

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z 05:39:05.1			0.9	25	5.4		
	e pP	Z 05:39:15.8							
	e L	Z 06:17:08.4			20.0	351		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/02	05:27:16.1	42.771N	144.496E	33.0N	5.2			SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:39:16.7	78.9	33.0	0.9	24	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/02	15:36:53.4	14.824S	127.240E	33.0N				SZGRF

Western Australia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 15:55:37.1	118.0	79.7					
	e PP	Z 16:00:00.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/02								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 15:55:36.9							
	e PP	Z 16:00:01.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/02	20:17:52.3	4.246S	103.543E	33.0N	5.2	4.6		SZGRF

Southern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:31:10.7	94.7	91.0	1.3	13	5.2		
	e L	Z 21:21:13.8			22.0	240		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/02	21:43:58.2	4.709S	103.827E	33.0N	5.4	5.3		SZGRF

Southern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:57:19.0	95.3	91.1	1.2	17	5.4		
	e L	Z 22:39:11.4			18.2	859		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/03	03:15:4.7	17.225N	40.501W	33.0N	5.0			SZGRF

North Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 03:23:52.2	49.5	246.1					
BFO	e P	Z 03:23:59.1	50.3	249.2	1.1	18	4.9		
BUG	e P	Z 03:24:01.9	50.8	245.8					
STU	e P	Z 03:24:03.8	51.0	249.7					
IBBN	e P	Z 03:24:06.2	51.5	245.7					
FUR	e P	Z 03:24:13.3	52.1	252.1	1.2	32	5.1		
GRA1	e P	Z 03:24:15.2	52.5	250.9	1.1	17	4.9		
CLZ	e P	Z 03:24:16.3	52.8	248.6	1.2	24	5.0		
NRDL	e P	Z 03:24:17.1	52.8	247.8					
MOX	e P	Z 03:24:19.2	53.1	250.6	1.6	28	4.9		
WET	e P	Z 03:24:21.7	53.4	252.8	1.6	17	4.7		
GUNZ	e P	Z 03:24:22.0	53.4	251.4					
WERD	e P	Z 03:24:22.0	53.4	251.4					
BSEG	e P	Z 03:24:20.8	53.5	247.1	0.9	38	5.4		
GEC2	e P	Z 03:24:24.7	53.8	253.8					
CLL	e P	Z 03:24:26.4	54.1	251.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/03								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 09:19:53.9							
	e	09:21:10.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/03	09:57:13.8	39.700N	141.981E	33.0N	5.1			SZGRF

Eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:09:23.9	80.7	36.2	1.6	32	5.1		

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2004/04/03

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKiKP	Z 10:15:40.4							
	e PP	Z 10:16:10.4							
	e pPP	Z 10:16:21.3							
	e PPP	Z 10:18:34.7							
	e SP	Z 10:25:41.7							
	e SS	T 10:31:45.7							
	e SSS	T 10:35:42.6							
	e L	Z 11:01:56.3			20.0	985		5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2004/04/03 10:05:41.8
North Atlantic Ocean

6.042N

41.182W

39.8

SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:15:57.7	61.8	243.4					
	e pP	Z 10:16:08.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2004/04/03 10:10:14.3
Eastern Arabian Peninsula

17.725N

55.514E

36.4

5.3

SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:18:47.9	47.7	115.9	1.4	32	5.3		
	e pP	Z 10:18:57.7							
	e sP	Z 10:19:04.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2004/04/03 13:29:38.4
Tonga Islands

20.460S

174.860W

33.0N

5.5

SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 13:49:14.9	146.3	8.8					
RUE	e PKPbc	Z 13:49:18.0	147.3	15.1					
NRDL	e PKPbc	Z 13:49:19.6	147.7	8.7					
IBBN	e PKPbc	Z 13:49:20.2	148.1	4.6					
CLZ	e PKPbc	Z 13:49:21.1	148.4	9.4					
CLL	e PKPbc	Z 13:49:21.5	148.5	14.2					
BUG	e PKPbc	Z 13:49:22.7	149.0	3.9					
MOX	e PKPbc	Z 13:49:23.4	149.4	12.0					

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WERD	e	PKPbc	Z	13:49:24.1	149.5	13.3					
GUNZ	e	PKPbc	Z	13:49:24.5	149.6	13.4					
GRA1	e	PKPbc	Z	13:49:25.8	150.4	11.6					
	e	L	Z	14:58:54.6			21.1	778		5.5	
WLF	e	PKPbc	Z	13:49:27.4	150.8	1.9					
FUR	e	PKPbc	Z	13:49:30.3	151.9	12.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/03								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e	PKPdf	Z	13:49:18.5	1.2	11			
	e	PKPbc	Z	13:49:21.3	1.2	86			
	e			13:49:33.4					
	e	PP	Z	13:52:47.5					
	e			14:03:03.5					
	e	SS	T	14:11:59.9					
	e	SSS	E	14:17:41.7					
	e	L	Z	14:59:54.6			20.0	959	5.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/03	23:02:3.7	36.810N	141.310E	45.4	6.0	6.0		SZGRF
Near east coast of eastern Honshu, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e	P	Z	23:14:08.3	79.7	40.2	1.3	270	6.0
	e	pP	Z	23:14:21.3					
BSEG	e	P	Z	23:14:09.5	79.9	37.9	1.2	194	5.9
BRG	e	P	Z	23:14:14.7	80.9	40.1	1.1	121	5.8
CLL	e	P	Z	23:14:14.6	80.9	39.5	1.1	207	6.1
	e	pP	Z	23:14:28.5					
NRDL	e	P	Z	23:14:15.9	81.1	37.6	1.2	91	5.7
CLZ	e	P	Z	23:14:18.4	81.5	37.7	1.2	189	6.1
	e	pP	Z	23:14:31.0					
WERD	e	P	Z	23:14:20.0	81.9	38.9	1.3	100	5.8
GUNZ	e	P	Z	23:14:20.4	81.9	38.9	1.3	127	5.9
MOX	e	P	Z	23:14:20.6	82.0	38.5	1.3	116	5.8
	e	pP	Z	23:14:33.9					
	e	PP	Z	23:17:29.6					
IBBN	e	P	Z	23:14:21.1	82.1	35.9	1.2	184	6.1
	e	pP	Z	23:14:34.3					
GEC2	e	P	Z	23:14:23.2	82.6	39.8	1.2	84	5.8
	e	PP	Z	23:17:33.4					
WET	e	P	Z	23:14:24.2	82.7	39.2	1.2	112	6.0
GRA1	i	P	Z	23:14:25.8	82.9	38.1	1.1	326	6.5

	e PP	Z	23:17:37.2							
	e L	Z	23:55:20.8			19.9	6834		6.0	
BUG	e P	Z	23:14:25.4	83.0	35.4	9.4	816	5.9		
FUR	e P	Z	23:14:31.4	84.1	38.0	1.1	227	6.3		
STU	e P	Z	23:14:32.9	84.4	36.6	1.0	213	6.3		
WLF	e P	Z	23:14:35.6	84.9	34.5	5.7	723	6.1		
BFO	e P	Z	23:14:36.3	85.1	36.0	1.1	184	6.2		
	e pP	Z	23:14:49.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/04/03											
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	CLL	i P	+ Z 23:14:14.8			1.1	211	6.2			
		e pP	Z 23:14:27.8								
		e PP	Z 23:17:21.8								
		e PPP	Z 23:19:17.6								
		e S	T 23:24:24.8								
		e SS	T 23:29:44.5								
		e LR	Z 23:41:27.9								
		e L	Z 23:54:02.7			18.0	7254	6.1			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/04/04											
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	GRA1	e PKP	Z 08:24:20.0								

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/04/04	18:04:28.7	4.640S	11.770W	21.6	5.4	4.9		SZGRF			
North of Ascension Island											
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	BFO	e P	Z 18:14:02.4	55.8	204.5	2.3	111	5.5			
	STU	e P	Z 18:14:08.0	56.5	205.3						
	WLF	e P	Z 18:14:08.2	56.5	201.6						
	FUR	e P	Z 18:14:08.3	56.5	207.9	1.8	122	5.6			
	GRA1	e P	Z 18:14:18.3	57.9	207.4	2.0	54	5.2			
		e pP	Z 18:14:23.9								
		e PP	Z 18:16:24.7								
		e L	Z 18:38:59.6			18.6	954	4.9			
	WET	e P	Z 18:14:17.7	57.9	209.4	2.7	168	5.6			
	GEC2	e P	Z 18:14:18.2	57.9	210.4	1.6	54	5.3			

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Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	03:09:17.5	86.0	49.6	1.0	6	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/05	04:25:49.1	19.600S	178.870W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	04:45:21.1	144.9	15.2					
NRDL	e PKPbc	Z	04:45:26.4	146.4	15.4					
IBBN	e PKPbc	Z	04:45:27.6	146.9	11.5					
CLL	e PKPbc	Z	04:45:27.8	146.9	20.8					
CLZ	e PKPbc	Z	04:45:28.2	147.0	16.1					
BRG	e PKPbc	Z	04:45:28.5	147.1	22.6					
WERD	e PKPbc	Z	04:45:30.9	147.9	20.1					
GRA1	e PKPbc	Z	04:45:33.5	148.8	18.6					
	e PKPab	Z	04:45:37.5							
GEC2	e PKPbc	Z	04:45:33.9	149.1	23.5					
WLF	e PKPbc	Z	04:45:36.0	149.7	9.4					
FUR	e PKPbc	Z	04:45:37.0	150.3	19.6					
	e PKPab	Z	04:45:43.3							
BFO	e PKPbc	Z	04:45:37.5	150.7	14.0					
	e PKPab	Z	04:45:44.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/05								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	09:16:54.0			0.9	43			
	e PKiKP	Z	09:16:56.3							
	e		09:17:08.3							
	e PP	Z	09:20:30.1							
	e L	Z	10:26:22.7			22.0	924		5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/05	08:57: 2.1	23.653S	176.011W	33.0N				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	09:16:48.3	149.3	11.4					
	e		09:17:02.5							
RUE	e PKPbc	Z	09:16:50.7	150.2	18.3					
NRDL	e PKPbc	Z	09:16:52.3	150.8	11.5					

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IBBN	e	PKPbc	Z	09:16:52.9	151.2	7.2
CLZ	e	PKPbc	Z	09:16:53.6	151.4	12.3
CLL	e	PKPbc	Z	09:16:53.7	151.5	17.5
BRG	e	PKPbc	Z	09:16:53.9	151.7	19.5
GEC2	e	PKPbc	Z	09:16:58.2	153.7	20.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/05	13:20:44.6	54.910N	161.424W	33.0N	5.4			SZGRF
Alaska Peninsula, United States								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:32:24.4	75.2	355.6	1.4	44	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/05	18:40: 7.0	21.920S	171.920E	33.0N				SZGRF
Southeast of Loyalty Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 18:59:40.2	145.1	30.8					
RUE	e PKPbc	Z 18:59:40.2	145.1	37.2					
BRG	e PKPbc	Z 18:59:44.0	146.3	38.9					
CLL	e PKPbc	Z 18:59:43.8	146.4	37.0					
CLZ	e PKPbc	Z 18:59:45.9	146.8	32.5					
IBBN	e PKPbc	Z 18:59:45.8	147.3	27.9					
WERD	e PKPbc	Z 18:59:46.8	147.3	36.8					
GUNZ	e PKPbc	Z 18:59:47.2	147.4	36.9					
MOX	e PKPbc	Z 18:59:47.2	147.4	35.5					
GEC2	e PKPbc	Z 18:59:48.6	148.0	40.5					
WET	e PKPbc	Z 18:59:49.1	148.1	38.9					
GRA1	e PKPbc	Z 18:59:49.9	148.3	35.7					
	e PKPab	Z 18:59:53.4							
FUR	e PKPbc	Z 18:59:52.7	149.5	37.3					
	e PKPab	Z 18:59:57.7							
STU	e PKPbc	Z 18:59:53.5	149.8	33.2					
	e PKPab	Z 18:59:58.8							
WLF	e PKPbc	Z 18:59:54.8	150.1	27.2					
BFO	e PKPbc	Z 18:59:54.8	150.5	32.2					
	e PKPab	Z 19:00:01.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/05	18:46:24.8	21.210S	178.910W	598.5				SZGRF
Fiji Islands region								

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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 19:04:59.5	146.5	15.7					
RUE	e PKPbc	Z 19:05:01.3	147.2	22.2					
CLL	e PKPbc	Z 19:05:04.6	148.5	21.6					
	e PKPab	Z 19:05:10.2							
	e pPKPbc	Z 19:07:21.7							
CLZ	e PKPbc	Z 19:05:05.1	148.5	16.7					
BRG	e PKPbc	Z 19:05:05.3	148.7	23.5					
	e PKPab	Z 19:05:11.3							
MOX	e PKPbc	Z 19:05:07.1	149.4	19.6					
	e pPKPbc	Z 19:07:23.8							
WERD	e PKPbc	Z 19:05:07.2	149.5	20.9					
GUNZ	e PKPbc	Z 19:05:07.5	149.5	21.0					
	e PKPab	Z 19:05:14.9							
GRA1	e PKPbc	Z 19:05:09.3	150.4	19.4					
	e PKPab	Z 19:05:18.9							
	e pPKPbc	Z 19:07:25.7							
WET	e PKPbc	Z 19:05:09.7	150.5	22.8					
GEC2	e PKPbc	Z 19:05:09.7	150.6	24.5					
WLF	e PKPbc	Z 19:05:11.5	151.3	9.9					
	e PKPab	Z 19:05:22.0							
	e pPKPbc	Z 19:07:29.6							
STU	e PKPab	Z 19:05:23.4	151.7	16.1					
FUR	e PKPbc	Z 19:05:12.3	151.8	20.4					
	e PKPab	Z 19:05:24.3							
BFO	e PKPbc	Z 19:05:13.3	152.3	14.6					

Date
2004/04/05

Origin Time

Lat

Long

Depth

mb

Ms

ML

Source

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 19:04:59.5							
	e PKPbc	Z 19:05:04.6			1.0	42			
	e PKPab	Z 19:05:10.3							
	e pPKPbc	Z 19:07:22.0							

Date
2004/04/05
Tonga Islands

Origin Time
20:34:27.6

Lat
19.380S

Long
173.127W

Depth
22.9N

mb

Ms

ML

Source
SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 20:54:03.6	145.3	5.7					
RUE	e PKPbc	Z 20:54:06.2	146.5	11.9					
IBBN	e PKPbc	Z 20:54:07.8	147.1	1.5					
CLZ	e PKPbc	Z 20:54:09.3	147.4	6.1					

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CLL	e	PKPbc	Z	20:54:09.7	147.7	10.9
BUG	e	PKPbc	Z	20:54:10.4	147.9	0.7
BRG	e	PKPbc	Z	20:54:10.5	148.0	12.7
MOX	e	PKPbc	Z	20:54:11.9	148.5	8.6
WERD	e	PKPbc	Z	20:54:12.4	148.6	9.9
GUNZ	e	PKPbc	Z	20:54:11.9	148.7	10.0
GRA1	e	PKPbc	Z	20:54:14.7	149.5	8.1
	e	pPKPbc	Z	20:54:21.6		
WLF	e	PKPbc	Z	20:54:15.6	149.7	358.7
GEC2	e	PKPbc	Z	20:54:15.7	150.0	13.0
FUR	e	PKPbc	Z	20:54:18.4	151.0	8.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/05								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e	PKPdf	Z	20:54:07.0					
	e	PKPbc	Z	20:54:09.6		0.9	63		
	e			20:54:17.1					
	e	SKSP	N	21:07:55.4					
	e	SS	E	21:16:36.9					
	e	SSS	E	21:22:38.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/05	21:24: 3.9	36.730N	71.300E	173.7	7.0			SZGRF
Afghanistan-Tajikistan border region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e	P	Z	21:31:43.1	42.5	86.4	1.0	2392	6.9
	e	PP	Z	21:33:25.2					
RUE	e	P	Z	21:31:42.8	42.6	88.1	1.1	3528	7.0
	e	PP	Z	21:33:25.7					
RGN	e	P	Z	21:31:45.5	42.8	89.9	1.1	10239	7.5
	e	pP	Z	21:32:23.7					
	e	sP	Z	21:32:42.7					
CLL	e	P	Z	21:31:47.2	43.1	86.2	1.1	1668	6.7
WET	e	P	Z	21:31:49.7	43.4	83.8	1.9	2268	6.6
GUNZ	e	P	Z	21:31:51.8	43.6	84.7	1.2	1788	6.7
WERD	e	P	Z	21:31:51.7	43.6	84.8	1.2	1699	6.6
MOX	e	P	Z	21:31:55.1	44.0	84.5	1.2	2043	6.7
GRA1	e	P	Z	21:31:58.7	44.4	83.3	1.7	6653	7.3
	e	pP	Z	21:32:37.2					
	e	sP	Z	21:32:56.5					
	e	PcP	Z	21:33:37.7					
	e	PP	Z	21:33:45.0					

	e S	N	21:38:22.7							
	e sS	N	21:39:26.5							
GRFO	e P	Z	21:31:58.7	44.4	83.3					
FUR	e P	Z	21:31:59.1	44.5	81.8	1.8	6514	7.3		
	e PP	Z	21:33:46.7							
BSEG	e P	Z	21:31:59.6	44.6	86.9	1.0	3532	7.3		
	e PP	Z	21:33:46.7							
CLZ	e P	Z	21:32:00.4	44.7	84.8	1.4	3447	7.1		
STU	e P	Z	21:32:09.0	45.8	81.0	1.2	1917	7.0		
	e PP	Z	21:34:00.0							
HLG	i P	Z	21:32:10.7	46.0	85.3	1.1	4237	7.4		
	e PP	Z	21:34:02.0							
IBBN	e P	Z	21:32:12.5	46.2	83.4	1.1	4416	7.4		
	e PP	Z	21:34:04.7							
BFO	e P	Z	21:32:13.3	46.5	80.0	1.4	944	6.7		
	e PP	Z	21:34:06.5							
BUG	e P	Z	21:32:15.6	46.7	82.2	1.1	2253	7.2		
WLF	e P	Z	21:32:23.5	47.6	79.8	1.1	2146	7.2		
	e PP	Z	21:34:16.9							

Date
2004/04/05

Origin Time

Lat

Long

Depth

mb

Ms

ML

Source

Sta

Phase

Time

Dist

BAz

T[s]

A[nm]

mb

MS

ML

CLL

i P

Z 21:31:46.8

e pP

Z 21:32:27.4

e sP

Z 21:32:49.1

e PP

Z 21:33:29.9

e PcP

Z 21:33:31.9

e pPP

Z 21:34:07.3

e sPP

Z 21:34:27.9

e ScP

Z 21:37:05.8

e S

E 21:37:57.2

e sS

E 21:39:09.4

e SS

N 21:41:04.8

e ScS

Z 21:41:34.8

e LR

Z 21:44:40.9

e L

Z 21:53:45.0

20.0

11657

5.8

Date
2004/04/06

Origin Time

Lat

Long

Depth

mb

Ms

ML

Source

Sta

Phase

Time

Dist

BAz

T[s]

A[nm]

mb

MS

ML

GRA1

e PKP

Z 07:35:34.5

e pPKP

Z 07:35:47.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/06	10:30:39.3	34.347N	89.432E	33.0N	5.3	5.0		SZGRF

Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 10:40:10.1	55.4	76.3	1.1	20	5.0		
CLL	e P	Z 10:40:13.2	55.8	75.9	1.5	42	5.2		
GEC2	e P	Z 10:40:15.1	56.0	74.8	1.4	74	5.5		
WET	e P	Z 10:40:18.1	56.5	74.4	1.3	31	5.2		
WERD	e P	Z 10:40:18.1	56.5	74.9	1.8	61	5.3		
GUNZ	e P	Z 10:40:18.3	56.5	74.8	1.6	61	5.4		
BSEG	e P	Z 10:40:20.8	56.8	75.7	1.2	24	5.1		
MOX	e P	Z 10:40:20.7	56.9	74.6	1.4	37	5.2		
NRDL	e P	Z 10:40:24.2	57.3	74.7	1.5	99	5.6		
CLZ	e P	Z 10:40:24.0	57.3	74.5	1.5	80	5.5		
GRA1	e P	Z 10:40:24.6	57.4	73.7	1.6	110	5.6		
	e L	Z 11:07:20.2			18.6	1054		5.0	
STU	e P	Z 10:40:35.1	58.9	71.9	1.0	41	5.4		
BFO	e P	Z 10:40:38.8	59.6	71.1	1.6	53	5.3		
WLF	e P	Z 10:40:46.6	60.5	70.4	2.0	191	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/06								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	Z 10:40:13.2			1.5	43	5.2		
	e PP	R 10:42:19.2							
	e SS	R 10:51:37.2							
	e LR	Z 10:59:06.4							
	e L	Z 11:08:54.0			18.0	1074		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/06	16:32:44.7	24.990S	178.000W					GRSN

South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	Z 16:52:37.5	152.4	21.9	0.6	20			
	e PKPab	Z 16:52:44.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2004/04/06 21:39:31.0
North Atlantic Ocean

51.700N

40.560W

33.0N

5.3

SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z	21:45:30.4	29.2	288.4	1.1	132	5.7		
NRDL	e P	Z	21:45:42.3	30.5	289.1	1.2	66	5.4		
CLZ	e P	Z	21:45:45.9	30.9	290.3	1.2	51	5.3		
BFO	e P	Z	21:45:46.2	31.0	295.0	1.2	24	5.0		
MOX	e P	Z	21:45:55.4	32.0	292.6	1.2	25	5.0		
GRA1	e P	Z	21:45:57.0	32.2	293.9	1.4	57	5.3		
WERD	e P	Z	21:45:59.8	32.5	293.1	1.1	32	5.1		
GUNZ	e P	Z	21:46:00.7	32.6	293.3	1.1	27	5.1		
CLL	e P	Z	21:46:00.4	32.6	292.2	1.5	74	5.4		
RUE	e P	Z	21:46:00.6	32.6	290.8	1.1	34	5.2		
FUR	e P	Z	21:46:03.2	32.8	296.0	1.1	34	5.2		
BRG	e P	Z	21:46:06.6	33.3	293.2	1.9	73	5.3		
WET	e P	Z	21:46:07.9	33.4	295.2	2.5	143	5.5		
GEC2	e P	Z	21:46:12.8	34.0	295.9	1.2	35	5.2		

Date
2004/04/06

Origin Time

Lat

Long

Depth

mb

Ms

ML

Source

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	21:46:00.4			1.1	38	5.1		
	e PP	Z	21:46:48.4							
	e S	R	21:50:48.9							
	e LR	Z	21:53:26.7							
	e L	Z	21:56:53.0			20.0	3850		5.0	

Date
2004/04/06
Fiji Islands region

Origin Time
22:54:39.7

Lat
19.450S

Long
177.830W

Depth
33.0N

mb

Ms

ML

Source
SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	23:14:12.2	145.0	13.5					
RUE	e PKPbc	Z	23:14:14.9	145.8	19.7					
NRDL	e PKPbc	Z	23:14:16.6	146.4	13.6					
IBBN	e PKPbc	Z	23:14:18.2	146.9	9.7					
CLZ	e PKPbc	Z	23:14:19.0	147.0	14.3					
CLL	e PKPbc	Z	23:14:18.7	147.0	19.0					
BRG	e PKPbc	Z	23:14:19.5	147.2	20.8					
MOX	e PKPbc	Z	23:14:21.2	147.9	16.9					
WERD	e PKPbc	Z	23:14:21.6	148.0	18.2					
GUNZ	e PKPbc	Z	23:14:21.9	148.1	18.3					
GRA1	e PKPbc	Z	23:14:24.3	148.9	16.7					

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GEC2	e	PKPbc	Z	23:14:24.7	149.2	21.6
WLF	e	PKPbc	Z	23:14:26.3	149.6	7.4
FUR	e	PKPbc	Z	23:14:27.5	150.4	17.6
BFO	e	PKPbc	Z	23:14:28.2	150.7	11.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/07	01:32:31.9	40.638N	19.734E	10.0G				SZGRF
Albania								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	01:34:43.2	9.3	150.3					
FUR	e Pn	Z	01:34:48.6	9.6	138.2					
	e Sn	N	01:36:33.3							
WET	e Pn	Z	01:34:50.3	9.8	147.8					
GRA1	e Pn	Z	01:35:05.1	10.8	143.4					
GUNZ	e Pn	Z	01:35:09.3	11.0	149.2					
STU	e Pn	Z	01:35:07.9	11.0	133.5					
	e Sn	E	01:37:05.2							
WERD	e Pn	Z	01:35:09.9	11.1	149.3					
BFO	e Pn	Z	01:35:09.6	11.2	129.3					
	e Sn	N	01:37:11.2							
MOX	e Pn	Z	01:35:15.1	11.5	147.4					
WLF	e Pn	Z	01:35:37.8	13.1	128.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/07								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pn	Z	06:11:17.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/07	10:22:15.2	22.600S	179.530W	33.0N				SZGRF
South of Fiji Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	10:41:56.2	147.8	17.2					
RUE	e PKPbc	Z	10:41:58.5	148.4	24.0					
NRDL	e PKPbc	Z	10:42:00.0	149.2	17.6					
CLL	e PKPbc	Z	10:42:01.6	149.7	23.4					
	e PKPab	Z	10:42:06.5							
IBBN	e PKPbc	Z	10:42:02.3	149.8	13.4					
CLZ	e PKPbc	Z	10:42:02.2	149.8	18.4					
BRG	e PKPbc	Z	10:42:02.2	149.8	25.4					

MOX	e	PKPbc	Z	10:42:03.9	150.6	21.3
WERD	e	PKPbc	Z	10:42:04.3	150.7	22.7
	e	PKPab	Z	10:42:10.7		
BUG	e	PKPbc	Z	10:42:03.7	150.7	12.9
GUNZ	e	PKPbc	Z	10:42:04.5	150.7	22.8
GRA3	e	PKPbc	Z	10:42:06.3	151.5	21.4
GRA1	e	PKPbc	Z	10:42:06.1	151.6	21.2
	e	PKPab	Z	10:42:14.9		
GRFO	e	PKPab	Z	10:42:15.1	151.6	21.2
WET	e	PKPbc	Z	10:42:06.9	151.7	24.7
GEC2	e	PKPbc	Z	10:42:06.6	151.7	26.5
WLF	e	PKPbc	Z	10:42:09.1	152.6	11.4
FUR	e	PKPbc	Z	10:42:09.5	153.0	22.4
	e	PKPab	Z	10:42:21.2		
BFO	e	PKPbc	Z	10:42:10.6	153.5	16.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/07	13:47: 6.7	34.445N	139.632E	49.7	5.6			SZGRF

Near south coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:59:33.0	84.3	40.5	0.8	34	5.6		
	e pP	Z 13:59:47.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/07	14:49:49.3	12.218S	66.201E	33.0N	5.3			SZGRF

Mid-Indian Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 15:01:46.9	78.4	125.2	1.3	29	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/07	20:23:20.1	9.323N	82.012W	26.6	5.6	5.2		SZGRF

Panama-Costa Rica border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 20:35:37.2	81.7	274.7					
BUG	e P	Z 20:35:38.7	82.3	275.3	1.5	63	5.5		
IBBN	e P	Z 20:35:39.2	82.5	275.6					
BFO	e P	Z 20:35:44.2	83.3	276.5					
STU	e P	Z 20:35:46.9	83.8	277.1	1.5	84	5.7		
BSEG	e P	Z 20:35:47.1	83.8	277.4	1.5	76	5.7		
NRDL	e P	Z 20:35:46.7	83.9	277.4					

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CLZ	e P	Z	20:35:48.7	84.1	277.6	1.5	88	5.8
GRA1	e P	Z	20:35:52.5	85.0	278.5	1.7	83	5.7
	e pP	Z	20:36:00.2					
	e S	E	20:46:26.9					
	e L	Z	21:10:51.1			20.2	1009	5.2
MOX	e P	Z	20:35:52.7	85.1	278.7	1.7	67	5.6
FUR	e P	Z	20:35:54.8	85.2	278.7	1.3	52	5.6
WERD	e P	Z	20:35:55.6	85.6	279.3			
GUNZ	e P	Z	20:35:55.4	85.6	279.3	1.5	62	5.5
CLL	e P	Z	20:35:57.1	85.8	279.7	1.6	84	5.6
RUE	e P	Z	20:35:57.1	86.1	280.3			
WET	e P	Z	20:35:59.0	86.1	279.8	1.6	100	5.7
BRG	e P	Z	20:36:00.2	86.5	280.5	1.5	53	5.4
GEC2	e P	Z	20:36:01.9	86.7	280.4	1.6	56	5.4

Date
2004/04/07

Origin Time

Lat

Long

Depth

mb

Ms

ML

Source

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z	20:35:57.4			1.6	85	5.8		
	e		20:36:02.8							
	e PP	Z	20:39:35.9							
	e PPP	Z	20:41:13.6							
	e SKSac	R	20:46:26.7							
	e S	E	20:46:35.0							
	e PS	E	20:47:41.7							
	e SS	E	20:52:32.2							
	e SSS	Z	20:56:02.8							
	e LR	Z	21:04:17.2							
	e L	Z	21:11:43.1			20.0	588		5.0	

Date
2004/04/08
Kuril Islands, Russia

Origin Time
03:45:23.9

Lat
45.502N

Long
146.474E

Depth
33.0N

mb
5.0

Ms

ML

Source
SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	03:57:14.8	77.2	30.4	1.1	14	5.0		

Date
2004/04/08

Origin Time

Lat

Long

Depth

mb

Ms

ML

Source

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z	05:13:57.2							

e (PKPdf)	Z	05:17:04.0			0.8	6		
e PP	Z	05:19:21.1						
e SKPdf	Z	05:20:39.2						
e PPP	Z	05:22:09.6						
e PPS	Z	05:31:04.2						
e (SS)	E	05:37:11.0						
e SSS	E	05:41:41.1						
e LR	Z	06:00:28.3						
e L	Z	06:09:28.4			22.0	1474		5.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/08	04:57:50.0	36.177S	97.737W	10.0G		5.5		NEIC

West Chile Rise

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 05:16:56.9	128.3	256.6					
	e PP	Z 05:19:11.3							
	e SKKPdf	Z 05:30:40.7							
	e SS	E 05:36:52.4							
	e L	Z 06:09:24.8			22.0	1184		5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/09	00:16: 2.2	44.322N	13.765E	10.0G			2.5	SZGRF

Adriatic Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
KBA	e Pn	Z 00:16:46.9	2.8	173.8					2.3
	e Sn	E 00:17:22.1							
ARSA	e Pn	Z 00:16:52.3	3.2	203.4					2.3
	e Sn	E 00:17:30.8							
WTTA	e Pn	Z 00:16:53.6	3.3	152.5					
	e Sn	N 00:17:32.1							
MOA	e Pn	Z 00:16:58.0	3.5	185.8					2.5
	e Sn	E 00:17:41.0							
DAVA	e Pn	Z 00:17:03.1	4.0	136.2					2.6
	e Sn	N 00:17:49.9							
GEC2	e Pn	Z 00:17:10.2	4.5	179.4					2.8
	e Sn	E 00:18:03.9							
WET	e Pn	Z 00:17:14.2	4.9	172.5					
	e Sn	N 00:18:11.0							
GRA1	e Sn	N 00:18:27.5	5.6	161.2					
MOX	e Sn	N 00:18:46.9	6.5	166.3					

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2004/04/09

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	Z 02:08:41.6			1.2	50	5.6		
	e pP	Z 02:08:55.7							
	e sP	Z 02:09:03.1							
	e PP	Z 02:12:09.7							
	e S	N 02:19:28.0							
	e PS	E 02:20:42.0							
	e L	Z 02:52:25.5			22.0	175		4.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/09	01:55:57.0	1.332N	100.747E	33.0N	5.6			SZGRF

Northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 02:08:39.1	87.0	91.6	0.9	41	5.6		
GEC2	e P	Z 02:08:39.2	87.1	91.3	1.6	101	5.7		
RUE	e P	Z 02:08:40.1	87.1	91.6	1.2	217	6.1		
CLL	e P	Z 02:08:41.7	87.6	90.9	1.2	49	5.7		
WET	e P	Z 02:08:41.8	87.6	90.7	1.6	85	5.8		
GUNZ	e P	Z 02:08:44.0	88.0	90.4	1.4	54	5.7		
WERD	e P	Z 02:08:43.7	88.0	90.4	1.5	48	5.6		
MOX	e P	Z 02:08:45.6	88.4	89.8	1.1	35	5.6		
FUR	e P	Z 02:08:46.6	88.7	89.5	0.6	20	5.5		
GRA1	e P	Z 02:08:47.3	88.7	89.5	1.5	95	5.8		
	e	02:09:01.5							
BSEG	e P	Z 02:08:50.1	89.2	88.9	1.0	35	5.5		
CLZ	e P	Z 02:08:49.2	89.2	88.9	1.7	86	5.7		
NRDL	e P	Z 02:08:50.7	89.3	88.7	1.6	53	5.5		
STU	e P	Z 02:08:53.3	90.0	88.0	1.0	25	5.4		
BFO	e P	Z 02:08:55.1	90.6	87.3	0.9	17	5.4		
IBBN	e P	Z 02:08:57.2	90.8	86.8	0.8	25	5.6		
BUG	e P	Z 02:08:58.9	91.1	86.4	1.3	22	5.3		
WLF	e P	Z 02:09:02.9	92.0	85.6	1.2	16	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/09	15:23:24.4	15.220S	167.250E	234.8				SZGRF

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PP	Z 15:44:59.8	135.8	37.4					
RUE	e PP	Z 15:45:07.8	137.2	39.4					
BSEG	e PKPdf	Z 15:42:16.2	137.3	33.9					

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BRG	e	PKPdf	Z	15:42:19.5	138.4	40.7
CLL	e	PKPdf	Z	15:42:18.9	138.4	39.2
	e	PP	Z	15:45:13.8		
NRDL	e	pPKPdf	Z	15:43:22.6	138.6	34.5
CLZ	e	PP	Z	15:45:17.3	139.0	35.3
IBBN	e	PKPdf	Z	15:42:22.6	139.5	31.4
	e	pPKPdf	Z	15:43:23.0		
GEC2	e	PKPdf	Z	15:42:24.8	140.0	42.0
WET	e	PKPdf	Z	15:42:24.8	140.1	40.6
BUG	e	PKPdf	Z	15:42:25.3	140.4	31.2
GRA1	e	Pdiff	Z	15:39:42.3	140.4	38.0
	e	pPdiff	Z	15:40:40.2		
	e	PKPdf	Z	15:42:25.9		
	e	pPKPdf	Z	15:43:27.8		
	e	PP	Z	15:45:27.5		
	e	pPP	Z	15:46:17.1		
FUR	e	PP	Z	15:45:34.6	141.6	39.2
STU	e	PKPdf	Z	15:42:29.7	141.9	35.8
	e	PP	Z	15:45:36.0		
BFO	e	PKPdf	Z	15:42:29.5	142.6	34.9
	e	pPKPdf	Z	15:43:26.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/09								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:13:36.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/10	04:54: 6.9	24.620S	173.860W	33.0N				SZGRF
South of Tonga Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 05:13:55.0	150.5	7.7					
	e PKPab	Z 05:14:02.9							
RUE	e PKPbc	Z 05:13:57.3	151.5	14.7					
	e PKPab	Z 05:14:05.6							
IBBN	e PKPdf	Z 05:13:53.5	152.3	3.2					
	e PKPbc	Z 05:13:59.8							
	e PKPab	Z 05:14:09.5							
CLZ	e PKPdf	Z 05:13:54.2	152.6	8.4					
	e PKPbc	Z 05:14:00.0							
	e PKPab	Z 05:14:10.9							
CLL	e PKPdf	Z 05:13:53.5	152.8	13.7					
	e PKPbc	Z 05:14:00.3							

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BRG	e PKPdf	Z	05:13:53.7	153.1	15.8
	e PKPbc	Z	05:14:01.0		
WERD	e PKPbc	Z	05:14:02.8	153.7	12.7
GRA1	e PKPdf	Z	05:13:56.0	154.6	10.8
	e PKPab	Z	05:14:19.1		
WLF	e PKPdf	Z	05:13:55.8	155.0	0.0
	e PKPbc	Z	05:14:07.2		
	e PKPab	Z	05:14:21.4		
FUR	e PKPab	Z	05:14:24.7	156.1	11.6
BFO	e PKPab	Z	05:14:25.6	156.2	4.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/10								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 05:13:54.2			1.6	24			
	e PKPbc	Z 05:14:00.3			1.6	107			
	e PKPab	Z 05:14:11.4			1.1	54			
	e PP	Z 05:17:56.4							
	e L	Z 06:27:59.9			20.0	458		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/10	07:35:24.4	7.833N	137.354E	33.0N		5.6		NEIC
Western Caroline Islands, Micronesia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z 07:53:51.1	105.9	56.3					
	e SP	Z 08:03:06.3							
	e L	Z 08:41:08.0			21.3	1837		5.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/10	15:56:58.8	13.515N	94.746E	33.0N	5.2			SZGRF
Andaman Islands, India, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 16:08:29.9	73.8	88.4	1.6	56	5.3		
RUE	e P	Z 16:08:30.5	73.8	88.7					
CLL	e P	Z 16:08:32.8	74.4	87.8	1.7	40	5.2		
WET	e P	Z 16:08:34.1	74.5	87.1	0.9	15	5.0		
GUNZ	e P	Z 16:08:36.1	74.8	87.0					
WERD	e P	Z 16:08:36.1	74.8	87.0	0.9	17	5.1		
MOX	e P	Z 16:08:38.4	75.3	86.5	0.9	15	5.0		
GRA1	e P	Z 16:08:40.6	75.6	86.0	1.6	63	5.5		

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FUR	e P	Z	16:08:39.8	75.6	85.6						
BSEG	e P	Z	16:08:42.8	75.8	86.4	1.3	56	5.5			
CLZ	e P	Z	16:08:42.5	76.0	85.9	1.6	67	5.5			
IBBN	e P	Z	16:08:51.5	77.5	84.0						
BFO	e P	Z	16:08:51.0	77.6	83.5	1.0	10	4.9			
BUG	e P	Z	16:08:53.7	77.9	83.4	1.4	53	5.5			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/10	15:56:57.2	13.080N	93.310E	2.0G	5.2	4.8		ami

Andaman Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 16:08:33.0	73.8	89.2	1.7	41	5.2		
	e	16:08:42.4							
	e L	Z 16:45:55.2			18.2	410		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/10	16:06:52.4	24.460S	177.990W	33.0N		5.7		SZGRF

South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 16:26:39.4	149.9	15.2					
RUE	e PKPbc	Z 16:26:40.8	150.6	22.2					
IBBN	e PKPbc	Z 16:26:43.4	151.8	11.1					
CLL	e PKPbc	Z 16:26:43.5	151.9	21.6					
CLZ	e PKPbc	Z 16:26:44.1	151.9	16.3					
MOX	e PKPbc	Z 16:26:45.9	152.8	19.4					
WERD	e PKPbc	Z 16:26:46.6	152.8	20.9					
GUNZ	e PKPbc	Z 16:26:47.2	152.9	21.0					
GRA1	e PKPab	Z 16:27:04.9	153.8	19.2					
	e L	Z 17:40:57.8			20.6	1099		5.7	
WLF	e PKPbc	Z 16:26:50.8	154.6	8.8					
	e PKPab	Z 16:27:05.2							
FUR	e PKPab	Z 16:27:08.0	155.2	20.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/10								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 16:26:37.3			2.1	31			
	i PKPbc	Z 16:26:43.7			1.5	51			
	e PP	Z 16:30:25.2							
	e SS	N 16:49:52.6							

e L Z 17:31:14.8 22.0 902 5.5

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/10 22:41:43.6 35.591N 72.672E 33.0N 4.9
 Pakistan

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 22:50:03.7 46.0 83.6 1.5 19 4.9

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/11 00:41:53.6 40.190N 143.246E 33.0N
 Off east coast of Honshu, Japan

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 00:54:04.0 80.7 35.1

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/11 01:09: 2.7 19.270S 175.680W 33.0N
 Tonga Islands

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 BSEG e PKPbc Z 01:28:35.5 145.0 9.9
 RUE e PKPbc Z 01:28:38.4 146.0 16.1
 CLZ e PKPbc Z 01:28:42.2 147.1 10.6
 CLL e PKPbc Z 01:28:42.4 147.2 15.3
 BRG e PKPbc Z 01:28:43.3 147.5 17.1
 MOX e PKPbc Z 01:28:44.8 148.1 13.1
 WERD e PKPbc Z 01:28:45.1 148.2 14.4
 GUNZ e PKPbc Z 01:28:45.5 148.3 14.5
 GRA1 e PKPbc Z 01:28:47.6 149.1 12.8
 WLF e PKPbc Z 01:28:49.1 149.6 3.4
 STU e PKPbc Z 01:28:50.4 150.2 9.3
 FUR e PKPbc Z 01:28:51.2 150.6 13.4
 BFO e PKPbc Z 01:28:51.4 150.8 7.8

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/11 07:38:14.5 3.658N 140.387E 33.0
 Western Caroline Islands, Micronesia

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e Pdiff Z 07:52:30.2 111.0 56.0

e PP	Z	07:57:23.5									
e		07:58:53.9									
e SP	Z	08:07:16.1									
e L	Z	08:54:01.8			19.8		3763		6.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/11								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKiKP	Z 07:56:10.7							
	e PP	Z 07:57:11.9							
	e Sdiff	N 08:04:58.6							
	e PS	Z 08:06:53.6							
	e PPS	Z 08:07:57.3							
	e SS	N 08:13:20.4							
	e L	Z 08:52:24.0			20.0	4144		6.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/11								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 08:06:40.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/11	18:06:22.1	45.155N	145.950E	33.0N	5.9	6.0		SZGRF
Hokkaido, Japan, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 18:17:46.7	72.5	33.0	1.6	465	6.4		
BSEG	e P	Z 18:17:55.1	74.0	30.9	1.0	119	5.9		
RUE	e P	Z 18:17:55.4	74.1	32.9	1.4	216	6.0		
CLL	e P	Z 18:18:01.9	75.3	32.2	1.1	150	6.1		
BRG	e P	Z 18:18:02.3	75.4	32.8	1.4	83	5.7		
CLZ	e P	Z 18:18:05.1	75.7	30.6	1.1	142	6.0		
IBBN	e P	Z 18:18:07.1	76.1	29.0					
WERD	e P	Z 18:18:07.7	76.3	31.7					
MOX	e P	Z 18:18:08.1	76.4	31.3	1.4	107	5.8		
GUNZ	e P	Z 18:18:08.1	76.4	31.7					
BUG	e P	Z 18:18:11.9	77.0	28.5					
WET	e P	Z 18:18:13.0	77.2	31.9					
GRA1	i P	+ Z 18:18:13.7	77.3	30.9	1.3	196	6.1		
	e PP	Z 18:21:12.4							
	e S	N 18:28:07.9							

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	e SS	Z	18:33:39.8								
	e L	Z	18:56:20.7			22.0	8740		6.0		
FUR	e P	Z	18:18:20.4	78.6	30.8	1.1	148		5.9		
STU	e P	Z	18:18:21.2	78.8	29.5						
WLF	e P	Z	18:18:22.6	78.9	27.6						
BFO	e P	Z	18:18:24.7	79.4	28.9	1.4	94		5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/11								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 18:18:02.2			1.2	158	6.0		
	e pP	Z 18:18:13.8							
	e PP	Z 18:20:56.8							
	e PPP	Z 18:22:46.6							
	e S	T 18:27:45.8							
	e PS	R 18:28:38.7							
	e SS	R 18:33:07.3							
	e LQ	T 18:40:26.9							
	e LR	Z 18:43:26.0							
	e L	Z 18:54:17.5				22.0	9356		6.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/11	20:21:54.8	67.592N	6.426E	33.0N				SZGRF
Norwegian Sea								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:26:03.9	18.1	354.1					
	e	20:26:10.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/11	23:31:4.1	72.317N	4.034W	33.0N	4.3			SZGRF
Jan Mayen Island region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:36:12.9	23.6	348.5	1.3	13	4.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/12	00:52:44.8	49.429N	155.033E	33.0N	5.0			SZGRF
Kuril Islands, Russia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:04:29.8	76.1	23.3	1.2	16	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/12	02:06:39.0	46.961N	155.953E	33.0N	4.9			SZGRF

East of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	02:18:38.1	78.6	23.7	1.2	17	4.9		
	e		02:18:49.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/12	05:15:56.5	45.362N	144.531E	33.0N	5.2			SZGRF

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	05:27:25.9	73.3	31.7	0.8	23	5.2		
RUE	e P	Z	05:27:26.2	73.4	33.7					
CLL	e P	Z	05:27:32.7	74.7	33.1	1.0	38	5.4		
BRG	e P	Z	05:27:33.1	74.7	33.6	0.9	11	4.9		
CLZ	e P	Z	05:27:35.9	75.1	31.4	0.9	22	5.2		
IBBN	e P	Z	05:27:37.9	75.5	29.8					
WERD	e P	Z	05:27:38.4	75.6	32.5					
GUNZ	e P	Z	05:27:38.9	75.7	32.5					
MOX	e P	Z	05:27:38.8	75.7	32.1	0.7	8	5.0		
BUG	e P	Z	05:27:42.7	76.4	29.4					
WET	e P	Z	05:27:43.8	76.5	32.7	0.9	18	5.2		
GRA1	i P	+ Z	05:27:44.5	76.7	31.7	0.9	28	5.4		
FUR	e P	Z	05:27:51.2	77.9	31.6	0.8	25	5.4		
STU	e P	Z	05:27:52.0	78.1	30.3	0.9	20	5.2		
WLF	e P	Z	05:27:54.5	78.3	28.5					
BFO	e P	Z	05:27:55.5	78.8	29.7	0.9	7	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/12								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z	05:27:32.9			1.0	39	5.5		
	e pP	Z	05:27:44.8							
	e L	Z	06:03:57.8			22.0	162		4.3	

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/12	06:30:47.1	19.010S	173.710W	33.0N				SZGRF

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 06:50:19.9	144.9	6.6					
RUE	e PKPbc	Z 06:50:22.7	146.0	12.7					
IBBN	e PKPbc	Z 06:50:24.8	146.7	2.5					
CLZ	e PKPbc	Z 06:50:26.1	147.0	7.1					
CLL	e PKPbc	Z 06:50:26.7	147.3	11.8					
BUG	e PKPbc	Z 06:50:27.3	147.6	1.7					
BRG	e PKPbc	Z 06:50:27.7	147.6	13.6					
MOX	e PKPbc	Z 06:50:29.2	148.1	9.6					
WERD	e PKPbc	Z 06:50:29.6	148.2	10.8					
GUNZ	e PKPbc	Z 06:50:30.0	148.3	10.9					
GRA1	e PKPbc	Z 06:50:32.2	149.1	9.1					
WLF	e PKPbc	Z 06:50:33.1	149.3	359.7					
WET	e PKPbc	Z 06:50:32.9	149.4	12.3					
STU	e PKPbc	Z 06:50:34.7	150.1	5.5					
FUR	e PKPbc	Z 06:50:36.1	150.6	9.6					
BFO	e PKPbc	Z 06:50:35.8	150.6	3.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/12	10:58:30.9	45.868N	152.300E	33.0N	4.9			SZGRF

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:10:29.9	78.6	26.5	1.0	13	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/12	13:43:19.3	21.930S	177.330W	33.0N				SZGRF

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 14:02:59.9	147.5	13.3					
RUE	e PKPbc	Z 14:03:02.1	148.3	19.9					
IBBN	e PKPbc	Z 14:03:05.0	149.4	9.3					
	e PKPab	Z 14:03:09.2							
CLZ	e PKPbc	Z 14:03:05.6	149.5	14.2					
CLL	e PKPbc	Z 14:03:05.3	149.5	19.2					
	e PKPab	Z 14:03:09.7							
BRG	e PKPbc	Z 14:03:05.9	149.7	21.1					
	e PKPab	Z 14:03:10.9							
MOX	e PKPbc	Z 14:03:07.5	150.4	17.0					
WERD	e PKPbc	Z 14:03:07.8	150.5	18.4					

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GUNZ	e	PKPbc	Z	14:03:08.2	150.6	18.5
GRA1	e	PKPbc	Z	14:03:08.4	151.4	16.8
	e	PKPab	Z	14:03:18.4		
STU	e	PKPbc	Z	14:03:13.0	152.7	13.3
FUR	e	PKPbc	Z	14:03:13.5	152.9	17.7
	e	PKPab	Z	14:03:24.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/12	22:28:21.0			N	4.4			SZGRF

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 22:32:52.6							
BSEG	e P	Z 22:33:32.4							
CLL	e P	Z 22:32:59.9							
FUR	e P	Z 22:32:37.2							
GRA1	e P	Z 22:32:51.8			1.3	34	4.4		
STU	e P	Z 22:32:51.5							
WERD	e P	Z 22:32:54.3							
WET	e P	Z 22:32:40.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/13	03:52:1.6	22.300S	170.100E	33.0N		4.9		GSRC-M

Southeast of Loyalty Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z 04:11:35.3	144.9	33.8					
CLL	e PKP	Z 04:11:38.8	146.0	40.1					
WERD	e PKP	Z 04:11:42.0	146.9	39.9					
GUNZ	e PKP	Z 04:11:42.4	147.0	40.0					
IBBN	e PKP	Z 04:11:42.4	147.1	31.1					
GEC2	e PKP	Z 04:11:43.7	147.5	43.6					
WET	e PKP	Z 04:11:43.9	147.7	42.1					
GRA1	e PKP	Z 04:11:44.9	148.0	38.9					
	e L	Z 05:18:41.0			21.0	205		4.9	
FUR	e PKP	Z 04:11:48.0	149.1	40.6					
STU	e PKP	Z 04:11:48.8	149.5	36.6					
WLF	e PKP	Z 04:11:49.9	149.9	30.6					
BFO	e PKP	Z 04:11:50.0	150.2	35.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/13								

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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 04:33:59.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/13	11:24:29.4	15.000S	173.900W	33.0N				EMSC-A
Tonga Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 11:44:04.0	145.1	8.7					
	e pPKP	Z 11:44:28.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/13	14:55:55.5	49.321N	167.263W	44.0				SZGRF
South of Aleutian Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:08:07.2	81.0	359.0					
	e pP	Z 15:08:20.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/13								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 19:05:11.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/13	21:10: 3.0	25.230N	94.540E	33.0N	5.3			SZGRF
Myanmar-India border region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 21:20:40.4	64.9	80.2	0.5	13	5.4		
GEC2	e P	Z 21:20:43.9	65.4	79.1	1.2	18	5.2		
WET	e P	Z 21:20:46.9	65.9	78.7	0.7	10	5.2		
WERD	e P	Z 21:20:47.5	66.0	78.8	0.6	8	5.1		
GUNZ	e P	Z 21:20:47.6	66.0	78.8	0.7	11	5.2		
BSEG	e P	Z 21:20:51.2	66.5	78.9	0.8	27	5.5		
GRA1	e P	Z 21:20:53.2	66.9	77.7	1.8	47	5.4		
CLZ	e P	Z 21:20:53.3	66.9	78.0	0.6	18	5.4		
FUR	e P	Z 21:20:54.7	67.1	77.1	0.8	15	5.3		
BUG	e P	Z 21:21:05.4	68.9	75.6	1.0	14	5.1		
WLF	e P	Z 21:21:13.2	70.0	74.2	0.9	32	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/13	21:47:23.0	40.700N	31.600E	5.0N				KAN-M

Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 21:51:10.9	15.9	122.9					
CLL	e P	Z 21:51:18.7	16.6	122.4					
GRA1	e P	Z 21:51:20.9	16.9	114.5					
MOX	e P	Z 21:51:25.1	17.1	117.9					
CLZ	e P	Z 21:51:38.9	18.3	119.1					
BSEG	e P	Z 21:51:52.6	19.4	124.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/14	01:33: 3.2	19.060S	174.350W	145.9				SZGRF

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPdf	Z 01:52:24.6	146.0	13.8					
BRG	e PKPdf	Z 01:52:28.0	147.5	14.7					
	e pPKPbc	Z 01:53:08.4							
BUG	e PKPdf	Z 01:52:27.6	147.6	2.9					
MOX	e PKPdf	Z 01:52:28.5	148.1	10.7					
	e PKPbc	Z 01:52:31.5							
WERD	e PKPdf	Z 01:52:28.9	148.2	12.0					
	e PKPbc	Z 01:52:32.0							
GUNZ	e PKPdf	Z 01:52:29.2	148.2	12.1					
	e PKPbc	Z 01:52:32.3							
GRA1	e PKPdf	Z 01:52:30.6	149.0	10.3					
	e PKPbc	Z 01:52:34.2							
	e pPKPbc	Z 01:53:12.5							
	e PP	Z 01:56:05.7							
GRFO	e PKPbc	Z 01:52:34.2	149.0	10.3					
WET	e PKPdf	Z 01:52:30.9	149.4	13.5					
	e PKPbc	Z 01:52:34.9							
WLF	e PKPdf	Z 01:52:31.3	149.4	0.9					
	e PKPbc	Z 01:52:35.3							
GEC2	e PKPdf	Z 01:52:31.2	149.5	15.1					
	e PKPbc	Z 01:52:35.5							
STU	e PKPdf	Z 01:52:32.4	150.2	6.7					
	e PKPbc	Z 01:52:36.9							
FUR	e PKPdf	Z 01:52:32.9	150.5	10.9					
	e PKPbc	Z 01:52:37.9							
BFO	e PKPdf	Z 01:52:32.9	150.6	5.2					
	e PKPbc	Z 01:52:38.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/14								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	+ Z	01:52:28.3			1.3	614			
	e pPKPbc	Z	01:53:06.9							
	e sPKPbc	Z	01:53:20.6							
	e PP	Z	01:55:42.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/14	01:54: 9.4	55.500N	161.240E	33.0N	6.4	5.9		SZGRF
Near east coast of Kamchatka Peninsula, Russia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	02:05:01.0	66.9	19.1	0.9	538	6.8		
BSEG	e P	Z	02:05:07.9	68.0	17.3	1.1	287	6.4		
HLG	e P	Z	02:05:08.9	68.2	15.9	1.0	330	6.5		
RUE	e P	Z	02:05:12.5	68.7	19.1	1.0	410	6.6		
CLZ	e P	Z	02:05:20.4	70.0	17.1	1.1	409	6.6		
	e PP	Z	02:07:57.9							
	e S	T	02:14:31.8							
IBBN	e P	Z	02:05:19.9	70.0	15.6	1.0	436	6.6		
CLL	e P	Z	02:05:19.8	70.0	18.5	1.0	357	6.6		
	e S	T	02:14:30.6							
	e SS	T	02:19:01.4							
BRG	e P	Z	02:05:21.4	70.2	19.0	1.0	239	6.4		
	e S	T	02:14:35.2							
MOX	e P	Z	02:05:25.6	70.9	17.6	1.0	307	6.4		
	e PP	Z	02:08:05.4							
	e S	T	02:14:42.0							
BUG	e P	Z	02:05:25.1	70.9	15.3	1.0	281	6.3		
WERD	e P	Z	02:05:26.0	70.9	18.0	0.8	168	6.2		
TANN	e PP	Z	02:08:04.5	70.9	18.1					
	e S	T	02:14:43.8							
GUNZ	e P	Z	02:05:26.7	71.0	18.0	1.1	317	6.4		
GRA1	e P	Z	02:05:32.0	71.9	17.3	1.1	624	6.6		
	e PP	Z	02:08:13.5							
	e S	T	02:14:55.2							
	e SS	R	02:19:27.6							
	e L	Z	02:40:34.1			21.8	6655		5.9	
GRFO	e P	Z	02:05:32.0	71.9	17.3	1.1	521	6.6		
WET	e P	Z	02:05:33.2	72.1	18.2	1.1	332	6.4		
	e S	T	02:14:55.2							
GEC2	e P	Z	02:05:33.6	72.2	18.6	1.0	215	6.2		

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WLF	e P	Z	02:05:36.9	72.8	14.5	1.2	216	6.2
STU	e P	Z	02:05:38.8	73.1	16.1	1.4	384	6.3
FUR	e P	Z	02:05:40.2	73.3	17.2	1.0	345	6.4
	e PP	Z	02:08:25.3					
BFO	e P	Z	02:05:42.1	73.7	15.6	1.0	253	6.3
	e SS	T	02:20:00.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/14								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	Z 02:05:19.8			1.0	361	6.5		
	e PP	Z 02:07:58.0							
	e PPP	Z 02:09:41.9							
	e S	T 02:14:31.8							
	e SP	Z 02:14:58.1							
	e SS	E 02:19:00.8							
	e SSS	E 02:22:40.6							
	e LQ	T 02:24:58.1							
	e LR	Z 02:27:58.7							
	e L	Z 02:38:50.7			22.0	10169		6.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/14	02:12: 4.0	55.730N	162.140E	33.0N	4.8			SZGRF
Near east coast of Kamchatka Peninsula, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 02:23:02.1	67.9	16.7	1.3	8	4.8		
RUE	e P	Z 02:23:07.2	68.7	18.5					
CLZ	e P	Z 02:23:14.6	69.9	16.5	1.2	11	4.9		
CLL	e P	Z 02:23:13.9	69.9	17.9	1.0	10	4.9		
BRG	e P	Z 02:23:15.4	70.2	18.4					
MOX	e P	Z 02:23:19.8	70.8	17.1					
WERD	e P	Z 02:23:20.6	70.9	17.4					
GUNZ	e P	Z 02:23:21.0	71.0	17.4					
GRA1	e P	Z 02:23:26.2	71.8	16.7	1.0	9	4.9		
GRFO	e P	Z 02:23:26.4	71.8	16.7					
WET	e P	Z 02:23:27.4	72.0	17.6	1.0	8	4.8		
GEC2	e P	Z 02:23:27.9	72.2	18.0	1.0	4	4.5		
BFO	e P	Z 02:23:36.4	73.7	15.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/14	08:10: 8.9			N		5.3		neic-m

Near east coast of Kamchatka Peninsula, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 08:30:39.5							
	e L	Z 09:49:14.1			20.6	484		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/14	14:13:42.0	37.360N	70.410E	358.4	5.2			SZGRF

Afghanistan-Tajikistan border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 14:20:56.6	41.6	86.3	1.1	43	5.1		
RUE	e P	Z 14:20:56.5	41.6	88.0	1.2	61	5.2		
RGN	e P	Z 14:20:58.9	41.9	90.0	1.2	202	5.7		
GEC2	e P	Z 14:20:59.3	41.9	83.9	1.7	30	4.8		
CLL	e P	Z 14:21:00.3	42.2	86.1	1.1	26	4.9		
GUNZ	e P	Z 14:21:05.1	42.7	84.6	1.2	23	4.8		
WERD	e P	Z 14:21:05.0	42.7	84.7	1.3	25	4.8		
MOX	e P	Z 14:21:07.9	43.1	84.4	1.4	41	5.0		
GRA1	e P	Z 14:21:11.7	43.4	83.1	1.5	85	5.3		
	e pP	Z 14:22:23.6							
FUR	e P	Z 14:21:12.9	43.6	81.6	1.2	54	5.2		
BSEG	e P	Z 14:21:13.0	43.6	86.9	1.0	38	5.1		
CLZ	e P	Z 14:21:13.6	43.7	84.8	1.3	50	5.1		
HLG	e P	Z 14:21:24.2	45.0	85.3	1.1	68	5.5		
IBBN	e P	Z 14:21:26.2	45.3	83.4	1.1	73	5.5		
BUG	e P	Z 14:21:29.1	45.7	82.2	1.1	34	5.3		
WLF	e P	Z 14:21:37.1	46.7	79.7	1.1	43	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/14								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 14:21:00.4			1.1	26	4.9		
	e pP	Z 14:21:49.0							
	e sP	Z 14:22:12.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/14	15:11:50.0	54.840N	162.400E	33.0N	5.4			SZGRF

Near east coast of Kamchatka Peninsula, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 15:22:46.4	67.7	18.7	0.9	36	5.6		

BSEG	e P	Z	15:22:53.3	68.8	16.8	1.1	26	5.4
IBBN	e P	Z	15:23:05.5	70.8	15.1	1.1	50	5.6
CLZ	e P	Z	15:23:05.8	70.8	16.6	1.0	34	5.4
CLL	e P	Z	15:23:05.1	70.8	18.1	1.2	51	5.5
BRG	e P	Z	15:23:06.5	71.1	18.6	1.2	24	5.2
BUG	e P	Z	15:23:10.8	71.7	14.8	1.1	26	5.3
MOX	e P	Z	15:23:10.9	71.7	17.2	1.0	29	5.3
WERD	e P	Z	15:23:11.5	71.8	17.6	0.9	29	5.4
GUNZ	e P	Z	15:23:12.0	71.9	17.6	1.0	22	5.3
GRA1	e P	Z	15:23:17.3	72.7	16.9	0.7	56	5.8
WET	e P	Z	15:23:18.4	72.9	17.8	1.1	27	5.3
GEC2	e P	Z	15:23:18.7	73.0	18.2	1.7	42	5.3
STU	e P	Z	15:23:24.1	74.0	15.7	0.6	20	5.3
FUR	e P	Z	15:23:25.4	74.2	16.8	0.7	28	5.4
BFO	e P	Z	15:23:27.5	74.6	15.1	0.7	18	5.2

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/14 23:07:47.8 70.650N 6.010W 33.0N 6.2 5.0 ML SZGRF
 Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e P	Z 23:11:51.8	17.6	344.7	1.2	1556	6.0		
RGN	e P	Z 23:11:59.3	18.2	339.4	2.0	4166	6.2		
BSEG	e P	Z 23:11:59.7	18.2	342.7	1.3	1491	6.0		
IBBN	e P	Z 23:12:12.0	19.4	346.3	1.2	762	5.8		
BUG	e P	Z 23:12:20.8	20.1	347.2	1.8	2280	6.1		
CLZ	e P	Z 23:12:21.9	20.2	344.3	2.4	2392	6.0		
RUE	e P	Z 23:12:21.9	20.2	341.1	1.5	1224	5.9		
CLL	e P	Z 23:12:32.0	21.2	342.6	1.4	635	5.8		
MOX	e P	Z 23:12:36.5	21.6	344.2	3.1	9267	6.7		
WLF	e P	Z 23:12:37.7	21.7	349.1	1.5	1339	6.2		
BRG	e P	Z 23:12:38.0	21.8	342.3					
WERD	e P	Z 23:12:39.7	21.9	343.8	1.2	1335	6.3		
GUNZ	e P	Z 23:12:40.8	22.0	343.8	1.3	1498	6.2		
GRA1	e P	Z 23:12:45.4	22.4	345.1	1.6	3437	6.6		
	e L	Z 23:21:44.4			20.7	5663		5.0	
STU	e P	Z 23:12:51.2	23.0	347.2	1.3	1139	6.2		
WET	e P	Z 23:12:54.1	23.3	344.2	1.2	855	6.2		
BFO	e P	Z 23:12:54.2	23.3	348.0	2.1	2650	6.4		
GEC2	e P	Z 23:12:58.9	23.7	343.9	1.1	829	6.2		
FUR	e P	Z 23:13:00.4	23.9	346.0	2.1	5819	6.7		

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/14

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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 23:12:32.1			1.4	646	5.9		
	e S	N 23:16:37.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/15	01:11:10.7	72.976N	7.669W	33.0N	4.0			SZGRF
Jan Mayen Island region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:16:29.3	24.7	346.9	1.0	3	4.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/15	03:35:46.3	47.292N	157.155E	33.0N	4.9			SZGRF
East of Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:47:45.4	78.6	22.8	0.8	11	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/15								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKP)	Z 10:08:45.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/15								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	- Z 10:08:27.0			0.8	70			
	i PKPab	Z 10:08:36.5			0.8	22			
	e pPKPbc	Z 10:10:35.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/15	19:06:14.6	5.374S	80.992W	33.0N	5.0			SZGRF
Near coast of northern Peru								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:19:36.6	95.5	268.2	1.3	9	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/15	20:07:4.0	19.500S	169.500E	80.0N				NEIR-M

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 20:26:32.9	145.2	37.7					
	e PP	Z 20:29:52.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/15								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPpre	Z 20:26:26.7			1.5	39			
	e PKPdf	Z 20:26:29.7							
	e	20:26:34.2							
	e PP	Z 20:29:42.2							
	e	20:44:20.5							
	e SS	E 20:48:32.5							
	e SSS	N 20:54:20.0							
	e LR	Z 21:15:15.6							
	e L	Z 21:30:08.1				22.0	3272	6.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/15	20:20:51.0	0.200N	169.600E	30.0N				ODC-A

Gilbert Islands, Kiribati, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 20:39:52.0	126.8	27.4					
	e pPKP	Z 20:40:05.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/15								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPpre	Z 20:39:45.2							
	e PKPdf	Z 20:39:46.8			1.1	22			
	e PP	Z 20:43:00.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2004/04/15 21:20:37.9 7.730N 93.500E 33.0N 4.9 SZGRF
 Nicobar Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 21:32:30.8	77.5	92.6					
RUE	e P	Z 21:32:31.9	77.6	93.4	0.6	25	5.5		
WET	e P	Z 21:32:33.8	78.0	92.0	1.2	8	4.7		
WERD	e P	Z 21:32:36.1	78.4	91.8	1.2	7	4.7		
GRA1	e P	Z 21:32:40.4	79.1	90.8	1.1	14	4.9		
CLZ	e P	Z 21:32:43.2	79.7	90.6	1.1	15	4.8		
BSEG	e P	Z 21:32:43.2	79.7	90.9	1.1	19	4.9		
BFO	e P	Z 21:32:50.4	81.0	88.4	1.1	7	4.6		
IBBN	e P	Z 21:32:51.6	81.3	88.6	1.7	43	5.2		

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/15 21:38:24.4 5.188N 96.018E 33.0N 4.9
 Northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:50:45.1	82.7	90.6	0.9	8	4.9		

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/15

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 22:53:46.8							

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/15 23:02:54.2 15.588N 90.832E 33.0N 4.8
 Bay of Bengal

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:14:12.1	71.5	87.5	1.2	9	4.8		

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/16

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 02:18:07.7			1.5	24	5.1		
	e pP	Z 02:18:14.8							
	e S	T 02:27:54.2							

e SSS	T	02:36:21.4									
e LR	Z	02:45:02.0									
e L	Z	02:58:54.7			18.3		858		5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/16	02:05:57.8	6.104N	95.492E	33.0N	5.2	5.0		SZGRF

Nicobar Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:18:13.0	81.6	90.4	1.0	19	5.2		
	e pP	Z 02:18:21.9							
	e S	N 02:28:09.6							
	e L	Z 03:01:08.5			19.8	675		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/16								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	+ Z 10:44:18.5			1.1	210			
	e PP	Z 10:47:38.7							
	e SSSS	R 11:15:49.1							
	e L	Z 11:49:57.4			21.7	307		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/16	10:24:42.2	22.150S	170.940E	33.0N				SZGRF

Southeast of Loyalty Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z 10:44:14.8	145.0	38.8					
BSEG	e PKPbc	Z 10:44:14.8	145.0	32.4					
HLG	e PKPbc	Z 10:44:16.7	145.5	28.5					
BRG	e PKPbc	Z 10:44:18.6	146.1	40.5					
CLL	e PKPbc	Z 10:44:18.5	146.2	38.7					
NRDL	e PKPbc	Z 10:44:19.0	146.3	33.2					
WERD	e PKPbc	Z 10:44:21.6	147.1	38.5					
IBBN	e PKPbc	Z 10:44:21.7	147.2	29.6					
GUNZ	e PKPbc	Z 10:44:21.9	147.2	38.6					
MOX	e PKPbc	Z 10:44:21.7	147.2	37.2					
GEC2	e PKPbc	Z 10:44:23.3	147.8	42.2					
WET	e PKPbc	Z 10:44:23.6	147.9	40.6					
BUG	e PKPbc	Z 10:44:23.9	148.1	29.5					
GRA1	e PKPbc	Z 10:44:24.4	148.2	37.5					
FUR	e PKPab	Z 10:44:32.1	149.3	39.1					

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STU	e	PKPbc	Z	10:44:28.4	149.7	35.1						
WLF	e	PKPbc	Z	10:44:29.7	150.0	29.1						
BFO	e	PKPbc	Z	10:44:29.6	150.4	34.1						
	e	PKPab	Z	10:44:35.7								

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/16	11:29:45.3	7.201N	95.478E	33.0N	4.6			SZGRF

Nicobar Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:41:56.1	80.8	89.7	1.0	6	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/16								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 17:18:27.4							
	e PKPbc	Z 17:18:33.6			1.4	100			
	e PKPab	Z 17:18:43.0							
	e PP	Z 17:22:03.0							
	e SKKSac	R 17:29:12.0							
	e SS	T 17:41:48.5							
	e SSS	T 17:47:27.2							
	e LR	Z 18:11:01.4							
	e L	Z 18:29:57.7			21.2	1786		5.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/16	16:58:40.0	24.601S	175.916W	40.0G		6.2		NEIC-M

South of Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z 17:18:26.3	149.3	16.6					
HLG	e PKPbc	Z 17:18:28.9	150.3	7.0					
BSEG	e PKPdf	Z 17:18:23.6	150.3	11.5					
	e PKPbc	Z 17:18:28.7							
RUE	e PKPbc	Z 17:18:30.6	151.2	18.5					
NRDL	e PKPdf	Z 17:18:25.8	151.7	11.6					
	e PKPbc	Z 17:18:32.3							
IBBN	e PKPdf	Z 17:18:25.9	152.2	7.2					
	e PKPbc	Z 17:18:33.3							
CLL	e PKPdf	Z 17:18:26.8	152.4	17.7					
	e PKPbc	Z 17:18:33.5							
BRG	e PKPdf	Z 17:18:27.0	152.7	19.8					

	e	PKPbc	Z	17:18:34.4							
BUG	e	PKPbc	Z	17:18:35.8	153.0	6.4					
MOX	e	PKPdf	Z	17:18:27.7	153.3	15.4					
	e	PKPbc	Z	17:18:35.3							
WERD	e	PKPdf	Z	17:18:27.8	153.4	16.9					
	e	PKPbc	Z	17:18:35.9							
GUNZ	e	PKPdf	Z	17:18:28.3	153.5	17.0					
	e	PKPbc	Z	17:18:36.1							
	e	PKPab	Z	17:18:50.6							
GRA1	e	PKPdf	Z	17:18:29.4	154.3	15.1					
	e	PKPab	Z	17:18:52.4							
	e	SS	E	17:42:08.3							
	e	L	Z	18:33:14.5			19.7	3274		6.2	
WET	e	PKPdf	Z	17:18:29.4	154.5	18.8					
	e	PKPab	Z	17:18:52.7							
GEC2	e	PKPdf	Z	17:18:29.2	154.6	20.7					
	e	PKPab	Z	17:18:53.0							
WLF	e	PKPab	Z	17:18:53.7	154.9	4.4					
STU	e	PKPdf	Z	17:18:31.0	155.5	11.3					
BFO	e	PKPab	Z	17:18:59.2	156.0	9.5					

Date 2004/04/16 Origin Time 19:23:30.0 Lat 37.579N Long 1.100W Depth 33.0N mb Ms ML Source SZGRF Spain

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:27:05.2	15.0	220.8	1.2	6			

Date 2004/04/16 Origin Time 21:57: 8.6 Lat 5.020S Long 102.430E Depth 50.7 mb 5.5 Ms ML Source SZGRF Southern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 22:10:15.9	92.9	94.3	0.8	22	5.7		
	e pP	Z 22:10:30.8							
GEC2	e P	Z 22:10:15.9	92.9	94.3	1.1	29	5.6		
	e pP	Z 22:10:31.2							
RUE	e P	Z 22:10:17.5	93.2	94.1	1.0	42	5.8		
WET	e P	Z 22:10:18.5	93.5	93.6	1.1	29	5.6		
CLL	e P	Z 22:10:18.2	93.6	93.6	1.1	20	5.4		
	e pP	Z 22:10:33.1							
GUNZ	e P	Z 22:10:20.7	93.9	93.1	1.0	19	5.4		
	e pP	Z 22:10:35.0							
WERD	e P	Z 22:10:20.3	93.9	93.1	0.9	13	5.3		
	e pP	Z 22:10:35.3							

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MOX	e P	Z	22:10:22.6	94.4	92.6	1.1	20	5.4
GRA1	e P	Z	22:10:24.1	94.6	92.3	1.0	31	5.7
	e pP	Z	22:10:38.7					
	e PP	Z	22:14:26.9					
	e S	T	22:21:33.7					
	e ScS	T	22:21:52.2					
	e SP	Z	22:22:58.4					
	e SS	T	22:28:10.5					
	e SKKSdf	T	22:34:21.7					
	e L	Z	23:00:57.7			21.2	1892	5.5
BSEG	e P	Z	22:10:26.6	95.3	91.3	1.2	22	5.5
	e pP	Z	22:10:41.3					
NRDL	e P	Z	22:10:27.4	95.4	91.2	1.0	16	5.4
	e pP	Z	22:10:41.9					
BFO	e P	Z	22:10:32.3	96.5	90.3	0.9	5	5.1
IBBN	e P	Z	22:10:33.7	96.8	89.4			
WLF	e P	Z	22:10:38.0	97.9	88.5			

Date
2004/04/16

Origin Time

Lat

Long

Depth

mb

Ms

ML

Source

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	Z 22:10:18.1			1.1	20	5.4		
	e pP	Z 22:10:31.2							
	e PP	Z 22:13:56.2							
	e PPP	Z 22:16:16.3							
	e SKSac	R 22:20:45.9							
	e S	T 22:21:23.3							
	e SP	Z 22:22:42.0							
	e SS	T 22:27:52.3							
	e SSS	T 22:31:27.6							
	e SSSS	T 22:34:43.5							
	e L	Z 23:00:53.3			21.2	1764		5.5	

Date
2004/04/17

Origin Time

Lat

Long

Depth

mb

Ms

ML

Source

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z 02:58:09.0							
BSEG	e PKP	Z 02:58:05.9							
CLL	e PKP	Z 02:58:09.3							
GEC2	e PKP	Z 02:58:14.4							
GRA1	e PKP	Z 02:58:21.3							
IBBN	e PKP	Z 02:58:13.0							
WERD	e PKP	Z 02:58:12.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17	04:24:54.0	24.699S	175.895W	40.0G				NEIC-M
South of Tonga Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z 04:44:41.2	150.4	11.5					
RUE	e PKP	Z 04:44:43.3	151.3	18.5					
NRDL	e PKP	Z 04:44:45.6	151.8	11.6					
CLL	e PKP	Z 04:44:47.0	152.5	17.7					
BRG	e PKP	Z 04:44:47.9	152.8	19.8					
GRA1	e PKP	Z 04:45:06.0	154.4	15.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 04:44:40.9							
	e PKPbc	Z 04:44:47.2			1.8	65			
	e PKPab	Z 04:44:58.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17	04:35:12.0	24.789S	175.828W	40.0G				NEIC-M
South of Tonga Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 04:55:20.1	154.5	15.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17	05:47:27.7	40.222N	145.872E	33.0N	5.1			SZGRF
Off east coast of Honshu, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:59:42.9	81.6	33.3	1.8	28	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17	07:48: 8.0	10.989S	165.892E	61.9G				NEIC-M
Santa Cruz Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z	08:07:19.3	134.0	39.9					
CLL	e PKP	Z	08:07:19.7	134.0	38.5					
GEC2	e PKP	Z	08:07:23.5	135.6	40.9					
GRA1	e PKP	Z	08:07:24.7	136.0	37.2					
WLF	e PKP	Z	08:07:27.4	137.8	30.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17	12:40:18.3	23.518S	178.882W	568.1				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z	12:58:59.2	147.7	21.2					
	e PKPab	Z	12:59:03.5							
	e pPKPbc	Z	13:01:10.2							
BSEG	e PKPdf	Z	12:58:57.3	148.8	16.4					
	e PKPbc	Z	12:59:02.2							
	e PKPab	Z	12:59:08.2							
HLG	e pPKPbc	Z	13:01:13.1	148.9	12.1					
	e PKPdf	Z	12:58:57.7							
	e PKPbc	Z	12:59:02.8							
RUE	e PKPab	Z	12:59:09.1	149.5	23.3					
	e pPKPbc	Z	13:01:13.8							
	e PKPdf	Z	12:58:58.7							
NRDL	e PKPbc	Z	12:59:03.6	150.2	16.8					
	e PKPab	Z	12:59:10.6							
	e pPKPbc	Z	13:01:14.2							
CLL	e PKPdf	Z	12:58:59.3	150.2	16.8					
	e PKPbc	Z	12:59:05.5							
	e PKPab	Z	12:59:13.6							
IBBN	e pPKPbc	Z	13:01:16.1	150.7	22.7					
	e PKPdf	Z	12:59:00.0							
	e PKPbc	Z	12:59:06.4							
BRG	e PKPab	Z	12:59:15.9	150.8	12.5					
	e pPKPbc	Z	13:01:17.2							
	e PKPdf	Z	12:59:00.3							
MOX	e PKPbc	Z	12:59:06.6	150.9	24.7					
	e PKPab	Z	12:59:16.4							
	e pPKPbc	Z	13:01:18.3							
BRG	e PKPdf	Z	12:59:00.1	150.9	24.7					
	e PKPbc	Z	12:59:06.9							
	e PKPab	Z	12:59:16.7							
MOX	e pPKPbc	Z	13:01:18.0	151.7	20.6					
	e PKPdf	Z	12:59:01.2							
	e PKPbc	Z	12:59:08.6							
MOX	e PKPab	Z	12:59:19.9	151.7	20.6					
	e pPKPbc	Z	13:01:20.0							

BUG	e	PKPdf	Z	12:59:01.8	151.7	12.0
	e	PKPbc	Z	12:59:08.5		
	e	PKPab	Z	12:59:19.9		
	e	pPKPbc	Z	13:01:20.0		
WERD	e	PKPdf	Z	12:59:01.4	151.7	22.0
	e	PKPbc	Z	12:59:08.8		
	e	PKPab	Z	12:59:20.2		
	e	pPKPbc	Z	13:01:20.0		
GUNZ	e	PKPdf	Z	12:59:01.7	151.8	22.1
	e	PKPbc	Z	12:59:09.0		
	e	PKPab	Z	12:59:20.8		
	e	pPKPbc	Z	13:01:20.5		
GRA1	e	PKPdf	Z	12:59:03.3	152.7	20.5
	e	PKPbc	Z	12:59:11.0		
	e	PKPab	Z	12:59:24.7		
	e	pPKPbc	Z	13:01:22.3		
GRFO	e	PKPdf	Z	12:59:03.0	152.7	20.5
	e	PKPbc	Z	12:59:10.9		
	e	PKPab	Z	12:59:24.7		
WET	e	PKPdf	Z	12:59:03.0	152.8	24.1
	e	PKPbc	Z	12:59:10.6		
	e	PKPab	Z	12:59:25.0		
	e	pPKPbc	Z	13:01:22.8		
GEC2	e	PKPdf	Z	12:59:02.9	152.8	25.9
	e	PKPbc	Z	12:59:10.9		
	e	PKPab	Z	12:59:24.7		
	e	pPKPbc	Z	13:01:22.4		
WLF	e	PKPdf	Z	12:59:05.0	153.6	10.4
	e	PKPbc	Z	12:59:13.5		
	e	PKPab	Z	12:59:28.6		
	e	pPKPbc	Z	13:01:25.1		
STU	e	PKPdf	Z	12:59:05.0	154.0	17.1
	e	PKPbc	Z	12:59:14.0		
	e	PKPab	Z	12:59:29.8		
	e	pPKPbc	Z	13:01:25.4		
FUR	e	PKPdf	Z	12:59:04.8	154.1	21.7
	e	PKPbc	Z	12:59:13.7		
	e	PKPab	Z	12:59:30.7		
	e	pPKPbc	Z	13:01:25.3		
BFO	e	PKPdf	Z	12:59:05.1	154.5	15.5
	e	PKPbc	Z	12:59:14.7		
	e	PKPab	Z	12:59:32.3		
	e	pPKPbc	Z	13:01:26.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17	13:02:27.1	47.590N	145.950E	409.5	5.9			SZGRF
Sea of Okhotsk								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	13:13:00.1	70.3	31.8	1.2	223	6.2		
BSEG	e P	Z	13:13:08.5	71.8	29.8	0.9	102	6.0		
RUE	e P	Z	13:13:09.4	72.0	31.7	1.3	181	6.1		
HLG	e P	Z	13:13:11.3	72.2	28.2	0.8	181	6.3		
NRDL	e P	Z	13:13:15.9	73.1	29.4	0.9	68	5.8		
CLL	e P	Z	13:13:16.1	73.2	31.0	1.0	235	6.1		
	e pP	Z	13:14:46.5							
BRG	e P	Z	13:13:16.7	73.3	31.6	1.0	50	5.5		
IBBN	e P	Z	13:13:20.8	73.9	27.9	1.0	174	6.1		
WERD	e P	Z	13:13:22.1	74.2	30.5	0.9	49	5.5		
	e pP	Z	13:14:52.6							
MOX	e P	Z	13:13:22.4	74.2	30.1	1.1	76	5.6		
	e pP	Z	13:14:52.4							
GUNZ	e P	Z	13:13:22.6	74.2	30.5	0.8	59	5.7		
BUG	e P	Z	13:13:25.8	74.8	27.5	1.0	134	5.9		
GEC2	e P	Z	13:13:27.3	75.1	31.1	0.7	48	5.6		
WET	e P	Z	13:13:27.9	75.1	30.7	1.0	131	5.9		
	e pP	Z	13:14:58.1							
GRA1	e P	Z	13:13:28.4	75.2	29.7	0.8	229	6.3		
	e pP	Z	13:14:58.7							
FUR	e P	Z	13:13:35.5	76.5	29.6	1.0	232	6.2		
STU	e P	Z	13:13:35.9	76.6	28.4	0.9	157	6.1		
WLF	e P	Z	13:13:38.2	76.7	26.6	0.9	52	5.6		
BFO	e P	Z	13:13:39.4	77.3	27.8	1.1	112	5.9		

Date Origin Time Lat Long Depth mb Ms ML Source
2004/04/17

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z	13:13:16.3			1.1	242	6.2		
	e pP	Z	13:14:46.5							
	e sP	Z	13:15:30.4							
	e PP	Z	13:16:08.0							

Date Origin Time Lat Long Depth mb Ms ML Source
2004/04/17

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	13:47:00.2			0.9	22			
	e PKPab	Z	13:47:09.4							
	e pPKPbc	Z	13:49:11.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:21:58.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z 15:46:43.6							
CLL	e PKP	Z 15:46:42.6							
GRA1	e PKP	Z 15:46:48.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17	15:58:18.0	7.345S	128.419E	71.4G		4.9		NEIC-M

Banda Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e SP	Z 16:26:32.1	110.4	73.4					
RUE	e Pdiff	Z 16:12:43.5	110.7	74.5					
BRG	e SP	Z 16:26:34.2							
	e Pdiff	Z 16:12:44.3	111.0	75.2					
	e PP	Z 16:17:25.8							
	e SP	Z 16:26:39.2							
CLL	e Pdiff	Z 16:12:46.3	111.5	74.3					
	e PP	Z 16:17:31.0							
	e SP	Z 16:26:42.1							
	e L	Z 17:08:37.9			19.8	359			
GEC2	e Pdiff	Z 16:12:47.4	111.7	75.8					
	e PP	Z 16:17:32.0							
	e SP	Z 16:26:49.2							
WET	e SP	Z 16:26:53.1	112.1	75.0					
BSEG	e Pdiff	Z 16:12:50.3	112.2	70.9					
	e SP	Z 16:26:50.2							
MOX	e Pdiff	Z 16:12:50.9	112.5	73.3					
	e PP	Z 16:17:40.9							
	e SP	Z 16:26:52.2							
NRDL	e Pdiff	Z 16:12:53.1	112.8	71.3					
GRA1	e PP	Z 16:17:43.6	113.0	73.4					
	e SP	Z 16:26:59.8							
	e L	Z 17:10:12.2			21.3	370		4.9	
FUR	e SP	Z 16:27:04.7	113.4	74.1					
HLG	e SP	Z 16:27:02.0	113.5	68.7					

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IBBN	e Pdiff	Z	16:13:00.6	114.2	69.3
	e SP	Z	16:27:07.2		
STU	e PP	Z	16:17:54.8	114.5	72.1
	e SP	Z	16:27:15.7		
BUG	e SP	Z	16:27:14.7	114.8	69.3
BFO	e SP	Z	16:27:20.9	115.2	71.5
WLF	e PP	Z	16:18:03.1	116.1	69.1
	e SP	Z	16:27:28.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z 16:12:46.1			1.4	21			
	e PKiKP	Z 16:16:43.6			0.9	27			
	e PP	Z 16:17:25.8							
	e pPP	Z 16:18:05.0							
	e SP	E 16:26:39.8							
	e PKKPbc	Z 16:27:39.3							
	e	16:27:44.1							
	e PKKPab	Z 16:27:49.5							
	e SS	Z 16:32:54.0							
	e SSS	Z 16:37:57.2							
	e L	Z 17:07:19.4			20.7	339		4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/17								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PKP	Z 16:16:50.3							
BRG	e PKP	Z 16:16:42.9							
BSEG	e PKP	Z 16:16:45.3							
BUG	e PKP	Z 16:16:50.2							
CLL	e PKP	Z 16:16:43.5							
FUR	e PKP	Z 16:16:47.4							
GEC2	e PKP	Z 16:16:44.0							
GRA1	e PKP	Z 16:16:46.8							
GUNZ	e PKP	Z 16:16:45.0							
HLG	e PKP	Z 16:16:48.2							
IBBN	e PKP	Z 16:16:49.0							
MOX	e PKP	Z 16:16:45.7							
NRDL	e PKP	Z 16:16:46.5							
RUE	e PKP	Z 16:16:42.5							
STU	e PKP	Z 16:16:49.7							
WERD	e PKP	Z 16:16:44.7							

WET e PKP Z 16:16:45.0
 WLF e PKP Z 16:16:52.9

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/17 19:00:50.0 6.495S 129.986E 113.8G
 Banda Sea NEIC-M

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e SP	Z 19:30:04.1	110.5	71.5					
BRG	e PP	Z 19:20:00.1	111.3	73.3					
	e SP	Z 19:29:41.9							
CLL	e Pdiff	Z 19:16:05.2	111.7	72.4					
	e PP	Z 19:20:02.8							
	e SP	Z 19:29:44.1							
GEC2	e Pdiff	Z 19:16:07.2	112.0	73.9					
	e PP	Z 19:20:05.7							
	e SP	Z 19:29:45.9							
BSEG	e PP	Z 19:19:59.8	112.4	69.0					
	e PS	Z 19:29:35.2							
WET	e Pdiff	Z 19:16:05.2	112.4	73.1					
	e PP	Z 19:20:09.3							
MOX	e PP	Z 19:20:11.4	112.8	71.5					
	e SP	Z 19:29:42.2							
NRDL	e SP	Z 19:29:49.2	113.0	69.4					
GRA1	e PP	Z 19:20:12.5	113.3	71.5					
	e SP	Z 19:29:44.7							
HLG	e PP	Z 19:20:07.6	113.6	66.7					
	e SP	Z 19:29:44.5							
FUR	e PP	Z 19:20:13.2	113.7	72.2					
	e SP	Z 19:29:41.8							
IBBN	e SP	Z 19:29:45.7	114.4	67.4					
STU	e PP	Z 19:20:22.6	114.9	70.2					
	e SP	Z 19:29:43.6							
BUG	e SP	Z 19:29:47.4	115.0	67.3					
BFO	e PP	Z 19:20:28.4	115.5	69.6					
	e SP	Z 19:29:51.7							
WLF	e PP	Z 19:20:27.7	116.4	67.1					
	e SP	Z 19:30:02.5							

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/17

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e sPdiff	Z 19:16:02.5							
	e PKiKP	Z 19:19:10.5			0.9	6			

e PP	Z	19:19:56.6										
e sPP	Z	19:20:50.7										
e SP	Z	19:29:11.2										
e LR	Z	19:55:50.3										
e L	Z	20:10:31.3				19.7		212		4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/18								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 02:13:54.3							
	e	02:14:05.4							
	e	02:16:05.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/18								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 04:00:46.6							
	i PKPbc	- Z 04:00:52.8			1.2	29			
	e PP	Z 04:04:35.4							
	e SSSS	Z 04:34:02.0							
	e L	Z 05:23:14.1			18.5	155		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/18	10:10:51.8	33.581N	121.220E	33.0N	4.8			SZGRF
Yellow Sea								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:22:37.6	76.3	53.7	0.9	7	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/18	17:19: 1.8	22.320S	178.090W	33.0N				SZGRF
South of Fiji Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 17:38:43.1	147.8	14.7					
RUE	e PKPbc	Z 17:38:45.2	148.5	21.4					
NRDL	e PKPbc	Z 17:38:46.8	149.2	14.9					
IBBN	e PKPbc	Z 17:38:48.1	149.7	10.8					
CLL	e PKPbc	Z 17:38:48.3	149.8	20.7					

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	e	PKPab	Z	17:38:53.4					
BRG	e	PKPbc	Z	17:38:49.0	149.9	22.6			
	e	PKPab	Z	17:38:54.2					
BUG	e	PKPbc	Z	17:38:50.3	150.6	10.1			
MOX	e	PKPbc	Z	17:38:50.5	150.7	18.6			
WERD	e	PKPbc	Z	17:38:50.9	150.7	20.0			
	e	PKPab	Z	17:38:57.5					
GUNZ	e	PKPbc	Z	17:38:51.2	150.8	20.1			
	e	PKPab	Z	17:38:58.1					
GRA1	e	PKPbc	Z	17:38:53.0	151.7	18.4			
	e	PKPab	Z	17:39:01.8					
WET	e	PKPbc	Z	17:38:53.3	151.8	21.9			
	e	PKPab	Z	17:39:02.4					
GEC2	e	PKPbc	Z	17:38:53.4	151.9	23.6			
	e	PKPab	Z	17:39:02.6					
WLF	e	PKPbc	Z	17:38:55.4	152.5	8.5			
STU	e	PKPbc	Z	17:38:55.9	152.9	14.9			
	e	PKPab	Z	17:39:06.7					
FUR	e	PKPbc	Z	17:38:56.3	153.1	19.4			
	e	PKPab	Z	17:39:08.0					
BFO	e	PKPbc	Z	17:38:56.7	153.5	13.4			
	e	PKPab	Z	17:39:08.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/18								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 17:38:43.3			1.4	13			
	i PKPbc	- Z 17:38:48.4			0.8	50			
	i PKPab	Z 17:38:53.5			0.8	29			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/18	22:23:11.3	19.620S	178.900W	33.0N				SZGRF
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 22:42:43.8	145.0	15.2					
RUE	e PKPbc	Z 22:42:46.5	145.7	21.5					
IBBN	e PKPbc	Z 22:42:50.6	146.9	11.5					
CLL	e PKPbc	Z 22:42:50.0	147.0	20.9					
BRG	e PKPbc	Z 22:42:50.9	147.1	22.7					
BUG	e PKPbc	Z 22:42:52.1	147.8	11.0					
MOX	e PKPbc	Z 22:42:53.0	147.9	18.9					
WERD	e PKPbc	Z 22:42:53.1	147.9	20.2					
GUNZ	e PKPbc	Z 22:42:53.3	148.0	20.3					

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GRA1	e	PKPbc	Z	22:42:55.8	148.9	18.7
WET	e	PKPbc	Z	22:42:55.7	149.0	21.9
GEC2	e	PKPbc	Z	22:42:56.1	149.1	23.6
WLF	e	PKPbc	Z	22:42:58.1	149.7	9.5
STU	e	PKPbc	Z	22:42:58.7	150.1	15.4
FUR	e	PKPbc	Z	22:42:59.3	150.3	19.6
BFO	e	PKPbc	Z	22:43:00.1	150.7	14.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/18								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e	PKPdf	Z	22:42:48.9					
	i	PKPbc	- Z	22:42:50.4	0.9	103			
	e	pPKPbc	Z	22:44:42.8					
	e	SKPbc	Z	22:45:47.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/19	08:14: 9.1	3.400N	32.830W	10.7	5.5	5.4		SZGRF
Central Mid-Atlantic Ridge								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e	P	Z	08:23:51.1	56.8	228.6	1.3	33	5.2
BFO	e	P	Z	08:23:52.1	57.0	231.5	2.0	199	5.8
STU	e	P	Z	08:23:57.8	57.8	232.2	1.2	52	5.4
BUG	e	P	Z	08:24:02.4	58.5	228.9			
GRA1	e	P	Z	08:24:08.7	59.4	233.8	1.8	191	5.8
	e	pP	Z	08:24:11.7					
	e	S	N	08:32:19.1					
	e	L	Z	08:48:10.0			18.5	2610	5.4
WET	e	P	Z	08:24:12.8	59.9	235.6	2.2	138	5.6
MOX	e	P	Z	08:24:14.7	60.1	233.7	1.8	102	5.6
GEC2	e	P	Z	08:24:14.4	60.2	236.6	1.6	81	5.5
GUNZ	e	P	Z	08:24:16.2	60.4	234.5	1.6	109	5.6
WERD	e	P	Z	08:24:16.2	60.4	234.5	1.6	108	5.6
NRDL	e	P	Z	08:24:17.6	60.5	231.4	1.8	124	5.6
CLL	e	P	Z	08:24:21.7	61.2	234.8	1.7	80	5.3
BRG	e	P	Z	08:24:23.1	61.5	235.9	1.9	102	5.3
BSEG	e	P	Z	08:24:23.0	61.5	230.9	1.6	106	5.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/19								

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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	Z 08:24:24.1			1.7	81	5.3		
	e S	E 08:32:42.3							
	e SS	E 08:36:49.6							
	e LQ	T 08:39:29.2							
	e LR	Z 08:42:22.6							
	e L	Z 08:48:57.4			18.3	2404		5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/19	20:39:18.4	45.131N	150.936E	33.0N	4.7			SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 20:51:06.9	77.0	29.0					
WET	e P	Z 20:51:18.6	78.9	28.7					
GRA1	e P	Z 20:51:18.9	78.9	27.7	1.2	10	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/19	23:00:37.6	34.160N	26.170E	10.0G	4.2	3.7		SZGRF

Crete, Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 23:04:43.3	17.4	143.2	1.2	10	3.8		
FUR	e P	Z 23:04:48.6	17.9	136.1	1.6	70	4.5		
WET	e P	Z 23:04:49.7	17.9	141.8	0.8	7	3.8		
BRG	e P	Z 23:05:01.4	18.9	147.3	0.8	5	3.8		
GRA1	e P	Z 23:05:02.5	19.0	139.1	1.0	20	4.3		
	e L	Z 23:14:04.8			20.6	368		3.7	
GUNZ	e P	Z 23:05:03.2	19.1	142.8	0.9	14	4.2		
WERD	e P	Z 23:05:03.1	19.2	142.9	1.0	17	4.2		
BFO	e P	Z 23:05:06.1	19.4	130.3	1.0	16	4.2		
MOX	e P	Z 23:05:09.1	19.6	141.7	0.9	7	3.9		
CLL	e P	Z 23:05:07.7	19.6	145.8	0.7	6	4.0		
WLF	e P	Z 23:05:27.9	21.4	129.0	0.9	27	4.6		
BUG	e P	Z 23:05:34.3	22.0	134.4	1.0	21	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/20	17:44:10.3	17.985N	95.167W	142.7	4.8			SZGRF

Oaxaca, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 17:56:49.9	86.5	293.9	1.4	12	4.8		
	e pP	Z 17:57:26.0							

WLF e PKPdf Z 10:08:59.6 144.7 31.4
 BFO e PKPdf Z 10:09:00.3 145.0 35.8

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/22 10:02:16.8 33.380N 89.150E 13.0 5.4 4.7
 Xizang SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 10:11:52.3	55.9	77.3	0.9	16	5.1		
CLL	e P	Z 10:11:55.7	56.3	77.0	1.2	21	5.1		
	e pP	Z 10:11:59.0							
GEC2	e P	Z 10:11:57.0	56.5	75.8	1.0	44	5.4		
	e pP	Z 10:12:00.5							
WET	e P	Z 10:12:00.2	56.9	75.5	1.1	21	5.1		
	e pP	Z 10:12:03.5							
WERD	e P	Z 10:12:00.1	57.0	75.9	1.2	22	5.1		
	e pP	Z 10:12:03.8							
GUNZ	e P	Z 10:12:00.5	57.0	75.9	1.9	71	5.4		
	e pP	Z 10:12:03.9							
MOX	e P	Z 10:12:03.3	57.3	75.6	1.6	44	5.2		
	e pP	Z 10:12:06.6							
NRDL	e P	Z 10:12:06.7	57.8	75.7	1.2	55	5.5		
	e pP	Z 10:12:10.0							
CLZ	e P	Z 10:12:06.1	57.8	75.5	1.1	45	5.4		
GRA1	e P	Z 10:12:06.6	57.8	74.7	1.0	42	5.4		
	e pP	Z 10:12:10.7							
	e L	Z 10:34:59.6			19.6	541		4.7	
FUR	e P	Z 10:12:09.4	58.2	73.9	0.7	60	5.7		
	e pP	Z 10:12:13.1							
STU	e P	Z 10:12:17.5	59.4	72.9	1.3	59	5.5		
	e pP	Z 10:12:20.9							
BFO	e P	Z 10:12:21.6	60.0	72.1	1.5	50	5.3		
	e pP	Z 10:12:25.2							
WLF	e P	Z 10:12:28.2	61.0	71.4	3.5	532	5.8		
	e pP	Z 10:12:31.8							

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/22 10:11:12.0 17.588S 167.858E 10.0G
 Vanuatu Islands NEIC-M

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 10:30:42.8	142.8	38.7					

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/22	10:15:11.0	17.744S	168.005E	24.6G				NEIC-M

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 10:34:40.5	143.0	38.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/22								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPpre	Z 10:34:34.7							
	e PKPdf	Z 10:34:38.8			1.6	40			
	e	10:49:24.5							
	e L	Z 11:35:35.7			20.2	1748		5.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/22	12:52:54.2	17.492S	168.578E	33.0G				GSRC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e PKPdf	Z 13:12:28.3	144.8	30.0					
BFO	e PKPdf	Z 13:12:29.0	145.2	34.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/22	14:16: 3.0	3.536S	146.910E	20.0G				NEIC-M

Bismarck Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 14:34:56.2	120.6	54.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/22								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 14:34:50.5			0.8	5			
	e PS	E 14:45:52.8							
	e PPS	N 14:47:32.4							
	e SS	N 14:52:30.2							
	e SSS	N 14:56:50.5							
	e LQ	N 15:09:25.6							

e L Z 15:27:12.1 20.7 7653

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/22 14:55:17.6 18.110S 174.840W 293.4
 Tonga Islands SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 15:14:15.8	144.0	8.3					
RUE	e PKPbc	Z 15:14:19.0	145.0	14.4					
NRDL	e PKPbc	Z 15:14:20.3	145.4	8.3					
IBBN	e PKPbc	Z 15:14:21.8	145.7	4.4					
CLZ	e PKPbc	Z 15:14:22.5	146.0	8.9					
	e pPKPbc	Z 15:15:33.6							
CLL	e PKPbc	Z 15:14:22.8	146.2	13.5					
BRG	e PKPbc	Z 15:14:23.8	146.5	15.2					
BUG	e PKPbc	Z 15:14:23.9	146.6	3.6					
MOX	e PKPbc	Z 15:14:25.4	147.1	11.3					
WERD	e PKPbc	Z 15:14:25.9	147.2	12.6					
GUNZ	e PKPbc	Z 15:14:26.2	147.2	12.7					
GRA1	e PKPbc	Z 15:14:28.5	148.0	10.9					
	e pPKPbc	Z 15:15:41.5							
WET	e PKPbc	Z 15:14:28.8	148.3	14.1					
WLF	e PKPbc	Z 15:14:29.5	148.4	1.8					
GEC2	e PKPbc	Z 15:14:29.3	148.5	15.7					
	e pPKPbc	Z 15:15:43.7							
STU	e PKPbc	Z 15:14:31.4	149.2	7.5					
FUR	e PKPbc	Z 15:14:32.2	149.5	11.5					
BFO	e PKPbc	Z 15:14:32.2	149.7	6.0					

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/22

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 15:14:21.6							
	i PKPbc	- Z 15:14:23.0			1.2	83			

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/22 16:37:19.0 17.835S 168.049E 10.0G
 Vanuatu Islands NEIC-M

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
STU	e PKPdf	Z 16:56:56.2	144.6	36.4					
WLF	e PKPdf	Z 16:56:57.4	145.0	31.0					

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BFO e PKPdf Z 16:56:58.0 145.3 35.5

Date Origin Time Lat Long Depth mb Ms ML Source
2004/04/22

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
BFO e PKPdf Z 19:45:58.1
WLF e PKPdf Z 19:45:57.6

Date Origin Time Lat Long Depth mb Ms ML Source
2004/04/22 20:57:49.7 49.715N 26.609W 33.0N 4.5 4.0
Northern Mid-Atlantic Ridge

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 21:03:03.6 24.2 284.7 1.4 22 4.5
e L Z 21:12:10.8 20.1 564 4.0

Date Origin Time Lat Long Depth mb Ms ML Source
2004/04/22

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
BFO e PKPdf Z 22:06:14.9
WLF e PKPdf Z 22:06:14.4

Date Origin Time Lat Long Depth mb Ms ML Source
2004/04/22

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
BFO e PKPdf Z 22:20:06.5
WLF e PKPdf Z 22:20:06.1

Date Origin Time Lat Long Depth mb Ms ML Source
2004/04/22

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
BFO e PKPdf Z 22:20:46.4
WLF e PKPdf Z 22:20:46.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/22	22:16:33.5	41.190N	142.804E	78.5	5.0			SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:28:38.2	79.7	34.9	0.9	17	5.0		
	e PcP	Z 22:28:45.6							
	e pP	Z 22:28:59.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/22	22:40: 4.4	34.997N	15.335E	33.0G		3.0		SZGRF

Central Mediterranean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 22:43:25.9	13.9	174.4					
WET	e P	Z 22:43:30.1	14.3	171.8					
BFO	e P	Z 22:43:14.3	14.3	156.2					
GRA1	e P	Z 22:43:39.5	15.0	166.9	0.8	9			
	e L	Z 22:57:40.1			21.1	123		3.0	
WERD	e P	Z 22:43:47.0	15.6	170.7					
MOX	e P	Z 22:43:51.3	15.9	168.8					
BRG	e P	Z 22:43:51.6	15.9	175.8					
WLF	e P	Z 22:43:13.9	16.1	151.9					
CLL	e P	Z 22:43:57.8	16.4	173.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/23	01:59: 2.6	49.408N	25.207W	33.0N	4.2			SZGRF

Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:04:09.1	23.4	283.4	1.0	8	4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/23	01:50:29.1	11.630S	120.670E	33.0G		6.4		SZGRF

South of Sumba, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e Pdiff	Z 02:04:47.5	109.5	83.7					
	e PP	Z 02:09:21.6							
BRG	e Pdiff	Z 02:04:49.2	109.5	84.4					
	e PP	Z 02:09:23.6							
GEC2	e Pdiff	Z 02:04:50.4	109.9	85.0					

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CLL	e Pdiff	Z	02:04:51.6	110.1	83.5				
	e PP	Z	02:09:25.6						
WET	e PP	Z	02:09:28.4	110.4	84.2				
MOX	e Pdiff	Z	02:04:54.4	111.0	82.7				
	e PP	Z	02:09:33.1						
BSEG	e Pdiff	Z	02:04:55.0	111.3	80.3				
	e PP	Z	02:09:35.5						
	e PKKPbc	Z	02:19:55.6						
GRA1	e Pdiff	Z	02:04:55.8	111.4	82.7				
	e PP	Z	02:09:35.1						
	e SKSac	E	02:15:32.4						
	e SP	Z	02:18:58.4						
	e PKKPbc	Z	02:19:55.7						
	e SS	E	02:25:13.3						
	e L	Z	03:00:48.7			21.7	11987		6.4
FUR	e PP	Z	02:09:36.3	111.5	83.3				
	e PKKPbc	Z	02:19:54.5						
CLZ	e PP	Z	02:09:36.7	111.6	81.2				
NRDL	e Pdiff	Z	02:04:59.0	111.7	80.7				
	e PP	Z	02:09:37.0						
HLG	e Pdiff	Z	02:05:00.1	112.7	78.1				
	e PP	Z	02:09:44.9						
STU	e Pdiff	Z	02:05:03.7	112.8	81.5				
	e PKKPbc	Z	02:19:49.4						
IBBN	e Pdiff	Z	02:05:03.9	113.1	78.8				
	e PP	Z	02:09:48.1						
BFO	e Pdiff	Z	02:05:05.3	113.5	81.0				
	e PP	Z	02:09:51.3						
BUG	e PP	Z	02:09:50.1	113.6	78.8				
	e PKKPbc	Z	02:19:48.4						

Date
2004/04/23

Origin Time

Lat

Long

Depth

mb

Ms

ML

Source

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z	02:04:49.4							
	e pPdiff	Z	02:05:05.6							
	e PP	Z	02:09:24.4							
	e SKSac	R	02:15:23.9							
	e Sdiff	T	02:16:54.3							
	e SP	R	02:18:44.6							
	e PPS	T	02:19:56.4							
	e PKKPbc	Z	02:19:59.6							
	e PKKPab	Z	02:20:11.1							
	e SS	R	02:24:43.9							
	e LQ	T	02:41:08.1							
	e LR	R	02:43:45.7							

e L Z 02:59:58.1 19.8 11949 6.5

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/23 02:21:48.8 0.448S 80.596E 33.0N 5.0 ML SZGRF
 South Indian Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 02:33:29.0	75.4	108.1					
BRG	e P	Z 02:33:32.2	75.9	108.8					
WET	e P	Z 02:33:32.4	76.0	107.5					
CLL	e P	Z 02:33:35.6	76.6	108.1	1.0	11	5.0		
GRA1	e P	Z 02:33:39.8	77.2	106.3	0.8	14	5.1		
MOX	e P	Z 02:33:39.5	77.2	106.8	0.8	9	5.0		
CLZ	e P	Z 02:33:45.2	78.3	106.1	1.6	20	5.0		
NRDL	e P	Z 02:33:46.9	78.6	106.0					
BSEG	e P	Z 02:33:47.9	78.9	106.4	1.1	8	4.7		
IBBN	e P	Z 02:33:54.3	80.0	104.0					
WLF	e P	Z 02:33:57.0	80.4	102.3					

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/23 07:19: 7.4 49.717N 26.721W 33.0N 5.0 4.5 ML SZGRF
 Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 07:24:22.0	24.3	284.7	1.4	65	5.0		
	e L	Z 07:33:16.9			21.4	1614		4.5	

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/24

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKiKP	Z 23:19:41.1							
	e PP	Z 23:22:08.6							
	e PKSdf	Z 23:23:14.2							
	e PPP	Z 23:25:00.4							
	e PS	E 23:32:32.4							
	e SS	Z 23:40:12.4							
	e PSS	E 23:40:26.4							
	e SSS	Z 23:44:59.3							
	e LR	Z 00:03:40.0							
	e L	Z 00:09:56.7			22.0	720		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/24								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 00:40:33.7							
	e Sn	N 00:41:45.0							
WET	e Pn	Z 00:40:41.6							
	e Sn	N 00:41:56.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/24	07:44:12.7	23.120S	176.010W	33.0G		6.1		SZGRF
South of Fiji Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z 08:03:53.8	148.8	11.3					
	e PKPbc	Z 08:03:56.8							
NRDL	e PKPdf	Z 08:03:56.3	150.3	11.4					
IBBN	e PKPdf	Z 08:03:57.0	150.7	7.1					
CLZ	e PKPdf	Z 08:03:57.0	150.9	12.1					
CLL	e PKPdf	Z 08:03:57.2	151.0	17.3					
	e PKPbc	Z 08:04:02.7							
BRG	e PKPdf	Z 08:03:58.1	151.2	19.3					
MOX	e PKPdf	Z 08:03:58.7	151.8	15.0					
	e PKPbc	Z 08:04:04.1							
WERD	e PKPdf	Z 08:03:58.8	151.9	16.4					
GUNZ	e PKPdf	Z 08:03:59.2	152.0	16.5					
GRA1	e PKPdf	Z 08:04:00.5	152.8	14.7					
	e PKPbc	Z 08:04:06.0							
	e PP	Z 08:07:45.0							
	e SS	E 08:27:08.0							
	e L	Z 09:17:24.0			19.4	3242		6.1	
WET	e PKPdf	Z 08:04:00.4	153.0	18.3					
	e PKPbc	Z 08:04:07.0							
GEC2	e PKPdf	Z 08:04:00.5	153.2	20.1					
	e PKPbc	Z 08:04:07.2							
FUR	e PKPdf	Z 08:04:02.6	154.3	15.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/24								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	+ Z 08:04:02.9			1.2	73			
	e PP	Z 08:07:37.5							
	e PPP	Z 08:10:59.1							

e SKKSac	N	08:14:27.9									
e		08:17:50.0									
e PPS	N	08:20:28.4									
e SS	E	08:26:59.3									
e SSS	E	08:32:39.4									
e L	Z	09:15:48.9						19.2	2639	6.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/24	08:03:7.6	0.063N	25.674W	33.0N	5.5			SZGRF

Central Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 08:13:03.0	58.8	224.6	2.6	136	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/24	11:45:49.4	21.161S	9.540W	29.6	5.3			SZGRF

South Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 11:57:06.2	71.3	197.6	1.1	42	5.5		
FUR	e P	Z 11:57:09.7	71.8	200.4	0.9	49	5.6		
STU	e P	Z 11:57:09.7	71.9	198.4	1.0	45	5.6		
WLF	e P	Z 11:57:11.6	72.2	195.4					
GEC2	e P	Z 11:57:17.1	73.0	202.6	1.2	16	5.0		
WET	e P	Z 11:57:17.3	73.1	201.8	1.1	35	5.4		
GRA1	e P	Z 11:57:18.0	73.2	200.2	1.4	69	5.6		
	e pP	Z 11:57:26.4							
UBBA	e P	Z 11:57:21.7	74.0	198.9					
BUG	e P	Z 11:57:22.6	74.1	196.3					
GUNZ	e P	Z 11:57:23.1	74.1	201.2					
WERD	e P	Z 11:57:23.4	74.2	201.1					
MOX	e P	Z 11:57:23.5	74.2	200.5	1.3	23	5.0		
BRG	e P	Z 11:57:28.1	74.9	202.6	1.4	19	4.9		
IBBN	e P	Z 11:57:28.5	75.0	196.7					
CLZ	e P	Z 11:57:28.7	75.1	199.2	1.4	24	5.0		
CLL	e P	Z 11:57:29.0	75.1	201.7	1.5	20	4.9		
NRDL	e P	Z 11:57:32.6	75.6	198.9					
BSEG	e P	Z 11:57:39.4	77.0	199.0	1.1	40	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/24								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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Date	Origin	Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/04/24												
	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	GRA1	e P	Z	19:02:14.3								

Date	Origin	Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/04/24												
	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	GEC2	e Pn	Z	19:54:11.1								
		e Sn	Z	19:54:25.4								
	WET	e Pn	Z	19:54:20.1								
		e Sn	Z	19:54:43.6								

Date	Origin	Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/04/24												
	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	GRA1	e P	Z	21:30:30.0			1.4	34				

Date	Origin	Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/04/24												
	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	GRA1	e PKP	Z	23:19:38.2								

Date	Origin	Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/04/25												
	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	CLL	e PKPdf	Z	02:38:58.6								
		e PKPbc	Z	02:39:01.0			1.6	183				
		e SS	E	03:01:17.3								
		e		03:02:46.1								
		e SSS	E	03:06:45.2								
		e SSSS	N	03:10:27.3								
		e LR	Z	03:27:57.4								
		e L	Z	03:46:01.6			20.1	1260		5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/25	02:19:21.3	21.818S	169.545E	33.0N		5.7		NEIC

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z	02:39:01.2	145.3	42.3					
CLL	e PKPbc	Z	02:39:01.1	145.3	40.5					
CLZ	e PKPbc	Z	02:39:03.5	145.9	36.1					
WERD	e PKPbc	Z	02:39:04.6	146.3	40.3					
IBBN	e PKPbc	Z	02:39:04.8	146.4	31.7					
GEC2	e PKPbc	Z	02:39:06.2	146.9	44.0					
WET	e PKPbc	Z	02:39:06.9	147.0	42.5					
GRA1	e PKPbc	Z	02:39:07.8	147.3	39.4					
	e L	Z	03:49:09.2			20.5	1322		5.7	
BUG	e PKPbc	Z	02:39:07.1	147.3	31.6					
FUR	e PKPbc	Z	02:39:10.6	148.4	41.1					
STU	e PKPbc	Z	02:39:11.5	148.8	37.1					
WLF	e PKPbc	Z	02:39:13.1	149.2	31.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/25	05:11:29.1	21.960S	170.140E	33.0N				SZGRF

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z	05:31:04.0	145.6	41.6					
CLL	e PKPbc	Z	05:31:04.1	145.7	39.8					
NRDL	e PKPbc	Z	05:31:04.6	145.8	34.3					
CLZ	e PKPbc	Z	05:31:06.0	146.3	35.3					
WERD	e PKPbc	Z	05:31:07.0	146.6	39.5					
GUNZ	e PKPbc	Z	05:31:07.5	146.7	39.6					
IBBN	e PKPbc	Z	05:31:07.3	146.8	30.8					
GEC2	e PKPbc	Z	05:31:08.9	147.2	43.3					
STU	e PKPbc	Z	05:31:14.2	149.2	36.3					
WLF	e PKPbc	Z	05:31:15.4	149.5	30.3					
BFO	e PKPbc	Z	05:31:15.6	149.9	35.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/25								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	05:45:22.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/25	07:29:34.5	22.730S	170.570E	33.0N				SZGRF

Southeast of Loyalty Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 07:49:09.1	145.4	33.3					
BRG	e PKPbc	Z 07:49:11.7	146.5	41.5					
CLL	e PKPbc	Z 07:49:11.8	146.6	39.7					
NRDL	e PKPbc	Z 07:49:12.3	146.7	34.2					
CLZ	e PKPbc	Z 07:49:14.0	147.1	35.2					
GUNZ	e PKPbc	Z 07:49:15.2	147.6	39.6					
IBBN	e PKPbc	Z 07:49:15.0	147.6	30.6					
MOX	e PKPbc	Z 07:49:15.0	147.6	38.2					
GEC2	e PKPbc	Z 07:49:16.6	148.1	43.3					
WET	e PKPbc	Z 07:49:17.0	148.3	41.7					
BUG	e PKPbc	Z 07:49:17.2	148.5	30.5					
GRA1	e PKPbc	Z 07:49:17.9	148.5	38.6					
STU	e PKPbc	Z 07:49:21.9	150.1	36.2					
WLF	e PKPbc	Z 07:49:22.9	150.4	30.1					
BFO	e PKPbc	Z 07:49:23.1	150.8	35.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/25								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 07:49:11.5							
	e LR	Z 08:39:46.4							
	e L	Z 08:56:02.9			20.0	314		5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/25								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 08:06:28.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/25	09:30: 8.1	38.943N	28.440W	33.0N	4.9			SZGRF

Azores Islands, Portugal

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:36:13.5	29.9	264.2	2.1	40	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/25	17:33:23.7			N	5.4			SZGRF
Azores Islands, Portugal								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 17:46:57.8							
BRG	e P	Z 17:46:41.6							
BSEG	e P	Z 17:46:32.8							
CLL	e P	Z 17:46:40.7							
FUR	e P	Z 17:46:56.0							
GRA1	e P	Z 17:46:50.1			1.1	12	5.4		
GUNZ	e P	Z 17:46:45.8							
IBBN	e P	Z 17:46:41.3							
MOX	e P	Z 17:46:45.0							
NRDL	e P	Z 17:46:38.9							
STU	e P	Z 17:46:55.4							
WERD	e P	Z 17:46:45.2							
WET	e P	Z 17:46:50.0							
WLF	e P	Z 17:46:53.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/25	19:23:16.7	37.653N	88.412E	33.0N	4.5			SZGRF
Southern Xinjiang, China								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:32:42.2	54.6	71.3	1.1	6	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/25	20:20:24.0	21.310S	176.920W	17.2				SZGRF
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 20:40:05.3	146.9	12.4					
NRDL	e PKPbc	Z 20:40:09.6	148.3	12.5					
CLL	e PKPbc	Z 20:40:11.2	149.0	18.2					
	e PKPab	Z 20:40:14.9							
BRG	e PKPbc	Z 20:40:11.7	149.2	20.1					
	e PKPab	Z 20:40:16.1							
BUG	e PKPbc	Z 20:40:13.3	149.7	7.8					
MOX	e PKPab	Z 20:40:18.8	149.9	16.0					
WERD	e PKPbc	Z 20:40:13.7	150.0	17.4					
	e PKPab	Z 20:40:19.3							
TANN	e PKPbc	Z 20:40:13.5	150.0	17.7					
GUNZ	e PKPbc	Z 20:40:13.3	150.0	17.5					

	e	PKPab	Z	20:40:19.7				
GRA1	e	PKPab	Z	20:40:23.5	150.9	15.7		
WET	e	PKPbc	Z	20:40:16.4	151.1	19.1		
	e	PKPab	Z	20:40:24.1				
GEC2	e	PKPbc	Z	20:40:16.4	151.2	20.9		
BFO	e	PKPab	Z	20:40:30.5	152.7	10.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/26	00:47:11.8	24.210S	179.910W	33.0N				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPbc	Z 01:06:57.4	149.3	18.5					
	e	PKPab	Z 01:07:01.7							
RUE	e	PKPbc	Z 01:06:58.8	149.9	25.5					
NRDL	e	PKPbc	Z 01:07:00.8	150.7	18.9					
CLL	e	PKPbc	Z 01:07:01.8	151.1	25.0					
	e	PKPab	Z 01:07:09.1							
BRG	e	PKPbc	Z 01:07:02.3	151.3	27.0					
MOX	e	PKPbc	Z 01:07:04.0	152.1	22.9					
	e	PKPab	Z 01:07:13.3							
BUG	e	PKPbc	Z 01:07:04.1	152.2	14.2					
GRA1	e	PKPbc	Z 01:07:06.2	153.1	22.9					
	e	PKPab	Z 01:07:18.0							
GEC2	e	PKPbc	Z 01:07:06.3	153.1	28.4					
WLF	e	PKPbc	Z 01:07:08.6	154.1	12.7					
	e	PKPab	Z 01:07:21.9							
FUR	e	PKPbc	Z 01:07:08.9	154.5	24.2					
BFO	e	PKPbc	Z 01:07:09.1	155.0	18.0					
	e	PKPab	Z 01:07:25.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/26								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i	PKPbc	- Z 01:07:01.8			0.6	25			
	e	PKPab	Z 01:07:09.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/26	01:56:24.6	22.630S	178.180W	33.0N				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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BSEG	e	PKPbc	Z	02:16:06.7	148.0	14.9	0.9	109
HLG	e	PKPbc	Z	02:16:07.3	148.1	10.6	0.9	155
RUE	e	PKPbc	Z	02:16:08.8	148.8	21.7	0.8	56
NRDL	e	PKPbc	Z	02:16:10.2	149.5	15.2	1.0	31
	e	PKPab	Z	02:16:14.9				
IBBN	e	PKPbc	Z	02:16:11.8	150.0	11.0	0.6	33
CLL	e	PKPbc	Z	02:16:11.9	150.0	21.0	1.0	65
	e	PKPab	Z	02:16:17.4				
BRG	e	PKPbc	Z	02:16:12.5	150.2	23.0	0.7	27
	e	PKPab	Z	02:16:18.4				
BUG	e	PKPbc	Z	02:16:13.7	150.9	10.4	1.1	36
MOX	e	PKPbc	Z	02:16:14.1	151.0	18.9	0.8	23
	e	PKPab	Z	02:16:21.2				
GRA1	e	PKPbc	Z	02:16:16.3	151.9	18.7	0.8	25
	e	PKPab	Z	02:16:26.0				
WET	e	PKPbc	Z	02:16:16.7	152.1	22.2	0.8	10
	e	PKPab	Z	02:16:26.6				
GEC2	e	PKPbc	Z	02:16:17.0	152.1	24.0	1.0	27
WLF	e	PKPbc	Z	02:16:18.8	152.8	8.8	0.9	45
	e	PKPab	Z	02:16:29.1				
STU	e	PKPbc	Z	02:16:19.3	153.2	15.2	0.8	41
	e	PKPab	Z	02:16:30.8				
FUR	e	PKPab	Z	02:16:32.0	153.4	19.8		
BFO	e	PKPbc	Z	02:16:20.2	153.8	13.7	0.9	20
	e	PKPab	Z	02:16:33.0				

Date Origin Time Lat Long Depth mb Ms ML Source
2004/04/26

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e	PKPdf	Z 02:16:07.4							
	i	PKPbc	- Z 02:16:11.8			1.0	66			
	e	PKPab	Z 02:16:17.3			0.7	33			
	e	pPKPbc	Z 02:18:29.9							
	e	PP	Z 02:19:43.9							

Date Origin Time Lat Long Depth mb Ms ML Source
2004/04/26 06:57:56.8
Tonga Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e	PKPbc	Z 07:17:35.8	147.1	12.4					
HLG	e	PKPbc	Z 07:17:38.4	147.9	3.1					
BSEG	e	PKPbc	Z 07:17:38.6	148.0	7.4					
RUE	e	PKPbc	Z 07:17:41.3	149.1	13.9					

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NRDL	e	PKPdf	Z	07:17:38.6	149.5	7.3						
	e	PKPbc	Z	07:17:42.0								
IBBN	e	PKPbc	Z	07:17:43.0	149.8	3.1						
CLL	e	PKPdf	Z	07:17:40.3	150.3	13.0						
	e	PKPbc	Z	07:17:44.4								
BRG	e	PKPdf	Z	07:17:40.9	150.6	14.9						
	e	PKPbc	Z	07:17:45.5								
BUG	e	PKPbc	Z	07:17:45.6	150.7	2.2						
MOX	e	PKPdf	Z	07:17:41.5	151.2	10.6						
	e	PKPbc	Z	07:17:46.2								
GRA1	e	PKPbc	Z	07:17:49.6	152.1	10.2						
	e	PKPab	Z	07:17:57.6								
	e	PP	Z	07:21:24.6								
	e	L	Z	08:37:00.2			19.0	1018		5.7		
WET	e	PKPdf	Z	07:17:43.8	152.4	13.7						
	e	PKPbc	Z	07:17:50.1								
WLF	e	PKPbc	Z	07:17:50.7	152.5	0.1						
	e	PKPab	Z	07:17:58.4								
GEC2	e	PKPdf	Z	07:17:43.9	152.6	15.4						
	e	PKPbc	Z	07:17:50.4								
STU	e	PKPbc	Z	07:17:52.0	153.2	6.4						
FUR	e	PKPbc	Z	07:17:52.8	153.6	10.8						
BFO	e	PKPbc	Z	07:17:52.4	153.7	4.7						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/26								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e	PKPdf	Z	07:17:39.9					
	e	PKPbc	Z	07:17:44.3		1.4	121		
	e	PKPab	Z	07:17:47.6		0.9	36		
	e	PP	Z	07:21:12.1					
	e	PPP	Z	07:24:36.9					
	e			07:31:29.2					
	e	SS	E	07:40:25.6					
	e	SSS	E	07:46:13.1					
	e	L	Z	08:27:11.4			20.0	1178	5.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/26	12:32: 2.7	43.231N	149.545E	33.0N	4.9			SZGRF
East of Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e	P	Z	12:44:10.2	80.2	29.4	0.9	11	4.9

BSEG	e P	Z	03:01:39.5	70.1	26.4	1.2	12	4.9
NRDL	e P	Z	03:01:48.7	71.4	26.1	1.1	10	4.8
CLL	e P	Z	03:01:49.9	71.7	27.6	1.0	27	5.3
BRG	e P	Z	03:01:50.7	71.8	28.1	1.2	12	4.9
WERD	e P	Z	03:01:54.0	72.7	27.1	1.1	9	4.8
MOX	e P	Z	03:01:55.9	72.7	26.7	1.2	15	5.0
GUNZ	e P	Z	03:01:56.4	72.7	27.1	0.9	8	4.9
GRA1	e P	Z	03:02:01.9	73.7	26.4	0.9	24	5.2
WET	e P	Z	03:02:02.0	73.7	27.3	1.2	18	5.0
GEC2	e P	Z	03:02:01.8	73.7	27.7	1.5	10	4.6
BFO	e P	Z	03:02:13.4	75.7	24.5	0.9	6	4.8

Date 2004/04/28
Origin Time 04:09:13.9
Nicaragua

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:21:34.5	83.5	281.9	0.8	19	5.4		
	e pP	Z 04:21:52.6							
	e L	Z 04:55:30.0			21.2	1949		5.5	

Date 2004/04/28

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 04:21:38.0			1.0	12	5.0		
	e sP	Z 04:21:55.6							
	e PP	Z 04:25:03.3							
	e sS	E 04:32:41.3							
	e SP	Z 04:33:17.2							
	e sSS	E 04:38:22.6							
	e SSS	N 04:41:46.4							
	e sSSS	E 04:42:15.6							
	e SKKSdf	N 04:46:30.8							
	e LR	Z 04:50:05.2							
	e L	Z 04:59:59.6			20.0	574		5.0	

Date 2004/04/28
Origin Time 09:22:23.8
Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 09:42:02.0	146.7	9.2					

RUE	e	PKPbc	Z	09:42:04.3	147.7	15.6						
NRDL	e	PKPbc	Z	09:42:05.9	148.2	9.2						
IBBN	e	PKPbc	Z	09:42:07.2	148.5	5.1						
CLL	e	PKPbc	Z	09:42:08.2	148.9	14.7						
BRG	e	PKPbc	Z	09:42:09.1	149.2	16.6						
MOX	e	PKPbc	Z	09:42:10.2	149.8	12.5						
WERD	e	PKPbc	Z	09:42:10.7	149.9	13.8						
GUNZ	e	PKPbc	Z	09:42:10.9	150.0	13.9						
GRA1	e	PKPbc	Z	09:42:13.1	150.8	12.1						
	e	PKPab	Z	09:42:20.2								
	e	L	Z	10:48:37.8			21.7		221		4.9	
WET	e	PKPbc	Z	09:42:13.7	151.1	15.5						
GEC2	e	PKPbc	Z	09:42:13.9	151.2	17.2						
WLF	e	PKPbc	Z	09:42:14.1	151.2	2.4						
BFO	e	PKPbc	Z	09:42:16.6	152.4	6.9						

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/28 09:53: 4.9 22.640S 171.680E 33.0N
 Southeast of Loyalty Islands SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPbc	Z	10:12:39.8	145.7	31.6				
RUE	e	PKPbc	Z	10:12:40.0	145.7	38.0				
BRG	e	PKPbc	Z	10:12:43.5	146.9	39.8				
CLL	e	PKPbc	Z	10:12:43.3	146.9	37.9				
NRDL	e	PKPbc	Z	10:12:43.9	147.0	32.4				
WERD	e	PKPbc	Z	10:12:46.5	147.9	37.7				
IBBN	e	PKPbc	Z	10:12:43.1	147.9	28.7				
	e	PKPbc	Z	10:12:45.9						
GUNZ	e	PKPbc	Z	10:12:46.8	147.9	37.8				
MOX	e	PKPbc	Z	10:12:46.6	148.0	36.4				
GEC2	e	PKPbc	Z	10:12:48.0	148.5	41.5				
WET	e	PKPbc	Z	10:12:48.4	148.7	39.9				
BUG	e	PKPbc	Z	10:12:48.8	148.8	28.6				
GRA1	e	PKPbc	Z	10:12:49.2	148.9	36.7				
	e	PKPab	Z	10:12:53.4						
FUR	e	PKPab	Z	10:12:58.0	150.1	38.4				
STU	e	PKPbc	Z	10:12:53.1	150.4	34.2				
	e	PKPab	Z	10:12:59.1						
WLF	e	PKPbc	Z	10:12:54.0	150.7	28.1				
BFO	e	PKPbc	Z	10:12:54.3	151.1	33.2				
	e	PKPab	Z	10:13:01.7						

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/04/28 11:45:17.0 16.014S 172.711W 33.0N
 5.3 SZGRF

Samoa Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 12:04:47.6	144.4	9.5					
BUG	e PKPbc	Z 12:04:48.1	144.6	360.0					
BRG	e PKPbc	Z 12:04:48.7	144.7	11.1					
MOX	e PKPbc	Z 12:04:50.6	145.2	7.3					
WERD	e PKPbc	Z 12:04:50.4	145.3	8.5					
GUNZ	e PKPbc	Z 12:04:50.6	145.4	8.6					
GRA1	e PKPbc	Z 12:04:53.3	146.2	6.8					
	e PKPab	Z 12:04:56.0							
	e PP	Z 12:08:22.3							
	e L	Z 13:13:17.2			21.7	575		5.3	
WLF	e PKPbc	Z 12:04:54.9	146.3	358.0					
BFO	e PKPbc	Z 12:04:57.2	147.7	1.9					
	e PKPab	Z 12:05:01.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/28								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 12:04:47.4			0.9	30			
	e PPS	Z 12:20:47.2							
	e (SS)	Z 12:27:51.5							
	e LR	Z 12:54:08.7							
	e L	Z 13:10:21.3			22.0	422		5.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/28	16:32:32.0	22.710S	177.290W	33.0N				SZGRF
South of Fiji Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 16:52:14.4	148.3	13.4					
RUE	e PKPbc	Z 16:52:16.5	149.0	20.1					
NRDL	e PKPbc	Z 16:52:18.2	149.7	13.6					
IBBN	e PKPbc	Z 16:52:19.6	150.2	9.4					
	e PKPab	Z 16:52:24.0							
CLL	e PKPbc	Z 16:52:19.9	150.3	19.4					
	e PKPab	Z 16:52:24.4							
BRG	e PKPdf	Z 16:52:16.3	150.5	21.4					
	e PKPbc	Z 16:52:20.5							
	e PKPab	Z 16:52:25.5							
BUG	e PKPbc	Z 16:52:21.4	151.1	8.7					
MOX	e PKPdf	Z 16:52:17.3	151.2	17.3					
	e PKPbc	Z 16:52:22.2							

	e PKPab	Z	16:52:28.2						
WERD	e PKPbc	Z	16:52:22.5	151.3	18.7				
	e PKPab	Z	16:52:28.5						
GUNZ	e PKPbc	Z	16:52:22.8	151.3	18.8				
	e PKPab	Z	16:52:29.1						
GRA1	e PKPbc	Z	16:52:24.8	152.2	17.0				
	e PKPab	Z	16:52:32.8						
WET	e PKPbc	Z	16:52:24.9	152.4	20.6				
	e PKPab	Z	16:52:33.6						
GEC2	e PKPbc	Z	16:52:25.1	152.5	22.4				
	e PKPab	Z	16:52:33.7						
WLF	e PKPbc	Z	16:52:26.8	152.9	7.0				
	e PKPab	Z	16:52:35.9						
STU	e PKPbc	Z	16:52:27.2	153.4	13.5				
	e PKPab	Z	16:52:37.6						
FUR	e PKPbc	Z	16:52:27.7	153.6	18.0				
	e PKPab	Z	16:52:39.1						
BFO	e PKPbc	Z	16:52:28.3	154.0	11.9				
	e PKPab	Z	16:52:39.9						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/28								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 17:00:04.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/28								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 18:46:55.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/29								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PKP	Z 01:04:02.5							
STU	e PKP	Z 01:04:00.5							
WLF	e PKP	Z 01:04:01.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2004/04/29 00:57:35.5 9.950N 83.727W 84.4 6.2 SZGRF
Costa Rica

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	01:09:48.9	82.4	276.4					
BUG	e P	Z	01:09:50.3	82.9	277.0					
IBBN	e P	Z	01:09:51.3	83.0	277.3					
BFO	e P	Z	01:09:55.8	83.9	278.2	1.6	36			
BSEG	e P	Z	01:09:57.3	84.3	279.1	3.8	762			
NRDL	e P	Z	01:09:58.4	84.4	279.1					
STU	e P	Z	01:09:58.8	84.4	278.8	1.5	53			
UBBA	e P	Z	01:09:59.4	84.6	279.2					
GRA1	e P	Z	01:10:04.5	85.6	280.2	1.7	78			
	e pP	Z	01:10:27.5							
	e sP	Z	01:10:35.3							
	e PP	Z	01:13:32.7							
	e S	E	01:20:36.4							
	e SS	E	01:26:36.4							
	e L	Z	01:44:57.5			20.6	9204		6.2	
MOX	e P	Z	01:10:04.9	85.7	280.4					
FUR	e P	Z	01:10:06.4	85.9	280.4	1.8	72			
WERD	e P	Z	01:10:07.0	86.1	281.0					
GUNZ	e P	Z	01:10:07.4	86.2	281.0					
CLL	e P	Z	01:10:08.2	86.4	281.4	1.4	33			
RUE	e P	Z	01:10:08.6	86.6	282.0					
WET	e P	Z	01:10:10.7	86.8	281.5	1.9	92			
BRG	e P	Z	01:10:11.3	87.1	282.2	2.0	73			
GEC2	e P	Z	01:10:13.3	87.3	282.1	1.9	59			

Date Origin Time Lat Long Depth mb Ms ML Source
2004/04/29

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z	01:10:08.3			1.4	34	5.3		
	e		01:10:24.3							
	e pP	Z	01:10:30.9							
	e sP	Z	01:10:38.9							
	e PP	Z	01:13:28.9							
	e pPP	Z	01:13:48.0							
	e (PPPP)	Z	01:17:16.2							
	e S	N	01:20:38.0							
	e SP	Z	01:21:38.2							
	e sSS	E	01:26:51.1							
	e (SSS)	E	01:30:18.4							
	e LQ	Z	01:38:20.6							
	e L	Z	01:46:06.8			22.0	6721		6.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/29	22:16:47.5	60.179N	145.662W	33.0N	5.3	4.7		SZGRF
Southern Alaska, United States								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:27:47.2	68.5	347.9	1.3	26	5.3		
	e L	Z 22:58:44.7			18.7	383		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/29								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 23:00:33.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/04/30	14:11:39.1	37.520N	70.630E	33.0N	4.9			SZGRF
Afghanistan-Tajikistan border region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 14:19:26.6	41.6	86.0	0.7	26	5.1		
GEC2	e P	Z 14:19:29.2	42.0	83.6	1.6	20	4.6		
CLL	e P	Z 14:19:30.4	42.2	85.8	0.8	16	4.8		
WET	e P	Z 14:19:33.3	42.5	83.3	1.5	20	4.6		
GUNZ	e P	Z 14:19:34.8	42.7	84.3	1.2	17	4.6		
WERD	e P	Z 14:19:35.3	42.7	84.4	1.1	12	4.5		
MOX	e P	Z 14:19:38.1	43.1	84.1	0.8	10	4.6		
GRA1	e P	Z 14:19:42.1	43.5	82.8	1.5	53	5.1		
BSEG	e P	Z 14:19:42.8	43.7	86.6	1.0	30	5.0		
FUR	e P	Z 14:19:43.3	43.7	81.2	0.8	40	5.2		
NRDL	e P	Z 14:19:44.3	43.9	84.9	1.1	24	4.8		
IBBN	e P	Z 14:19:56.1	45.3	83.0	1.3	67	5.4		
BFO	e P	Z 14:19:57.3	45.6	79.6	1.3	21	5.0		
BUG	e P	Z 14:19:59.4	45.7	81.8	1.2	37	5.3		
WLF	e P	Z 14:20:07.8	46.7	79.4	1.0	40	5.5		

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In general all regional and teleseismic events clearly recorded with GRF-Array stations and stronger events recorded with stations of the German Regional Seismological Network (GRSN) are included in this bulletin. Additionally, some selected events are analysed more comprehensively at CLL-station and included in the bulletin (ISOP-analyses).

Each event is reported by several EPICENTER LINES with possible COMMENT LINES, a REGION LINE and a block of PHASE LINES.

EPICENTER LINES:

The epicenter locations of several authorities can be reported. The epicenter location with the highest priority (i.e. the most reliable one) is written in the undermost EPICENTER LINE. The REGION LINE and all origin related parameter in the PHASE LINES (i.e. Def, Dist, EvAz) are determined regarding this epicenter location with the highest priority.

Date	Date of the event
Origin Time	Origin time of the event
Lat	Geographic latitude (N/S) of epicenter in degree
Long	Geographic longitude (E/W) of epicenter in degree
Depth	Depth of the hypocenter beneath the surface in kilometer
	Appended flag indicates the method by which the depth was determined:
	BLANK - free
	N - preset depth of 33 kilometer
	G - geophysicist preset depth
mb, Ms, ML	Magnitudes of the event and magnitude type
Source	Abbreviations for the authority (e.g. SZGRF, NEIC, PIDC, SED)

COMMENT LINE:

Each EPICENTER LINE can be followed by a COMMENT LINE about interesting topics submitted by the preceding authority.

REGION LINE:

The region name of the epicenter location with the highest priority (undermost EPICENTER LINE).

PHASE LINE:

Sta	Station code of the reported phase
Phase	Preceded flag for the sharpness of the onset of the phase
	e - emergent
	i - impulsive
	w - weak
	ISC phase code
	Flag for the direction of the first motion
	'+' - compression
	'-' - dilatation
	Component where the phase was picked
Time	Arrival time of the reported phase
Dist	Distance from the epicenter location with the highest priority to the station in kilometer
BAZ	Backazimuth from the epicenter location with the highest priority to the station in degree

T[s]	Phase Period
A[nm]	Phase Amplitude
mb	Body wave magnitude
MS	Surface wave magnitude
ML	Local Richter magnitude