Sta. code	Δ (deg.)	Az (deg.)	Phase	UTC h min s	Resid (s)	T (s)	A (μm)
			1987 12 1				
			O=03 59 08.4	**± 0.13s**			
			LAT=52.05 N	**± 4.31km**			
			LONG=170.74 W	**± 1.65km**			
			DEPTH= 22 km	**± 1.55km**			
			STATIONS USED = 71, STAND DEV= 1.61s				
			Ms=5.3 / 11,				
MDJ	39.4	284	cP	04 06 38.0	−0.4		
CN2	42.3	285	+P	04 07 02.0	−0.6		
			cS	04 13 23.0	0.9		
			LN	Ms=4.9		22.0	1.20
SNY	44.6	284	−iP	04 07 22.2	1.3		
BJI	50.1	287	cP	04 07 59.0	−5.2		
TIA	52.0	282	cP	04 08 18.6	−0.2		
HHC	52.2	290	+P	04 08 21.0	0.2		
SSE	53.0	275	cP	04 08 26.5	0.3		
			sP	04 08 37.0	0.0		
			LZ	Ms=5.2		20.0	1.39
BTO	53.3	291	+P	04 08 29.0	0.3		
NJ2	53.8	277	−P	04 08 32.0	0.1		
TIY	53.8	287	+P	04 08 32.5	0.2		
			S	04 16 02.5	−0.7		
			LN	Ms=5.3		10.0	0.82
			LZ	Ms=5.1		22.0	1.30
WHN	57.6	279	eP	04 09 00.0	0.6		
XAN	58.4	286	P	04 09 04.6	−0.6		
GTA	59.9	296	−iP	04 09 15.2	−0.5		
			LE	Ms=5.5		15.0	1.56
			LZ	Ms=5.6		26.0	3.50
LZH	59.9	291	+P	04 09 16.0	0.0		
			PMZ			2.0	0.20
			sP	04 09 28.0	1.4		
WMQ	63.1	307	+P	04 09 37.3	0.2		
			PMZ			1.7	0.090
			cS	04 18 07.5	2.1		
			LZ	Ms=5.5		16.0	1.58
GZH	63.6	274	eP	04 09 43.0	2.7		
CD2	63.7	287	cP	04 09 41.3	0.3		
GYA	65.2	282	P	04 09 51.0	0.1		
KMI	68.5	284	+P	04 10 12.5	0.2		
LSA	71.8	295	+P	04 10 32.8	0.2		
KSH	72.0	312	cP	04 10 34.0	0.6		
			1987 12 1				
			O=04 04 12.4	**± 0.11s**			
			LAT=17.73 S	**± 2.12km**			
			LONG=172.80 W	**± 2.00km**			
			DEPTH= 29 km	**± 0.30km**			
			STATIONS USED = 57, STAND DEV= 1.19s				
			Ms=5.5 / 11,	m_B**=6.0 / 6**			
MDJ	81.2	322	eP	04 16 28.0	0.1		
			pP	04 16 38.0	1.3		
			SMN	m_B=6.0		9.0	1.03
CN2	83.2	320	+iP	04 16 38.0	−0.3		
			PMZ	m_B=6.1		4.0	0.80
			pP	04 16 46.0	−1.2		
			cS	04 26 55.0	−0.9		
			LZ	Ms=5.6		20.0	1.80
SNY	83.4	318	+iP	04 16 38.0	−1.1		
WHN	84.9	304	eP	04 16 47.5	0.9		
			S	04 27 16.0	5.5		
TIA	85.1	310	P	04 16 48.8	0.8		
			cS	04 27 17.0	2.0		
			SME	m_B=6.0		10.0	1.43
			LN	Ms=5.3		18.0	0.48
			LE			18.0	0.47
			LZ	Ms=5.4		18.0	0.91
BJI	87.5	313	+iP	04 16 59.5	0.1		
			esP	04 17 11.0	−0.9		
			eSKS	04 27 28.0	6.5		
			SMN			14.0	2.05
			SME			14.0	1.35
TIY	89.2	310	+P	04 17 08.5	0.9		
			PMZ			2.0	0.30
			sP	04 17 20.5	0.4		
			SKS	04 27 32.0	−0.1		
			S	04 27 45.5	−6.0		
			LN	Ms=5.5		12.0	0.62
			LZ	Ms=5.5		22.0	1.30
GYA	89.6	298	P	04 17 11.0	1.2		
			pP	04 17 21.0	2.4		
			S	04 27 59.0	3.3		
XAN	90.5	306	P	04 17 14.4	0.8		
			pP	04 17 24.2	1.8		
HHC	91.0	313	+P	04 17 16.0	−0.3		
			pP	04 17 27.0	1.9		
			S	04 28 10.0	1.9		
			SMN	m_B=5.8		7.0	0.39
			SME			7.0	0.52
BTO	92.0	312	P	04 17 21.5	0.6		
			sP	04 17 33.0	−0.3		
			eSKS	04 27 49.0	0.3		
			S	04 28 19.0	2.1		

		LN	Ms=5.6	15.0	0.70	
		LE		15.0	0.70	
KMI	92.5	295	+P	04 17 25.0	1.6	
			pP	04 17 35.5	3.4	
			eS	04 28 26.0	2.3	
			LE	Ms=6.0	16.0	2.70
CD2	93.5	301	eP	04 17 28.3	0.7	
LZH	95.1	306	+P	04 17 35.5	0.6	
			PMZ		2.5	0.15
			eSKS	04 28 08.0	2.3	
			LN	Ms=5.7	16.0	1.15
			LE		17.0	0.95
GTA	99.1	308	P	04 17 51.5	−1.5	
WMQ	108.8	311	eP	04 18 35.0	−1.3	
			PP	04 23 06.0	−4.6	
			LZ	Ms=5.4	32.0	1.04

1987 12 1

O=04 25 10.4 ± 0.13s
LAT=58.35 N ± 2.27km
LONG=143.54 W ± 1.43km
DEPTH= 4 km ± 0.42km
STATIONS USED = 24, STAND DEV= 1.20s

CN2	54.6	297	+P	04 34 42.0	−0.8
GTA	69.3	312	P	04 36 21.0	−0.5
WMQ	69.7	323	eP	04 36 23.0	−1.0
LZH	70.5	308	eP	04 36 28.5	−0.5
GYA	77.5	300	P	04 37 11.2	1.4

1987 12 1

O=08 50 40.3 ± 0.11s
LAT=26.38 N ± 1.49km
LONG= 93.26 E ± 0.94km
DEPTH= 49 km ± 0.15km
STATIONS USED = 53, STAND DEV= 1.58s
Ms=5.5/ 1,

LSA	3.8	331	P	08 51 41.2	2.7	
			S	08 52 22.4	1.6	
KMI	8.6	96	+P	08 52 46.5	0.6	
CD2	10.3	61	eP	08 53 08.0	−0.1	
GYA	12.0	87	P	08 53 29.8	−2.0	
LZH	13.2	41	+P	08 53 47.5	−0.8	
			PMZ		1.5	0.10
GTA	14.1	21	P	08 53 57.6	−1.9	
XAN	15.5	57	+P	08 54 15.8	−2.1	
WMQ	18.0	347	P	08 54 51.0	2.4	
			PP	08 55 08.0	5.0	
			S	08 58 07.0	3.7	
WHN	19.0	72	+P	08 55 02.7	1.8	
KSH	19.5	316	P	08 55 09.0	2.9	
			cpP	08 55 13.0	−3.0	
			cS	08 58 42.0	4.6	
			cSS	08 59 09.0	4.9	
TIY	19.8	50	eP	08 55 09.1	−0.2	
BTO	19.9	40	eP	08 55 10.0	−0.5	
HHC	20.9	42	P	08 55 22.0	0.4	
NJ2	23.0	70	+P	08 55 42.4	0.2	
BJI	23.4	49	P	08 55 48.0	1.8	

1987 12 1

O=12 03 55.0 ± 0.08s
LAT=57.88 N ± 2.39km
LONG=142.84 W ± 1.47km
DEPTH= 12 km ± 0.17km
STATIONS USED = 63, STAND DEV= 1.32s
Ms=6.2/34, m_B=6.0/ 6

MDJ	52.6	296	eP	12 13 10.0	−1.3	
			sP	12 13 18.0	−1.9	
			S	12 20 36.0	0.3	
			LZ	Ms=5.9	28.0	9.33
CN2	55.2	298	eP	12 13 29.0	−1.3	
			eS	12 21 09.0	−2.8	
			LZ	Ms=5.9	15.0	4.90
SNY	57.5	298	+iP	12 13 48.0	0.5	
			S	12 21 40.0	−2.4	
			LN	Ms=6.0	20.0	5.05
			LE		18.0	4.02
			LZ	Ms=5.8	25.0	5.44
BJI	62.4	302	eP	12 14 20.5	−0.2	
			eS	12 22 52.0	6.0	
			SMN		14.0	1.17
			csS	12 23 00.0	4.2	
			LN	Ms=6.0	13.0	3.44
			LE		11.0	2.11
			LZ	Ms=6.1	18.0	6.82
HHC	63.8	305	eP	12 14 30.0	−0.1	
			S	12 23 05.0	2.8	
			LN	Ms=6.4	14.0	8.87
			LE		15.0	6.05
			LZ	Ms=6.4	15.0	13.4
BTO	64.7	306	eP	12 14 35.5	−0.3	
			pP	12 14 41.0	−0.6	
			cPP	12 17 00.0	1.0	
			S	12 23 14.0	1.0	
			eSS	12 27 28.0	2.4	
			LN	Ms=6.7	15.0	19.9
			LE		15.0	12.5
			LZ	Ms=6.6	15.0	20.7
TIY	66.0	303	eP	12 14 44.0	−0.2	
			sP	12 14 55.0	2.2	

			PcP	12 15 09.5	−4.4		
			ScP	12 19 15.0	−0.4		
			S	12 23 35.0	5.9		
			ScS	12 24 34.0	−1.4		
			LN	Ms=6.2		12.0	6.25
			LZ	Ms=6.3		18.0	10.9
NJ2	67.6	295	eP	12 14 50.6	−3.9		
GTA	69.9	313	+iP	12 15 09.0	0.4		
			eS	12 24 18.5	1.2		
			LN	Ms=6.3		18.0	9.21
			LE			12.0	3.81
			LZ	Ms=6.4		19.0	11.7
WMQ	70.3	324	P	12 15 12.0	0.8		
			PMZ			2.0	0.070
			PP	12 17 48.0	0.5		
			S	12 24 24.0	3.4		
			SME			16.0	1.25
			ScS	12 25 14.0	5.0		
			LZ	Ms=6.1		18.0	5.74
XAN	70.6	303	P	12 15 12.6	−0.5		
			pP	12 15 20.2	1.4		
			LN	Ms=6.4		14.0	4.45
			LE			14.0	7.74
WHN	71.0	297	P	12 15 18.5	2.9		
			pP	12 15 24.0	2.6		
			S	12 24 36.0	6.8		
			LZ	Ms=5.9		20.0	4.20
LZH	71.1	308	eP	12 15 15.0	−1.1		
			PMZ			1.7	0.11
			pP	12 15 23.0	1.3		
			eS	12 24 32.0	0.4		
			LN	Ms=6.5		17.0	11.4
			LE			16.0	6.77
CD2	75.5	305	P	12 15 42.9	0.7		
			S	12 25 23.6	3.3		
			LN	Ms=6.3		16.0	7.94
			LZ	Ms=6.4		14.0	7.96
KSH	77.7	330	eP	12 15 57.5	3.0		
			csP	12 16 05.0	2.2		
			cPP	12 18 52.0	1.4		
			S	12 25 48.0	4.0		
			SMN	m_B=5.9		6.0	0.60
			cSKS	12 26 06.0	4.5		
			LN	Ms=6.5		16.0	11.1
GYA	78.1	301	P	12 15 57.0	0.7		
			S	12 25 50.0	2.3		
			LN	Ms=6.3		18.0	7.00
			LE			18.0	4.30
KMI	81.0	303	−P	12 16 13.0	0.7		
			S	12 26 21.0	2.6		
			LZ	Ms=6.2		17.0	5.30
LSA	81.8	315	eP	12 16 17.8	1.2		
			S	12 26 30.0	3.6		
			LN	Ms=6.2		17.0	3.66
			LE			16.0	3.75

1987 12 1
O=13 48 06.2 ± 0.16s
LAT=52.29 N ± 2.30km
LONG=170.67 W ± 0.84km
DEPTH= 36 km ± 0.47km
STATIONS USED = 21, STAND DEV= 0.91s

BTO	53.3	291	eP	13 57 24.8	0.6		
GTA	59.8	296	P	13 58 10.4	−0.6		
WMQ	63.0	307	P	13 58 32.5	0.3		
LSA	71.8	295	eP	13 59 28.0	0.0		

1987 12 1
O=18 23 32.3 ± 0.11s
LAT=22.07 S ± 1.80km
LONG=177.96 W ± 1.72km
DEPTH=389 km ± 0.51km
STATIONS USED = 73, STAND DEV= 1.03s

QZH	77.3	304	eP	18 34 47.5	0.4		
SSE	78.7	310	P	18 34 52.0	−2.7		
			PMZ			1.0	0.041
GZH	80.5	300	−P	18 35 05.0	0.8		
NJ2	80.9	310	+iP	18 35 07.4	1.2		
MDJ	81.8	325	eP	18 35 10.5	−0.4		
			pP	18 36 40.0	1.3		
WHN	83.4	307	+iP	18 35 21.0	2.1		
SNY	83.4	320	−iP	18 35 18.9	−0.2		
CN2	83.6	323	+P	18 35 19.2	−0.6		
			pP	18 36 44.0	−3.9		
			eS	18 45 08.0	−0.6		
TIA	84.4	313	eP	18 35 23.9	0.2		
BJI	87.0	315	eP	18 35 36.0	−0.6		
GYA	87.5	300	−P	18 35 39.4	0.6		
			pP	18 37 08.0	0.4		
TIY	88.4	312	+P	18 35 43.4	0.5		
			eS	18 45 53.5	−0.4		
XAN	89.1	307	P	18 35 46.4	−0.1		
KMI	90.1	297	−P	18 35 53.0	1.8		
HHC	90.5	314	P	18 35 53.0	0.2		
BTO	91.4	314	eP	18 35 56.9	−0.2		
CD2	91.7	303	eP	18 35 59.0	0.7		
LZH	93.7	307	−iP	18 36 09.0	1.0		
			PMZ			1.0	0.059
GTA	98.0	309	P	18 36 27.0	−0.3		

1987 12 1

O = 20 41 08.0 ± 0.09s
LAT = 58.91 N ± 1.66km
LONG = 142.94 W ± 1.18km
DEPTH = 7 km ± 0.22km
STATIONS USED = 12, STAND DEV = 2.44s

CN2	54.6	297	eP	20 50 43.8	3.7	
GTA	69.1	313	P	20 52 20.0	2.2	

1987 12 2

O = 01 53 25.8 ± 0.18s
LAT = 59.03 N ± 3.70km
LONG = 143.29 W ± 2.46km
DEPTH = 12 km ± 0.34km
STATIONS USED = 53, STAND DEV = 2.44s
Ms = 5.8 / 21, m_B = 5.6 / 1

MDJ	51.9	295	eP	02 02 32.0	−4.7	
			S	02 10 00.0	3.3	
			LZ	Ms = 5.7	16.0	3.49
CN2	54.4	297	eP	02 02 54.0	−1.6	
			eS	02 10 32.0	−0.5	
			LN	Ms = 5.5	18.0	2.60
SNY	56.8	297	eP	02 03 12.0	−0.9	
HHC	62.9	305	eP	02 03 56.0	0.8	
			LN	Ms = 6.0	13.0	2.51
			LE		14.0	3.58
BTO	63.8	306	eP	02 04 06.0	5.2	
			epP	02 04 10.0	3.3	
			LN	Ms = 5.9	14.0	2.30
			LE		14.0	2.40
			LZ	Ms = 5.9	14.0	3.50
NJ2	66.9	294	eP	02 04 20.2	−0.7	
			LE	Ms = 5.8	13.0	2.64
GTA	68.9	312	P	02 04 32.5	−1.0	
			LE	Ms = 5.6	20.0	2.36
			LZ	Ms = 5.7	18.0	2.43
WMQ	69.2	323	P	02 04 34.2	−1.2	
			PP	02 07 07.5	−2.1	
			LZ	Ms = 5.7	17.0	2.35
XAN	69.8	303	P	02 04 37.4	−1.4	
			LN	Ms = 6.0	14.0	2.74
			LE		12.0	2.67
LZH	70.2	307	eP	02 04 39.5	−1.8	
			PMZ		2.0	0.073
			LN	Ms = 6.0	15.0	2.13
			LE		16.0	4.10
WHN	70.3	296	P	02 04 40.5	−1.3	
			pP	02 04 45.5	−2.2	
CD2	74.7	305	eP	02 05 05.6	−2.3	
KSH	76.6	330	eP	02 05 20.0	1.0	
GYA	77.3	300	P	02 05 22.4	−0.3	
KMI	80.2	303	−P	02 05 40.5	1.9	
			eS	02 15 43.0	0.4	
			LE	Ms = 6.0	15.0	3.30
			LZ	Ms = 5.6	20.0	1.80
LSA	80.8	314	eP	02 05 41.8	−0.4	

1987 12 2

O = 03 25 51.9 ± 0.10s
LAT = 31.29 N ± 0.97km
LONG = 116.14 E ± 0.97km
DEPTH = 4 km ± 0.21km
STATIONS USED = 22, STAND DEV = 2.34s
M_L = 3.3 / 24,

WHN	1.7	244	Pn	03 26 23.0	0.3	
			Pg	03 26 25.5	3.5	
			Sg	03 26 46.0	0.6	
			SMN	M_L = 3.8	0.2	0.90
			SME		0.2	1.00
NJ2	2.4	71	+Pg	03 26 36.2	1.2	
			Sg	03 27 07.0	−1.3	
			SMN	M_L = 3.1	0.5	0.10
SSE	4.3	91	Pg	03 27 11.7	3.2	
			Sg	03 28 08.0	0.4	
			SMN	M_L = 3.1	0.5	0.034
TIA	5.0	9	cPg	03 27 18.2	−1.6	
			eSg	03 28 23.0	−4.7	
			SMN	M_L = 3.0	0.4	0.017
			SME		0.4	0.023
XAN	6.7	296	Pg	03 27 51.4	1.6	
			Sg	03 29 18.4	−2.5	
			SMN	M_L = 3.1	1.0	0.012
			SME		0.8	0.0090
TIY	7.1	336	cPn	03 27 38.5	1.7	

1987 12 2

O = 05 13 03.0 ± 0.07s
LAT = 58.77 N ± 1.73km
LONG = 142.91 W ± 1.03km
DEPTH = 8 km ± 0.34km
STATIONS USED = 42, STAND DEV = 1.39s

CN2	54.7	298	eP	05 22 34.0	−1.6
BJI	61.9	301	eP	05 23 25.0	−0.9
TIY	65.5	302	eP	05 23 49.0	−0.5
NJ2	67.2	294	−P	05 24 01.2	0.7
GTA	69.2	313	+iP	05 24 13.0	−0.3
WMQ	69.6	323	P	05 24 15.7	0.5
XAN	70.1	303	eP	05 24 13.9	−4.6
WHN	70.6	297	eP	05 24 21.0	−0.4
CD2	75.0	305	P	05 24 47.7	0.1

GYA	77.6	301	P	05 25 02.6	0.4
LSA	81.1	315	+P	05 25 22.1	0.4

1987 12 2
O = 14 22 44.1 ± 0.07s
LAT = 28.41 S ± 3.00km
LONG = 177.16 W ± 1.97km
DEPTH = 61 km ± 0.66km
STATIONS USED = 15, STAND DEV = 1.14s
$M_L = 2.8 / 4$,

MDJ	87.4	325	eP	14 35 27.6	0.8		
WHN	87.7	307	P	14 35 27.5	−0.9		
CN2	89.0	322	eP	14 35 34.0	−0.4		
TIA	89.2	313	eP	14 35 36.0	0.8		
BJI	92.0	315	eP	14 35 49.5	1.0		
TIY	93.1	312	eP	14 35 53.5	0.0		
XAN	93.5	307	P	14 35 56.0	0.7		

1987 12 2
O = 16 09 59.9 ± 0.12s
LAT = 37.83 N ± 0.98km
LONG = 106.29 E ± 1.05km
DEPTH = 8 km ± 0.27km
STATIONS USED = 7, STAND DEV = 3.78s
$M_L = 2.8 / 4$,

BTO	4.0	45	cPn	16 11 04.7	2.7		
			Sn	16 11 51.2	0.2		
XAN	4.3	150	cPg	16 11 13.5	−3.3		
TIY	4.9	90	cPg	16 11 26.7	0.6		
			SMN	$M_L = 2.9$	0.6	0.020	
			SME		0.5	0.010	
GTA	5.3	289	cPg	16 11 31.5	−2.4		
			Sg	16 12 40.5	−5.7		
			SME	$M_L = 2.4$	0.6	0.0040	

1987 12 3
O = 03 59 02.8 ± 0.11s
LAT = 33.06 N ± 0.82km
LONG = 110.92 E ± 0.50km
DEPTH = 31 km ± 0.45km
STATIONS USED = 10, STAND DEV = 2.46s
$M_L = 2.9 / 8$,

XAN	1.9	301	cPn	03 59 34.5	0.5		
			Pg	03 59 35.7	−1.6		
			Sn	03 59 58.4	−0.2		
			Sg	04 00 00.9	−3.1		
			SMN	$M_L = 3.3$	0.6	0.24	
			SME		0.6	0.25	
TIY	4.8	15	−Pg	04 00 29.3	1.4		
			SMN	$M_L = 3.1$	0.8	0.020	
			SME		0.8	0.030	

1987 12 3
O = 09 16 36.6 ± 0.06s
LAT = 42.81 N ± 0.84km
LONG = 88.98 E ± 0.57km
DEPTH = 5 km ± 0.29km
STATIONS USED = 8, STAND DEV = 1.87s
$M_L = 3.6 / 7$,

WMQ	1.4	318	Pg	09 17 01.0	0.1		
			Sg	09 17 18.6	−0.9		

1987 12 3
O = 09 20 12.4 ± 0.08s
LAT = 58.64 N ± 1.85km
LONG = 142.73 W ± 1.15km
DEPTH = 9 km ± 0.46km
STATIONS USED = 60, STAND DEV = 1.55s
Ms = 5.6 / 18, $m_B = 5.6 / 2$

MDJ	52.3	296	eP	09 29 28.0	1.1		
CN2	54.8	298	+P	09 29 44.8	−1.0		
			eS	09 37 22.0	−3.7		
			LN	Ms = 5.4	18.0	1.90	
BJI	62.0	301	eP	09 30 35.0	−1.1		
			eS	09 39 00.0	0.4		
			LE	Ms = 5.2	14.0	0.83	
HHC	63.4	305	−P	09 30 45.0	−0.2		
			S	09 39 17.0	1.7		
			LN	Ms = 6.0	18.0	3.43	
			LE		18.0	4.24	
BTO	64.3	306	eP	09 30 50.3	−0.6		
			eS	09 39 29.5	1.9		
			LN	Ms = 6.0	19.0	4.00	
			LE		19.0	4.10	
			LZ	Ms = 5.5	15.0	1.60	
TIY	65.6	303	−P	09 31 05.0	5.4		
			S	09 39 48.0	5.3		
			LN	Ms = 5.8	15.0	2.19	
			LE		14.0	1.45	
			LZ	Ms = 5.4	18.0	1.45	
NJ2	67.3	294	eP	09 31 10.0	−0.6		
			LZ	Ms = 5.1	16.0	0.59	
GTA	69.4	313	+iP	09 31 23.1	−0.4		
			PMZ	$m_B = 5.7$	4.0	0.37	
			S	09 40 30.0	2.0		
			LE	Ms = 5.7	25.0	3.57	
XAN	70.2	303	P	09 31 27.4	−1.2		
			LN	Ms = 5.7	16.0	1.44	
			LE		14.0	1.64	
LZH	70.6	308	+iP	09 31 31.0	−0.2		
			PMZ		1.5	0.079	

			LN	Ms=5.9	24.0	2.95	
			LE		24.0	3.80	
WHN	70.7	297	P	09 31 32.0	0.5		
CD2	75.2	305	P	09 31 57.7	0.1		
GYA	77.7	301	+P	09 32 12.2	0.0		
			S	09 42 02.0	0.0		
KMI	80.6	303	eP	09 32 28.0	−0.1		
			S	09 42 32.0	−0.6		
			LN	Ms=5.7	20.0	2.10	
LSA	81.3	315	+P	09 32 31.6	−0.1		

1987 12 3
O=11 04 39.2 ± 0.14s
LAT=21.38 S ± 3.61km
LONG= 68.37 W ± 4.89km
DEPTH=119 km ± 1.41km
STATIONS USED = 69, STAND DEV= 1.29s

KSH	144.7	51	PKP	11 24 03.0	−0.1		
			cPP	11 27 24.0	0.7		
WMQ	150.1	36	PKP	11 24 12.6	0.6		
			PKP_2	11 24 18.0			
MDJ	152.5	332	+PKP	11 24 15.8	0.4		
CN2	154.9	336	cPKP	11 24 18.0	-0.7		
			PKP_2	11 24 42.0			
GTA	159.4	27	−iPKP	11 24 25.0	0.4		
			PKP_2	11 25 03.4			
DL2	160.5	336	cPKP	11 24 25.6	0.0		
HHC	160.6	0	−PKP	11 24 27.0	1.2		
BTO	160.8	4	cPKP	11 24 27.0	1.0		
BJI	161.0	349	cPKP	11 24 26.5	0.4		
			PKP_2	11 25 07.0			
TIY	163.7	358	−PKP	11 24 29.4	0.5		
LZH	163.8	23	PKP	11 24 30.0	0.9		
TIA	164.5	343	cPKP	11 24 29.5	−0.1		
			$cPKP_2$	11 25 25.0			
SSE	167.1	320	cPKP	11 24 32.5	0.8		
			PKP_2	11 25 36.7			
XAN	167.2	10	PKP	11 24 31.9	0.1		
NJ2	167.6	330	PKP	11 24 32.4	0.4		
CD2	168.2	35	cPKP	11 24 33.2	0.7		
WHN	170.6	346	PKP	11 24 35.5	1.7		
			PKP_2	11 25 52.0			
GYA	173.2	41	PKP	11 24 35.6	0.0		

1987 12 3
O=13 50 55.0 ± 0.08s
LAT=39.57 N ± 0.74km
LONG=102.07 E ± 0.70km
DEPTH= 29 km ± 0.44km
STATIONS USED = 7, STAND DEV= 3.24s

			M_L=3.1/ 7,				
GTA	1.8	265	Pg	13 51 25.8	−0.7		
			P11	13 51 26.8	−0.1		
			SMN	M_L=3.3		1.0	0.35
			SME			1.0	0.30
LZH	3.8	157	cPg	13 52 03.5	1.8		
			Sg	13 52 49.0	−3.8		
			SMN	M_L=3.4		1.0	0.089
			SME			1.5	0.11

1987 12 3
O=16 13 07.7 ± 0.15s
LAT= 3.49 N ± 2.20km
LONG=126.67 E ± 2.84km
DEPTH= 67 km ± 0.62km
STATIONS USED = 68, STAND DEV= 1.66s
Ms=4.8/10, m_B=5.3/ 1

QZN	22.6	314	cP	16 18 07.6	4.2		
GZH	23.4	328	cP	16 18 13.0	1.8		
SSE	27.9	350	cP	16 18 53.2	−1.0		
			pP	16 19 08.0	−1.7		
			cS	16 23 33.0	1.1		
			sS	16 23 56.0	−2.9		
			cSS	16 24 54.0	−2.6		
			LZ	Ms=4.3		20.0	0.56
WHN	29.3	338	P	16 19 08.5	2.0		
			LZ	Ms=5.0		28.0	3.30
NJ2	29.3	346	+P	16 19 08.2	1.5		
			LZ	Ms=4.3		20.0	0.43
KMI	31.5	315	cP	16 19 26.5	0.4		
			pP	16 19 43.5	1.9		
XAN	34.6	334	P	16 19 50.5	−2.2		
CD2	34.8	324	cP	16 19 52.1	−2.3		
DL2	35.5	353	cP	16 20 01.8	1.1		
TIY	36.5	341	cP	16 20 09.9	1.3		
			sP	16 20 32.0	−0.8		
			S	16 25 40.0	−4.3		
			LE	Ms=5.1		21.0	2.25
BJI	37.6	347	+P	16 20 17.0	−1.0		
SNY	38.3	356	−iP	16 20 24.6	1.1		
			cS	16 26 14.0	1.4		
			LE	Ms=4.7		20.0	0.77
LZH	38.7	330	cP	16 20 26.0	−1.1		
			PMZ			2.0	0.098
			LN	Ms=5.0		20.0	0.80
			LE			22.0	1.15
HHC	39.6	342	eP	16 20 36.0	1.2		
BTO	39.9	340	eP	16 20 37.0	−0.1		
CN2	40.2	359	eP	16 20 36.0	−3.2		
MDJ	41.0	3	eP	16 20 47.5	1.0		

GTA	43.3	329	−P	16 21 04.6	−0.3			
			LE	Ms=5.2		22.0	2.07	
			LZ	Ms=5.0		23.0	1.52	
WMQ	52.9	325	−P	16 22 19.5	−0.1			
KSH	58.1	315	eP	16 22 54.0	−3.6			

1987 12 3
O=17 34 21.3 ± 0.09s
LAT=42.85 N ± 1.06km
LONG= 84.68 E ± 0.71km
DEPTH= 10 km ± 0.28km
STATIONS USED = 11, STAND DEV= 2.78s
M_L=3.8/ 9,

WMQ	2.4	65	−Pn	17 35 04.9	3.7			
			Sg	17 35 38.7	2.0			
KSH	7.4	246	cPg	17 36 35.0	2.9			
			Sg	17 38 15.5	2.6			
			SME	M_L=4.3		0.6	0.10	
GTA	11.9	102	cP	17 37 11.8	−2.9			
			SME			0.9	0.014	

1987 12 3
O=23 51 42.8 ± 0.15s
LAT=39.58 N ± 1.41km
LONG= 77.40 E ± 1.68km
DEPTH= 31 km ± 0.40km
STATIONS USED = 22, STAND DEV= 2.77s
Ms=4.2/ 3, M_L=4.1/ 8,

KSH	1.1	264	+iPg	23 52 04.5	1.4			
			Sg	23 52 22.0	3.5			
			SMN	M_L=4.1		0.4	3.60	
			SME			0.5	4.70	
WMQ	8.8	58	cP	23 53 50.0	−1.0			
			S	23 55 35.0	5.2			
			SMN	M_L=4.3		1.0	0.060	
GTA	17.3	83	P	23 55 49.8	5.8			
			LE	Ms=4.2		9.0	0.38	

1987 12 4
O=19 51 35.5 ± 0.08s
LAT= 5.72 S ± 1.40km
LONG=154.73 E ± 2.11km
DEPTH=147 km ± 0.39km
STATIONS USED =109, STAND DEV= 1.11s
m_B=6.3/ 47

QZH	46.5	312	−P	19 59 51.0	0.7			
			PMZ	m_B=6.2		10.0	4.45	
			sP	20 00 43.0	3.1			
			S	20 06 26.0	0.1			
			SMN	m_B=6.4		8.0	3.30	
			SME				8.0	3.42
			sS	20 07 26.0	1.7			
SSE	48.7	321	−iP	20 00 07.0	0.2			
			PMZ	m_B=6.4		6.0	3.89	
			sP	20 00 59.0	2.4			
			cPcS	20 05 28.0	3.8			
			S	20 06 56.0	0.2			
			SME			18.0	2.73	
			sS	20 07 57.0	2.4			
			LE			12.0	1.64	
			LZ			20.0	4.63	
GZH	49.5	307	P	20 00 15.0	1.4			
			PMZ	m_B=6.6		4.0	4.65	
			sP	20 01 07.0	3.5			
			S	20 07 08.0	−0.1			
QZN	50.6	300	−P	20 00 22.0	0.4			
			PMZ	m_B=6.3		8.0	4.00	
			sP	20 01 14.0	2.5			
			PP	20 02 18.0	−1.9			
			S	20 07 27.0	4.5			
			sS	20 08 28.0	6.2			
			SS	20 11 01.0	4.6			
NJ2	50.8	320	−iP	20 00 23.0	0.0			
			PMZ	m_B=6.6		4.0	4.00	
			pP	20 00 57.0	0.7			
			sP	20 01 17.0	4.1			
			S	20 07 26.0	0.9			
			sS	20 08 27.0	2.6			
			LE			15.0	6.36	
WHN	52.8	315	−iP	20 00 39.8	1.3			
			PMZ	m_B=6.9		4.0	8.10	
			pP	20 01 15.0	2.9			
			PP	20 02 38.0	−2.9			
			iS	20 07 55.0	0.5			
			SMN	m_B=6.2		8.0	2.60	
			sS	20 08 59.0	5.9			
			LN			13.0	2.10	
DL2	53.9	328	−P	20 00 46.0	−0.6			
			sP	20 01 40.0	3.2			
			cS	20 08 07.0	−2.3			
			LN			13.0	1.63	
			LE			12.0	1.42	
TIA	54.6	323	−P	20 00 50.3	−1.1			
			PMZ	m_B=6.2		7.0	2.52	
			PP	20 02 52.3	−4.3			
			S	20 08 15.8	−1.1			
			SMN	m_B=5.8		8.0	1.08	
			cScS	20 10 24.2	2.9			
			LN			16.0	3.90	
			LE			13.0	1.55	

MDJ	55.0	338	−P	20 00 54.0	0.0		
			PMZ			16.0	6.40
			S	20 08 24.0	2.2		
			LE			36.0	19.1
SNY	55.2	332	−iP	20 00 55.0	−0.7		
			PMZ			17.0	4.43
			sP	20 01 49.0	3.0		
			S	20 08 24.0	−0.9		
			sS	20 09 24.0	−1.0		
			LN			48.0	16.1
			LE			41.0	15.0
			LZ			50.0	22.3
CN2	55.9	335	−iP	20 01 00.0	−1.0		
			PMZ	$m_B = 6.6$		4.0	4.00
			sP	20 01 53.0	1.6		
			S	20 08 30.0	−4.7		
GYA	56.5	307	−P	20 01 05.0	0.0		
			PMZ	$m_B = 6.5$		5.0	3.70
			sP	20 01 59.0	3.7		
			PP	20 03 15.0	1.8		
			S	20 08 38.0	−3.9		
			sS	20 09 45.0	2.9		
			LE			16.0	2.40
BJI	57.7	326	−iP	20 01 12.5	−1.1		
			PMZ	$m_B = 6.1$		8.0	2.35
			csP	20 02 07.0	2.9		
			cS	20 08 54.0	−5.3		
			csS	20 09 58.0	−0.7		
			LN			19.0	5.03
			LE			30.0	4.64
			LZ			42.0	10.5
TIY	58.4	321	−iP	20 01 18.0	−0.7		
			PMZ	$m_B = 6.3$		7.0	3.26
			pP	20 01 55.0	2.3		
			PP	20 03 28.0	−2.7		
			S	20 09 09.0	1.5		
			sS	20 10 08.0	−0.1		
			ScS	20 10 52.0	3.0		
			LN			15.0	3.50
			LE			18.5	5.72
			LZ			22.0	7.69
XAN	58.6	316	−iP	20 01 18.5	−1.4		
			PMZ	$m_B = 6.6$		4.0	3.84
			pP	20 01 54.0	0.0		
			PcP	20 02 08.0	0.6		
			sP	20 02 11.0	0.6		
			S	20 09 07.0	−2.7		
			SMN	$m_B = 6.2$		8.0	2.50
			SME			8.0	2.59
			sS	20 10 11.0	0.7		
KMI	59.1	304	−iP	20 01 23.5	0.1		
			PMZ	$m_B = 6.6$		4.0	3.40
			pP	20 01 58.0	0.7		
			PcP	20 02 08.5	−0.8		
			PP	20 03 37.0	0.5		
			iS	20 09 20.0	2.4		
			SMN	$m_B = 5.8$		10.0	1.90
			sS	20 10 20.5	3.9		
			SS	20 13 19.0	5.0		
CD2	60.8	310	−iP	20 01 34.0	−0.8		
			pP	20 02 10.0	0.9		
			sP	20 02 28.0	2.5		
			S	20 09 37.0	−0.7		
			sS	20 10 39.0	0.3		
			LE			15.0	1.85
			LZ			17.0	3.75
HHC	60.9	324	−iP	20 01 35.0	−0.7		
			PP	20 03 47.0	−5.9		
			S	20 09 41.5	2.3		
			LN			14.0	1.18
			LE			15.0	1.19
BTO	61.7	323	−iP	20 01 40.0	−0.9		
			PMZ	$m_B = 6.3$		7.0	3.30
			pP	20 02 19.0	3.8		
			cPP	20 04 04.0	4.1		
			S	20 09 48.0	−1.0		
			sS	20 10 55.0	4.9		
			cSS	20 13 52.5	−2.0		
			LN			15.0	1.40
			LE			14.0	1.00
			LZ			15.0	1.90
LZH	63.2	315	−iP	20 01 51.0	−0.2		
			PMZ	$m_B = 6.6$		4.0	3.87
			pP	20 02 26.0	0.5		
			sP	20 02 42.0	0.2		
			S	20 10 09.0	0.7		
			SME	$m_B = 5.8$		7.0	1.42
			sS	20 11 11.0	1.3		
			LN			10.0	1.43
			LE			11.0	1.50
GTA	67.6	317	P	20 02 19.0	−0.4		
			PMZ	$m_B = 6.2$		8.0	3.24
			pP	20 02 55.0	0.9		
			sP	20 03 13.0	2.7		
			iS	20 11 03.0	−0.5		
			SMN	$m_B = 6.0$		10.0	1.33
			SME			10.0	2.18
			isS	20 12 08.5	4.3		
			LE			16.0	2.72
LSA	70.3	304	−P	20 02 36.0	−0.2		

			S	20 11 35.0	1.3		
			SMN	m_B = 5.9		11.0	1.26
			SME			7.0	1.25
WMQ	77.7	317	−P	20 03 18.0	−0.4		
			PMZ			2.0	3.90
			pP	20 03 54.0	0.0		
			S	20 12 59.0	3.4		
			sS	20 14 00.0	0.5		
			LN			28.0	6.46
KSH	85.0	310	+iP	20 03 57.0	0.6		
			pP	20 04 34.0	1.5		
			sP	20 04 53.0	4.7		
			cPP	20 07 20.0	4.6		
			eS	20 14 14.0	2.1		
			sS	20 15 21.0	6.1		
			LE			30.0	5.30

1987 12 5
O = 08 38 40.7 ± 0.07s
LAT = 51.16 N ± 1.77km
LONG = 178.44 E ± 0.70km
DEPTH = 33 km ± 0.05km
STATIONS USED = 30, STAND DEV = 0.69s

BJI	43.7	281	cP	08 46 45.0	0.0
BTO	47.2	285	cP	08 47 14.0	1.5
XAN	52.0	279	P	08 47 48.2	−1.3
LZH	53.8	285	−P	08 48 03.5	0.6
GTA	54.0	290	P	08 48 04.2	−0.6
CD2	57.3	280	P	08 48 28.1	−0.3
GYA	58.6	274	P	08 48 38.0	0.4

1987 12 5
O = 11 47 13.1 ± 0.06s
LAT = 6.93 S ± 1.18km
LONG = 129.77 E ± 2.42km
DEPTH = 119 km ± 0.16km
STATIONS USED = 35, STAND DEV = 1.04s

GYA	40.0	327	P	11 54 39.4	0.7		
WHN	40.1	339	cP	11 54 41.5	2.7		
CD2	45.1	328	cP	11 55 19.7	−0.1		
XAN	45.3	335	P	11 55 21.0	0.0		
TIY	47.3	341	−P	11 55 35.8	−0.9		
BJI	48.4	346	cP	11 55 45.0	−0.3		
LZH	49.2	332	P	11 55 52.5	0.4		
			PMZ			1.5	0.067
HHC	50.4	342	cP	11 56 01.2	0.3		
BTO	50.7	341	cP	11 56 02.1	−0.8		
GTA	53.8	331	P	11 56 26.5	0.2		
WMQ	63.2	327	P	11 57 31.5	−0.1		

1987 12 5
O = 18 19 10.2 ± 0.12s
LAT = 53.89 N ± 2.99km
LONG = 163.72 W ± 1.26km
DEPTH = 32 km ± 0.16km
STATIONS USED = 55, STAND DEV = 1.06s

CN2	45.8	288	+iP	18 27 31.3	−0.4
SNY	48.2	287	−P	18 27 50.6	0.7
BJI	53.5	290	eP	18 28 30.5	0.0
HHC	55.5	294	eP	18 28 45.6	0.5
BTO	56.5	294	eP	18 28 52.8	0.4
TIY	57.2	290	P	18 28 57.8	0.3
WHN	61.4	283	P	18 29 27.0	1.0
XAN	61.9	290	P	18 29 29.3	0.0
GTA	62.7	300	+iP	18 29 34.6	−0.8
LZH	63.1	295	+P	18 29 38.0	0.1
			PMZ		1.5 0.059
WMQ	65.2	311	P	18 29 52.0	0.7
CD2	67.1	291	P	18 30 03.7	0.5
GYA	68.9	286	P	18 30 15.0	0.5

1987 12 5
O = 21 48 48.4 ± 0.29s
LAT = 9.50 S ± 1.84km
LONG = 148.50 E ± 2.28km
DEPTH = 52 km ± 2.89km
STATIONS USED = 29, STAND DEV = 1.69s

NJ2	50.1	327	eP	21 57 40.8	−0.1
WHN	51.6	322	P	21 57 53.5	1.4
GYA	54.1	312	P	21 58 14.6	3.5
KMI	56.3	309	eP	21 58 27.5	0.4
XAN	57.3	321	P	21 58 32.6	−1.5
CD2	58.8	315	eP	21 58 43.9	−0.4
LZH	61.8	320	+P	21 59 05.0	−0.2
GTA	66.4	321	+P	21 59 34.2	−0.7

1987 12 6
O = 00 48 23.4 ± 0.15s
LAT = 3.67 N ± 2.00km
LONG = 125.45 E ± 2.65km
DEPTH = 38 km ± 0.76km
STATIONS USED = 72, STAND DEV = 2.21s
Ms = 4.9 / 17, m_B = 5.8 / 5

QZN	21.6	316	eP	00 53 14.0	2.0		
			SMN	m_B = 5.9		10.0	3.60
			eSS	00 57 47.0	6.8		
			LN	Ms = 4.7		13.0	1.30
QZH	22.2	343	eP	00 53 23.0	5.3		
			sS	00 57 37.0	6.6		
			LE	Ms = 4.7		20.0	1.87

GZH	22.6	330	+P	00 53 24.0	2.1		
			PMZ	$m_B = 5.8$		4.0	1.94
			S	00 57 28.2	6.7		
			SMN	$m_B = 6.2$		8.0	5.22
			SME			9.0	2.55
WHN	28.7	340	eP	00 54 20.5	0.9		
NJ2	28.9	348	eP	00 54 23.6	2.3		
GYA	28.9	323	P	00 54 22.4	0.7		
			pP	00 54 28.0	−3.6		
			S	00 59 12.0	4.5		
KMI	30.5	316	+P	00 54 37.4	1.4		
			sP	00 54 50.0	−0.2		
			S	00 59 39.0	6.3		
			LZ	Ms = 4.8		20.0	1.30
XAN	33.9	335	P	00 55 03.1	−2.3		
			cS	01 00 27.0	0.5		
			LN	Ms = 4.9		15.0	1.13
CD2	34.0	325	eP	00 55 04.8	−0.9		
TIY	35.9	342	eP	00 55 22.5	0.0		
			cS	01 00 56.0	−1.5		
			SS	01 03 14.0	−5.9		
			ScS	01 05 32.5	−1.7		
			LE	Ms = 4.6		13.0	0.39
			LZ	Ms = 4.9		16.0	1.07
BJI	37.2	348	eP	00 55 31.5	−1.4		
			ePcP	00 57 52.0	−0.3		
			ScP	01 01 37.0	2.2		
			eS	01 01 18.0	1.5		
			eScS	01 05 45.0	3.8		
			LE	Ms = 4.8		20.0	0.90
LZH	37.9	331	P	00 55 39.5	0.0		
			PMZ			2.0	0.098
			LN	Ms = 5.2		16.0	1.54
			LE			16.0	1.10
SNY	38.0	358	eP	00 55 38.5	−1.7		
			S	01 01 30.0	1.3		
			LE	Ms = 4.9		26.0	1.57
CN2	40.0	360	eP	00 56 01.4	5.1		
MDJ	40.9	5	eP	00 56 03.5	−0.9		
			pP	00 56 11.0	−3.6		
			eS	01 02 08.0	−5.5		
			LZ	Ms = 4.9		28.0	1.39
LSA	41.5	312	−P	00 56 10.1	0.4		
			iS	01 02 27.0	3.9		
			SMN	$m_B = 5.6$		7.0	0.65
GTA	42.5	330	P	00 56 16.5	−0.9		
			PMZ	$m_B = 5.4$		6.0	0.38
			eS	01 02 38.0	1.1		
			LE	Ms = 5.0		16.0	1.09
WMQ	52.0	326	P	00 57 30.0	−2.0		
			PMZ			2.0	0.060
			eS	01 04 51.0	−0.8		
			ScS	01 07 17.7	3.1		
			LZ	Ms = 5.2		18.0	1.23
KSH	57.2	316	P	00 58 11.0	1.5		
			esP	00 58 20.0	−4.2		
			esS	01 06 20.0	2.0		
			LN	Ms = 5.3		15.0	1.20

1987 12 6

O = 02 36 15.8 ± 0.09s
LAT = 24.02 N ± 1.24km
LONG = 121.77 E ± 1.47km
DEPTH = 34 km ± 1.33km
STATIONS USED = 32, STAND DEV = 2.16s
M_L = 4.2 / 19,

QZH	3.0	288	+iP	02 37 02.4	−0.3		
			iS	02 37 35.5	−2.7		
			SMN	$M_L = 4.2$		0.7	0.93
			SME			0.7	0.73
SSE	7.1	356	P	02 37 58.5	−1.2		
			eS	02 39 16.5	−3.1		
			SMN	$M_L = 3.8$		1.0	0.030
			SME			1.0	0.055
GZH	7.8	265	eP	02 38 08.0	−1.6		
			SMN	$M_L = 4.8$		0.9	0.35
			SME			1.0	0.21
NJ2	8.4	343	P	02 38 16.7	−1.6		
			eS	02 39 51.0	−2.0		
			SME	$M_L = 4.4$		1.0	0.088
TIY	15.8	332	eP	02 40 03.4	5.5		
CD2	17.4	297	eP	02 40 21.8	4.1		
LZH	19.6	312	eP	02 40 50.0	5.7		
GTA	24.1	315	eP	02 41 30.0	0.4		

1987 12 6

O = 03 24 29.8 ± 0.12s
LAT = 23.78 S ± 1.49km
LONG = 179.94 W ± 1.49km
DEPTH = 509 km ± 0.71km
STATIONS USED = 42, STAND DEV = 1.10s

QZN	80.6	296	eP	03 35 45.6	−5.1
MDJ	82.2	326	eP	03 35 58.7	−0.2
WHN	83.0	308	P	03 36 04.5	1.7
CN2	83.8	324	−P	03 36 06.8	−0.2
TIA	84.2	314	−P	03 36 08.9	0.0
BJI	87.0	316	eP	03 36 22.0	−0.3
TIY	88.2	313	−P	03 36 28.4	0.5
CD2	91.1	303	eP	03 36 42.2	0.9

1987 12 6
O = 04 07 38.0 ± 0.08s
LAT = 1.58 S ± 0.89km
LONG = 149.81 E ± 1.72km
DEPTH = 62 km ± 0.42km
STATIONS USED = 59, STAND DEV = 1.13s
Ms = 4.7 / 1,

WHN	46.5	316	cP	04 16 03.0	1.8		
MDJ	49.4	341	cP	04 16 23.8	−0.2		
			PcP	04 17 46.0	1.2		
GYA	50.1	307	P	04 16 30.4	1.0		
CN2	50.2	337	eP	04 16 28.0	−1.9		
BJI	51.6	327	eP	04 16 40.0	−0.5		
TIY	52.2	322	−iP	04 16 44.9	−0.2		
			eS	04 24 09.0	5.7		
			LZ	Ms = 4.7		22.0	0.52
XAN	52.2	317	+P	04 16 44.7	−0.9		
KMI	52.7	303	+P	04 16 50.0	0.6		
CD2	54.4	310	eP	04 17 01.0	−0.5		
HHC	54.7	325	eP	04 17 03.8	−0.1		
BTO	55.4	324	P	04 17 09.4	0.1		
LZH	56.9	316	eP	04 17 20.0	0.6		
			PMZ			1.5	0.087
GTA	61.3	317	+iP	04 17 50.0	0.0		
WMQ	71.4	318	P	04 18 54.4	0.4		
KSH	78.6	311	eP	04 19 38.0	2.5		

1987 12 6
O = 06 34 38.5 ± 0.12s
LAT = 41.23 N ± 1.45km
LONG = 123.70 E ± 1.21km
DEPTH = 10 km ± 0.23km
STATIONS USED = 12, STAND DEV = 2.90s
M_L = 3.5 / 10,

SNY	0.6	352	+iPg	06 34 50.4	1.1		
			Sg	06 34 58.4	0.8		
			SMN	M_L = 3.1		0.2	0.90
			SME			0.2	0.84
DL2	2.8	215	−Pg	06 35 32.0	3.7		
			Sg	06 36 06.0	−0.7		
			SMN	M_L = 3.5		0.8	0.21
			SME			0.8	0.18
CN2	2.9	26	+Pn	06 35 24.5	−0.3		
			+iPg	06 35 32.8	3.5		
			Sn	06 35 59.6	−1.8		
			iSg	06 36 09.2	0.6		
			SMN	M_L = 3.6		0.6	0.30
			SME			0.6	0.20

1987 12 6

O = 06 55 38.3 ± 0.11s
LAT = 37.36 N ± 1.05km
LONG = 103.04 E ± 0.93km
DEPTH = 9 km ± 0.02km
STATIONS USED = 6, STAND DEV = 4.29s
M_L = 2.9 / 4,

LZH	1.4	153	cPg	06 56 02.5	−1.2		
			Sg	06 56 24.5	1.6		
			SMN	M_L = 3.1		1.0	0.24
GTA	3.3	310	Pg	06 56 35.7	−0.4		
			Sg	06 57 15.0	−5.5		
			SMN	M_L = 2.6		0.6	0.020
			SME			0.6	0.021

1987 12 6
O = 07 52 16.3 ± 0.12s
LAT = 55.80 S ± 4.93km
LONG = 26.72 W ± 5.38km
DEPTH = 58 km ± 0.67km
STATIONS USED = 22, STAND DEV = 3.14s
Ms = 5.7 / 1,

TIY	147.3	106	−iPKP	08 11 53.3	1.6		
			LZ	Ms = 5.7		12.0	0.48
BTO	148.0	100	ePKP	08 11 55.0	2.1		
TIA	148.7	113	ePKP	08 11 56.6	2.7		
BJI	151.0	107	ePKP	08 12 02.0	4.5		
CN2	158.6	112	$ePKP_2$	08 12 47.5	−1.3		

1987 12 6
O = 09 24 21.1 ± 0.10s
LAT = 13.43 S ± 1.63km
LONG = 167.48 E ± 2.98km
DEPTH = 34 km ± 0.45km
STATIONS USED = 12, STAND DEV = 2.30s

CN2	68.6	329	eP	09 35 21.0	−2.6		
TIY	72.4	317	−P	09 35 48.5	1.7		
GTA	81.9	314	eP	09 36 41.0	1.3		

1987 12 6
O = 13 21 31.6 ± 0.01s
LAT = 37.27 N ± 0.07km
LONG = 94.19 E ± 0.06km
DEPTH = 11 km ± 0.07km
STATIONS USED = 5, STAND DEV = 1.08s
M_L = 3.0 / 4,

GTA	4.9	62	ePg	13 22 58.2	−0.3		
WMQ	8.2	325	eP	13 23 33.7	0.1		
			S	13 25 04.0	−2.7		
			SMN	M_L = 3.4		0.5	0.010

1987 12 6

1987 12 6
O = 16 20 42.6 ± 0.12s
LAT = 37.51 N ± 1.64km
LONG = 94.60 E ± 1.39km
DEPTH = 13 km ± 0.20km
STATIONS USED = 50, STAND DEV = 2.66s
Ms = 4.4 / 20, M_L = 4.6 / 6,

GTA	4.5	64	Pn	16 21 55.7	4.4		
			Pg	16 22 05.0	2.7		
			LE	Ms = 4.0		9.5	2.68
			LZ	Ms = 4.2		10.0	3.95
LZH	7.6	98	ePn	16 22 34.0	0.9		
			PMZ			1.5	0.039
			Sg	16 24 41.0	1.7		
			LN	Ms = 4.3		10.0	1.72
			LE			10.0	0.98
WMQ	8.2	322	P	16 22 45.9	1.6		
			S	16 24 16.8	−0.4		
			SMN	M_L = 4.7		0.8	0.21
LSA	8.3	201	P	16 22 44.7	−1.6		
			LN	Ms = 4.0		10.0	1.03
CD2	10.0	128	cP	16 23 15.4	5.4		
			LE	Ms = 4.6		10.0	2.67
BTO	12.4	71	cP	16 23 41.6	−0.3		
			cpP	16 23 45.0	−1.5		
			cS	16 26 00.0	−0.9		
			LN	Ms = 4.4		10.0	0.80
			LE			11.0	0.90
			LZ	Ms = 4.2		10.0	0.70
KMI	14.2	148	+P	16 24 07.0	1.3		
			pP	16 24 14.0	3.7		
			cS	16 26 39.0	−5.0		
			LN	Ms = 4.9		18.0	5.80
			LZ	Ms = 4.6		12.0	1.90
GYA	15.0	134	P	16 24 21.6	4.7		
			sP	16 24 27.0	1.7		
BJI	17.0	75	cP	16 24 43.0	0.8		
			LN	Ms = 4.3		12.0	0.72
WHN	17.8	107	P	16 24 53.5	1.8		
TIA	18.1	87	cP	16 24 54.4	−1.0		
			LE	Ms = 4.5		11.0	0.82
			LZ	Ms = 4.5		11.0	0.94
NJ2	20.6	98	−P	16 25 24.0	−0.7		
DL2	21.3	78	P	16 25 34.5	3.3		
SNY	22.7	70	−iP	16 25 45.4	0.1		
			LE	Ms = 4.4		14.0	0.58
			LZ	Ms = 4.6		14.0	0.94
SSE	22.8	98	P	16 25 47.5	0.6		
			pP	16 25 54.5	1.8		
			cS	16 29 52.0	0.5		
			LZ	Ms = 4.6		12.0	0.90
CN2	24.1	65	cP	16 26 01.0	1.3		
			pP	16 26 04.5	−1.0		
			cS	16 30 15.0	0.5		
			LZ	Ms = 4.9		10.0	1.40

1987 12 6
O = 16 31 02.2 ± 0.07s
LAT = 33.03 N ± 0.51km
LONG = 104.35 E ± 0.87km
DEPTH = 9 km ± 0.02km
STATIONS USED = 9, STAND DEV = 2.41s
M_L = 3.4 / 4,

CD2	2.2	193	cPn	16 31 38.4	−0.6		
			Pg	16 31 40.0	−0.6		
			Sg	16 32 11.5	1.2		
			SMN	M_L = 3.3		1.0	0.29
			SME			0.8	0.17
LZH	3.1	352	Pn	16 31 53.5	2.0		
			Sn	16 32 32.5	2.3		
			SMN	M_L = 3.5		1.0	0.18
			SME			1.5	0.22
GYA	6.9	162	Pn	16 32 46.6	3.3		

1987 12 6
O = 18 10 20.6 ± 0.11s
LAT = 37.20 N ± 1.81km
LONG = 94.18 E ± 1.14km
DEPTH = 10 km ± 0.43km
STATIONS USED = 14, STAND DEV = 2.53s
M_L = 3.9 / 7,

GTA	5.0	62	Pn	18 11 35.6	0.1		
			Pg	18 11 48.0	0.0		
			P11	18 11 51.0	2.4		
			Sn	18 12 32.0	−2.8		
			SMN	M_L = 3.2		1.0	0.033
			SME			1.0	0.027
LZH	7.8	95	cPg	18 12 43.5	4.0		
			Sg	18 14 24.5	−1.9		
			SME	M_L = 4.1		1.0	0.052
WMQ	8.2	325	P	18 12 23.4	0.0		
			S	18 13 54.0	−3.2		
			SMN	M_L = 3.9		0.4	0.030
BJI	17.4	74	cP	18 14 27.5	2.0		

1987 12 6
O = 18 16 33.5 ± 0.08s
LAT = 54.69 N ± 1.75km
LONG = 161.40 E ± 1.13km
DEPTH = 35 km ± 0.15km

STATIONS USED = 55, STAND DEV = 1.19s
Ms=4.5/ 5,

MDJ	22.7	257	eP	18 21 35.0	1.0		
CN2	25.6	260	eP	18 22 01.0	−0.6		
SNY	27.9	258	+P	18 22 22.8	0.0		
			eS	18 27 00.0	−2.7		
			LN	Ms=4.6		18.0	0.71
			LE			20.0	0.59
			LZ	Ms=4.5		20.0	0.72
BJI	33.3	263	eP	18 23 11.0	0.4		
SSE	37.0	247	eP	18 23 42.5	0.6		
			LZ	Ms=4.7		12.0	0.45
NJ2	37.5	251	+P	18 23 47.0	0.6		
WHN	41.1	254	eP	18 24 20.0	3.4		
GTA	43.2	276	P	18 24 32.3	−1.4		
WMQ	47.2	289	P	18 25 04.4	−0.9		
GYA	48.6	257	P	18 25 15.4	−1.0		

1987 12 6
O=18 54 06.3 ± 0.06s
LAT= 3.78 N ± 1.04km
LONG=126.44 E ± 2.16km
DEPTH= 69 km ± 0.08km
STATIONS USED = 43, STAND DEV= 1.11s
Ms=4.5/ 1,

WHN	29.0	338	P	19 00 05.2	3.5		
TIA	33.4	346	eP	19 00 40.0	−0.7		
XAN	34.2	334	+P	19 00 46.1	−1.9		
CD2	34.4	324	eP	19 00 47.4	−2.3		
DL2	35.2	353	P	19 00 57.0	0.6		
TIY	36.1	341	eP	19 01 03.4	−0.7		
			LZ	Ms=4.5		26.0	0.71
BJI	37.3	347	eP	19 01 13.0	−0.6		
SNY	38.0	357	+P	19 01 19.5	0.1		
LZH	38.3	330	eP	19 01 23.0	0.5		
HHC	39.3	342	eP	19 01 30.0	−0.3		
BTO	39.5	340	P	19 01 34.2	1.7		
MDJ	40.8	3	eP	19 01 43.0	0.4		
GTA	42.9	329	eP	19 01 59.5	−0.9		
WMQ	52.5	325	eP	19 03 14.6	−0.6		

1987 12 6
O=20 38 53.6 ± 0.06s
LAT=32.56 N ± 0.67km
LONG=121.61 E ± 0.94km
DEPTH= 10 km ± 1.03km
STATIONS USED = 9, STAND DEV= 1.77s
M_L=3.2/ 12,

SSE	1.5	194	Pn	20 39 20.0	−0.9		
			Pg	20 39 22.2	2.0		
			Sn	20 39 38.5	−3.9		
			Sg	20 39 40.0	−0.8		
			SMN	M_L=3.2		0.4	0.18
			SME			0.4	0.41
NJ2	2.4	258	+Pg	20 39 36.2	0.5		
			Sg	20 40 08.8	0.4		
			SME	M_L=3.3		0.5	0.20

1987 12 6
O=21 46 04.2 ± 0.06s
LAT=15.48 S ± 1.21km
LONG=167.77 E ± 2.16km
DEPTH=142 km ± 0.91km
STATIONS USED = 47, STAND DEV= 0.84s

WHN	68.8	312	+iP	21 56 56.0	0.3		
MDJ	69.2	332	eP	21 56 58.0	0.0		
CN2	70.5	329	+P	21 57 05.4	−0.9		
GYA	72.5	305	+P	21 57 18.0	−0.3		
BJI	73.2	321	P	21 57 21.5	−0.3		
TIY	74.1	317	+P	21 57 28.0	0.4		
			LZ			20.0	0.50
XAN	74.6	312	+iP	21 57 29.5	−0.4		
KMI	75.1	302	+P	21 57 34.0	0.7		
HHC	76.5	320	eP	21 57 41.0	0.1		
CD2	76.9	307	eP	21 57 42.8	−0.1		
BTO	77.3	319	P	21 57 46.0	0.5		
LZH	79.2	312	eP	21 57 57.0	1.2		
			PMZ			1.0	0.035
GTA	83.5	314	+P	21 58 19.0	0.5		
WMQ	93.6	314	P	21 59 06.4	0.1		

1987 12 7
O=00 00 14.5 ± 0.13s
LAT=16.65 S ± 2.31km
LONG=172.63 W ± 2.73km
DEPTH= 32 km ± 0.25km
STATIONS USED = 52, STAND DEV= 1.30s
Ms=5.2/ 8, m_B=5.9/ 5

MDJ	80.5	322	eP	00 12 24.5	−1.0		
			pP	00 12 30.0	−4.9		
			eS	00 22 30.0	1.2		
			SMN			16.0	1.98
			LZ	Ms=5.4		20.0	1.18
CN2	82.5	320	+P	00 12 35.0	−1.2		
			PMZ	m_B=5.8		5.0	0.60
			sP	00 12 45.0	−4.5		
			eS	00 22 50.0	0.0		
			LZ	Ms=5.2		18.0	0.60
SNY	82.7	317	−iP	00 12 37.5	0.4		
TIA	84.6	310	eP	00 12 47.3	0.6		

			S	00 23 12.0	3.1		
			SMN	m_B = 6.0		10.0	0.52
			SME			10.0	1.19
			LN	Ms = 5.1		12.0	0.28
BJI	86.9	313	eP	00 12 56.0	−1.9		
			eS	00 23 28.0	−4.7		
			LZ	Ms = 5.2		20.0	0.61
TIY	88.6	310	eP	00 13 07.0	0.5		
			pP	00 13 14.0	−1.9		
			SKS	00 23 28.5	−1.3		
			S	00 23 44.0	−3.5		
			LE	Ms = 5.3		13.0	0.47
XAN	90.0	306	−P	00 13 13.3	0.5		
HHC	90.4	313	eP	00 13 15.8	0.8		
			SMN	m_B = 5.9		10.0	0.72
			SME			10.0	1.03
BTO	91.4	312	P	00 13 19.0	−0.7		
			esP	00 13 29.5	−3.4		
			SKS	00 23 49.0	2.4		
			eS	00 24 13.0	−1.9		
KMI	92.2	295	+P	00 13 24.0	0.4		
			sP	00 13 33.0	−3.7		
			S	00 24 27.0	7.0		
			LZ	Ms = 5.3		20.0	0.76
LZH	94.6	306	eP	00 13 33.5	−0.6		
			PMZ			2.0	0.049
GTA	98.5	308	eP	00 13 52.0	−0.2		

1987 12 7
O = 09 52 36.0 ± 0.08s
LAT = 37.70 N ± 2.03km
LONG = 142.40 E ± 1.62km
DEPTH = 50 km ± 1.27km
STATIONS USED = 51, STAND DEV = 1.85s
Ms = 4.1 / 6,

MDJ	11.9	310	eP	09 55 28.5	3.2		
SSE	18.7	256	P	09 56 52.5	−0.2		
			LZ	Ms = 4.4		14.0	0.89
NJ2	20.1	261	eP	09 57 12.6	4.1		
			LZ	Ms = 4.0		18.0	0.36
TIA	20.2	274	eP	09 57 10.0	0.1		
BJI	20.5	285	eP	09 57 11.0	−1.9		
TIY	23.7	279	eP	09 57 46.0	1.8		
			LZ	Ms = 4.2		20.0	0.50
WHN	24.2	261	eP	09 57 52.0	2.4		
BTO	25.2	287	eP	09 58 02.2	3.2		
			eS	10 02 25.0	6.8		
XAN	27.3	273	eP	09 58 16.6	−1.7		
LZH	30.7	279	eP	09 58 54.5	5.3		
			PMZ			1.5	0.016
GYA	32.1	260	P	09 59 00.4	−0.9		
CD2	32.5	270	eP	09 59 03.2	−1.1		
GTA	33.1	286	P	09 59 09.6	−0.5		
WMQ	41.2	296	P	10 00 20.0	1.7		

1987 12 7
O = 11 39 25.5 ± 0.08s
LAT = 25.36 N ± 1.53km
LONG = 124.15 E ± 0.82km
DEPTH = 181 km ± 1.59km
STATIONS USED = 50, STAND DEV = 1.70s

QZH	5.1	266	+P	11 40 40.6	−0.5		
SSE	6.3	336	+P	11 40 57.1	−0.1		
			PMZ			1.0	0.062
NJ2	8.1	326	+iP	11 41 21.6	0.1		
WHN	10.1	303	eP	11 41 50.5	3.4		
GYA	15.8	278	P	11 43 01.8	2.3		
XAN	15.8	307	P	11 43 00.0	0.3		
TIY	15.8	324	eP	11 43 01.9	1.6		
BJI	16.1	337	eP	11 43 03.0	−0.2		
SNY	16.4	358	eP	11 43 08.4	1.1		
CN2	18.4	3	−P	11 43 30.0	0.1		
HHC	18.7	329	eP	11 43 32.0	−0.5		
CD2	18.8	292	eP	11 43 32.9	−1.0		
BTO	19.2	326	eP	11 43 37.0	−1.4		
LZH	20.4	306	eP	11 43 50.0	−0.6		
			PMZ			1.5	0.039
GTA	24.8	310	P	11 44 30.8	−1.7		
WMQ	34.8	311	−P	11 46 02.0	0.4		

1987 12 7
O = 12 26 11.6 ± 0.14s
LAT = 13.59 S ± 2.27km
LONG = 167.38 E ± 2.33km
DEPTH = 48 km ± 0.51km
STATIONS USED = 105, STAND DEV = 1.42s
Ms = 6.3 / 62, m_B = 6.2 / 21

QZH	61.1	309	eP	12 36 22.5	−1.0		
			eS	12 44 35.0	−2.2		
			LN	Ms = 5.9		14.0	3.52
SSE	62.8	316	P	12 36 34.0	−1.0		
			PMZ	m_B = 6.1		4.0	0.89
			S	12 44 57.0	−0.5		
			sS	12 45 15.0	−5.2		
			LN	Ms = 6.2		16.0	6.76
			LE			16.0	5.63
			LZ	Ms = 6.2		22.0	11.0
GZH	64.2	304	+P	12 36 46.0	1.6		
			SMN	m_B = 6.3		11.0	2.52
			SME			11.0	3.52

			LN	Ms=6.1	16.0	4.92
			LE		14.0	3.97
NJ2	64.9	315	-P	12 36 48.8	-0.3		
			S	12 45 21.0	-3.3		
			LE	Ms=6.2	17.0	8.48
			LZ	Ms=5.9	20.0	4.58
QZN	65.3	299	eP	12 36 51.8	0.5		
			S	12 45 29.0	0.5		
			SMN	m_B=6.1	12.0	1.90
			SME		11.0	2.20
			ScS	12 46 38.0	0.7		
			LN	Ms=6.2	18.0	4.80
			LE		19.0	8.00
WHN	67.3	312	eP	12 37 05.2	1.3		
			sP	12 37 18.0	-3.7		
			LN	Ms=6.2	17.0	8.60
			LZ	Ms=6.3	20.0	11.2
MDJ	67.3	332	eP	12 37 04.0	-0.3		
			pP	12 37 15.5	-1.5		
			SMN	m_B=6.2	10.0	2.58
			SKS	12 46 57.0	4.7		
			LZ	Ms=6.1	18.0	6.53
DL2	67.5	323	eP	12 37 07.0	1.9		
			LN	Ms=6.2	15.0	7.56
SNY	68.3	326	+iP	12 37 10.0	-0.5		
			pP	12 37 19.0	-4.2		
			LN	Ms=6.4	16.0	6.63
			LE		18.0	10.0
			LZ	Ms=6.5	18.0	16.5
TIA	68.6	318	eP	12 37 10.6	-1.4		
			S	12 46 11.0	3.0		
			SME	m_B=6.0	11.0	2.09
			SS	12 50 35.5	1.0		
			LE	Ms=6.3	19.0	10.5
			LZ	Ms=6.2	19.0	8.70
CN2	68.7	329	+P	12 37 12.0	-1.1		
			PMZ	m_B=6.2	5.0	1.60
			pP	12 37 20.5	-5.2		
			eS	12 46 11.0	-0.4		
			SME		18.0	4.30
			SS	12 50 37.0	-0.1		
			LZ	Ms=6.4	24.0	17.0
GYA	71.2	304	P	12 37 27.6	-0.4		
			pP	12 37 38.0	-2.5		
			LN	Ms=6.2	18.0	6.20
			LE		18.0	3.60
BJI	71.5	321	eP	12 37 28.0	-1.6		
			cpP	12 37 40.0	-2.2		
			eS	12 46 44.0	0.8		
			SME	m_B=6.1	11.0	2.08
			LN	Ms=6.4	21.0	13.8
			LZ	Ms=6.6	26.0	26.1
TIY	72.5	317	P	12 37 36.0	0.0		
			PMZ		1.6	0.25
			pP	12 37 44.0	-4.5		
			SME	m_B=6.2	12.0	3.20
			sS	12 47 20.5	3.5		
			LN	Ms=6.5	18.0	8.80
			LE		18.0	12.6
			LZ	Ms=6.5	20.0	18.2
XAN	73.0	312	eP	12 37 38.0	-0.9		
			SME	m_B=6.3	11.0	3.04
			LN	Ms=6.3	19.0	7.85
			LE		20.0	6.61
KMI	73.8	301	+P	12 37 44.5	0.7		
			pP	12 37 53.0	-3.1		
			LN	Ms=5.8	18.0	2.60
			LZ	Ms=6.4	20.0	13.8
HHC	74.8	319	P	12 37 49.8	0.4		
			PcP	12 38 01.0	-1.3		
			LN	Ms=6.6	20.0	11.3
			LE		25.0	17.4
			LZ	Ms=6.6	25.0	25.6
CD2	75.4	307	eP	12 37 52.4	-0.4		
			eS	12 47 25.5	-2.6		
			LN	Ms=6.3	14.0	7.30
BTO	75.6	319	eP	12 37 54.4	0.1		
			pP	12 38 05.5	-1.2		
			cPP	12 40 47.5	2.7		
			S	12 47 31.5	2.5		
			sS	12 47 45.5	-6.6		
			SS	12 52 24.0	0.4		
			LN	Ms=6.4	18.0	6.80
			LE		20.0	9.80
			LZ	Ms=6.5	20.0	14.2
LZH	77.6	312	P	12 38 06.0	0.4		
			PMZ	m_B=6.0	3.5	0.74
			eS	12 47 56.0	5.3		
			SME	m_B=6.2	12.0	2.21
			LN	Ms=6.3	26.0	8.02
			LE		21.0	6.80
GTA	82.0	314	+P	12 38 28.8	0.0		
			PMZ	m_B=6.1	4.0	0.90
			SME	m_B=6.4	12.0	3.25
			LE	Ms=6.3	22.0	10.3
			LZ	Ms=6.3	22.0	9.72
LSA	85.1	302	P	12 38 44.2	-0.6		
WMQ	92.0	315	P	12 39 16.5	-1.0		
			PMZ		1.7	0.16
			SME	m_B=6.1	11.0	1.78

			LZ		Ms=6.4	24.0	11.4
KSH	99.6	308	eP	12 39 52.0	0.0		
			ePP	12 44 03.0	5.9		
			SME		m_B=6.3	10.0	1.70
			LE		Ms=6.5	20.0	9.00

1987 12 7
O=12 49 54.8 ± 0.11s
LAT=13.42 S ± 1.83km
LONG=167.23 E ± 2.82km
DEPTH= 30 km ± 0.32km
STATIONS USED = 40, STAND DEV= 1.30s

SSE	62.6	316	eP	13 00 17.6	−1.2		
NJ2	64.7	315	eP	13 00 33.0	0.0		
WHN	67.0	312	eP	13 00 48.5	0.7		
MDJ	67.1	332	eP	13 00 48.5	0.2		
CN2	68.5	329	+P	13 00 56.4	−0.7		
GYA	70.9	304	P	13 01 12.6	0.5		
BJI	71.2	321	eP	13 01 13.0	−0.6		
TIY	72.3	317	−P	13 01 21.0	1.0		
XAN	72.8	312	eP	13 01 22.8	−0.2		
KMI	73.6	301	+P	13 01 29.0	1.1		
			pP	13 01 34.5	−2.2		
BTO	75.4	319	eP	13 01 39.2	0.8		
GTA	81.7	314	P	13 02 13.5	0.4		
WMQ	91.8	315	eP	13 03 01.5	−0.5		

1987 12 7
O=13 14 34.4 ± 0.12s
LAT=13.51 S ± 1.89km
LONG=167.51 E ± 1.88km
DEPTH= 34 km ± 0.29km
STATIONS USED =105, STAND DEV= 1.20s
Ms=6.2/47, m_B=6.3/23

QZH	61.1	309	+P	13 24 48.0	−0.3		
			PMZ		m_B=6.5	4.0	2.26
			sP	13 25 02.0	0.1		
			S	13 33 00.0	−2.7		
			sS	13 33 15.0	−4.9		
			LN		Ms=5.9	16.0	4.73
SSE	62.8	316	P	13 24 58.5	−1.1		
			PMZ			1.0	0.062
			pP	13 25 10.0	0.7		
			cS	13 33 24.0	−1.1		
			SMN			16.0	3.09
			SMI			16.0	2.66
			LN		Ms=6.1	16.0	4.34
			LE			16.0	5.63
			LZ		Ms=6.2	22.0	11.0
GZH	64.3	304	P	13 25 09.3	0.1		
NJ2	65.0	315	−P	13 25 13.4	−0.3		
			sP	13 25 26.0	−1.5		
			S	13 33 46.0	−4.8		
			LE		Ms=6.2	15.0	6.79
QZN	65.4	298	eP	13 25 16.8	0.6		
			pP	13 25 28.5	2.5		
			cPP	13 27 42.5	1.0		
			cS	13 33 52.0	−4.8		
			sS	13 34 12.0	−0.9		
WHN	67.3	312	P	13 25 29.5	1.0		
			PMZ		m_B=6.4	4.0	2.00
			pP	13 25 41.0	2.7		
			S	13 34 18.0	−1.1		
			sS	13 34 32.0	−4.6		
			LN		Ms=6.2	18.0	7.90
			LZ		Ms=6.1	24.0	9.60
MDJ	67.3	332	eP	13 25 28.5	−0.1		
			sP	13 25 43.0	0.6		
			S	13 34 20.0	0.8		
			SME		m_B=6.2	10.0	2.79
			LE		Ms=6.0	14.0	4.28
DL2	67.5	323	eP	13 25 29.0	−0.6		
			S	13 34 21.0	0.0		
			LN		Ms=6.2	16.0	8.10
SNY	68.3	326	+P	13 25 34.6	−0.3		
			LN		Ms=6.2	20.0	6.37
			LE			18.0	6.40
			LZ		Ms=6.3	19.0	11.2
TIA	68.6	318	eP	13 25 35.5	−1.1		
			pP	13 25 44.6	−1.7		
			cS	13 34 35.9	0.1		
			SME		m_B=5.9	11.0	1.43
			SMZ			11.0	1.43
			LN		Ms=6.3	17.0	5.30
			LE			17.0	8.61
			LZ		Ms=6.2	17.0	6.80
CN2	68.7	329	+P	13 25 36.5	−1.0		
			PMZ		m_B=6.5	4.0	2.40
			pP	13 25 47.5	0.3		
			cS	13 34 37.0	−0.4		
			LZ		Ms=6.2	26.0	11.6
GYA	71.2	304	−P	13 25 52.6	−0.2		
			pP	13 26 03.0	0.6		
			S	13 35 10.0	4.7		
BJI	71.5	321	+P	13 25 54.0	−0.1		
			esP	13 26 07.0	−0.9		
			eS	13 35 10.0	0.5		
			SMN		m_B=6.1	12.0	1.18
			SME			10.0	1.67
			LN		Ms=6.2	20.0	9.40

TIY	72.5	317	eP	13 26 00.8	0.2		
			PMZ			1.1	0.13
			pP	13 26 12.0	1.8		
			S	13 35 22.5	2.2		
			sS	13 35 34.0	−3.9		
			ScS	13 36 01.0	0.7		
			LN	Ms=6.4		17.0	5.83
			LE			18.0	8.86
			LZ	Ms=6.4		24.0	17.0
XAN	73.0	312	eP	13 26 03.0	−0.6		
KMI	73.9	301	+P	13 26 09.5	0.9		
			PcP	13 26 24.0	0.9		
			LN	Ms=5.9		16.0	3.20
			LZ	Ms=6.4		20.0	11.6
HHC	74.8	319	P	13 26 14.5	0,5		
			LN	Ms=6.5		21.0	12.5
			LE			20.0	9.35
			LZ	Ms=6.1		22.0	7.37
CD2	75.5	307	eP	13 26 16.9	−0.7		
BTO	75.7	318	P	13 26 19.0	0.1		
			PMZ	m_B=6.2		5.0	1.60
			sP	13 26 35.5	3.0		
			ePP	13 29 13.0	3.5		
			S	13 35 57.0	1.6		
			SMN	m_B=6.4		12.0	1.50
			SME			12.0	3.00
			LN	Ms=6.3		14.0	2.40
			LE			16.0	6.30
			LZ	Ms=6.2		16.0	6.60
LZH	77.7	312	P	13 26 31.5	1.2		
			PMZ	m_B=6.2		4.0	1.24
			sP	13 26 46.0	2.2		
			LN	Ms=6.2		24.0	7.94
			LE			21.0	2.60
			LE	Ms=6.2		26.0	8.48
GTA	82.0	314	+P	13 26 53.0	−0.5		
			PMZ	m_B=6.1		6.0	1.32
			S	13 37 09.0	6.4		
			SME	m_B=6.4		9.0	2.77
			LZ	Ms=6.3		20.0	8.25
LSA	85.1	302	P	13 27 09.3	−0.3		
			LN	Ms=6.0		19.0	3.40
WMQ	92.0	315	P	13 27 42.5	0.3		
			PMZ			1.7	0.20
			PP	13 31 20.0	−3.5		
			cSKS	13 38 12.0	2.4		
			LN	Ms=6.3		20.0	7.25
			LZ	Ms=6.3		28.0	8.91
KSH	99.6	308	cP	13 28 18.0	1.2		

1987 12 7
O=13 42 17.6 ± 0.09s
LAT=36.31 N ± 0.15km
LONG= 80.72 E ± 1.00km
DEPTH= 6 km ± 1.49km
STATIONS USED = 5, STAND DEV= 3.14s
M_L=3.7/ 4,

KSH	4.9	311	cPg	13 43 44.9	0.7		
			Sg	13 44 52.5	1.7		
			SME	M_L=3.7		0.6	0.10
WMQ	9.2	33	eP	13 44 36.8	2.5		

1987 12 7
O=17 48 14.4 ± 0.08s
LAT=43.48 N ± 1.33km
LONG=127.43 W ± 1.07km
DEPTH= 15 km ± 0.36km
STATIONS USED = 53, STAND DEV= 1.32s
Ms=5.2/ 1,

CN2	71.5	313	−P	17 59 36.2	−1.0		
SNY	73.8	313	−iP	17 59 51.4	0.3		
HHC	80.7	319	P	18 00 30.0	0.6		
BTO	81.6	320	eP	18 00 34.0	−0.3		
TIY	82.7	316	eP	18 00 40.4	0.7		
			pP	18 00 46.0	0.1		
			eS	18 11 03.0	7.0		
			LE	Ms=5.2		11.0	0.34
SSE	82.8	306	eP	18 00 39.0	−1.6		
GTA	87.1	325	P	18 01 02.3	0.3		
WHN	87.1	310	eP	18 01 04.0	1.9		
XAN	87.3	316	eP	18 01 03.3	0.4		
WMQ	87.6	335	P	18 01 05.5	1.2		
LZH	88.1	321	eP	18 01 08.5	1.6		

1987 12 7
O=19 20 25.9 ± 0.12s
LAT=13.27 S ± 1.82km
LONG=167.33 E ± 1.74km
DEPTH= 37 km ± 0.39km
STATIONS USED = 74, STAND DEV= 1.27s
Ms=5.2/18, m_B=5.6/ 1

SSE	62.5	316	P	19 30 48.2	−0.5		
			sP	19 31 04.0	0.7		
			eS	19 39 16.0	3.9		
			eSS	19 43 24.0	6.8		
			LN	Ms=4.9		14.0	0.35
			LZ	Ms=5.1		20.0	0.93
NJ2	64.7	315	−P	19 31 02.8	−0.1		
			LZ	Ms=4.9		20.0	0.49
WHN	67.0	312	eP	19 31 19.5	1.7		

MDJ	67.0	332	eP	19 31 19.0	1.1		
			pP	19 31 29.0	0.7		
			LZ	Ms=5.3		28.0	1.74
SNY	68.0	326	+P	19 31 22.0	−2.2		
			eS	19 40 23.0	3.3		
			LN	Ms=5.3		16.0	0.64
			LE			18.0	0.64
			LZ	Ms=5.3		18.0	1.01
TIA	68.3	318	eP	19 31 24.6	−1.2		
CN2	68.4	329	+P	19 31 25.8	−0.9		
			PMZ	m_B=5.6		4.0	0.30
			pP	19 31 36.5	−0.6		
			eS	19 40 25.0	0.5		
			LZ	Ms=5.1		24.0	0.90
GYA	70.9	304	P	19 31 42.6	0.4		
BJI	71.2	321	cP	19 31 43.0	−0.4		
			cpP	19 31 54.0	0.1		
			eS	19 40 52.0	−4.7		
			csS	19 41 10.0	−4.2		
			LN	Ms=5.1		24.0	0.90
			LZ	Ms=5.2		26.0	1.15
TIY	72.2	317	−P	19 31 50.4	0.5		
			PMZ			1.0	0.030
			pP	19 32 01.5	1.3		
			LN	Ms=5.4		16.0	0.78
			LE			17.0	0.60
			LZ	Ms=5.3		24.0	1.35
XAN	72.8	312	cP	19 31 52.5	−0.5		
KMI	73.6	301	−P	19 31 59.0	0.9		
			PcP	19 32 10.0	−2.9		
			LZ	Ms=5.3		20.0	1.10
HHC	74.5	319	P	19 32 03.8	0.5		
BTO	75.4	319	P	19 32 08.0	−0.2		
			pP	19 32 19.5	1.0		
			cPP	19 35 00.0	1.7		
			eS	19 41 46.0	1.4		
			LN	Ms=5.2		14.0	0.30
			LE			14.0	0.40
LZH	77.4	312	cP	19 32 21.0	1.3		
			PMZ			2.5	0.17
GTA	81.7	314	P	19 32 43.0	0.0		
			LZ	Ms=5.2		24.0	0.81
WMQ	91.7	315	P	19 33 33.0	1.1		

1987 12 8
O=02 01 53.5 ± 0.06s
LAT=27.95 N ± 0.43km
LONG=100.65 E ± 0.56km
DEPTH= 8 km ± 0.11km
STATIONS USED = 7, STAND DEV= 1.29s

M_L=3.1/ 3,

CD2	4.0	42	Pg	02 03 05.3	1.0		
			Sg	02 03 52.2	−6.7		
			SMN	M_L=3.3		0.9	0.060
			SME			1.0	0.070

1987 12 8
O=05 12 29.6 ± 0.12s
LAT=58.77 N ± 2.37km
LONG=142.77 W ± 1.35km
DEPTH= 4 km ± 0.90km
STATIONS USED = 18, STAND DEV= 2.44s

CN2	54.8	298	cP	05 22 06.0	2.8		
GTA	69.3	313	P	05 23 42.8	2.0		
GYA	77.6	301	P	05 24 34.6	4.9		

1987 12 8
O=05 49 09.5 ± 0.08s
LAT=34.54 N ± 0.76km
LONG=134.87 E ± 0.98km
DEPTH=398 km ± 0.42km
STATIONS USED = 90, STAND DEV= 0.90s

m_B=4.9/ 1

MDJ	10.8	340	cP	05 51 39.5	0.9		
			cS	05 53 39.0	2.2		
SNY	11.5	313	+iP	05 51 46.8	1.0		
DL2	11.5	296	cP	05 51 46.5	0.7		
CN2	11.8	325	cP	05 51 49.2	0.0		
SSE	12.0	257	+P	05 51 51.0	−0.9		
			PMZ			0.6	0.040
NJ2	13.6	264	−iP	05 52 10.0	0.1		
TIA	14.6	282	−P	05 52 20.2	0.1		
BJI	15.8	296	−P	05 52 33.0	−0.2		
			cS	05 55 14.0	−3.6		
QZH	17.0	240	−P	05 52 45.0	−0.4		
WHN	17.7	263	−iP	05 52 54.5	2.0		
			PMZ			0.6	0.10
TIY	18.4	286	−P	05 52 59.0	0.0		
HHC	19.5	296	+P	05 53 09.4	−0.1		
BTO	20.6	294	P	05 53 20.0	−0.3		
XAN	21.4	276	−iP	05 53 29.1	0.7		
GZH	22.0	244	−iP	05 53 35.5	1.7		
LZH	25.3	282	−P	05 54 04.0	−0.1		
			PMZ			1.7	0.087
GYA	25.5	259	−P	05 54 05.8	−0.3		
			S	05 58 04.6	1.0		
CD2	26.4	271	−iP	05 54 13.0	−0.5		
			PMZ			0.7	0.20
QZN	27.1	242	eP	05 54 20.2	0.6		
GTA	28.3	290	−iP	05 54 30.0	−0.8		

KMI	29.3	260	−P	05 54 39.0	−0.5
LSA	37.1	275	P	05 55 46.3	0.1
WMQ	37.3	299	P	05 55 48.0	0.9

1987 12 8
O = 11 19 44.1 ± 0.31s
LAT = 13.11 S ± 5.45km
LONG = 167.11 E ± 5.43km
DEPTH = 32 km ± 0.78km
STATIONS USED = 31, STAND DEV = 2.17s

SSE	62.3	316	eP	11 30 04.2	−1.7	
NJ2	64.4	315	eP	11 30 21.0	0.9	
WHN	66.8	312	P	11 30 36.5	1.4	
CN2	68.2	329	eP	11 30 43.0	−1.2	
GYA	70.7	304	P	11 30 59.8	0.2	
BJI	70.9	321	eP	11 30 59.0	−1.9	
TIY	72.0	317	eP	11 31 08.0	0.7	
XAN	72.5	312	eP	11 31 10.1	−0.3	
KMI	73.3	301	eP	11 31 16.0	0.5	
LZH	77.1	312	eP	11 31 37.0	−0.3	
			PMZ		2.5	0.070
GTA	81.4	314	P	11 32 00.0	−0.6	
WMQ	91.5	315	eP	11 32 54.0	4.3	

1987 12 8
O = 14 47 58.0 ± 0.10s
LAT = 32.47 S ± 5.66km
LONG = 112.02 W ± 6.77km
DEPTH = 9 km ± 0.68km
STATIONS USED = 69, STAND DEV = 2.28s
Ms = 5.4 / 1,

MDJ	131.4	303	cPKP	15 07 13.0	0.7	
CN2	134.2	302	cPKP	15 07 16.0	−1.6	
DL2	136.5	294	PKP	15 07 22.0	0.3	
NJ2	137.3	284	cPKP	15 07 20.0	−3.3	
TIA	139.6	289	cPKP	15 07 27.6	0.1	
WHN	140.7	280	cPKP	15 07 31.0	1.6	
BJI	140.8	295	cPKP	15 07 30.0	0.4	
TIY	143.5	291	cPKP	15 07 32.0	−2.4	
HHC	144.4	296	PKP	15 07 35.5	−0.4	
BTO	145.5	296	+PKP	15 07 39.0	1.1	
XAN	145.9	284	PKP	15 07 39.5	1.0	
GYA	145.9	270	+PKP	15 07 40.4	1.8	
KMI	148.8	265	cPKP	15 07 44.5	1.1	
			pPKP	15 07 49.0	4.1	
			PKP_2	15 08 26.0		
			LZ	Ms = 5.4	25.0	0.60
CD2	149.6	277	cPKP	15 07 45.1	0.5	
LZH	150.3	287	cPKP	15 07 45.5	−0.2	
			PKP_2	15 07 52.0		
GTA	153.4	294	+PKP	15 07 50.4	0.1	
WMQ	160.8	312	cPKP	15 07 58.0	−1.5	
			PKP_2	15 08 43.5		
KSH	170.5	319	PKP	15 08 09.0	1.5	
			cPP	15 13 20.0	4.0	
			cSKS	15 15 12.0	4.9	
			cSKKS	15 20 07.0		

1987 12 8
O = 19 10 53.5 ± 0.07s
LAT = 13.37 S ± 1.18km
LONG = 167.46 E ± 1.92km
DEPTH = 35 km ± 0.28km
STATIONS USED = 69, STAND DEV = 0.90s
Ms = 4.9 / 4,

SSE	62.7	316	P	19 21 16.5	−1.2	
			cS	19 29 44.0	1.7	
			LZ	Ms = 4.8	20.0	0.46
NJ2	64.8	315	−P	19 21 32.6	0.8	
MDJ	67.2	332	eP	19 21 47.0	0.3	
WHN	67.2	312	eP	19 21 47.5	0.8	
SNY	68.2	326	eP	19 21 51.6	−1.4	
TIA	68.5	318	eP	19 21 54.2	−0.6	
			LN	Ms = 4.7	20.0	0.30
			LZ	Ms = 4.9	20.0	0.49
CN2	68.6	329	eP	19 21 55.0	−0.6	
GYA	71.1	304	P	19 22 11.0	−0.1	
BJI	71.3	321	eP	19 22 12.0	−0.3	
TIY	72.4	317	eP	19 22 19.0	0.3	
KMI	73.8	301	+P	19 22 27.5	0.6	
HHC	74.7	319	eP	19 22 32.4	0.2	
CD2	75.3	307	eP	19 22 35.8	−0.1	
BTO	75.5	318	P	19 22 37.0	−0.1	
			eS	19 32 12.0	−2.6	
LZH	77.5	312	eP	19 22 51.0	2.4	
			PMZ		2.0	0.098
GTA	81.9	314	P	19 23 12.0	0.2	
LSA	85.0	302	P	19 23 27.4	−0.6	
WMQ	91.9	315	eP	19 24 01.5	0.9	

1987 12 8
O = 19 51 53.5 ± 0.05s
LAT = 5.47 S ± 0.50km
LONG = 147.11 E ± 0.47km
DEPTH = 200 km ± 0.36km
STATIONS USED = 15, STAND DEV = 0.87s

SSE	44.0	327	P	19 59 44.0	0.9
XAN	53.3	320	P	20 00 54.0	−0.8
GTA	62.4	320	P	20 01 58.4	0.4

1987 12 8
O = 19 56 53.5 ± 0.09s
LAT = 40.50 S ± 2.11km
LONG = 44.59 E ± 2.28km
DEPTH = 10 km ± 0.07km
STATIONS USED = 50, STAND DEV = 1.32s
m_B = 5.9 / 1

LSA	82.1	40	−P	20 09 17.3	0.1		
			S	20 19 33.0	4.0		
			SME	m_B = 5.9	5.0	0.46	
KSH	84.6	24	P	20 09 31.0	1.6		
			cPP	20 12 46.0	0.6		
			cSKS	20 19 54.0	5.5		
			cS	20 20 00.0	4.3		
KMI	84.7	51	−P	20 09 31.0	0.6		
GYA	88.1	52	−P	20 09 47.8	1.2		
CD2	89.7	48	P	20 09 54.2	0.0		
WMQ	92.5	30	P	20 10 07.0	−0.1		
LZH	93.6	44	P	20 10 13.0	0.4		
			PMZ			3.0	0.11
GTA	94.1	40	−iP	20 10 14.5	−0.3		
WHN	95.7	54	eP	20 10 22.0	0.2		

1987 12 8
O = 20 09 28.7 ± 0.08s
LAT = 11.40 S ± 1.73km
LONG = 166.42 E ± 1.93km
DEPTH = 35 km ± 0.72km
STATIONS USED = 41, STAND DEV = 1.10s
Ms = 5.1 / 2,

SSE	60.6	316	P	20 19 37.5	−1.1		
			PMZ			0.8	0.010
			cS	20 27 48.0	−2.6		
			LZ	Ms = 5.1		20.0	0.93
NJ2	62.7	315	cP	20 19 52.4	−0.8		
CN2	66.4	329	+P	20 20 16.0	−0.8		
GYA	69.2	304	P	20 20 34.0	−0.4		
BJI	69.2	321	cP	20 20 34.0	−0.3		
TIY	70.3	317	cP	20 20 41.0	−0.1		
			LZ	Ms = 5.0		18.0	0.48
XAN	70.8	312	P	20 20 44.0	−0.6		
KMI	71.9	301	−P	20 20 52.0	1.1		
CD2	73.3	307	eP	20 20 59.1	−0.3		
LZH	75.5	312	P	20 21 13.0	1.0		
GTA	79.8	314	+P	20 21 36.0	0.2		
WMQ	89.8	315	P	20 22 25.8	−0.1		

1987 12 9
O = 04 31 54.0 ± 0.10s
LAT = 34.24 N ± 0.83km
LONG = 103.38 E ± 1.27km
DEPTH = 22 km ± 0.08km
STATIONS USED = 13, STAND DEV = 2.19s
M_L = 3.6 / 8,

LZH	1.9	12	Pn	04 32 26.5	0.8		
			Pg	04 32 28.5	1.0		
			Sn	04 32 51.5	1.2		
			Sg	04 32 53.0	−0.4		
			SME	M_L = 3.9		1.0	1.00
CD2	3.3	174	cPg	04 32 56.6	3.5		
			cSg	04 33 41.4	2.7		
			SMN	M_L = 3.2		1.1	0.070
			SME			1.2	0.090
XAN	4.6	91	cPn	04 33 03.6	0.6		
			Pg	04 33 17.8	2.4		
			Sn	04 33 53.0	−4.7		
			SMN	M_L = 3.7		0.8	0.12
			SME			0.8	0.10
GTA	5.9	332	Pn	04 33 20.8	−0.1		
			Pg	04 33 42.2	4.0		
			Sg	04 34 59.2	0.3		
			SMN	M_L = 4.0		1.2	0.19
			SME			1.0	0.022

1987 12 9
O = 06 33 13.8 ± 0.10s
LAT = 3.08 N ± 1.40km
LONG = 149.48 E ± 2.64km
DEPTH = 21 km ± 0.08km
STATIONS USED = 59, STAND DEV = 1.17s
Ms = 4.8 / 4,

SSE	38.6	319	+P	06 40 37.8	0.3		
			PMZ			1.0	0.025
			LE	Ms = 4.8		12.0	0.55
			LZ	Ms = 4.9		16.0	0.89
DL2	43.8	328	eP	06 41 21.0	0.9		
TIA	44.5	322	eP	06 41 26.0	0.1		
MDJ	44.9	340	eP	06 41 28.0	−1.5		
SNY	45.0	333	eP	06 41 30.2	−0.1		
CN2	45.8	336	−P	06 41 36.4	−0.1		
			eS	06 48 20.0	1.3		
GYA	47.1	304	P	06 41 48.4	1.3		
BJI	47.5	325	eP	06 41 50.0	−0.3		
TIY	48.3	320	eP	06 41 56.5	−0.1		
			eS	06 48 55.5	0.4		
			sS	06 49 06.0	−1.0		
			LZ	Ms = 4.8		20.0	0.62
XAN	48.7	314	P	06 41 58.8	−0.7		
KMI	50.0	300	+P	06 42 10.0	0.5		
HHC	50.8	323	P	06 42 15.4	0.1		

CD2	51.2	308	P	06 42 18.2	−0.3		
BTO	51.6	322	+iP	06 42 21.4	0.1		
LZH	53.4	314	eP	06 42 35.0	0.3		
			PMZ			1.5	0.059
GTA	57.7	316	+P	06 43 06.0	−0.1		
WMQ	67.7	316	P	06 44 13.7	0.9		
KSH	75.3	310	eP	06 44 58.0	−0.3		

1987 12 9
O = 15 40 33.3 ± 0.11s
LAT = 35.50 N ± 1.31km
LONG = 3.79 W ± 1.93km
DEPTH = 29 km ± 0.36km
STATIONS USED = 27, STAND DEV = 0.97s

WMQ	67.5	52	P	15 51 29.5	0.3		
LSA	77.1	63	P	15 52 26.2	−0.6		
GTA	77.5	50	P	15 52 29.0	0.2		
CD2	85.2	55	eP	15 53 10.2	1.1		
XAN	86.5	50	eP	15 53 16.2	0.4		
BJI	86.7	42	eP	15 53 17.0	0.5		
CN2	88.6	34	eP	15 53 24.4	−1.1		
GYA	90.0	57	eP	15 53 32.6	0.3		

1987 12 9
O = 18 03 03.7 ± 0.09s
LAT = 38.68 N ± 0.70km
LONG = 99.34 E ± 0.75km
DEPTH = 5 km ± 0.35km
STATIONS USED = 7, STAND DEV = 2.08s
M_L = 3.0 / 6,

GTA	0.8	27	−iPg	18 03 18.0	−0.4		
			Sg	18 03 30.0	0.6		
			SME	M_L = 2.8	0.7		0.30

1987 12 9
O = 20 27 54.7 ± 0.11s
LAT = 36.69 N ± 1.62km
LONG = 71.37 E ± 1.48km
DEPTH = 114 km ± 0.63km
STATIONS USED = 22, STAND DEV = 2.18s

KSH	4.6	51	eP	20 29 05.5	2.3		
			S	20 29 59.0	3.9		
			SME			2.0	2.70
WMQ	14.3	55	eP	20 31 13.4	−0.4		
			S	20 33 50.0	0.2		
			LN			3.0	0.14
LSA	17.9	107	eP	20 31 56.3	−2.6		
GTA	22.5	74	P	20 32 49.5	3.5		

1987 12 10
O = 01 36 30.3 ± 0.10s
LAT = 30.58 N ± 1.02km
LONG = 137.74 E ± 1.45km
DEPTH = 491 km ± 0.24km
STATIONS USED = 59, STAND DEV = 0.93s

SSE	14.2	276	P	01 39 31.5	−1.9		
			PMZ			0.8	0.010
MDJ	15.4	338	eP	01 39 46.7	1.3		
SNY	16.0	318	+iP	01 39 53.0	1.8		
NJ2	16.2	280	−P	01 39 53.6	0.3		
QZH	17.8	256	eP	01 40 09.7	0.2		
TIA	18.1	294	−P	01 40 11.9	−0.1		
BJI	19.9	304	eP	01 40 29.5	−0.1		
WHN	20.1	276	−P	01 40 34.0	2.5		
			eS	01 43 50.0	4.0		
TIY	22.1	296	eP	01 40 50.0	0.3		
HHC	23.5	303	eP	01 41 02.4	−0.4		
XAN	24.6	286	−iP	01 41 11.8	−0.3		
BTO	24.6	302	eP	01 41 12.2	−0.1		
LZH	28.8	290	eP	01 41 49.0	−0.3		
			PMZ			1.0	0.052
CD2	29.1	279	−P	01 41 52.2	−0.4		
KMI	31.3	269	eP	01 42 11.0	−0.6		
GTA	32.1	296	−iP	01 42 17.6	−0.4		
WMQ	41.4	303	−iP	01 43 34.5	0.0		
KSH	50.5	298	eP	01 44 45.0	0.4		

1987 12 10
O = 05 00 48.2 ± 0.09s
LAT = 36.33 N ± 1.48km
LONG = 69.05 E ± 1.45km
DEPTH = 33 km ± 0.36km
STATIONS USED = 20, STAND DEV = 2.06s
Ms = 4.3 / 2, M_L = 4.5 / 1,

KSH	6.3	58	P	05 02 26.0	4.4		
			LE	Ms = 4.6		5.0	3.30
WMQ	16.1	57	P	05 04 34.5	0.5		
			S	05 07 35.0	4.3		
			LE			2.5	0.10
LSA	19.7	103	P	05 05 19.2	1.4		

1987 12 10
O = 05 44 30.6 ± 0.15s
LAT = 34.91 N ± 3.28km
LONG = 26.76 E ± 2.63km
DEPTH = 10 km ± 0.67km
STATIONS USED = 36, STAND DEV = 2.24s

KSH	39.1	68	eP	05 52 01.5	1.2
			eS	05 57 57.0	−2.9
WMQ	47.0	60	eP	05 53 04.6	0.1

LSA	53.8	76	P	05 53 55.4	−1.7	
GTA	56.9	62	P	05 54 17.7	−1.4	
LZH	61.1	64	eP	05 54 47.5	−0.8	
CD2	63.2	70	eP	05 55 00.0	−2.3	
XAN	65.8	64	eP	05 55 17.5	−1.2	
TIY	66.7	59	eP	05 55 24.0	−0.5	
GYA	67.6	73	P	05 55 29.2	−1.0	
BJI	68.2	56	eP	05 55 38.0	4.0	
WHN	71.5	65	eP	05 55 59.0	4.9	
CN2	72.4	49	eP	05 56 02.0	2.6	

1987 12 10
O = 05 52 14.9 ± 0.13s
LAT = 60.35 S ± 4.59km
LONG = 27.15 W ± 5.31km
DEPTH = 25 km ± 1.13km
STATIONS USED = 25, STAND DEV = 1.94s
Ms = 5.4 / 3,

LZH	140.6	105	cPKP	06 11 47.0	3.3		
GTA	141.3	98	PKP	06 11 44.3	−0.6		
			LE	Ms = 5.4		24.0	0.60
XAN	141.3	113	cPKP	06 11 43.5	−1.4		
NJ2	143.9	126	−PKP	06 11 48.8	−0.4		
SSE	144.0	130	PKP	06 11 48.0	−1.3		
			LZ	Ms = 5.4		20.0	0.48
TIY	146.0	113	−PKP	06 11 53.0	0.1		
			LZ	Ms = 5.6		22.0	0.78
TIA	146.8	120	cPKP	06 11 57.3	3.1		
BJI	149.6	115	cPKP	06 12 01.0	2.4		

1987 12 10
O = 07 19 01.9 ± 0.10s
LAT = 38.17 N ± 1.09km
LONG = 119.65 E ± 0.83km
DEPTH = 7 km ± 0.18km
STATIONS USED = 6, STAND DEV = 3.25s
M_L = 2.7 / 8,

DL2	1.7	64	cPg	07 19 33.8	1.5		
			cSg	07 19 50.3	−5.5		
			SMN	M_L = 2.8		0.3	0.11
			SME			0.3	0.11
TIA	2.8	227	Pn	07 19 49.8	2.2		
			Pg	07 19 53.5	2.0		
			Sg	07 20 24.6	−5.3		
			SMN	M_L = 2.7		0.3	0.038
			SME			0.3	0.030
			SMZ	M_L = 2.5		0.3	0.014

1987 12 10
O = 07 22 43.9 ± 0.07s
LAT = 3.35 N ± 1.22km
LONG = 96.32 E ± 1.11km
DEPTH = 55 km ± 0.52km
STATIONS USED = 57, STAND DEV = 1.10s
Ms = 4.2 / 1,

QZN	20.4	39	P	07 27 20.0	0.6		
			eS	07 31 00.0	−0.1		
KMI	22.5	15	eP	07 27 43.0	2.5		
GYA	25.0	22	P	07 28 05.6	0.8		
LSA	26.7	350	P	07 28 18.8	−1.6		
CD2	28.3	14	eP	07 28 33.4	−1.4		
WHN	32.0	30	P	07 29 09.5	2.2		
XAN	32.7	20	P	07 29 12.0	−1.9		
LZH	33.3	11	eP	07 29 17.5	−1.6		
NJ2	35.5	34	eP	07 29 38.8	0.7		
GTA	36.0	5	+P	07 29 41.0	−1.4		
			PcP	07 32 08.5	1.4		
			LE	Ms = 4.2		24.0	0.28
BTO	39.1	17	eP	07 30 08.2	0.3		
HHC	39.8	18	eP	07 30 15.0	1.3		
BJI	40.7	24	eP	07 30 22.0	0.8		
WMQ	41.0	350	eP	07 30 24.0	0.2		
CN2	47.8	28	eP	07 31 17.0	−1.4		

1987 12 10
O = 08 11 09.5 ± 0.10s
LAT = 4.18 N ± 1.46km
LONG = 127.73 E ± 2.25km
DEPTH = 100 km ± 0.42km
STATIONS USED = 71, STAND DEV = 1.39s

QZH	22.4	338	eP	08 16 02.5	1.5		
			S	08 20 00.0	4.7		
			sS	08 20 28.0	−3.6		
QZN	22.9	312	eP	08 16 06.6	1.4		
			eS	08 20 02.0	−1.6		
GZH	23.4	325	−P	08 16 10.4	0.3		
SSE	27.5	348	eP	08 16 53.5	4.9		
			LZ			20.0	0.46
NJ2	29.0	344	eP	08 17 03.8	2.0		
WHN	29.1	336	eP	08 17 05.0	1.8		
			LE			20.0	1.80
GYA	30.0	320	P	08 17 12.8	1.9		
KMI	31.8	313	eP	08 17 27.0	0.0		
XAN	34.5	332	eP	08 17 48.5	−1.6		
CD2	34.9	322	eP	08 17 52.5	−1.1		
TIY	36.2	339	−P	08 18 04.3	−0.4		
BJI	37.2	345	eP	08 18 13.0	0.0		
SNY	37.7	355	eP	08 18 17.5	0.5		
LZH	38.6	328	eP	08 18 25.5	0.3		
HHC	39.3	341	eP	08 18 31.6	1.0		

BTO	39.6	339	eP	08 18 33.0	−0.2	
LSA	42.9	310	P	08 19 01.0	0.4	
GTA	43.2	328	+iP	08 19 03.0	0.0	
			ScP	08 24 36.0	5.1	
			eS	08 25 23.0	0.5	
WMQ	52.9	324	eP	08 20 18.3	0.1	

1987 12 10
O = 09 24 46.0 ± 0.10s
LAT = 15.56 S ± 2.02km
LONG = 173.17 W ± 2.01km
DEPTH = 32 km ± 0.19km
STATIONS USED = 33, STAND DEV = 1.43s
Ms = 5.2 / 7,

MDJ	79.3	322	eP	09 36 51.5	0.8		
			S	09 46 50.0	3.6		
			LZ	Ms = 5.6		22.0	2.18
CN2	81.3	320	+P	09 37 01.0	−0.7		
			cS	09 47 06.0	−3.6		
			LZ	Ms = 5.2		20.0	0.70
WHN	83.4	304	eP	09 37 12.5	0.4		
BJI	85.7	313	eP	09 37 23.5	−0.4		
			cS	09 48 00.0	6.6		
			SMN			13.0	0.83
			SME			14.0	0.59
			LN	Ms = 5.5		17.0	1.02
TIY	87.5	310	P	09 37 33.1	0.4		
			S	09 48 13.5	4.7		
			LE	Ms = 5.2		15.0	0.44
			LZ	Ms = 5.2		24.0	0.67
XAN	88.9	306	eP	09 37 39.2	−0.2		
BTO	90.3	312	eP	09 37 47.0	1.0		
			pP	09 37 50.0	−5.3		
			cS	09 48 39.0	2.5		
GTA	97.4	309	eP	09 38 22.0	3.2		
			LE	Ms = 5.3		26.0	0.80
KSH	115.7	307	cPKP	09 43 26.5	0.1		

1987 12 10
O = 13 25 32.9 ± 0.15s
LAT = 6.35 S ± 1.60km
LONG = 149.94 E ± 2.36km
DEPTH = 54 km ± 1.92km
STATIONS USED = 63, STAND DEV = 2.14s
Ms = 5.1 / 8,

QZH	43.6	317	eP	13 33 37.0	3.2		
SSE	46.3	325	eP	13 33 52.8	−2.7		
			pP	13 34 04.5	−4.3		
			sS	13 40 56.0	−4.4		
			LE	Ms = 4.9		18.0	0.72
			LZ	Ms = 5.2		22.0	1.92
QZN	46.9	303	eP	13 34 04.0	4.0		
NJ2	48.3	324	−P	13 34 09.6	−1.9		
			LZ	Ms = 5.0		24.0	1.11
WHN	50.1	319	eP	13 34 29.0	4.1		
TIA	52.3	326	eP	13 34 43.2	1.1		
GYA	53.1	310	P	13 34 51.2	3.1		
MDJ	53.9	342	eP	13 34 53.7	−0.2		
			S	13 42 24.0	1.5		
			LZ	Ms = 5.3		24.0	1.90
KMI	55.5	306	eP	13 35 09.0	3.2		
BJI	55.7	329	eP	13 35 07.0	0.5		
			cS	13 42 46.0	−0.9		
			LN	Ms = 5.0		23.0	0.95
XAN	55.8	319	eP	13 35 05.5	−2.3		
TIY	56.1	324	eP	13 35 09.0	−0.4		
			S	13 42 48.5	−2.3		
			LN	Ms = 5.1		17.0	0.77
			LZ	Ms = 5.3		23.0	1.72
CD2	57.6	313	eP	13 35 20.3	−0.2		
HHC	58.7	327	eP	13 35 28.8	0.7		
LZH	60.4	318	eP	13 35 42.0	2.1		
GTA	64.9	319	P	13 36 12.2	2.5		
WMQ	75.0	318	eP	13 37 13.0	2.0		

1987 12 10
O = 14 27 38.8 ± 0.11s
LAT = 4.05 S ± 1.22km
LONG = 142.21 E ± 0.96km
DEPTH = 120 km ± 0.95km
STATIONS USED = 25, STAND DEV = 1.82s

SSE	40.3	332	eP	14 35 05.3	−0.8
			cpP	14 35 32.5	−0.4
WHN	43.5	324	eP	14 35 27.0	−5.3
GYA	45.8	313	P	14 35 53.8	2.6
XAN	49.2	323	P	14 36 17.3	0.1
CD2	50.5	316	+P	14 36 28.3	0.9
GTA	58.2	322	+P	14 37 24.0	0.4
WMQ	68.2	321	P	14 38 30.0	0.8

1987 12 10
O = 18 20 49.7 ± 0.18s
LAT = 4.69 S ± 2.22km
LONG = 134.77 E ± 5.75km
DEPTH = 31 km ± 0.42km
STATIONS USED 39, STAND DEV = 2.60s

WHN	40.1	332	eP	18 28 27.0	2.5
GYA	41.2	320	P	18 28 36.8	2.9
KMI	43.0	315	eP	18 28 47.5	−0.9
XAN	45.6	330	eP	18 29 09.2	−0.2

CD2	46.2	322	cP	18 29 13.1	−0.6
BJI	47.7	341	cP	18 29 31.0	5.4
LZH	49.8	327	cP	18 29 44.0	1.5
HHC	50.1	337	cP	18 29 47.2	3.1
LSA	54.0	312	cP	18 30 12.7	−1.4
GTA	54.4	327	cP	18 30 14.5	−2.5
WMQ	64.2	324	cP	18 31 23.0	−1.3
KSH	69.6	315	cP	18 31 58.0	−0.6

1987 12 10
O = 18 57 41.4 ± 0.07s
LAT = 2.04 S ± 0.90km
LONG = 138.83 E ± 2.36km
DEPTH = 33 km ± 0.24km
STATIONS USED = 35, STAND DEV = 1.14s

NJ2	38.8	332	cP	19 05 06.4	1.0
WHN	39.9	326	P	19 05 15.0	0.5
GYA	42.0	315	P	19 05 33.2	1.1
XAN	45.6	325	P	19 06 00.5	−0.3
BJI	46.7	336	cP	19 06 09.0	−0.6
CD2	46.8	317	cP	19 06 10.1	0.1
CN2	47.2	347	cP	19 06 13.0	−0.2
GTA	54.6	323	+P	19 07 09.6	−0.1
WMQ	64.6	321	−P	19 08 18.5	0.3

1987 12 10
O = 19 17 27.6 ± 0.06s
LAT = 65.26 N ± 1.16km
LONG = 133.64 W ± 0.92km
DEPTH = 10 km ± 0.08km
STATIONS USED = 22, STAND DEV = 1.13s

WMQ	66.6	329	P	19 28 21.2	0.0
GTA	67.7	318	P	19 28 27.9	−0.3
LZH	69.6	313	cP	19 28 41.0	1.1

1987 12 10
O = 22 51 12.2 ± 0.12s
LAT = 36.60 N ± 1.32km
LONG = 21.62 E ± 1.76km
DEPTH = 44 km ± 1.93km
STATIONS USED = 50, STAND DEV = 1.17s

WMQ	49.8	60	cP	23 00 02.5	−0.6
LSA	57.5	75	P	23 00 58.0	−2.2
GTA	59.8	61	−P	23 01 15.2	−0.9
BTO	66.3	56	cP	23 01 59.6	0.7
CD2	66.5	68	−P	23 02 00.5	0.1
KMI	68.7	74	cP	23 02 13.5	−0.6
XAN	68.8	63	cP	23 02 13.8	−0.5
TIY	69.4	58	cP	23 02 18.0	0.0
BJI	70.6	54	cP	23 02 25.0	−0.8
GYA	71.0	71	P	23 02 31.0	2.8
TIA	73.3	57	eP	23 02 41.4	−0.4
CN2	74.3	47	+P	23 02 47.4	−0.2
NJ2	76.9	60	cP	23 03 02.2	0.2

1987 12 11
O = 00 39 26.2 ± 0.05s
LAT = 3.70 N ± 1.83km
LONG = 63.64 E ± 1.34km
DEPTH = 12 km ± 0.43km
STATIONS USED = 18, STAND DEV = 1.21s

LSA	36.7	42	cP	00 46 34.4	−1.6
WMQ	45.3	25	P	00 47 45.5	−0.5
GYA	47.0	57	P	00 48 00.0	0.5
XAN	51.8	49	cP	00 48 35.6	−0.9

1987 12 11
O = 02 03 09.3 ± 0.07s
LAT = 21.99 S ± 2.59km
LONG = 174.83 W ± 1.99km
DEPTH = 32 km ± 0.90km
STATIONS USED = 88, STAND DEV = 1.17s
Ms = 5.8 / 38, m_B = 6.1 / 15

QZH	79.7	302	+P	02 15 14.0	−2.2		
			S	02 25 08.0	−6.0		
			LE	Ms = 5.7		25.0	2.76
SSE	80.9	309	+P	02 15 21.0	−1.7		
			PMZ	m_B = 5.8		12.0	1.35
			LZ	Ms = 5.8		20.0	2.78
GZH	83.0	298	+P	02 15 34.0	0.4		
			S	02 25 50.0	1.8		
			LE	Ms = 6.3		22.0	8.40
NJ2	83.1	308	+P	02 15 34.0	0.0		
			LZ	Ms = 5.6		24.0	1.96
MDJ	83.4	324	+P	02 15 35.9	0.1		
			PMZ	m_B = 6.3		10.0	3.21
			LZ	Ms = 6.0		20.0	4.42
QZN	84.2	293	+P	02 15 39.0	−0.4		
			PP	02 18 58.0	3.4		
			SKS	02 25 57.0	1.5		
			eS	02 26 04.0	2.8		
			LE	Ms = 5.8		18.0	2.40
DL2	84.8	315	+P	02 15 42.0	−0.8		
			eS	02 26 02.0	−6.0		
			LE	Ms = 5.7		18.0	1.80
SNY	85.3	319	+iP	02 15 44.0	−0.9		
			PMZ	m_B = 6.1		11.0	1.86
			eS	02 26 07.0	−5.0		
			LN	Ms = 5.6		26.0	1.67
			LE			24.0	1.32

			LZ	Ms=5.3	30.0	1.17
CN2	85.3	321	+iP	02 15 44.7	−0.3		
			PMZ	m_B=6.2	5.0	1.30
			LZ	Ms=5.7	20.0	2.00
WHN	85.7	305	+P	02 15 49.0	1.9		
			PMZ		1.6	0.11
			S	02 26 10.0	−4.7		
			LZ	Ms=5.7	20.0	2.00
TIA	86.5	311	+P	02 15 50.7	−0.1		
			eS	02 26 18.0	−5.7		
			SME	m_B=4.9	7.5	0.086
			LN	Ms=5.9	17.0	1.15
			LE		17.0	2.24
BJI	89.0	314	+iP	02 16 03.0	−0.2		
			PMZ	m_B=6.3	5.0	1.05
			cSKS	02 26 28.0	0.8		
			eS	02 26 41.0	−6.8		
			LN	Ms=5.7	18.0	1.72
			LZ	Ms=5.9	20.0	2.78
GYA	89.9	299	+P	02 16 08.0	0.4		
			sP	02 16 20.0	−0.9		
			LN	Ms=5.8	24.0	2.10
			LE		24.0	1.40
TIY	90.5	311	+iP	02 16 10.0	−0.1		
			PMZ		1.6	0.15
			PP	02 19 47.0	1.2		
			SKS	02 26 41.5	5.6		
			S	02 26 57.0	−2.3		
			sS	02 27 15.0	−1.8		
			LN	Ms=5.9	17.0	1.52
			LE		19.0	2.08
			LZ	Ms=6.0	21.0	3.63
XAN	91.4	306	+iP	02 16 15.0	0.7		
			pP	02 16 26.0	2.3		
			SKS	02 26 40.0	−1.2		
			S	02 27 09.0	1.6		
			LE	Ms=5.6	18.0	1.34
HHC	92.5	313	+P	02 16 20.0	0.5		
KMI	92.7	296	+P	02 16 21.0	0.7		
			pP	02 16 32.0	2.4		
			cSKS	02 26 43.5	−4.9		
			LZ	Ms=6.3	20.0	6.50
BTO	93.4	312	+P	02 16 23.5	−0.3		
			cSKS	02 26 53.0	0.1		
			S	02 27 19 0	−6.4		
			LN'	Ms=5.7	18.0	0.70
			LE		18.0	1.30
			LZ	Ms=5.6	18.0	1.30
CD2	94.1	302	eP	02 16 27.0	0.4		
			LZ	Ms=6.0	12.0	2.03
LZH	96.0	306	+P	02 16 35.5	0.0		
			PMZ			2.0	0.15
			eSKS	02 27 09.0	2.1		
			LE			2.0	1.74
GTA	100.2	308	+P	02 16 54.0	−0.5		
			PMZ	m_B=6.3		6.0	0.34
			SKS	02 27 23.0	−5.3		
			SME	m_B=5.9		12.0	0.72
			LE	Ms=5.9		24.0	3.02
			LZ	Ms=6.0		24.0	3.72
KSH	118.1	304	ePKP	02 21 56.0	1.6		
			eSKKS	02 29 49.0			

1987 12 11

O=06 39 39.5 ± 0.16s
LAT=26.01 N ± 2.35km
LONG= 90.89 E ± 1.57km
DEPTH= 54 km ± 0.63km
STATIONS USED = 28, STAND DEV= 2.43s
Ms=4.3/ 2,

LSA	3.7	4	−iP	06 40 36.1	0.0		
			LN	Ms=4.1		5.0	2.35
LZH	15.0	45	−P	06 43 14.5	4.9		
			PMZ			1.5	0.043
GTA	15.3	27	P	06 43 17.6	3.4		
			LE	Ms=4.5		26.0	3.10
XAN	17.5	59	P	06 43 39.4	−2.6		
WMQ	18.0	353	P	06 43 47.5	0.3		
WHN	21.1	72	eP	06 44 23.2	0.9		
BTO	21.6	43	eP	06 44 25.4	−1.2		
TIY	21.6	52	eP	06 44 27.0	−0.5		

1987 12 11

O=08 54 42.5 ± 0.08s
LAT= 0.62 N ± 1.25km
LONG=125.18 E ± 1.63km
DEPTH= 74 km ± 0.40km
STATIONS USED = 34, STAND DEV= 1.39s

GYA	31.3	327	P	09 01 00.6	2.6
			ScP	09 07 28.4	3.2
XAN	36.6	337	eP	09 01 43.0	−0.5
BJI	40.1	349	eP	09 02 14.0	1.4
CN2	43.0	0	eP	09 02 38.0	1.4
LSA	43.4	315	eP	09 02 40.4	−0.1
MDJ	44.0	5	+P	09 02 45.5	0.9
GTA	45.0	332	P	09 02 53.0	−0.1
			ScP	09 08 20.0	3.0
WMQ	54.4	327	P	09 04 04.0	−0.9

1987 12 11

O = 15 59 20.9 ± 0.05s
LAT = 36.15 N ± 0.39km
LONG = 112.80 E ± 0.51km
DEPTH = 9 km ± 0.01km
STATIONS USED = 5, STAND DEV = 2.37s
M_L = 2.8 / 5,

TIY	1.6	349	+Pg	15 59 48.1	−1.0		
			Sg	16 00 09.3	−1.4		
			SMN	M_L = 2.7		0.8	0.070
			SME			0.6	0.11
XAN	3.8	238	ePg	16 00 29.6	1.2		
			eSg	16 01 17.6	−2.9		

1987 12 11
O = 16 41 25.1 ± 0.07s
LAT = 6.50 S ± 1.11km
LONG = 130.28 E ± 1.62km
DEPTH = 134 km ± 0.14km
STATIONS USED = 63, STAND DEV = 1.08s

SSE	38.4	347	cP	16 48 36.2	1.0		
NJ2	39.8	345	−P	16 48 48.2	0.8		
			sP	16 49 36.0	3.6		
WHN	39.9	338	−P	16 48 50.0	2.5		
			ScP	16 54 28.7	3.1		
GYA	40.0	326	P	16 48 49.0	0.5		
			pP	16 49 16.0	−1.9		
KMI	41.3	321	−P	16 49 01.0	1.4		
			pP	16 49 29.5	0.6		
XAN	45.1	335	P	16 49 29.6	−0.5		
TIY	47.0	341	−iP	16 49 45.4	0.1		
			S	16 56 25.5	0.5		
			sS	16 57 17.0	−1.7		
			LN			11.0	0.63
BJI	48.1	345	cP	16 49 53.0	−0.5		
SNY	48.5	353	cP	16 49 56.6	0.2		
LZH	49.1	331	cP	16 50 01.5	0.1		
HHC	50.2	342	cP	16 50 09.0	−0.4		
CN2	50.2	355	cP	16 50 09.0	−1.0		
BTO	50.4	340	cP	16 50 11.0	−0.6		
MDJ	50.9	359	cP	16 50 15.5	0.7		
LSA	52.0	316	cP	16 50 19.1	−4.9		
			cS	16 57 33.6	−2.7		
			SMN			2.0	0.37
GTA	53.7	331	+P	16 50 35.7	0.0		
			ScS	17 00 10.2	3.0		
WMQ	63.1	327	P	16 51 42.0	0.6		
KSH	67.8	317	cP	16 52 13.4	1.9		

1987 12 11
O = 23 27 33.0 ± 0.08s
LAT = 11.30 N ± 1.20km
LONG = 125.60 E ± 1.70km
DEPTH = 78 km ± 0.35km
STATIONS USED = 89, STAND DEV = 1.23s
Ms = 4.3 / 9,

QZH	15.1	335	eP	23 31 02.5	−1.0		
GZH	16.5	317	eP	23 31 23.5	1.8		
QZN	17.0	299	eP	23 31 27.0	−0.7		
			ePP	23 31 41.0	−3.1		
SSE	20.1	349	P	23 32 02.7	−0.5		
			PMZ			1.0	0.17
			pP	23 32 15.5	−3.5		
			sP	23 32 24.0	−5.3		
			eS	23 35 40.0	−0.1		
			esS	23 36 02.0	−1.1		
			LZ	Ms = 4.3		20.0	0.93
NJ2	21.6	344	−P	23 32 19.6	1.7		
WHN	21.8	333	+iP	23 32 22.5	2.2		
			PMZ			1.2	0.15
			sP	23 32 47.0	−0.1		
			LZ	Ms = 4.3		24.0	1.00
GYA	23.4	313	−P	23 32 36.6	0.9		
			S	23 36 39.4	0.8		
KMI	25.6	306	+iP	23 32 57.5	−0.1		
			pP	23 33 10.5	−4.2		
			sP	23 33 20.5	−4.1		
			eS	23 37 16.0	−2.3		
			LZ	Ms = 4.5		28.0	1.40
TIA	26.0	344	eP	23 33 00.1	−0.2		
XAN	27.3	329	+iP	23 33 11.6	−1.0		
DL2	27.7	353	eP	23 33 15.0	−1.4		
CD2	28.1	317	+iP	23 33 19.3	−0.8		
TIY	28.8	338	+iP	23 33 26.4	−0.1		
			PMZ			0.9	0.050
			S	23 38 06.5	−2.2		
			SS	23 39 48.0	6.5		
			LN	Ms = 4.3		12.0	0.28
			LZ	Ms = 4.4		34.0	1.03
BJI	29.8	345	eP	23 33 34.5	−0.7		
			ScP	23 40 14.0	3.9		
			eS	23 38 28.0	2.9		
			LN	Ms = 4.3		20.0	0.30
			LE			20.0	0.30
SNY	30.5	357	+iP	23 33 41.8	0.9		
LZH	31.6	325	+P	23 33 50.0	−0.7		
			PMZ			1.0	0.090
HHC	31.9	340	−P	23 33 54.6	0.7		
BTO	32.3	337	P	23 33 56.0	−0.8		
CN2	32.4	360	+P	23 33 57.8	0.1		
			pP	23 34 16.0	0.3		

			eS	23 39 06.0	0.6		
			LZ	Ms=4.4		20.0	0.50
MDJ	33.4	5	+P	23 34 07.0	0.7		
GTA	36.2	325	+iP	23 34 30.5	0.2		
			PcP	23 36 54.5	0.5		
			S	23 40 05.7	2.7		
LSA	36.9	305	+iP	23 34 36.0	−0.8		
WMQ	46.0	322	P	23 35 51.2	0.3		
			iPcP	23 37 26.4	0.3		

1987 12 12
O=03 31 42.6 ± 0.15s
LAT=60.01 S ± 4.07km
LONG= 26.45 W ± 4.12km
DEPTH= 29 km ± 0.69km
STATIONS USED = 25, STAND DEV= 2.65s

GTA	141.0	97	cPKP	03 51 11.0	−0.4
XAN	141.1	112	cPKP	03 51 14.0	2.4
TIY	145.8	112	cPKP	03 51 20.0	0.4
TIA	146.7	119	cPKP	03 51 22.2	1.2
BTO	146.9	106	cPKP	03 51 24.0	2.4
BJI	149.4	114	PKP	03 51 29.5	4.1

1987 12 12
O=04 51 49.6 ± 0.07s
LAT=29.82 N ± 1.33km
LONG=140.24 E ± 1.45km
DEPTH=166 km ± 0.47km
STATIONS USED =116, STAND DEV= 1.30s
m_B=6.5 / 56

SSE	16.5	279	+P	04 55 34.3	1.6		
			PMZ	m_B=6.8		8.0	26.6
			sP	04 56 18.0	0.5		
			S	04 58 32.0	2.8		
			LN			14.0	37.0
			LZ			20.0	24.1
MDJ	17.0	333	−iP	04 55 34.3	−4.8		
			PMZ	m_B=6.5		6.0	11.6
			sP	04 56 23.0	−1.3		
			S	04 58 42.0	1.2		
			SME	m_B=6.7		5.0	13.7
			PcP	05 00 17.5	2.0		
			ScP	05 03 33.5	0.3		
			PcS	05 03 52.5	2.4		
			ScS	05 07 11.5	−0.2		
			LE			10.0	6.68
DL2	17.8	306	−iP	04 55 48.0	−0.4		
			PMZ	m_B=6.7		6.0	15.5
			sP	04 56 38.0	3.5		
			S	04 58 57.0	−1.5		
			SMN	m_B=6.4		8.0	8.70
			SME			8.0	7.20
			LN			13.0	11.6
			LE			13.0	15.6
SNY	18.0	316	−iP	04 55 50.0	−0.7		
			PMZ	m_B=6.4		6.0	8.80
			sP	04 56 40.0	2.8		
			S	04 59 06.0	3.1		
			ScS	05 07 15.0	0.3		
			LN			14.0	12.6
			LE			18.0	26.5
			LZ			14.0	19.5
CN2	18.3	324	−iP	04 55 52.0	−1.3		
			PMZ	m_B=6.3		7.0	7.50
			sP	04 56 42.0	1.9		
			S	04 59 08.5	0.6		
			SME	m_B=6.4		12.0	16.7
			iPcP	05 00 17.8	0.3		
			iScP	05 03 35.5	−0.3		
			ScS	05 07 16.0	0.5		
NJ2	18.5	282	−iP	04 55 55.0	−0.5		
			S	04 59 14.0	1.6		
			ScP	05 03 37.6	1.3		
			LE			12.0	6.47
QZH	19.8	261	−iP	04 56 10.0	0.6		
			PMZ	m_B=6.7		4.0	10.1
			sP	04 57 02.0	2.6		
			iS	04 59 38.0	−0.7		
			SMN	m_B=7.0		12.0	46.4
			SME			12.0	35.5
			SS	05 00 24.0	3.3		
TIA	20.4	294	−P	04 56 14.7	−0.4		
			PMZ	m_B=6.4		6.0	8.79
			pP	04 56 41.0	−0.6		
			sP	04 57 10.0	4.1		
			S	04 59 50.0	1.5		
			SMN	m_B=6.3		8.0	5.65
			SME			8.0	6.03
			ScP	05 03 41.0	0.4		
			ScS	05 07 21.2	−1.2		
			LN			13.0	18.6
			LE			13.0	13.3
			LZ			10.0	7.21
BJI	22.1	304	−iP	04 56 31.0	−1.5		
			PMZ	m_B=6.3		9.0	9.01
			PP	04 57 05.0	−2.4		
			eSS	05 01 10.0	−6.0		
			ScP	05 03 44.0	−0.8		
			ScS	05 07 28.0	−0.7		
WHN	22.4	278	−iP	04 56 37.5	2.7		

			PMZ		$m_B=6.7$	8.0	21.2	
			iS	05 00 28.0	3.0			
			SME		$m_B=6.5$	9.0	16.8	
			sS	05 01 13.0	−1.8			
			SS	05 01 28.0	6.5			
			LN			16.0	50.4	
TIY	24.4	296	−P	04 56 53.4	−0.5			
			PMZ		$m_B=6.4$	12.0	12.5	
			sP	04 57 45.0	−1.3			
			PcP	05 00 33.0	3.7			
			S	05 00 58.5	0.7			
			SS	05 02 05.0	−2.8			
			ScP	05 03 48.5	−2.2			
			ScS	05 07 37.0	−0.2			
			LE			14.0	12.6	
GZH	25.0	261	+P	04 57 00.0	0.6			
			PMZ		$m_B=6.3$	6.0	5.70	
			pP	04 57 36.0	3.6			
			PP	04 57 41.0	−3.6			
			S	05 01 04.0	−3.9			
			sS	05 02 08.0	1.1			
			LN			10.0	12.4	
HHC	25.7	303	+P	04 57 06.0	−0.8			
			PMZ		$m_B=6.2$	6.0	3.52	
			PP	04 57 55.0	0.3			
			sP	04 58 02.0	2.3			
			S	05 01 20.0	−0.8			
			sS	05 02 23.0	2.6			
			SS	05 02 45.0	3.2			
			LE			13.0	12.8	
			LZ			12.0	20.8	
BTO	26.8	302	−iP	04 57 15.0	−1.6			
			PMZ		$m_B=6.5$	7.0	7.90	
			sP	04 58 13.0	3.3			
			S	05 01 37.5	−0.7			
			sS	05 02 41.0	2.7			
			SS	05 03 10.0	3.2			
			LN			12.0	5.50	
			LE			13.0	7.00	
			LZ			13.0	9.40	
XAN	26.9	287	−iP	04 57 16.0	−1.0			
			PMZ		$m_B=6.5$	7.0	7.52	
			PP	04 58 04.0	−5.7			
			isP	04 58 10.0	−0.1			
			S	05 01 36.0	−2.9			
			sS	05 02 39.0	0.0			
			SS	05 03 05.0	−2.8			
			iScP	05 03 58.6	0.7			
			ScS	05 07 46.5	−1.2			
			LN			14.0	1.64	
			LE			16.0	1.20	
QZN	29.6	256	−P	04 57 43.0	1.4			
			PMZ		$m_B=6.3$	7.0	4.30	
			pP	04 58 19.0	3.3			
			sP	04 58 40.5	5.3			
			ScP	05 04 08.0	1.6			
			S	05 02 25.0	2.3			
			SS	05 04 12.0	0.9			
			PcS	05 04 23.0	−0.4			
			ScS	05 07 54.0	−6.2			
GYA	29.7	272	−P	04 57 42.0	−0.9			
			PMZ			3.0	4.20	
			pP	04 58 17.0	0.1			
			sP	04 58 36.0	−0.4			
			S	05 02 21.0	−3.8			
			ScP	05 04 08.6	1.8			
			PcS	05 04 26.0	2.1			
			ScS	05 08 01.0	0.1			
			LN			11.0	20.0	
LZH	31.0	291	−iP	04 57 53.0	−1.5			
			PMZ		$m_B=6.3$	6.5	4.10	
			S	05 02 43.0	−2.3			
			ScP	05 04 08.0	−3.2			
			LN			12.0	9.84	
			LE			10.0	4.66	
CD2	31.4	281	P	04 57 57.0	−0.5			
			sP	04 58 50.0	−1.2			
			S	05 02 46.0	−5.0			
			sS	05 03 58.0	5.3			
			LN			10.0	26.1	
			LZ			9.0	10.5	
KMI	33.5	271	−iP	04 58 15.5	−0.2			
			PMZ		$m_B=6.7$	4.0	6.00	
			pP	04 58 53.0	2.7			
			sP	04 59 14.0	4.5			
			PP	04 59 37.0	4.3			
			PcP	05 00 50.0	−2.2			
			iS	05 03 24.0	−0.9			
			SMN		$m_B=6.0$	7.0	3.60	
			SME			7.0	3.50	
			ScP	05 04 20.0	0.4			
			sS	05 04 30.0	4.6			
			PcS	05 04 37.0	0.4			
GTA	34.4	297	−iP	04 58 21.7	−1.4			
			PMZ		$m_B=6.3$	7.0	4.66	
			sP	04 59 17.0	−0.1			
			PP	04 59 45.0	2.1			
			PPMZ			9.0	3.52	
			S	05 03 32.0	−5.0			
			ScP	05 04 22.4	−0.2			

			LZ			20.0	4.00
			PcS	05 04 40.0	0.3		
LSA	42.3	283	−iP	04 59 29.4	−0.3		
			PMZ	$m_B = 6.0$		7.5	3.13
			iPP	05 01 12.5	0.5		
			iS	05 05 35.5	−3.0		
			isS	05 06 46.0	5.4		
WMQ	43.6	304	−iP	04 59 39.0	−0.5		
			PMZ	$m_B = 6.5$		5.0	6.34
			pP	05 00 20.0	4.5		
			sP	05 00 38.0	3.7		
			PcP	05 01 28.0	4.2		
			ScP	05 04 58.0	0.1		
			SMN	$m_B = 6.3$		5.0	3.02
			sS	05 07 [illegible]0	0.6		
			iScS	05 09 18.0	0.1		
			LN			16.0	13.1
KSH	52.7	299	eP	05 00 51.0	0.9		
			pP	05 01 32.0	4.8		
			sP	05 01 50.0	4.3		
			PcP	05 01 56.0	−0.6		
			PP	05 02 50.0	−2.2		
			ScP	05 05 34.0	−2.4		
			PcS	05 05 55.0	1.5		
			S	05 08 06.0	3.3		
			ScS	05 10 23.0	4.5		
			LN			14.0	8.00

1987 12 12
O = 06 07 41.0 ± 0.11s
LAT = 38.12 N ± 0.91km
LONG = 119.38 E ± 1.26km
DEPTH = 14 km ± 0.48km
STATIONS USED = 11, STAND DEV = 2.98s
$M_L = 3.2 / 15$,

DL2	1.9	65	−iPg	06 08 14.8	−0.4		
			Sg	06 08 39.0	−2.7		
			SMN	$M_L = 3.4$		0.5	0.36
			SME			0.5	0.37
TIA	2.6	224	cPn	06 08 23.5	0.1		
			Pg	06 08 34.0	6.7		
			Sg	06 09 05.8	2.6		
			SMN	$M_L = 3.0$		0.4	0.092
			SME			0.4	0.071
			SMZ	$M_L = 2.8$		0.4	0.034
BJI	3.1	309	cPn	06 08 30.0	−0.5		
			cPg	06 08 39.0	2.5		
			Sg	06 09 18.0	−1.5		
			SMN	$M_L = 2.6$		1.0	0.010
			SME			1.0	0.030
SNY	4.9	40	cPg	06 09 09.0	1.2		
			SMN	$M_L = 3.0$		1.0	0.020
			SME			1.0	0.020

1987 12 12
O = 12 16 43.6 ± 0.04s
LAT = 52.55 N ± 1.51km
LONG = 171.33 W ± 0.76km
DEPTH = 95 km ± 0.34km
STATIONS USED = 44, STAND DEV = 0.84s

CN2	41.8	284	+P	12 24 26.0	0.3
BJI	49.6	286	eP	12 25 27.5	0.1
TIA	51.5	282	eP	12 25 41.9	−0.4
SSE	52.6	274	eP	12 25 50.0	−0.1
BTO	52.8	290	P	12 25 51.0	−0.8
TIY	53.3	286	+P	12 25 56.4	0.8
WHN	57.1	279	eP	12 26 22.2	−0.9
XAN	57.9	285	P	12 26 28.0	−0.6
GTA	59.3	296	−P	12 26 37.4	−1.1
LZH	59.4	290	eP	12 26 39.5	0.4
WMQ	62.5	307	P	12 27 00.2	0.4
CD2	63.2	286	P	12 27 04.8	0.4
GYA	64.7	281	P	12 27 15.0	0.4
LSA	71.3	294	−P	12 27 55.7	−0.1
KSH	71.4	311	eP	12 27 56.0	−0.2

1987 12 12
O = 14 10 16.8 ± 0.22s
LAT = 32.72 N ± 0.71km
LONG = 122.85 E ± 2.20km
DEPTH = 10 km
STATIONS USED = 13, STAND DEV = 1.87s
$M_L = 3.9 / 18$,

SSE	2.1	222	Pn	14 10 54.2	1.1		
			Pg	14 10 56.3	1.6		
			Sn	14 11 18.5	−3.2		
			Sg	14 11 21.0	−3.1		
			SMN	$M_L = 4.0$		0.5	1.04
			SME			0.5	1.08
TIA	5.9	308	cPn	14 11 46.9	2.6		
			Sg	14 13 15.9	−4.8		
			SMN	$M_L = 3.7$		0.8	0.060
			SME			0.9	0.066
			SMZ	$M_L = 3.7$		1.0	0.037
WHN	7.6	256	cPg	14 12 32.0	1.6		
			SMN	$M_L = 4.1$		1.0	0.080
			SME			1.0	0.040

1987 12 12
O 19 23 36.4 ± 0.10s

LAT = 19.40 S ± 1.06km
LONG = 177.66 W ± 0.87km
DEPTH = 585 km ± 1.28km
STATIONS USED = 23, STAND DEV = 1.03s

NJ2	79.4	309	+P	19 34 46.6	2.0		
MDJ	79.8	325	eP	19 34 47.0	0.4		
CN2	81.6	322	eP	19 34 55.5	−0.5		
WHN	82.0	306	eP	19 35 00.0	1.9		
BJI	85.3	315	eP	19 35 14.0	−0.3		
XAN	87.7	307	eP	19 35 26.0	0.3		

1987 12 12
O = 23 39 30.4 ± 0.11s
LAT = 39.06 N ± 1.76km
LONG = 74.68 E ± 1.27km
DEPTH = 69 km ± 1.21km
STATIONS USED = 27, STAND DEV = 2.42s
M_L = 4.1 / 4,

KSH	1.1	68	+iP	23 39 50.0	−1.0		
			S	23 40 11.7	6.4		
			SMN	M_L = 4.2		0.7	5.00
			SME			0.5	4.50
WMQ	10.9	60	P	23 42 04.5	−1.1		
			S	23 44 05.0	−0.9		
			LE			2.0	0.12
GTA	19.5	81	+P	23 43 57.0	2.5		
LZH	23.3	88	eP	23 44 30.0	−3.0		

1987 12 13
O = 02 49 09.7 ± 0.05s
LAT = 30.37 N ± 0.97km
LONG = 138.18 E ± 0.95km
DEPTH = 461 km ± 0.39km
STATIONS USED = 106, STAND DEV = 0.84s
m_B = 5.0 / 20

SSE	14.6	277	+iP	02 52 16.5	−1.5		
			PMZ			1.0	0.10
			S	02 54 49.0	−0.5		
MDJ	15.8	337	+P	02 52 30.1	0.7		
			S	02 55 12.7	2.3		
			SME	m_B = 4.8		12.0	3.00
			ScS	03 03 27.0	−0.7		
DL2	16.0	306	−iP	02 52 32.0	−0.4		
			S	02 55 15.0	−0.8		
			SMN	m_B = 4.8		4.0	0.85
			PcP	02 57 00.0	−0.4		
SNY	16.4	318	−iP	02 52 37.0	1.0		
			S	02 55 24.0	1.6		
			SMN	m_B = 5.1		6.0	1.89
			SME			8.0	2.74
NJ2	16.6	281	−iP	02 52 36.0	−2.1		
			S	02 55 26.0	−0.3		
CN2	16.8	326	+iP	02 52 40.5	0.6		
			sP	02 54 35.0	4.1		
			cS	02 55 32.0	1.9		
			SME	m_B = 5.0		6.0	1.90
QZH	18.2	257	eP	02 52 53.5	0.0		
			cS	02 55 56.0	1.5		
			SME	m_B = 4.9		6.0	1.38
TIA	18.5	294	−P	02 52 57.1	0.0		
			ScP	02 59 56.4	0.9		
			SMN	m_B = 4.8		9.0	0.76
			SME			9.0	1.29
			ScS	03 03 36.5	0.6		
BJI	20.4	304	−P	02 53 14.0	−0.6		
			cS	02 56 32.0	−0.2		
			ScP	02 59 59.5	−0.2		
			cScS	03 03 42.0	0.0		
WHN	20.5	277	−iP	02 53 18.2	1.9		
			PMZ			3.0	2.10
			isP	02 55 21.0	1.8		
			SME	m_B = 4.6		7.0	0.70
TIY	22.5	296	−iP	02 53 35.3	0.5		
			PMZ			0.8	0.32
			S	02 57 08.0	0.7		
			SMN	m_B = 4.6		7.0	0.56
			ScS	03 03 50.0	0.1		
GZH	23.3	258	P	02 53 41.0	−0.9		
			ScP	03 00 09.5	2.4		
HHC	23.9	303	+iP	02 53 47.8	−0.1		
			S	02 57 28.0	−2.5		
			SMN			1.5	0.62
			SME			3.0	0.82
XAN	25.0	286	−iP	02 53 57.0	−0.1		
			sP	02 56 06.0	−1.4		
			S	02 57 46.0	−1.2		
BTO	25.0	302	−iP	02 53 57.0	−0.4		
			sP	02 56 08.0	0.4		
			S	02 57 47.0	−0.5		
GYA	27.9	270	−P	02 54 23.0	−0.4		
			sP	02 56 38.0	2.2		
			PcP	02 57 24.0	−0.5		
			S	02 58 32.4	−1.4		
			ScP	03 00 23.0	2.5		
			ScS	03 04 13.8	0.8		
QZN	28.0	253	−P	02 54 25.5	1.4		
			cS	02 58 37.0	1.0		
LZH	29.2	290	−iP	02 54 34.0	−0.3		
CD2	29.6	280	−iP	02 54 36.8	−0.6		
			PMZ			0.6	0.58

			epP	02 55 59.5	−1.0		
			S	02 58 55.0	−3.9		
KMI	31.7	269	−iP	02 54 56.5	0.4		
			PMZ			2.0	0.70
			eS	02 59 34.0	0.4		
GTA	32.5	297	−iP	02 55 02.8	−0.2		
			PMZ			2.0	0.64
			iS	02 59 42.5	−3.6		
			ScS	03 04 35.1	−0.5		
LSA	40.5	281	−iP	02 56 09.5	0.3		
			eS	03 01 42.0	−3.8		
			SMN	m_B = 5.0		7.0	0.31
WMQ	41.8	303	P	02 56 19.5	−0.1		
			PMZ			1.5	0.42
			ScP	03 01 11.0	0.8		
			S	03 02 03.5	0.3		
KSH	50.9	298	−iP	02 57 30.0	0.4		
			epP	02 59 04.0	4.5		
			PP	02 59 34.0	1.4		
			S	03 04 12.0	2.3		

1987 12 13
O = 03 21 04.1 ± 0.07s
LAT = 50.03 N ± 1.07km
LONG = 78.78 E ± 1.00km
DEPTH = 1 km ± 0.26km
STATIONS USED = 118, STAND DEV = 1.12s
Ms = 5.1 / 27, m_B = 5.3 / 1

WMQ	8.7	132	+iP	03 23 13.2	−1.2		
			S	03 24 52.0	−2.1		
			LN	Ms = 5.4		8.0	18.7
			LZ	Ms = 5.2		8.0	11.1
KSH	10.8	192	cP	03 23 43.0	0.3		
			S	03 25 50.0	5.4		
			LN	Ms = 5.7		4.0	11.8
GTA	18.3	118	−iP	03 25 20.0	−1.0		
			PMZ			2.0	1.27
			S	03 28 48.0	5.8		
			SS	03 29 12.0	6.5		
			LE	Ms = 4.9		8.5	1.80
			LZ	Ms = 5.1		6.0	2.10
LSA	22.4	151	+iP	03 26 09.5	3.7		
			S	03 30 01.2	−5.3		
			LN	Ms = 4.5		10.0	0.49
			LE			12.0	0.44
LZH	22.9	118	+iP	03 26 11.0	0.4		
			PMZ			2.0	1.38
			cS	03 30 21.0	4.1		
			LN	Ms = 5.2		8.0	1.91
			LE			10.0	1.91
BTO	23.8	101	P	03 26 20.0	0.8		
			pP	03 26 26.0	3.0		
			eS	03 30 35.0	2.7		
			LN	Ms = 5.1		10.0	1.70
			LE			10.0	1.40
			LZ	Ms = 5.1		10.0	1.90
HHC	24.6	99	P	03 26 27.5	0.2		
			pP	03 26 33.0	1.9		
			LN	Ms = 5.5		8.0	2.37
			LE			10.0	3.87
CD2	26.7	126	+iP	03 26 48.4	1.1		
			PMZ			0.8	0.53
TIY	27.0	104	+iP	03 26 50.2	0.7		
			PMZ			0.8	0.070
			cS	03 31 27.0	0.8		
			LN	Ms = 5.2		11.0	1.50
			LE			8.0	1.20
			LZ	Ms = 5.1		12.0	1.93
XAN	27.3	114	+iP	03 26 52.3	0.1		
			pP	03 26 56.0	−0.1		
			iPcP	03 30 12.0	0.1		
			LN	Ms = 5.0		10.0	1.07
			LE			7.0	0.42
BJI	28.0	96	+iP	03 26 59.0	0.3		
			LN	Ms = 5.2		14.0	1.75
			LE			12.0	2.25
TIA	30.8	102	+P	03 27 24.7	0.4		
KMI	31.0	134	+iP	03 27 25.0	−1.1		
SNY	31.8	87	+iP	03 27 37.0	4.2		
GYA	31.8	127	+P	03 27 33.0	0.0		
			PcP	03 30 24.0	0.5		
			S	03 32 43.4	0.9		
			PcS	03 34 07.0	0.1		
			LE	Ms = 4.7		16.0	0.80
CN2	32.1	83	+iP	03 27 34.4	−0.5		
			PcP	03 30 23.0	−1.2		
			cS	03 32 45.0	−2.0		
			LZ	Ms = 5.2		12.0	1.80
DL2	32.1	94	cP	03 27 35.2	−0.3		
WHN	33.0	113	+iP	03 27 43.7	0.9		
			PMZ			0.7	0.17
			iPcP	03 30 27.5	0.9		
			LN	Ms = 4.9		12.0	0.83
MDJ	34.3	79	+P	03 27 54.1	−0.5		
			PcP	03 30 30.0	−0.4		
NJ2	34.6	106	+iP	03 27 57.5	0.1		
			PcP	03 30 31.0	−0.4		
SSE	36.7	105	P	03 28 15.2	−0.1		
			PMZ			1.0	0.083
			PcP	03 30 37.2	−0.4		

			cS	03 33 57.0	−2.7		
			LN	Ms=4.8		10.0	0.48
			LZ	Ms=4.5		14.0	0.88
GZH	38.1	122	+iP	03 28 26.5	0.0		
QZN	39.6	130	+P	03 28 40.0	0.6		
QZH	39.6	114	eP	03 28 39.5	0.1		

1987 12 13
O=05 44 52.4 ± 0.10s
LAT=15.15 N ± 1.59km
LONG=146.12 E ± 1.86km
DEPTH= 97 km ± 0.22km
STATIONS USED = 36, STAND DEV= 1.14s

WHN	32.9	303	P	05 51 20.0	0.3		
BJI	36.0	319	eP	05 51 45.5	−0.9		
TIY	37.3	313	P	05 51 58.6	1.4		
GYA	38.4	294	P	05 52 07.8	1.2		
XAN	38.4	306	P	05 52 06.0	−0.5		
HHC	39.4	317	eP	05 52 15.6	0.7		
BTO	40.3	316	eP	05 52 22.4	0.1		
CD2	41.8	300	P	05 52 33.6	−0.4		
LZH	43.0	307	−P	05 52 45.0	0.4		
GTA	47.1	310	−iP	05 53 16.6	−0.3		
LSA	52.4	296	−iP	05 53 56.8	−1.0		
WMQ	57.0	313	eP	05 54 30.3	−0.3		

1987 12 13
O=09 42 43.2 ± 0.11s
LAT=41.84 N ± 1.66km
LONG= 81.35 E ± 1.37km
DEPTH= 15 km
STATIONS USED = 9, STAND DEV= 2.64s
M_L=3.6 / 8,

KSH	4.7	242	cPg	09 44 05.5	−1.5		
			cSg	09 45 13.0	1.6		
			SME	M_L=3.5		0.5	0.060
WMQ	5.1	65	cPn	09 44 02.2	2.9		
			Sg	09 45 26.4	4.3		
			SME	M_L=3.5		0.6	0.050

1987 12 13
O=10 42 26.4 ± 0.15s
LAT=59.90 S ± 4.59km
LONG= 18.49 W ± 5.56km
DEPTH= 10 km ± 0.28km
STATIONS USED = 25, STAND DEV= 2.69s
Ms=5.8 / 2,

GTA	137.0	90	cPKP	11 01 48.4	−2.6		
			LN	Ms=5.9		26.0	1.41
			LE			18.0	0.76
			LZ	Ms=5.7		22.0	0.99
XAN	137.4	103	cPKP	11 01 51.7	0.1		
BTO	143.0	98	cPKP	11 01 59.0	−2.7		
HHC	144.0	99	cPKP	11 02 01.4	−2.0		
BJI	145.6	105	cPKP	11 02 05.5	−0.6		
SNY	150.6	111	cPKP	11 02 20.0	5.9		

1987 12 13
O=12 15 25.5 ± 0.07s
LAT=51.84 N ± 2.00km
LONG=158.86 E ± 1.37km
DEPTH= 33 km ± 0.19km
STATIONS USED = 80, STAND DEV= 1.10s
Ms=4.7 / 5,

MDJ	20.7	261	eP	12 20 05.0	−0.7		
CN2	23.7	263	eP	12 20 34.6	−0.6		
SNY	25.9	261	+P	12 20 57.0	0.4		
BJI	31.5	265	eP	12 21 49.0	2.0		
HHC	33.9	270	P	12 22 07.4	−0.5		
SSE	34.5	248	eP	12 22 14.0	1.1		
			PMZ			1.0	0.042
			LZ	Ms=4.4		20.0	0.46
BTO	35.0	271	eP	12 22 18.0	0.6		
NJ2	35.1	252	+P	12 22 19.0	0.5		
TIY	35.2	265	−P	12 22 19.7	0.3		
WHN	38.9	254	eP	12 22 51.0	0.9		
XAN	39.8	263	eP	12 22 56.0	−1.5		
LZH	41.6	270	−P	12 23 13.5	1.0		
			PMZ			1.0	0.052
GTA	42.0	277	−P	12 23 15.7	−0.3		
			PcP	12 25 11.2	0.6		
			LE	Ms=4.8		15.0	0.55
CD2	45.1	264	eP	12 23 40.8	−0.1		
GYA	46.5	258	P	12 23 52.4	0.3		
WMQ	46.7	290	+P	12 23 53.0	−0.5		
			cS	12 30 36.0	−4.3		
			LZ	Ms=4.8		14.0	0.52
KMI	49.9	260	+P	12 24 18.0	−0.4		

1987 12 13
O=12 43 40.2 ± 0.08s
LAT=17.89 S ± 1.34km
LONG=178.57 W ± 1.48km
DEPTH=570 km ± 0.38km
STATIONS USED = 30, STAND DEV= 0.96s

MDJ	78.1	325	eP	12 54 42.8	0.2
CN2	79.9	322	+P	12 54 52.0	−0.3
WHN	80.5	306	P	12 54 57.0	1.9
BJI	83.7	315	eP	12 55 11.5	0.3
TIY	85.1	312	+P	12 55 19.0	0.4

XAN	86.1	307	P	12 55 24.0	0.7		
GTA	94.9	310	P	12 56 03.5	−0.4		

1987 12 13
O = 20 46 33.3 ± 0.13s
LAT = 49.02 S ± 2.06km
LONG = 123.41 E ± 1.72km
DEPTH = 11 km ± 0.47km
STATIONS USED = 49, STAND DEV = 0.95s
Ms = 5.1 / 2,

KMI	76.1	341	+P	20 58 25.5	1.8		
GYA	76.6	345	P	20 58 27.6	1.0		
WHN	79.6	352	P	20 58 44.6	1.6		
			PMZ			1.5	0.090
SSE	79.8	358	eP	20 58 43.5	−0.3		
			PMZ			1.5	0.053
			eS	21 08 45.0	−0.7		
			LZ	Ms = 5.0		24.0	0.51
CD2	81.5	343	P	20 58 53.3	0.3		
LSA	83.5	332	eP	20 59 01.7	−2.1		
XAN	83.7	348	P	20 59 04.8	0.4		
TIA	85.0	355	P	20 59 11.8	0.7		
LZH	86.5	344	+P	20 59 19.5	1.0		
			PMZ			2.2	0.12
TIY	86.9	351	eP	20 59 20.6	0.2		
BJI	88.9	354	eP	20 59 30.5	0.6		
BTO	90.0	350	eP	20 59 35.4	0.1		
GTA	90.5	342	+P	20 59 37.5	0.0		
CN2	92.4	1	eP	20 59 46.0	−0.4		
WMQ	97.6	335	P	21 00 09.8	−0.2		

1987 12 13
O = 21 05 01.9 ± 0.11s
LAT = 74.55 N ± 1.70km
LONG = 93.87 W ± 1.63km
DEPTH = 10 km ± 0.15km
STATIONS USED = 82, STAND DEV = 1.22s
Ms = 5.5 / 27, m_B = 5.5 / 4

MDJ	57.6	324	+P	21 14 54.5	−0.7		
CN2	59.0	328	+P	21 15 03.4	−1.7		
			PMZ	m_B = 5.6		4.0	0.30
			eS	21 23 05.0	−5.6		
			LZ	Ms = 5.4		20.0	1.80
SNY	61.2	329	+P	21 15 17.9	−2.2		
			S	21 23 36.0	−1.6		
			SS	21 27 35.0	−4.1		
			LN	Ms = 5.6		20.0	2.04
			LE			16.0	1.16
			LZ	Ms = 5.5		20.0	2.42
WMQ	61.9	359	+P	21 15 25.0	0.2		
			S	21 23 52.0	5.9		
			LN	Ms = 5.5		20.0	1.93
			LZ	Ms = 5.5		20.0	2.05
HHC	63.6	339	P	21 15 37.0	0.8		
			S	21 24 13.0	5.3		
			LN	Ms = 5.4		17.0	1.24
			LE			16.0	0.81
BJI	64.0	335	eP	21 15 38.0	−0.1		
			eS	21 24 15.0	2.2		
			LN	Ms = 5.3		20.0	0.90
			LE			20.0	0.97
			LZ	Ms = 5.3		20.0	1.23
BTO	64.0	340	P	21 15 39.0	0.2		
			sP	21 15 45.0	−2.1		
			eS	21 24 14.0	−0.1		
			LN	Ms = 5.6		18.0	2.00
			LE			15.0	0.70
			LZ	Ms = 5.5		18.0	1.80
GTA	66.0	348	+iP	21 15 51.5	0.2		
			S	21 24 39.0	2.8		
			SME			18.0	0.60
			LZ	Ms = 5.3		18.0	1.21
KSH	66.1	9	eP	21 15 52.0	−0.1		
			eS	21 24 35.0	−4.3		
			LN	Ms = 5.9		14.0	3.00
TIY	66.7	337	eP	21 15 56.8	1.1		
			sP	21 16 03.0	−0.9		
			PcP	21 16 20.5	−3.3		
			S	21 24 50.0	5.3		
			SME	m_B = 5.6		8.0	0.44
			LN	Ms = 5.4		16.0	1.30
			LZ	Ms = 5.6		20.0	2.24
TIA	67.6	333	eP	21 16 01.6	−0.1		
LZH	69.0	345	+iP	21 16 11.5	0.9		
			PMZ			2.5	0.15
XAN	70.6	340	+P	21 16 20.0	−0.4		
NJ2	71.5	331	−P	21 16 25.6	0.1		
			LZ	Ms = 5.1		16.0	0.59
SSE	72.1	329	eP	21 16 29.3	0.0		
			eS	21 25 48.0	−2.6		
			eScS	21 26 30.0	−0.8		
			LE	Ms = 5.5		18.0	1.45
			LZ	Ms = 5.6		20.0	1.85
WHN	73.5	335	+P	21 16 38.4	0.8		
			sP	21 16 45.0	−0.9		
			eS	21 26 08.0	1.4		
			LZ	Ms = 5.3		20.0	0.93
CD2	74.2	344	P	21 16 42.2	0.9		
LSA	76.0	355	+P	21 16 52.3	0.2		
			S	21 26 34.0	1.9		

			LE	Ms=5.1	17.0	0.56	
GYA	78.4	341	+P	21 17 06.0	1.0		
			pP	21 17 12.0	1.6		
KMI	80.0	345	+P	21 17 14.5	0.4		

1987 12 13
O=23 24 07.2 ± 0.05s
LAT=32.54 N ± 0.58km
LONG=121.62 E ± 0.49km
DEPTH= 16 km ± 0.74km
STATIONS USED = 6, STAND DEV= 2.13s
M_L=2.7/ 8,

SSE	1.5	195	Pn	23 24 33.0	−0.8		
			Pg	23 24 34.0	0.4		
			Sn	23 24 51.5	−3.2		
			Sg	23 24 52.7	−1.4		
			SMN	M_L=2.6	0.5	0.14	
			SME		0.5	0.029	
			LN		4.0	0.30	
NJ2	2.4	259	Pg	23 24 48.4	−1.2		
			Sg	23 25 21.8	−0.6		
			SME	M_L=2.9	0.6	0.070	

1987 12 14
O=00 36 10.6 ± 0.06s
LAT=44.59 N ± 1.93km
LONG=148.17 E ± 1.22km
DEPTH= 72 km ± 0.68km
STATIONS USED = 89, STAND DEV= 1.30s
Ms=4.2/ 7,

MDJ	13.2	277	cP	00 39 17.8	0.5		
CN2	16.3	275	+P	00 39 55.0	−1.7		
			PP	00 40 12.0	0.1		
			cS	00 42 57.0	1.9		
			LZ	Ms=4.2	20.0	0.90	
SNY	18.1	270	+iP	00 40 19.5	0.4		
BJI	24.0	270	cP	00 41 20.0	0.2		
			cPcP	00 45 02.0	0.9		
			S	00 45 31.0	2.8		
TIA	25.0	261	cP	00 41 29.3	0.1		
SSE	25.1	247	cP	00 41 30.7	0.5		
			PMZ		0.9	0.037	
			LZ	Ms=4.2	20.0	0.46	
NJ2	26.0	251	+P	00 41 39.2	0.0		
			LZ	Ms=4.2	20.0	0.43	
HHC	27.0	275	cP	00 41 49.0	0.7		
TIY	27.6	268	cP	00 41 54.0	0.3		
			PMZ		0.9	0.040	
			LZ	Ms=4.4	22.0	0.65	
BTO	28.2	275	cP	00 41 58.0	−1.1		
WHN	30.0	254	+P	00 42 15.5	0.4		
XAN	31.9	264	+iP	00 42 31.0	−0.5		
GTA	35.9	279	+P	00 43 06.3	0.2		
			PcP	00 45 33.0	1.5		
CD2	37.2	264	+iP	00 43 15.4	−1.9		
			PMZ		0.8	0.19	
GYA	37.8	256	+P	00 43 22.0	−0.5		
			PcP	00 45 38.6	1.1		
KMI	41.4	257	+iP	00 43 53.0	0.8		
WMQ	42.5	291	cP	00 44 01.8	1.1		
LSA	46.9	272	+iP	00 44 36.6	0.0		
KSH	52.3	291	cP	00 45 15.0	−2.4		

1987 12 14
O=01 50 00.1 ± 0.09s
LAT=36.13 N ± 0.20km
LONG= 81.12 E ± 0.68km
DEPTH= 11 km ± 1.00km
STATIONS USED = 7, STAND DEV= 2.43s
M_L=3.8/ 5,

KSH	5.3	311	cPn	01 51 20.0	0.9		
			Pg	01 51 31.8	−1.0		
			Sn	01 52 23.0	1.3		
			Sg	01 52 41.4	−3.3		
			SMN	M_L=4.0	0.5	0.10	
			SME		0.3	0.20	
WMQ	9.2	31	cP	01 52 16.0	0.1		
			S	01 54 04.5	4.4		
			SME		0.9	0.020	

1987 12 14
O=04 13 13.6 ± 0.06s
LAT=35.31 N ± 0.59km
LONG=108.83 E ± 0.64km
DEPTH= 10 km
STATIONS USED = 6, STAND DEV= 2.18s
M_L=2.9/ 5,

XAN	1.3	176	iPg	04 13 36.0	−0.2		
			SMN	M_L=2.4	1.0	0.10	
			SME		0.6	0.040	
TIY	3.8	49	cPg	04 14 21.8	1.4		
			Sg	04 15 07.5	−4.2		
			SMN	M_L=2.9	0.8	0.030	
			SME		0.8	0.030	

1987 12 14
O=08 28 25.5 ± 0.11s
LAT= 9.47 S ± 1.91km
LONG=108.20 E ± 2.45km
DEPTH= 33 km ± 0.12km

STATIONS USED = 87, STAND DEV = 1.41s							
Ms = 5.5 / 56,			**m_B = 5.7 / 16**				
QZN	28.4	3	+P	08 34 22.0	2.9		
			LN	Ms = 5.5		16.0	4.00
			LE			16.0	5.40
GZH	32.7	9	eP	08 34 55.0	−2.8		
			eS	08 40 09.0	−2.5		
			LE	Ms = 5.4		11.0	2.98
KMI	34.8	351	−iP	08 35 17.5	1.8		
			PMZ	m_B = 5.7		5.0	0.65
			LN	Ms = 5.8		14.0	7.40
			LZ	Ms = 5.8		18.0	10.5
QZH	35.7	16	eP	08 35 23.0	0.0		
			S	08 40 54.0	−2.0		
			LN	Ms = 5.0		12.0	1.10
GYA	35.7	358	P	08 35 24.4	0.6		
			sP	08 35 34.4	−2.3		
			S	08 41 00.0	2.9		
			LN	Ms = 5.7		13.0	4.30
			LE			13.0	2.60
WHN	40.2	8	+P	08 36 03.2	2.2		
			PMZ	m_B = 6.1		4.0	1.20
			sP	08 36 12.0	−2.3		
			S	08 42 12.0	6.9		
			LE	Ms = 5.4		13.0	2.30
			LZ	Ms = 5.5		14.0	3.10
CD2	40.4	354	eP	08 36 02.2	−0.2		
			S	08 42 12.0	4.6		
			LE	Ms = 5.8		15.0	6.60
			LZ	Ms = 5.3		12.0	1.71
SSE	42.2	17	+P	08 36 18.0	0.5		
			PMZ			1.5	0.16
			sP	08 36 26.0	−4.7		
			cPP	08 38 02.0	3.5		
			cS	08 42 36.0	0.4		
			sS	08 42 48.0	−2.9		
			cSS	08 45 44.0	5.7		
			LN	Ms = 5.4		14.0	1.73
			LE			14.0	1.45
			LZ	Ms = 5.3		16.0	2.21
LSA	42.3	338	−iP	08 36 18.2	−0.2		
			S	08 42 35.0	−0.4		
			LE	Ms = 5.3		14.0	1.64
NJ2	42.5	13	−P	08 36 21.2	1.2		
			S	08 42 41.0	1.8		
			LN	Ms = 5.4		12.0	1.26
			LE			13.0	1.63
XAN	43.3	1	+P	08 36 26.5	0.3		
			sP	08 36 35.0	−4.4		
			S	08 42 53.0	2.9		
			SS	08 46 05.0	7.0		
			ScS	08 46 26.0	5.4		
			LN	Ms = 5.7		12.0	3.08
			LE			12.0	1.79
LZH	45.5	355	+iP	08 36 45.0	0.8		
			PMZ	m_B = 5.5		10.0	0.69
			S	08 43 22.0	−0.3		
			SMN	m_B = 5.7		11.0	1.23
			LN	Ms = 5.8		12.0	3.73
			LE			12.0	1.38
TIA	46.2	10	eP	08 36 48.8	−0.9		
			S	08 43 34.0	1.6		
			SMN	m_B = 5.6		9.0	0.46
			SME			9.0	0.55
			LN	Ms = 5.6		13.0	2.26
			LE			13.0	1.16
			LZ	Ms = 5.3		13.0	1.31
TIY	47.1	5	+P	08 36 57.0	0.2		
			PMZ			1.4	0.15
			sP	08 37 05.5	−4.4		
			S	08 43 50.0	4.9		
			sS	08 43 59.0	−2.5		
			ScS	08 46 48.0	3.0		
			LN	Ms = 5.6		12.5	2.81
			LZ	Ms = 5.7		14.0	3.33
GTA	49.3	351	+P	08 37 14.0	0.4		
			PMZ	m_B = 6.0		5.0	0.96
			pP	08 37 20.0	−2.7		
			SME	m_B = 5.7		12.0	1.13
			ScS	08 47 03.0	3.9		
			LE	Ms = 5.5		13.0	2.24
DL2	49.7	14	P	08 37 15.0	−2.0		
			S	08 44 24.0	2.1		
			LN	Ms = 5.4		16.0	1.29
			LE			14.0	1.37
BJI	49.8	8	P	08 37 17.5	−0.2		
			PMZ	m_B = 5.6		9.0	0.68
			PcP	08 38 37.5	−0.3		
			S	08 44 28.0	4.9		
			SMN	m_B = 5.6		9.0	0.67
			LN	Ms = 5.6		17.0	2.05
			LE			16.0	2.05
			LZ	Ms = 5.4		16.0	1.76
BTO	49.8	2	+P	08 37 17.0	−1.1		
			pP	08 37 26.0	−1.3		
			PP	08 39 12.0	−1.0		
			S	08 44 23.0	−0.6		
			eSS	08 47 52.0	−0.8		
			LN	Ms = 5.7		16.0	3.30
			LE			14.0	1.70

			LZ	Ms=5.6	16.0	3.20
HHC	50.2	3	+P	08 37 20.5	−0.1		
			pP	08 37 28.0	−1.7		
			LN	Ms=5.7	12.0	2.39
			LE		12.0	1.39
SNY	53.0	14	+P	08 37 39.5	−2.0		
			S	08 45 05.0	−1.5		
			LN	Ms=5.5	17.0	1.81
			LE		17.0	1.39
			LZ	Ms=5.2	18.0	1.36
CN2	55.3	15	+P	08 37 56.0	−2.6		
			PMZ	m_B=5.8	5.0	0.70
			cS	08 45 34.0	−5.0		
			LZ	Ms=5.3	16.0	1.30
WMQ	56.2	342	cP	08 38 05.0	−0.3		
			PMZ		1.5	0.18
			PcP	08 39 01.5	−0.3		
			S	08 45 56.0	5.9		
			LN	Ms=5.3	11.5	0.98
KSH	57.1	331	P	08 38 11.5	−0.5		
			pP	08 38 20.0	−1.3		
			PP	08 40 14.0	−5.6		
			S	08 46 02.0	−0.2		
			LE	Ms=5.5	12.0	1.50
MDJ	57.2	18	+P	08 38 09.0	−3.4		
			S	08 46 06.0	2.8		
			LZ	Ms=5.5	18.0	2.06

1987 12 14

O=13 44 08.1 ± 0.10s
LAT=51.05 N ± 1.26km
LONG=175.04 W ± 1.04km
DEPTH= 37 km ± 1.08km
STATIONS USED = 19, STAND DEV= 1.18s

SNY	42.2	282	−iP	13 52 00.4	1.2
BJI	47.8	285	cP	13 52 43.5	−0.5
XAN	56.0	284	cP	13 53 46.0	−0.3
GTA	57.9	294	P	13 53 57.4	−2.0
LSA	69.8	292	cP	13 55 17.2	−0.5

1987 12 14

O=15 29 58.3 ± 0.16s
LAT=24.23 N ± 2.19km
LONG=121.65 E ± 2.37km
DEPTH= 24 km ± 0.83km
STATIONS USED = 68, STAND DEV= 2.41s
Ms=4.8/41, M_L=4.4/15,

QZH	2.9	285	cPn	15 30 41.7	−1.4	
			Sn	15 31 14.2	−4.4	
			SMN	M_L=4.3	1.0	1.41
			SME		1.0	1.37
			LN		13.0	10.7
SSE	6.9	357	cP	15 31 38.0	−2.0	
			sP	15 31 47.2	−3.0	
			LE	Ms=4.5	8.0	3.32
			LZ	Ms=4.1	18.0	3.18
GZH	7.7	263	cP	15 31 57.0	5.2	
			cS	15 33 25.4	6.3	
			LE	Ms=4.5	13.0	4.78
NJ2	8.2	343	+iP	15 31 57.0	−1.5	
			S	15 33 24.0	−6.7	
			LN	Ms=4.3	5.0	0.93
WHN	9.0	316	cP	15 32 08.0	−2.4	
			cS	15 33 50.0	−2.3	
			LN	Ms=4.5	10.0	2.90
QZN	12.1	247	cP	15 32 54.4	1.5	
			LN	Ms=4.3	17.0	1.90
TIA	12.6	343	cP	15 32 57.6	−1.1	
			LN	Ms=4.6	11.0	1.69
			LE		11.0	1.33
			LZ	Ms=4.5	11.0	1.60
GYA	13.7	282	P	15 33 15.0	0.7	
			sP	15 33 24.0	−0.5	
			S	15 35 47.0	0.5	
			LE	Ms=5.0	8.0	3.30
XAN	14.8	314	P	15 33 27.8	−0.3	
			cS	15 36 11.0	−1.3	
			LN	Ms=4.8	9.0	0.63
			LE		11.0	2.30
TIY	15.6	332	cP	15 33 38.3	0.0	
			SS	15 36 52.0	3.8	
			LN	Ms=4.8	12.0	2.36
			LE		11.0	1.23
			LZ	Ms=4.9	13.0	3.83
BJI	16.4	345	cP	15 33 51.0	1.9	
			LN	Ms=4.4	16.0	1.17
			LZ	Ms=4.5	16.0	1.46
CD2	17.2	297	cP	15 33 58.1	−0.7	
			cS	15 37 12.0	3.9	
			LE	Ms=5.0	9.0	2.52
			LZ	Ms=5.0	11.0	2.92
KMI	17.2	277	+P	15 34 02.5	3.2	
			cS	15 37 11.0	2.1	
			LE	Ms=4.9	11.0	2.30
			LZ	Ms=5.1	10.0	3.60
SNY	17.6	5	+P	15 34 06.5	2.4	
			LN	Ms=4.6	15.0	1.57
			LZ	Ms=4.7	14.0	2.01
HHC	18.6	335	P	15 34 20.0	3.6	
			LN	Ms=4.6	13.0	1.26

BTO	19.0	332	eP	15 34 24.0	2.5		
			epP	15 34 29.5	1.7		
			ePP	15 34 40.0	2.7		
			eS	15 37 55.0	5.5		
			LN	Ms=5.1	13.0	3.30	
			LE		12.0	1.80	
			LZ	Ms=4.9	12.0	2.20	
LZH	19.4	312	−P	15 34 26.0	0.5		
			PMZ		2.5	0.13	
			LN	Ms=4.9	10.0	1.43	
			LE		11.0	1.59	
CN2	19.8	8	eP	15 34 30.0	0.2		
			eS	15 38 10.0	3.8		
			LZ	Ms=4.7	14.0	1.60	
GTA	23.9	315	−P	15 35 11.5	0.3		
			sP	15 35 19.0	−3.1		
			LE	Ms=4.9	14.0	1.74	
			LZ	Ms=4.9	14.0	1.98	
LSA	27.7	288	eP	15 35 45.8	−1.6		
WMQ	33.9	314	eP	15 36 48.1	6.0		
			PMZ		1.5	0.060	
			LZ	Ms=5.0	14.0	1.27	

1987 12 15

O=12 57 57.0 ± 0.08s
LAT=37.58 N ± 0.96km
LONG=102.76 E ± 0.81km
DEPTH= 10 km ± 0.07km
STATIONS USED = 32, STAND DEV= 2.43s
Ms=3.8/ 5, M_L=4.1/ 12,

LZH	1.7	149	Pn	12 58 29.5	1.9		
			Pg	12 58 32.5	5.0		
			Sg	12 58 54.0	2.9		
			SMN		2.0	4.13	
			SME		1.5	2.72	
GTA	2.9	309	Pn	12 58 45.6	1.2		
			Pg	12 58 50.5	1.5		
			Sn	12 59 22.2	0.6		
			iSg	12 59 26.5	−2.8		
			SMN	M_L=4.6	1.0	2.33	
			SME		1.0	2.30	
			LN		5.0	0.56	
			LE		5.0	0.63	
			LZ		5.0	1.18	
XAN	6.1	123	Pn	12 59 31.4	3.4		
			Sg	13 01 14.2	5.3		
			SMN	M_L=4.1	1.2	0.16	
			SME		1.0	0.11	
			LN	Ms=3.8	8.0	0.49	
			LE		8.0	0.62	
BTO	6.4	60	Pn	12 59 35.0	3.1		
			eSn	13 00 52.0	4.8		
			LN	Ms=3.7	8.0	0.50	
			LE		8.0	0.30	
			LZ	Ms=3.6	7.0	0.40	
CD2	6.7	173	ePn	12 59 39.8	3.9		
			SMN	M_L=3.7	1.0	0.050	
			SME		1.0	0.030	
			LN	Ms=3.8	9.0	0.84	
HHC	7.6	62	Pn	12 59 51.0	3.0		
TIY	7.7	86	ePn	12 59 54.2	4.8		
			Pg	13 00 18.5	6.0		
			Sn	13 01 23.7	4.9		
			Sg	13 01 55.0	−2.5		
			LN	Ms=4.0	7.0	0.51	
			LE		8.5	0.66	
GYA	11.6	162	P	13 00 44.6	−1.0		
CN2	18.3	63	eP	13 02 14.0	1.4		

1987 12 15

O=14 57 38.9 ± 0.09s
LAT=23.52 N ± 1.47km
LONG=143.09 E ± 1.75km
DEPTH= 40 km ± 0.26km
STATIONS USED =113, STAND DEV= 1.26s
Ms=5.5/ 62, m_B=6.0/ 30

SSE	20.9	296	+iP	15 02 19.0	−1.0		
			PMZ	m_B=6.0	4.0	3.08	
			sP	15 02 39.0	4.5		
			S	15 06 08.0	3.3		
			sS	15 06 21.0	0.0		
			SS	15 06 40.0	2.6		
			LN	Ms=5.3	14.0	2.76	
			LE		14.0	4.70	
			LZ	Ms=5.5	20.0	13.9	
QZH	22.4	279	+P	15 02 36.0	0.7		
			PMZ	m_B=6.1	6.0	5.08	
			sP	15 02 48.0	−2.0		
			S	15 06 33.0	−0.1		
			SME	m_B=6.1	8.0	4.56	
			SS	15 07 22.0	6.8		
			LE	Ms=5.7	21.0	18.6	
NJ2	23.0	297	−P	15 02 42.2	0.5		
			sP	15 03 01.5	5.1		
			S	15 06 50.0	5.3		
			LE	Ms=5.4	16.0	7.30	
MDJ	23.8	336	+P	15 02 49.7	0.8		
			PMZ	m_B=5.8	5.0	2.14	
			pP	15 03 04.0	5.1		
			PcP	15 06 34.5	1.7		

			S	15 07 00.0	2.3		
			ScP	15 10 05.7	−0.6		
			ScS	15 13 50.5	−1.3		
			LE	Ms = 5.5		20.0	10.4
DL2	23.8	315	P	15 02 48.0	−1.5		
			PMZ	m_B = 5.9		4.0	1.89
			pP	15 03 02.0	2.4		
			S	15 06 56.0	−2.9		
			SMN	m_B = 6.1		10.0	2.54
			SME			10.0	5.39
			LN	Ms = 5.3		12.0	3.03
			LE			12.0	2.70
SNY	24.5	323	+iP	15 02 54.5	−1.1		
			PMZ	m_B = 6.0		4.0	2.53
			pP	15 03 08.0	2.3		
			S	15 07 03.0	−6.6		
			SMN	m_B = 6.2		8.0	3.05
			SME			8.0	4.69
			LN	Ms = 5.5		27.0	10.9
			LE			27.0	7.67
			LZ	Ms = 5.4		24.0	10.6
CN2	24.9	329	+iP	15 02 59.0	−0.9		
			PMZ	m_B = 5.6		5.0	1.20
			pP	15 03 13.0	3.1		
			PcP	15 06 34.4	−0.8		
			S	15 07 13.0	−4.0		
			SMN	m_B = 6.0		8.0	3.60
			ScP	15 10 08.0	−1.4		
			LZ	Ms = 5.4		24.0	8.20
TIA	25.7	305	+P	15 03 06.8	−1.0		
			S	15 07 27.5	−3.4		
			SMN			15.0	3.95
			SME			15.0	6.68
			ScP	15 10 12.0	0.2		
			cScS	15 14 00.0	0.2		
			LE	Ms = 5.4		16.5	6.63
WHN	26.5	292	+P	15 03 16.0	1.2		
			PMZ	m_B = 6.3		6.0	4.00
			pP	15 03 30.0	5.1		
			S	15 07 43.0	−0.3		
			SME	m_B = 5.8		10.0	2.40
			LE	Ms = 5.3		17.0	5.00
			LZ	Ms = 5.5		20.0	7.90
GZH	27.3	275	+iP	15 03 23.0	0.8		
			pP	15 03 37.0	4.6		
			sS	15 08 20.0	5.3		
			LE	Ms = 5.3		13.0	3.21
BJI	28.0	312	cP	15 03 27.5	−1.4		
			PMZ			16.0	1.17
			cScP	15 10 17.0	−1.7		
			ScS	15 14 09.0	−0.8		
			LN	Ms = 5.1		13.0	1.57
			LE			13.0	1.54
			LZ	Ms = 5.5		24.0	9.08
TIY	29.8	305	+iP	15 03 44.0	−0.5		
			pP	15 04 00.0	5.2		
			S	15 08 37.0	0.9		
			SME	m_B = 5.5		11.0	1.33
			sS	15 08 53.5	−1.0		
			LN	Ms = 5.5		16.0	4.94
			LE			12.0	1.63
			LZ	Ms = 5.5		24.0	8.77
QZN	31.3	268	eP	15 03 58.5	0.9		
			PP	15 05 04.0	3.4		
			eS	15 08 58.5	−1.7		
			LN	Ms = 5.6		17.0	5.10
			LE			18.0	5.90
HHC	31.6	311	+P	15 03 59.0	−1.4		
			S	15 09 03.5	−0.6		
			LE	Ms = 5.3		16.0	3.36
XAN	31.6	297	+iP	15 04 00.4	−0.2		
			pP	15 04 16.0	5.2		
			PP	15 05 06.0	1.0		
			S	15 09 03.0	−1.7		
			sS	15 09 22.0	−1.2		
			iScP	15 10 31.0	0.8		
			ScS	15 14 28.0	1.3		
			LN	Ms = 5.8		18.0	9.38
			LE			20.0	7.52
BTO	32.6	309	P	15 04 08.2	−0.8		
			pP	15 04 23.0	3.8		
			cPP	15 05 17.5	0.0		
			cS	15 09 17.0	−3.7		
			cSS	15 11 14.0	−3.6		
			LN	Ms = 5.8		18.0	8.50
			LE			18.0	6.90
			LZ	Ms = 5.7		18.0	9.60
GYA	33.1	283	+P	15 04 14.0	0.4		
			pP	15 04 27.6	3.8		
			S	15 09 28.0	0.2		
			ScP	15 10 36.0	0.7		
			PcS	15 10 41.6	1.7		
			LN	Ms = 5.9		18.0	7.40
			LE			18.0	9.90
CD2	35.6	291	P	15 04 34.9	−0.3		
			PMZ	m_B = 6.1		4.0	1.43
			sP	15 04 51.5	1.5		
			S	15 10 04.0	−2.9		
			LE	Ms = 5.8		15.0	7.52
			LZ	Ms = 5.6		15.0	5.42

LZH	36.1	299	+iP	15 04 39.5	0.4		
			PMZ	m_B=5.8		6.0	1.04
			pP	15 04 54.0	4.6		
			PP	15 06 03.0	2.1		
			S	15 10 12.0	−1.7		
			SME	m_B=5.8		11.0	2.14
			LN	Ms=5.9		19.0	11.2
			LE			20.0	7.83
KMI	36.7	281	+iP	15 04 46.0	1.3		
			pP	15 04 59.0	4.1		
			PP	15 06 09.0	−0.6		
			iS	15 10 26.0	0.7		
			LN	Ms=5.1		15.0	1.60
			LZ	Ms=5.8		25.0	11.3
GTA	39.8	304	+iP	15 05 10.0	−0.2		
			PMZ	m_B=6.1		6.0	2.04
			pP	15 05 24.0	3.5		
			PP	15 06 45.0	−0.7		
			ScP	15 11 00.0	0.2		
			SMN			16.0	1.60
			sS	15 11 30.0	1.0		
			LN	Ms=5.6		21.0	6.24
			LZ	Ms=5.6		23.0	6.35
LSA	46.5	289	+iP	15 06 05.9	0.5		
			PMZ	m_B=6.3		4.0	1.85
			iPP	15 07 53.0	−0.7		
			iS	15 12 50.0	−0.8		
			LE	Ms=5.7		18.0	4.66
WMQ	49.4	308	+P	15 06 27.0	−0.1		
			PMZ			1.5	0.18
			PP	15 08 20.0	−0.7		
			S	15 13 27.0	−1.8		
			ScS	15 16 12.0	0.5		
			LN	Ms=5.8		15.0	4.21
KSH	58.2	303	+iP	15 07 34.0	2.1		
			sP	15 07 48.0	1.1		
			PcP	15 08 24.0	2.2		
			iS	15 15 34.0	5.0		
			sS	15 15 52.0	5.0		
			ScS	15 17 14.0	0.7		
			LE	Ms=6.1		17.0	8.60

1987 12 15
O=15 10 60.0 ± 0.08s
LAT=59.04 N ± 1.80km
LONG=142.98 W ± 1.11km
DEPTH= 12 km ± 0.57km
STATIONS USED = 37, STAND DEV= 1.17s

MDJ	52.0	295	cP	15 20 10 5	−1.4		
CN2	54.5	297	+P	15 20 29.0	−1.8		
BJI	61.7	301	cP	15 21 25.5	4.4		
BTO	63.9	306	cP	15 21 35.4	−0.4		
GTA	69.0	312	+P	15 22 08.1	−0.3		
WMQ	69.3	323	P	15 22 10.0	−0.1		
GYA	77.4	301	P	15 22 58.2	0.6		
LSA	80.9	314	cP	15 23 17.5	0.6		

1987 12 15
O=21 44 17.8 ± 1.12s
LAT=35.62 N ± 9.82km
LONG= 81.61 E ± 2.05km
DEPTH= 15 km
STATIONS USED = 6, STAND DEV= 4.84s
M_L=3.9 / 4,

KSH	5.9	312	cPg	21 46 02.5	0.5		
			SMN	M_L=4.1		0.7	0.10
			SME			0.7	0.20

1987 12 15
O=22 04 31.1 ± 0.13s
LAT=36.14 N ± 0.14km
LONG= 81.11 E ± 0.83km
DEPTH= 15 km ± 1.42km
STATIONS USED = 6, STAND DEV= 3.93s
M_L=3.5 / 5,

KSH	5.2	311	cPn	22 05 50.5	1.0		
			cSn	22 06 54.5	2.9		
			SME	M_L=3.1		0.2	0.020

1987 12 16
O=05 01 31.3 ± 0.41s
LAT=35.47 N ± 3.32km
LONG= 81.65 E ± 0.90km
DEPTH= 15 km
STATIONS USED = 5, STAND DEV= 4.13s
M_L=3.4 / 5,

KSH	6.0	313	cPg	05 03 19.4	1.7		
			SMN	M_L=3.7		0.5	0.070
			SME			0.5	0.050

1987 12 16
O=06 53 15.0 ± 0.08s
LAT=23.51 N ± 1.20km
LONG=121.73 E ± 1.05km
DEPTH= 40 km ± 0.99km
STATIONS USED = 62, STAND DEV= 1.65s
Ms=4.3 / 16, M_L=4.6 / 16,

QZH	3.2	297	−iP	06 54 03.4	−0.8		
			iS	06 54 37.4	−3.5		
			SMN	M_L=4.6		0.8	2.36

			SME				
			LN			0.8	1.61
			LE			1.3	5.39
SSE	7.6	356	cP	06 55 04.5	−1.3	1.1	2.88
			cS	06 56 27.5	−3.2		
			LE	Ms=4.3		7.0	1.50
			LZ	Ms=3.9		20.0	1.84
GZH	7.7	269	cP	06 55 06.5	−1.3		
			SMN	M_L=4.9		1.0	0.45
			SME			1.0	0.26
NJ2	8.9	344	cP	06 55 20.2	−3.7		
			LE	Ms=4.6		5.0	1.78
WHN	9.6	318	P	06 55 32.5	−1.4		
			cS	06 57 22.5	1.2		
			LE	Ms=4.5		8.0	1.90
QZN	11.9	250	cP	06 56 06.0	0.3		
TIA	13.3	344	cP	06 56 25.1	1.6		
GYA	14.0	285	P	06 56 33.0	0.2		
			pP	06 56 38.6	−2.0		
			LN	Ms=4.7		8.0	1.40
			LE			8.0	0.60
XAN	15.4	316	P	06 56 50.7	−0.1		
			LN	Ms=4.8		6.0	1.04
			LE			6.0	0.83
TIY	16.2	333	cP	06 57 05.7	3.5		
			LN	Ms=4.5		7.0	0.45
			LE			9.0	0.61
			LZ	Ms=4.1		20.0	0.75
BJI	17.1	345	cP	06 57 16.0	2.7		
KMI	17.4	279	cP	06 57 21.5	4.9		
CD2	17.6	299	cP	06 57 21.0	2.0		
HHC	19.3	336	cP	06 57 41.0	1.4		
BTO	19.7	333	cP	06 57 44.0	0.0		
			cpP	06 57 50.0	−3.0		
			cS	07 01 20.0	1.4		
			LN	Ms=4.4		12.0	0.50
			LE			12.0	0.50
			LZ	Ms=4.3		12.0	0.50
LZH	19.9	313	cP	06 57 47.0	0.5		
			PMZ			2.0	0.073
CN2	20.5	8	cP	06 57 50.0	−2.2		
			cS	07 01 30.0	−4.4		
			LE	Ms=4.2		17.0	0.60
GTA	24.4	316	+P	06 58 32.7	1.3		
			cS	07 02 51.5	5.6		
			LE	Ms=4.3		12.5	0.41
			LZ	Ms=4.4		18.0	0.67
WMQ	34.5	314	P	07 00 01.8	0.2		

1987 12 16

O=07 47 48.2 ± 0.15s
LAT=23.14 N ± 1.60km
LONG=122.08 E ± 2.04km
DEPTH= 29 km ± 0.45km
STATIONS USED = 32, STAND DEV= 2.04s
Ms=3.9 / 1, M_L=4.1 / 14,

QZH	3.7	300	iPn	07 48 43.5	0.2		
			SMN	M_L=4.0		0.3	0.52
			SME			0.4	0.30
SSE	8.0	354	cP	07 49 44.0	−0.8		
			SMN	M_L=3.9		1.0	0.032
			SME			1.0	0.037
GZH	8.0	271	cP	07 49 45.0	−0.9		
			SMN	M_L=4.1		0.8	0.070
			SME			0.8	0.040
NJ2	9.3	343	cP	07 50 02.2	−1.5		
			LE			1.0	0.047
WHN	10.1	319	cP	07 50 12.0	−2.4		
			LN	Ms=3.9		10.0	0.50
QZN	12.1	253	cP	07 50 43.2	1.0		
GYA	14.4	286	P	07 51 13.0	0.9		
XAN	15.8	316	cP	07 51 30.0	−1.0		
LZH	20.4	313	cP	07 52 27.5	1.7		
GTA	24.9	316	P	07 53 13.0	2.5		

1987 12 16

O=13 58 10.0 ± 0.03s
LAT=27.75 N ± 0.28km
LONG=103.63 E ± 0.33km
DEPTH= 6 km ± 0.08km
STATIONS USED = 6, STAND DEV= 1.58s
M_L=2.6 / 2,

GYA	3.0	115	Pg	13 59 03.8	0.8		
			Sg	13 59 48.8	5.1		
CD2	3.2	2	Pg	13 59 05.4	−0.4		
			Sg	13 59 44.4	−4.4		
			SMN	M_L=2.7		0.8	0.030
			SME			0.6	0.030

1987 12 17

O=01 48 10.6 ± 0.08s
LAT= 5.01 N ± 1.32km
LONG= 94.44 E ± 1.09km
DEPTH= 56 km ± 0.35km
STATIONS USED = 57, STAND DEV= 1.15s
Ms=4.8 / 1,

QZN	20.5	46	cP	01 52 47.5	1.0
GYA	24.3	27	−P	01 53 25.4	0.9
CD2	27.2	18	P	01 53 50.4	−1.2
WHN	31.6	34	P	01 54 30.0	−0.4

			pP	01 54 43.0	−0.5		
			cS	01 59 36.0	2.5		
			LZ	Ms=4.8		14.0	0.90
LZH	32.1	14	cP	01 54 34.0	−1.3		
GTA	34.6	7	+iP	01 54 55.4	−1.3		
NJ2	35.3	37	+P	01 55 02.8	0.3		
			pP	01 55 14.6	−1.4		
SSE	36.1	41	P	01 55 10.0	0.5		
TIA	37.4	31	eP	01 55 20.4	0.1		
WMQ	39.1	352	−P	01 55 35.6	1.1		
BJI	40.0	26	eP	01 55 42.0	0.1		
CN2	47.3	30	eP	01 56 40.0	−0.9		

1987 12 17

O=02 08 18.3 ± 0.07s
LAT=35.43 N ± 1.39km
LONG=140.23 E ± 1.25km
DEPTH= 61 km ± 0.49km
STATIONS USED =122, STAND DEV= 1.35s
Ms=6.6/58, m_B=6.6/28

MDJ	12.3	322	+P	02 11 13.8	1.3		
			pP	02 11 22.5	0.2		
			sP	02 11 32.0	1.8		
			ScP	02 20 21.5	5.0		
			ScS	02 23 57.0	5.7		
			LN	Ms=6.5		18.0	305
CN2	14.1	311	+iP	02 11 36.0	−0.8		
			PMZ	m_B=7.2		5.0	21.2
			sP	02 11 56.0	1.2		
			iS	02 14 12.0	0.4		
			SMN	m_B=6.9		8.0	56.0
			LE	Ms=6.4		13.0	142
SNY	14.5	301	+iP	02 11 42.6	0.9		
			isS	02 14 34.0	−2.9		
			LN	Ms=6.4		14.5	152
DL2	15.2	289	+P	02 11 54.0	2.7		
			LN	Ms=6.6		18.0	254
SSE	16.5	260	+iP	02 12 09.0	1.6		
			PMZ	m_B=6.5		8.0	18.9
			PP	02 12 24.0	2.7		
			iS	02 15 12.0	4.9		
			sS	02 15 22.0	2.6		
			LN	Ms=6.8		14.0	120
			LE			15.0	265
NJ2	18.1	265	+iP	02 12 27.0	−0.1		
			pP	02 12 37.8	−0.4		
			iS	02 15 40.0	−3.1		
			LE	Ms=6.3		15.0	80.0
TIA	18.8	279	+P	02 12 34.0	−1.0		
			sP	02 12 57.0	3.3		
			S	02 15 55.9	−1.4		
			SMN	m_B=7.0		9.0	38.5
			SME			9.0	17.1
			LN	Ms=6.8		12.0	136
			LE			14.0	162
BJI	19.6	291	+iP	02 12 42.0	−1.9		
			PMZ			3.0	6.47
			csP	02 13 02.0	−1.4		
			S	02 16 20.0	5.0		
			csS	02 16 40.0	6.0		
			LN	Ms=6.3		12.0	37.7
			LE			12.0	37.3
QZH	21.4	247	+P	02 13 02.0	−0.9		
			pP	02 13 16.0	−0.3		
			iS	02 16 51.0	−0.1		
			SS	02 17 29.0	1.1		
			LN	Ms=6.6		14.0	104
WHN	22.2	265	+iP	02 13 12.0	0.7		
			PMZ	m_B=6.7		4.0	14.0
			pP	02 13 27.0	2.2		
			sP	02 13 34.0	2.5		
			iS	02 17 00.0	−6.6		
			SMN	m_B=6.9		7.0	22.8
			LZ	Ms=6.5		16.0	92.7
TIY	22.4	284	+iP	02 13 11.5	−1.7		
			PMZ	m_B=6.2		8.0	9.01
			pP	02 13 26.5	−0.2		
			sP	02 13 35.0	1.6		
			S	02 17 06.5	−2.8		
			sS	02 17 26.5	−6.6		
			SS	02 17 51.0	−2.3		
			LN	Ms=6.7		13.0	57.1
			LE			16.0	112
			LZ	Ms=6.6		20.0	131
HHC	23.1	292	+iP	02 13 19.0	−1.3		
			S	02 17 19.0	−3.1		
			LN	Ms=6.4		10.0	32.6
			LE			13.0	46.8
			LZ	Ms=6.4		12.0	56.5
BTO	24.3	291	+P	02 13 30.0	−1.5		
			pP	02 13 45.0	−0.1		
			sP	02 13 52.0	0.3		
			PP	02 14 10.0	2.8		
			iS	02 17 41.0	−2.1		
			sS	02 18 04.5	−2.0		
			PcS	02 20 46.0	−2.9		
			LN	Ms=6.7		14.0	91.9
			LE			14.0	83.4
			LZ	Ms=6.7		14.0	106
XAN	25.7	276	+P	02 13 44.0	−1.1		

			PMZ		$m_B=6.4$		4.0	4.45
			S	02 18 04.0		−1.9		
			SME				13.0	11.7
			LE		Ms=6.5		13.0	62.0
GZH	26.4	250	+P	02 13 51.0		−0.3		
			PMZ				16.0	8.51
			S	02 18 20.0		2.9		
			LN		Ms=6.5		16.0	38.1
			LE				16.0	68.0
LZH	29.4	282	+iP	02 14 18.0		−0.9		
			PMZ				3.0	0.54
			S	02 19 06.0		0.2		
			SME		$m_B=6.2$		10.0	6.98
			LN		Ms=6.5		17.0	56.1
GYA	30.0	262	+P	02 14 23.0		−1.2		
			pP	02 14 36.0		−2.2		
			sP	02 14 48.0		3.2		
			PP	02 15 22.0		−0.6		
			S	02 19 15.0		−0.3		
			sS	02 19 40.0		−0.9		
			ScP	02 20 55.0		−4.4		
			PcS	02 21 05.2		−1.0		
			LE		Ms=6.8		15.0	110
CD2	30.7	272	P	02 14 29.0		−1.5		
			pP	02 14 45.5		1.0		
			sP	02 14 54.2		3.1		
			PP	02 15 35.5		3.6		
			cS	02 19 30.0		2.5		
			LE		Ms=6.7		13.0	64.3
QZN	31.4	247	cP	02 14 36.5		0.3		
			PP	02 15 39.0		−1.4		
			cS	02 19 38.0		0.2		
			PcS	02 21 14.0		3.3		
			SS	02 21 23.0		−4.5		
			LN		Ms=6.6		16.0	36.3
			LE				20.0	70.3
GTA	32.2	289	+iP	02 14 42.1		−0.8		
			PMZ		$m_B=6.3$		6.0	3.00
			PP	02 15 55.0		4.9		
			iS	02 19 50.0		0.1		
			LE		Ms=6.6		14.0	61.3
KMI	33.8	263	+P	02 14 56.0		−1.2		
			PMZ				3.0	0.98
			sP	02 15 18.0		0.3		
			PP	02 16 15.0		4.7		
			S	02 20 17.0		2.9		
			PcS	02 21 12.0		−7.0		
			LE		Ms=6.5		14.0	38.5
WMQ	40.7	298	+iP	02 15 57.0		1.7		
			PMZ		$m_B=6.4$		12.0	7.64
			S	02 22 04.4		4.7		
			SMN		$m_B=6.6$		7.0	8.30
			ScS	02 25 55.0		3.7		
			LN		Ms=6.7		12.0	36.5
LSA	41.4	276	+iP	02 16 02.0		0.6		
			pP	02 16 15.0		−0.4		
			iS	02 22 14.0		2.2		
			sS	02 22 36.0		−0.1		
			LN		Ms=6.5		14.0	28.3
KSH	50.2	295	+iP	02 17 13.0		2.2		
			sP	02 17 37.0		5.2		
			PP	02 19 09.0		2.7		
			LN		Ms=6.8		12.0	37.1

1987 12 17

O=05 07 04.2 ± 0.10s
LAT=35.51 N ± 2.37km
LONG=140.74 E ± 2.16km
DEPTH= 39 km ± 1.05km
STATIONS USED = 24, STAND DEV= 2.38s

CN2	14.4	310	cP	05 10 31.0	3.7
BJI	19.9	290	cP	05 11 39.0	3.4
WHN	22.6	265	cP	05 12 05.0	1.7
XAN	26.1	276	P	05 12 36.5	−0.3
GYA	30.5	262	P	05 13 14.6	−1.3
GTA	32.5	289	P	05 13 32.7	−1.4

1987 12 17

O=12 17 21.6 ± 0.10s
LAT=41.92 N ± 1.34km
LONG= 83.24 E ± 1.19km
DEPTH= 20 km ± 0.17km
STATIONS USED = 51, STAND DEV= 2.15s
Ms=4.8/16, M_L=5.0/ 4,

WMQ	3.8	59	+iPn	12 18 23.4		3.8	
			Sg	12 19 23.0		2.4	
			SMN			3.0	8.42
KSH	6.0	248	Pn	12 18 55.0		4.5	
			cSn	12 20 03.0		1.9	
			Sg	12 20 36.0		5.1	
			LE		Ms=4.9	6.0	7.70
GTA	12.8	96	P	12 20 23.6		−2.7	
			LE		Ms=4.6	10.0	1.65
			LZ		Ms=4.5	12.0	1.65
LSA	13.8	150	P	12 20 40.0		1.1	
LZH	17.0	103	cP	12 21 23.0		2.2	
			PMZ			3.0	0.11
			LE		Ms=4.4	11.0	0.85
CD2	19.8	117	cP	12 21 58.0		4.1	
BTO	20.2	85	cP	12 21 56.6		−1.4	

			ePP	12 22 14.0	−3.0		
			eS	12 25 34.0	−4.6		
			LN	Ms=4.6		11.0	0.50
			LE			10.0	0.80
			LZ	Ms=4.7		11.0	1.30
HHC	21.2	83	+P	12 22 10.0	0.7		
			LN	Ms=4.7		12.0	0.91
			LE			13.0	0.68
XAN	21.7	103	eP	12 22 14.7	1.3		
			LN	Ms=4.8		10.0	0.86
			LE			10.0	0.86
TIY	22.8	91	eP	12 22 23.9	−0.5		
			S	12 26 23.0	−3.9		
			sS	12 26 36.0	−2.8		
			ScP	12 29 49.5	−2.1		
			PcS	12 29 56.5	2.5		
			LN	Ms=4.7		11.0	0.50
			LE			10.0	0.80
			LZ	Ms=4.9		14.0	1.90
GYA	24.7	121	P	12 22 44.0	1.2		
BJI	24.9	83	eP	12 22 46.0	1.4		
			LE	Ms=4.8		8.0	0.73
WHN	27.4	104	eP	12 23 04.7	−3.6		
			LZ	Ms=4.9		12.0	1.36

1987 12 17
O=20 22 57.7 ± 0.11s
LAT= 9.18 S ± 2.14km
LONG=114.53 E ± 2.65km
DEPTH= 46 km ± 0.29km
STATIONS USED =105, STAND DEV= 1.58s
Ms=5.7/60, m_B=6.0/15

QZN	28.4	351	cP	20 28 51.5	1.1		
			PP	20 29 41.0	−0.8		
			S	20 33 34.0	2.4		
			SS	20 34 58.0	−0.3		
			LN	Ms=5.5		17.0	6.30
GZH	32.1	358	eP	20 29 25.0	2.1		
			eS	20 34 28.0	−2.6		
			LN	Ms=5.5		13.0	2.50
			LE			11.0	2.33
QZH	34.1	7	eP	20 29 43.0	2.3		
			sP	20 30 00.0	2.6		
			S	20 35 04.0	2.3		
			LN	Ms=5.6		21.0	7.31
GYA	36.2	348	−P	20 30 00.8	2.0		
			sP	20 30 20.0	4.7		
			S	20 35 34.0	0.0		
			ScS	20 40 09.0	0.7		
			LN	Ms=5.7		14.0	4.30
			LE			14.0	4.20
WHN	39.5	360	eP	20 30 28.0	2.2		
			sP	20 30 46.0	3.3		
			PcP	20 32 36.0	3.3		
			ScP	20 36 16.0	0.1		
			iS	20 36 24.0	−0.5		
			SMN	m_B=5.9		9.0	2.10
			LN	Ms=5.6		20.0	5.40
			LZ	Ms=5.8		26.0	11.6
SSE	40.5	9	eP	20 30 37.5	2.9		
			sP	20 30 54.0	2.6		
			PcS	20 36 32.0	6.6		
			S	20 36 41.0	1.7		
			SMN	m_B=5.8		11.0	1.17
			SME			11.0	1.25
			eSS	20 39 36.0	0.1		
			LN	Ms=5.6		19.0	3.94
			LE			19.0	2.56
			LZ	Ms=5.7		26.0	8.16
CD2	41.2	346	eP	20 30 39.8	0.0		
			iS	20 36 48.0	−1.7		
			SMN	m_B=6.2		7.0	3.09
			LE	Ms=5.8		14.0	5.41
			LZ	Ms=5.9		19.0	8.91
NJ2	41.2	6	+P	20 30 41.6	1.6		
			ScP	20 36 22.2	−0.4		
			S	20 36 47.0	−2.0		
			LN	Ms=5.4		17.0	3.04
			LZ	Ms=5.5		26.0	5.78
XAN	43.3	353	P	20 30 56.9	−0.4		
			ScS	20 40 47.0	−2.6		
			LN	Ms=5.7		18.0	5.36
			LE			13.0	1.46
LSA	44.7	331	+iP	20 31 09.1	−0.1		
			iS	20 37 41.0	−1.4		
			SME	m_B=6.3		8.0	3.98
TIA	45.2	3	eP	20 31 11.8	−0.7		
			PcP	20 32 53.1	1.4		
			ScP	20 36 39.0	0.2		
			S	20 37 44.0	−3.4		
			SMN	m_B=5.8		11.0	1.31
			SME			9.0	0.69
			ScS	20 41 02.0	0.4		
			LN	Ms=5.5		14.0	2.51
			LE			14.0	0.75
			LZ	Ms=5.4		14.0	2.03
LZH	46.1	348	eP	20 31 20.0	−0.1		
			eS	20 37 59.0	−2.9		
			SMN	m_B=6.2		9.0	2.76
			LN	Ms=5.8		20.0	6.02

			LE			20.0	2.93
TIY	46.7	358	P	20 31 24.3	0.0		
			sP	20 31 43.0	2.0		
			S	20 38 05.0	−3.4		
			SMN	m_B = 5.9		10.0	0.99
			SME			9.0	1.11
			ScS	20 41 11.5	0.4		
			LN	Ms = 5.8		19.0	3.81
			LE			21.0	5.06
			LZ	Ms = 5.8		27.0	9.54
DL2	48.3	7	eP	20 31 38.0	1.2		
			LN	Ms = 5.8		23.0	7.54
			LE			18.0	1.80
BJI	49.0	2	+P	20 31 41.0	−1.2		
			ScP	20 36 53.5	−1.1		
			S	20 38 38.0	−2.9		
			SMN	m_B = 5.9		9.0	1.07
			SME			8.0	0.94
			ScS	20 41 25.0	−1.2		
			LN	Ms = 5.5		13.0	1.12
			LE			14.0	1.79
			LZ	Ms = 5.7		26.0	6.76
BTO	49.7	355	eP	20 31 47.6	−0.2		
			sP	20 32 08.0	3.5		
			cPP	20 33 47.0	4.8		
			iS	20 38 49.0	−3.1		
			LN	Ms = 5.8		17.0	3.00
			LE			20.0	4.30
			LZ	Ms = 5.6		17.0	3.30
HHC	49.8	357	−P	20 31 49.2	0.3		
			pP	20 32 00.0	−0.6		
			S	20 38 50.0	−2.8		
			LN	Ms = 5.4		11.0	0.97
			LE			13.0	1.12
			LZ	Ms = 5.8		32.0	8.76
GTA	50.2	345	+P	20 31 51.6	−0.3		
			PMZ	m_B = 5.7		6.0	0.60
			pP	20 32 06.0	2.4		
			PPMZ			7.0	0.72
			ScP	20 36 59.4	−0.4		
			S	20 38 58.0	−0.2		
			SMN			16.0	2.38
			ScS	20 41 34.0	−0.5		
			SS	20 42 34.0	5.3		
			LN	Ms = 5.7		20.0	4 56
			LZ	Ms = 5.8		24.0	7.03
SNY	51.4	9	eP	20 31 57.8	−3.0		
			PP	20 33 54.0	−3.9		
			S	20 39 10.0	−4.7		
			LN	Ms = 5.5		23.0	3.46
			LZ	Ms = 5.5		23.0	3.66
CN2	53.7	10	eP	20 32 15.0	−2.4		
			ScP	20 37 14.0	−0.5		
			ScS	20 41 59.0	0.9		
			LZ	Ms = 5.6		34.0	6.30
MDJ	55.2	13	P	20 32 28.5	−0.6		
			sP	20 32 46.5	0.4		
			ScP	20 37 17.0	−4.5		
			S	20 40 00.0	−6.4		
			LE	Ms = 6.0		32.0	13.3
WMQ	58.1	337	+P	20 32 49.0	−0.4		
			S	20 40 44.0	0.0		
			SMN	m_B = 6.1		8.0	2.13
			ScS	20 42 32.0	2.0		
			SS	20 44 41.0	3.7		
			LN	Ms = 5.9		26.0	7.02
			LZ	Ms = 6.0		26.0	9.12
KSH	60.2	326	+iP	20 33 04.0	0.2		
			sP	20 33 25.0	4.3		
			cPP	20 35 19.0	1.6		
			iS	20 41 12.0	−0.3		

1987 12 17

O = 23 54 10.6 ± 0.08s
LAT = 37.63 N ± 0.70km
LONG = 102.01 E ± 0.91km
DEPTH = 11 km ± 0.20km
STATIONS USED = 7, STAND DEV = 3.77s
M_L = 3.2 / 6,

LZH	2.1	136	Pn	23 54 47.5	0.7		
			Sn	23 55 16.0	1.1		
			SMN	M_L = 3.3		0.5	0.26
			SME			1.0	0.19
GTA	2.5	317	+iPn	23 54 54.3	2.9		
			Pg	23 54 55.5	1.2		
			Sn	23 55 25.0	1.6		
			Sg	23 55 27.0	−1.2		
			SMN	M_L = 2.9		0.8	0.062
			SME			0.8	0.084

1987 12 18

O = 05 01 23.9 ± 0.27s
LAT = 1.38 S ± 2.12km
LONG = 77.87 W ± 2.01km
DEPTH = 185 km ± 2.24km
STATIONS USED = 64, STAND DEV = 1.77s

MDJ	130.6	334	cPKP	05 20 14.0	0.1
CN2	132.9	337	cPKP	05 20 17.0	−1.4
KSH	135.2	29	cPKP	05 20 23.0	0.2
WMQ	135.8	15	PKP	05 20 24.9	1.0

BJI	139.5	343	cPKP	05 20 30.5	0.1			
HHC	139.8	349	cPKP	05 20 32.0	0.8			
BTO	140.3	351	cPKP	05 20 32.2	0.1			
GTA	142.1	3	PKP	05 20 32.4	−2.8			
			pPKP	05 21 21.8	0.2			
TIY	142.6	346	cPKP	05 20 33.0	−3.0			
TIA	142.7	340	cPKP	05 20 33.9	−2.1			
SSE	145.4	330	+iPKP	05 20 41.5	0.8			
			pPKP	05 21 26.5	−1.1			
LZH	145.4	358	−iPKP	05 20 42.5	1.5			
			pPKP	05 21 27.5	−0.2			
NJ2	145.7	334	PKP	05 20 41.6	0.4			
			pPKP	05 21 27.0	−1.1			
XAN	146.9	350	PKP	05 20 44.5	1.2			
WHN	148.8	339	PKP	05 20 48.5	2.2			
CD2	150.6	357	cPKP	05 20 51.0	1.8			
GYA	154.7	350	+PKP	05 20 57.0	2.0			
			PKP_2	05 21 21.4				
			pPKP	05 21 42.0	−0.3			
			$pPKP_2$	05 22 06.0				
			PP	05 25 00.4	3.1			
KMI	156.4	359	cPKP	05 20 59.5	2.1			

1987 12 18

O = 05 53 42.1 ± 0.13s

LAT = 23.41 N ± 1.71km

LONG = 120.80 E ± 1.85km

DEPTH = 27 km ± 0.34km

STATIONS USED = 103, STAND DEV = 2.13s

Ms = 5.6 / 57, M_L = 5.5 / 4, m_B = 5.4 / 7

QZH	2.5	308	−Pn	05 54 21.4	−0.4		
			Pg	05 54 29.5	2.6		
			Sn	05 54 52.3	−1.0		
			SMN			3.0	59.5
			SME			3.0	49.5
			LN			7.0	72.3
GZH	6.9	269	Pn	05 55 22.0	0.6		
			LN	Ms = 5.2		10.0	17.4
			LE			10.0	12.7
SSE	7.7	3	−P	05 55 32.2	−2.6		
			PMZ			1.0	0.14
			iS	05 56 57.0	−4.4		
			LN	Ms = 5.5		9.0	14.8
			LE			10.0	30.7
			LZ	Ms = 5.5		10.0	31.4
NJ2	8.8	349	+P	05 55 45.8	−4.5		
			LZ	Ms = 5.3		10.0	17.4
WHN	9.1	322	cP	05 55 53.2	−2.1		
			LN	Ms = 5.6		9.0	20.3
			LE			7.0	14.6
QZN	11.1	249	cP	05 56 21.2	−1.3		
			cS	05 58 23.0	−3.8		
			LN	Ms = 5.4		18.0	27.0
TIA	13.1	347	cP	05 56 49.6	−0.3		
			LN	Ms = 5.6		10.0	10.9
			LE			10.0	11.2
			LZ	Ms = 5.5		10.0	13.9
GYA	13.2	286	P	05 56 48.0	−2.4		
			pP	05 56 53.0	−3.7		
			LN	Ms = 5.7		10.0	12.7
			LE			10.0	18.0
XAN	14.8	318	P	05 57 13.0	0.8		
			sP	05 57 21.0	−2.0		
			LN	Ms = 5.4		10.0	9.70
DL2	15.5	2	P	05 57 22.0	1.8		
			LN	Ms = 5.6		10.0	8.47
			LE			10.0	11.4
TIY	16.0	335	cP	05 57 30.0	3.3		
			pP	05 57 33.0	−0.2		
			S	06 00 23.5	1.4		
			SS	06 00 38.0	−3.0		
			LN	Ms = 5.9		12.0	14.9
			LE			13.0	27.6
			LZ	Ms = 5.7		12.0	17.4
KMI	16.6	280	−P	05 57 38.0	3.6		
			pP	05 57 41.5	0.6		
			PP	05 57 54.0	6.3		
			LZ	Ms = 5.5		9.0	8.10
CD2	16.9	300	cP	05 57 37.2	−1.3		
			pP	05 57 43.8	−1.4		
			LE	Ms = 5.9		7.0	16.9
			LZ	Ms = 5.9		7.0	15.5
BJI	17.0	348	cP	05 57 42.0	1.9		
			SMN	m_B = 5.2		12.0	0.66
			SME			12.0	1.20
			LN	Ms = 5.7		10.0	6.10
			LE			10.0	12.2
SNY	18.5	7	+iP	05 58 00.0	1.4		
			sP	05 58 10.0	0.4		
			LN	Ms = 5.7		11.0	8.40
			LE			10.0	9.03
			LZ	Ms = 5.5		10.0	7.30
HHC	19.0	338	P	05 58 07.2	2.0		
LZH	19.4	315	+P	05 58 10.5	1.7		
			PMZ	m_B = 5.7		4.0	1.53
			cS	06 01 37.0	−3.4		
			LN	Ms = 5.4		12.0	4.02
			LE			12.0	6.10
BTO	19.4	335	cP	05 58 11.6	2.5		
			PP	05 58 28.5	2.4		

			S	06 01 43.0	2.8		
			SS	06 02 10.0	3.4		
			LN	Ms=5.8		10.0	11.6
			LE			11.0	8.20
			LZ	Ms=5.6		11.0	9.70
CN2	20.7	10	−P	05 58 22.8	−0.1		
			pP	05 58 26.5	−4.1		
			eS	06 02 08.0	0.1		
			LZ	Ms=5.4		16.0	9.00
MDJ	22.3	17	eP	05 58 40.0	0.4		
			pP	05 58 44.0	−3.5		
			PP	05 59 06.0	−0.2		
			S	06 02 38.0	−0.1		
			LZ	Ms=5.8		16.0	18.2
GTA	23.9	317	P	05 58 56.6	1.7		
			PMZ	m_B=5.4		4.0	0.57
			LN	Ms=5.4		11.0	4.94
			LZ	Ms=5.2		16.0	4.05
LSA	27.2	290	eP	05 59 28.6	2.2		
			SME	m_B=5.9		12.0	3.45
			LE	Ms=5.5		10.0	3.71
WMQ	33.9	315	P	06 00 27.5	1.9		
			PP	06 01 39.0	0.2		
			eS	06 05 44.0	−3.9		
			LN	Ms=5.5		10.0	3.07
KSH	41.0	304	eP	06 01 24.0	−1.2		

1987 12 18
O=08 38 03.7 ± 0.08s
LAT=35.26 N ± 0.83km
LONG=137.12 E ± 1.19km
DEPTH=302 km ± 0.41km
STATIONS USED = 42, STAND DEV= 1.19s

MDJ	11.0	331	eP	08 40 35.9	0.9		
CN2	12.4	317	+P	08 40 52.8	0.4		
SNY	12.5	306	eP	08 40 54.6	1.5		
SSE	14.0	257	eP	08 41 10.0	−1.3		
BJI	17.3	292	eP	08 41 47.0	−0.5		
WHN	19.7	263	eP	08 42 14.0	2.0		
TIY	20.0	284	eP	08 42 15.0	−0.2		
XAN	23.2	275	+P	08 42 46.0	−0.1		
GYA	27.5	260	P	08 43 24.8	−0.4		
CD2	28.2	271	eP	08 43 30.6	−1.0		
GTA	29.8	289	P	08 43 45.6	−0.2		

1987 12 18
O=10 17 30.7 ± 0.12s
LAT=13.34 N ± 1.17km
LONG=144.22 E ± 0.60km
DEPTH=116 km ± 1.00km
STATIONS USED = 26, STAND DEV= 1.61s

SSE	27.6	314	eP	10 23 12.0	2.7		
BJI	36.2	322	eP	10 24 26.0	1.3		
TIY	37.3	316	−P	10 24 31.2	−2.2		
GYA	37.5	296	P	10 24 37.4	2.1		
XAN	38.1	309	P	10 24 40.3	0.4		
CD2	41.1	302	P	10 25 05.6	0.7		
LZH	42.7	309	eP	10 25 18.5	0.3		
GTA	46.9	312	P	10 25 52.0	0.5		

1987 12 18
O=16 24 01.7 ± 0.09s
LAT=28.24 N ± 2.19km
LONG= 56.59 E ± 1.47km
DEPTH= 19 km ± 0.12km
STATIONS USED =104, STAND DEV= 1.33s
Ms=5.9 / 58, m_B=5.8 / 7

KSH	19.6	50	P	16 28 30.5	−1.2		
			pP	16 28 36.0	−1.7		
			sP	16 28 42.0	0.6		
			S	16 32 09.0	3.6		
			LN	Ms=6.2		12.0	41.2
WMQ	29.4	50	+P	16 30 06.0	−0.2		
			S	16 35 00.0	3.2		
			LE	Ms=5.8		12.0	9.19
			LZ	Ms=5.9		22.0	21.7
LSA	30.2	79	iP	16 30 13.9	−0.2		
			pP	16 30 22.0	1.5		
			S	16 35 10.0	−0.2		
			LN	Ms=5.5		14.0	5.40
GTA	37.3	61	+P	16 31 14.5	−0.4		
			PMZ			3.0	0.42
			PP	16 32 40.0	−1.7		
			S	16 36 59.6	−0.4		
			SS	16 39 34.0	2.6		
			LN	Ms=5.8		13.5	5.00
			LE			13.5	5.44
LZH	40.4	66	eP	16 31 41.0	−0.2		
			PMZ			2.0	0.34
			PcP	16 33 47.0	3.3		
			S	16 37 50.0	2.3		
			LN	Ms=5.9		16.0	8.85
			LE			24.0	6.80
CD2	40.9	74	eP	16 31 44.6	−0.1		
			PcP	16 33 45.5	0.4		
			S	16 37 49.0	−5.2		
			LE	Ms=6.1		14.0	11.6
			LZ	Ms=5.9		14.0	7.71
KMI	41.2	83	−P	16 31 47.0	−0.3		
			pP	16 31 56.0	2.0		

			PP	16 33 27.5	2.6		
			PcP	16 33 46.0	0.0		
			iS	16 37 58.0	−1.9		
			sS	16 38 11.0	0.0		
			SS	16 40 56.0	−1.2		
			LN	Ms = 5.4		16.0	2.80
			LZ	Ms = 5.5		20.0	4.30
GYA	44.3	80	P	16 32 12.2	−0.2		
			pP	16 32 19.8	0.5		
			PP	16 33 56.0	−0.6		
			S	16 38 39.0	−4.8		
			sS	16 38 50.0	−6.4		
			LN	Ms = 6.0		16.0	6.90
			LE			16.0	7.90
XAN	44.8	69	P	16 32 15.0	−1.4		
			S	16 38 50.0	−1.2		
			LN	Ms = 6.3		20.0	20.1
			LE			18.0	4.70
BTO	45.1	60	−iP	16 32 20.0	0.5		
			pP	16 32 28.0	1.6		
			PP	16 34 05.0	−0.1		
			S	16 38 56.0	−0.5		
			LN	Ms = 5.9		14.0	4.50
			LE			14.0	3.80
			LZ	Ms = 5.9		16.0	6.60
HHC	46.3	59	cP	16 32 29.0	0.3		
			S	16 39 15.0	1.8		
			LN	Ms = 5.8		13.0	4.06
			LE			13.0	2.60
			LZ	Ms = 5.6		13.0	2.58
TIY	47.2	63	−P	16 32 35.0	−0.7		
			PMZ			14.0	0.48
			pP	16 32 44.0	1.5		
			PcS	16 38 02.5	2.1		
			S	16 39 23.0	−2.8		
			SMN	m_B = 5.7		9.0	1.07
			sS	16 39 35.0	−3.5		
			SS	16 42 53.0	6.7		
			LN	Ms = 6.1		20.0	12.9
			LZ	Ms = 5.9		21.0	9.78
BJI	49.9	60	cP	16 32 55.5	−0.9		
			PMZ			2.0	0.080
			ScS	16 42 46.0	3.0		
			LN	Ms = 6.0		17.0	7.28
			LE			18.0	5.78
WHN	49.9	73	+P	16 32 57.8	1.2		
			pP	16 33 06.0	2.4		
			S	16 40 04.0	0.2		
			LN	Ms = 6.0		15.0	7.10
			LZ	Ms = 5.9		14.0	4.90
GZH	51.0	82	+P	16 33 05.5	0.3		
			LN	Ms = 6.2		14.0	10.8
			LE			12.0	2.74
TIA	51.1	65	cP	16 33 05.0	−0.8		
			S	16 40 21.0	0.5		
			LN	Ms = 6.0		16.0	6.62
			LE			14.0	3.76
			LZ	Ms = 5.6		14.0	2.61
NJ2	53.3	70	+P	16 33 22.4	0.0		
			sP	16 33 34.4	1.8		
			S	16 40 52.5	1.7		
			LE	Ms = 6.0		16.0	6.71
			LZ	Ms = 5.8		20.0	4.88
DL2	54.2	61	P	16 33 28.0	−0.9		
			cS	16 41 00.0	−3.8		
			LN	Ms = 6.2		20.0	9.88
			LE			20.0	7.40
QZH	55.0	78	cP	16 33 35.0	0.2		
			cS	16 41 13.0	−1.6		
			LN	Ms = 6.5		16.0	18.5
SNY	55.2	57	−P	16 33 35.2	−1.1		
			pP	16 33 42.4	−1.0		
			S	16 41 15.0	−1.3		
			LN	Ms = 6.1		28.0	14.7
			LE			28.0	3.74
SSE	55.5	70	P	16 33 38.0	−0.2		
			PMZ			1.3	0.034
			pP	16 33 47.5	2.2		
			cS	16 41 18.0	−3.0		
			csS	16 41 32.0	−0.8		
			LN	Ms = 6.0		14.0	3.45
			LE			16.0	4.61
			LZ	Ms = 6.0		20.0	8.66
CN2	56.3	54	−iP	16 33 43.0	−1.0		
			pP	16 33 50.5	−0.6		
			S	16 41 28.0	−2.6		
			cSS	16 45 15.0	−2.5		
			LZ	Ms = 6.1		20.0	9.00
MDJ	59.1	53	cP	16 34 02.0	−1.8		
			pP	16 34 09.2	−1.7		
			sP	16 34 11.5	−2.5		
			PP	16 36 14.0	−1.4		
			S	16 42 06.0	−1.4		
			ScS	16 43 46.0	−2.2		
			LZ	Ms = 6.2		20.0	11.8

1987 12 18
O = 17 13 31.3 ± 0.05s
LAT = 46.86 N ± 0.86km
LONG = 83.34 E ± 0.61km

DEPTH= 22 km ± 0.90km
STATIONS USED = 8, STAND DEV= 2.78s
M_L=3.5/ 7,

WMQ	4.3	133	Pn	17 14 38.0	1.5		
			P11	17 14 50.0	1.7		
			Sn	17 15 29.0	0.8		
			Sg	17 15 45.4	−1.7		
			SMN	M_L=3.2	0.7	0.030	
			SME		0.6	0.050	

1987 12 18
O=19 12 26.8 ± 0.06s
LAT= 5.00 N ± 1.14km
LONG= 94.38 E ± 0.97km
DEPTH= 57 km ± 0.73km
STATIONS USED = 42, STAND DEV= 1.01s
Ms=4.7/ 1,

KMI	21.6	21	cP	19 17 15.0	1.2		
GYA	24.4	28	P	19 17 42.2	1.1		
LSA	24.8	353	P	19 17 44.4	−0.9		
CD2	27.2	18	cP	19 18 06.6	−1.5		
WHN	31.6	34	P	19 18 48.0	1.1		
XAN	31.9	23	+iP	19 18 47.5	−2.0		
NJ2	35.3	37	−P	19 19 19.7	0.6		
TIY	36.5	24	cP	19 19 30.4	1.4		
			LZ	Ms=4.7	18.0	0.73	
WMQ	39.1	352	cP	19 19 51.4	0.6		
BJI	40.0	26	cP	19 19 59.0	0.6		
CN2	47.3	31	−P	19 20 57.0	−0.4		

1987 12 18
O=20 54 33.3 ± 0.07s
LAT=28.22 N ± 2.01km
LONG= 56.74 E ± 0.84km
DEPTH= 33 km ± 0.33km
STATIONS USED = 34, STAND DEV= 0.92s
Ms=4.5/ 1,

KSH	19.5	50	cP	20 59 00.5	−0.1		
			pP	20 59 05.0	−3.3		
			cS	21 02 31.0	−2.3		
			LN	Ms=4.5	9.0	0.62	
WMQ	29.3	50	cP	21 00 35.5	0.4		
LSA	30.1	79	cP	21 00 41.9	−0.8		
KMI	41.0	83	cP	21 02 16.5	0.6		
GYA	44.1	80	P	21 02 40.4	−0.7		
BTO	45.0	60	cP	21 02 48.4	0.1		
TIY	47.1	63	cP	21 03 04.0	−0.4		
BJI	49.8	60	cP	21 03 25.0	−0.2		
CN2	56.2	54	−P	21 04 11.8	−1.1		

1987 12 18
O=23 38 25.6 ± 0.16s
LAT= 4.84 S ± 1.24km
LONG=151.81 E ± 0.19km
DEPTH=119 km ± 1.51km
STATIONS USED = 48, STAND DEV= 1.27s

WHN	50.2	317	P	23 47 14.5	2.7		
GYA	53.6	308	P	23 47 38.8	1.2		
BJI	55.4	327	cP	23 47 50.0	−0.2		
TIY	56.0	323	−P	23 47 54.4	0.0		
XAN	56.0	317	P	23 47 54.2	−0.3		
KMI	56.2	304	cP	23 47 58.0	1.8		
CD2	58.0	311	cP	23 48 08.8	−0.1		
HHC	58.5	325	P	23 48 12.7	0.3		
BTO	59.2	324	cP	23 48 17.2	−0.2		
LZH	60.6	316	cP	23 48 27.0	0.4		
GTA	65.0	318	+P	23 48 55.4	−0.6		
WMQ	75.1	318	P	23 49 54.5	−2.5		
KSH	82.2	311	P	23 50 38.0	2.2		

1987 12 19
O=08 27 36.2 ± 0.08s
LAT=40.74 N ± 1.68km
LONG= 51.93 E ± 1.08km
DEPTH= 89 km ± 0.14km
STATIONS USED = 56, STAND DEV= 1.05s
Ms=4.7/ 8, m_B=5.4/ 1

KSH	18.4	86	P	08 31 46.5	−0.9		
			cS	08 35 07.0	0.0		
			LN	Ms=4.9	5.0	1.00	
WMQ	26.5	71	−P	08 33 08.0	0.2		
			cS	08 37 38.0	4.1		
			LN	Ms=4.5	8.0	0.37	
GTA	36.3	76	+P	08 34 33.8	0.1		
			LN	Ms=4.9	8.0	0.53	
			LZ	Ms=4.9	10.0	0.64	
LZH	40.5	79	cP	08 35 08.5	0.3		
CD2	42.6	86	cP	08 35 26.4	0.6		
BTO	43.3	70	cP	08 35 32.0	0.2		
HHC	44.4	69	+P	08 35 41.2	1.2		
KMI	44.8	94	−P	08 35 44.0	0.4		
XAN	45.1	79	+P	08 35 45.3	−0.5		
TIY	46.2	73	cP	08 35 52.0	−2.2		
			PcS	08 41 22.0	0.5		
			S	08 42 28.5	−3.6		
			LN	Ms=4.7	15.0	0.44	
			LZ	Ms=4.6	26.0	0.56	
GYA	47.1	90	P	08 36 00.6	−0.7		
BJI	47.9	69	cP	08 36 06.0	−2.1		
WHN	50.8	81	P	08 36 29.5	−0.5		

CN2	52.8	61	+P	08 36 44.0	−1.2		
			eS	08 44 10.0	4.4		
			LZ	Ms=4.7		20.0	0.40
NJ2	53.4	77	−P	08 36 49.4	−0.2		
SSE	55.6	76	P	08 37 05.0	−0.6		
			PMZ			1.0	0.020

1987 12 19
O=10 14 44.8 ± 0.08s
LAT= 0.19 S ± 1.49km
LONG=122.95 E ± 2.12km
DEPTH=156 km ± 0.10km
STATIONS USED = 77, STAND DEV= 1.32s
m_B=5.6/ 6

QZN	23.0	327	eP	10 19 37.0	−0.2		
			eS	10 23 35.0	2.0		
			SS	10 24 28.0	−3.3		
GZH	25.0	339	+P	10 19 56.5	1.0		
			PP	10 20 43.0	2.9		
			eS	10 24 06.0	0.6		
			SMN	m_B=5.5		7.0	1.33
			SS	10 25 14.0	−3.4		
QZH	25.3	351	eP	10 20 00.0	0.9		
			SME	m_B=5.6		4.0	1.22
GYA	30.8	331	+P	10 20 49.0	0.5		
			sP	10 21 41.0	2.0		
			PcP	10 23 42.0	0.7		
			S	10 25 38.0	−0.4		
			ScP	10 27 08.0	0.2		
SSE	31.2	357	eP	10 20 51.5	0.0		
			pP	10 21 24.0	0.0		
			sP	10 21 42.0	−0.2		
			S	10 25 42.0	−2.1		
			csS	10 26 44.0	1.7		
			LN			10.0	0.22
			LZ			18.0	0.72
WHN	31.6	346	P	10 20 57.0	1.3		
			PP	10 22 04.0	−1.6		
			S	10 25 56.0	4.4		
			SMN	m_B=5.3		6.0	0.86
			sS	10 26 54.0	4.1		
KMI	31.9	324	eP	10 20 59.0	1.1		
			pP	10 21 33.5	3.3		
			S	10 26 00.0	4.9		
NJ2	32.3	353	+P	10 21 02.6	1.2		
			sP	10 21 54.3	2.1		
CD2	35.9	331	eP	10 21 32.0	−0.1		
			PMZ			1.0	0.060
			sP	10 22 22.0	−1.4		
			eS	10 26 57.0	−1.4		
			LN			6.0	0.62
XAN	36.5	340	+P	10 21 37.2	0.0		
			pP	10 22 10.0	−0.6		
			S	10 27 05.0	−1.6		
TIY	38.9	347	+P	10 21 58.5	0.9		
			pP	10 22 31.0	−0.2		
			PP	10 23 30.0	−2.8		
			ScP	10 27 33.5	−3.5		
			S	10 27 45.0	1.5		
			sS	10 28 45.0	1.7		
			LN			9.0	0.51
			LZ			16.0	0.71
LZH	40.2	336	+P	10 22 09.5	1.2		
			PMZ			1.0	0.035
			pP	10 22 42.0	0.1		
			cS	10 27 58.0	−5.9		
BJI	40.5	352	P	10 22 10.0	−0.4		
			pP	10 22 41.5	−2.7		
			csS	10 29 03.0	−3.8		
GTA	44.7	334	P	10 22 44.8	0.0		
			pP	10 23 19.0	0.2		
			sP	10 23 38.6	2.0		
			S	10 29 10.0	1.7		
			LE			10.0	0.42
			LZ			9.0	0.37
MDJ	45.0	7	eP	10 22 45.8	−1.0		
WMQ	53.9	329	eP	10 23 53.6	−1.3		
			pP	10 24 30.5	0.4		
			S	10 31 15.0	−0.5		
			LN			14.0	0.44
KSH	58.2	318	eP	10 24 26.0	0.1		

1987 12 19
O=17 30 11.8 ± 0.04s
LAT=39.24 N ± 0.43km
LONG=101.33 E ± 0.34km
DEPTH= 2 km ± 0.12km
STATIONS USED = 7, STAND DEV= 2.85s
M_L=3.2/ 4,

GTA	1.2	279	iPg	17 30 32.3	−0.6		
			Sn	17 30 47.4	−6.8		

1987 12 19
O=18 56 47.2 ± 0.13s
LAT=34.95 N ± 1.32km
LONG=103.86 E ± 1.31km
DEPTH= 7 km ± 0.41km
STATIONS USED = 12, STAND DEV= 1.92s
M_L=3.4/ 8,

LZH	1.1	360	Pg	18 57 06.5	−1.0		

			Sn	18 57 21.0	−6.4		
			SMN	M_L=3.3		1.0	0.47
			SME			0.5	0.74
CD2	4.0	181	cPg	18 58 01.4	2.8		
XAN	4.3	101	Pn	18 57 51.5	−1.6		
			Pg	18 58 05.0	2.3		
			Sg	18 58 59.0	−2.3		
			SMN	M_L=3.1		0.8	0.030
			SME			0.7	0.040
GTA	5.5	325	Pn	18 58 08.5	−1.5		
			Pg	18 58 26.8	2.6		
			Sg	18 59 36.6	−2.8		
			SMN	M_L=3.1		1.0	0.017
			SME			0.8	0.016
TIY	7.4	66	cPg	18 59 02.0	3.1		
			Sg	19 00 39.2	−1.3		
			SMN	M_L=3.7		1.0	0.020
			SME			0.8	0.030

1987 12 20
O=02 05 19.7 ± 0.23s
LAT=20.87 S ± 3.26km
LONG=173.73 W ± 2.20km
DEPTH= 34 km ± 0.65km
STATIONS USED = 25, STAND DEV= 1.28s

MDJ	83.2	323	eP	02 17 44.7	0.1		
DL2	84.8	315	eP	02 17 51.0	−1.7		
CN2	85.1	321	+P	02 17 53.5	−0.7		
WHN	85.9	305	eP	02 18 01.0	2.7		
BJI	89.0	314	eP	02 18 14.0	0.8		
TIY	90.5	310	eP	02 18 21.8	1.2		
XAN	91.6	306	P	02 18 26.0	0.7		
HHC	92.5	313	eP	02 18 30.0	0.3		

1987 12 20
O=15 06 48.2 ± 0.09s
LAT=83.92 N ± 1.42km
LONG= 1.66 W ± 1.39km
DEPTH= 9 km ± 0.09km
STATIONS USED = 48, STAND DEV= 1.26s
Ms=4.7/ 1,

WMQ	46.6	85	eP	15 15 20.0	0.8		
			eS	15 22 11.0	3.1		
			LZ	Ms=4.7		20.0	0.55
KSH	49.7	97	eP	15 15 44.0	0.9		
MDJ	49.8	45	eP	15 15 43.2	−0.5		
CN2	50.3	49	eP	15 15 46.6	−0.8		
HHC	52.0	62	eP	15 16 01.4	0.8		
BTO	52.1	64	eP	15 16 01.0	−0.3		
GTA	52.2	74	+P	15 16 02.4	−0.2		
BJI	53.2	58	eP	15 16 10.0	0.4		
LZH	55.9	70	eP	15 16 30.0	0.2		
			PMZ			1.5	0.039
TIA	57.1	58	eP	15 16 37.1	−0.8		
XAN	58.5	66	P	15 16 46.8	−0.8		
CD2	61.1	71	eP	15 17 04.0	−1.4		
WHN	62.5	61	eP	15 17 10.0	−4.7		
GYA	65.8	69	P	15 17 35.8	−0.6		
			pP	15 17 41.8	0.0		

1987 12 20
O=15 21 30.1 ± 0.06s
LAT=37.27 N ± 0.57km
LONG=114.89 E ± 0.52km
DEPTH= 12 km ± 0.11km
STATIONS USED = 8, STAND DEV= 1.65s
M_L=2.9/ 12,

TIY	2.0	284	−iPg	15 22 04.4	−1.3		
			Sg	15 22 30.8	−2.2		
			SMN	M_L=3.0		0.8	0.090
			SME			0.6	0.15
TIA	2.1	120	Pn	15 22 03.6	−1.7		
			Pg	15 22 06.2	−0.7		
			Sn	15 22 28.4	−4.6		
			Sg	15 22 33.0	−2.4		
			SMN	M_L=2.9		0.3	0.091
			SME			0.3	0.11
			SMZ	M_L=3.1		0.3	0.089
HHC	4.4	325	cPg	15 22 48.8	0.6		
			Sg	15 23 48.0	−0.4		
			SMN	M_L=3.0		0.8	0.019
			SME			0.8	0.027

1987 12 20
O=22 41 29.4 ± 0.05s
LAT= 6.82 N ± 0.83km
LONG=123.88 E ± 1.25km
DEPTH=593 km ± 0.08km
STATIONS USED = 47, STAND DEV= 0.84s

QZN	18.3	313	eP	22 45 08.8	−0.1
GYA	25.5	322	eP	22 46 13.6	−0.8
XAN	30.4	335	P	22 46 56.3	−0.5
CD2	30.5	324	eP	22 46 57.2	−0.3
			S	22 51 17.8	−1.3
TIY	32.5	343	eP	22 47 14.6	0.5
			eS	22 51 47.0	−3.2
			ScS	22 56 35.5	4.1
BJI	33.8	349	eP	22 47 25.5	0.4
LZH	34.4	331	eP	22 47 32.0	1.4
SNY	34.9	360	+iP	22 47 33.9	−0.1

CN2	36.9	2	eP	22 47 49.4	−1.0	
MDJ	38.0	7	eP	22 48 00.0	0.4	
LSA	38.3	311	−P	22 48 03.2	0.6	
GTA	39.0	330	P	22 48 08.5	0.3	
			iPcP	22 50 04.0	1.1	
WMQ	48.6	325	eP	22 49 22.7	0.3	

1987 12 21
O = 02 27 32.4 ± 0.03s
LAT = 24.17 N ± 0.37km
LONG = 142.50 E ± 0.51km
DEPTH = 34 km ± 0.03km
STATIONS USED = 27, STAND DEV = 2.05s
Ms = 4.1 / 1,

SSE	20.1	295	cP	02 32 05.8	−0.3		
			LZ	Ms = 4.1		18.0	0.45
TIA	24.9	305	−P	02 32 52.2	−2.0		
WHN	25.8	290	P	02 33 02.0	0.0		
BJI	27.2	312	eP	02 33 13.0	−2.4		
GYA	32.4	282	+P	02 34 01.6	−0.3		
CD2	34.9	290	eP	02 34 21.7	−1.4		
GTA	39.0	303	P	02 34 55.3	−2.3		
WMQ	48.5	308	P	02 36 12.7	−2.2		

1987 12 21
O = 04 28 22.9 ± 0.09s
LAT = 38.77 N ± 1.96km
LONG = 70.65 E ± 1.52km
DEPTH = 13 km ± 0.29km
STATIONS USED = 71, STAND DEV = 1.75s
Ms = 5.3 / 27, M_L = 5.0 / 2, m_B = 5.6 / 3

KSH	4.2	79	−iPn	04 29 31.0	3.9		
			Sn	04 30 24.0	6.1		
			LN	Ms = 5.3		6.0	37.4
WMQ	13.8	63	P	04 31 39.3	−1.2		
			LN	Ms = 5.6		9.0	13.8
LSA	19.2	112	−P	04 32 47.0	−2.6		
			LN	Ms = 5.2		10.0	1.22
			LE			10.0	3.56
GTA	22.6	79	P	04 33 25.0	0.0		
			sP	04 33 34.0	0.3		
			S	04 37 33.5	6.7		
			SMN			16.0	1.78
			LN	Ms = 5.3		16.0	3.39
			LE			11.0	3.39
LZH	26.4	85	cP	04 34 01.0	−0.6		
			PMZ			2.0	0.070
CD2	28.2	96	cP	04 34 17.3	−0.2		
BTO	30.2	74	cP	04 34 39.0	3.4		
			csP	04 34 47.0	2.6		
			cS	04 39 38.0	4.6		
			LN	Ms = 5.1		12.0	0.60
			LE			12.0	1.40
			LZ	Ms = 5.3		12.0	2.40
KMI	30.3	107	eP	04 34 38.5	2.0		
			eS	04 39 40.0	5.0		
			sS	04 39 50.0	5.5		
			LN	Ms = 4.7		10.0	0.60
XAN	31.0	87	eP	04 34 41.5	−1.3		
HHC	31.3	73	eP	04 34 45.2	−0.2		
			SMN	m_B = 5.6		11.0	1.29
			SME			13.0	0.80
GYA	32.5	101	P	04 34 56.8	0.6		
TIY	32.6	79	eP	04 34 58.0	0.9		
			sP	04 35 05.0	−0.9		
			S	04 40 15.0	4.3		
			SS	04 42 09.0	1.4		
			LN	Ms = 5.2		12.0	1.67
			LE			12.0	0.88
			LZ	Ms = 5.1		22.0	2.46
BJI	34.9	73	eP	04 35 18.0	1.4		
			eS	04 40 50.0	3.1		
			LN	Ms = 4.9		11.0	0.77
WHN	36.6	89	+P	04 35 32.0	1.1		
			sP	04 35 40.0	0.1		
			eS	04 41 13.0	0.1		
			LN	Ms = 5.3		10.0	1.43
TIA	36.7	79	eP	04 35 32.7	1.2		
QZN	39.2	109	eP	04 35 51.7	−0.9		
DL2	39.3	73	eP	04 35 51.0	−2.4		
GZH	39.4	101	eP	04 35 54.5	−0.3		
NJ2	39.5	85	eP	04 35 56.7	1.5		
			LN	Ms = 5.4		15.0	2.39
CN2	40.8	65	eP	04 36 07.5	1.0		
			epP	04 36 14.8	2.3		
			eS	04 42 18.0	0.6		
			eSS	04 45 15.0	2.0		
			LN	Ms = 5.4		22.0	4.00
SSE	41.7	85	eP	04 36 12.2	−1.2		
			pP	04 36 17.6	−1.8		
			eS	04 42 36.0	6.1		
			LZ	Ms = 5.1		20.0	1.57

1987 12 21
O = 07 56 43.5 ± 0.19s
LAT = 2.46 S ± 2.93km
LONG = 76.92 W ± 3.30km
DEPTH = 105 km ± 1.87km
STATIONS USED = 27, STAND DEV = 2.43s

WMQ	136.6	16	cPKP	08 15 50.2	−4.5

GTA	143.1	4	+PKP	08 16 06.5	0.1	
SSE	146.8	331	PKP	08 16 12.5	0.0	
XAN	148.1	351	PKP	08 16 14.7	−0.1	
WHN	150.1	340	PKP	08 16 22.6	4.7	

1987 12 21
O = 09 19 43.7 ± 0.08s
LAT = 39.04 N ± 0.76km
LONG = 78.83 E ± 0.83km
DEPTH = 9 km ± 0.05km
STATIONS USED = 12, STAND DEV = 2.32s
M_L = 4.0 / 8,

KSH	2.2	281	cPn	09 20 21.0	−0.6		
			Sn	09 20 51.0	−0.2		
			SMN	M_L = 4.1		0.5	1.30
WMQ	8.2	52	cP	09 21 46.0	0.0		
			S	09 23 20.3	1.0		
			SMN	M_L = 3.9		0.8	0.030
GTA	16.3	82	cP	09 23 35.1	0.6		
			SMN			1.0	0.0050
			SME			1.0	0.0050

1987 12 21
O = 14 34 54.0 ± 0.10s
LAT = 16.13 S ± 1.63km
LONG = 176.58 W ± 1.05km
DEPTH = 393 km ± 1.36km
STATIONS USED = 67, STAND DEV = 0.77s

SSE	76.0	309	cP	14 46 00.3	−0.9		
			PMZ			1.0	0.012
			cS	14 55 12.0	0.4		
MDJ	77.8	324	cP	14 46 10.8	−0.2		
NJ2	78.2	308	+P	14 46 13.5	0.3		
CN2	79.7	321	+iP	14 46 20.8	−0.5		
SNY	79.8	319	+P	14 46 21.7	0.0		
WHN	81.0	305	+P	14 46 28.0	0.0		
			PMZ			1.0	0.040
BJI	83.8	315	+P	14 46 41.5	−0.7		
TIY	85.4	311	+iP	14 46 50.9	0.6		
			PMZ			1.0	0.10
GYA	85.7	299	+P	14 46 53.0	1.3		
XAN	86.6	307	+P	14 46 56.4	0.4		
HHC	87.3	314	cP	14 47 00.0	0.6		
BTO	88.3	313	P	14 47 04.0	0.0		
KMI	88.6	297	+P	14 47 07.5	1.9		
CD2	89.6	302	cP	14 47 10.8	0.7		
LZH	91.2	307	+iP	14 47 17.5	−0.2		
			PMZ			1.5	0.079
GTA	95.3	309	+P	14 47 36.0	−0.3		

1987 12 21
O = 15 47 27.0 ± 0.35s
LAT = 24.54 N ± 1.97km
LONG = 121.89 E ± 2.96km
DEPTH = 33 km ± 0.18km
STATIONS USED = 27, STAND DEV = 1.76s
Ms = 4.2 / 3, M_L = 4.0 / 12,

QZH	3.0	278	cPn	15 48 13.5	0.4		
			Sn	15 48 49.5	−0.2		
			SMN	M_L = 3.9		1.0	0.54
			SME			1.0	0.37
SSE	6.6	355	−P	15 49 02.2	−1.6		
NJ2	7.9	341	+P	15 49 22.0	−1.1		
			S	15 50 52.5	−0.2		
			LN	Ms = 4.2		15.0	2.39
WHN	9.0	313	cP	15 49 36.0	−1.4		
			SMN	M_L = 4.4		1.0	0.080
			SME			1.0	0.070
XAN	14.7	313	cP	15 50 56.6	1.4		
TIY	15.4	331	cP	15 51 08.5	4.5		
GTA	23.8	314	cP	15 52 38.2	0.1		

1987 12 21
O = 15 49 16.6 ± 0.12s
LAT = 24.47 N ± 2.58km
LONG = 122.13 E ± 1.97km
DEPTH = 16 km ± 1.77km
STATIONS USED = 35, STAND DEV = 2.00s
Ms = 4.1 / 3, M_L = 4.2 / 10,

QZH	3.3	279	cPn	15 50 07.5	0.1		
			Sn	15 50 43.3	−4.4		
			SMN	M_L = 4.2		1.0	1.10
			SME			1.0	0.63
			LN	Ms = 4.3		4.0	3.19
SSE	6.7	353	P	15 50 56.0	−0.4		
			LE			1.0	0.10
NJ2	8.1	340	cP	15 51 13.6	−2.9		
			LE			3.0	0.93
WHN	9.2	313	cP	15 51 32.0	0.4		
			LN			1.1	0.23
			LE			1.0	0.13
TIY	15.6	330	cP	15 52 58.2	0.5		
			LZ	Ms = 4.0		16.0	0.59
BJI	16.3	344	cP	15 53 10.5	3.5		
BTO	19.0	331	cP	15 53 39.0	−1.8		
CN2	19.5	7	cP	15 53 47.0	1.1		
LZH	19.5	311	cP	15 53 46.5	−0.3		
			PMZ			2.0	0.026

1987 12 21

O = 17 28 34.4 ± 0.10s
LAT = 20.57 S ± 0.79km
LONG = 177.98 W ± 0.73km
DEPTH = 452 km ± 1.17km
STATIONS USED = 31, STAND DEV = 0.99s

MDJ	80.6	325	eP	17 40 01.3	0.7	
CN2	82.4	322	−P	17 40 09.8	0.1	
WHN	82.5	306	+P	17 40 11.0	0.7	
BJI	86.0	315	eP	17 40 27.5	0.1	
GYA	86.7	300	+P	17 40 32.2	1.1	
XAN	88.2	307	P	17 40 39.0	1.0	

1987 12 21
O = 20 38 42.0 ± 0.09s
LAT = 24.19 N ± 0.63km
LONG = 102.41 E ± 0.47km
DEPTH = 12 km ± 0.69km
STATIONS USED = 5, STAND DEV = 3.18s
M_L = 3.1 / 4,

GYA	4.5	59	ePn	20 39 50.0	0.0	
			SME	M_L = 3.2	1.2	0.040

1987 12 22
O = 00 16 38.4 ± 0.08s
LAT = 41.30 N ± 1.25km
LONG = 89.62 E ± 1.05km
DEPTH = 19 km ± 0.06km
STATIONS USED = 108, STAND DEV = 1.57s
Ms = 5.6 / 58, m_B = 5.7 / 14

WMQ	2.9	331	Pn	00 17 26.4	2.4		
			Sg	00 18 06.0	−2.9		
			SME			2.0	175
GTA	8.0	100	+iP	00 18 36.8	−0.2		
			sP	00 18 43.5	−2.6		
			S	00 20 03.5	−4.0		
			SS	00 20 21.0	0.7		
			LN	Ms = 5.9		4.0	23.7
			LE			4.0	23.9
			LZ	Ms = 5.2		15.0	22.9
KSH	10.6	264	−iP	00 19 11.0	−1.5		
			S	00 21 05.0	−6.0		
			LN	Ms = 5.8		6.0	22.0
LSA	11.6	173	+P	00 19 29.4	2.0		
			LN	Ms = 5.6		11.0	24.3
LZH	12.3	110	eP	00 19 34.0	−1.6		
			PMZ			1.5	1.14
			cS	00 21 46.0	−7.0		
			SMN			3.0	1.54
			LN	Ms = 5.7		9.0	16.0
			LE			10.0	14.7
CD2	15.4	128	eP	00 20 17.4	0.6		
BTO	15.4	86	P	00 20 15.3	−1.9		
			sP	00 20 24.0	−2.6		
			eS	00 23 05.0	−3.4		
			LN	Ms = 5.8		12.0	8.70
			LE			12.0	26.6
			LZ	Ms = 5.9		12.0	35.0
HHC	16.6	84	eP	00 20 32.2	0.6		
			LN	Ms = 5.5		4.0	2.56
			LE			4.0	2.43
XAN	16.9	109	P	00 20 33.4	−2.4		
			LN	Ms = 5.7		13.0	12.6
			LE			11.0	9.45
TIY	18.0	94	+P	00 20 46.9	−2.2		
			pP	00 20 50.0	−4.9		
			sP	00 20 55.5	−3.2		
			LN	Ms = 5.6		15.0	8.38
			LE			6.5	7.68
			LZ	Ms = 5.4		19.0	12.0
KMI	19.5	142	+iP	00 21 07.5	0.0		
			sP	00 21 16.0	−1.0		
			S	00 24 40.0	0.2		
			LZ	Ms = 5.5		14.0	10.2
BJI	20.2	85	+P	00 21 14.5	−0.3		
			sP	00 21 24.0	−0.8		
			cS	00 24 58.0	2.6		
			SMN	m_B = 5.6		8.0	1.37
			SME			7.0	1.60
			LN	Ms = 5.7		10.0	1.91
			LE			13.0	13.8
			LZ	Ms = 5.8		13.0	16.8
GYA	20.4	131	+P	00 21 18.0	0.3		
			sP	00 21 26.0	−1.5		
			S	00 25 01.0	0.9		
			sS	00 25 11.0	0.7		
			LN	Ms = 5.5		11.0	6.30
			LE			11.0	4.40
TIA	22.0	94	+P	00 21 34.0	0.4		
			csP	00 21 43.0	−0.6		
			S	00 25 35.0	5.1		
			SMN	m_B = 5.8		8.0	1.95
			SME			7.0	2.27
			LN	Ms = 5.5		12.0	3.18
			LE			12.5	6.27
			LZ	Ms = 5.2		13.0	4.30
WHN	22.6	110	+iP	00 21 41.4	1.4		
			PMZ	m_B = 6.0		4.0	2.54
			sP	00 21 50.0	0.0		
			PP	00 22 10.0	2.2		
			S	00 25 48.0	6.2		

			SMN		$m_B = 5.7$	8.0	2.41
			iPcS	00 29 07.0	−3.7		
			LN		Ms = 5.6	9.0	5.34
			LE			10.0	4.30
			LZ		Ms = 5.9	12.0	16.2
DL2	24.5	85	P	00 21 59.0	0.7		
			sP	00 22 08.0	−0.3		
			S	00 26 16.0	1.4		
			sS	00 26 30.0	3.6		
			LN		Ms = 5.6	15.0	7.56
			LE			15.0	6.47
NJ2	25.1	102	eP	00 22 04.5	0.6		
			PcP	00 25 38.4	0.0		
			S	00 26 28.0	3.7		
			LE		Ms = 5.7	13.0	9.06
SNY	25.3	77	+iP	00 22 06.0	0.0		
			sP	00 22 14.0	−2.0		
			S	00 26 32.0	4.0		
			SMN		$m_B = 5.8$	7.0	1.22
			SME			10.0	2.13
			LN		Ms = 5.9	8.0	3.98
			LE			11.0	10.7
			LZ		Ms = 5.9	8.0	8.98
CN2	26.4	72	+iP	00 22 16.0	0.1		
			PMZ			3.0	1.70
			pP	00 22 22.5	−0.1		
			PcP	00 25 47.6	6.4		
			eS	00 26 48.0	1.6		
			SME		$m_B = 5.7$	8.0	1.70
			LZ		Ms = 5.8	12.0	10.8
GZH	26.9	125	eP	00 22 21.2	0.3		
			sP	00 22 30.0	−0.9		
			S	00 26 59.0	4.5		
			LN		Ms = 5.5	13.0	4.16
			LE			12.0	4.19
SSE	27.3	102	+P	00 22 25.5	1.2		
			PMZ			1.5	0.42
			sP	00 22 35.0	0.7		
			eS	00 27 02.0	0.7		
			sS	00 27 14.0	1.3		
			LZ		Ms = 5.8	16.0	11.8
QZN	28.1	136	−P	00 22 32.0	0.2		
			eS	00 27 11.5	−3.0		
			LE		Ms = 5.3	10.5	2.40
QZH	29.1	115	eP	00 22 40.0	−0.1		
			sP	00 22 49.5	−0.7		
			S	00 27 28.0	−0.6		
			LN		Ms = 5.6	10.0	4.89
			LE			20.0	4.61
MDJ	29.2	70	eP	00 22 42.0	0.3		
			pP	00 22 49.0	0.4		
			PcP	00 25 47.0	−1.2		
			eS	00 27 34.0	1.6		
			ScP	00 29 26.0	−1.4		
			PcS	00 29 30.0	0.3		
			LE		Ms = 5.6	11.0	5.56

1987 12 22
O = 10 17 34.3 ± 0.10s
LAT = 35.57 N ± 0.66km
LONG = 80.12 E ± 1.26km
DEPTH = 13 km ± 1.62km
STATIONS USED = 7, STAND DEV = 3.36s
$M_L = 3.7 / 5$,

KSH	5.1	321	Pn	10 18 53.5	2.6		
			Sn	10 19 53.0	1.5		
			SMN		$M_L = 4.2$	0.3	0.18
			SME			0.5	0.38
WMQ	10.1	33	eP	10 20 04.0	1.6		

1987 12 22
O = 11 17 55.1 ± 0.18s
LAT = 51.35 S ± 7.06km
LONG = 11.61 W ± 9.37km
DEPTH = 9 km ± 1.64km
STATIONS USED = 44, STAND DEV = 2.75s

KSH	118.2	61	PKP	11 36 44.0	0.1
LSA	120.3	79	PKP	11 36 47.4	−1.0
WMQ	127.6	64	ePKP	11 37 02.2	0.0
GYA	127.7	94	PKP	11 37 02.0	−0.4
GTA	132.1	76	PKP	11 37 10.0	−0.7
XAN	134.3	88	ePKP	11 37 14.0	−0.8
TIY	138.8	87	ePKP	11 37 22.0	−1.2
BTO	139.0	82	PKP	11 37 26.0	2.4
BJI	142.6	87	ePKP	11 37 25.0	−4.7
DL2	145.3	92	PKP	11 37 33.2	−1.3
SNY	148.2	90	+PKP	11 37 41.6	2.3
CN2	150.4	88	+PKP	11 37 47.0	4.2
MDJ	153.4	89	ePKP	11 37 52.8	5.6

1987 12 22
O = 17 33 47.8 ± 0.18s
LAT = 35.62 N ± 0.25km
LONG = 80.91 E ± 1.42km
DEPTH = 4 km ± 1.77km
STATIONS USED = 6, STAND DEV = 3.07s
$M_L = 3.6 / 4$,

KSH	5.5	316	ePg	17 35 23.0	−1.8		
			Sg	17 36 35.0	−4.5		
			SMN		$M_L = 3.9$	0.7	0.13

	SME			0.6	0.11	

1987 12 22
O = 18 22 09.3 ± 0.10s
LAT = 29.85 N ± 1.38km
LONG = 95.32 E ± 1.05km
DEPTH = 24 km ± 0.08km
STATIONS USED = 45, STAND DEV = 2.43s
Ms = 4.3 / 7, M_L = 4.4 / 3,

LSA	3.6	269	−Pn	18 23 08.8	3.8		
			Pg	18 23 16.5	3.1		
			LN	Ms = 4.1		5.0	0.67
			LE			7.0	3.00
KMI	8.1	124	+P	18 24 07.5	−1.3		
			LN	Ms = 4.3		8.0	1.26
			LE			8.0	0.82
LZH	9.5	47	cP	18 24 28.5	0.6		
GTA	10.2	20	P	18 24 37.5	−0.7		
			LE	Ms = 4.1		14.0	1.18
GYA	10.6	106	P	18 24 42.8	0.0		
XAN	12.3	67	cP	18 25 05.0	−1.1		
WMQ	15.2	339	cP	18 25 45.5	1.0		
BTO	16.1	44	cP	18 25 53.0	−2.9		
TIY	16.2	57	cP	18 25 59.0	1.1		
			pP	18 26 05.0	1.0		
			LN	Ms = 4.4		10.0	0.58
			LE			9.0	0.44
			LZ	Ms = 4.0		23.0	0.66
WHN	16.5	83	P	18 25 59.0	−1.8		
			cSS	18 29 22.0	0.4		
			LN	Ms = 4.3		9.0	0.50
KSH	18.5	306	cP	18 26 27.5	0.8		
BJI	19.8	54	cP	18 26 40.0	−1.7		
			cS	18 30 14.0	−5.0		
			LN	Ms = 4.4		10.0	0.50
TIY	23.9	275	cP	18 52 48.0	1.3		
			LN	Ms = 4.3		12.0	0.42
			LZ	Ms = 4.2		23.0	0.66
HHC	24.0	283	cP	18 52 46.0	−1.2		
WHN	25.1	257	P	18 52 59.0	0.6		
			PMZ			1.0	0.060
BTO	25.2	282	cP	18 53 01.4	2.6		
XAN	27.8	269	cP	18 53 22.3	−0.6		
LZH	31.0	276	cP	18 53 52.0	0.5		
			PMZ			1.5	0.040
			LE	Ms = 5.0		8.0	0.89
GYA	33.0	257	+P	18 54 09.0	−0.4		
CD2	33.1	267	cP	18 54 08.0	−1.4		
GTA	33.1	283	−P	18 54 10.7	0.9		
			LE	Ms = 4.6		13.0	0.47
			LZ	Ms = 4.5		22.0	0.65
WMQ	40.8	294	P	18 55 16.5	1.7		

1987 12 22
O = 19 22 27.1 ± 0.11s
LAT = 12.22 N ± 0.89km
LONG = 144.28 E ± 0.81km
DEPTH = 54 km ± 0.68km
STATIONS USED = 33, STAND DEV = 0.79s

BJI	37.2	323	cP	19 29 34.0	−1.0		
GYA	38.1	297	P	19 29 43.8	1.3		
TIY	38.1	317	+P	19 29 43.6	0.6		
XAN	38.8	310	cP	19 29 48.2	−0.5		
BTO	41.3	319	cP	19 30 09.2	0.0		
CD2	41.7	303	+P	19 30 13.0	0.1		
GTA	47.7	313	+iP	19 31 00.8	0.3		
LSA	52.1	298	cP	19 31 34.4	−0.5		
WMQ	57.7	314	cP	19 32 13.8	−1.0		

1987 12 22
O = 18 47 35.6 ± 0.07s
LAT = 39.83 N ± 1.82km
LONG = 143.07 E ± 1.73km
DEPTH = 46 km ± 1.15km
STATIONS USED = 52, STAND DEV = 1.51s
Ms = 4.3 / 9,

MDJ	11.1	300	cP	18 50 17.5	3.0		
SSE	19.8	251	cP	18 52 05.3	0.1		
			cpP	18 52 12.2	−3.3		
			cPP	18 52 19.0	−5.0		
BJI	20.6	279	cP	18 52 11.0	−2.6		
NJ2	21.0	256	cP	18 52 17.5	−0.7		
			LN	Ms = 4.3		14.0	0.54

1987 12 22
O = 19 21 53.7 ± 0.14s
LAT = 43.93 N ± 1.34km
LONG = 94.36 E ± 0.82km
DEPTH = 10 km
STATIONS USED = 5, STAND DEV = 4.93s
M_L = 3.4 / 4,

WMQ	4.8	271	−Pg	19 23 20.3	1.3		
			SMN	M_L = 3.5		0.8	0.060
GTA	6.1	136	Pn	19 23 26.4	2.0		
			SMN	M_L = 3.4		1.0	0.031
			SME			1.0	0.024

1987 12 22
O = 21 54 55.2 ± 0.32s
LAT = 60.10 N ± 3.71km

LONG= 29.59 W ± 2.59km
DEPTH= 20 km ± 1.07km
STATIONS USED = 13, STAND DEV= 2.72s

GTA	72.5	39	P	22 06 22.3	−1.1		
MDJ	74.3	15	eP	22 06 32.0	−1.6		
BTO	74.3	31	eP	22 06 33.8	−0.2		

1987 12 22
O= 23 50 03.6 ± 0.20s
LAT= 41.66 N ± 2.43km
LONG= 89.67 E ± 1.28km
DEPTH= 9 km ± 0.05km
STATIONS USED = 6, STAND DEV= 4.78s
M_L= 3.3 / 5,

WMQ	2.6	327	Pn	23 50 49.4	3.2		
			Sg	23 51 26.9	2.0		
			SME	M_L= 3.0	0.8		0.070
GTA	8.0	103	eP	23 52 04.0	0.1		
			SMN	M_L= 3.3	1.0		0.0090
			SME		0.8		0.0060

1987 12 23
O= 00 06 31.1 ± 0.45s
LAT= 29.89 N ± 1.21km
LONG= 95.28 E ± 2.60km
DEPTH= 25 km ± 2.06km
STATIONS USED = 12, STAND DEV= 3.73s
M_L= 4.0 / 3,

GYA	10.6	106	P	00 09 03.8	−1.3		
TIY	16.2	57	−P	00 10 20.6	1.0		

1987 12 23
O= 09 01 28.9 ± 0.15s
LAT= 14.85 S ± 3.64km
LONG= 176.66 W ± 3.29km
DEPTH= 32 km ± 0.23km
STATIONS USED = 38, STAND DEV= 1.80s
Ms= 5.3 / 9,

MDJ	76.7	324	eP	09 13 18.5	−0.8		
			eS	09 23 04 0	0.9		
			LZ	Ms= 5.5		48.0	3.50
NJ2	77.3	308	eP	09 13 20.2	−2.7		
			LZ	Ms= 5.0		28.0	0.71
DL2	78.6	315	P	09 13 32.0	2.3		
CN2	78.7	321	−P	09 13 29.0	−1.3		
			pP	09 13 37.0	−2.6		
			eS	09 23 23.0	−1.4		
			LZ	Ms= 5.3		20.0	0.90
WHN	80.2	305	eP	09 13 39.0	0.5		
			LZ	Ms= 5.4		16.0	0.89
BJI	82.8	315	eP	09 13 52.0	−0.2		
			eS	09 24 12.0	4.6		
			LE	Ms= 5.0		24.0	0.52
			LZ	Ms= 5.1		24.0	0.65
TIY	84.5	311	eP	09 14 00.9	0.0		
			pP	09 14 10.0	−0.2		
			S	09 24 24.0	1.4		
			LN	Ms= 5.5		18.0	0.90
			LE			17.0	0.60
			LZ	Ms= 5.6		14.0	1.07
GYA	85.0	299	P	09 14 05.0	1.6		
XAN	85.8	307	eP	09 14 07.0	−0.1		
HHC	86.4	314	eP	09 14 11.0	1.0		
BTO	87.3	313	eP	09 14 15.4	0.5		
KMI	88.0	297	+P	09 14 20.0	2.1		
CD2	88.8	302	eP	09 14 23.2	1.2		
LZH	90.4	307	eP	09 14 27.5	−1.8		
			PMZ			2.5	0.14
GTA	94.4	309	P	09 14 48.0	0.3		
			LE	Ms= 5.3		28.0	0.99

1987 12 23
O= 10 10 19.6 ± 0.07s
LAT= 0.13 S ± 1.26km
LONG= 124.97 E ± 1.71km
DEPTH= 60 km ± 0.04km
STATIONS USED =104, STAND DEV= 1.08s
Ms= 5.0 / 39, m_B= 5.5 / 3

QZN	24.1	323	+P	10 15 32.0	0.7		
			pP	10 15 45.0	0.1		
			eS	10 19 43.0	1.2		
			SS	10 20 30.0	−6.0		
			LN	Ms= 4.9		15.0	1.80
QZH	25.7	347	eP	10 15 44.0	−1.9		
			S	10 20 08.0	1.3		
			LE	Ms= 4.9		28.0	2.89
GZH	25.7	335	eP	10 15 46.0	−0.1		
			S	10 20 09.0	2.0		
			LN	Ms= 5.0		15.0	2.18
			LZ	Ms= 5.1		20.0	3.56
SSE	31.3	354	eP	10 16 36.2	0.0		
			pP	10 16 46.0	−4.1		
			PcP	10 19 30.0	1.3		
			eS	10 21 38.0	1.2		
			LZ	Ms= 5.1		22.0	2.88
GYA	31.8	328	P	10 16 41.6	0.7		
			PcP	10 19 32.0	1.9		
			S	10 21 44.0	−0.2		
			ScP	10 23 13.2	6.6		
			LN	Ms= 5.2		13.0	1.10

			LE			13.0	1.60
WHN	32.1	343	P	10 16 44.0	0.1		
			PMZ			0.8	0.19
			PcP	10 19 32.0	1.0		
			cS	10 21 52.0	1.4		
			LN	Ms=4.9		16.0	1.25
			LZ	Ms=4.9		24.0	2.02
NJ2	32.5	350	+P	10 16 47.5	0.2		
			pP	10 16 57.6	−3.7		
			LE	Ms=4.9		8.0	0.58
KMI	33.1	321	+P	10 16 53.0	0.8		
			pP	10 17 03.0	−2.9		
			sP	10 17 08.0	−4.3		
			cS	10 22 06.0	0.6		
			LN	Ms=5.0		16.0	1.40
CD2	36.9	329	cP	10 17 24.3	−0.1		
TIA	36.9	349	cP	10 17 23.8	−0.8		
XAN	37.2	338	P	10 17 26.2	−0.9		
			S	10 23 09.0	1.3		
			LN	Ms=5.2		16.0	1.92
DL2	39.0	356	cP	10 17 42.0	0.1		
TIY	39.4	344	+iP	10 17 45.1	−0.5		
			PMZ			0.6	0.18
			sP	10 18 03.0	−3.3		
			S	10 23 43.0	1.7		
			ScS	10 27 50.0	5.0		
			LE	Ms=4.8		16.0	0.79
			LZ	Ms=5.1		14.0	1.31
BJI	40.8	350	cP	10 17 56.0	−0.9		
			cScP	10 23 44.0	4.4		
			cS	10 24 00.0	−2.8		
			ScS	10 27 58.0	4.9		
			LN	Ms=5.0		30.0	1.85
			LZ	Ms=5.0		30.0	1.85
LZH	41.0	334	+iP	10 18 00.0	0.7		
			PMZ			2.1	1.14
			pP	10 18 09.5	−3.9		
			PcP	10 20 00.0	2.3		
			S?	10 24 10.0	4.2		
			LE	Ms=5.1		20.0	1.70
SNY	41.8	358	+P	10 18 04.0	−1.2		
			cS	10 24 18.0	0.3		
			LN	Ms=5.1		27.0	2.32
			LZ	Ms=5.1		28.0	2.16
HHC	42.6	345	cP	10 18 11.4	−0.4		
BTO	42.8	343	cP	10 18 11.8	−1.5		
			cPP	10 19 52.5	2.5		
			cS	10 24 32.0	−0.3		
			LN	Ms=5.1		20.0	1.40
			LE			17.0	0.50
			LZ	Ms=4.9		17.0	0.90
CN2	43.7	0	+iP	10 18 20.0	−1.2		
			PcP	10 20 08.0	1.3		
			cS	10 24 45.0	−1.4		
			ScS	10 28 16.0	4.9		
			LZ	Ms=4.8		23.0	0.90
LSA	43.8	316	+iP	10 18 22.1	−0.1		
MDJ	44.7	5	+P	10 18 30.0	0.8		
			S	10 25 00.0	0.2		
			LZ	Ms=5.1		30.0	2.10
GTA	45.6	333	+iP	10 18 35.6	−0.6		
			PMZ	m_B=5.9		4.0	0.61
			PcP	10 20 15.0	1.9		
			ScP	10 24 04.2	5.2		
			S	10 25 14.0	2.0		
			ScS	10 28 27.7	5.0		
			LN	Ms=5.4		22.0	1.55
			LE			15.0	1.99
WMQ	54.9	328	P	10 19 46.6	−0.7		
			PMZ			1.0	0.25
			PcP	10 20 48.5	1.2		
			S	10 27 26.0	4.7		
			ScS	10 29 29.5	3.5		
			LN	Ms=5.3		24.0	2.09
KSH	59.6	317	−P	10 20 21.0	0.9		
			cS	10 28 28.0	4.3		
			LE	Ms=5.2		12.0	0.70

1987 12 23

O=17 38 33.1 ± 0.07s
LAT=44.15 N ± 0.90km
LONG= 89.23 E ± 0.61km
DEPTH= 10 km
STATIONS USED = 6, STAND DEV= 2.57s
M_L=3.0 / 5,

1987 12 23

O=20 33 48.1 ± 0.12s
LAT=17.74 N ± 1.82km
LONG=146.72 E ± 3.29km
DEPTH= 93 km ± 1.04km
STATIONS USED = 57, STAND DEV= 1.99s

SSE	26.7	305	cP	20 39 23.0	2.2		
			cSS	20 45 10.0	4.0		
			LZ			20.0	0.46
MDJ	30.4	335	cP	20 39 56.0	1.9		
CN2	31.6	330	cP	20 40 04.0	−0.3		
BJI	34.5	316	cP	20 40 28.0	−1.5		
QZN	35.0	278	cP	20 40 35.4	1.8		
XAN	37.4	303	cP	20 40 54.0	−0.4		

GYA	38.0	290	P	20 41 00.6	1.5		
CD2	41.0	297	eP	20 41 27.0	2.7		
LSA	51.8	294	eP	20 42 50.0	0.3		
WMQ	55.7	311	eP	20 43 16.5	−1.0		

1987 12 23

O = 22 07 38.1 ± 0.20s
LAT = 52.11 N ± 2.31km
LONG = 176.22 E ± 1.01km
DEPTH = 31 km ± 0.70km
STATIONS USED = 26, STAND DEV = 1.16s

BJI	42.2	278	eP	22 15 30.0	−0.3		
BTO	45.6	283	eP	22 15 58.0	0.2		
WHN	49.5	269	P	22 16 28.0	−0.5		
GTA	52.4	288	+iP	22 16 50.3	−0.1		
WMQ	56.3	300	P	22 17 19.0	0.0		
LSA	64.3	286	+P	22 18 18.3	4.6		

1987 12 24

O = 00 57 08.9 ± 3.52s
LAT = 36.27 N ± 18.29km
LONG = 75.71 E ± 24.62km
DEPTH = 15 km
STATIONS USED = 7, STAND DEV = 4.67s
M_L = 4.0 / 3,

KSH	3.2	4	−Pg	00 58 07.0	1.5		
			Sg	00 58 50.0	1.1		
			SMN	M_L = 4.0	0.7	0.58	
			SME		0.5	0.55	
WMQ	11.9	47	P	00 59 56.5	−4.7		
			S	01 02 08.2	−5.9		
			SME		0.8	0.010	

1987 12 24

O = 07 34 22.9 ± 0.12s
LAT = 35.41 N ± 0.94km
LONG = 135.86 E ± 1.54km
DEPTH = 337 km ± 0.86km
STATIONS USED = 38, STAND DEV = 1.51s

MDJ	10.4	334	eP	07 36 47.7	1.2		
SNY	11.5	307	+P	07 37 02.6	2.0		
CN2	11.6	319	+iP	07 37 02.0	0.7		
			PMZ		2.0	0.30	
			eS	07 39 10.0	3.3		
BJI	16.2	292	eP	07 37 53.0	−1.1		
WHN	18.7	261	P	07 38 21.0	2.0		
TIY	19.0	284	−iP	07 38 21.4	−0.4		
			eS	07 41 33.5	−1.6		
GTA	28.8	289	−iP	07 39 52.7	−0.5		
WMQ	37.6	298	eP	07 41 07.5	−0.5		

1987 12 24

O = 10 16 10.6 ± 0.06s
LAT = 44.57 N ± 1.02km
LONG = 141.31 E ± 0.66km
DEPTH = 259 km ± 0.55km
STATIONS USED = 44, STAND DEV = 1.00s
m_B = 4.6 / 2

MDJ	8.4	274	+P	10 18 10.0	0.5		
CN2	11.4	272	+P	10 18 47.0	−1.0		
BJI	19.1	265	P	10 20 15.5	−0.7		
TIA	20.2	254	P	10 20 25.1	−1.8		
SSE	20.7	236	eP	10 20 32.0	−0.6		
			eS	10 24 04.0	−0.3		
NJ2	21.5	242	+P	10 20 40.5	0.4		
TIY	22.7	263	eP	10 20 52.6	0.8		
			SMN	m_B = 4.5	9.0	0.29	
			SME		8.0	0.39	
BTO	23.3	271	eP	10 20 57.6	0.3		
WHN	25.4	246	eP	10 21 17.5	0.9		
GTA	31.0	275	eP	10 22 06.5	−0.4		
GYA	33.2	249	P	10 22 25.4	0.0		
KMI	36.7	251	−P	10 22 56.0	0.8		

1987 12 24

O = 10 44 23.2 ± 0.05s
LAT = 40.07 N ± 0.58km
LONG = 113.00 E ± 0.40km
DEPTH = 20 km ± 0.10km
STATIONS USED = 18, STAND DEV = 1.31s
M_L = 3.5 / 12,

HHC	1.3	306	Pg	10 44 47.0	−0.3		
			Sg	10 45 10.6	4.9		
			SMN	M_L = 3.5	0.8	0.69	
			SME		0.8	0.75	
BTO	2.3	284	Pn	10 45 02.6	1.4		
			Pg	10 45 04.4	−0.2		
			Sg	10 45 36.2	−0.5		
			S11	10 45 42.2	4.0		
TIY	2.4	191	+Pn	10 45 03.0	1.1		
			iPg	10 45 04.6	−1.0		
			Sg	10 45 35.4	−3.0		
			SMN	M_L = 3.5	0.6	0.19	
			SME		0.8	0.37	
BJI	2.4	90	ePn	10 45 02.0	−0.4		
			ePg	10 45 04.5	−1.9		
			eSn	10 45 34.0	0.5		
			eSg	10 45 37.5	−2.3		
			SMN	M_L = 3.7	1.0	0.57	
			SME		1.0	0.38	

TIA	5.0	139	cPn	10 45 38.9	0.7		
			eSg	10 46 54.5	−6.7		
			SMN	M_L = 3.1	0.6	0.0090	
			SME		0.7	0.036	
GTA	10.2	271	P	10 46 50.0	−1.7		
			SMN		1.0	0.011	
			SME		0.9	0.0070	

1987 12 24
O = 17 43 32.5 ± 0.12s
LAT = 6.53 S ± 1.01km
LONG = 149.36 E ± 1.94km
DEPTH = 41 km ± 0.35km
STATIONS USED = 37, STAND DEV = 1.48s
Ms = 4.9 / 5,

SSE	46.1	326	cP	17 51 55.0	−0.1		
			cS	17 58 34.0	−3.2		
			LE	Ms = 4.7		14.0	0.36
			LZ	Ms = 5.1		20.0	1.39
NJ2	48.1	325	+P	17 52 13.6	2.6		
TIA	52.2	327	cP	17 52 41.7	−0.1		
			LN	Ms = 4.9		23.0	0.63
			LE			23.0	0.63
			LZ	Ms = 5.0		23.0	1.00
CN2	54.6	339	cP	17 53 01.0	1.5		
			cS	18 00 39.0	4.5		
			LZ	Ms = 4.9		17.0	0.50
BJI	55.5	329	cP	17 53 05.0	−1.5		
XAN	55.6	319	cP	17 53 05.5	−1.5		
CD2	57.3	313	cP	17 53 20.2	0.7		
GTA	64.7	319	P	17 54 10.0	0.8		
WMQ	74.7	319	cP	17 55 07.5	−3.2		

1987 12 24
O = 18 28 29.7 ± 0.14s
LAT = 53.04 N ± 2.19km
LONG = 107.76 E ± 1.54km
DEPTH = 34 km ± 0.39km
STATIONS USED = 57, STAND DEV = 2.39s
Ms = 4.7 / 28,

HHC	12.5	167	cP	18 31 24.6	−3.3		
			LN	Ms = 5.0		8.0	3.65
			LE			8.0	1.36
BJI	14.2	153	cP	18 31 48.5	−2.4		
			LN	Ms = 4.7		8.0	1.40
GTA	14.7	205	iP	18 31 58.3	1.1		
			LN	Ms = 4.6		10.0	1.06
			LE			10.0	1.24
CN2	14.9	121	cP	18 31 59.0	−1.0		
			cS	18 34 40.0	−4.9		
			LZ	Ms = 4.9		8.0	2.50
SNY	15.5	130	cP	18 32 09.1	2.0		
			LN	Ms = 5.3		8.0	3.53
			LE			8.0	3.26
			LZ	Ms = 5.3		8.0	4.99
TIY	15.7	166	cP	18 32 09.6	−0.3		
			LN	Ms = 4.7		8.0	0.78
			LE			7.0	0.99
			LZ	Ms = 4.7		11.0	1.73
WMQ	16.1	243	P	18 32 18.0	1.9		
			cS	18 35 16.5	2.5		
MDJ	16.6	112	cP	18 32 26.5	4.7		
			LZ	Ms = 5.0		8.0	2.50
LZH	17.2	191	cP	18 32 31.0	2.0		
			PMZ			1.5	0.070
			LN	Ms = 4.7		8.0	1.23
TIA	18.1	155	cP	18 32 43.8	3.7		
			LN	Ms = 4.7		8.0	0.50
			LE			8.0	0.82
			LZ	Ms = 4.7		8.0	1.10
XAN	19.0	177	cP	18 32 49.0	−2.7		
			LN	Ms = 4.8		8.0	1.11
CD2	22.3	189	cP	18 33 25.4	−0.6		
NJ2	22.5	155	cP	18 33 31.4	3.9		
			LN	Ms = 4.6		9.0	0.58
SSE	24.0	151	cP	18 33 44.0	1.4		
			cS	18 37 56.0	1.4		
			csS	18 38 11.0	1.6		
			LN	Ms = 4.4		12.0	0.52
			LZ	Ms = 4.5		16.0	0.89
KMI	28.1	190	cP	18 34 19.5	−1.9		

1987 12 24
O = 19 29 33.1 ± 0.16s
LAT = 53.09 N ± 2.44km
LONG = 107.71 E ± 1.78km
DEPTH = 34 km ± 0.40km
STATIONS USED = 48, STAND DEV = 2.79s
Ms = 4.8 / 27,

BJI	14.3	153	cP	19 32 52.5	−2.5		
			LN	Ms = 4.7		8.0	1.59
GTA	14.7	205	+P	19 32 58.5	−2.4		
			LN	Ms = 4.7		9.0	1.20
			LE			9.0	1.29
			LZ	Ms = 4.4		13.0	1.25
CN2	15.0	121	cP	19 33 03.0	−1.0		
			cS	19 35 44.0	−5.3		
			LZ	Ms = 5.0		8.0	2.80
SNY	15.5	130	cP	19 33 10.0	−1.2		
			LN	Ms = 5.3		8.0	3.88

			LE			8.0	3.69
			LZ	Ms=5.3		8.0	5.56
TIY	15.7	166	eP	19 33 13.1	−0.8		
			LN	Ms=4.7		8.0	0.50
			LE			7.0	1.21
			LZ	Ms=4.7		11.0	1.73
WMQ	16.1	243	P	19 33 21.7	2.4		
			eS	19 36 19.0	1.9		
			LN	Ms=4.7		12.0	1.85
MDJ	16.7	112	eP	19 33 30.5	4.8		
			LZ	Ms=5.0		8.0	2.50
DL2	17.1	140	P	19 33 37.0	5.5		
			LN	Ms=4.8		8.0	1.35
TIA	18.1	155	eP	19 33 47.5	3.4		
			LN	Ms=4.8		8.0	0.67
			LE			8.0	0.95
			LZ	Ms=4.7		8.0	1.10
XAN	19.1	177	eP	19 33 52.5	−3.1		
			LN	Ms=4.8		8.0	1.27
CD2	22.3	189	eP	19 34 29.0	−0.8		
NJ2	22.5	155	eP	19 34 34.2	2.9		
			LN	Ms=4.6		9.0	0.66
WHN	23.0	165	eP	19 34 42.0	5.4		
			LN	Ms=4.5		10.0	0.60
KMI	28.2	190	eP	19 35 23.0	−2.1		
			eS	19 40 06.0	−1.1		
			LZ	Ms=4.8		10.0	0.80

1987 12 25

O=00 33 53.7 ± 0.11s
LAT=16.71 S ± 2.05km
LONG=172.56 W ± 2.16km
DEPTH= 26 km ± 0.13km
STATIONS USED = 47, STAND DEV= 1.01s
Ms=5.0/ 3, m_B=5.8/ 2

SSE	79.4	307	cP	00 45 59.0	−1.0		
			pP	00 46 06.0	−2.1		
			cSKS	00 56 08.0	−0.3		
			LZ	Ms=5.0		20.0	0.46
MDJ	80.5	322	cP	00 46 06.0	−0.2		
NJ2	81.6	307	cP	00 46 12.0	0.3		
CN2	82.6	320	+P	00 46 16.0	−0.9		
			PMZ	m_B=5.7		6.0	0.50
			pP	00 46 23.0	−2.1		
			cS	00 56 34.0	2.3		
			LZ	Ms=4.9		22.0	0.40
SNY	82.8	317	+P	00 46 17.0	−0.8		
			S	00 56 38.0	6.2		
			SMN			14.0	1.07
WHN	84.5	304	cP	00 46 27.0	0.5		
			S	00 56 50.0	1.1		
BJI	86.9	313	P	00 46 39.5	0.9		
			csP	00 46 48.0	−2.3		
			cS	00 57 17.0	2.5		
			SMN	m_B=5.8		10.0	0.55
			SME			12.0	0.90
TIY	88.7	310	cP	00 46 47.4	0.2		
			SKS	00 57 18.0	6.7		
			S	00 57 34.5	5.3		
			sS	00 57 46.0	1.4		
			LN	Ms=5.3		12.0	0.28
			LE			24.0	0.67
GYA	89.4	298	P	00 46 51.6	1.2		
XAN	90.0	306	−P	00 46 54.5	1.0		
			SKS	00 57 21.0	1.5		
			S	00 57 44.0	2.4		
HHC	90.5	313	P	00 46 56.1	0.4		
BTO	91.5	312	cP	00 46 58.0	−2.4		
			cS	00 57 54.0	−2.5		
KMI	92.3	295	+P	00 47 05.5	1.3		
CD2	93.2	301	eP	00 47 08.4	0.4		
GTA	98.6	308	P	00 47 32.5	−0.3		

1987 12 25

O=06 20 60.0 ± 0.12s
LAT=31.14 N ± 1.34km
LONG=100.74 E ± 1.35km
DEPTH= 15 km ± 1.35km
STATIONS USED = 7, STAND DEV= 3.73s
M_L=3.4/ 3,

CD2	2.6	94	cPn	06 21 42.2	0.2		
			Pg	06 21 44.7	−1.3		
			Sg	06 22 17.5	−4.2		
			SMN	M_L=3.6		0.8	0.25
			SME			1.0	0.31
XAN	7.5	65	cPg	06 23 14.0	1.7		

1987 12 25

O=10 32 08.2 ± 0.06s
LAT=37.56 N ± 0.63km
LONG=102.78 E ± 0.57km
DEPTH= 10 km ± 0.28km
STATIONS USED = 11, STAND DEV= 1.90s
M_L=3.6/ 10,

LZH	1.7	149	Pn	10 32 38.0	−0.5		
			Pg	10 32 39.5	1.3		
			SMN	M_L=3.6		0.5	0.61
			SME			0.5	0.56
GTA	3.0	309	Pn	10 32 57.0	1.1		
			Pg	10 32 59.6	−1.1		

			Sg	10 33 37.2	−4.1		
			SMN	M_L=3.8		1.0	0.43
			SME			1.0	0.32
XAN	6.1	123	ePl1	10 33 58.0	1.4		

1987 12 25
O=12 14 52.8 ± 0.21s
LAT=45.01 N ± 2.62km
LONG=100.10 E ± 1.64km
DEPTH= 11 km ± 0.10km
STATIONS USED = 16, STAND DEV= 2.83s
M_L=4.8 / 5,

GTA	5.6	182	Pn	12 16 16.5	−0.1		
			Pg	12 16 34.2	2.6		
			Sn	12 17 21.5	−1.5		
			Sg	12 17 43.6	−4.6		
WMQ	9.0	267	P	12 17 00.7	−4.7		
			SME	M_L=4.8		1.0	0.17
LZH	9.4	161	eP	12 17 11.5	0.5		
TIY	11.8	124	eP	12 17 43.5	−0.7		

1987 12 25
O=18 39 35.0 ± 0.06s
LAT= 6.24 S ± 0.74km
LONG=130.07 E ± 1.10km
DEPTH=153 km ± 0.52km
STATIONS USED = 30, STAND DEV= 1.03s

XAN	44.8	335	P	18 47 35.0	−0.5		
BJI	47.8	346	eP	18 47 59.0	−0.1		
CN2	50.0	356	eP	18 48 15.4	−0.5		
LSA	51.7	316	+P	18 48 28.8	−0.6		
GTA	53.3	331	+P	18 48 41.0	−0.2		
KSH	67.5	317	eP	18 50 18.5	1.3		

1987 12 25
O=22 56 48.8 ± 0.09s
LAT=19.81 S ± 1.79km
LONG=175.67 W ± 1.74km
DEPTH=196 km ± 0.31km
STATIONS USED = 96, STAND DEV= 0.94s
m_B=5.9 / 21

QZH	77.9	302	−iP	23 08 27.5	0.4		
			PMZ	m_B=5.6		7.0	0.98
			sP	23 09 37.5	3.1		
			eS	23 18 03.5	0.7		
SSE	78.9	309	−P	23 08 32.0	−0.8		
			PMZ	m_B=5.6		8.0	1.06
			sP	23 09 36.0	−4.3		
			eS	23 18 12.0	−2.2		
			SKS	23 18 22.0	−1.6		
			ScS	23 18 32.0	−0.4		
			LZ			20.0	0.46
NJ2	81.1	309	−iP	23 08 45.0	0.4		
			PMZ			3.0	0.90
			sP	23 09 55.0	2.9		
			S	23 18 40.0	4.6		
MDJ	81.2	324	−iP	23 08 45.1	0.1		
			PMZ	m_B=6.2		4.0	2.17
			sP	23 09 52.0	−0.6		
			S	23 18 40.0	3.7		
			SMN	m_B=6.2		6.0	1.80
GZH	81.3	298	−iP	23 08 46.0	0.6		
			PMZ	m_B=5.9		5.0	1.22
			sP	23 09 55.0	2.0		
			S	23 18 40.0	2.9		
QZN	82.6	293	eP	23 08 53.0	1.0		
DL2	82.7	316	P	23 08 52.5	−0.3		
SNY	83.1	319	−iP	23 08 54.0	−0.7		
			sP	23 10 02.0	−0.3		
			S	23 18 56.0	0.8		
			SMN	m_B=5.8		12.0	1.32
			SME			16.0	0.93
CN2	83.1	321	−iP	23 08 54.0	−0.7		
			PMZ	m_B=6.2		5.0	2.20
			sP	23 10 02.0	−0.3		
			SKS	23 18 55.0	2.2		
			S	23 19 00.0	4.8		
			SMN	m_B=5.9		7.0	1.00
			sS	23 20 21.0	2.0		
WHN	83.8	305	−iP	23 08 57.5	−0.7		
			PMZ	m_B=6.2		5.0	2.00
			pP	23 09 48.0	2.7		
			sP	23 10 10.0	4.1		
			eS	23 19 00.0	−3.9		
			SMN	m_B=5.6		8.0	0.52
			sS	23 20 28.0	1.8		
TIA	84.4	311	P	23 09 01.2	−0.2		
			sP	23 10 10.0	0.9		
			S	23 19 06.0	−2.4		
			SME	m_B=6.2		6.0	1.76
			sS	23 20 36.0	3.6		
BJI	87.0	314	−P	23 09 13.5	−0.1		
			PMZ	m_B=6.2		4.0	1.60
			esP	23 10 20.0	−1.6		
			eSKS	23 19 22.0	3.6		
			eS	23 19 38.0	3.9		
			SMN			20.0	0.60
GYA	88.2	299	−P	23 09 20.0	0.2		
			pP	23 10 11.0	3.9		
			sP	23 10 30.0	2.4		

			SME	$m_B = 6.0$		6.0	0.90
TIY	88.5	311	cP	23 09 21.0	0.1		
			PMZ	$m_B = 5.8$		4.5	0.68
			pP	23 10 10.0	1.7		
			sP	23 10 29.5	0.7		
			PP	23 12 50.0	−3.1		
			SKS	23 19 32.5	4.6		
			S	23 19 53.5	7.0		
XAN	89.5	307	−P	23 09 25.7	0.1		
			SKS	23 19 37.0	3.0		
HHC	90.4	314	+iP	23 09 31.5	1.2		
KMI	91.0	296	−P	23 09 33.5	0.6		
			pP	23 10 22.0	1.7		
			SKS	23 19 46.0	2.9		
BTO	91.4	313	−P	23 09 35.0	0.3		
			pP	23 10 26.0	3.8		
			SKS	23 19 48.0	2.6		
			S	23 20 15.0	2.1		
CD2	92.3	302	cP	23 09 39.0	0.4		
LZH	94.1	307	cP	23 09 47.5	0.4		
			PMZ			2.0	0.45
GTA	98.2	309	−iP	23 10 06.0	0.1		
			sP	23 11 14.0	0.0		
			SKS	23 20 24.0	1.1		
			SME	$m_B = 5.5$		8.0	0.28
LSA	102.2	297	cP	23 10 23.6	−0.5		

1987 12 26
O = 06 44 58.7 ± 0.12s
LAT = 41.28 N ± 2.07km
LONG = 72.02 E ± 1.63km
DEPTH = 34 km ± 0.38km
STATIONS USED = 27, STAND DEV = 2.58s
Ms = 4.1 / 2, M_L = 4.9 / 3,

KSH	3.5	120	eP	06 45 56.0	3.1		
			S	06 46 38.0	4.3		
			SMN	$M_L = 4.9$		1.5	3.50
WMQ	11.8	72	eP	06 47 48.3	−0.3		
			LE			1.0	0.030
GTA	21.2	86	−iP	06 49 45.6	1.1		
			LZ	Ms = 4.2		24.0	0.68

1987 12 26
O = 07 45 14.3 ± 0.05s
LAT = 36.79 N ± 1.12km
LONG = 27.67 E ± 0.76km
DEPTH = 31 km ± 0.18km
STATIONS USED = 28, STAND DEV = 0.96s

WMQ	45.4	62	P	07 53 33.5	0.8	
GTA	55.4	64	P	07 54 47.6	−1.0	
CD2	61.9	71	eP	07 55 33.8	−0.1	
HHC	63.0	58	eP	07 55 41.5	0.0	
XAN	64.3	66	P	07 55 49.0	−0.6	
TIY	65.1	61	eP	07 55 53.8	−0.9	
GYA	66.3	74	P	07 56 02.6	−0.1	

1987 12 26
O = 10 54 43.2 ± 0.08s
LAT = 13.93 S ± 1.78km
LONG = 166.99 E ± 3.31km
DEPTH = 226 km ± 1.21km
STATIONS USED = 37, STAND DEV = 1.43s

WHN	67.2	312	−P	11 05 15.5	0.0
MDJ	67.5	332	eP	11 05 16.5	−0.6
CN2	68.8	329	+P	11 05 25.0	−0.5
GYA	71.0	305	+P	11 05 39.4	0.3
BJI	71.5	321	P	11 05 42.0	0.4
			cPcP	11 06 00.0	0.8
TIY	72.5	317	eP	11 05 47.9	0.2
XAN	73.0	313	P	11 05 50.2	−0.2
KMI	73.7	302	eP	11 05 56.5	1.8
GTA	81.9	314	+P	11 06 39.9	0.2

1987 12 26
O = 11 48 24.7 ± 0.07s
LAT = 21.54 S ± 1.48km
LONG = 81.59 E ± 1.68km
DEPTH = 10 km ± 0.06km
STATIONS USED = 42, STAND DEV = 1.08s

LSA	51.8	11	P	11 57 34.6	−1.1
GYA	53.5	28	P	11 57 49.4	0.8
CD2	56.3	23	P	11 58 08.1	−0.7
WHN	60.6	32	eP	11 58 39.5	0.9
LZH	61.1	21	eP	11 58 42.0	0.1
GTA	63.0	16	+P	11 58 54.0	−0.7
WMQ	65.3	5	P	11 59 10.2	0.6
BTO	67.2	23	eP	11 59 22.5	0.2
HHC	68.0	24	eP	11 59 28.0	0.7
BJI	69.2	28	eP	11 59 35.0	0.4

1987 12 26
O = 12 03 06.6 ± 0.06s
LAT = 35.24 N ± 0.47km
LONG = 111.48 E ± 0.54km
DEPTH = 19 km ± 0.29km
STATIONS USED = 7, STAND DEV = 2.44s
M_L = 3.0 / 7,

XAN	2.4	241	Pn	12 03 45.6	−0.2
			Pg	12 03 53.0	3.5
			Sn	12 04 16.0	−0.7

			Sg	12 04 25.3	2.5		
			SMN	M_L = 2.9		0.8	0.060
			SME			0.8	0.070
TIY	2.6	17	−Pg	12 03 51.5	−0.9		
			Sg	12 04 23.7	−4.0		
			SMN	M_L = 2.9		0.6	0.040
			SME			0.7	0.080

1987 12 26
O = 17 27 24.8 ± 0.11s
LAT = 15.96 S ± 1.31km
LONG = 167.51 E ± 2.52km
DEPTH = 24 km ± 0.35km
STATIONS USED = 35, STAND DEV = 1.38s

WHN	68.9	312	P	17 38 29.9	−0.7
MDJ	69.5	332	cP	17 38 34.0	0.1
CN2	70.8	329	cP	17 38 41.0	−1.1
GYA	72.6	305	P	17 38 53.0	0.1
BJI	73.4	321	P	17 38 57.5	0.3
TIY	74.3	318	−P	17 39 03.2	0.3
XAN	74.7	313	P	17 39 05.1	0.1
KMI	75.1	302	+P	17 39 09.5	1.6
CD2	76.9	308	cP	17 39 18.4	0.5
BTO	77.5	319	cP	17 39 21.4	0.4
LZH	79.3	312	cP	17 39 32.0	0.9
GTA	83.7	314	cP	17 39 53.8	−0.1
WMQ	93.7	314	cP	17 40 39.0	−2.9

1987 12 26
O = 23 03 25.8 ± 0.09s
LAT = 9.12 S ± 1.22km
LONG = 157.95 E ± 1.12km
DEPTH = 33 km ± 0.26km
STATIONS USED = 23, STAND DEV = 1.15s

WHN	57.5	315	P	23 13 15.0	0.3
DL2	58.5	327	P	23 13 20.4	−1.4
CN2	60.4	333	cP	23 13 34.0	−0.7
GYA	61.1	307	P	23 13 40.4	0.9
XAN	63.3	315	P	23 13 53.5	−0.6
CD2	65.4	310	cP	23 14 07.8	−0.3

1987 12 26
O = 23 33 27.9 ± 0.11s
LAT = 38.41 N ± 1.72km
LONG = 91.44 E ± 1.18km
DEPTH = 10 km ± 0.09km
STATIONS USED = 36, STAND DEV = 2.83s
Ms = 3.7 / 1, M_L = 4.2 / 8,

WMQ	6.1	334	+Pn	23 35 02.2	3.8		
			Sg	23 36 40.3	1.8		
			SMN	M_L = 4.4		1.2	0.24
GTA	6.6	79	−Pn	23 35 08.4	2.8		
			Sg	23 37 01.6	6.7		
			LE	Ms = 3.7		7.0	0.47
LZH	10.2	99	P	23 35 55.0	−2.4		
KSH	12.1	280	cP	23 36 19.5	−4.1		
XAN	14.8	102	cP	23 37 04.3	5.2		
TIY	16.6	86	cP	23 37 25.0	2.9		
GYA	17.5	128	+P	23 37 37.0	2.9		
BJI	19.2	77	P	23 37 55.5	0.5		
WHN	20.4	106	P	23 38 08.0	−0.3		
CN2	26.1	67	cP	23 39 03.0	−0.7		

1987 12 27
O = 01 08 11.6 ± 0.11s
LAT = 49.54 S ± 2.38km
LONG = 126.00 E ± 2.03km
DEPTH = 11 km ± 0.49km
STATIONS USED = 19, STAND DEV = 2.10s
Ms = 5.1 / 2,

KMI	77.2	338	cP	01 20 09.0	0.8		
WHN	80.4	350	cP	01 20 26.0	0.4		
LZH	87.5	342	P	01 21 07.0	5.2		
TIY	87.7	349	P	01 21 02.3	−0.4		
			LE	Ms = 5.1		12.0	0.27
			LZ	Ms = 5.2		26.0	0.71
GTA	91.5	340	cP	01 21 24.2	3.4		
CN2	93.0	360	cP	01 21 25.0	−2.2		

1987 12 27
O = 03 05 03.9 ± 0.05s
LAT = 49.92 N ± 0.97km
LONG = 78.70 E ± 0.93km
DEPTH = 1 km ± 0.15km
STATIONS USED = 119, STAND DEV = 1.12s
Ms = 5.0 / 31,

WMQ	8.7	131	+iP	03 07 13.0	−0.7		
			LN	Ms = 5.6		4.0	14.3
KSH	10.6	191	P	03 07 42.0	1.1		
			cS	03 09 44.0	1.9		
			LN	Ms = 5.6		5.0	11.7
GTA	18.3	117	−iP	03 09 19.8	−1.0		
			PP	03 09 35.5	0.2		
			S	03 12 48.0	6.1		
			SS	03 13 10.0	4.8		
			LN	Ms = 4.7		8.0	1.09
			LZ	Ms = 5.1		6.0	1.95
LSA	22.3	150	+iP	03 10 05.0	0.0		
			S	03 14 01.0	−4.0		
			LE	Ms = 5.0		9.0	1.77

LZH	22.9	118	+iP	03 10 11.5	1.0		
			PMZ			2.0	1.54
			eS	03 14 21.0	4.3		
			LN	Ms=5.0		8.0	1.09
			LE			10.0	0.93
BTO	23.8	101	+P	03 10 21.0	1.7		
			LN	Ms=5.1		10.0	1.10
			LE			8.0	1.30
			LZ	Ms=5.0		10.0	1.60
HHC	24.6	99	+P	03 10 28.0	0.4		
			eS	03 14 45.0	−2.3		
			LN	Ms=5.4		7.0	1.74
			LE			10.0	2.72
			LZ	Ms=5.3		10.0	3.22
CD2	26.7	126	+iP	03 10 47.8	0.8		
			PMZ			1.0	0.56
TIY	27.0	104	+P	03 10 50.0	0.4		
			S	03 15 27.0	1.5		
			LN	Ms=5.0		11.0	1.06
			LE			11.0	0.98
			LZ	Ms=5.0		13.0	1.68
XAN	27.3	114	+iP	03 10 52.0	0.0		
			PcP	03 14 11.3	−0.5		
			LN	Ms=4.7		10.0	0.64
BJI	28.0	96	+P	03 10 59.5	0.6		
			S	03 15 40.0	−2.2		
			LN	Ms=5.0		13.0	1.18
			LE			12.0	1.20
			LZ	Ms=5.1		12.0	2.11
TIA	30.9	102	+P	03 11 25.0	0.6		
			PcP	03 14 19.7	−1.2		
			LE	Ms=4.8		9.0	0.55
KMI	31.0	134	+iP	03 11 25.0	−0.7		
			pP	03 11 30.5	1.0		
			LE	Ms=4.7		12.0	0.70
GYA	31.8	127	+P	03 11 31.0	−1.7		
			PcP	03 14 23.6	0.2		
			S	03 16 44.0	2.0		
SNY	31.9	87	+iP	03 11 32.5	−0.7		
			PcP	03 14 23.3	−0.3		
			LN	Ms=5.1		6.0	0.45
			LE			7.0	0.67
			LZ	Ms=5.2		7.0	1.10
CN2	32.1	83	+P	03 11 34.8	−0.6		
			PcP	03 14 22.5	−1.7		
			cS	03 16 44.0	−3.9		
			LZ	Ms=5.1		10.0	1.30
DL2	32.2	93	P	03 11 35.5	−0.3		
WHN	33.0	112	+iP	03 11 42.5	−0.3		
			PMZ			1.0	0.46
			PcP	03 14 26.5	0.0		
			LN	Ms=4.8		10.0	0.54
MDJ	34.4	79	+iP	03 11 54.7	−0.4		
			PcP	03 14 30.4	−0.1		
SSE	36.8	105	−P	03 12 15.6	0.3		
			PMZ			2.0	0.45
			PcP	03 14 37.0	−0.5		
			LN	Ms=4.5		12.0	0.29
GZH	38.1	122	+iP	03 12 26.6	0.3		
QZN	39.6	130	−P	03 12 39.4	0.4		
QZH	39.6	114	eP	03 12 39.2	−0.1		

1987 12 27

O=07 16 09.3 ± 0.11s
LAT=24.42 N ± 1.43km
LONG=122.42 E ± 1.43km
DEPTH= 28 km ± 0.59km
STATIONS USED = 51, STAND DEV= 1.44s
Ms=4.1/ 5, M_L=4.3/ 14,

QZH	3.5	279	−Pn	07 17 02.3	−0.4		
			SMN	M_L=4.2		0.9	0.81
			SME			0.8	0.45
SSE	6.7	351	P	07 17 49.0	−0.1		
			pP	07 17 55.0	−0.5		
			SMN	M_L=4.3		1.0	0.054
			SME			1.0	0.23
			LZ	Ms=4.1		6.0	0.94
NJ2	8.2	338	+P	07 18 08.2	−1.7		
			S	07 19 36.8	−5.9		
			LE	Ms=4.3		4.0	0.84
GZH	8.4	263	eP	07 18 13.0	0.5		
			eS	07 19 43.4	−4.2		
			SMN	M_L=4.7		1.0	0.25
			SME			1.0	0.14
WHN	9.4	312	eP	07 18 25.0	−1.3		
			eS	07 20 11.6	−0.6		
			LN	Ms=4.3		6.0	0.69
			LE			6.0	0.44
QZN	12.9	248	eP	07 19 14.0	0.8		
GYA	14.4	281	eP	07 19 33.0	−0.4		
			S	07 22 07.0	−5.4		
XAN	15.2	312	−P	07 19 45.2	1.4		
TIY	15.8	330	eP	07 19 53.2	1.9		
			LE	Ms=3.8		11.0	0.24
BJI	16.4	343	P	07 20 02.0	2.1		
CD2	17.7	296	P	07 20 18.2	1.9		
KMI	17.9	276	eP	07 20 21.5	3.2		
CN2	19.5	7	eP	07 20 37.0	−0.3		
LZH	19.8	310	eP	07 20 42.0	1.4		
GTA	24.2	313	P	07 21 26.0	0.7		

1987 12 27

O = 19 18 10.9 ± 0.09s
LAT = 31.80 N ± 0.90km
LONG = 103.78 E ± 1.07km
DEPTH = 11 km ± 0.05km
STATIONS USED = 35, STAND DEV = 2.47s
Ms = 3.9 / 5, M_L = 4.0 / 9,

CD2	0.9	181	Pg	19 18 28.9	2.1		
			Sg	19 18 42.0	3.0		
			SMN	M_L = 3.7		0.4	1.62
			SME			0.4	2.08
LZH	4.3	1	ePg	19 19 31.0	4.4		
			Sg	19 20 27.0	2.3		
			SMN	M_L = 3.8		1.5	0.18
			SME			1.0	0.14
XAN	4.9	61	−iPn	19 19 26.0	1.5		
			Pg	19 19 40.0	3.2		
			Sn	19 20 23.8	0.9		
			Sg	19 20 42.8	−0.5		
			SMN	M_L = 4.1		0.8	0.23
			SME			1.0	0.25
GYA	5.9	154	Pn	19 19 44.0	5.3		
			Pg	19 19 57.0	2.1		
			Sn	19 20 46.6	−1.8		
			Sg	19 21 21.4	5.9		
			SMN	M_L = 4.0		1.2	0.090
			SME			1.2	0.12
KMI	6.7	188	ePn	19 19 52.0	1.9		
			SMN			2.0	0.080
			SME			2.0	0.060
GTA	8.2	338	eP	19 20 15.5	1.8		
WHN	9.1	95	eP	19 20 25.0	−1.0		
			eS	19 22 08.0	−1.9		
			LN	Ms = 3.9		6.0	0.38
TIY	9.2	48	eP	19 20 30.0	2.6		
			LN	Ms = 3.7		10.0	0.29
			LE			10.0	0.29
			LZ	Ms = 3.9		12.0	0.72
BTO	10.1	28	eP	19 20 37.2	−2.4		
			LN	Ms = 3.9		10.0	0.50
			LE			10.0	0.30
			LZ	Ms = 3.9		10.0	0.50

1987 12 28

O = 08 16 19.8 ± 0.45s
LAT = 27.98 S ± 2.63km
LONG = 70.60 W ± 0.59km
DEPTH = 37 km ± 3.63km
STATIONS USED = 112, STAND DEV = 1.53s

Ms = 5.8 / 25, m_B = 6.0 / 9

KSH	150.1	59	PKP	08 36 03.5	0.9		
			pPKP	08 36 14.0	0.7		
			PP	08 39 42.0	−2.7		
			SKS	08 43 04.0	0.8		
WMQ	156.5	42	+iPKP	08 36 11.8	0.3		
			PKP_2	08 36 41.8			
			PP	08 40 22.0	1.5		
			LE	Ms = 6.0		25.0	2.20
			LZ	Ms = 5.9		34.0	2.16
MDJ	156.9	321	+PKP	08 36 11.0	−1.0		
			pPKP	08 36 22.0	−0.8		
			sPKP	08 36 26.0			
			PKP_2	08 36 46.0			
			$pPKP_2$	08 36 56.5			
			$sPKP_2$	08 37 01.0			
			PP	08 40 27.0	4.7		
			LZ	Ms = 6.0		26.0	2.34
CN2	159.6	325	+PKP	08 36 13.4	−1.9		
			sPKP	08 36 28.0			
			PKP_2	08 36 51.0			
			PP	08 40 34.0	−3.0		
			PPMZ	m_B = 5.9		6.0	0.60
			SS	09 00 33.0	−5.7		
			LZ	Ms = 5.8		22.0	1.40
SNY	162.0	324	+iPKP	08 36 17.0	−0.7		
			sPKP	08 36 33.0			
			PKP_2	08 37 05.0			
			PP	08 40 51.0	1.0		
			pPP	08 41 04.0			
			SS	09 01 05.0	1.6		
			LE	Ms = 5.6		28.0	1.09
LSA	163.9	80	+iPKP	08 36 20.5	0.3		
DL2	165.1	320	PKP	08 36 18.0	−2.8		
			sPKP	08 36 34.0			
GTA	166.1	32	+PKP	08 36 22.3	0.4		
			pPKP	08 36 37.5	5.0		
			PKP_2	08 37 22.5			
			iPP	08 41 08.8	−2.8		
			SKKS	08 47 51.7			
			LE	Ms = 6.0		20.0	1.66
			LZ	Ms = 5.7		40.0	2.00
BJI	166.7	337	+PKP	08 36 22.0	−0.2		
			sPKP	08 36 38.0			
			$cPKP_2$	08 37 23.0			
			$sPKP_2$	08 37 39.0			
			cPP	08 41 11.0	−3.7		
HHC	167.0	353	PKP	08 36 23.0	0.5		
			sPKP	08 36 38.0			
			PKP_2	08 37 25.0			

			PP	08 41 15.0	−1.3			
			PPMZ	m_B = 5.7		8.0	0.68	
BTO	167.4	358	+PKP	08 36 23.0	0.2			
			sPKP	08 36 38.0				
			PKP_2	08 37 28.0				
			$sPKP_2$	08 37 44.0				
			iPP	08 41 16.0	−2.1			
			LN	Ms = 6.0		19.0	1.10	
			LE			19.0	1.50	
SSE	169.3	290	+PKP	08 36 24.0	0.3			
			sPKP	08 36 38.0				
			PP	08 41 24.0	−3.5			
			SKKS	08 48 10.0				
			LE	Ms = 5.7		20.0	1.03	
			LZ	Ms = 5.9		24.0	2.00	
TIA	169.5	323	+PKP	08 36 24.1	0.2			
			csPKP	08 36 38.6				
			$cPKP_2$	08 37 52.3				
			PP	08 41 27.0	−1.6			
			cSKKS	08 48 42.0				
			cSS	09 02 20.0	0.2			
			LN	Ms = 5.4		40.0	1.13	
TIY	170.0	346	+PKP	08 36 24.5	0.2			
			sPKP	08 36 41.0				
			PKP_2	08 37 40.0				
			$sPKP_2$	08 37 55.0				
			PP	08 41 29.0	−1.9			
			PPMZ	m_B = 6.0		6.0	0.88	
			SS	09 02 27.0	2.7			
			LN	Ms = 5.7		22.0	1.07	
LZH	170.6	29	PKP	08 36 26.0	1.2			
			sPKP	08 36 41.0				
			PP	08 41 31.5	−2.8			
NJ2	170.9	299	cPKP	08 36 25.2	0.5			
			sPKP	08 36 40.2				
QZN	171.1	183	+PKP	08 36 26.5	1.7			
			sPKP	08 36 41.0				
			PP	08 41 34.0	−2.5			
			cSKKS	08 48 16.0				
			LN	Ms = 5.5		13.0	0.44	
QZH	171.2	252	+PKP	08 36 26.0	1.1			
			sPKP	08 36 42.0				
			SKKS	08 48 19.0				
			SS	09 02 40.0	4.2			
			LE	Ms = 5.8		40.0	3.01	
KMI	173.4	114	+PKP	08 36 26.0	−0.3			
			sPKP	08 36 43.0				
			PKP_2	08 37 56.0				
			PP	08 41 43.0	−5.0			
			SKKS	08 48 29.0				
			sSKS	08 48 42.0				
			LZ	Ms = 5.8		25.0	2.20	
XAN	173.9	4	+PKP	08 36 26.6	0.3			
			sPKP	08 36 41.6				
			PKP_2	08 37 56.0				
			$sPKP_2$	08 38 12.0				
			PP	08 41 46.3	−4.5			
			PPMZ	m_B = 6.0		7.0	1.31	
			SS	09 03 01.0	−1.1			
GZH	174.0	217	+PKP	08 36 27.5	1.3			
			sPKP	08 36 45.0				
			$cPKP_2$	08 38 12.0				
CD2	174.3	58	cPKP	08 36 27.1	0.7			
			sPKP	08 36 43.8				
			PKP_2	08 38 00.0				
			PP	08 41 50.0	−2.5			
			SKKS	08 48 34.7				
			LZ	Ms = 5.8		13.0	1.37	
WHN	175.0	302	+PKP	08 36 26.5	0.0			
			sPKP	08 36 42.0				
			PKP_2	08 38 01.0				
			$pPKP_2$	08 38 16.0				
			PP	08 41 52.0	−4.0			
			PPMZ	m_B = 6.2		5.0	1.20	
			SKKS	08 48 30.0				
			SS	09 03 16.0	3.6			
GYA	177.1	121	+PKP	08 36 27.0	−0.2			
			sPKP	08 36 43.0				
			PKP_2	08 38 11.0				
			PP	08 42 02.0	−3.6			
			SKKS	08 48 45.0				

1987 12 28

O = 13 24 38.7 ± 0.07s
LAT = 14.36 S ± 1.23km
LONG = 167.29 E ± 1.99km
DEPTH = 231 km ± 0.43km
STATIONS USED = 45, STAND DEV = 0.99s

WHN	67.7	312	P	13 35 13.5	−0.1		
MDJ	68.0	332	cP	13 35 15.0	−0.3		
GYA	71.5	305	P	13 35 37.0	0.0		
BJI	72.0	321	cP	13 35 39.5	−0.1		
TIY	73.0	317	cP	13 35 46.0	0.3		
XAN	73.5	312	cP	13 35 47.6	−0.7		
KMI	74.1	302	+P	13 35 53.0	0.6		
CD2	75.8	307	eP	13 36 01.6	−0.1		
BTO	76.2	319	eP	13 36 04.2	0.4		
LZH	78.1	312	eP	13 36 15.5	1.0		
			PMZ			1.5	0.047
GTA	82.4	314	eP	13 36 37.8	0.5		

WMQ	92.5	315	P	13 37 25.5	−0.1		
	1987 12 28						
	O = 14 40 06.5		**±**	**0.10s**			
	LAT = 19.35 N		**±**	**1.34km**			
	LONG = 121.04 E		**±**	**1.87km**			
	DEPTH = 25 km		**±**	**0.30km**			
	STATIONS USED = 108, STAND DEV = 1.71s						
	Ms = 5.0 / 55, M_L = 4.8 / 10, m_B = 5.6 / 8						
QZH	6.0	338	cPn	14 41 33.6	−0.7		
			SME	M_L = 5.1		1.0	1.42
			LN	Ms = 4.5		16.0	8.23
GZH	8.1	299	−iP	14 42 02.5	−2.8		
			LN	Ms = 4.8		14.0	3.96
			LE			15.0	8.90
QZN	10.6	270	cP	14 42 37.0	−2.9		
			cS	14 44 37.0	−1.8		
			LE	Ms = 4.8		15.0	5.80
SSE	11.7	1	P	14 42 54.0	−1.0		
			pP	14 43 02.0	0.8		
			cS	14 45 05.0	−0.8		
			LN	Ms 4.6		14.0	1.92
			LE			14.0	2.31
			LZ	Ms = 4.7		22.0	5.75
WHN	12.7	333	P	14 43 05.7	−2.6		
			sP	14 43 17.0	−1.7		
			cS	14 45 24.0	−5.7		
			LN	Ms = 4.8		11.0	2.69
			LE			14.0	2.27
NJ2	12.8	352	−P	14 43 08.0	−1.9		
			LE	Ms = 5.0		18.0	7.63
GYA	15.0	301	P	14 43 37.8	−1.3		
			pP	14 43 46.0	0.7		
			S	14 46 28.6	3.9		
			LN	Ms = 5.1		12.0	2.80
			LE			12.0	4.30
TIA	17.1	349	cP	14 44 07.4	1.1		
			csP	14 44 20.5	3.6		
			SMN	m_B = 5.3		10.0	0.61
			SME			6.5	1.14
			LN	Ms = 4.9		16.0	3.21
			LZ	Ms = 4.8		16.0	3.10
XAN	18.2	326	−P	14 44 19.6	0.4		
			PMZ	m_B = 5.6		5.0	1.33
			sP	14 44 31.0	1.2		
			SMN	m_B = 5.2		9.0	0.83
			SME			8.0	0.66
			LN	Ms = 5.1		14.0	3.42
			LE			16.0	2.88
CD2	19.4	310	P	14 44 34.2	0.5		
			PMZ	m_B = 6.0		5.0	3.68
			cS	14 48 04.9	−0.9		
			LE	Ms = 5.1		12.0	3.24
			LZ	Ms = 5.1		11.0	2.90
DL2	19.5	1	cP	14 44 40.0	5.3		
			cS	14 48 12.0	4.2		
			LN	Ms = 4.9		15.0	1.95
			LE			15.0	1.94
TIY	19.8	339	−iP	14 44 39.2	1.2		
			PP	14 44 54.0	−2.0		
			S	14 48 20.0	6.3		
			LN	Ms = 5.1		16.0	4.53
			LZ	Ms = 5.2		18.0	6.01
BJI	21.0	350	cP	14 44 52.0	0.8		
			cS	14 48 44.0	4.6		
			SMN	m_B = 5.6		10.0	1.32
			SME			10.0	1.98
			LN	Ms = 4.8		15.0	2.07
SNY	22.5	5	−P	14 45 06.4	0.5		
			pP	14 45 16.0	2.6		
			S	14 49 08.0	2.0		
			LN	Ms = 5.1		14.0	1.75
			LE			16.0	2.55
			LZ	Ms = 5.0		16.0	2.82
LZH	22.5	321	−iP	14 45 08.5	2.3		
			PMZ	m_B = 5.4		4.0	0.70
			PP	14 45 32.0	−1.3		
			SMN	m_B = 5.7		10.0	2.86
			LN	Ms = 5.1		13.0	2.33
			LE			15.0	1.73
HHC	22.9	341	cP	14 45 12.0	2.0		
			S	14 49 14.0	0.7		
			LN	Ms = 5.2		15.0	3.98
			LZ	Ms = 5.0		14.0	2.50
BTO	23.2	338	cP	14 45 13.6	0.9		
			sP	14 45 23.0	−0.8		
			iS	14 49 20.0	0.8		
			sS	14 49 35.0	3.7		
			SS	14 50 08.0	4.0		
			LN	Ms = 5.1		17.0	2.70
			LE			14.0	2.20
			LZ	Ms = 5.0		17.0	2.70
CN2	24.7	8	+P	14 45 26.0	−0.8		
			pP	14 45 34.0	−0.4		
			cS	14 49 40.0	−4.4		
			LZ	Ms = 4.8		20.0	1.80
MDJ	26.2	44	cP	14 45 41.0	−0.3		
			sP	14 45 53.4	0.9		
			S	14 50 05.0	−3.9		
			LZ	Ms = 4.7		22.0	1.56

GTA	27.1	322	eP	14 45 50.6	0.6		
			ePP	14 46 39.0	3.3		
			eS	14 50 30.0	4.8		
			LL	Ms=5.1	16.0	2.61	
			LZ	Ms=5.0	14.0	2.05	
LSA	29.0	297	-P	14 46 08.0	0.7		
			S	14 50 59.0	4.5		
			LE	Ms=4.9	14.0	1.33	
WMQ	37.0	319	P	14 47 19.2	2.5		
			pP	14 47 28.8	4.4		
			S	14 53 04.0	4.3		
			LN	Ms=5.3	18.0	2.99	
			LZ	Ms=5.3	18.0	3.14	
KSH	43.5	307	P	14 48 14.0	3.4		
			pP	14 48 22.0	3.5		
			LE	Ms=5.5	14.0	2.40	

1987 12 28

O=16 52 54.6 ± 0.07s
LAT= 4.64 S ± 0.66km
LONG=126.69 E ± 0.50km
DEPTH=433 km ± 0.88km
STATIONS USED = 31, STAND DEV= 0.80s

SSE	35.9	352	+P	16 59 18.5	0.3		
GYA	36.5	329	P	16 59 23.6	0.5		
WHN	36.9	342	-P	16 59 28.0	1.5		
NJ2	37.2	349	+P	16 59 29.8	0.7		
XAN	42.0	338	cP	17 00 06.6	-1.1		
BJI	45.5	349	cP	17 00 35.0	-0.5		
MDJ	49.1	3	cP	17 01 03.5	0.5		
GTA	50.4	333	+P	17 01 12.2	-0.4		

1987 12 28

O=21 00 01.5 ± 0.11s
LAT=31.76 N ± 1.24km
LONG=103.80 E ± 1.23km
DEPTH= 14 km ± 0.08km
STATIONS USED = 33, STAND DEV= 2.77s
Ms=3.8/ 5, M_L=3.8/11,

CD2	0.8	182	Pg	21 00 19.3	2.5		
			Sg	21 00 32.6	4.2		
			SMN	M_L=3.7	0.5	1.63	
			SME		0.5	2.25	
LZH	4.3	0	cPg	21 01 23.5	5.5		
			Sg	21 02 17.0	0.2		
			SMN	M_L=3.7	1.5	0.15	
			SME		2.0	0.15	
XAN	4.9	61	-Pn	21 01 16.2	1.3		
			Pg	21 01 32.6	5.0		
			Sn	21 02 15.5	2.4		
			Sg	21 02 32.6	-1.6		
			SMN	M_L=4.0		0.8	0.18
			SME			1.0	0.20
GYA	5.8	154	Pn	21 01 31.8	3.5		
			Pg	21 01 46.0	1.2		
			Sn	21 02 37.4	0.2		
			SMN	M_L=3.9		1.0	0.10
			SME			1.0	0.10
GTA	8.3	338	cP	21 02 06.6	2.0		
WHN	9.1	95	cP	21 02 18.0	2.0		
			cS	21 04 02.5	3.1		
			LE	Ms=3.6		9.0	0.30
TIY	9.3	48	cP	21 02 19.9	2.0		
			LN	Ms=3.7		9.0	0.23
			LE			10.0	0.34
BTO	10.1	28	cP	21 02 29.0	-1.3		
			cpP	21 02 33.5	-2.0		
			LN	Ms=3.9		10.0	0.50
			LE			9.0	0.20
			LZ	Ms=3.8		10.0	0.40
GZH	12.1	133	cP	21 02 54.5	-2.2		
QZH	14.7	114	cP	21 03 31.0	0.0		
			cS	21 06 14.0	-0.4		
			LE	Ms=4.2		8.0	0.46
CN2	20.8	49	cP	21 04 45.0	-0.7		

1987 12 29

O=11 17 37.6 ± 0.08s
LAT=35.50 N ± 0.68km
LONG= 99.43 E ± 0.77km
DEPTH= 30 km ± 0.83km
STATIONS USED = 10, STAND DEV= 2.75s
M_L=3.1/ 6,

LZH	3.6	79	Pg	11 18 42.5	0.3		
			Sg	11 19 27.0	-4.8		
			SMN	M_L=4.1		1.0	0.58
			SME			1.0	0.52
GTA	3.9	4	cPg	11 18 43.6	-3.5		
			Sn	11 19 27.2	4.4		
			SMN	M_L=2.9		1.0	0.017
			SME			1.0	0.037
XAN	7.9	98	-Pn	11 19 34.0	2.4		

1987 12 30

O=06 26 36.6 ± 0.15s
LAT=41.99 N ± 1.60km
LONG=121.35 E ± 1.42km
DEPTH= 10 km ± 0.15km
STATIONS USED = 20, STAND DEV= 3.65s
M_L=3.6/20,

SNY	1.7	95	+iPg	06 27 06.3	0.2		
			Sg	06 27 28.6	−0.3		
			SMN	M_L = 3.7		0.4	0.86
			SME			0.4	0.76
DL2	3.1	176	+iPg	06 27 30.3	−0.8		
			Sg	06 28 08.0	−5.3		
			SMN	M_L = 3.4		0.6	0.16
			SME			0.6	0.12
CN2	3.5	58	−iPg	06 27 40.8	2.1		
			Sn	06 28 12.2	−3.0		
			Sg	06 28 26.6	−0.1		
			SMN	M_L = 3.8		0.6	0.30
			SME			0.6	0.30
BJI	4.4	245	Pg	06 27 53.0	−0.9		
			Sg	06 28 51.5	−2.2		
			SMN	M_L = 3.1		0.5	0.020
			SME			0.5	0.040
TIA	6.6	211	cPn	06 28 21.0	6.4		
			Sg	06 30 07.1	2.5		
			SMN	M_L = 3.4		0.8	0.010
			SME			0.8	0.030
			SMZ	M_L = 3.3		1.0	0.010
TIY	8.1	241	cPg	06 29 05.8	6.3		
			Sg	06 30 44.4	−5.3		
			SMN	M_L = 3.9		0.6	0.030
			SME			0.6	0.030

1987 12 30

O = 06 39 04.5 ± 0.19s
LAT = 7.17 S ± 1.13km
LONG = 129.45 E ± 1.87km
DEPTH = 151 km ± 2.12km
STATIONS USED = 47, STAND DEV = 1.63s

QZN	32.4	324	cP	06 45 22.0	−0.6
GYA	40.1	327	+P	06 46 27.0	−0.2
			PcP	06 48 30.6	1.8
WHN	40.2	340	cP	06 46 28.6	0.6
NJ2	40.3	346	+P	06 46 30.4	1.6
CD2	45.2	328	P	06 47 06.9	−1.3
XAN	45.4	336	P	06 47 08.3	−1.6
TIY	47.4	342	+iP	06 47 25.4	−0.4
BJI	48.5	346	cP	06 47 34.0	−0.7
			cPcP	06 48 59.0	1.1
LZH	49.3	333	cP	06 47 40.5	−0.1
LSA	51.9	317	cP	06 47 58.6	−2.4
GTA	53.9	332	+P	06 48 14.2	−0.6
WMQ	63.2	327	+P	06 49 19.0	−0.7

1987 12 30

O = 16 17 07.6 ± 0.07s
LAT = 36.80 N ± 1.35km
LONG = 27.73 E ± 0.87km
DEPTH = 22 km ± 0.08km
STATIONS USED = 40, STAND DEV = 1.03s

WMQ	45.4	62	P	16 25 28.0	0.9
GTA	55.4	64	−P	16 26 42.6	−0.5
LZH	59.6	66	eP	16 27 13.0	−0.2
CD2	61.9	71	P	16 27 28.2	−0.2
BTO	62.1	59	eP	16 27 30.0	0.3
			eS	16 35 54.0	1.9
HHC	63.0	58	−P	16 27 36.2	0.2
XAN	64.3	66	−P	16 27 43.7	−0.4
GYA	66.3	74	P	16 27 56.8	−0.4
BJI	66.5	57	eP	16 27 57.5	−0.9
WHN	70.0	66	eP	16 28 16.5	−3.7
SNY	70.4	52	eP	16 28 22.3	−0.6

1987 12 30

O = 18 17 43.5 ± 0.05s
LAT = 12.36 N ± 1.00km
LONG = 125.20 E ± 1.33km
DEPTH = 128 km ± 0.11km
STATIONS USED = 24, STAND DEV = 0.88s

WHN	20.7	333	P	18 22 15.2	−0.2
GYA	22.4	312	P	18 22 33.6	1.5
KMI	24.7	304	eP	18 22 55.5	0.7
XAN	26.2	328	P	18 23 07.3	−1.0
CD2	27.1	316	P	18 23 15.8	−0.7
BJI	28.7	345	eP	18 23 32.0	1.0
GTA	35.1	325	P	18 24 26.7	0.0
LSA	36.0	304	eP	18 24 34.2	−0.4

1987 12 30

O = 20 19 25.4 ± 0.12s
LAT = 26.78 S ± 2.83km
LONG = 177.34 W ± 2.63km
DEPTH = 104 km ± 0.63km
STATIONS USED = 51, STAND DEV = 1.09s

SSE	82.2	310	eP	20 31 36.5	−0.6	
NJ2	84.4	310	−P	20 31 49.2	1.2	
MDJ	86.0	325	eP	20 31 55.5	−0.6	
WHN	86.6	307	P	20 31 59.5	0.2	
SNY	87.4	320	eP	20 32 01.1	−1.8	
CN2	87.6	322	P	20 32 08.2	4.1	
TIA	87.9	313	eP	20 32 05.5	−0.1	
GYA	90.3	300	P	20 32 17.0	0.3	
BJI	90.8	315	eP	20 32 18.0	−0.9	
TIY	91.9	312	+P	20 32 24.4	0.2	
			PMZ		0.9	0.10
			eS	20 43 14.0	−0.7	

XAN	92.4	307	−P	20 32 26.2	−0.3			
KMI	92.7	297	eP	20 32 29.5	1.4			
HHC	94.1	314	eP	20 32 35.4	0.9			
CD2	94.7	302	P	20 32 38.3	1.5			
BTO	95.0	313	eP	20 32 40.2	1.7			
GTA	101.4	308	P	20 33 07.3	0.0			

1987 12 30
O = 20 48 57.5 ± 0.05s
LAT = 3.86 N ± 4.52km
LONG = 128.56 E ± 4.29km
DEPTH = 50 km ± 2.57km
STATIONS USED = 35, STAND DEV = 1.56s

QZN	23.7	311	eP	20 54 05.0	−0.9			
WHN	29.7	335	P	20 55 00.0	−1.7			
GYA	30.7	319	P	20 55 09.0	−1.7			
KMI	32.6	313	eP	20 55 26.0	−1.2			
XAN	35.2	331	+P	20 55 47.4	−1.5			
CD2	35.6	322	eP	20 55 51.1	−2.0			
TIY	36.8	338	eP	20 56 01.3	−1.5			
BJI	37.7	344	eP	20 56 09.0	−1.5			
LZH	39.3	328	eP	20 56 24.5	0.3			
LSA	43.7	310	eP	20 56 59.0	−1.6			
GTA	43.9	328	+P	20 57 01.2	−0.8			
WMQ	53.7	324	−P	20 58 16.5	−0.5			
KSH	59.2	314	P	20 58 57.0	0.3			

1987 12 30
O = 21 16 29.1 ± 0.13s
LAT = 6.33 S ± 1.90km
LONG = 148.93 E ± 3.02km
DEPTH = 23 km ± 0.28km
STATIONS USED = 88, STAND DEV = 2.03s
Ms = 5.7 / 46, m_B = 5.9 / 15

QZH	42.9	318	cP	21 24 31.0	3.1			
			LN	Ms = 5.3		12.0	1.53	
GZH	45.4	311	cP	21 24 51.0	2.4			
			S	21 31 26.0	−1.2			
			LN	Ms = 6.0		19.0	11.0	
			LE			17.0	3.30	
SSE	45.7	326	cP	21 24 51.0	0.3			
			pP	21 24 56.0	−2.4			
			cS	21 31 32.0	0.0			
			csS	21 31 41.0	−3.8			
			LN	Ms = 5.7		14.0	3.84	
			LE			14.0	1.54	
			LZ	Ms = 5.6		20.0	4.82	
QZN	46.0	304	cP	21 24 54.0	0.8			
			PP	21 26 42.0	1.2			
			S	21 31 36.0	0.4			
			LN	Ms = 5.5		15.0	2.00	
			LE			14.0	1.70	
NJ2	47.7	325	eP	21 25 10.5	3.8			
			S	21 32 05.0	5.1			
			LN	Ms = 5.7		14.0	4.05	
WHN	49.4	320	eP	21 25 20.0	0.4			
			eS	21 32 24.0	−0.4			
			SME	m_B = 5.8		10.0	1.25	
			LE	Ms = 5.7		14.0	3.57	
DL2	51.6	333	eP	21 25 38.0	1.4			
			S	21 32 58.0	3.8			
			LN	Ms = 5.7		14.0	2.28	
			LE			15.0	2.70	
TIA	51.8	327	eP	21 25 37.5	−0.2			
			S	21 32 56.0	−0.1			
			LN	Ms = 6.0		18.0	3.40	
			LE			18.0	6.64	
GYA	52.3	310	P	21 25 40.0	−2.1			
			S	21 33 07.0	3.1			
			LE	Ms = 5.5		16.0	2.00	
SNY	53.2	336	+P	21 25 46.0	−2.6			
			pP	21 25 53.4	−2.9			
			S	21 33 19.0	3.1			
			SMN	m_B = 5.9		8.0	0.61	
			SME			9.0	1.19	
			LN	Ms = 5.6		13.0	1.20	
			LE			15.0	2.24	
			LZ	Ms = 5.6		14.0	2.67	
MDJ	53.6	343	+P	21 25 50.0	−1.4			
			PP	21 27 58.0	5.2			
			S	21 33 27.0	5.8			
			LZ	Ms = 5.8		34.0	8.20	
CN2	54.2	339	+P	21 25 54.0	−1.9			
			PMZ	m_B = 5.8		5.0	0.70	
			cS	21 33 29.0	−1.6			
			LZ	Ms = 5.8		18.0	4.40	
KMI	54.7	307	eP	21 25 59.5	−0.3			
			S	21 33 38.0	1.9			
			LN	Ms = 5.4		12.0	1.26	
BJI	55.1	330	eP	21 26 01.0	−1.6			
			S	21 33 44.0	2.3			
			SMN	m_B = 5.8		9.0	0.69	
			SME			10.0	1.20	
			LZ	Ms = 5.6		22.8	3.49	
XAN	55.2	319	eP	21 26 02.4	−0.5			
			S	21 33 45.0	3.0			
			SMN	m_B = 5.9		9.0	0.83	
			SME			10.0	1.21	
			LN	Ms = 5.6		13.0	2.34	
TIY	55.5	325	eP	21 26 02.2	−2.8			

			S	21 33 51.5	5.6		
			SME	m_B=5.6		9.5	0.85
			LN	Ms=5.7		16.0	1.55
			LE			16.0	3.18
			LZ	Ms=5.8		21.0	4.83
CD2	56.9	313	P	21 26 19.8	4.6		
			S	21 34 07.0	2.1		
			esS	21 34 13.0	−5.9		
HHC	58.1	327	P	21 26 21.0	−3.1		
			LN	Ms=5.8		14.0	1.23
			LE			14.0	2.74
BTO	58.8	326	P	21 26 27.5	−1.3		
			pP	21 26 32.0	−4.4		
			PP	21 28 41.0	1.4		
			S	21 34 30.0	−0.1		
			SMN	m_B=5.9		9.0	0.70
			SME			9.0	1.20
			sS	21 34 38.0	−6.1		
			SS	21 38 28.0	2.9		
			LN	Ms=5.5		17.0	0.70
			LE			17.0	1.90
			LZ	Ms=5.5		20.0	2.40
LZH	59.7	318	cP	21 26 34.0	−1.2		
			PMZ			2.0	0.054
			cS	21 34 47.0	3.5		
			SMN	m_B=5.8		8.0	1.09
			LN	Ms=5.5		14.0	1.36
			LE			20.0	1.51
LSA	66.0	306	−P	21 27 15.8	−1.2		
			SME	m_B=6.0		9.0	1.45
WMQ	74.3	319	−P	21 28 07.0	−0.2		
			PcP	21 28 20.0	−1.3		
			PP	21 30 49.0	−4.9		
			S	21 37 41.0	3.6		
			SMN	m_B=6.1		8.0	1.33
			LN	Ms=5.7		24.0	2.93
KSH	81.0	311	P	21 28 46.5	1.9		
			S	21 38 54.0	4.3		
			LE	Ms=5.9		10.0	1.60

1987 12 30

O=22 34 29.9 ± 0.31s
LAT=27.63 S ± 3.74km
LONG= 67.31 W ± 1.95km
DEPTH=129 km ± 2.72km
STATIONS USED = 25, STAND DEV= 3.08s

KSH	147.4	59	cPKP	22 54 01.2	4.0
GTA	164.1	39	−PKP	22 54 17.2	−1.6
XAN	172.8	26	PKP	22 54 23.0	−1.6

1987 12 31

O=00 31 36.1 ± 0.22s
LAT= 6.56 S ± 2.81km
LONG=149.17 E ± 3.36km
DEPTH= 36 km ± 2.63km
STATIONS USED = 52, STAND DEV= 3.02s
Ms=5.1/ 8,

GZH	45.8	311	cP	00 40 03.0	6.6	
QZN	46.3	304	cP	00 40 02.7	1.7	
			cS	00 46 39.5	−5.7	
NJ2	48.1	325	cP	00 40 12.0	−2.4	
WHN	49.7	320	P	00 40 31.0	3.7	
GYA	52.7	310	P	00 40 54.8	5.1	
SNY	53.5	336	cP	00 40 54.0	−1.9	
			cS	00 48 22.0	−3.1	
			LN	Ms=5.2	18.0	0.82
			LE		16.0	0.81
			LZ	Ms=5.2	18.0	1.18
MDJ	53.9	343	cP	00 41 01.0	2.3	
			S	00 48 31.0	2.0	
			LZ	Ms=5.0	20.0	0.88
CN2	54.5	339	cP	00 41 06.0	2.8	
KMI	55.0	307	cP	00 41 05.0	−2.3	
BJI	55.5	329	cP	00 41 13.0	3.0	
			cS	00 48 48.0	−2.9	
			LZ	Ms=5.0	22.0	0.86
XAN	55.5	319	cP	00 41 07.0	−3.3	
TIY	55.8	325	+P	00 41 14.4	2.0	
			LN	Ms=5.1	10.5	0.48
			LZ	Ms=5.1	20.0	1.00
BTO	59.1	326	cP	00 41 32.0	−4.1	
			LN	Ms=5.3	18.0	0.90
			LE		18.0	1.00
GTA	64.6	319	P	00 42 16.2	3.6	
LSA	66.3	306	cP	00 42 20.7	−3.4	
WMQ	74.6	319	P	00 43 12.0	−2.2	
KSH	81.3	311	cP	00 43 51.5	0.1	

1987 12 31

O=04 22 59.8 ± 0.12s
LAT=35.20 N ± 0.66km
LONG=115.19 E ± 0.96km
DEPTH= 9 km ± 0.01km
STATIONS USED = 6, STAND DEV= 2.32s
M_L=2.7/ 11,

TIA	1.9	57	Pg	04 23 32.0	−0.8	
			Sg	04 23 55.3	−3.0	
			SMN	M_L=2.7	0.3	0.066
			SME		0.3	0.070
			SMZ	M_L=2.5	0.4	0.028

1987 12 31

O = 05 08 33.8 ± 0.35s
LAT = 13.41 S ± 3.80km
LONG = 166.23 E ± 2.66km
DEPTH = 31 km ± 2.24km
STATIONS USED = 15, STAND DEV = 2.30s

MDJ	66.6	332	eP	05 19 22.0	−2.2		
TIY	71.6	318	−P	05 19 54.6	−0.3		
LZH	76.7	312	eP	05 20 29.5	4.9		
GTA	81.0	314	P	05 20 47.8	−0.4		

1987 12 31

O = 06 29 32.5 ± 0.22s
LAT = 59.93 S ± 6.39km
LONG = 27.07 W ± 8.36km
DEPTH = 12 km ± 0.55km
STATIONS USED = 43, STAND DEV = 3.13s
Ms = 5.5 / 7,

LSA	129.3	98	cPKP	06 48 41.4	−1.2		
KSH	129.4	77	cPKP	06 48 45.0	2.5		
GYA	134.0	116	PKP	06 48 50.0	−1.3		
WMQ	138.5	83	cPKP	06 48 58.0	−1.5		
GTA	141.3	98	PKP	06 49 00.0	−4.6		
			LZ	Ms = 5.5		22.0	0.65
XAN	141.5	112	cPKP	06 49 08.2	3.4		
SSE	144.2	129	cPKP	06 49 04.0	−5.4		
			pPKP	06 49 14.0	1.7		
			LZ	Ms = 5.4		20.0	0.46
TIY	146.1	113	+iPKP	06 49 11.0	−1.8		
			pPKP	06 49 18.0	2.4		
			sPKP	06 49 23.5			
			PP	06 52 43.0	4.9		
			LN	Ms = 5.7		14.0	0.56
			LZ	Ms = 5.7		22.0	0.91
TIA	147.0	120	cPKP	06 49 15.9	1.7		
			LN	Ms = 5.2		27.0	0.41
			LZ	Ms = 5.4		27.0	0.55
BTO	147.2	107	PKP	06 49 15.5	0.8		
HHC	148.2	108	cPKP	06 49 20.0	3.8		
BJI	149.7	114	cPKP	06 49 23.0	4.5		
MDJ	159.2	127	cPKP	06 49 28.0	−3.6		
			PP	06 53 46.0	−5.6		
			LZ	Ms = 5.9		20.0	1.47

1987 12 31

O = 19 03 56.4 ± 0.10s
LAT = 33.36 N ± 1.45km
LONG = 132.41 E ± 1.55km
DEPTH = 76 km ± 1.15km
STATIONS USED = 36, STAND DEV = 2.12s
Ms = 3.9 / 6,

SSE	9.8	260	P	19 06 17.0	0.6		
			eS	19 08 09.0	3.7		
			LE	Ms = 3.6		14.0	0.39
			LZ	Ms = 3.9		16.0	0.89
MDJ	11.5	350	eP	19 06 38.5	−0.6		
NJ2	11.5	267	eP	19 06 38.0	−1.6		
CN2	11.8	334	eP	19 06 43.0	−0.2		
TIA	12.9	287	eP	19 06 57.7	−0.5		
BJI	14.6	302	eP	19 07 26.0	5.2		
WHN	15.6	265	eP	19 07 34.0	0.9		
			eS	19 10 28.0	4.2		
			LN	Ms = 4.0		9.0	0.30
TIY	16.8	291	eP	19 07 51.2	2.4		
			sS	19 11 08.0	−6.5		
			LZ	Ms = 4.1		16.0	0.59
HHC	18.2	300	−P	19 08 06.4	0.6		
BTO	19.3	298	eP	19 08 16.0	−1.9		
XAN	19.6	279	eP	19 08 20.0	−0.9		
LZH	23.6	285	eP	19 09 00.0	−1.6		
GTA	26.8	292	eP	19 09 30.4	−1.8		

1987 12 31

O = 19 57 15.2 ± 0.07s
LAT = 3.01 N ± 1.24km
LONG = 126.89 E ± 2.34km
DEPTH = 32 km ± 0.03km
STATIONS USED = 21, STAND DEV = 1.59s

XAN	35.1	334	eP	20 04 06.6	−1.6		
BJI	38.1	347	eP	20 04 33.2	−0.2		
CN2	40.6	358	eP	20 04 53.0	−1.3		
MDJ	41.5	3	eP	20 05 02.0	0.5		
LSA	43.0	312	eP	20 05 14.1	−0.4		
GTA	43.8	329	eP	20 05 20.8	0.5		

1987 12 31

O = 22 35 14.9 ± 0.08s
LAT = 38.16 N ± 1.35km
LONG = 92.23 E ± 0.51km
DEPTH = 11 km ± 0.07km
STATIONS USED = 7, STAND DEV = 2.30s
M_L = 3.6 / 3,

GTA	6.1	76	Pn	22 36 47.4	2.4		
			Pg	22 37 06.2	4.3		
			Sg	22 38 26.2	1.5		
			SMN	M_L = 3.0		0.8	0.011

1987 12 31

O = 23 50 18.1 ± 0.14s

LAT= 6.29 S ± 1.25km
LONG=131.22 E ± 3.36km
DEPTH= 30 km ± 0.26km
STATIONS USED = 18, STAND DEV= 1.77s

XAN	45.3	334	eP	23 58 34.6	−1.1
BJI	48.1	344	P	23 58 56.0	−1.9
CN2	50.1	355	eP	23 59 11.0	−2.2
LSA	52.5	315	eP	23 59 31.0	−0.9
GTA	54.0	330	P	23 59 41.5	−0.5
WMQ	63.5	326	eP	24 00 47.5	−0.7