT 28	1948 52.0	41.49S	175.54E	27	2.1	0.2	9	7

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9719	OCT 28	2032 8.9	41.31S	173.84E	53	2.5	0.1	9	5
9721	OCT 28	2059 26.3	40.52S	174.74E	31	2.2	0.2	11	7
9731	OCT 29	0539 42.1	41.98S	174.24E	12R	2.9	0.3	24	18
9751	OCT 29	1830 36.4	41.46S	174.13E	34	2.1	0.1	8	5
9755	OCT 29	1929 1.9	40.71S	175.90E	25	2.5	0.2	10	7
9757	OCT 29	2014 37.6	40.76S	173.62E	85	2.8	0.1	12	8
9764	OCT 30	0549 47.8	40.99S	175.80E	21	2.6	0.3	14	10
9766	OCT 30	0817 56.7	41.68S	174.19E	21	2.1	0.2	10	6
9776	OCT 30	1356 49.6	41.74S	174.53E	26	2.2	0.1	9	7
9780	OCT 30	1632 19.1	40.78S	175.00E	51	5.2F	0.2	53	42
9781	OCT 30	1640 52.9	40.79S	175.29E	26	2.4	0.2	11	7
9782	OCT 30	1810 43.4	41.84S	174.11E	16	2.6	0.2	14	9
9784	OCT 30	2118 11.2	40.58S	174.35E	12R	2.2	0.2	9	7
9791	OCT 31	0633 43.4	41.19S	174.76E	32	2.5	0.1	14	11
9793	OCT 31	0650 23.7	40.89S	174.73E	11	2.0	0.2	8	6
9796	OCT 31	0842 2.7	41.00S	175.43E	25	2.5	0.2	14	9
9799	OCT 31	0934 37.8	41.45S	175.07E	11	2.1	0.1	11	8
9800	OCT 31	1000 53.0	41.26S	173.69E	64	2.6	0.2	14	9
9802	OCT 31	1351 47.4	41.00S	174.69E	39	4.2F	0.2	39	34
9805	OCT 31	1450 17.6	41.69S	173.94E	14	2.5	0.2	14	10
9808	OCT 31	1535 42.6	41.71S	174.00E	5R	2.0	0.2	8	6
9809	OCT 31	1538 12.1	41.68S	174.18E	57	2.6	0.1	14	10
9814	OCT 31	1625 2.3	40.96S	174.69E	35	2.8	0.2	16	12
9816	OCT 31	1707 58.2	41.67S	173.95E	15	2.7	0.2	17	12
9819	OCT 31	1913 53.6	41.19S	173.55E	59	2.4	0.2	8	5
9821	OCT 31	2104 35.3	40.94S	174.68E	34	2.2	0.2	10	7
9833	NOV 01	0527 37.4	41.08S	174.13E	78	2.4	0.2	6	4
9943	NOV 01	1232 14.9	40.67S	173.57E	115	4.0	0.2	46	33
10058	NOV 01	1931 59.6	41.01S	175.41E	26	2.1	0.1	8	6
10090	NOV 02	0420 57.4	41.68S	174.23E	5R	2.1	0.3	9	7
10103	NOV 02	0747 20.8	41.11S	174.84E	57	2.4	0.1	9	8
10108	NOV 02	0943 5.0	41.58S	174.33E	26	2.4	0.1	14	11
10122	NOV 02	1414 29.1	41.02S	175.41E	25	2.3	0.1	10	7
10138	NOV 02	1706 18.6	41.80S	174.10E	31	2.3	0.1	14	9
10153	NOV 02	2201 41.4	41.39S	174.01E	45	2.9	0.2	16	10
10177	NOV 03	0551 49.3	41.17S	174.20E	46	2.0	0.2	8	5
10208	NOV 03	1410 7.0	40.53S	175.88E	54	3.2	0.2	29	24
10214	NOV 03	1511 24.3	40.89S	175.76E	28	2.3	0.1	9	7
10217	NOV 03	1537 32.8	41.27S	174.97E	22	2.6	0.1	10	6
10226	NOV 03	1747 25.9	40.64S	175.47E	30	2.2	0.2	7	6
10229	NOV 03	1900 12.6	40.87S	175.60E	16	2.8	0.3	13	10
10263	NOV 04	0228 32.5	40.77S	174.44E	59	2.3	0.2	10	8
10271	NOV 04	0442 52.6	40.62S	175.85E	29	2.9	0.2	20	14
10274	NOV 04	0506 41.2	40.57S	175.87E	30	2.4	0.3	8	5
10276	NOV 04	0518 36.9	41.04S	174.37E	48	3.3	0.1	24	16

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
10293	NOV 04	0658 24.4	40.99S	173.72E	66	2.2	0.2	11	6
10327	NOV 04	1140 0.1	41.10S	174.58E	56	2.6	0.1	13	10
10340	NOV 04	1320 28.7	40.59S	174.98E	43	3.8	0.2	38	31
10422	NOV 05	0533 4.2	41.29S	174.65E	28	3.2	0.2	24	20
10426	NOV 05	0610 32.5	40.70S	175.99E	26	3.4	0.3	28	21
10431	NOV 05	0740 51.8	40.73S	174.88E	35	2.3	0.1	7	5
10442	NOV 05	0906 31.8	41.42S	175.01E	25	3.2	0.1	23	17
10443	NOV 05	0906 55.9	41.42S	175.01E	24	2.7	0.1	11	8
10444	NOV 05	0916 36.3	41.42S	175.01E	26	2.9	0.1	18	13
10448	NOV 05	1015 59.7	41.94S	174.05E	18	3.8F	0.4	23	19
10457	NOV 05	1137 9.7	41.05S	173.54E	85	3.1	0.3	22	16
10489	NOV 05	1533 32.3	40.59S	173.57E	102	2.6	0.2	15	10
10506	NOV 05	1736 33.4	41.23S	174.33E	39	2.5	0.1	13	9
10554	NOV 06	0513 60.0	41.77S	174.35E	12R	2.0	0.1	9	6
10585	NOV 06	1416 50.3	40.89S	174.95E	59	2.1	0.0	8	7
10587	NOV 06	1541 14.5	41.09S	175.51E	30	2.7	0.1	17	12
10589	NOV 06	1621 23.6	41.46S	173.66E	50	2.3	0.0	9	6
10610	NOV 07	0040 46.2	40.85S	173.54E	113	2.9	0.5	9	5
10624	NOV 07	0628 44.4	41.46S	173.92E	43	2.2	0.2	8	6
10646	NOV 07	1347 20.2	40.94S	175.47E	26	2.8	0.2	16	11
10655	NOV 07	1612 44.7	41.62S	173.99E	19	2.3	0.1	7	5
10677	NOV 08	0146 16.5	41.29S	175.12E	27	3.0	0.2	19	14
10694	NOV 08	0728 22.3	40.92S	174.99E	57	2.9	0.1	14	11
10699	NOV 08	0955 23.7	41.22S	174.52E	34	2.8	0.2	18	13
10719	NOV 08	1433 45.0	40.99S	175.30E	25	2.0	0.1	12	9
10721	NOV 08	1538 52.3	40.83S	173.78E	78	3.0	0.2	20	15
10724	NOV 08	1632 32.2	41.66S	174.30E	14	2.5	0.1	14	9
10732	NOV 08	1917 26.9	40.80S	175.07E	28	2.9	0.2	21	18
10744	NOV 08	2235 3.0	41.35S	175.25E	22	2.4	0.1	14	10
10748	NOV 08	2303 38.5	41.23S	175.03E	21	2.5	0.2	17	12
10749	NOV 08	2311 18.6	41.12S	175.80E	31	2.3	0.2	11	8
10751	NOV 08	2344 43.3	41.03S	174.65E	34	2.6	0.1	16	13
10756	NOV 09	0322 58.3	40.96S	174.91E	31	2.8	0.2	17	13
10760	NOV 09	0435 6.8	40.91S	175.73E	29	2.7	0.2	16	11
10764	NOV 09	0500 24.8	40.93S	174.88E	39	2.1	0.1	7	4
10792	NOV 09	1015 56.7	40.97S	175.61E	22	2.1	0.2	10	7
10799	NOV 09	1229 21.5	40.94S	175.61E	25	2.3	0.1	9	7
10821	NOV 09	1842 14.1	40.97S	175.13E	27	2.3	0.1	9	7
10840	NOV 09	2323 21.4	40.53S	174.25E	74	2.9	0.3	19	14
10845	NOV 10	0017 16.7	41.00S	174.44E	39	2.2	0.2	11	7
10846	NOV 10	0022 55.9	41.28S	175.21E	19	2.3	0.1	9	7
10850	NOV 10	0130 17.7	41.03S	175.30E	35	2.2	0.1	10	8
10852	NOV 10	0236 14.1	41.06S	174.27E	49	2.5	0.1	13	9
10872	NOV 10	0949 7.4	41.00S	174.42E	42	2.5	0.2	12	8
10893	NOV 10	1613 9.8	41.66S	174.59E	29	2.3	0.2	11	8

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
10895	NOV 10	1614 58.4	41.66S	174.58E	30	2.5	0.2	12	10
10906	NOV 10	2002 17.0	41.62S	173.88E	19	2.5	0.2	11	8
10915	NOV 11	0319 31.0	41.01S	175.43E	30	2.1	0.1	11	8
10916	NOV 11	0344 5.1	41.41S	175.36E	17	2.2	0.1	8	5
10929	NOV 11	0754 24.9	41.18S	174.22E	56	2.6	0.2	11	7
10937	NOV 11	0943 40.9	41.87S	174.03E	37	2.2	0.1	7	6
10954	NOV 11	1552 58.8	41.25S	175.05E	20	2.2	0.1	12	10
10955	NOV 11	1553 41.0	41.64S	174.63E	28	2.0	0.1	6	4
10962	NOV 11	1718 40.7	41.20S	174.48E	38	2.5	0.1	16	12
10964	NOV 11	1753 40.4	41.30S	173.74E	65	3.4	0.3	25	19
10974	NOV 11	2002 16.9	41.32S	173.74E	50	2.6	0.2	11	7
10978	NOV 11	2041 26.0	41.38S	174.20E	44	3.7F	0.2	27	22
10980	NOV 11	2053 24.7	40.91S	175.17E	30	2.2	0.1	9	7
10995	NOV 12	0104 30.0	41.00S	175.43E	26	2.3	0.1	12	9
10996	NOV 12	0111 10.1	41.01S	175.42E	27	2.4	0.1	11	8
11002	NOV 12	0319 43.9	41.03S	174.51E	60	2.3	0.0	9	7
11007	NOV 12	0428 7.5	40.77S	175.26E	33	2.5	0.2	13	10
11008	NOV 12	0431 18.6	40.62S	175.96E	26	3.0	0.2	23	19
11015	NOV 12	0622 3.9	41.18S	175.05E	19	2.6	0.2	11	9
11017	NOV 12	0658 9.2	41.07S	175.05E	19	2.8	0.2	15	12
11103	NOV 12	1418 56.7	40.97S	174.52E	12	2.0	0.2	12	10
11149	NOV 12	1943 5.2	40.53S	174.28E	71	3.2	0.3	23	19
11161	NOV 12	2113 54.7	41.28S	174.97E	25	2.2	0.1	15	10
11186	NOV 13	0225 24.9	41.27S	175.24E	26	2.2	0.1	11	9
11189	NOV 13	0246 54.5	41.00S	175.44E	27	2.8	0.1	13	10
11203	NOV 13	0701 49.0	41.58S	174.72E	28	2.2	0.1	11	9
11231	NOV 13	1318 41.3	40.56S	173.88E	89	2.8	0.3	19	13
11258	NOV 13	1831 2.5	41.73S	174.46E	52	2.8	0.1	17	12
11278	NOV 14	0111 26.3	40.97S	173.76E	72	2.4	0.2	7	5
11336	NOV 15	0227 43.0	40.98S	174.56E	56	2.3	0.1	8	6
11363	NOV 15	1215 45.6	41.03S	175.42E	29	2.4	0.1	14	10
11378	NOV 15	1753 24.3	40.67S	175.89E	30	2.5	0.4	13	10
11408	NOV 16	0713 20.4	41.02S	174.34E	66	2.3	0.2	9	6
11429	NOV 16	1624 45.9	40.69S	174.33E	56	2.5	0.1	9	7
11436	NOV 16	1859 46.5	41.45S	175.28E	21	2.2	0.1	10	7
11437	NOV 16	2140 42.9	41.58S	174.06E	5R	2.2	0.1	8	6
11441	NOV 17	0153 38.7	41.63S	174.70E	24	2.2	0.1	8	5
11442	NOV 17	0232 9.9	41.12S	174.46E	61	2.2	0.2	8	6
11448	NOV 17	0820 33.6	40.56S	173.97E	87	3.2	0.3	25	18
11469	NOV 17	1943 42.1	41.65S	173.88E	14	2.3	0.2	10	6
11471	NOV 17	2029 41.6	41.63S	174.62E	30	2.3	0.1	7	5
11473	NOV 17	2223 6.4	41.01S	175.40E	27	2.2	0.2	13	9
11481	NOV 18	0447 6.8	40.94S	175.18E	26	2.6	0.2	14	10
11482	NOV 18	0724 4.0	41.32S	174.41E	18	2.7	0.2	13	10
11486	NOV 18	1416 9.5	41.64S	174.19E	5R	2.3	0.2	12	9

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
11489	NOV 18	1637 49.0	41.01S	175.43E	26	2.7	0.1	13	10
11490	NOV 18	1819 19.0	40.84S	175.84E	25	2.2	0.2	8	6
11494	NOV 19	0039 58.8	41.13S	175.34E	26	2.7	0.1	13	9
11499	NOV 19	0647 33.4	41.17S	174.75E	30	2.1	0.1	9	6
11505	NOV 19	0955 13.2	40.61S	174.23E	67	2.5	0.2	13	10
11506	NOV 19	1006 6.2	41.56S	174.80E	31	2.7	0.2	20	15
11524	NOV 19	2027 23.1	40.67S	174.21E	70	3.5	0.3	25	22
11527	NOV 19	2143 22.3	41.79S	174.48E	34	3.1	0.2	18	13
11528	NOV 19	2150 29.3	40.89S	174.76E	41	2.0	0.1	8	6
11534	NOV 19	2346 34.1	41.56S	174.38E	18	2.1	0.1	8	5
11541	NOV 20	1041 22.5	41.20S	173.72E	83	3.3	0.3	25	18
11549	NOV 20	2202 29.1	41.56S	174.38E	16	2.1	0.1	10	6
11559	NOV 21	1049 34.6	40.62S	174.34E	74	2.5	0.1	11	8
11570	NOV 21	1409 30.5	41.03S	175.37E	18	2.2	0.2	9	8
11571	NOV 21	1627 37.0	40.63S	173.95E	72	2.9	0.2	16	13
11574	NOV 21	2125 40.8	41.44S	174.57E	27	2.3	0.1	12	10
11579	NOV 22	0157 18.5	40.81S	174.78E	41	2.2	0.2	8	6
11587	NOV 22	0931 31.7	40.89S	175.19E	30	2.4	0.2	12	8
11595	NOV 22	1609 54.0	41.42S	175.01E	23	2.1	0.0	10	7
11601	NOV 22	1911 7.2	41.00S	175.24E	27	2.6	0.1	10	8
11603	NOV 22	2014 23.7	41.59S	174.66E	31	2.2	0.1	9	8
11610	NOV 23	0307 34.1	41.00S	174.66E	47	2.3	0.2	12	9
11618	NOV 23	0954 46.3	41.07S	173.94E	54	2.4	0.2	8	5
11664	NOV 24	0631 16.7	41.68S	174.63E	5R	2.1	0.3	9	7
11668	NOV 24	0818 32.8	41.46S	175.53E	23	2.2	0.1	8	6
11670	NOV 24	1152 43.5	40.54S	173.51E	142	3.4	0.3	31	24
11681	NOV 24	1857 28.6	41.62S	174.42E	14	2.6	0.2	15	14
11695	NOV 25	0123 11.5	40.67S	175.27E	46	3.0	0.2	30	24
11699	NOV 25	0416 2.5	41.08S	174.30E	45	2.1	0.1	8	5
11705	NOV 25	0757 4.0	41.94S	173.97E	12R	2.4	0.3	13	9
11715	NOV 25	1337 47.2	41.57S	174.19E	10	2.5	0.2	14	11
11718	NOV 25	1701 10.6	41.02S	175.41E	28	2.5	0.1	12	9
11724	NOV 25	1922 14.2	41.29S	173.71E	87	2.0	0.0	6	5
11726	NOV 25	1944 49.1	41.08S	175.92E	31	2.2	0.2	10	7
11743	NOV 26	0438 42.0	41.57S	174.20E	10	2.8	0.3	19	14
11745	NOV 26	0510 33.8	41.26S	174.32E	19	2.1	0.2	6	3
11750	NOV 26	0757 53.1	41.17S	174.64E	30	2.1	0.1	10	7
11759	NOV 26	1412 15.4	40.92S	175.76E	31	2.4	0.2	11	7
11763	NOV 26	1519 37.8	41.27S	175.24E	25	2.1	0.1	8	6
11768	NOV 26	1812 38.3	40.71S	174.51E	81	2.6	0.3	24	18
11772	NOV 26	2126 35.6	41.78S	174.55E	29	3.0	0.3	20	14
11775	NOV 27	0235 49.0	40.66S	175.50E	28	2.5	0.1	8	5
11777	NOV 27	0619 35.5	40.66S	174.00E	70	3.1	0.3	19	15
11779	NOV 27	0825 49.0	40.52S	174.81E	23	3.1	0.3	36	28
11785	NOV 27	1206 20.4	41.05S	175.62E	23	2.2	0.2	9	6

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
11790	NOV 27	1421 31.3	40.69S	175.89E	30	2.8	0.2	15	11
11791	NOV 27	1435 15.3	41.92S	174.59E	29	2.7	0.1	9	6
11792	NOV 27	1443 3.0	40.96S	175.50E	25	2.3	0.1	10	7
11795	NOV 27	1619 35.6	41.25S	174.66E	34	2.1	0.1	6	4
11796	NOV 27	1754 31.4	41.38S	175.71E	15	2.2	0.1	7	5
11797	NOV 27	1755 50.9	41.25S	174.77E	59	2.5	0.1	9	7
11802	NOV 27	2041 22.5	41.40S	175.72E	15	2.3	0.2	7	5
11815	NOV 28	0716 12.2	40.76S	175.15E	30	2.3	0.2	13	8
11818	NOV 28	1044 47.1	41.06S	174.56E	36	2.8	0.1	16	13
11832	NOV 28	2249 39.1	40.95S	175.54E	30	2.2	0.1	9	6
11835	NOV 29	0234 28.5	41.40S	174.58E	27	2.2	0.2	7	5
11836	NOV 29	0835 17.9	41.33S	174.29E	35	2.0	0.0	7	4
11837	NOV 29	0909 26.7	41.67S	173.97E	14	3.2	0.3	20	13
11838	NOV 29	1025 51.4	40.76S	175.90E	26	2.8	0.1	10	7
11839	NOV 29	1152 32.5	41.30S	174.29E	40	2.2	0.2	7	4
11844	NOV 29	1803 19.3	41.19S	173.84E	53	2.5	0.2	14	8
11850	NOV 29	2332 21.9	41.41S	174.93E	23	2.1	0.1	9	7
11853	NOV 30	0416 0.7	41.12S	175.01E	16	2.0	0.1	9	8
11861	NOV 30	1041 27.0	41.01S	175.42E	24	2.7	0.1	12	9
11863	NOV 30	1117 24.9	41.11S	173.86E	63	3.2	0.3	27	18
11869	NOV 30	1313 17.6	41.02S	175.44E	33	2.3	0.1	11	8
11875	NOV 30	1624 52.7	41.69S	174.23E	5R	2.6	0.2	17	14
11882	NOV 30	2125 48.6	41.06S	175.54E	26	2.1	0.1	12	9
11887	DEC 01	0025 29.8	41.26S	175.29E	24	2.2	0.1	11	8
11889	DEC 01	0751 27.4	41.15S	174.60E	33	2.5	0.1	20	12
11900	DEC 01	1730 56.6	41.11S	174.87E	28	2.3	0.1	17	11
11909	DEC 02	0500 56.6	41.08S	175.05E	17	2.8	0.2	18	13
11910	DEC 02	0507 33.4	41.41S	175.01E	25	2.2	0.1	10	9
11925	DEC 02	1236 42.9	41.11S	174.54E	36	2.4	0.1	12	9
11932	DEC 02	1950 11.5	41.07S	175.00E	48	2.0	0.1	8	5
11934	DEC 02	2101 58.1	41.00S	175.43E	32	2.2	0.1	12	7
11939	DEC 03	0231 14.6	41.82S	174.36E	19	2.1	0.2	12	6
11941	DEC 03	0403 36.8	40.93S	175.06E	30	2.8	0.2	17	13
11949	DEC 03	1210 48.0	40.72S	174.33E	57	2.5	0.1	9	7
11960	DEC 03	1909 38.8	40.57S	175.85E	31	2.8	0.2	18	14
11962	DEC 03	1957 27.0	40.72S	175.85E	12R	2.6	0.3	16	11
11966	DEC 03	2133 55.9	40.83S	174.71E	12	2.8	0.3	18	13
11974	DEC 04	0344 36.2	40.84S	174.90E	55	2.1	0.1	9	7
11977	DEC 04	0432 2.5	41.66S	174.40E	12R	2.2	0.3	15	10
11995	DEC 04	1357 40.8	40.71S	174.66E	46	3.4	0.2	33	28
12002	DEC 04	1947 25.7	41.79S	174.11E	10	2.3	0.3	11	7
12004	DEC 04	2030 18.5	41.92S	175.33E	34	2.1	0.2	11	7
12008	DEC 05	0018 9.5	40.86S	174.70E	16	2.1	0.1	6	4
12009	DEC 05	0100 31.7	41.09S	175.01E	27	2.0	0.1	8	6
12015	DEC 05	0526 51.4	41.61S	174.61E	31	2.4	0.2	12	10

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
12023	DEC 05	0802 36.5	40.72S	174.29E	54	2.7	0.2	12	8
12034	DEC 05	1246 25.1	40.66S	174.98E	31	2.3	0.2	13	10
12035	DEC 05	1250 28.6	40.81S	175.20E	30	2.2	0.2	14	10
12040	DEC 05	1336 48.3	40.86S	174.68E	48	2.3	0.1	11	7
12042	DEC 05	1558 17.9	41.29S	175.19E	29	2.7	0.2	17	12
12048	DEC 05	1835 29.2	41.11S	174.94E	30	2.0	0.1	6	5
12064	DEC 06	0355 40.9	41.03S	173.90E	64	3.4	0.3	31	24
12074	DEC 06	1133 15.9	40.94S	173.65E	75	3.2	0.2	24	17
12078	DEC 06	1244 30.2	40.69S	173.62E	94	2.4	0.2	10	5
12080	DEC 06	1550 10.4	40.55S	175.13E	31	2.3	0.2	10	7
12082	DEC 06	1908 15.0	41.00S	175.64E	28	2.2	0.4	10	7
12086	DEC 06	2300 34.1	41.20S	174.26E	38	2.9	0.2	16	13
12088	DEC 07	0024 39.0	41.21S	174.57E	35	2.6	0.2	14	11
12089	DEC 07	0112 1.2	41.23S	174.27E	37	2.8	0.2	17	12
12104	DEC 07	1001 21.5	41.78S	173.70E	12	2.1	0.2	9	7
12107	DEC 07	1144 53.3	41.74S	174.17E	17	2.0	0.2	11	6
12108	DEC 07	1147 9.0	41.05S	173.68E	95	2.2	0.2	9	6
12112	DEC 07	1250 47.6	41.26S	174.53E	9	2.5	0.3	16	11
12135	DEC 08	0054 57.4	41.78S	173.62E	43	2.3	0.1	11	6
12142	DEC 08	0414 30.1	41.24S	175.20E	11	2.9	0.2	19	15
12157	DEC 08	1522 42.7	41.09S	174.55E	45	2.6	0.1	16	12
12167	DEC 08	1944 32.4	40.86S	175.80E	29	2.3	0.2	9	7
12169	DEC 09	0006 36.0	41.25S	174.25E	38	2.0	0.0	6	4
12171	DEC 09	0031 23.1	41.59S	174.66E	30	2.4	0.1	11	8
12172	DEC 09	0101 56.2	41.54S	174.46E	15	2.5	0.3	16	13
12185	DEC 09	0703 1.4	41.42S	175.00E	22	2.0	0.1	10	7
12198	DEC 09	1610 3.7	41.20S	174.55E	35	2.3	0.1	15	12
12199	DEC 09	1703 55.3	41.92S	174.28E	12R	3.4	0.4	25	21
12204	DEC 09	2145 45.0	41.35S	174.20E	41	2.3	0.1	10	7
12206	DEC 09	2236 6.3	41.83S	174.10E	12R	2.7	0.2	18	13
12209	DEC 09	2301 22.2	41.00S	175.43E	28	2.6	0.1	13	10
12210	DEC 09	2326 1.4	41.00S	175.43E	28	2.0	0.1	8	6
12211	DEC 09	2337 38.9	41.26S	174.03E	50	2.3	0.0	6	3
12221	DEC 10	0628 18.0	40.77S	174.68E	38	2.1	0.1	12	8
12222	DEC 10	0737 57.6	41.35S	174.80E	53	2.5	0.1	13	10
12225	DEC 10	0936 57.3	41.56S	174.37E	14	2.2	0.2	15	10
12226	DEC 10	1038 5.3	41.00S	175.44E	32	2.2	0.2	11	8
12234	DEC 10	1420 41.4	41.38S	175.11E	28	2.5	0.2	18	13
12235	DEC 10	1449 15.9	41.17S	175.66E	18	2.2	0.1	10	7
12236	DEC 10	1453 38.0	41.01S	175.42E	32	2.2	0.1	14	10
12237	DEC 10	1522 21.8	41.02S	175.40E	27	2.7	0.1	12	9
12247	DEC 11	0241 46.9	41.01S	175.43E	26	2.9	0.1	15	12
12248	DEC 11	0244 6.0	41.01S	175.42E	26	2.4	0.1	14	10
12251	DEC 11	0333 10.5	41.55S	174.27E	17	2.0	0.1	8	4
12255	DEC 11	0540 38.9	41.55S	174.28E	11	3.7	0.2	20	18

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
12256	DEC 11	0546 17.7	41.55S	174.28E	11	3.4	0.2	22	19
12257	DEC 11	0556 19.7	41.54S	174.27E	19	2.1	0.2	10	7
12260	DEC 11	0819 15.6	40.62S	175.79E	31	2.6	0.3	9	7
12266	DEC 11	1332 8.8	40.65S	175.54E	30	2.6	0.2	12	9
12269	DEC 11	1435 41.0	41.98S	174.59E	12R	2.0	0.2	7	6
12282	DEC 12	0038 59.5	40.82S	174.84E	5R	2.0	0.2	7	4
12285	DEC 12	0301 51.8	40.68S	174.23E	50	2.2	0.3	11	8
12286	DEC 12	0357 32.9	40.91S	174.56E	52	2.0	0.1	11	5
12287	DEC 12	0409 5.8	41.45S	174.67E	55	2.2	0.1	11	9
12289	DEC 12	0506 38.5	41.40S	175.45E	26	2.7	0.6	16	10
12291	DEC 12	0905 33.6	41.65S	175.23E	38	2.2	0.1	7	5
12292	DEC 12	0916 44.3	41.47S	174.44E	19	2.3	0.1	14	11
12306	DEC 12	1318 53.5	41.36S	174.07E	41	3.0	0.2	20	17
12314	DEC 12	1634 51.9	40.94S	175.56E	30	2.2	0.2	10	8
12318	DEC 12	1833 49.4	41.19S	174.22E	48	2.8	0.1	16	10
12326	DEC 12	2059 32.7	41.40S	174.56E	21	3.0	0.2	24	17
12332	DEC 13	0030 8.0	41.95S	173.95E	13	2.4	0.2	10	7
12336	DEC 13	0202 39.1	40.87S	174.73E	13	2.0	0.1	9	7
12340	DEC 13	0427 36.6	40.83S	174.77E	40	2.1	0.2	8	6
12341	DEC 13	0427 45.3	40.80S	174.84E	46	2.3	0.2	7	5
12344	DEC 13	0523 1.0	41.05S	175.37E	28	2.0	0.0	10	7
12354	DEC 13	0903 43.0	41.70S	173.68E	43	2.1	0.2	12	7
12362	DEC 13	1242 6.0	41.60S	174.65E	31	2.3	0.1	7	6
12373	DEC 13	1927 5.4	40.90S	175.09E	31	2.3	0.1	10	7
12388	DEC 14	0408 17.4	40.90S	174.05E	60	2.8	0.2	9	6
12393	DEC 14	0620 25.5	41.96S	173.97E	12R	2.2	0.2	5	4
12396	DEC 14	0926 53.7	41.41S	175.65E	31	2.9	0.2	15	12
12398	DEC 14	0931 56.7	41.59S	174.45E	19	2.2	0.3	10	8
12400	DEC 14	1017 43.6	41.02S	175.43E	26	2.2	0.1	11	7
12403	DEC 14	1106 25.5	41.60S	174.46E	12R	2.4	0.2	11	8
12404	DEC 14	1132 10.4	41.21S	174.24E	39	2.5	0.2	11	8
12409	DEC 14	1727 58.8	40.58S	173.75E	95	2.3	0.2	13	7
12412	DEC 14	2030 29.1	41.31S	174.50E	11	2.3	0.3	14	10
12414	DEC 14	2317 15.3	40.55S	174.40E	40	2.0	0.2	8	6
12426	DEC 15	0935 16.7	41.64S	174.00E	14	2.5	0.2	11	8
12441	DEC 15	1614 12.1	41.59S	173.79E	41	2.3	0.1	12	7
12450	DEC 15	2239 14.8	40.66S	175.55E	26	3.3	0.3	29	23
12461	DEC 16	0523 44.8	41.30S	175.16E	28	2.6	0.1	14	11
12468	DEC 16	0914 9.0	40.80S	175.32E	23	2.2	0.1	10	8
12469	DEC 16	0921 50.2	40.80S	174.23E	59	2.3	0.1	9	6
12474	DEC 16	1112 6.9	40.69S	175.56E	29	2.1	0.1	7	4
12480	DEC 16	1540 52.6	41.21S	174.55E	54	2.2	0.0	7	5
12493	DEC 17	0258 12.9	41.18S	174.87E	51	2.1	0.1	10	8
12497	DEC 17	0613 3.9	40.93S	175.55E	27	2.4	0.1	10	7
12518	DEC 17	1357 1.1	40.50S	174.55E	85	2.6	0.2	13	9

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
12519	DEC 17	1414 56.2	41.29S	175.20E	22	2.0	0.2	8	7
12535	DEC 17	2059 33.8	41.27S	175.30E	22	2.2	0.1	11	8
12550	DEC 18	0718 18.9	41.61S	175.37E	15	2.1	0.2	11	8
12561	DEC 18	1206 39.5	41.58S	175.35E	17	2.2	0.1	12	8
12568	DEC 18	1618 27.2	40.79S	173.93E	75	2.1	0.2	11	8
12569	DEC 18	1647 10.8	41.65S	174.78E	28	3.5	0.2	25	19
12571	DEC 18	1707 48.0	41.59S	175.38E	23	2.5	0.3	15	11
12573	DEC 18	1737 43.1	41.62S	174.76E	31	2.3	0.2	11	8
12574	DEC 18	1804 22.4	40.96S	175.68E	30	2.2	0.1	8	6
12591	DEC 19	0503 37.5	41.35S	174.35E	42	5.1F	0.2	36	32
12592	DEC 19	0504 57.2	41.27S	174.29E	41	3.2	0.2	12	8
12594	DEC 19	0519 34.5	41.31S	174.33E	42	3.5F	0.2	26	22
12595	DEC 19	0524 8.2	41.32S	174.37E	35	2.3	0.2	11	6
12596	DEC 19	0524 9.2	41.74S	174.15E	15	2.5	0.1	9	5
12597	DEC 19	0524 32.5	41.47S	174.37E	21	2.0	0.0	5	3
12598	DEC 19	0532 34.7	41.31S	174.33E	38	3.0	0.2	23	16
12599	DEC 19	0551 1.5	41.37S	174.33E	34	2.2	0.0	6	4
12600	DEC 19	0730 33.3	41.38S	174.34E	35	2.0	0.1	7	4
12602	DEC 19	0928 40.5	41.37S	174.33E	34	2.1	0.1	9	5
12609	DEC 19	1404 44.5	41.67S	174.29E	15	2.1	0.1	9	5
12611	DEC 19	1550 6.8	41.32S	174.32E	39	2.2	0.1	9	6
12612	DEC 19	1623 40.8	41.84S	174.29E	9	2.3	0.1	9	7
12614	DEC 19	1731 40.3	41.11S	175.88E	31	2.4	0.2	8	6
12623	DEC 20	0335 56.3	41.15S	173.83E	56	2.1	0.2	7	4
12627	DEC 20	0557 33.2	41.16S	174.74E	29	2.4	0.2	11	8
12629	DEC 20	0608 23.9	41.14S	174.74E	28	2.1	0.0	7	5
12630	DEC 20	0623 21.7	41.63S	175.51E	22	2.6	0.2	10	8
12643	DEC 20	1149 10.2	40.74S	174.58E	41	3.4	0.2	30	24
12645	DEC 20	1213 19.0	41.27S	175.24E	26	2.1	0.1	8	7
12646	DEC 20	1246 13.5	41.04S	174.83E	52	2.2	0.1	8	6
12657	DEC 20	1642 39.1	41.70S	174.28E	12R	2.3	0.2	10	7
12661	DEC 20	2017 10.0	40.89S	174.73E	16	2.4	0.2	9	7
12674	DEC 21	0019 54.4	40.86S	174.71E	13	2.7	0.2	8	6
12682	DEC 21	0531 40.9	40.78S	175.84E	30	2.7	0.2	11	8
12688	DEC 21	1217 51.1	40.50S	174.45E	29	2.4	0.2	10	7
12691	DEC 21	1414 52.0	40.96S	175.46E	14	2.9	0.2	12	9
12693	DEC 21	1512 58.5	41.30S	175.00E	26	2.6	0.1	15	10
12702	DEC 22	0035 11.6	41.51S	174.16E	33	2.2	0.1	8	5
12704	DEC 22	0057 22.6	41.29S	175.02E	27	2.0	0.1	6	5
12711	DEC 22	0542 27.1	41.60S	173.76E	50	2.7	0.3	19	12
12730	DEC 22	1410 21.3	41.30S	174.30E	40	2.6	0.2	16	12
12739	DEC 22	1657 34.6	41.25S	175.32E	21	2.1	0.2	10	6
12745	DEC 22	1837 21.2	40.94S	175.02E	30	2.1	0.1	11	7
12748	DEC 22	2009 46.6	41.31S	174.30E	41	2.4	0.2	13	9
12752	DEC 22	2207 26.4	40.63S	173.53E	132	2.9	0.3	14	10

NUM	DATE	TIME	LAT	LONG	DEP	MAG	Rsd	NP	NS
12786	DEC 23	2206 32.9	41.36S	174.27E	44	2.0	0.0	7	5
12789	DEC 24	0052 45.5	41.16S	174.64E	31	2.6	0.1	17	12
12790	DEC 24	0406 22.2	40.86S	173.74E	80	2.9	0.3	18	12
12792	DEC 24	0523 43.8	41.25S	175.23E	24	2.4	0.1	9	7
12794	DEC 24	0649 6.7	40.84S	175.80E	24	2.3	0.2	6	5
12797	DEC 24	0818 57.7	41.46S	173.63E	87	2.5	0.3	10	6
12802	DEC 24	1059 2.2	40.91S	174.75E	47	2.1	0.1	7	4
12813	DEC 24	2030 56.4	41.00S	174.59E	61	2.3	0.3	9	5
12817	DEC 24	2242 48.2	41.48S	173.52E	81	2.6	0.2	10	7
12819	DEC 24	2346 47.5	40.63S	174.90E	14	2.4	0.2	11	5
12821	DEC 25	0115 18.4	40.53S	173.99E	66	2.8	0.4	13	9
12831	DEC 25	0842 4.3	41.37S	175.12E	27	2.0	0.0	7	6
12837	DEC 25	1040 0.5	40.63S	174.89E	14	2.2	0.1	8	6
12838	DEC 25	1116 27.8	41.33S	174.33E	38	3.1	0.2	20	17
12852	DEC 25	2255 54.2	41.18S	174.76E	33	2.2	0.2	8	5
12853	DEC 26	0001 24.5	41.01S	175.42E	24	2.7	0.2	18	11
12858	DEC 26	0735 12.9	41.11S	175.19E	34	2.5	0.1	13	7
12860	DEC 26	0824 45.3	41.04S	173.79E	73	2.0	0.2	7	5
12875	DEC 26	1059 16.3	41.10S	174.58E	35	2.0	0.1	11	7
12880	DEC 26	1128 25.5	41.58S	174.03E	32	2.4	0.2	13	8
12886	DEC 26	1247 0.5	41.45S	174.37E	29	2.3	0.3	7	5
12892	DEC 26	1502 32.0	41.01S	175.42E	25	2.2	0.2	8	6
12896	DEC 26	1823 52.9	41.95S	173.55E	33	2.6	0.1	10	6
12900	DEC 26	1913 36.1	40.55S	174.76E	26	2.5	0.3	11	9
12905	DEC 26	2058 40.9	40.90S	175.72E	30	2.7	0.2	11	8
12915	DEC 27	0209 5.5	40.91S	174.60E	52	3.0	0.1	14	11
12937	DEC 28	0549 1.8	41.07S	173.66E	94	3.4	0.3	22	14
12938	DEC 28	0640 23.1	41.45S	174.53E	23	2.2	0.2	10	6
12944	DEC 28	1137 48.4	41.44S	173.72E	63	2.4	0.1	8	5
12954	DEC 28	1808 34.9	41.37S	174.62E	30	2.8	0.2	18	14
12958	DEC 28	2110 1.9	40.63S	174.43E	51	2.2	0.2	10	6
13003	DEC 30	0605 46.0	40.87S	175.62E	22	2.4	0.2	7	5
13009	DEC 30	0725 8.3	41.65S	174.49E	46	2.2	0.1	8	5
13016	DEC 30	1228 4.0	41.03S	175.83E	27	2.8	0.2	12	8
13019	DEC 30	1505 10.8	41.72S	173.92E	14	2.2	0.1	8	6
13020	DEC 30	1612 58.2	40.66S	175.41E	29	2.2	0.2	9	6
13025	DEC 30	2315 38.1	41.03S	174.90E	32	2.2	0.2	12	8
13029	DEC 31	0740 2.3	40.75S	175.73E	5R	3.4	0.4	22	18
13034	DEC 31	1333 39.5	40.52S	174.39E	32	2.2	0.2	7	5
13042	DEC 31	1849 42.1	40.52S	175.79E	30	2.5	0.1	7	6
13045	DEC 31	2013 59.8	41.57S	174.02E	16	2.5	0.1	8	4

NON-INSTRUMENTAL DATA

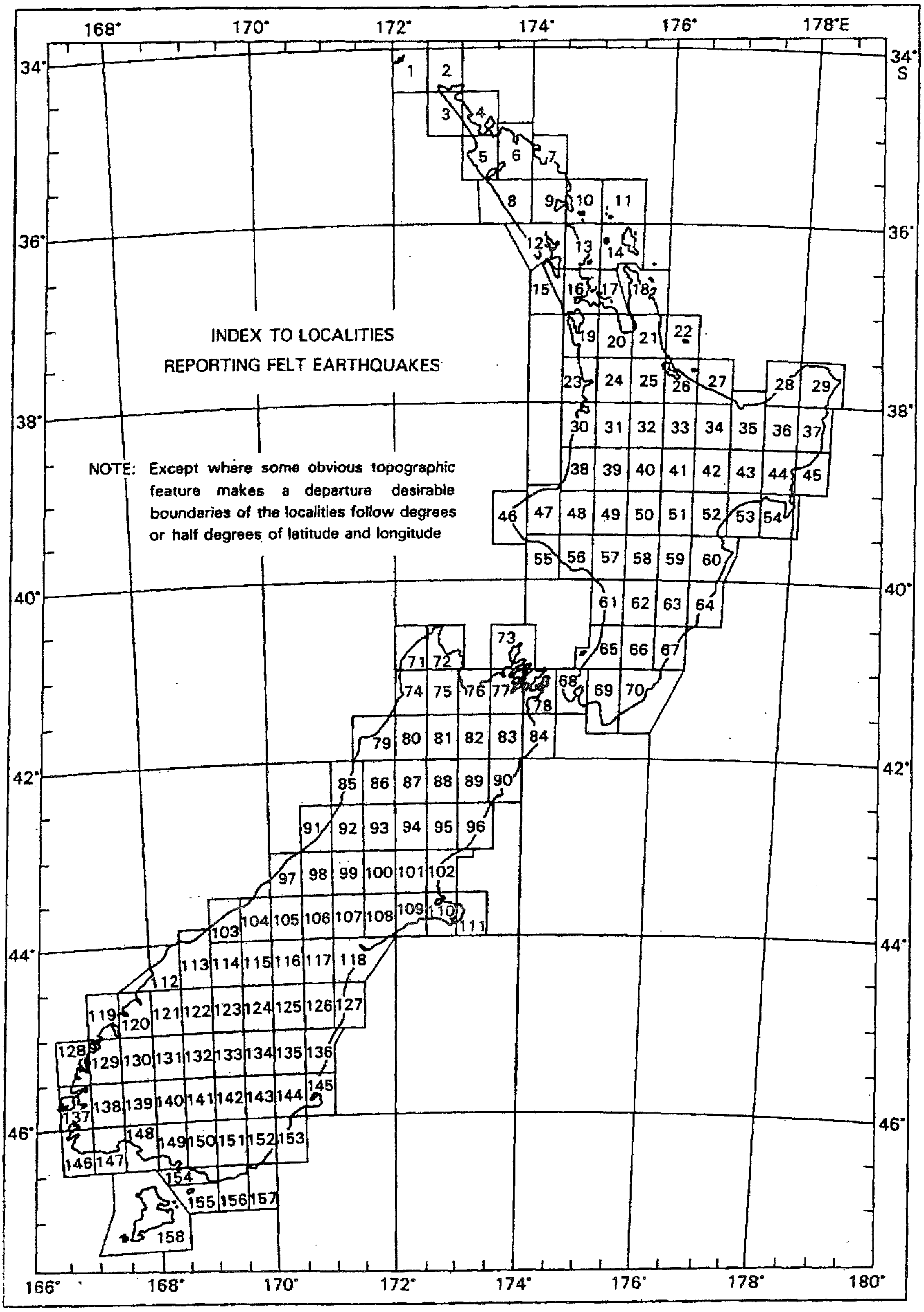
THE FELT REPORTING SYSTEM

The Observatory has recruited a network of about 600 volunteer observers spread throughout the country, who use a standard form to describe the effects of any earthquake they feel. The Observatory also collects casual reports from newspapers, meteorological observers, postmasters and members of the public. For large earthquakes, or ones with features of special interest, questionnaires are issued and assessed.

Several difficulties arise in assessing the distribution of felt intensity. The population of the country is very unevenly spread, and the observers' personal circumstances may prevent them from feeling a shock that has been noticed by others. These problems also affect lists of earthquakes felt in particular localities. It may reasonably be assumed that a strong earthquake reported from one township was felt in another nearby, even though the Observatory has received no report. However, an index of this kind must summarise data and not deductions, so the following scheme is used.

The land area of New Zealand has been divided into 'localities', mostly bounded by half-degree lines of latitude and longitude, but varied as necessary to avoid splitting obvious geographic or structural units (see map overleaf). Each locality has a number and a name, usually that of the principal population centre within it. The names are listed overleaf. In most localities there are at least two well-separated reporters, but there are still some sparsely populated parts of the country without observers, notably in Southland. Felt information is summarised in information lines following the instrumental data in the main list of earthquakes. Modified Mercalli intensities quoted there have been assessed by the Observatory from replies to standard questionnaires. Assessments based on less formal descriptions of intensity are included in the following list, in which the localities which have reported shocks during the year are presented in alphabetical order, each followed by the reference numbers of the shocks felt and their respective maximum reported intensities within that locality. By comparing the reports from neighbouring localities, it is possible to form a truer estimate of the incidence of the felt effects than would be possible from a simple list of places reporting each shock.

A further list records reports received from places in the south-west Pacific.



Standard Reporting Localities.

STANDARD REPORTING LOCALITIES

1	Three Kings	41	Taupo	81	Glenhope	121	Glenorchy
2	Te Reinga	42	Te Whaiti	82	Wairau	122	Arrowtown
3	Ninety Mile Beach	43	Tuai	83	Awatere	123	Wanaka
4	Doubtless Bay	44	Whakapunaki	84	Cape Campbell	124	St Bathans
5	Kaitaia	45	Gisborne	85	Greymouth	125	Kurow
6	Kaikohe	46	Cape Egmont	86	Reefton	126	Duntroon
7	Bay of Islands	47	New Plymouth	87	Maruia	127	Waimate
8	Dargaville	48	Whangamomona	88	Hanmer	128	Secretary Is.
9	Whangarei	49	Ohakune	89	Clarence	129	Doubtful Sound
10	Bream Head	50	Chateau	90	Kaikoura	130	Te Anau
11	Moko Hinau	51	Kaweka	91	Hokitika	131	Livingstone Mts
12	Kaipara	52	Napier	92	Kumara	132	Kingston
13	Warkworth	53	Wairoa	93	Arthur's Pass	133	Alexandra
14	Barrier Islands	54	Mahia	94	Lake Sumner	134	Poolburn
15	Helensville	55	Hawera	95	Culverden	135	Ranfurly
16	Auckland	56	Waverley	96	Cheviot	136	Oamaru
17	Waiheke	57	Wanganui	97	Franz Josef	137	Resolution Island
18	Coromandel	58	Taihape	98	Hari Hari	138	Pillans Pass
19	Pukekohe	59	Ruahine	99	Whitcombe Pass	139	Monowai
20	Mercer	60	Hastings	100	Lake Coleridge	140	Mossburn
21	Thames	61	Bulls	101	Oxford	141	Waikaia
22	Mayor Is.	62	Palmerston North	102	Rangiora	142	Roxburgh
23	Raglan	63	Dannevirke	103	Haast	143	Lawrence
24	Hamilton	64	Porangahau	104	Bruce Bay	144	Outram
25	Matamata	65	Otaki	105	Mount Cook	145	Dunedin
26	Tauranga	66	Masterton	106	Tekapo	146	Puysegur Point
27	Whakatane	67	Castlepoint	107	Mount Somers	147	Poteretere
28	Te Kaha	68	Wellington	108	Ashburton	148	Tuatapere
29	East Cape	69	Featherston	109	Rakaia	149	Invercargill
30	Kawhia	70	Martinborough	110	Christchurch	150	Gore
31	Te Kuiti	71	Mount Stevens	111	Akaroa	151	Clinton
32	Tokoroa	72	Takaka	112	Big Bay	152	Balclutha
33	Rotorua	73	D'Urville Island	113	Jackson's Bay	153	Waihola
34	Murupara	74	Karamea	114	Makarora	154	Bluff
35	Opotiki	75	Motueka	115	Lake Ohau	155	Ruapuke
36	Motu	76	Nelson	116	Pukaki	156	Tahakopa
37	Tolaga Bay	77	Blenheim	117	Fairlie	157	Owaka
38	Mokau	78	Picton	118	Timaru	158	Stewart Is.
39	Taumarunui	79	Westport	119	George Sound	159	Chatham Islands
40	Tokaanu	80	Murchison	120	Milford		

EARTHQUAKES FELT IN STANDARD LOCALITIES

Localities within which earthquakes were felt are listed in alphabetical order, each preceded by its number on the reference map. Each set of numbers, separated by commas, following the name of the locality consists of an earthquake reference number followed by the maximum intensity (in brackets) reported within the district covered by the locality name. An asterisk (*) indicates that the particular intensity was not evaluated from the standard questionnaire. The location of the earthquake, the instrumental magnitude and the actual places at which it was reported felt may be found from the table 'Summary of Origins and Magnitudes'.

16	Auckland	2349 (4*), 4167 (4).
24	Hamilton	2784 (4*).
25	Matamata	5579 (4*), 9173 (4*), 9174 (4).
26	Tauranga	304 (4*), 4545 (4*), 5244 (4), 8733 (4*), 9173 (4), 9174 (3), 11388 (4*).
27	Whakatane	5577 (4*), 7563 (4*).
29	East Cape	5577 (4).
31	Te Kuiti	4167 (3).
33	Rotorua	4038 (4*), 4913 (4*), 4924 (4*), 7415 (4), 12277 (4*), 12556 (4*), 12557 (4*).
34	Murupara	1298 (4*), 1340 (4*), 1725 (4*).
35	Opotiki	2351 (4), 5577 (4), 7312 (4), 7415 (4), 7563 (4).
36	Motu	7415 (3), 12300 (4).
38	Mokau	2188 (4), 2784 (4), 4167 (4), 4853 (4).
39	Taumarunui	6887 (4*), 8720 (4).
40	Tokaanu	1600 (4*), 2137 (3), 5033 (4), 5779 (4), 7131 (4), 7415 (4), 8447 (4), 12978 (4), 13005 (4).
41	Taupo	2137 (3*), 3100 (4*), 3591 (4*), 4227 (4), 5033 (4), 5779 (4), 6234 (4*), 6247 (4*), 7059 (4), 7060 (4), 7131 (5), 7415 (5), 7476 (4*), 9148 (4*), 12993 (4).
42	Te Whaiti	12300 (4*).
43	Tuai	8221 (4), 12300 (4).
44	Whakapunaki	5577 (4).
45	Gisborne	3641 (4), 5577 (4), 7563 (4), 8805 (3), 13050 (4).
46	Cape Egmont	1854 (4), 2784 (4), 3041 (4), 4853 (4).
47	New Plymouth	2413 (4*), 2784 (4), 3041 (3*), 4853 (4), 6887 (4), 7415 (4), 7482 (4).
48	Whangamomona	1424 (4*), 1436 (4*), 1437 (4*), 2160 (4*), 2188 (4), 2413 (4), 2784 (4).

49	Ohakune	7415	(5),	8720	(4),	9780	(4),	10374	(4).				
52	Napier	4916	(4),	7415	(5),	8720	(4),	11589	(4).				
57	Wanganui	1083	(4*),	2126	(4*),	2130	(4*),	7127	(4*),	7415	(4),	7499	(3),
		8720	(4),	9032	(4),	9215	(4),	9547	(4),	9780	(4),	10628	(4),
		11710	(4).										
58	Taihape	442	(3),	940	(4),	1787	(4),	2784	(4),	9032	(4),	9780	(4),
		11589	(4).										
60	Hastings	2784	(4),	7415	(5),	7563	(4),	8272	(4),	8720	(4),	11472	(4*).
61	Bulls	36	(4),	2130	(4),	2479	(4),	2783	(4),	2784	(4),	3041	(4),
		3526	(4),	4167	(4),	4323	(4),	4513	(4),	4760	(4),	4853	(4),
		4916	(4),	6887	(4),	7127	(4),	7415	(4),	7548	(4),	8720	(4),
		9032	(4),	9215	(4),	9547	(4),	9780	(4),	11710	(4),	12591	(3).
62	Palmerston North	857	(4),	2784	(4),	4167	(4*),	4853	(4),	4916	(4),	7415	(4),
		8720	(4),	9032	(4),	9215	(4),	9780	(4).				
63	Dannevirke	1707	(4*),	4285	(4*),	6267	(4*),	7415	(4).				
64	Porangahau	4285	(4*).										
65	Otaki	529	(3),	857	(4),	1764	(3),	2783	(4),	2784	(5),	3041	(4),
		3110	(4),	3266	(4),	4167	(4),	4760	(4),	4853	(4),	4916	(3),
		5088	(4*),	5424	(4),	7301	(3),	7415	(4),	7548	(5),	7563	(4),
		8720	(4),	8810	(4),	8870	(4),	9215	(4),	9780	(4),	9802	(4).
66	Masterton	2784	(6),	4916	(4*),	6686	(4*),	7563	(4).				
68	Wellington	239	(4*),	1167	(4*),	2783	(4),	2784	(5),	3041	(5),	3085	(4),
		3110	(3*),	3145	(2*),	3266	(4),	3327	(3*),	4167	(5),	4323	(4*),
		4393	(4*),	4545	(4*),	4853	(4),	4916	(4),	4968	(4*),	5441	(4),
		6099	(4),	7301	(4),	7415	(4),	7548	(4),	7563	(4),	7834	(4*),
		7978	(4),	8347	(3),	8720	(4),	8870	(4),	8901	(4),	9107	(4*),
		9659	(4),	9674	(4),	9780	(5),	9802	(4),	10448	(4*),	10978	(4*),
		12591	(5),	12594	(4).								
69	Featherston	2783	(4),	2784	(6),	2946	(3),	3041	(4),	3266	(4),	4167	(4),
		4853	(3),	7548	(4),	9780	(4*),	12591	(4).				
70	Martinborough	2784	(6).										
72	Takaka	4853	(4),	11551	(4),	11946	(4).						
73	D'Urville Is.	3041	(5*),	4167	(4),	9780	(4).						
74	Karamea	4239	(4*),	7011	(4*).								
76	Nelson	1764	(4*),	4167	(4),	4853	(4),	7563	(4),	8568	(4*).		
77	Blenheim	1764	(4),	2784	(4),	3041	(4),	3110	(4*),	3158	(4),	4167	(4),
		4853	(4),	4916	(3),	5088	(4),	5441	(4),	6099	(3),	7415	(4),
		7563	(4),	8568	(4*),	8870	(4*),	9780	(4),	12591	(4).		
78	Picton	3041	(5),	3085	(4),	3110	(4),	3839	(4*),	4167	(4),	4853	(4),
		5088	(4),	8568	(4*),	9780	(4),	12591	(4).				
79	Westport	3987	(4*),	4024	(4*).								

81	Glenhope	4196	(4).								
87	Maruia	4167	(4),	11491	(4).						
88	Hanmer	4196	(4),	12982	(4).						
94	Lake Sumner	12963	(4),	12982	(4).						
95	Culverden	4196	(4),	7915	(4).						
96	Cheviot	4196	(4).								
97	Franz Josef	9839	(4).								
102	Rangiora	4167	(4*),	4853	(3).						
103	Haast	9839	(4).								
110	Christchurch	4167	(4),	4853	(4*),	7563	(4).				
111	Akaroa	4196	(4*).								
113	Jackson's Bay	3886	(4),	9398	(4).						
118	Timaru	6143	(4*),	12734	(4*).						
120	Milford	11801	(4).								
121	Glenorchy	2325	(4),	7819	(3),	9839	(4).				
122	Arrowtown	4094	(4),	7819	(4),	9839	(4),	11032	(4).		
123	Wanaka	9839	(4).								
124	St Bathans	9839	(4).								
130	Te Anau	4094	(4*),	5512	(4),	7819	(4),	9839	(4),	11032	(4*).
132	Kingston	871	(4*),	4094	(4),	5512	(4*),	7938	(4),	9839	(4).
133	Alexandra	9839	(4).								
134	Poolburn	9839	(4).								
136	Oamaru	9422	(4*).								
138	Pillans Pass	4094	(4),	7938	(4),	8176	(3),	11032	(4).		
139	Monowai	9839	(5).								
140	Mossburn	4094	(4*).								
142	Roxburgh	4094	(4).								
144	Outram	9839	(3).								
145	Dunedin	9311	(4*),	9839	(4),	11848	(4*).				
149	Invercargill	4094	(5),	9142	(4),	9839	(4),	9918	(4*),	9933	(4*).
150	Gore	9142	(4*).								

151	Clinton	9142	(4),	9839	(4*).
152	Balclutha	5405	(3),	9142	(4*).
156	Tahakopa	9142	(4).		
158	Stewart Is.	4094	(4*).		

FELT REPORTS FROM OUTSIDE NEW ZEALAND

The Observatory sometimes receives reports of earthquakes felt on islands of the south-west Pacific and other places beyond the limits of its systematic reporting network. Where Modified Mercalli scale intensities in the list below are shown in quotes, they have been estimated by the reporters, not the Observatory.

DATE	TIME	INTENSITY	PLACE
Jan 15	21h 52m	MM3	Raoul Island
Jan 16	15h 02m	MM4	Raoul Island
Feb 01	19h 47m	MM4	Raoul Island
Feb 02	16h 29m	MM4	Raoul Island
Apr 11	06h 41m	'felt'	Raoul Island
Nov 25	14h 50m	'felt'	Raoul Island
Dec 01	22h 57m	'felt'	Raoul Island
Dec 08	18h 02m	'felt'	Raoul Island
Dec 17	02h 29m	'felt'	Raoul Island

PUBLICATIONS BY STAFF MEMBERS

The following papers by members of the Seismological Observatory staff were published in 2000:

Abercrombie, R.E.; Webb, T.H.; Robinson, R.; McGinty, P.J.; Mori, J.J.; Beavan, R.J. The enigma of the Arthur's Pass, New Zealand, earthquake - 1. Reconciling a variety of data for an unusual earthquake. *Journal of geophysical research. Solid earth 105(B7):* p. 16119-16137.

The 1994 Arthur's Pass earthquake (M_w 6.7) is the largest in a recent sequence of earthquakes in the central South Island, New Zealand. No surface rupture was observed, the aftershock distribution was complex, and routine methods of obtaining the faulting orientation of this earthquake proved contradictory. We use a range of data and techniques to obtain our preferred solution, which has a centroid depth of 5 km, M_o=1.3x10^{19} N m, and a strike, dip, and rake of 221°, 47°, 112°, respectively. Discrepancies between this solution and the Harvard centroid moment tensor, together with Global Positioning System (GPS) observations and unusual aftershock distribution, suggest that the rupture may not have occurred on a planar fault. A second, strike slip, subevent on a more northerly striking plane is suggested by these data but neither the body wave modelling nor regional broadband recordings show any complexity or late subevents. We relocate the aftershocks using both one-dimensional and three-dimensional velocity inversions. The depth range of the aftershocks (1-10 km) agrees well with the preferred mainshock centroid depth. The aftershocks near the hypocenter suggest a structure dipping toward the NW, which we interpret to be the mainshock fault plane. This structure and the Harper fault, ~15 km to the south, appear to have acted as boundaries to the extensive aftershock zone trending NNW-SSE. Most of the $M_L \geq 5$ aftershocks, including the two largest (M_L 6.1 and M_L 5.7), clustered near the Harper fault and have strike slip mechanisms consistent with motion on this fault and its conjugates. Forward modelling of the GPS data suggests that a reverse slip mainshock, combined with strike slip aftershock faulting in the south, is able to match the observed displacements. The occurrence of this earthquake sequence implies that the level of seismic hazard in the central South Island is greater than previous estimates.

Audoine, E.; Savage, M.; Gledhill, K.R. Seismic anisotropy from local earthquakes in the transition region from a subduction to a strike-slip plate boundary, New Zealand. *Journal of geophysical research. Solid earth 105(B4):* p. 8013-8033.

Shear wave splitting is used to investigate anisotrophy in the crust and upper mantle in a subduction zone (lower half of the North Island of New Zealand), and its transition to oblique transform faulting (Marlborough area, northern South Island). In Marlborough, delay times show almost no increase with depth, and it is most likely that the higher-frequency phases used in this study respond mainly to lithospheric anisotrophy. In the central Marlborough Fault System (MFS), fast polarisations are subparallel to the faults. Anisotrophy is attributed to the presence of metamorphosed schist (eclogite), of 30 ± 10km thickness and located 50-80 km beneath the MFS. On the edges of the MFS, fast polarisations are parallel to the maximum compressive stress direction, consistent with crack-induced anisotrophy in the crust. The shear zone, which is as wide as the island in the mantle as inferred from *SKS* phases, seems to occur in a narrower zone in the crust. In the lower half of the North Island, fast polarisations from events at all depths are oriented half of the North Island, fast polarisations from events at all depths are oriented parallel to the strike of the Hikurangi subduction zone as well as to the faults. Polarisations are similar to those of *SKS* phases, which mainly sample the mantle. This suggests that the lithosphere and the upper mantle asthenosphere deform in a coherent strike-slip shear. We calculate 1.2 ± 0.3% velocity anisotrophy in the first 200km of the mantle from increasing delay times with depth. In order to match the *SKS* delay times, this result requires the presence of anisotropic material down to 580 ± 100-km depth, or a change in anistropy with depth, or frequency dependent splitting.

Benites, R.A The 17th Course of the International School of Geophysics 'Fault interaction by stress transfer: new horizons for understanding earthquake occurrence'. *Newsletter / New Zealand Geophysical Society 57* p. 40-44.

The school was focused, basically, on issues relevant to earthquake triggering, covering a wide variety of subjects, such as rock mechanics, tectonics, seismology, geodesy, theoretical elasticity, etc. About 120 scientists participated from different parts of the world, New Zealand included.

Benites, R.A.; Olsen, K.B.; Wood, P.R. Modeling strong ground motion in the Wellington metropolitan area, New Zealand. *Eos 81(48:supplement):* p. F828.

Chadwick, M.P.; Eberhart-Phillips, D. Three-dimensional attenuation imaging of the Northern Hikurangi subduction margin, New Zealand. *Eos 81(22:supplement):* p. WP136.

Cousins, W.J.; Heron, D.W.; Jensen, S.; Kozuch, M.J.; Savage, J. City risk: an integrated risk assessment for Wellington, New Zealand. *Hazards & society: planning for an earthquake crisis in New Zealand: 28-29 February 2000, field trip to Wellington Fault, 1 March 2000:* 5p.

While the first half of the 20th century was characterised by a redistribution of wealth and the latter half by a redistribution of power, the first part of the 21st century may be characterised by a redistribution of risk. The reasons for this are clear: about 80% of a world population of six billion are living in metropolitan areas. Many of these swelling urban areas are vulnerable to natural and technological disaster, with people continuing to settle in marginal areas. Recent disasters have demonstrated how brittle our cities have become, with vulnerable populations at increasingly higher levels of risk despite advances in our understanding of disaster issues. The global upsurge in urban growth is compounded by the increasing complexity and interdependency within the infrastructure and economies supporting these communities. Given this complexity, managing growth is a difficult task as city planners, risk managers, and others are confronted with the need to build more resilient and sustainable communities.

Cousins, W.J.; Heron, D.W.; Jensen, S.; Kozuch, M.J.; Savage, J. Integrated and interactive risk assessment platform for Wellington, New Zealand. *12th World Conference on Earthquake Engineering:*

Wellington, the capital of New Zealand, is at risk from many hazards. Earthquakes pose the greatest threat. Recognising these risks, Wellington city's Emergency Management Office has commenced an all-hazards programme which promotes risk reduction, community readiness, response co-ordination and disaster recovery. At the heart of this work is risk assessment. The Integrated Risk Assessment Programme is designed to use geographic information systems (GIS) to illustrate various aspects of hazard impact, with the twin goals of enhanced communication of risk and greater precision in the formulation of policy options. This project provides a more holistic view of the consequence of various approaches to hazards. Practical techniques, utilising the most up-to-date science and technology, are used to incorporate the latest information into a comprehensive system. Project goals are as follows: evaluate the level of risk resulting from interactions among natural, built, and social environments; create an interactive platform for the risk assessment model so that parametric analyses and other sensitivity tests can be performed to evaluate the effect various mitigation strategies, options, and policies may have on risk reduction; provide results in a format that Council and other organisations can use to support policy recommendations; increase community awareness of relationships between hazard and risk through development of an accessible interactive resource on the Internet.

Davenport, A.J.; Gurnell, A.M.; Armitage, P.D. Hydro-ecological classification of urban rivers. *Fresh perspectives: a joint conference of New Zealand Hydrological Society, Meteorological Society of New Zealand, New Zealand Limnological Society, 21-24 November 2000, University of Canterbury, Christchurch, New Zealand: abstracts and general information:* p. 224-225.

Doser, D.J.; Robinson, R. Modelling stress changes induced by earthquakes in the northeastern South Island, New Zealand. *Seismological research letters 71(2):* p. 257.

Downes, G.L.; Doser, D.; Webb, T.H.; McSaveney, M.J.; Chague-Goff, C.; Darby, D.J.; Barnett, A. Re-evaluation and analysis of the March and May 1947 tsunami. *Geological Society of New Zealand, New Zealand Geophysical Society Joint Annual Conference, 27-30 November 2000: programme & abstracts*: p. 38.

Downes, G.L.; Webb, T.H.; McSaveney, M.J.; Darby, D.J.; Doser, D.; Chague-Goff, C.; Barnett, A. The 26 March and 17 May 1947 Gisborne earthquakes and tsunami: implication for tsunami hazard for East Coast, North Island, New Zealand. *The International Workshop: tsunami risk assessment beyond 2000: theory, practice and plans: in memory of Professor Sergey L. Soloviev, June 14-16, 2000, Russsia, Moscow Soloviev, June 14-16, 2000, Russia, Moscow:* p. 21.

Eberhart-Phillips, D.; Chadwick, M.P. Three-dimensional attenuation model of the shallow Hikurangi Subductiuon Zone in the Raukumara Peninsula, New Zealand. *Geological Society of New Zealand, New Zealand Geophysical Society Joint Annual Conference, 27-30 November 2000: programme & abstracts :* p. 40.

Eberhart-Phillips, D.; Reyners, M.E. A complex, young subduction zone imaged by 3-D seismic velocity, Fiordland, New Zealand. *Eos 81(48:supplement):* p. F1080-F1081.

Ferris, B.G. Some guidelines for CUSP analysts. *Institute of Geological and Nuclear Sciences science report 2000/22*: 17 p.

There are broad guidelines for using the CUSP system for the analysis and location of earthquakes recorded on the NZ digital network. They should cover most of what is usually required during analysis. More detailed and comprehensive information on the CUSP system can be found in the CUSP User's Guide.

Gledhill, K.R. President's piece. *Newsletter / New Zealand Geophysical Society 55:* p. 4.

The President of the Geophysical Society reflects on the start of the new millenium.

Gledhill, K.R. Conference reviews: AGU Fall Meeting:Seismology. *Newsletter / New Zealand Geophysical Society 55:* p. 37-40.

Over 8000 people attended the Fall 1999 AGU Meeting. There were special sessions on the Turkey earthquake, the Taiwan earthquake and the Hector Mine, California earthquake. Sessions and posters on seismic anisotropy and shear wave splitting were checked out. New developments in the instrumental side of seismology were checked out. The USArray project, part of EARTHScope, is a huge project. The tsunami debate continues.

Gledhill, K.R. President's piece. *Newsletter / New Zealand Geophysical Society 56:* p. 4.

The President expresses concern about the lack of comprehensive hiring in the science professions since the 1980s and the resulting concentration of knowledge and experience in the senior age groups of the science professions.

Gledhill, K.R. President's piece. *Newsletter / New Zealand Geophysical Society 57:* p. 4.

Those of us in the government science sector have face a decade of almost constant change. Unfortunately, the university sector is now undergoing the same process, especially in the sciences. Whereas the changes in the government science sector were driven by the ideology of the right, those in the university sector appear to be only about saving money.

Gledhill, K.R. Monitoring nuclear explosions. *Newsletter / New Zealand Geophysical Society 57:* p. 47-50.

In April, I travelled to Vienna to take part in a Comprehensive Nuclear -Test-Ban Treaty Organisation (CTBTO) training programme. CTBTO is charged with implementing the International Monitoring System (IMS) to detect nuclear explosions following the signing of the Comprehensive Nuclear Test-Ban-Treaty in 1996.

Gledhill, K.R.; Robinson, R.; Webb, T.H.; Abercrombie R.; Beavan, R.J.; Cousins, W.J.; Eberhart-Phillips, D. The M_w 6.2 Cass, New Zealand, earthquake of 24 November 1995 : reverse faulting in a strike-slip region. *New Zealand journal of geology and geophysics 43(2):* p. 255-269.

On 24 November 1995 an earthquake of moment magnitude M_w 6.2 struck near the small settlement of Cass in the Southern Alps, South Island, New Zealand. Body-wave modelling using teleseismic arrivals gives an oblique reverse focal mechanism for the mainshock, with the fault plane striking approximately north-south, and a shallow centroid depth of 3-6 km. Aftershock recordings at the station SNZO near Wellington were used as empirical Green's functions to estimate a source time function duration at 7 s. A joint inversion for velocity and location of 169 selected events was used to derive a one-dimensional velocity model with station terms, and this velocity model was then used to relocate all recorded aftershocks. A subset of the best 803 events was then selected for further analysis. The apparent trend of the aftershock zone is NNW-SSE, with the mainshock near the centre. However, projections of the aftershocks on north-south and east-west cross-sections show a band of activity shallowing to the south and dipping to the west. The north-striking, west-dipping nodal plane of the mainshock focal mechanism is therefore most likely to be the fault plane. Early aftershocks occurred mainly to the south of the mainshock location, suggesting rupture to the south, a feature supported by mainshock modelling. The aftershock focal mechanisms are mixed but reflect the regional stress field (NW-SE compression).

Gledhill, K.R.; Savage, M. What does seismic anistropy tell us about the lower South Island of New Zealand. *Geological Society of New Zealand, New Zealand Geophysical Society Joint Annual Conference, 27-30 November 2000 : programme & abstracts :* p. 49.

McGinty, P.; Reyners, M.E.; Robinson, R. Stress directions in the shallow part of the Hikurangi subduction zone, New Zealand, from the inversion of earthquake first motions. *Geophysical journal international 142(2):* p. 339-350.

The numerous earthquakes recorded during recent dense seismograph deployments in the northern South Island and the southernmost North Island, and in the Raukumara Peninsula of New Zealand, provide an opportunity to investigate stress directions in the shallow part of the Hikurangi subduction zone. Here we invert for the stress tensor orientation for the regions within both the subducted and overlying plates, using a new method that invokes the Coulomb failure criterion and considers all P-wave first motions together, regardless of whether or not they are sufficient to define single-event focal mechanisms. The inversion also provides information on which of the two plates with maximum Coulomb failure stress is the preferred fault plane. In the crust of the subducted plate, the least compressive stress (σ_3) is closely aligned with the dip of the plate. The subducted plate is acting as an efficient stress guide, with slab pull from the deeper part of the plate being transmitted to shallower depths. Normal faulting on steeply dipping fault planes is favoured, suggesting that bending of the crust of the subducted plate is accomplished through bulk simple shear (akin to shuffling a vertical deck of cards). In the overlying plate in the northeastern South Island, the greatest and least compressive stresses (σ_1 and σ_3) are horizontal, thus favouring strike-slip faulting. The orientation of σ_1 is close to that expected if the overlying plate is contracting in response to coupling at the underlying plate interface. However, sinistral motion on NW faults is favoured, whereas motion on the major NE-ENE surface faults is predominantly dextral. In the Raukumara Peninsula, thrust faulting on steeply dipping planes is favoured in the lower part of the overlying plate and near the plate interface. The stress regime at the plate interface does not favour interplate thrusting, and a weak interface is required for this to occur. It appears that strain in the overlying plate in both the northeastern South Island and Raukumara Peninsula is partitioned in time - conjugate faults may be active in taking up strain in the interseismic period between large events on the major faults.

McVerry, G.H.; Zhao, J.X.; Abrahamson, N.A.; Somerville, P.G. Crustal and subduction zone attenuation relations for New Zealand earthquakes. *12th World Conference on Earthquake Engineering :*

Attenuation relations have been developed for 5% damped acceleration response spectra in New Zealand earthquakes. Response spectrum attenuation relations relevant to New Zealand were required for the revision of the New Zealand Loadings Standard currently underway, the construction and retrofitting of several major buildings, and design reviews and strengthening of hydro-electricity dams. The models take account of the different tectonic types of earthquakes in New Zealand, i.e. crustal, subduction interface and dipping slab, and of the faster attenuation of high-frequency components in the volcanic region. The study used all data from the New Zealand earthquake accelerograph network that satisfied various selection criteria, supplemented by selected data from digital seismographs. The latter provide additional records from moderate- to high-strength rock sites, and of motions involving propagation paths through the volcanic region. The dataset has been further augmented by seismograph records from a temporary deployment in the volcanic region. To constrain the model at short distances where New Zealand records are lacking, overseas peak ground acceleration data recorded less than 10 km from the source were included. Base models selected from published crustal and subduction zone attenuation relations were modified to improve the matches to the New Zealand motions for these classes of earthquake. It was found that New Zealand earthquake motions are mostly similar to those from other parts of the world for the same tectonic class, especially for crustal earthquakes. The results show that crustal and subduction zone earthquake motions have different spectral shapes.

Matcham, I.; Savage, M.K.; Gledhill, K.R. Distribution of seismic anisotropy in the subduction zone beneath the Wellington region, New Zealand. *Geophysical journal international 140(1):* p. 1-10

Shear wave splitting measurements form S arrivals of local earthquakes recorded at the Incorporated Research Institutions for Seismology (IRIS) broadband sensor SNZO are used to determine a basic anisotropic structure for the subduction zone in the Wellington region. With the use of high-frequency filters, fast anisotropic polarization and splitting time measurements typical of crustal anisotropy are evident, but the large splitting expected from the mantle is often not resolved. The small splitting seen agrees well with the results of previous studies concerning shallow crustal anisotropy. With the use of lower-frequency filters, measurements more consistent with mantle anisotropy are made. Anisotropy of 4.4 ± 0.9 per cent with a fast polarization of 29° ± 38° is calculated for the subducting slab, from 20 to 70 km depth. Using this result in addition to the results of previous studies, a model is proposed. The model requires a frequency-dependent anisotropy of less than 1.4 per cent when measured with a period of ~2 s to be present in the sub-slab mantle. Separate from this population, a band of events in northern Cook Strait with an 86° ± 10° fast polarization is seen. This is at about 40° from the strike of the Hikurangi margin, and suggests a source of shear strain 40° removed from that found in the majority of the region. The cause of this is probably a deformation in the subducting slab in this region, as it moves towards a greater incline to the south.

Maunder, D.E. (ed.) New Zealand seismological report 1998. *Institute of Geological and Nuclear Sciences science report 2000/29*: 174 p.

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

Pancha, A.; Webb, T.H.; Stedman, G.E.; McLeod, D.P.; Schreiber, K.U. Ring laser detection of rotations from teleseismic waves. *Geophysical research letters 27(21):* p. 3553-3556.

Horizontal and vertical rotational components of teleseismic surface and body waves are detected by large ring laser gyroscopes. This is illustrated with records from magnitudes 7.0 and 7.3 events at distances of 31° and 42.3° respectively. Phase comparisons with synchronous linear seismometer records confirm the gyroscopic coupling.

Reyners, M.E.; Eberhart-Phillips, D.; Robinson, R.; Pancha, A.; McGinty, P.J. Anatomy of a twisted subduction zone : Fiordland, New Zealand. *Eos 81(22:supplement):* p. WP124.

Reyners, M.E. AGU Western Pacific Geophysics Meeting, Tokyo, June 23-30, 2000. *Newsletter / New Zealand Geophysical Society 56:* p. 32-33.

As far as American Geophysical Union meetings go, this one was relatively small, with only 1500 participants. Yet it proved to be very successful, largely for two reasons. Firstly, it overlapped with the annual meeting of the Japanese Association for Earth and Planetary Science Societies, which attracted 2000 Japanese scientists. This resulted in the presentation of a large amount of new research from Japan to the international community. And secondly, the venue of the meeting facilitated great interaction between participants. It was held in the National Olympic Memorial Youth Centre near Shinjuku, and most people stayed in the adjoining dormitory buildings. So there was lots of scientific discussion at meal times in the large cafeteria.

Reyners, M.E. Projected work 2001 : The Central North Island Passive Seismic Experiment (CNIPSE*). Newsletter / New Zealand Geophysical Society 57*: p. 28-29.

Martin Reyners prepared the following to hand out to those he was approaching for permission to put in a seismometer on their property. It well describes the proposed project.

Reyners, M.E. Quantifying the hazard of large subduction thrust earthquakes in Hawke's Bay. *Bulletin of the New Zealand Society for Earthquake Engineering 33(4):* p. 477-483.

Beneath Hawke's Bay, the interface between the Pacific and overlying Australian plates lies at shallow depth - within the depth range where large subduction thrust earthquakes are expected. Determining the likely size of such earthquakes is thus a major issue in quanitfying the seismic hazard of the region. Here we use recent seismological, geodetic and geologic research results to estimate the rupture diemnsions, magnitude and recurrence of a large subduction thrust event. The estimated rupture zone extends 45 km downdip, from 15km to 22 km depth on the plate interface, and 120 km along strike, from 45km southwest of Napier to 10 km northeast of Wairoa. This equates to an M_W 7.7 earthquake. The estimated recurrence of such and event depends on the coupling coefficient (i.e. the ratio of seismic slip to total slip) at the plate interface, which is not well determined. Our preferred range for this coefficient is 0.3-0.5, which yields a recurrence interval range of 250-400 years. Such recurrence is broadly consistent with the geological record of subsidence in the Ahuriri Lagoon near Napier in the 3500 years prior to the M_W 7.8 Hawke's Bay earthquake of 1931.

Reyners, M.E.; CNIPSE Team The Central North Island Passive Seismic Experiment: why and how. *Geological Society of New Zealand, New Zealand Geophysical Society Joint Annual Conference, 27-30 November 2000: programme & abstracts*: p. 131.

Reyners, M.E. Seismology news from the IGNS *Newsletter / New Zealand Geophysical Society 55:* p. 20-21.

A fault zone study deployed three EARSS short-period seismometers near the Alpine fault in the Haast-Okuru region. Another fault zone study deployed two broad band seismographs along the Wellington fault. Planning is well advanced for the central North Island passive seismic experiment.

Reyners, M.E.; Eberhart-Phillips, D.; Robinson, R.; Pancha, A.; McGinty, P.J. Anatomy of a twisted subduction zone : Fiordland, New Zealand. *Eos 81(22:supplement):* p. WP124.

Reyners, M.E.; Webb. T.H. Large earthquakes near Doubtful Sound, New Zealand, 1989-93. *Geological Society of New Zealand, New Zealand Geophysical Society Joint Annual Conference, 27-30 November 2000 : programme & abstracts :* p. 132.

Reyners, M.E.; Eberhart-Phillips, D.; Robinson, R.; Pancha, A.; McGinty, P.J. Anatomy of a twisted subduction zone: Fiordland, New Zealand. *Eos 81(22:supplement):* p. WP124.

Robinson, R. A test of the precursory accelerating moment release model on some recent New Zealand earthquakes. *Geophysical journal international 140(3):* p. 568-576.

The proposal that the moment release rate increases in a systematic way in a large region around a forthcoming large earthquake is tested using three recent, large New Zealand events. The three events, 1993-1995, magnitudes 6.7-7.0, occurred in varied tectonic settings. For all three events, a circular precursory region can be found such that the moment release rate of the included seismicity is modelled significantly better by the proposed accelerating model than by a linear moment release model, although in one case the result is dubious. The 'best' such regions have radii from 122 to 167 km, roughly in accord with previous observations world-wide, but are offset by 50-60 km from the associated main shock epicentre. A grid-search procedure is used to test moment release model. For two of the earthquakes the result is positive in terms of location, but the main shock times are only loosely constrained.

Robinson, R. Conference reviews : Seismological Society of America, 96th Annual Meeting, San Francisco, 17-21 April, 2001. *Newsletter / New Zealand Geophysical Society 59:* p. 26-27.

Russell Robinson reviews the Seismological Society of America 96th Annual Meeting, San Francisco, 17-21 April 2001.

Robinson, R.; McGinty, P.J. The enigma of the Arthur's Pass, New Zealand, earthquake - 2. The aftershock distribution and its relation to regional and induced stress fields. *Journal of geophysical research. Solid earth 105(B7):* p. 16139-16150.

The aftershock distribution of the 1994 Arthur's Pass earthquake, M_w 6.7, is unusual for a reverse faulting event in that it extends 12 km NNW and 30 km SSE of the actual fault plane which strikes NE-SW. We have used several methods to infer the regional stress field in the region, including geodetic results, earthquake mechanisms, and inversion of *P* wave polarity data for the stress tensor orientation. The inversion method is new and does not require the focal mechanisms of the events used. It also incorporates the Coulomb failure criterion. All results point to a stress field favoring strike-slip faulting, not thrusting, with near-horizontal $\sigma 1$ and $\sigma 3$ principal axes striking 298° and 28°. Using dislocation theory, we calculate the stress induced by the Arthur's Pass earthquake and its largest aftershock (a strike-slip event) and add this to the regional field. There is a fair correspondence between the hypocenters of aftershocks away from the mainshock fault plane and regions of high induced Coulomb Failure Stress (CFS) on optimally oriented fault planes. However, there are regions of high induced CFS that are devoid of aftershocks. It appears that earthquake slip in this region of oblique (19°) plate convergence is, as observed elsewhere, partitioned into components parallel and perpendicular to the plate margin. Most of the slip is parallel, as occurs on the nearby dextral Alpine fault, the boundary between the Pacific and Australian plates. However, occasional reverse events, such as the Arthur's Pass earthquake, account for at least some of the perpendicular component of slip and the uplift that produced the Southern Alps.

Webb, T.H. The science of earthquakes. *Hazards & society: planning for an earthquake crisis in New Zealand: 28-29 February 2000, field trip to Wellington Fault, 1 March 2000* : 17 p.

New Zealand is slowly deforming as a result of plate tectonic motion. The relatively frequent small earthquakes that we experience do little to accommodate this motion. A lot of this motion is eventually released in large, infrequent earthquakes. Nearly all earthquakes are caused by slip on a fault. Such faults occur in three main guises: large (and small) crustal faults visible at the surface; the subduction zone interface between the Pacific and Australian plates; and faults within the subducting Pacific plate. Faults slip in a variety of ways, giving rise to what we call strike-slip, reverse and normal faulting earthquakes.

Zhao, J.X.; Cousins, W.J.; Robinson, W.H. Using a lead-based damper to increase near-source ground motion resisting capacity of existing base-isolated structures. *12th World Conference on Earthquake Engineering.*

Impulsive near-source ground motions can impose extremely large displacement demands on long period structures, including base-isolated structures. We use a model of a 4-storey reinforced-concrete moment-resisting frame isolated with lead rubber bearings to demonstrate that some early design of base-isolated structure do not have sufficient displacement capacity to cope well with such motions. We allow a gap of 150mm between the concrete slab above the lead rubber bearings and a buffer stop, and assume a maximum displacement capacity of 250mm for the lead rubber bearings. Base-buffer impact occurs in response to the Sylmar record (from the 1994 Northridge earthquake). It results in a very large ductility demand in the upper structure when the buffer stiffness is high and in an unacceptably large bearing displacement when the buffer stiffness is low. Various ways of improving the response to the near-source motions are investigated. Increasing the buffer gap to the maximum displacement capacity of the bearings does not greatly reduce the ductility demand on the upper structure, but adding lead extrusion dampers proves to be a very effective way of reducing both the bearing displacements and the inter-storey drifts of the isolated structure. A disadvantage of using the additional dampers is that the peak storey accelerations at the base and the top floor increase significantly, but the increase is not excessive. The system with the added dampers also gives satisfactory results when subjected to near-source motions exhibiting the "backward directivity" effect and to a conventional ground motion such as the 1940 El Centro record. The combined system is expected to be cost effective because the minimised displacement demand on the bearings allows the use of smaller and cheaper bearings.

OBSERVATORY SERVICES

PUBLICATIONS

The New Zealand seismological reports are a continuing series of E-bulletins published in the science report series from the Institute of Geological and Nuclear Sciences. They contain summaries of the data used for each origin determination, lists of origins, felt intensity data, and brief accounts of the principal earthquakes of the year. They also provide details of the instruments used to record earthquakes and descriptions of Observatory practices.

Copies of this material may be purchased from:

Publications Sales
Institute of Geological and Nuclear Sciences
PO Box 30-368
Lower Hutt
New Zealand

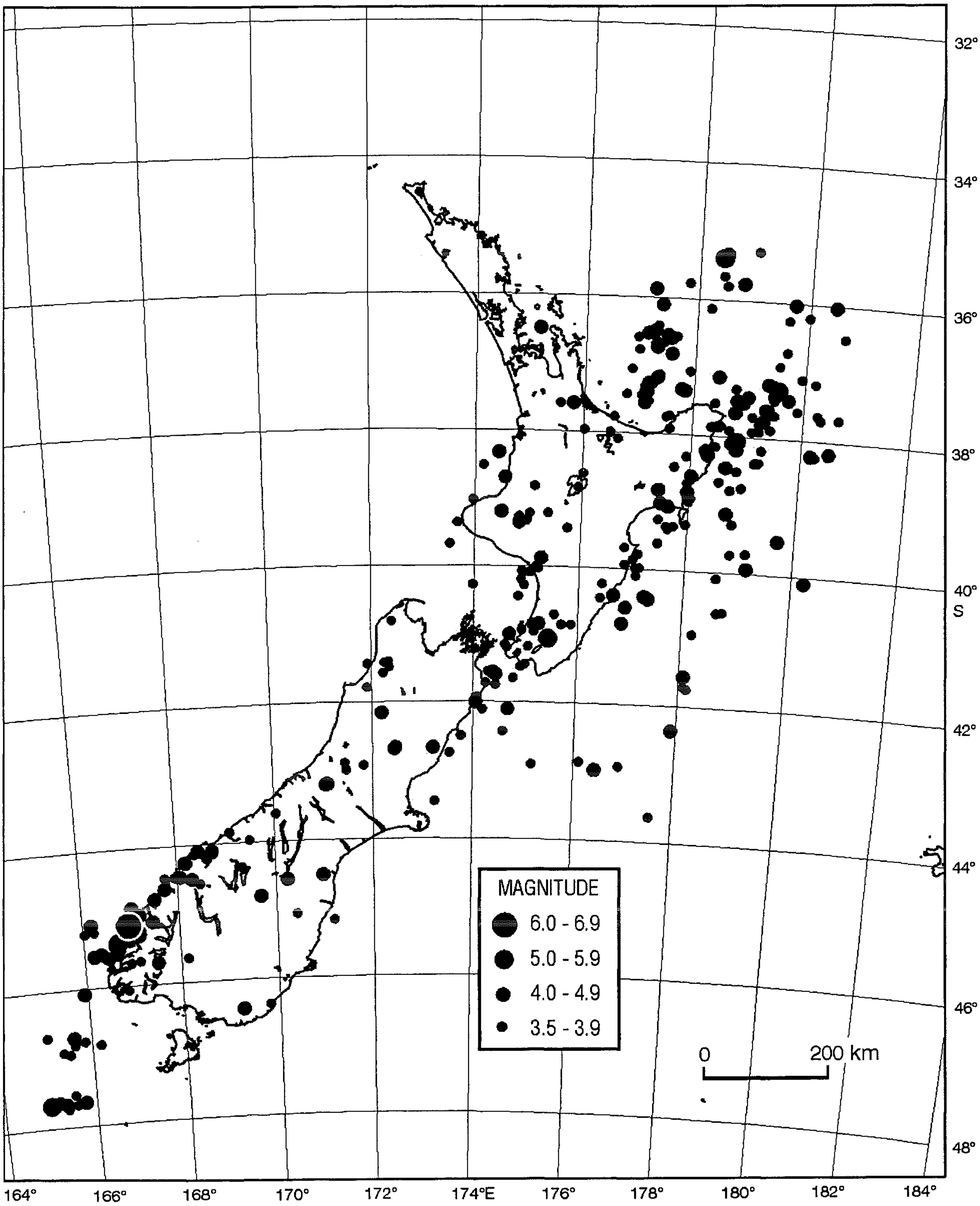
EARTHQUAKE CATALOGUE

The Observatory has a master file of some tens of thousands of earthquake origins and associated information stored on magnetic tape. From this, lists of earthquakes within particular geographical areas of New Zealand, or in categories defined in other ways, can be made available to researchers. Full details have been published elsewhere (W.D. Smith, 1976: A Computer File of New Zealand Earthquakes. *Bulletin of the New Zealand National Society for Earthquake Engineering. 9(2)*: p.136-13; *New Zealand journal of geology and geophysics, 19(3)*: p.393-394). Criteria that may be specified are dates, magnitudes, focal depths, intensities and regions bounded in a number of different ways. It is also possible to search for earthquakes likely to have produced intensities above a specified minimum at a particular place and to list reports of intensities above a given minimum intensities that have originated in a chosen reporting locality. Because of the dangers inherent in the use of incompletely assessed data, it is recommended that users should discuss their search criteria with the Observatory.

Waveforms of earthquakes recorded by digital seismographs are also archived and accessible for further processing by CUSP or other compatible software.

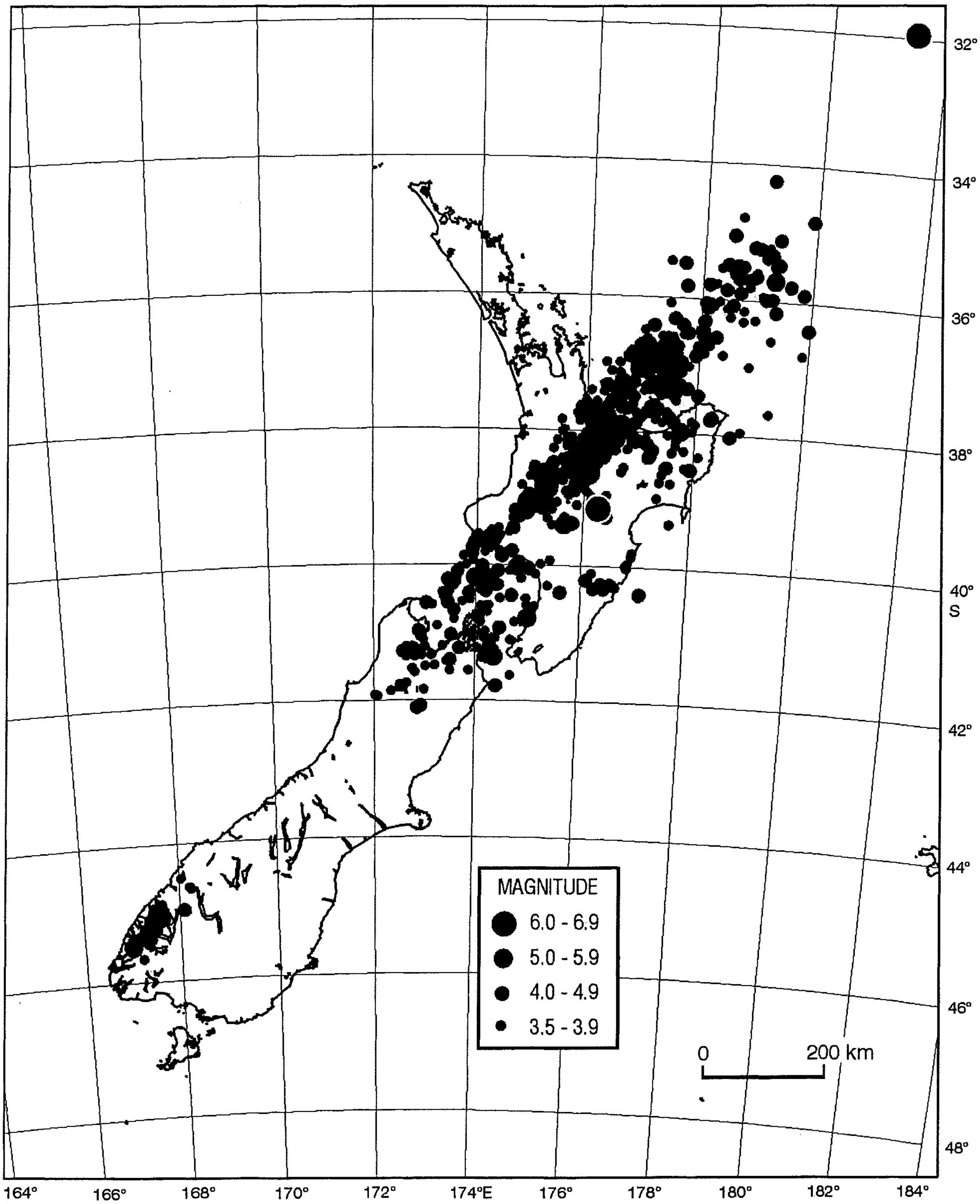
EPICENTRE MAPS 2000

REGIONAL SHALLOW EARTHQUAKES



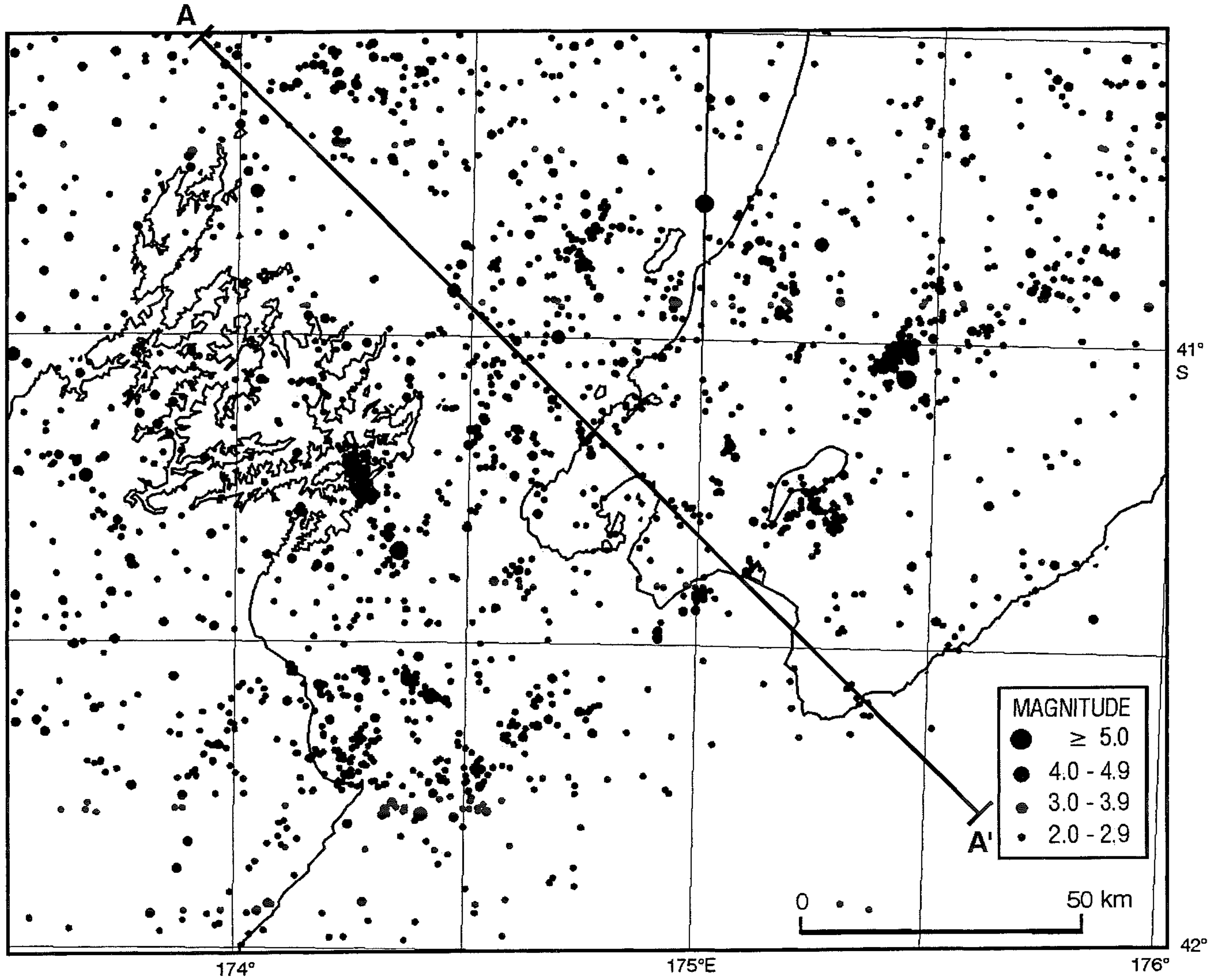
Epicentres of all earthquakes of $M_L \geq 3.5$ with focal depths less than 40 km. When several shocks have the same epicentre, the largest is shown.

REGIONAL DEEP EARTHQUAKES



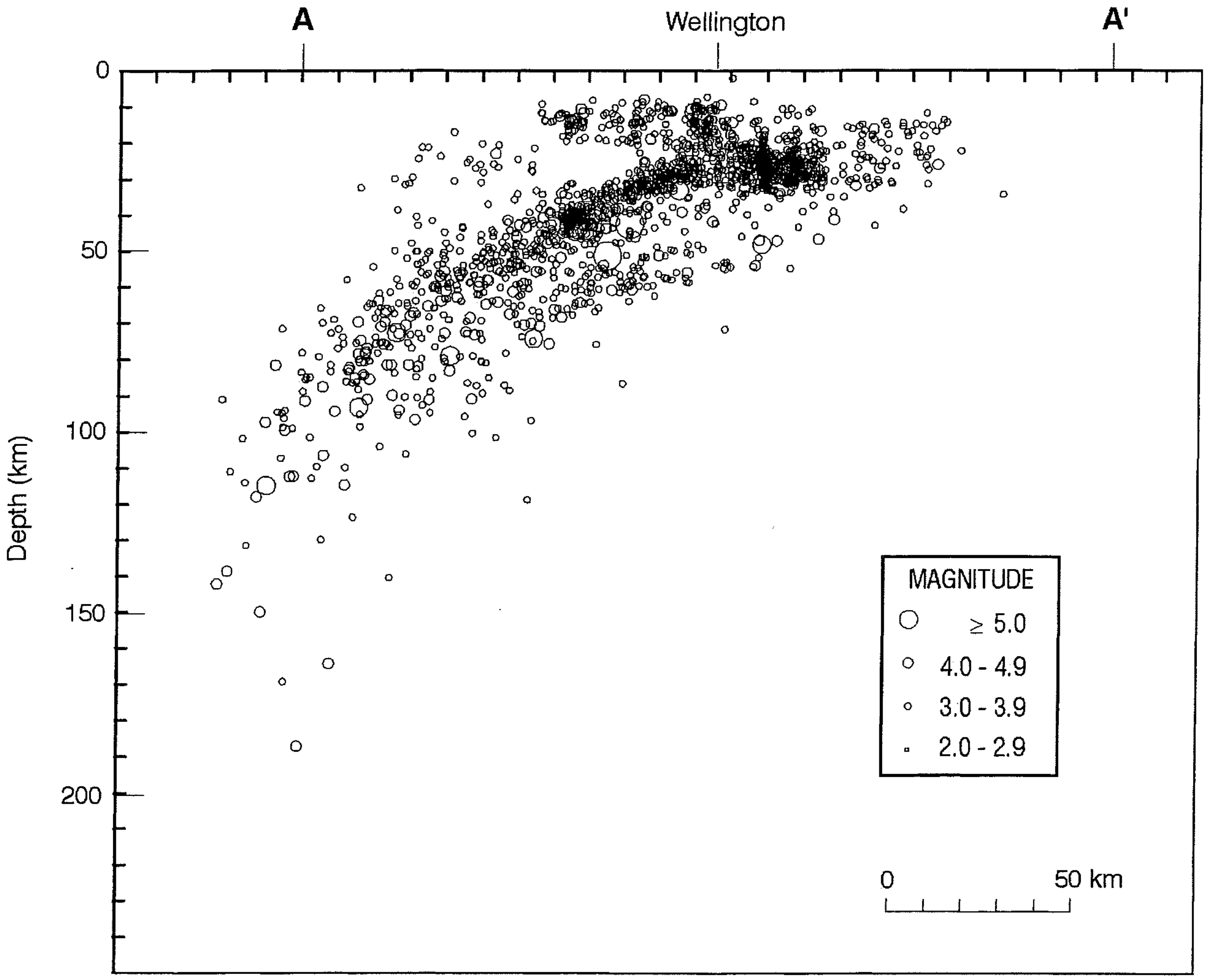
Epicentres of all earthquakes of $M_L \geq 3.5$ with focal depths of 40 km or more. When several shocks have the same epicentre, the largest is shown.

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.