

MONTHLY BULLETIN of REGIONAL and TELESEISMIC EVENTS RECORDED with GRF- and GRSN-STATIONS in GERMANY

(produced by SZGRF/BGR - HANNOVER)

June 2010 UPDATED 25.SEPTEMBER.2010

Please note that local events recorded in Germany are part of the "LOCAL BULLETIN".

(Format description at the end of the bulletin)

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source	
2010/06/01	03:26:23.4	10.120N	83.320W	33.0G	6.0	5.4		SZGRF	
Costa Rica									
Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 03:38:41.0	82.0	276.2	1.5	170	6.0		
BUG	e P	Z 03:38:43.0	82.5	276.8	1.6	214	6.1		
IBBN	e P	Z 03:38:44.3	82.7	277.1	1.8	296	6.2		
TNS	e P	Z 03:38:47.8	83.4	277.9	1.7	224	6.1		
BFO	e P	Z 03:38:48.4	83.5	278.0	1.3	67	5.7		
BSEG	e P	Z 03:38:50.8	84.0	278.9	1.9	334	6.3		
STU	e P	Z 03:38:51.3	84.0	278.6	1.5	190	6.1		
NRDL	e P	Z 03:38:51.7	84.1	278.9	1.6	178	6.1		
UBBA	e P	Z 03:38:52.4	84.3	279.0	1.9	212	6.0		
CLZ	e P	Z 03:38:53.2	84.3	279.2	1.5	219	6.1		
GRA1	e P	Z 03:38:57.6	85.2	280.0	2.0	296	6.2		
	e L	N 04:11:56.5			22.0	1596		5.4	
MOX	e P	Z 03:38:57.6	85.3	280.2	1.8	185	6.0		
	e L	N 04:13:01.6			19.6	1479		5.4	
FUR	e P	Z 03:38:59.1	85.5	280.2	1.9	219	6.0		
ROTZ	e P	Z 03:39:00.6	85.8	280.7	2.0	229	6.0		
TANN	e P	Z 03:39:00.8	85.9	280.9	1.5	191	6.0		
CLL	e P	Z 03:39:01.3	86.0	281.2	2.0	284	6.1		
WET	e P	Z 03:39:03.2	86.4	281.3	1.6	249	6.1		
RJOB	e P	Z 03:39:03.9	86.6	281.3	1.3	75	5.6		
BRG	e P	Z 03:39:04.6	86.7	282.0	2.1	329	6.1		
GEC2	e P	Z 03:39:05.9	87.0	281.9	1.6	133	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2010/06/01 04:49:23.4 38.510N 142.180E 33.0G 5.0 SZGRF
Near east coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 05:01:24.9	78.7	36.5	1.0	18	5.1		
	e PP	Z 05:04:23.9							
BRG	e P	Z 05:01:30.0	79.8	38.6	0.9	9	4.7		
CLL	e P	Z 05:01:30.0	79.8	38.0	0.9	15	4.9		
NRDL	e P	Z 05:01:31.4	79.9	36.2	0.8	7	4.7		
	e PP	Z 05:04:33.9							
CLZ	e P	Z 05:01:34.0	80.4	36.3	1.1	16	5.0		
IBBN	e P	Z 05:01:36.1	80.9	34.5	0.8	20	5.2		
ROTZ	e P	Z 05:01:38.9	81.3	37.3	1.6	20	5.0		
GEC2	e P	Z 05:01:39.0	81.5	38.3	0.8	7	4.8		
WET	e P	Z 05:01:39.7	81.6	37.7	1.1	9	4.8		
GRA2	e P	Z 05:01:41.3	81.8	36.8					
GRA1	e P	Z 05:01:41.5	81.8	36.7	0.9	18	5.2		
BUG	e P	Z 05:01:41.1	81.8	34.0	0.7	11	5.1		
TNS	e P	Z 05:01:44.0	82.4	34.8	0.9	8	5.0		
RJOB	e P	Z 05:01:46.1	82.7	37.6	0.9	15	5.2		
FUR	e P	Z 05:01:47.3	83.0	36.6	0.9	32	5.5		
BFO	e P	Z 05:01:52.2	84.0	34.6	0.9	16	5.3		

Date Origin Time Lat Long Depth mb Ms ML Source
2010/06/01 15:58:12.0 24.900N 99.300E 28.0 NEIC
Yunnan, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRB3	e PcP	Z 16:09:25.5	69.8	74.9					
GRB5	e PcP	Z 16:09:26.0	69.9	74.7					
GRA3	e PcP	Z 16:09:26.6	70.0	74.7					
GRA1	e PcP	Z 16:09:27.0	70.1	74.6					

Date Origin Time Lat Long Depth mb Ms ML Source
2010/06/02 01:49: 3.5 57.400S 26.400W 125.0 NEIC
South Sandwich Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKKPbc	Z 02:18:18.9	111.5	200.7					
ROHR	e PKKPbc	Z 02:18:17.5	112.3	201.4					
NKC	e PKKPbc	Z 02:18:16.2	112.3	201.4					
WERN	e PKiKP	Z 02:07:21.9	112.3	201.4					
	e PKKPbc	Z 02:18:16.2							
GUNZ	e PKKPbc	Z 02:18:16.5	112.4	201.4					
WERD	e PKKPbc	Z 02:18:16.7	112.4	201.4					

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PLN	e	PKKPbc	Z	02:18:16.2	112.4	201.3
TANN	e	PKKPbc	Z	02:18:16.4	112.5	201.5
MOX	e	PKiKP	Z	02:07:23.5	112.5	201.0
	e	PKKPbc	Z	02:18:16.4		
NEUB	e	PKiKP	Z	02:07:24.8	113.0	201.2
	e	PKKPbc	Z	02:18:14.3		
FBE	e	PKKPbc	Z	02:18:14.5	113.1	202.0
BRG	e	PKiKP	Z	02:07:25.6	113.2	202.3
	e	PKKPbc	Z	02:18:13.9		
CLL	e	PKiKP	Z	02:07:25.2	113.4	201.9
	e	PKKPbc	Z	02:18:12.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/02	09:28:56.0	6.200S	149.300E	51.0				NEIC
New Britain, Papua New Guinea, region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPdf	Z 09:47:45.0	121.9	50.2					
BRG	e	PKPdf	Z 09:47:44.3	122.0	55.5					
CLL	e	PKPdf	Z 09:47:45.1	122.2	54.3					
NRDL	e	PKPdf	Z 09:47:46.1	122.9	50.7					
TANN	e	PKPdf	Z 09:47:46.4	123.0	54.2					
CLZ	e	PKPdf	Z 09:47:46.8	123.2	51.3					
GEC2	e	PKPdf	Z 09:47:46.5	123.3	56.3					
MOX	e	PKPdf	Z 09:47:47.2	123.3	53.2					
	e	L	N 10:41:57.7			21.2	2383			
WET	e	PKPdf	Z 09:47:47.4	123.6	55.3					
UBBA	e	PKPdf	Z 09:47:48.8	124.0	51.5					
GRA1	e	PKPdf	Z 09:47:48.7	124.1	53.3					
	e	L	N 10:42:50.3			20.2	2160			
IBBN	e	PKPdf	Z 09:47:48.9	124.2	48.3					
RJOB	e	PKPdf	Z 09:47:48.5	124.4	56.0					
BUG	e	PKPdf	Z 09:47:50.2	125.0	48.3					
TNS	e	PKPdf	Z 09:47:50.8	125.2	50.2					
BFO	e	PKPdf	Z 09:47:53.3	126.4	51.1					
WLF	e	PKPdf	Z 09:47:54.6	126.7	48.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/02	18:51: 8.8	13.700S	166.400E	35.0				NEIC
Vanuatu Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPdf	Z 19:10:23.9	135.6	34.2					
	e	PP	Z 19:13:54.6							
BRG	e	PKPdf	Z 19:10:25.0	136.7	40.9					

	e PP	Z	19:13:57.8		
CLL	e PKPdf	Z	19:10:25.9	136.7	39.4
	e PP	Z	19:13:57.8		
NRDL	e PKPdf	Z	19:10:26.9	136.8	34.8
	e PP	Z	19:13:58.7		
CLZ	e PKPdf	Z	19:10:26.8	137.3	35.6
	e PP	Z	19:14:00.1		
TANN	e PKPdf	Z	19:10:27.4	137.6	39.3
	e PP	Z	19:14:01.0		
MOX	e PKPdf	Z	19:10:27.4	137.8	38.0
	e PP	Z	19:14:01.0		
IBBN	e PKPdf	Z	19:10:27.6	137.8	31.8
	e PP	Z	19:14:01.3		
ROTZ	e PKPdf	Z	19:10:28.3	138.2	39.4
	e PP	Z	19:14:02.8		
UBBA	e PKPdf	Z	19:10:28.9	138.2	35.7
	e PP	Z	19:14:02.5		
GEC2	e PKPdf	Z	19:10:28.5	138.3	42.0
	e PP	Z	19:14:02.8		
WET	e PKPdf	Z	19:10:28.7	138.4	40.7
	e PP	Z	19:14:03.2		
GRA1	e PP	Z	19:14:03.7	138.7	38.1
BUG	e PKPdf	Z	19:10:29.4	138.7	31.6
	e PP	Z	19:14:04.0		
TNS	e PP	Z	19:14:05.6	139.3	34.0
RJOB	e PP	Z	19:14:05.8	139.5	41.7
FUR	e PKPdf	Z	19:10:30.5	139.9	39.3
	e PP	Z	19:14:07.2		
STU	e PP	Z	19:14:08.1	140.2	36.0
WLF	e PKPdf	Z	19:10:34.5	140.6	31.1
	e PP	Z	19:14:09.4		
BFO	e PKPdf	Z	19:10:35.7	140.9	35.1
	e PP	Z	19:14:09.1		
	e SS	N	19:30:51.0		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/02 22:39:26.0 39.000N 140.800E 11.0 4.8 NEIC
 Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA3	e P	Z	22:51:40.6	80.7	37.4	0.9	10	4.9		
GRA2	e P	Z	22:51:40.9	80.8	37.4	1.0	10	4.8		
GRA1	e P	Z	22:51:41.1	80.8	37.4	0.9	9	4.8		
GRB4	e P	Z	22:51:41.1	80.9	37.6	1.9	24	4.9		
GRB5	e P	Z	22:51:42.5	81.1	37.6	0.8	6	4.6		
GRC4	e P	Z	22:51:42.7	81.2	37.5	0.8	5	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/03	04:32:42.8	70.590N	14.400W	10.0	5.4	4.8		SZGRF

Jan Mayen Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z	04:37:25.6	20.9	339.4	1.3	63	4.8		
	e PcP	Z	04:41:33.1							
NRDL	e P	Z	04:37:29.4	21.2	337.6	1.6	360	5.4		
BUG	e P	Z	04:37:33.3	21.6	340.5	1.6	347	5.5		
UBBA	e P	Z	04:37:45.8	22.7	339.2	2.0	354	5.5		
TNS	e P	Z	04:37:48.4	23.0	340.7	2.9	1013	5.8		
CLL	e P	Z	04:37:48.2	23.0	336.9	3.0	930	5.8		
	e PcP	Z	04:41:36.9							
WLF	e P	Z	04:37:48.9	23.0	342.6	1.4	109	5.2		
MOX	e P	Z	04:37:51.2	23.3	338.3	2.7	494	5.6		
	e L	N	04:46:10.8			20.8	2548		4.7	
BRG	e P	Z	04:37:54.4	23.6	336.8	2.4	269	5.4		
	e PcP	Z	04:41:38.5							
TANN	e P	Z	04:37:55.7	23.7	338.0	2.7	724	5.7		
	e PcP	Z	04:41:38.7							
GRA1	e P	Z	04:37:59.5	24.1	339.4	2.6	733	5.7		
	e PcP	Z	04:41:39.5							
ROTZ	e L	N	04:47:06.2			20.2	3718		4.9	
	e P	Z	04:38:00.9	24.2	338.7	2.4	210	5.2		
GRB4	e PcP	Z	04:41:40.3	24.4	339.3					
STU	e P	Z	04:38:03.6	24.5	341.3	2.7	492	5.8		
GRB3	e PcP	Z	04:41:40.9	24.5	339.3					
GRB5	e PcP	Z	04:41:40.9	24.7	339.5					
BFO	e P	Z	04:38:05.6	24.7	342.1	1.2	74	5.3		
GRC1	e PcP	Z	04:41:40.9	24.8	339.7					
GRC3	e PcP	Z	04:41:41.1	24.9	339.8					
WET	e P	Z	04:38:08.0	25.0	338.8	1.6	97	5.3		
	e PcP	Z	04:41:41.4							
GEC2	e P	Z	04:38:12.7	25.4	338.6	1.3	57	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/03	05:35:51.8	33.680N	95.439E	33.0G	5.4	5.6		SZGRF

Qinghai, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	05:45:51.6	59.5	72.8	0.9	30	5.3		
CLL	e P	Z	05:45:54.2	59.9	72.4	1.2	36	5.3		
GEC2	e P	Z	05:45:57.1	60.2	71.5	1.0	23	5.1		
TANN	e P	Z	05:45:58.8	60.5	71.6	0.9	18	4.9		
WET	e P	Z	05:46:00.0	60.7	71.2	1.1	20	4.9		

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ROTZ	e P	Z	05:46:01.6	60.9	71.1	1.1	50	5.3		
MOX	e P	Z	05:46:01.6	61.0	71.2	1.3	33	5.0		
	e L	N	06:10:29.8			19.6	3315		5.5	
RJOB	e P	Z	05:46:03.5	61.2	70.4	1.4	36	5.0		
NRDL	e P	Z	05:46:04.0	61.2	71.1	1.0	49	5.3		
CLZ	e P	Z	05:46:04.4	61.3	70.9	1.0	68	5.4		
GRA1	e P	Z	05:46:05.7	61.5	70.4	0.9	46	5.7		
	e L	N	06:10:47.9			19.1	4301		5.6	
FUR	e P	Z	05:46:09.2	62.0	69.7	0.9	82	5.9		
IBBN	e P	Z	05:46:14.1	62.7	69.4	1.2	47	5.5		
TNS	e P	Z	05:46:15.3	63.0	68.9	1.2	29	5.3		
STU	e P	Z	05:46:17.6	63.1	68.7	0.9	32	5.5		
BUG	e P	Z	05:46:17.0	63.2	68.7	1.1	32	5.4		
BFO	e P	Z	05:46:20.1	63.8	67.9	1.1	36	5.5		
WLF	e P	Z	05:46:26.2	64.6	67.1	1.1	80	5.9		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/03 07:37:59.2 44.400N 147.800E 60.0 4.7
 Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 07:49:47.6	76.6	31.4	1.2	14	5.0		
ROTZ	e P	Z 07:49:56.9	78.2	30.7	1.4	6	4.4		
WET	e P	Z 07:49:58.7	78.5	31.1	0.9	5	4.5		
GRA1	e P	Z 07:49:59.3	78.6	30.1	1.0	11	4.8		
GRB5	e P	Z 07:50:00.7	78.9	30.3					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/03 09:24: 8.1 4.640N 95.230E 33.0G 5.8 4.7
 Northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 09:36:23.4	80.9	93.8	1.7	141	5.7		
GEC2	e P	Z 09:36:23.9	80.9	93.3	1.6	186	5.9		
RJOB	e P	Z 09:36:26.0	81.5	92.5	0.9	29	5.3		
WET	e P	Z 09:36:26.7	81.5	92.7	1.8	140	5.8		
CLL	e P	Z 09:36:26.2	81.5	93.2	1.5	84	5.6		
TANN	e P	Z 09:36:28.2	81.8	92.6	1.5	46	5.4		
ROTZ	e P	Z 09:36:29.5	82.0	92.3	1.8	148	5.8		
MOX	e P	Z 09:36:31.0	82.4	92.0	1.8	91	5.6		
	e L	N 10:29:31.4			21.2	246		4.5	
FUR	e P	Z 09:36:31.5	82.5	91.4	1.9	202	6.0		
GRA1	e P	Z 09:36:32.6	82.6	91.6	1.6	168	6.0		
	e L	N 10:30:27.5			20.1	391		4.8	
CLZ	e P	Z 09:36:35.2	83.2	91.2	1.6	156	6.0		

BSEG	e P	Z	09:36:35.6	83.3	91.4	1.3	178	6.1
NRDL	e P	Z	09:36:36.3	83.4	91.0	1.4	141	6.0
UBBA	e P	Z	09:36:36.3	83.4	90.8	1.9	78	5.6
STU	e P	Z	09:36:38.8	83.9	89.9	0.9	37	5.6
TNS	e P	Z	09:36:41.5	84.4	89.5	1.7	87	5.7
BFO	e P	Z	09:36:41.5	84.5	89.2	2.0	159	5.9
IBBN	e P	Z	09:36:43.4	84.8	89.2	1.7	272	6.2
BUG	e P	Z	09:36:45.0	85.1	88.7	1.8	244	6.1
WLF	e P	Z	09:36:49.3	85.9	87.7	1.6	98	5.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/03	10:16:16.4	70.273N	14.780W	10.0N	5.1			SZGRF
Jan Mayen Island region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	10:20:48.2	19.8	335.0	2.2	201	5.0		
NRDL	e P	Z	10:21:02.0	21.1	336.7	1.5	102	4.9		
BUG	e P	Z	10:21:05.8	21.4	339.7	1.5	79	4.8		
CLZ	e P	Z	10:21:09.1	21.7	337.2	1.6	51	4.7		
UBBA	e P	Z	10:21:17.9	22.6	338.4	2.2	164	5.2		
TNS	e P	Z	10:21:21.4	22.8	339.9	2.5	306	5.4		
WLF	e P	Z	10:21:22.6	22.8	341.9	1.7	78	4.9		
CLL	e P	Z	10:21:20.8	22.9	336.1	1.5	80	5.0		
MOX	e P	Z	10:21:23.1	23.1	337.5	2.2	111	5.0		
BRG	e P	Z	10:21:26.2	23.5	336.0	2.8	166	5.1		
TANN	e P	Z	10:21:27.3	23.6	337.3	2.6	230	5.2		
ROTZ	e P	Z	10:21:31.9	24.1	338.0	2.6	83	4.8		
STU	e P	Z	10:21:35.5	24.3	340.6	1.4	36	4.7		
BFO	e P	Z	10:21:38.2	24.6	341.4	3.2	224	5.4		
WET	e P	Z	10:21:40.0	24.8	338.1	1.3	29	4.9		
GEC2	e P	Z	10:21:45.2	25.3	337.9	1.6	46	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/03	19:56:14.5	69.636N	13.933W	15.4	4.3			SZGRF
Jan Mayen Island region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	20:00:49.8	20.4	336.0	1.5	32	4.3		
BUG	e P	Z	20:00:53.7	20.7	339.2	1.1	22	4.4		
UBBA	e P	Z	20:01:07.4	21.9	337.8	1.7	12	4.0		
	e pP	Z	20:01:11.1							
GRB4	e P	Z	20:01:22.5	23.6	338.0	1.3	10	4.2		
GRB3	e P	Z	20:01:24.4	23.7	337.9	1.1	8	4.1		
GRC4	e P	Z	20:01:26.0	23.9	338.3	1.1	12	4.4		
GRB5	e P	Z	20:01:26.0	23.9	338.2	1.3	14	4.4		

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GRC2 e P Z 20:01:27.9 24.1 338.6 1.2 11 4.3

Date Origin Time Lat Long Depth mb Ms ML Source
2010/06/03 20:47: 3.4 32.302N 96.566E 33.0 5.2
Qinghai, China SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 20:57:14.0	61.1	73.2	0.7	16	4.9		
CLL	e P	Z 20:57:16.7	61.6	72.8	0.8	14	5.3		
GEC2	e P	Z 20:57:19.7	61.9	72.0	1.2	14	5.1		
TANN	e P	Z 20:57:21.2	62.1	72.0	0.9	11	5.0		
WET	e P	Z 20:57:22.4	62.3	71.6	0.9	10	5.1		
BSEG	e P	Z 20:57:22.6	62.3	72.3	0.8	22	5.3		
ROTZ	e P	Z 20:57:24.3	62.5	71.5	1.0	22	5.2		
MOX	e P	Z 20:57:24.1	62.6	71.5	1.3	13	4.9		
RJOB	e P	Z 20:57:25.6	62.8	70.9	1.3	15	5.0		
NRDL	e P	Z 20:57:26.4	62.9	71.4	0.9	28	5.4		
CLZ	e P	Z 20:57:26.7	62.9	71.3	1.1	28	5.3		
GRA1	e P	Z 20:57:28.3	63.1	70.8	0.9	21	5.3		
UBBA	e P	Z 20:57:29.8	63.5	70.5	1.7	14	4.9		
FUR	e P	Z 20:57:31.6	63.6	70.1	1.0	45	5.6		
IBBN	e P	Z 20:57:35.4	64.3	69.7	0.8	14	5.2		
TNS	e P	Z 20:57:37.7	64.6	69.2	1.0	12	5.1		
STU	e P	Z 20:57:38.2	64.7	69.1	1.0	16	5.2		
BUG	e P	Z 20:57:39.3	64.9	69.0	0.9	11	5.1		
BFO	e P	Z 20:57:42.5	65.4	68.3	1.1	13	5.1		
WLF	e P	Z 20:57:48.7	66.2	67.5	0.9	38	5.6		

Date Origin Time Lat Long Depth mb Ms ML Source
2010/06/03 22:31: 9.1 36.900N 77.100E 120.0 4.7
Kashmir-Xinjiang border region GSRC

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRB3	e P	Z 22:39:37.4	47.7	79.3	0.9	5	4.6		
GRB5	e P	Z 22:39:38.0	47.8	79.0	0.9	8	4.9		
GRB4	e P	Z 22:39:38.3	47.8	79.2	0.9	8	4.9		
GRA2	e P	Z 22:39:39.0	47.9	79.3	0.8	5	4.7		
GRC3	e P	Z 22:39:38.5	47.9	78.7	0.9	3	4.5		
GRC4	e P	Z 22:39:38.6	47.9	78.9	0.9	7	4.8		
GRA3	e P	Z 22:39:39.1	47.9	79.3	0.8	7	4.8		
GRA1	e P	Z 22:39:39.7	48.0	79.2	1.4	12	4.8		
GRC2	e P	Z 22:39:39.5	48.0	78.6	1.0	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/03	23:25:18.9	38.600N	139.800E	143.0	4.7			NEIC

Near west coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA2	e P	Z	23:37:22.0	80.7	38.3	1.5	14	4.8		
GRA1	e P	Z	23:37:21.4	80.8	38.2	0.7	6	4.7		
GRC4	e P	Z	23:37:20.0	81.1	38.4	1.0	5	4.5		
GRC3	e P	Z	23:37:20.7	81.2	38.4	1.1	6	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/04	11:49:42.4	36.840N	70.550E	224.1	4.9			SZGRF

Hindu Kush, Afghanistan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	11:57:12.1	42.0	86.9	0.9	30	5.0		
RUE	e P	Z	11:57:11.9	42.0	88.5	0.9	46	5.2		
RGN	e P	Z	11:57:14.8	42.3	90.4	1.0	102	5.5		
	e pP	Z	11:58:01.4							
GEC2	e P	Z	11:57:14.4	42.3	84.5	1.5	16	4.5		
FBE	e P	Z	11:57:15.3	42.4	86.5	0.9	33	5.0		
CLL	e P	Z	11:57:16.2	42.6	86.6	0.8	17	4.8		
WET	e P	Z	11:57:18.6	42.8	84.2	1.8	18	4.5		
TANN	e P	Z	11:57:20.0	43.0	85.3	1.1	16	4.6		
RJOB	e P	Z	11:57:20.2	43.0	82.7	1.0	12	4.6		
WERN	e P	Z	11:57:20.7	43.0	85.1	2.0	34	4.7		
GUNZ	e P	Z	11:57:20.7	43.1	85.1	1.3	24	4.8		
WERD	e P	Z	11:57:20.6	43.1	85.2	1.2	20	4.7		
PLN	e P	Z	11:57:21.4	43.2	85.1	1.3	22	4.7		
	e pP	Z	11:58:08.1							
ROTZ	e P	Z	11:57:22.3	43.2	84.4	1.3	32	4.9		
MANZ	e P	Z	11:57:22.4	43.2	84.6	1.1	20	4.7		
NEUB	e P	Z	11:57:22.7	43.3	85.6	1.0	39	5.1		
MOX	e P	Z	11:57:24.1	43.5	84.9	1.3	24	4.8		
	e pP	Z	11:58:10.7							
GRA1	e P	Z	11:57:27.5	43.8	83.7	1.2	36	5.0		
FUR	e P	Z	11:57:27.9	44.0	82.1	1.2	36	5.0		
CLZ	e P	Z	11:57:29.4	44.2	85.3	1.4	47	5.0		
	e pP	Z	11:58:17.8							
NRDL	e P	Z	11:57:30.4	44.3	85.7	1.1	29	4.9		
	e pP	Z	11:58:19.3							
UBBA	e P	Z	11:57:31.7	44.5	84.0	1.2	14	4.8		
STU	e P	Z	11:57:37.8	45.3	81.4	0.9	18	5.0		
TNS	e P	Z	11:57:40.3	45.5	82.3	1.2	16	4.9		
IBBN	e P	Z	11:57:41.6	45.7	83.8	0.9	45	5.5		
	e pP	Z	11:58:29.3							
BFO	e P	Z	11:57:42.2	45.9	80.4	1.2	16	4.9		

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BUG	e P	Z	11:57:44.7	46.1	82.6	1.1	32	5.3
	e pP	Z	11:58:32.8					
WLF	e P	Z	11:57:52.5	47.1	80.2	1.2	46	5.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/04	18:44:54.3	42.437N	17.695E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	18:46:25.0	6.3	145.1					
	e Sn	N	18:47:32.8							
GEC2	e Pn	Z	18:46:35.0	7.0	155.0					
WET	e Pn	Z	18:46:41.1	7.5	151.6					
ROTZ	e Pn	Z	18:46:50.6	8.3	150.5					
	e Sn	N	18:48:15.9							
MANZ	e Pn	Z	18:46:54.5	8.5	150.8					
	e Sn	N	18:48:21.7							
GUNZ	e Pn	Z	18:46:59.3	8.7	153.0					
WERD	e Pn	Z	18:46:59.8	8.8	153.1					
PLN	e Pn	Z	18:46:59.9	8.9	152.6					
MOX	e Pn	Z	18:47:03.6	9.2	150.7					
	e Sn	N	18:48:39.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/05	01:20: 7.9	5.967N	71.858W	33.0G	4.9	3.9		SZGRF

Colombia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	01:32:02.1	77.7	264.7	1.1	28	5.3		
BUG	e P	Z	01:32:06.5	78.6	265.2	1.7	37	5.1		
IBBN	e P	Z	01:32:08.5	78.9	265.4	1.3	26	5.1		
BFO	e P	Z	01:32:08.6	79.0	266.6	1.2	9	4.7		
HLG	e P	Z	01:32:09.1	79.2	265.2	1.1	84	5.7		
TNS	e P	Z	01:32:10.2	79.2	266.4	1.4	23	5.0		
STU	e P	Z	01:32:12.0	79.6	267.2	1.2	19	4.9		
UBBA	e P	Z	01:32:15.4	80.2	267.5	1.8	18	4.7		
NRDL	e P	Z	01:32:16.6	80.4	267.3	1.5	13	4.6		
GRA1	e P	Z	01:32:19.6	81.0	268.6	1.9	35	5.1		
	e L	Z	02:06:34.5			19.2	55		3.9	
FUR	e P	Z	01:32:19.6	81.0	268.9	1.1	14	4.9		
MOX	e P	Z	01:32:21.0	81.3	268.8	1.9	15	4.7		
	e L	Z	02:03:17.8			21.2	54		3.9	
NEUB	e P	Z	01:32:21.5	81.4	268.8	1.4	17	4.9		
PLN	e P	Z	01:32:22.9	81.6	269.2	1.8	19	4.9		
ROTZ	e P	Z	01:32:23.0	81.6	269.3	1.8	17	4.9		

WERD	e P	Z	01:32:23.1	81.7	269.3	1.9	18	4.9
WERN	e P	Z	01:32:23.7	81.7	269.4	1.4	8	4.6
WET	e P	Z	01:32:25.3	82.0	269.9	1.6	18	4.9
CLL	e P	Z	01:32:25.4	82.1	269.7	2.0	18	4.8
GEC2	e P	Z	01:32:27.8	82.6	270.6	1.6	12	4.9
BRG	e P	Z	01:32:28.6	82.7	270.5	1.9	19	5.0

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/05 05:22:1.5 43.920N 146.870E 33.0G 6.0 4.7
 Kuril Islands, Russia SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	05:33:36.5	73.9	32.9	1.1	412	6.4		
RUE	e P	Z	05:33:45.4	75.5	32.9	1.3	383	6.4		
HLG	e P	Z	05:33:47.5	75.9	29.2	1.3	325	6.3		
NRDL	e P	Z	05:33:51.8	76.7	30.5	1.0	100	5.9		
CLL	e P	Z	05:33:51.8	76.7	32.2	1.2	304	6.3		
BRG	e P	Z	05:33:52.3	76.8	32.8	1.4	140	5.9		
FBE	e P	Z	05:33:53.5	76.9	32.4	1.5	300	6.2		
CLZ	e P	Z	05:33:54.9	77.1	30.6	1.4	476	6.4		
NEUB	e P	Z	05:33:54.8	77.2	31.4	1.2	287	6.3		
IBBN	e P	Z	05:33:56.7	77.5	28.9	1.3	327	6.3		
TANN	e P	Z	05:33:57.6	77.7	31.8	1.1	44	5.5		
WERD	e P	Z	05:33:57.6	77.7	31.7	0.9	61	5.7		
PLN	e P	Z	05:33:57.9	77.7	31.6	1.2	93	5.8		
MOX	e P	Z	05:33:58.0	77.8	31.3	1.0	84	5.8		
	e L	Z	06:12:13.4			21.3	391		4.7	
GUNZ	e P	Z	05:33:58.0	77.8	31.7	0.8	77	5.9		
WERN	e P	Z	05:33:58.3	77.8	31.7	0.8	80	5.9		
UBBA	e P	Z	05:34:00.0	78.1	30.2	1.1	70	5.7		
MANZ	e P	Z	05:34:00.1	78.2	31.5	1.0	66	5.7		
ROTZ	e P	Z	05:34:01.5	78.3	31.5	1.2	107	5.7		
BUG	e P	Z	05:34:01.5	78.4	28.5	1.2	226	6.1		
GEC2	e P	Z	05:34:02.4	78.6	32.4	1.0	54	5.5		
WET	e P	Z	05:34:03.0	78.6	31.9	1.0	118	5.9		
GRA1	e P	Z	05:34:03.5	78.7	30.9	0.9	183	6.1		
	e L	Z	06:10:51.2			22.0	420		4.7	
TNS	e P	Z	05:34:05.6	79.1	29.1	1.5	187	5.9		
RJOB	e P	Z	05:34:09.4	79.8	31.7	1.1	85	5.6		
FUR	e P	Z	05:34:10.3	80.0	30.8					
STU	e P	Z	05:34:10.9	80.2	29.5	1.1	153	5.9		
WLF	e P	Z	05:34:12.6	80.3	27.6	1.7	187	5.9		
BFO	e P	Z	05:34:14.5	80.8	28.9	1.8	237	5.9		

Date Origin Time Lat Long Depth mb Ms ML Source

2010/06/05 06:42: 4.5 50.300N 29.100W 10.0 4.5 4.0 GSRC
Northern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z	06:47:08.8	22.7	281.5	1.3	27	4.6		
IBBN	e P	Z	06:47:14.6	22.9	279.8	1.4	47	4.8		
TNS	e P	Z	06:47:20.4	23.7	284.8	2.1	66	4.8		
BFO	e P	Z	06:47:23.4	24.2	288.9	2.6	50	4.6		
NRDL	e P	Z	06:47:24.6	24.3	280.6	1.0	14	4.4		
CLZ	e P	Z	06:47:28.4	24.5	282.2	1.8	45	4.9		
UBBA	e P	Z	06:47:26.6	24.6	284.2	2.7	43	4.7		
NEUB	e P	Z	06:47:37.5	25.5	284.2	1.1	26	4.8		
MOX	e P	Z	06:47:37.7	25.6	285.2	1.2	12	4.4		
	e L	Z	06:56:43.6			20.6	403		3.9	
GRA1	e P	Z	06:47:36.8	25.6	287.0	1.5	43	4.9		
	e L	Z	06:56:53.0			19.5	495		4.0	
WERD	e P	Z	06:47:40.3	26.1	285.9	1.1	6	4.1		
MANZ	e P	Z	06:47:40.8	26.1	286.7	1.6	14	4.3		
GUNZ	e P	Z	06:47:42.6	26.1	286.1	1.0	5	4.1		
ROTZ	e P	Z	06:47:42.2	26.2	287.2	1.3	15	4.5		
CLL	e P	Z	06:47:42.1	26.3	284.5	1.1	10	4.4		
FBE	e P	Z	06:47:45.3	26.6	285.4	1.2	14	4.6		
WET	e P	Z	06:47:47.2	26.8	288.6	2.7	31	4.6		
GEC2	e P	Z	06:47:52.8	27.4	289.5	1.7	13	4.5		

Date Origin Time Lat Long Depth mb Ms ML Source
2010/06/05 16:59:26.5 28.320N 65.090E 33.0N 4.9 4.0 ML SZGRF
Pakistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	17:07:31.5	44.1	98.4	1.6	36	4.9		
BRG	e P	Z	17:07:33.3	44.2	100.7	1.5	38	4.9		
RJOB	e P	Z	17:07:34.9	44.5	96.5	1.5	16	4.7		
FBE	e P	Z	17:07:36.7	44.6	100.2	1.5	40	5.1		
WET	e P	Z	17:07:35.8	44.6	98.0	2.3	36	4.9		
RUE	e P	Z	17:07:35.7	44.6	102.1	1.6	36	5.0		
WERN	e P	Z	17:07:40.4	45.1	98.7	1.5	13	4.6		
ROTZ	e P	Z	17:07:40.5	45.1	98.0	1.6	16	4.7		
GUNZ	e P	Z	17:07:40.5	45.2	98.7	1.7	20	4.8		
WERD	e P	Z	17:07:40.7	45.2	98.8	1.7	18	4.7		
MANZ	e P	Z	17:07:41.5	45.2	98.2	1.6	19	4.8		
PLN	e P	Z	17:07:41.5	45.3	98.7	1.5	13	4.6		
NEUB	e P	Z	17:07:44.3	45.6	99.1	1.4	25	5.0		
MOX	e P	Z	17:07:44.5	45.6	98.4	1.2	25	5.1		
	e L	Z	17:32:56.5			21.7	151		3.9	
GRA1	e P	Z	17:07:45.6	45.8	97.1	1.4	27	5.1		
	e L	Z	17:32:13.8			18.2	216		4.1	

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CLZ	e P	Z	17:07:52.0	46.6	98.4	1.3	18	5.0
UBBA	e P	Z	17:07:52.7	46.7	97.2	1.7	24	5.0
NRDL	e P	Z	17:07:53.8	46.9	98.8	1.9	31	5.1
STU	e P	Z	17:07:54.0	47.0	94.6	1.3	15	5.0
TNS	e P	Z	17:08:00.1	47.6	95.3	1.6	24	5.1
WLF	e P	Z	17:08:11.2	49.0	93.0	1.8	43	5.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/06	00:07:32.5	28.200N	129.700E	59.0				NEIC

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PcP	Z 00:19:53.0	82.8	53.1					
CLL	e PcP	Z 00:19:53.6	83.0	52.5					
FBE	e PcP	Z 00:19:54.5	83.1	52.7					
NRDL	e PcP	Z 00:19:57.1	83.7	50.4					
NEUB	e PcP	Z 00:19:57.3	83.7	51.6					
TANN	e PcP	Z 00:19:58.1	83.8	52.0					
WERD	e PcP	Z 00:19:58.3	83.9	51.9					
GUNZ	e PcP	Z 00:19:58.6	83.9	51.9					
PLN	e PcP	Z 00:19:58.6	84.0	51.8					
WERN	e PcP	Z 00:19:58.8	84.0	51.9					
CLZ	e PcP	Z 00:19:59.1	84.0	50.6					
MOX	e PcP	Z 00:19:59.4	84.1	51.4					
GEC2	e PcP	Z 00:19:59.6	84.2	52.8					
MANZ	e PcP	Z 00:20:00.4	84.3	51.7					
ROTZ	e PcP	Z 00:20:01.1	84.4	51.8					
WET	e PcP	Z 00:20:01.2	84.4	52.2					
IBBN	e PcP	Z 00:20:03.1	84.9	48.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/06	02:20:1.5	32.900S	179.300W	51.0				NEIC

South of Kermadec Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPab	Z 02:40:20.1	156.6	27.5					
CLL	e PKPab	Z 02:40:32.4	159.5	30.7					
BRG	e PKPab	Z 02:40:32.7	159.6	33.4					
FBE	e PKPab	Z 02:40:33.8	159.7	32.1					
IBBN	e PKPab	Z 02:40:34.9	159.9	17.5					
NEUB	e PKPab	Z 02:40:34.9	160.0	28.1					
TANN	e PKPab	Z 02:40:36.9	160.5	30.8					
WERD	e PKP	Z 02:39:55.0	160.5	30.4					
	e PKPab	Z 02:40:37.0							
PLN	e PKP	Z 02:39:55.3	160.5	30.0					

	e PKPab	Z	02:40:37.3		
MOX	e PKP	Z	02:39:54.7	160.5	28.5
	e PKPab	Z	02:40:37.1		
GUNZ	e PKP	Z	02:39:55.3	160.5	30.5
	e PKPab	Z	02:40:37.5		
WERN	e PKPab	Z	02:40:37.7	160.6	30.8
UBBA	e PKPab	Z	02:40:38.1	160.8	24.4
MANZ	e PKPab	Z	02:40:39.1	160.9	30.6
ROTZ	e PKPab	Z	02:40:40.0	161.1	31.1
WET	e PKP	Z	02:39:55.9	161.4	33.7
TNS	e PKPab	Z	02:40:45.2	161.8	21.2
RJOB	e PKPab	Z	02:40:46.1	162.6	36.0
FUR	e PKPab	Z	02:40:49.4	162.8	31.4
BFO	e PKPab	Z	02:40:50.4	163.5	23.2

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/06 02:33:15.7 18.680S 177.650W 33.0N
 Fiji Islands region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	02:52:48.3	145.0	19.1					
NRDL	e PKPbc	Z	02:52:50.4	145.6	13.1					
IBBN	e PKPbc	Z	02:52:52.2	146.1	9.2					
CLZ	e PKPbc	Z	02:52:52.6	146.2	13.8					
CLL	e PKPbc	Z	02:52:52.3	146.3	18.4					
BRG	e PKPbc	Z	02:52:53.3	146.5	20.2					
FBE	e PKPbc	Z	02:52:53.8	146.6	19.2					
NEUB	e PKPbc	Z	02:52:53.6	146.6	16.4					
MOX	e PKPbc	Z	02:52:55.1	147.2	16.4					
PLN	e PKPbc	Z	02:52:55.5	147.2	17.4					
WERD	e PKPbc	Z	02:52:55.5	147.3	17.6					
TANN	e PKPbc	Z	02:52:55.4	147.3	17.9					
GUNZ	e PKPbc	Z	02:52:55.8	147.3	17.7					
	e PKPab	Z	02:52:57.9							
WERN	e PKPbc	Z	02:52:56.0	147.4	17.8					
	e PKPab	Z	02:52:58.1							
MANZ	e PKPbc	Z	02:52:56.9	147.7	17.5					
ROTZ	e PKPbc	Z	02:52:57.6	147.9	17.8					
	e PKPab	Z	02:53:00.3							
TNS	e PKPbc	Z	02:52:57.9	148.1	11.0					
	e PKPab	Z	02:53:00.7							
GRA1	e PKPbc	Z	02:52:58.2	148.2	16.1					
	e PKPab	Z	02:53:01.4							
WET	e PKPab	Z	02:53:02.0	148.4	19.3					
GEC2	e PKPbc	Z	02:52:58.7	148.5	20.9					
WLF	e PKPbc	Z	02:53:00.6	148.9	7.0					
	e PKPab	Z	02:53:04.4							

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STU	e PKPbc	Z	02:53:01.3	149.4	12.8
	e PKPab	Z	02:53:06.0		
FUR	e PKPbc	Z	02:53:01.7	149.6	16.9
	e PKPab	Z	02:53:07.3		
RJOB	e PKPbc	Z	02:53:01.7	149.7	19.9
	e PKPab	Z	02:53:08.0		
BFO	e PKPbc	Z	02:53:02.4	150.0	11.4
	e PKPab	Z	02:53:08.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/06	12:20:59.6	35.400N	24.800E	59.0	4.1			NEIC
Crete, Greece								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	12:24:42.2	15.7	144.6	0.7	16	4.2		
WET	e P	Z	12:24:48.1	16.3	143.1	0.8	17	4.2		
MANZ	e P	Z	12:24:57.3	17.3	142.9	1.0	9	3.9		
BRG	e P	Z	12:24:59.5	17.3	149.0	0.9	8	3.8		
GRA1	e P	Z	12:25:00.5	17.4	140.2	1.0	35	4.5		
WERN	e P	Z	12:25:01.0	17.4	144.1	1.6	12	3.8		
TANN	e P	Z	12:25:00.2	17.5	144.5	1.1	13	4.0		
GUNZ	e P	Z	12:25:00.4	17.5	144.1	0.9	10	3.9		
WERD	e P	Z	12:25:01.2	17.6	144.2	1.3	13	3.9		
FBE	e P	Z	12:25:02.4	17.6	147.6	1.1	16	4.1		
STU	e P	Z	12:25:03.2	17.6	133.6	0.6	10	4.1		
PLN	e P	Z	12:25:03.4	17.6	143.9	1.3	13	3.9		
BFO	e P	Z	12:25:05.2	17.7	130.7	1.4	19	4.1		
UBBA	e P	Z	12:25:15.1	18.8	139.6	1.5	9	3.8		
TNS	e P	Z	12:25:18.5	19.0	135.1	0.6	12	4.3		
WLF	e P	Z	12:25:27.8	19.7	129.4	0.9	26	4.4		
NRDL	e P	Z	12:25:31.6	20.0	142.8	1.0	10	4.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/06	15:02:55.7	15.000S	173.400W	10.0				NEIC
Tonga Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TNS	e PKPbc	Z	15:22:33.3	144.7	3.1					
ROTZ	e PKPbc	Z	15:22:34.2	144.9	9.5					
GRA1	e PKPbc	Z	15:22:34.8	145.1	7.8					
WLF	e PKPbc	Z	15:22:35.8	145.3	359.2					
WET	e PKPbc	Z	15:22:35.9	145.5	10.7					
GEC2	e PKPbc	Z	15:22:36.5	145.7	12.2					
STU	e PKPbc	Z	15:22:38.1	146.2	4.5					
FUR	e PKPbc	Z	15:22:39.0	146.6	8.2					

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BFO	e	PKPbc	Z	15:22:39.2	146.6	3.0
RJOB	e	PKPbc	Z	15:22:40.0	146.9	11.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/06	16:42:49.0	33.300N	96.100E	62.0	4.8			NEIC

Qinghai, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 16:52:52.2	60.1	72.7	0.7	9	4.9		
CLL	e P	Z 16:52:54.9	60.6	72.3	1.0	11	4.6		
GEC2	e P	Z 16:52:57.8	60.9	71.4	1.6	18	4.6		
TANN	e P	Z 16:52:59.3	61.2	71.5	1.0	6	4.4		
WERD	e P	Z 16:52:59.7	61.3	71.4	0.9	6	4.4		
WERN	e P	Z 16:52:59.9	61.3	71.3	1.0	8	4.5		
GUNZ	e P	Z 16:53:00.1	61.3	71.4	1.1	12	4.6		
WET	e P	Z 16:53:00.4	61.3	71.1	1.1	8	4.9		
NEUB	e P	Z 16:53:00.4	61.3	71.4	0.9	17	5.3		
PLN	e P	Z 16:53:00.2	61.3	71.3	1.4	10	4.9		
ROTZ	e P	Z 16:53:02.2	61.5	71.0	1.1	14	5.1		
NRDL	e P	Z 16:53:04.6	61.9	70.9	1.0	19	5.3		
CLZ	e P	Z 16:53:04.9	62.0	70.8	1.1	20	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/07	04:26: 6.7	1.066N	12.429W	33.0N	4.8	4.6		SZGRF

North of Ascension Island

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 04:35:02.3	50.5	207.3	1.1	10	4.6		
WLF	e P	Z 04:35:05.5	51.1	204.2	1.1	12	4.7		
FUR	e P	Z 04:35:08.5	51.4	211.0	1.8	70	5.3		
RJOB	e P	Z 04:35:09.3	51.5	213.0	0.7	10	4.8		
GRA1	e L	Z 04:57:57.4	52.7	210.3	20.7	550		4.6	
WET	e P	Z 04:35:18.7	52.7	212.5	1.3	12	4.6		
GEC2	e P	Z 04:35:19.0	52.8	213.6	1.3	20	4.9		
ROTZ	e P	Z 04:35:20.6	53.0	211.4	1.7	17	4.7		
UBBA	e P	Z 04:35:22.5	53.3	208.4	1.3	9	4.5		
MOX	e P	Z 04:35:24.7	53.6	210.4	1.0	8	4.6		
	e L	Z 04:58:24.7			20.8	613		4.6	
TANN	e P	Z 04:35:25.2	53.7	211.5	1.1	7	4.6		
BRG	e P	Z 04:35:32.8	54.6	213.0	1.6	18	4.9		
CLL	e P	Z 04:35:31.7	54.6	211.8	2.4	32	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2010/06/08 16:09:18.7 44.400N 83.400E 10.0 4.7 3.5 GSRC
Northern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 16:17:42.0	45.5	69.7	0.8	2	4.2		
CLL	e P	Z 16:17:45.0	45.9	69.6	0.7	7	4.8		
TANN	e P	Z 16:17:50.4	46.5	68.5	1.1	4	4.5		
WET	e P	Z 16:17:52.2	46.8	67.6	1.1	4	4.4		
ROTZ	e P	Z 16:17:54.8	46.9	67.8	1.0	2	4.2		
MOX	e P	Z 16:17:53.6	47.0	68.2	0.8	3	4.5		
	e L	Z 16:35:47.5			18.9	42		3.4	
NRDL	e P	Z 16:17:55.5	47.1	69.0	1.1	10	4.9		
RJOB	e P	Z 16:17:58.2	47.4	66.4	0.8	5	4.7		
GRA1	e P	Z 16:17:58.9	47.5	67.2	1.0	9	4.9		
	e L	Z 16:39:07.1			21.4	66		3.6	
IBBN	e P	Z 16:18:06.0	48.5	67.4	0.5	8	5.0		
STU	e P	Z 16:18:12.1	49.1	65.4					

Date Origin Time Lat Long Depth mb Ms ML Source
2010/06/08 19:50:44.2 42.067N 20.144E 10.0G 3.9 SZGRF
Northwestern Balkan Peninsula

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 19:52:36.2	7.7	134.8					4.2
GEC2	e Pn	Z 19:52:42.4	8.1	144.0					3.6

Date Origin Time Lat Long Depth mb Ms ML Source
2010/06/09 23:23:21.2 19.737S 171.040E 33.0G 5.8 SZGRF
Vanuatu Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 23:42:45.7	142.8	30.9					
CLZ	e PKPbc	Z 23:42:52.1	144.5	32.5					
IBBN	e PKPbc	Z 23:42:53.5	144.9	28.1					
TANN	e PKPbc	Z 23:42:53.2	144.9	36.8					
MOX	e PKPbc	Z 23:42:53.6	145.1	35.3					
UBBA	e PKPbc	Z 23:42:55.1	145.5	32.7					
ROTZ	e PKPbc	Z 23:42:55.6	145.6	36.9					
GEC2	e PKPbc	Z 23:42:55.4	145.7	40.0					
WET	e PKPbc	Z 23:42:56.0	145.8	38.5					
BUG	e PKPbc	Z 23:42:56.2	145.8	27.9					
GRA1	e PKPbc	Z 23:42:57.1	146.0	35.5					
TNS	e PKPbc	Z 23:42:58.9	146.5	30.7					
RJOB	e PKPbc	Z 23:42:59.8	146.9	39.7					
FUR	e PKPbc	Z 23:43:01.2	147.2	37.0					

STU	e	PKPbc	Z	23:43:02.2	147.5	33.1			
WLF	e	PKPbc	Z	23:43:03.3	147.7	27.4			
BFO	e	PKPbc	Z	23:43:03.9	148.2	32.0			
MOX	e	L	Z	00:46:37.9	145.1	35.3	21.5	1368	5.7
GRA1	e	L	Z	00:47:07.9	146.0	35.5	22.0	1890	5.8

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/09 07:00:13.0 19.849S 170.768E 34.5 4.6
 Vanuatu Islands SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e	PKPbc	Z	07:19:41.3	144.0	39.0			
CLL	e	PKPbc	Z	07:19:41.3	144.0	37.3			
NRDL	e	PKPbc	Z	07:19:41.7	144.1	32.1			
CLZ	e	PKPbc	Z	07:19:43.9	144.5	32.9			
	e	pPKPbc	Z	07:19:54.1					
NEUB	e	PKPbc	Z	07:19:43.6	144.6	35.6			
TANN	e	PKPbc	Z	07:19:45.0	144.9	37.3			
	e	pPKPbc	Z	07:19:55.4					
IBBN	e	PKPbc	Z	07:19:45.2	145.0	28.6			
	e	pPKPbc	Z	07:19:55.6					
WERD	e	pPKPbc	Z	07:19:55.5	145.0	37.0			
PLN	e	PKPbc	Z	07:19:45.2	145.0	36.7			
	e	pPKPbc	Z	07:19:55.4					
GUNZ	e	pPKPbc	Z	07:19:55.8	145.0	37.1			
WERN	e	pPKPbc	Z	07:19:55.9	145.1	37.2			
MOX	e	PKPbc	Z	07:19:45.4	145.1	35.8			
	e	pPKPbc	Z	07:19:55.7					
	e	L	Z	08:25:53.1			21.9	120	4.6
MANZ	e	PKPbc	Z	07:19:46.6	145.4	37.1			
	e	pPKPbc	Z	07:19:56.9					
UBBA	e	PKPbc	Z	07:19:46.8	145.5	33.2			
	e	pPKPbc	Z	07:19:57.5					
ROTZ	e	PKPbc	Z	07:19:47.3	145.6	37.4			
	e	pPKPbc	Z	07:19:57.7					
GEC2	e	PKPbc	Z	07:19:47.1	145.7	40.5			
	e	pPKPbc	Z	07:19:57.4					
WET	e	PKPbc	Z	07:19:47.7	145.8	39.0			
	e	pPKPbc	Z	07:19:58.1					
BUG	e	PKPbc	Z	07:19:47.9	145.9	28.4			
	e	pPKPbc	Z	07:19:58.2					
GRA1	e	PKPbc	Z	07:19:48.7	146.0	36.0			
	e	pPKPbc	Z	07:19:58.8					
	e	L	Z	08:21:26.0			20.9	101	4.6
TNS	e	PKPbc	Z	07:19:50.3	146.5	31.2			
	e	pPKPbc	Z	07:20:00.7					
RJOB	e	PKPbc	Z	07:19:50.6	146.9	40.2			

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	e pPKPbc	Z	07:20:00.1		
FUR	e PKPbc	Z	07:19:51.9	147.2	37.5
	e pPKPbc	Z	07:20:02.4		
STU	e PKPbc	Z	07:19:52.9	147.5	33.6
	e pPKPbc	Z	07:20:03.4		
WLF	e PKPbc	Z	07:19:54.4	147.8	27.9
	e pPKPbc	Z	07:20:04.9		
BFO	e PKPbc	Z	07:19:54.5	148.2	32.6
	e pPKPbc	Z	07:20:04.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/09	08:57:41.2	2.000N	127.200E	113.0				NEIC

Northern Molucca Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PP	Z	09:15:45.0	102.8	70.3					
CLL	e PP	Z	09:15:48.0	103.2	69.5					
GEC2	e PP	Z	09:15:50.4	103.6	70.6					
BSEG	e PP	Z	09:15:48.7	103.8	66.6					
TANN	e PP	Z	09:15:53.3	103.9	69.2					
WET	e PP	Z	09:15:54.7	104.1	69.9					
ROTZ	e PP	Z	09:15:57.7	104.2	69.2					
MOX	e PP	Z	09:15:56.4	104.3	68.5					
CLZ	e PP	Z	09:15:55.8	104.5	67.1					
RJOB	e PP	Z	09:15:55.5	104.6	70.1					
GRA1	e PP	Z	09:15:58.5	104.9	68.4					
UBBA	e PP	Z	09:16:00.7	105.2	67.1					
TNS	e PP	Z	09:16:08.7	106.3	65.9					
STU	e PP	Z	09:16:13.4	106.4	66.9					
BUG	e PP	Z	09:16:15.3	106.5	64.6					
BFO	e PP	Z	09:16:13.2	107.1	66.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/09	16:54:35.7	70.002N	12.591W	33.0G	5.2	4.0		SZGRF

Jan Mayen Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z	16:59:07.5	20.0	339.7	2.1	88	4.6		
NRDL	e P	Z	16:59:10.4	20.4	337.7	2.1	212	5.0		
BUG	e P	Z	16:59:13.6	20.7	340.8	1.4	76	4.8		
CLZ	e P	Z	16:59:17.4	21.0	338.2	2.0	65	4.6		
UBBA	e P	Z	16:59:26.6	21.9	339.4	2.5	211	5.1		
TNS	e P	Z	16:59:29.0	22.1	341.0	3.2	506	5.4		
CLL	e P	Z	16:59:29.0	22.1	336.9	2.9	329	5.3		
WLF	e P	Z	16:59:28.2	22.2	343.1	3.8	568	5.4		

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MOX	e P	Z	16:59:32.5	22.4	338.4	2.5	183	5.2	
	e L	Z	17:07:43.5			21.7	695		4.1
BRG	e P	Z	16:59:35.4	22.8	336.8	3.2	362	5.4	
TANN	e P	Z	16:59:36.2	22.8	338.1	2.8	321	5.4	
GRA1	e P	Z	16:59:40.3	23.2	339.5	3.2	780	5.7	
	e L	Z	17:08:08.7			21.1	501		3.9
ROTZ	e P	Z	16:59:41.3	23.4	338.8	3.7	461	5.4	
STU	e P	Z	16:59:44.0	23.6	341.6	1.1	39	4.8	
BFO	e P	Z	16:59:45.6	23.9	342.5	3.0	292	5.3	
WET	e P	Z	16:59:48.5	24.1	338.9	2.7	192	5.2	
GEC2	e P	Z	16:59:53.4	24.6	338.7	2.0	75	5.1	
FUR	e P	Z	16:59:53.3	24.7	340.6	2.3	166	5.4	
RJOB	e P	Z	17:00:00.4	25.4	340.0	2.9	134	5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/09	17:29:35.8	43.600N	45.500E	25.0	4.4	3.4		GSRC

Eastern Caucasus

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 17:34:36.9	22.4	96.6	2.5	51	4.6		
GEC2	e P	Z 17:34:37.8	22.4	91.4	1.3	7	4.1		
TANN	e P	Z 17:34:48.7	23.3	94.1	1.5	9	4.1		
MOX	e P	Z 17:34:49.6	23.9	93.9	2.8	67	4.7		
	e L	Z 17:44:45.3			18.7	128		3.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/10	00:04:1.5	32.955N	142.594E	33.0G	4.9			SZGRF

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 00:16:27.7	83.8	38.6	0.9	8	5.0		
BRG	e P	Z 00:16:32.4	84.8	41.2	0.8	9	5.0		
CLL	e P	Z 00:16:32.6	84.8	40.5	0.9	21	5.4		
CLZ	e P	Z 00:16:36.1	85.4	38.6	1.3	21	5.1		
TANN	e P	Z 00:16:37.2	85.7	40.0	1.5	7	4.6		
MOX	e P	Z 00:16:38.1	85.9	39.4	1.4	15	4.9		
IBBN	e P	Z 00:16:39.0	86.1	36.6	1.0	22	5.2		
ROTZ	e P	Z 00:16:40.7	86.3	39.8	1.3	14	4.9		
GEC2	e P	Z 00:16:40.3	86.4	40.9	1.3	5	4.5		
WET	e P	Z 00:16:41.3	86.5	40.3	1.5	9	4.7		
GRA1	e P	Z 00:16:42.8	86.8	39.1	1.2	14	4.9		
TNS	e P	Z 00:16:45.8	87.5	37.1	1.0	6	4.9		
STU	e P	Z 00:16:49.8	88.3	37.6	0.8	15	5.3		
BFO	e P	Z 00:16:52.8	89.0	36.9	1.1	5	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/10								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 00:44:49.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/10	01:12:31.1	48.983N	151.434E	33.0G	4.7			SZGRF
Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 01:23:52.0	72.0	25.7	1.0	7	4.7		
NRDL	e P	Z 01:23:59.7	73.3	25.3	1.1	4	4.4		
CLL	e P	Z 01:24:00.9	73.6	27.0	0.9	15	5.0		
BRG	e P	Z 01:24:01.6	73.7	27.5	1.3	7	4.5		
TANN	e P	Z 01:24:06.7	74.6	26.5	1.7	12	4.7		
MOX	e P	Z 01:24:06.9	74.6	26.1	0.9	6	4.6		
ROTZ	e P	Z 01:24:10.9	75.2	26.3	1.0	6	4.7		
GRA1	e P	Z 01:24:12.9	75.6	25.7	0.8	7	4.9		
WET	e P	Z 01:24:13.0	75.6	26.6	2.8	72	5.3		
GEC2	e P	Z 01:24:12.6	75.6	27.1	0.8	2	4.3		
TNS	e P	Z 01:24:14.1	75.8	24.0	1.0	7	4.8		
STU	e P	Z 01:24:20.3	77.0	24.4	0.8	10	5.0		
BFO	e P	Z 01:24:23.8	77.6	23.8	1.0	4	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/10	02:39:56.5	20.112N	75.560W	33.0G	4.9			SZGRF
Cuba region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 02:51:02.8	69.5	277.3	1.1	18	5.1		
BUG	e P	Z 02:51:05.0	70.0	277.5	2.0	42	5.2		
IBBN	e P	Z 02:51:06.5	70.2	277.6	1.1	40	5.5		
TNS	e P	Z 02:51:10.8	70.9	278.8	1.4	23	5.1		
BFO	e P	Z 02:51:12.0	71.1	279.4	1.4	9	4.7		
BSEG	e P	Z 02:51:14.0	71.5	279.0	1.5	22	5.1		
NRDL	e P	Z 02:51:14.8	71.6	279.3	1.2	20	5.1		
UBBA	e P	Z 02:51:15.8	71.8	279.8	1.3	8	4.7		
GRA1	e P	Z 02:51:22.0	72.8	281.0	1.1	10	4.8		
MOX	e P	Z 02:51:22.2	72.8	281.0	1.3	13	4.9		
ROTZ	e P	Z 02:51:25.8	73.4	281.7	1.3	16	4.9		
TANN	e P	Z 02:51:25.8	73.4	281.7	1.2	14	4.9		
CLL	e P	Z 02:51:26.3	73.6	281.8	1.2	10	4.7		

WET	e P	Z	02:51:29.0	73.9	282.4	1.2	17	4.9
RJOB	e P	Z	02:51:30.1	74.2	282.7	1.3	9	4.6
BRG	e P	Z	02:51:30.5	74.2	282.6	1.4	12	4.8
GEC2	e P	Z	02:51:32.4	74.5	283.0	1.2	10	4.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/10	03:10:12.6	33.000N	142.600E	10.0	5.0			NEIC

Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 03:22:44.3	83.8	38.6	0.8	6	4.9		
BRG	e P	Z 03:22:48.6	84.7	41.1	0.9	8	4.9		
CLL	e P	Z 03:22:48.9	84.8	40.5	0.9	14	5.2		
NRDL	e P	Z 03:22:49.7	85.0	38.4	2.1	30	5.1		
IBBN	e P	Z 03:22:55.3	86.0	36.6	0.8	13	5.1		
ROTZ	e P	Z 03:22:57.1	86.3	39.8	1.7	21	5.0		
GRA1	e P	Z 03:22:59.2	86.7	39.1	1.5	16	4.9		
BUG	e P	Z 03:22:59.3	86.9	36.2					
TNS	e P	Z 03:23:02.0	87.4	37.0	1.4	10	5.0		
WLF	e P	Z 03:23:08.3	88.8	35.3	1.7	36	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/10	06:38: 0.3	38.784N	75.437E	33.0G	5.5	5.1		SZGRF

Southern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 06:46:01.2	43.8	82.7	1.1	48	5.1		
	e PcP	Z 06:47:53.1							
RGN	e P	Z 06:46:02.1	43.8	84.5	1.0	170	5.7		
BRG	e P	Z 06:46:03.0	43.9	81.1	0.8	47	5.3		
	e PcP	Z 06:47:53.0							
FBE	e P	Z 06:46:06.2	44.2	80.8	1.2	99	5.4		
	e PP	Z 06:47:48.2							
	e PcP	Z 06:47:54.3							
GEC2	e P	Z 06:46:07.7	44.4	78.9	1.1	110	5.7		
CLL	e P	Z 06:46:06.6	44.4	81.0	1.2	64	5.4		
	e PP	Z 06:47:49.2							
	e PcP	Z 06:47:54.1							
WET	e P	Z 06:46:11.2	44.9	78.7	1.1	70	5.5		
	e PcP	Z 06:47:56.2							
TANN	e P	Z 06:46:11.1	44.9	79.7	1.3	50	5.3		
	e PcP	Z 06:47:56.3							
PLN	e P	Z 06:46:12.4	45.1	79.6	1.3	45	5.2		
	e PcP	Z 06:47:57.0							
ROTZ	e P	Z 06:46:13.7	45.2	78.9	1.4	51	5.2		

	e PcP	Z	06:47:57.6								
NEUB	e P	Z	06:46:13.1	45.2	80.0	1.1	89	5.6			
	e PcP	Z	06:47:57.1								
MANZ	e P	Z	06:46:13.8	45.2	79.1	1.2	37	5.2			
	e PcP	Z	06:47:57.8								
RJOB	e P	Z	06:46:13.6	45.2	77.3	1.1	27	5.1			
MOX	e P	Z	06:46:14.9	45.4	79.4	1.2	45	5.4			
	e PcP	Z	06:47:57.9								
	e L	Z	07:06:18.5			18.5	2520			5.2	
BSEG	e P	Z	06:46:16.9	45.6	81.7	0.8	90	5.9			
GRA1	e P	Z	06:46:19.3	45.8	78.2	1.0	107	5.8			
	e L	Z	07:06:44.7			19.5	1994			5.1	
NRDL	e P	Z	06:46:19.6	46.0	80.1	1.5	151	5.8			
	e PcP	Z	06:48:00.3								
FUR	e P	Z	06:46:21.6	46.1	76.8	1.0	131	5.9			
	e PcP	Z	06:48:00.4								
UBBA	e P	Z	06:46:22.2	46.3	78.5	1.2	36	5.4			
	e PcP	Z	06:48:00.9								
STU	e P	Z	06:46:30.4	47.3	76.1	1.1	76	5.8			
	e PcP	Z	06:48:04.5								
IBBN	e P	Z	06:46:30.6	47.4	78.3	0.7	54	5.8			
	e PcP	Z	06:48:05.1								
TNS	e P	Z	06:46:31.3	47.4	76.9	1.4	38	5.3			
	e PcP	Z	06:48:05.3								
BUG	e P	Z	06:46:34.7	47.9	77.2	1.2	70	5.7			
	e PcP	Z	06:48:06.6								
BFO	e P	Z	06:46:35.4	48.0	75.2	1.4	54	5.5			
	e PcP	Z	06:48:06.5								
WLF	e P	Z	06:46:43.9	49.0	75.0	1.4	113	5.7			

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/10 06:47:52.4 18.203S 175.652W 33.0G
 Tonga Islands SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 07:07:23.0	144.0	9.7					
NRDL	e PKPbc	Z 07:07:27.5	145.4	9.7					
CLL	e PKPbc	Z 07:07:29.4	146.2	14.9					
BRG	e PKPbc	Z 07:07:30.3	146.5	16.6					
MOX	e PKPbc	Z 07:07:32.1	147.0	12.8					
ROTZ	e PKPbc	Z 07:07:34.3	147.8	14.1					
TNS	e PKPbc	Z 07:07:34.4	147.8	7.3					
GEC2	e PKPbc	Z 07:07:35.5	148.4	17.2					
BFO	e PKPbc	Z 07:07:39.0	149.7	7.5					

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/10	13:36: 8.0	13.000S	169.400E	648.0				NEIC

Vanuatu Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 13:56:50.3	135.9	30.0					
NRDL	e PKPbc	Z 13:56:54.1	137.2	30.4					
CLL	e PKPbc	Z 13:56:54.2	137.2	35.0					
BRG	e PKPbc	Z 13:56:54.4	137.2	36.6					
CLZ	e PKPbc	Z 13:56:55.8	137.6	31.2					
IBBN	e PKPbc	Z 13:56:57.6	138.0	27.3					
TANN	e PKPbc	Z 13:56:57.1	138.1	34.9					
MOX	e PKPbc	Z 13:56:57.2	138.2	33.6					
UBBA	e PKPbc	Z 13:56:58.1	138.6	31.3					
ROTZ	e PKPbc	Z 13:56:58.9	138.8	35.0					
GEC2	e PKPbc	Z 13:56:59.2	138.9	37.6					
BUG	e PKPbc	Z 13:57:00.1	138.9	27.1					
WET	e PKPbc	Z 13:56:59.4	139.0	36.3					
GRA1	e PKPbc	Z 13:56:59.9	139.2	33.6					
TNS	e PKPbc	Z 13:57:01.2	139.7	29.4					
RJOB	e PKPbc	Z 13:57:02.1	140.2	37.2					
STU	e PKPbc	Z 13:57:03.8	140.7	31.4					
WLF	e PKPbc	Z 13:57:04.6	140.8	26.4					
BFO	e PKPbc	Z 13:57:05.0	141.3	30.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/10	21:43: 2.0	39.280N	15.780E	230.0				INGV

Southern Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOA	e Pn	Z 21:45:05.6	8.6	173.6					
FUR	e Pn	Z 21:45:16.7	9.4	159.5					
GEC2	e Pn	Z 21:45:18.2	9.6	171.7					
WET	e Pn	Z 21:45:22.9	10.0	168.3					
BFO	e Pn	Z 21:45:28.0	10.4	147.6					
GRA1	e Pn	Z 21:45:33.7	10.8	162.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/11	00:05: 1.5	17.221S	178.720E	33.0N				SZGRF

Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 00:24:37.3	146.0	21.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/11	02:25:49.8	19.050N	118.580E	243.9	5.3			SZGRF

Philippine Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 02:37:53.6	84.1	66.8	1.3	42	5.5		
	e pP	Z 02:38:53.0							
CLL	e P	Z 02:37:55.1	84.5	66.2	1.3	33	5.4		
BSEG	e P	Z 02:37:57.4	84.9	64.3	1.7	43	5.4		
GEC2	e P	Z 02:37:58.5	85.1	66.5	1.5	31	5.3		
	e pP	Z 02:38:57.6							
TANN	e P	Z 02:37:58.2	85.2	65.7	1.5	25	5.2		
WET	e P	Z 02:38:00.5	85.4	65.9	1.6	30	5.2		
	e pP	Z 02:38:58.4							
MOX	e P	Z 02:38:00.7	85.6	65.1	1.6	28	5.1		
ROTZ	e P	Z 02:38:01.3	85.6	65.5	1.6	35	5.2		
NRDL	e P	Z 02:38:01.2	85.6	64.0	1.7	44	5.3		
CLZ	e P	Z 02:38:01.9	85.7	64.2	1.8	50	5.3		
RJOB	e P	Z 02:38:03.2	86.1	65.7	1.3	15	5.0		
GRA1	e P	Z 02:38:04.1	86.2	64.7	1.7	38	5.3		
FUR	e P	Z 02:38:07.1	86.8	64.7	1.4	51	5.5		
BFO	e P	Z 02:38:14.3	88.5	62.5	1.5	20	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/11	12:40:26.7	35.006S	51.755E	10.0G	5.6			SZGRF

Southwest Indian Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 12:53:37.2	92.0	147.8	1.8	52	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/11	16:38:14.1	30.810N	139.620E	17.2	4.8			SZGRF

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 16:50:47.2	84.6	41.9	0.8	13	5.2		
BRG	e P	Z 16:50:50.6	85.3	44.4	0.8	6	4.8		
CLL	e P	Z 16:50:50.3	85.4	43.8	0.8	6	4.8		
NRDL	e P	Z 16:50:52.4	85.8	41.6	0.8	4	4.6		
	e sP	Z 16:50:59.8							
CLZ	e P	Z 16:50:55.1	86.2	41.8	0.9	8	4.9		
TANN	e P	Z 16:50:55.7	86.3	43.3	0.9	3	4.4		
MOX	e P	Z 16:50:56.2	86.5	42.7	0.7	2	4.4		
	e sP	Z 16:51:03.3							

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IBBN	e P	Z	16:50:57.3	86.9	39.8	0.6	8	5.0
	e sP	Z	16:51:05.0					
GEC2	e P	Z	16:50:57.9	86.9	44.2	0.8	7	4.8
ROTZ	e P	Z	16:50:58.2	86.9	43.1	1.0	6	4.7
WET	e P	Z	16:50:59.7	87.1	43.6	0.9	2	4.5
	e sP	Z	16:51:05.7					
GRA1	e P	Z	16:51:01.5	87.4	42.4	1.0	12	5.2
BUG	e P	Z	16:51:02.3	87.7	39.4	0.8	6	5.0
RJOB	e P	Z	16:51:03.7	88.1	43.5	0.8	5	4.8
TNS	e P	Z	16:51:04.6	88.2	40.3	1.1	8	4.8
FUR	e P	Z	16:51:05.7	88.5	42.4	0.8	13	5.2
	e sP	Z	16:51:12.8					
BFO	e P	Z	16:51:11.2	89.7	40.2	0.7	4	4.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/11	16:58:54.1	29.300N	141.520E	34.3	5.2	5.4		SZGRF

Southeast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	17:11:35.1	86.7	41.1	1.0	29	5.4		
BRG	e P	Z	17:11:38.5	87.5	43.8	1.0	10	5.1		
CLL	e P	Z	17:11:38.7	87.6	43.1	1.1	23	5.4		
NRDL	e P	Z	17:11:40.3	87.9	40.9	1.3	21	5.3		
CLZ	e P	Z	17:11:42.6	88.3	41.1	1.1	25	5.4		
TANN	e P	Z	17:11:43.1	88.5	42.6	1.1	8	4.9		
	e sP	Z	17:11:57.8							
MOX	e P	Z	17:11:44.1	88.6	42.0	1.0	10	5.0		
	e L	Z	17:35:20.0			18.8	1219		5.3	
IBBN	e P	Z	17:11:45.4	88.9	39.0	0.9	14	5.2		
ROTZ	e P	Z	17:11:46.4	89.0	42.4	1.1	23	5.3		
GEC2	e P	Z	17:11:45.8	89.1	43.6	0.9	11	5.1		
UBBA	e P	Z	17:11:47.2	89.2	40.8	1.5	19	5.1		
	e sP	Z	17:12:01.1							
WET	e P	Z	17:11:46.8	89.2	42.9	1.0	7	4.9		
GRA1	e P	Z	17:11:48.6	89.5	41.7	1.1	30	5.4		
	e L	Z	17:35:13.1			20.4	1563		5.4	
BUG	e P	Z	17:11:50.3	89.8	38.7	1.2	31	5.4		
	e sP	Z	17:12:03.8							
RJOB	e P	Z	17:11:51.8	90.3	42.9	0.9	18	5.4		
TNS	e P	Z	17:11:51.7	90.3	39.6	0.8	4	4.8		
FUR	e P	Z	17:11:54.1	90.6	41.7	1.0	35	5.6		
STU	e P	Z	17:11:55.0	91.1	40.2	0.7	11	5.3		
WLF	e P	Z	17:11:58.0	91.6	37.8	0.9	3	4.7		
BFO	e P	Z	17:11:58.5	91.8	39.5	1.0	15	5.3		

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/11	19:57: 8.0	19.530S	178.290W	618.3				SZGRF

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 20:16:44.0	145.0	14.2					
IBBN	e PKPbc	Z 20:16:50.2	146.9	10.5					
CLZ	e PKPbc	Z 20:16:50.7	147.0	15.1					
CLL	e PKPbc	Z 20:16:50.4	147.0	19.8					
BRG	e PKPbc	Z 20:16:51.1	147.2	21.6					
MOX	e PKPbc	Z 20:16:53.0	147.9	17.8					
TANN	e PKPbc	Z 20:16:53.3	148.0	19.4					
UBBA	e PKPbc	Z 20:16:53.0	148.0	14.9					
ROTZ	e PKPbc	Z 20:16:55.3	148.6	19.3					
TNS	e PKPbc	Z 20:16:55.5	148.8	12.3					
GRA1	e PKPbc	Z 20:16:55.9	148.9	17.5					
WET	e PKPbc	Z 20:16:56.4	149.1	20.8					
	e pPKPbc	Z 20:19:16.5							
GEC2	e PKPbc	Z 20:16:56.4	149.1	22.4					
WLF	e PKPbc	Z 20:16:58.1	149.7	8.3					
FUR	e PKPbc	Z 20:16:59.3	150.3	18.4					
RJOB	e PKPbc	Z 20:16:59.4	150.4	21.5					
BFO	e PKPbc	Z 20:17:00.1	150.7	12.8					
	e pPKPbc	Z 20:19:20.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/12	15:44:55.4	28.565N	130.723E	48.6	5.3			SZGRF

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:57:24.1	85.1	50.1	1.4	27	5.3		
	e pP	Z 15:57:38.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/12	15:56:48.6	54.840N	162.890W	33.0G	5.0			SZGRF

Alaska Peninsula, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 16:08:11.8	71.1	355.9	1.0	26	5.3		
IBBN	e P	Z 16:08:20.3	72.6	354.4	0.8	22	5.3		
BUG	e P	Z 16:08:24.9	73.4	354.1	0.8	25	5.3		
CLL	e P	Z 16:08:27.0	73.8	357.5	0.7	11	5.0		
UBBA	e P	Z 16:08:29.2	74.2	355.8	0.7	2	4.3		
BRG	e P	Z 16:08:29.9	74.3	358.1	0.8	10	4.9		
MOX	e P	Z 16:08:30.5	74.4	356.7	0.7	16	5.1		

TANN	e P	Z	16:08:32.1	74.7	357.2	0.7	4	4.5
TNS	e P	Z	16:08:32.5	74.7	354.8	0.8	10	4.9
WLF	e P	Z	16:08:34.8	75.1	353.5	0.8	11	4.9
ROTZ	e P	Z	16:08:36.5	75.3	357.1	0.8	8	4.9
GRA1	e P	Z	16:08:36.6	75.4	356.5	0.8	14	5.1
WET	e P	Z	16:08:40.0	76.0	357.5	1.3	26	5.2
STU	e P	Z	16:08:40.8	76.2	355.3	0.8	15	5.2
GEC2	e P	Z	16:08:41.2	76.3	358.0	0.9	8	4.9
BFO	e P	Z	16:08:42.8	76.6	354.8	0.8	7	4.9
FUR	e P	Z	16:08:45.8	76.9	356.6	0.8	13	5.1
RJOB	e P	Z	16:08:48.2	77.4	357.5	0.7	26	5.4

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/12 19:26:52.8 8.920N 91.250E 33.0G 6.2 7.4
 Nicobar Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	19:38:36.2	75.1	94.2	2.7	21934	7.7		
GEC2	e P	Z	19:38:36.1	75.1	93.5	1.0	179	6.1		
RJOB	e P	Z	19:38:38.9	75.7	92.5	0.8	72	5.9		
WET	e P	Z	19:38:39.4	75.7	92.9	1.0	122	6.0		
CLL	e P	Z	19:38:39.2	75.7	93.6	0.9	162	6.2		
TANN	e P	Z	19:38:41.3	76.0	92.9	1.0	94	5.9		
ROTZ	e P	Z	19:38:42.7	76.1	92.6	1.0	205	6.2		
MOX	e P	Z	19:38:44.4	76.5	92.3	1.0	130	6.0		
	e L	Z	20:18:12.4			19.7	217811		7.5	
FUR	e P	Z	19:38:44.9	76.7	91.5	1.0	182	6.1		
GRA1	e P	Z	19:38:46.4	76.8	91.8	0.9	333	6.5		
	e L	Z	20:18:46.8			18.1	176088		7.4	
BSEG	e P	Z	19:38:49.7	77.5	92.0	1.0	252	6.3		
UBBA	e P	Z	19:38:49.6	77.6	91.1	1.0	33	5.4		
STU	e P	Z	19:38:52.8	78.1	90.0	2.5	14820	7.7		
TNS	e P	Z	19:38:55.7	78.6	89.8	1.0	151	6.0		
BFO	e P	Z	19:38:55.5	78.7	89.3	1.1	110	5.8		
IBBN	e P	Z	19:38:57.8	79.0	89.6	1.0	210	6.1		
BUG	e P	Z	19:38:59.5	79.3	89.1	1.0	185	6.1		
WLF	e P	Z	19:39:04.1	80.0	87.9	1.2	246	6.0		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/12 22:44:48.8 9.710N 91.600E 33.0G 4.5
 Nicobar Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	22:56:29.6	74.7	93.4	0.7	2	4.3		
GEC2	e P	Z	22:56:29.7	74.8	92.6	0.9	4	4.5		

WET	e P	Z	22:56:32.6	75.3	92.1	0.8	3	4.3
RJOB	e P	Z	22:56:32.8	75.3	91.7	0.8	4	4.5
CLL	e P	Z	22:56:32.3	75.3	92.8	0.8	2	4.3
TANN	e P	Z	22:56:34.8	75.6	92.1	1.0	1	4.1
ROTZ	e P	Z	22:56:35.8	75.8	91.7	0.9	4	4.5
MOX	e P	Z	22:56:37.8	76.2	91.5	1.9	58	5.4
FUR	e P	Z	22:56:38.2	76.3	90.6	0.6	4	4.7
GRA1	e P	Z	22:56:39.3	76.4	91.0	0.8	4	4.6
BSEG	e P	Z	22:56:42.0	77.0	91.3	0.9	6	4.7
STU	e P	Z	22:56:46.1	77.7	89.2	0.7	2	4.4
TNS	e P	Z	22:56:48.6	78.2	89.0	0.8	4	4.6
BFO	e P	Z	22:56:49.3	78.3	88.5	0.8	2	4.2
IBBN	e P	Z	22:56:51.1	78.6	88.9	0.8	3	4.4
BUG	e P	Z	22:56:53.4	78.9	88.3	0.7	3	4.5
WLF	e P	Z	22:56:57.6	79.7	87.1	1.1	6	4.4

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/12 22:44:55.1 8.098N 93.273E 33.0G 4.5
 Nicobar Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 23:00:34.7	77.0	93.1	1.0	6	4.7		
GEC2	e P	Z 23:00:37.8	77.1	92.5	0.9	3	4.4		
WET	e P	Z 23:00:38.4	77.6	91.9	1.0	3	4.4		
CLL	e P	Z 23:00:34.5	77.6	92.5	0.8	3	4.5		
TANN	e P	Z 23:00:36.6	77.9	91.9	1.0	2	4.3		
MOX	e P	Z 23:00:36.8	78.5	91.3	1.1	3	4.4		
GRA1	e P	Z 23:00:39.8	78.7	90.8	0.7	3	4.4		
BSEG	e P	Z 23:00:31.0	79.3	90.9	1.3	15	4.8		
UBBA	e P	Z 23:00:37.5	79.5	90.1	1.1	4	4.2		
TNS	e P	Z 23:00:40.9	80.5	88.8	0.8	6	4.7		
BFO	e P	Z 23:00:45.1	80.6	88.3	0.9	4	4.5		
IBBN	e P	Z 23:00:36.8	80.9	88.6	1.0	8	4.7		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/12 22:57:46.8 5.505N 94.307E 33.0G 4.7
 Northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:10:05.1	81.3	91.7	0.8	7	4.7		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/13 02:50:16.5 5.232N 93.758E 33.0G 4.4
 SZGRF

Off west coast of northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:02:33.3	81.2	92.3	0.7	3	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/13	03:32:58.3	38.040N	142.750E	24.3	5.8	6.0		SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 03:45:03.8	79.3	36.3	1.1	133	5.8		
BRG	e P	Z 03:45:09.0	80.4	38.5	1.0	70	5.7		
CLL	e P	Z 03:45:09.0	80.4	37.9	1.0	122	5.9		
TANN	e P	Z 03:45:14.0	81.4	37.4	1.0	31	5.4		
MOX	e P	Z 03:45:14.9	81.5	36.9	1.0	57	5.6		
	e L	Z 04:24:52.1			18.4	7264		6.1	
IBBN	e P	Z 03:45:15.2	81.5	34.3	0.9	121	6.0		
UBBA	e P	Z 03:45:17.0	82.0	35.7	1.1	30	5.3		
ROTZ	e P	Z 03:45:17.9	82.0	37.2	1.2	153	6.0		
GEC2	e P	Z 03:45:17.8	82.1	38.1	1.0	56	5.7		
	e pP	Z 03:45:24.8							
WET	e P	Z 03:45:18.8	82.2	37.6	1.0	69	5.8		
GRA1	e P	Z 03:45:20.1	82.4	36.5	1.0	131	6.1		
	e L	Z 04:26:42.3			20.9	5093		5.9	
BUG	e P	Z 03:45:19.6	82.4	33.9	0.9	53	5.8		
TNS	e P	Z 03:45:22.9	83.0	34.6	0.9	35	5.6		
RJOB	e P	Z 03:45:24.8	83.3	37.4	0.9	114	6.1		
FUR	e P	Z 03:45:26.1	83.6	36.4	0.9	168	6.3		
STU	e P	Z 03:45:27.5	83.9	35.0	0.9	148	6.2		
	e pP	Z 03:45:34.6							
WLF	e P	Z 03:45:29.5	84.3	32.9	1.0	20	5.3		
BFO	e P	Z 03:45:30.9	84.6	34.4	1.0	158	6.2		
	e pP	Z 03:45:37.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/13	04:01: 6.2	7.060N	91.380E	33.0N	4.7			SZGRF

Nicobar Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 04:12:53.9	76.6	94.6	0.8	8	4.9		
BRG	e P	Z 04:12:54.1	76.6	95.3	0.8	5	4.7		
RJOB	e P	Z 04:12:56.6	77.1	93.7	1.2	11	4.9		
WET	e P	Z 04:12:57.2	77.2	94.1	0.9	5	4.6		
CLL	e P	Z 04:12:57.3	77.2	94.7	1.0	4	4.5		
TANN	e P	Z 04:12:58.7	77.5	94.0	0.9	3	4.3		

ROTZ	e P	Z	04:13:00.4	77.6	93.7	0.9	7	4.8
MOX	e P	Z	04:13:01.8	78.1	93.4	0.7	3	4.6
FUR	e P	Z	04:13:02.3	78.2	92.6	0.8	6	4.8
GRA1	e P	Z	04:13:04.0	78.3	92.9	0.9	11	5.0
BSEG	e P	Z	04:13:07.5	79.0	93.1	0.9	11	4.9
TNS	e P	Z	04:13:13.3	80.1	90.9	0.8	4	4.4
BFO	e P	Z	04:13:13.3	80.1	90.5	0.8	4	4.3
IBBN	e P	Z	04:13:15.7	80.5	90.7	1.1	10	4.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/13	06:26:29.9	11.474N	90.259E	33.0N	4.7			SZGRF

Andaman Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:38:03.8	74.2	90.8	0.9	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/13	07:05:39.1	8.040N	91.550E	33.0G	5.2			SZGRF

Nicobar Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 07:17:23.2	76.0	94.5	1.2	26	5.2		
GEC2	e P	Z 07:17:23.0	76.0	93.8	1.2	24	5.2		
RJOB	e P	Z 07:17:25.5	76.5	92.9	1.1	9	4.8		
WET	e P	Z 07:17:26.3	76.5	93.3	1.4	22	5.1		
CLL	e P	Z 07:17:26.3	76.6	93.9	1.3	26	5.2		
TANN	e P	Z 07:17:28.1	76.9	93.3	1.4	22	5.1		
ROTZ	e P	Z 07:17:29.2	77.0	92.9	1.2	28	5.3		
MOX	e P	Z 07:17:31.3	77.4	92.6	1.5	34	5.3		
FUR	e P	Z 07:17:32.0	77.5	91.8	1.7	54	5.4		
GRA1	e P	Z 07:17:33.1	77.6	92.1	1.2	37	5.4		
BSEG	e P	Z 07:17:36.3	78.4	92.3	1.2	44	5.5		
UBBA	e P	Z 07:17:36.5	78.4	91.4	1.0	4	4.5		
STU	e P	Z 07:17:39.5	78.9	90.4	2.0	75	5.4		
TNS	e P	Z 07:17:42.7	79.4	90.1	1.2	18	5.0		
BFO	e P	Z 07:17:42.4	79.5	89.7	1.2	18	4.9		
IBBN	e P	Z 07:17:44.6	79.9	90.0	1.7	56	5.2		
BUG	e P	Z 07:17:46.2	80.2	89.4	1.2	32	5.1		
WLF	e P	Z 07:17:50.7	80.9	88.3	1.3	34	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/13	07:47:29.3	47.232N	154.380E	33.0N	4.9			SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 07:59:24.7	78.0	24.6	0.7	8	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/13								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 12:22:44.9			1.2	12	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/13	13:43: 2.6	57.267N	154.577W	33.0G	4.6			SZGRF
Kodiak Island, Alaska, United States, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:54:29.2	72.4	352.0	0.7	4	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/14	00:27:24.7	17.400S	176.530W	33.0G				SZGRF
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e PKPbc	Z 00:47:02.4	144.9	7.1					
CLL	e PKPbc	Z 00:47:02.7	145.3	16.1					
BUG	e PKPbc	Z 00:47:04.6	145.8	6.5					
MOX	e PKPbc	Z 00:47:05.3	146.1	14.0					
UBBA	e PKPbc	Z 00:47:05.7	146.2	11.2					
TANN	e PKPbc	Z 00:47:06.3	146.2	15.6					
ROTZ	e PKPbc	Z 00:47:08.3	146.9	15.4					
TNS	e PKPbc	Z 00:47:08.7	146.9	8.7					
GRA1	e PKPbc	Z 00:47:09.2	147.1	13.7					
WET	e PKPbc	Z 00:47:09.7	147.4	16.8					
GEC2	e PKPbc	Z 00:47:10.3	147.5	18.4					
WLF	e PKPbc	Z 00:47:11.1	147.7	4.8					
FUR	e PKPbc	Z 00:47:13.5	148.6	14.4					
RJOB	e PKPbc	Z 00:47:13.9	148.7	17.3					
BFO	e PKPbc	Z 00:47:14.1	148.8	9.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/15	00:31:36.4	27.700N	120.140E	33.0G	4.9			SZGRF
Near coast of southeastern China								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 00:43:35.6	78.2	60.3	1.6	13	4.8		
CLL	e P	Z 00:43:37.6	78.5	59.7	1.6	9	4.6		
TANN	e P	Z 00:43:41.8	79.2	59.2	1.7	17	4.8		
GEC2	e P	Z 00:43:42.2	79.3	59.8	1.3	13	4.7		
MOX	e P	Z 00:43:43.9	79.6	58.6	1.9	20	4.7		
CLZ	e P	Z 00:43:44.3	79.6	57.9	1.3	20	4.9		
WET	e P	Z 00:43:44.6	79.6	59.3	2.1	20	4.7		
ROTZ	e P	Z 00:43:44.9	79.7	58.9	1.3	17	4.8		
GRA1	e P	Z 00:43:47.5	80.3	58.2	1.7	46	5.2		
UBBA	e P	Z 00:43:47.7	80.3	57.5	2.1	36	5.0		
RJOB	e P	Z 00:43:48.5	80.4	59.0	1.1	7	4.6		
IBBN	e P	Z 00:43:49.9	80.7	56.1	1.5	25	5.0		
FUR	e P	Z 00:43:51.2	81.1	58.0	1.2	37	5.3		
BUG	e P	Z 00:43:53.6	81.4	55.6	1.2	24	5.2		
TNS	e P	Z 00:43:54.3	81.5	56.3	2.2	34	5.1		
BFO	e P	Z 00:44:00.0	82.6	56.0	1.6	12	4.9		
WLF	e P	Z 00:44:02.0	83.0	54.6	1.1	30	5.4		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/15 04:26:58.2 32.240N 117.760W 33.0G 5.5 6.1
 California-Baja California border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 04:39:20.1	82.9	317.9	1.3	47	5.6		
IBBN	e P	Z 04:39:20.7	83.0	316.1	1.5	153	6.0		
BUG	e P	Z 04:39:22.3	83.4	315.8	1.6	105	5.8		
WLF	e P	Z 04:39:26.6	84.2	315.1	1.5	162	6.0		
CLZ	e P	Z 04:39:28.1	84.4	318.1	1.6	183	6.1		
TNS	e P	Z 04:39:29.9	84.8	316.7	1.8	89	5.7		
UBBA	e P	Z 04:39:30.8	85.0	317.8	1.5	70	5.7		
MOX	e P	Z 04:39:34.8	85.9	319.0	1.5	41	5.3		
	e L	Z 05:16:36.5			18.3	6974		6.1	
CLL	e P	Z 04:39:34.8	85.9	320.0	1.5	31	5.2		
BFO	e P	Z 04:39:36.4	86.1	316.8	1.4	54	5.5		
STU	e P	Z 04:39:36.6	86.2	317.4	1.3	38	5.4		
TANN	e P	Z 04:39:37.5	86.4	319.7	2.3	83	5.5		
GRA1	e P	Z 04:39:38.1	86.4	318.8	2.3	152	5.7		
	e L	Z 05:18:22.5			19.1	6921		6.1	
BRG	e P	Z 04:39:38.9	86.6	320.8	1.1	20	5.2		
ROTZ	e P	Z 04:39:39.5	86.8	319.5	1.6	27	5.1		
WET	e P	Z 04:39:42.9	87.5	320.0	1.3	18	5.2		
FUR	e P	Z 04:39:43.6	87.6	318.9	1.2	33	5.5		
GEC2	e P	Z 04:39:45.7	88.1	320.6	1.1	11	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/15	23:24:34.0	9.210N	91.500E	33.0G	4.4			SZGRF

Nicobar Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	23:36:17.0	75.0	93.8	0.8	2	4.2		
GEC2	e P	Z	23:36:17.3	75.1	93.1	1.1	4	4.4		
RJOB	e P	Z	23:36:20.5	75.6	92.1	0.8	2	4.4		
WET	e P	Z	23:36:21.0	75.6	92.5	1.0	2	4.3		
CLL	e P	Z	23:36:20.6	75.6	93.2	0.9	2	4.2		
TANN	e P	Z	23:36:22.5	75.9	92.5	0.9	2	4.2		
ROTZ	e P	Z	23:36:23.9	76.1	92.2	0.8	2	4.3		
MOX	e P	Z	23:36:24.3	76.5	91.9	0.7	2	4.2		
GRA1	e P	Z	23:36:26.8	76.7	91.4	0.9	5	4.6		
CLZ	e P	Z	23:36:29.7	77.3	91.2	0.9	4	4.5		
BSEG	e P	Z	23:36:30.9	77.4	91.6	1.0	6	4.7		
UBBA	e P	Z	23:36:30.4	77.5	90.7	0.6	1	4.2		
BFO	e P	Z	23:36:36.9	78.6	88.9	0.9	2	4.1		
IBBN	e P	Z	23:36:39.2	78.9	89.3	1.2	18	5.0		
WLF	e P	Z	23:36:45.5	80.0	87.5	0.7	5	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/15	23:39:11.4	38.358N	73.699E	33.0N	4.5			SZGRF

Tajikistan-Xinjiang border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:47:23.6	45.0	79.8	0.9	5	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/16	03:05:19.9	18.600S	174.190W	33.0G				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e PKPbc	Z	03:25:00.5	146.3	3.3					
CLZ	e PKPbc	Z	03:25:01.3	146.6	7.9					
CLL	e PKPbc	Z	03:25:01.6	146.8	12.5					
BRG	e PKPbc	Z	03:25:02.6	147.1	14.3					
BUG	e PKPbc	Z	03:25:02.4	147.1	2.5					
UBBA	e PKPbc	Z	03:25:03.9	147.6	7.4					
MOX	e PKPbc	Z	03:25:04.2	147.6	10.3					
TANN	e PKPbc	Z	03:25:04.7	147.7	11.9					
TNS	e PKPbc	Z	03:25:06.0	148.3	4.8					
ROTZ	e PKPbc	Z	03:25:06.8	148.4	11.6					
GRA1	e PKPbc	Z	03:25:07.3	148.6	9.9					

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WLF	e	PKPbc	Z	03:25:08.5	148.9	0.6
GEC2	e	PKPbc	Z	03:25:08.2	149.1	14.7
FUR	e	PKPbc	Z	03:25:10.4	150.1	10.4
BFO	e	PKPbc	Z	03:25:10.7	150.2	4.8
RJOB	e	PKPbc	Z	03:25:12.0	150.3	13.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/16	03:18:15.5	18.070N	123.680E	33.0G	5.0			SZGRF

Philippine Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 03:31:08.2	87.8	63.6	1.1	17	5.3		
CLL	e P	Z 03:31:09.5	88.2	62.9	1.0	14	5.2		
BSEG	e P	Z 03:31:10.5	88.3	60.8	1.0	8	4.9		
TANN	e P	Z 03:31:12.7	88.9	62.4	1.1	8	4.9		
GEC2	e P	Z 03:31:13.0	88.9	63.3	1.3	18	5.1		
WET	e P	Z 03:31:14.0	89.2	62.7	1.2	6	4.7		
MOX	e P	Z 03:31:15.4	89.2	61.8	1.1	15	5.1		
ROTZ	e P	Z 03:31:15.3	89.3	62.2	1.1	9	4.9		
CLZ	e P	Z 03:31:15.4	89.3	60.8	1.1	16	5.2		
GRA1	e P	Z 03:31:18.3	89.9	61.5	1.0	5	4.7		
UBBA	e P	Z 03:31:18.2	90.0	60.5	1.4	25	5.3		
IBBN	e P	Z 03:31:20.5	90.5	58.8	1.0	11	5.1		
TNS	e P	Z 03:31:24.1	91.2	59.3	1.1	11	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/16	03:16:27.4	2.135S	136.533E	33.0G		7.3		EMSC

East of Australia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e Pdiff	Z 03:31:06.5	111.6	64.9					
	e PKPbc	Z 03:35:06.7							
CLL	e Pdiff	Z 03:31:08.7	112.0	63.9					
	e PKPbc	Z 03:35:07.5							
BSEG	e Pdiff	Z 03:31:10.7	112.2	60.5					
GEC2	e Pdiff	Z 03:31:13.0	112.6	65.5					
	e PKPbc	Z 03:35:08.2							
TANN	e Pdiff	Z 03:31:12.1	112.7	63.8					
	e PKPbc	Z 03:35:09.3							
WET	e Pdiff	Z 03:31:14.1	113.0	64.6					
	e PKPbc	Z 03:35:08.5							
MOX	e Pdiff	Z 03:31:13.8	113.0	62.9					
	e L	Z 04:25:50.7			22.0	72559		7.2	
ROTZ	e Pdiff	Z 03:31:15.0	113.1	63.8					
CLZ	e Pdiff	Z 03:31:15.5	113.2	61.4					

	e	PKPbc	Z	03:35:10.2						
RJOB	e	Pdiff	Z	03:31:13.4	113.6	65.1				
	e	PKPbc	Z	03:35:10.4						
GRA1	e	L	Z	04:28:00.7	113.7	63.0	19.4	99616		7.4
UBBA	e	Pdiff	Z	03:31:18.1	113.9	61.4				
IBBN	e	Pdiff	Z	03:31:20.7	114.3	58.8				
	e	PKPbc	Z	03:35:12.5						
TNS	e	Pdiff	Z	03:31:24.0	115.0	60.2				
	e	PKPbc	Z	03:35:13.9						
BUG	e	Pdiff	Z	03:31:22.6	115.0	58.7				
	e	PKPbc	Z	03:35:13.7						
STU	e	Pdiff	Z	03:31:20.7	115.3	61.5				
BFO	e	PKPbc	Z	03:35:17.9	116.0	60.9				
WLF	e	Pdiff	Z	03:31:30.3	116.6	58.3				
	e	PKPbc	Z	03:35:16.9						

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/16 03:56:13.7 52.640N 175.980W 33.0G 5.0
 Andreanof Islands, Aleutian Islands, United States SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 04:07:48.3	73.3	4.0	1.1	19	5.0		
IBBN	e P	Z 04:07:57.7	75.0	2.3	0.9	13	4.9		
CLZ	e P	Z 04:08:00.6	75.4	4.0	1.0	19	5.2		
CLL	e P	Z 04:08:01.8	75.8	5.6	0.9	11	5.0		
BUG	e P	Z 04:08:02.3	75.9	2.0	0.7	4	4.7		
BRG	e P	Z 04:08:04.1	76.1	6.2	0.9	15	5.1		
UBBA	e P	Z 04:08:05.6	76.4	3.7	1.5	19	5.0		
MOX	e P	Z 04:08:06.1	76.5	4.7	0.9	11	5.0		
TANN	e P	Z 04:08:07.8	76.7	5.3	1.1	11	4.9		
TNS	e P	Z 04:08:09.3	77.1	2.8	1.0	15	5.1		
ROTZ	e P	Z 04:08:11.6	77.4	5.1	0.9	9	4.9		
GRA1	e P	Z 04:08:12.4	77.5	4.5	0.9	26	5.3		
WLF	e P	Z 04:08:13.0	77.7	1.3	0.6	7	5.0		
WET	e P	Z 04:08:14.4	77.9	5.5	1.0	7	4.7		
GEC2	e P	Z 04:08:15.5	78.2	6.0	0.9	10	4.8		
BFO	e P	Z 04:08:19.8	79.0	2.7	0.9	10	4.8		
RJOB	e P	Z 04:08:22.6	79.3	5.4	0.7	13	5.0		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/17 13:06:45.0 33.460S 179.200W 33.0G
 South of Kermadec Islands SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 13:26:24.1	160.1	31.1					

	e PKPab	Z	13:27:03.2		
BRG	e PKPdf	Z	13:26:24.3	160.1	33.9
	e PKPab	Z	13:27:03.3		
IBBN	e PKPdf	Z	13:26:25.3	160.5	17.6
	e PKPab	Z	13:27:05.4		
TANN	e PKPdf	Z	13:26:25.3	161.0	31.2
	e PKPab	Z	13:27:07.3		
MOX	e PKPdf	Z	13:26:25.6	161.1	28.9
	e PKPab	Z	13:27:07.5		
UBBA	e PKPdf	Z	13:26:26.0	161.4	24.7
	e PKPab	Z	13:27:08.5		
BUG	e PKPdf	Z	13:26:26.1	161.4	17.2
	e PKPab	Z	13:27:09.2		
ROTZ	e PKPdf	Z	13:26:26.1	161.6	31.6
	e PKPab	Z	13:27:11.0		
GEC2	e PKPdf	Z	13:26:25.7	161.9	36.8
	e PKPab	Z	13:27:10.9		
WET	e PKPdf	Z	13:26:26.0	161.9	34.3
	e PKPab	Z	13:27:11.7		
GRA1	e PKPdf	Z	13:26:26.8	162.0	29.3
	e PKPab	Z	13:27:12.7		
TNS	e PKPdf	Z	13:26:26.9	162.3	21.4
	e PKPab	Z	13:27:13.7		
RJOB	e PKPdf	Z	13:26:26.8	163.1	36.6
	e PKPab	Z	13:27:17.2		
WLF	e PKPdf	Z	13:26:28.8	163.3	15.7
	e PKPab	Z	13:27:18.6		
FUR	e PKPdf	Z	13:26:27.8	163.3	31.9
	e PKPab	Z	13:27:18.1		
STU	e PKPdf	Z	13:26:28.1	163.5	25.3
	e PKPab	Z	13:27:18.7		
BFO	e PKPdf	Z	13:26:28.4	164.1	23.5
	e PKPab	Z	13:27:20.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/18	23:09:29.1	12.560N	93.350E	33.0G	6.2	5.7		SZGRF

Andaman Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 23:21:00.4	73.6	90.1	1.0	234	6.2		
RUE	e P	Z 23:21:01.0	73.7	90.5	0.9	500	6.5		
GEC2	e P	Z 23:21:01.4	73.8	89.3	0.9	253	6.2		
FBE	e P	Z 23:21:02.8	74.0	89.7	1.0	388	6.4		
RGN	e P	Z 23:21:02.7	74.0	90.7	1.3	586	6.5		
CLL	e P	Z 23:21:03.3	74.2	89.5	1.8	474	6.2		
WET	e P	Z 23:21:04.4	74.3	88.8	1.0	185	6.1		
RJOB	e P	Z 23:21:04.4	74.4	88.4	0.9	117	5.9		

TANN	e P	Z	23:21:05.7	74.6	88.8	1.2	156	5.9	
WERN	e P	Z	23:21:06.3	74.6	88.7	1.0	124	5.9	
GUNZ	e P	Z	23:21:06.5	74.7	88.7	1.6	426	6.2	
WERD	e P	Z	23:21:06.4	74.7	88.7	1.0	160	6.0	
ROTZ	e P	Z	23:21:07.5	74.7	88.5	1.7	638	6.4	
PLN	e P	Z	23:21:06.8	74.8	88.6	1.0	156	6.0	
MANZ	e P	Z	23:21:07.6	74.8	88.5	1.7	655	6.4	
NEUB	e P	Z	23:21:08.1	75.0	88.5	1.6	516	6.3	
MOX	e P	Z	23:21:08.9	75.1	88.3	1.0	162	6.0	
GRA1	e P	Z	23:21:11.0	75.4	87.7	1.7	633	6.4	
FUR	e P	Z	23:21:10.4	75.4	87.3	1.0	180	6.1	
BSEG	e P	Z	23:21:13.0	75.8	88.1	1.6	723	6.6	
CLZ	e P	Z	23:21:13.2	75.8	87.6	1.0	240	6.3	
UBBA	e P	Z	23:21:14.5	76.1	87.1	2.0	374	6.2	
STU	e P	Z	23:21:18.3	76.8	86.0	1.7	432	6.3	
TNS	e P	Z	23:21:20.6	77.1	85.7	1.0	129	6.0	
BFO	e P	Z	23:21:21.2	77.4	85.2	1.3	117	5.9	
IBBN	e P	Z	23:21:22.2	77.4	85.7	1.6	762	6.6	
BUG	e P	Z	23:21:24.2	77.8	85.1	1.7	622	6.5	
WLF	e P	Z	23:21:29.5	78.7	83.9	1.8	603	6.3	
GRA1	e L	Z	00:02:04.7	75.4	87.7	19.7	4211		5.7

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/18 02:23: 7.5 44.730N 148.960E 33.0G 6.4 6.1 SZGRF
 Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	02:34:40.2	73.8	31.1	1.0	658	6.6		
BSEG	e P	Z	02:34:48.1	75.2	29.0	1.0	331	6.4		
RUE	e P	Z	02:34:49.0	75.5	31.2	1.0	602	6.7		
CLL	e P	Z	02:34:55.8	76.7	30.5	0.9	613	6.7		
BRG	e P	Z	02:34:56.3	76.8	31.1	1.2	255	6.2		
FBE	e P	Z	02:34:57.6	76.9	30.7	1.0	475	6.6		
CLZ	e P	Z	02:34:58.6	77.0	28.8	1.1	662	6.7		
NEUB	e P	Z	02:34:58.6	77.2	29.7	1.1	602	6.6		
IBBN	e P	Z	02:35:00.2	77.4	27.1	1.0	357	6.5		
TANN	e P	Z	02:35:01.5	77.6	30.0	1.6	338	6.2		
WERD	e P	Z	02:35:01.7	77.7	29.9	1.1	284	6.3		
PLN	e P	Z	02:35:01.7	77.7	29.9	1.2	311	6.3		
MOX	e P	Z	02:35:01.8	77.7	29.5	1.2	349	6.4		
GUNZ	e P	Z	02:35:01.9	77.7	30.0	1.0	270	6.3		
WERN	e P	Z	02:35:02.3	77.8	30.0	1.0	294	6.4		
UBBA	e P	Z	02:35:03.2	78.1	28.5	1.8	469	6.3		
ROTZ	e P	Z	02:35:05.3	78.3	29.8	1.1	341	6.3		
BUG	e P	Z	02:35:05.0	78.3	26.7	1.2	390	6.3		
GEC2	e P	Z	02:35:06.6	78.6	30.7	1.0	168	6.0		
WET	e P	Z	02:35:07.2	78.6	30.2	1.1	498	6.5		

GRA1	e P	Z	02:35:07.5	78.7	29.2	0.9	598	6.6	
	e L	N	03:09:55.6			20.9	9757	6.1	
TNS	e P	Z	02:35:09.3	79.0	27.4	1.2	326	6.2	
RJOB	e P	Z	02:35:13.8	79.9	30.0	1.0	188	6.0	
FUR	e P	Z	02:35:14.7	80.0	29.1	1.2	693	6.5	
STU	e P	Z	02:35:14.7	80.1	27.8	1.2	408	6.2	
BFO	e P	Z	02:35:18.2	80.8	27.2	1.2	240	6.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/19	01:16:26.1	44.684N	9.895E	10.0G			3.2	SZGRF

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
DAVA	e Pn	Z	01:17:08.6	2.6	179.8					3.0
	e Sn	E	01:17:39.6							
WTTA	e Pn	Z	01:17:12.7	2.8	205.8					
	e Pg	Z	01:17:17.3							3.0
KBA	e Sn	E	01:17:57.5	3.4	226.3					3.1
	e Sg	N	01:18:11.1							
RJOB	e Pn	Z	01:17:22.4	3.7	214.4					3.2
	e Pg	Z	01:17:34.3							
	e Sn	E	01:18:07.1							
OBKA	e Sg	N	01:18:23.8	3.7	242.4					3.3
BFO	e Pn	Z	01:17:23.4	3.8	163.0					
	e Sn	N	01:18:03.0							
MOA	e Pn	Z	01:17:32.1	4.4	225.3					
	e Pg	N	01:17:48.2							
WET	e Pn	Z	01:17:37.6	4.9	205.7					3.1
	e Sn	N	01:18:30.2							
GEC2	e Pn	Z	01:17:37.9	4.9	213.5					3.1
	e Sn	N	01:18:30.3							
GRA1	e Pg	Z	01:18:01.5	5.1	190.7					3.4
	e Sn	E	01:18:33.8							
TNS	e Pn	Z	01:17:48.0	5.6	169.4					
MOX	e Sn	N	01:18:57.7	6.1	191.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/19	02:39:19.7	45.320N	149.440E	33.0G	5.4	4.5		SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	02:50:59.5	74.8	28.5	0.9	38	5.4		
RUE	e P	Z	02:51:00.6	75.1	30.6	1.0	78	5.7		
CLL	e P	Z	02:51:07.4	76.3	29.9	0.9	80	5.8		
BRG	e P	Z	02:51:07.8	76.4	30.5	1.0	29	5.4		

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CLZ	e P	Z	02:51:10.0	76.7	28.3	1.0	76	5.8	
NEUB	e P	Z	02:51:10.1	76.8	29.1	0.9	74	5.8	
IBBN	e P	Z	02:51:11.5	77.0	26.6	0.9	41	5.6	
MOX	e P	Z	02:51:13.2	77.3	28.9	0.9	29	5.4	
UBBA	e P	Z	02:51:14.8	77.7	27.9	0.9	7	4.8	
MANZ	e P	Z	02:51:15.6	77.8	29.2	1.0	29	5.4	
BUG	e P	Z	02:51:16.3	77.9	26.2	1.0	37	5.5	
ROTZ	e P	Z	02:51:16.8	77.9	29.2	0.9	30	5.4	
GEC2	e P	Z	02:51:18.1	78.2	30.1	0.9	20	5.1	
WET	e P	Z	02:51:18.7	78.2	29.6	0.9	54	5.6	
GRA1	e P	Z	02:51:19.1	78.3	28.6	0.9	76	5.7	
	e L	Z	03:27:11.9			20.2	220		4.5
TNS	e P	Z	02:51:20.8	78.6	26.8	1.0	24	5.2	
RJOB	e P	Z	02:51:25.4	79.5	29.4	0.9	22	5.1	
FUR	e P	Z	02:51:26.0	79.6	28.5	1.0	50	5.4	
BFO	e P	Z	02:51:29.7	80.4	26.6	0.9	15	5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/19	10:00:54.9	42.363N	143.127E	33.0G	5.1			SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 10:12:36.8	75.6	34.0	0.9	24	5.3		
CLL	e P	Z 10:12:43.0	76.8	35.5	0.9	19	5.2		
BRG	e P	Z 10:12:43.2	76.8	36.0	0.9	6	4.8		
CLZ	e P	Z 10:12:46.6	77.3	33.8	0.7	18	5.3		
IBBN	e P	Z 10:12:48.9	77.8	32.1	0.8	25	5.4		
MOX	e P	Z 10:12:49.1	77.8	34.5	1.2	20	5.1		
MANZ	e P	Z 10:12:51.2	78.2	34.7	0.9	8	4.8		
ROTZ	e P	Z 10:12:52.4	78.4	34.8	0.9	10	4.8		
GEC2	e P	Z 10:12:52.8	78.5	35.6	0.8	6	4.7		
WET	e P	Z 10:12:53.7	78.6	35.1	0.9	12	4.9		
GRA1	e P	Z 10:12:54.7	78.8	34.1	0.8	29	5.4		
TNS	e P	Z 10:12:57.2	79.3	32.3	0.9	8	4.6		
RJOB	e P	Z 10:13:00.1	79.8	34.9	0.8	18	5.1		
FUR	e P	Z 10:13:01.3	80.0	34.0	0.8	32	5.3		
STU	e P	Z 10:13:02.3	80.3	32.7	0.8	20	5.2		
BFO	e P	Z 10:13:05.8	81.0	32.1	0.8	10	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/20	23:13:48.6	43.381N	17.438E	10.0G			4.8	SZGRF

Northwestern Balkan Peninsula

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z 23:14:44.3	3.7	145.8					5.0

	e Sn	E	23:15:25.2					
KBA	e Pn	Z	23:14:58.2	4.7	140.6			4.6
	e Sn	E	23:15:46.6					
MOA	e Pn	Z	23:15:02.0	5.0	152.4			4.6
	e Sn	N	23:15:55.3					
RJOB	e Pn	Z	23:15:08.2	5.4	141.6			4.5
	e Sn	N	23:16:05.7					
WTTA	e Pn	Z	23:15:10.7	5.6	131.5			
GEC2	e Pn	Z	23:15:16.3	6.0	153.3			4.5
	e Sn	Z	23:16:19.5					
FUR	e Pn	Z	23:15:21.1	6.4	135.8			
WET	e Pn	Z	23:15:23.2	6.6	149.6			
DAVA	e Pn	Z	23:15:23.9	6.6	123.6			5.0
	e Sn	E	23:16:33.9					
ROTZ	e Pn	Z	23:15:32.9	7.3	148.7			
MANZ	e Pn	Z	23:15:36.0	7.5	149.1			
GRA1	e Pn	Z	23:15:37.5	7.6	143.6			
WERN	e Pn	Z	23:15:38.8	7.7	151.5			4.8
GUNZ	e Pn	Z	23:15:39.6	7.8	151.5			4.7
TANN	e Pn	Z	23:15:39.8	7.8	152.4			
STU	e Pn	Z	23:15:39.5	7.9	130.3			5.1
	e Sn	E	23:17:01.8					
BRG	e Pn	Z	23:15:41.0	7.9	161.1			
PLN	e Pn	Z	23:15:42.2	8.0	151.1			
BFO	e Pn	Z	23:15:42.0	8.0	124.6			4.8
MOX	e Pn	Z	23:15:46.1	8.3	149.2			
CLL	e Pn	Z	23:15:48.9	8.5	157.6			
UBBA	e Pn	Z	23:15:55.3	9.0	143.0			
TNS	e Pn	Z	23:15:58.0	9.2	134.7			

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/22 22:16:21.0 19.440S 176.390W 574.3 SZGRF
 Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e PKPab	Z	22:34:54.4	145.1	7.1					
RUE	e PKPbc	Z	22:34:56.4	146.0	17.3					
CLZ	e PKPdf	Z	22:34:57.4	147.2	11.8					
	e pPKPbc	Z	22:37:11.3							
CLL	e PKPbc	Z	22:35:00.1	147.3	16.5					
BRG	e PKPdf	Z	22:34:57.6	147.5	18.4					
	e PKPbc	Z	22:35:00.7							
NEUB	e PKPdf	Z	22:34:58.0	147.6	14.5					
	e PKPbc	Z	22:35:01.0							
BUG	e PKPbc	Z	22:35:01.7	147.9	6.5					
MOX	e PKPdf	Z	22:34:58.6	148.2	14.4					
	e PKPbc	Z	22:35:02.4							

	e pPKPbc	Z	22:37:13.0		
UBBA	e PKPbc	Z	22:35:02.2	148.2	11.5
TANN	e PKPdf	Z	22:34:58.9	148.2	16.0
	e PKPbc	Z	22:35:02.8		
	e PKPab	Z	22:35:07.7		
	e pPKPbc	Z	22:37:13.8		
MANZ	e PKPdf	Z	22:34:59.7	148.7	15.6
	e PKPbc	Z	22:35:04.0		
ROTZ	e PKPbc	Z	22:35:04.5	148.9	15.8
	e PKPab	Z	22:35:10.9		
	e pPKPbc	Z	22:37:16.3		
TNS	e PKPbc	Z	22:35:04.8	149.0	8.9
	e PKPab	Z	22:35:10.9		
GRA1	e PKPbc	Z	22:35:04.2	149.1	14.1
WET	e PKPbc	Z	22:35:05.3	149.4	17.3
	e PKPab	Z	22:35:12.8		
	e pPKPbc	Z	22:37:17.1		
GEC2	e PKPbc	Z	22:35:05.7	149.5	19.0
	e PKPab	Z	22:35:13.4		
WLF	e PKPbc	Z	22:35:07.1	149.7	4.8
	e PKPab	Z	22:35:14.6		
	e pPKPbc	Z	22:37:18.1		
STU	e PKPbc	Z	22:35:07.9	150.3	10.7
	e PKPab	Z	22:35:16.1		
FUR	e PKPbc	Z	22:35:08.5	150.6	14.9
RJOB	e PKPbc	Z	22:35:08.5	150.7	17.9
BFO	e PKPbc	Z	22:35:09.0	150.9	9.2
	e pPKPbc	Z	22:37:21.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/22	23:14:13.4	30.370N	80.660E	33.0G	5.0			SZGRF
Western Xizang-India border region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 23:23:26.6	52.6	86.1	1.2	19	4.9		
RUE	e P	Z 23:23:26.4	52.6	87.2	1.0	24	5.1		
GEC2	e P	Z 23:23:28.7	52.9	84.4	1.1	5	4.3		
FBE	e P	Z 23:23:29.6	53.0	85.7	1.3	32	5.1		
CLL	e P	Z 23:23:30.2	53.2	85.7	1.4	19	4.8		
WET	e P	Z 23:23:32.5	53.4	84.0	1.3	10	4.7		
TANN	e P	Z 23:23:33.8	53.6	84.6	1.1	8	4.7		
WERN	e P	Z 23:23:34.2	53.6	84.5	1.6	22	4.9		
RJOB	e P	Z 23:23:33.7	53.6	82.9	0.9	10	4.8		
GUNZ	e P	Z 23:23:34.4	53.7	84.5	1.3	18	5.0		
WERD	e P	Z 23:23:34.4	53.7	84.5	1.2	13	4.8		
PLN	e P	Z 23:23:35.0	53.8	84.5	1.1	9	4.7		
ROTZ	e P	Z 23:23:36.0	53.8	84.0	1.4	28	5.1		

MANZ	e P	Z	23:23:36.0	53.8	84.1	1.5	30	5.1
NEUB	e P	Z	23:23:36.2	53.9	84.7	1.1	29	5.2
MOX	e P	Z	23:23:37.3	54.1	84.2	1.6	25	5.0
GRA1	e P	Z	23:23:40.6	54.4	83.2	1.6	54	5.3
BSEG	e P	Z	23:23:41.4	54.6	85.6	1.0	27	5.2
FUR	e P	Z	23:23:41.1	54.6	82.2	1.2	27	5.1
CLZ	e P	Z	23:23:42.3	54.7	84.1	1.3	52	5.4
UBBA	e P	Z	23:23:44.4	55.1	83.1	1.3	11	4.7
TNS	e P	Z	23:23:52.2	56.1	81.6	1.3	17	4.9
IBBN	e P	Z	23:23:53.1	56.3	82.5	1.4	52	5.4
BUG	e P	Z	23:23:56.1	56.7	81.6	1.1	27	5.2
WLF	e P	Z	23:24:03.5	57.7	79.7	1.6	33	5.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/23	13:23:20.8	47.250N	145.310E	33.0G	5.1			SZGRF

Sea of Okhotsk

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	13:34:43.1	71.9	30.3	0.8	17	5.2		
CLL	e P	Z	13:34:51.1	73.3	31.6	0.9	41	5.5		
BRG	e P	Z	13:34:51.6	73.3	32.1	1.0	14	4.9		
FBE	e P	Z	13:34:52.7	73.5	31.8	0.8	18	5.2		
CLZ	e P	Z	13:34:53.8	73.7	30.0	1.0	30	5.3		
NEUB	e P	Z	13:34:53.9	73.8	30.8	1.1	40	5.4		
TANN	e P	Z	13:34:56.6	74.2	31.1	0.9	8	4.8		
WERD	e P	Z	13:34:56.8	74.3	31.0	1.0	12	4.9		
PLN	e P	Z	13:34:56.9	74.3	31.0	1.0	13	4.9		
MOX	e P	Z	13:34:57.0	74.3	30.7	1.1	15	5.0		
GUNZ	e P	Z	13:34:57.1	74.3	31.1	0.8	15	5.1		
WERN	e P	Z	13:34:57.6	74.4	31.1	0.8	17	5.1		
MANZ	e P	Z	13:34:59.5	74.7	30.9	0.9	12	4.9		
ROTZ	e P	Z	13:35:00.4	74.9	30.9	1.0	16	5.0		
GEC2	e P	Z	13:35:01.8	75.2	31.7	1.1	12	4.8		
WET	e P	Z	13:35:02.5	75.2	31.2	1.0	26	5.3		
GRA1	e P	Z	13:35:02.5	75.3	30.3	0.8	34	5.5		
RJOB	e P	Z	13:35:09.3	76.4	31.0	0.9	12	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/23	17:41:45.6	46.110N	74.880W	23.6	5.1			SZGRF

Southern Quebec, Canada

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e P	Z	17:50:43.8	50.5	297.0	0.9	60	5.5		
IBBN	e P	Z	17:50:49.8	51.3	298.3	0.8	14	5.0		
BUG	e P	Z	17:50:50.7	51.5	298.6	1.0	12	4.8		

WLF	e P	Z	17:50:52.8	51.7	299.3	0.8	14	4.9
BSEG	e P	Z	17:50:54.1	51.9	298.6	0.9	22	5.1
	e pP	Z	17:51:00.6					
TNS	e P	Z	17:51:00.3	52.7	300.1	0.8	27	5.3
CLZ	e P	Z	17:51:02.3	53.0	300.1	1.0	20	5.0
RGN	e P	Z	17:51:03.6	53.2	300.0	0.9	34	5.3
BFO	e P	Z	17:51:06.7	53.6	301.3	1.0	23	5.1
STU	e P	Z	17:51:08.5	53.9	301.4	0.7	18	5.2
NEUB	e P	Z	17:51:09.7	54.1	301.2	0.8	24	5.3
	e pP	Z	17:51:16.3					
MOX	e P	Z	17:51:11.2	54.3	301.5	1.1	16	5.0
	e pP	Z	17:51:17.8					
RUE	e pP	Z	17:51:19.1	54.4	301.6			
GRA1	e P	Z	17:51:13.7	54.5	301.9	0.9	25	5.2
PLN	e P	Z	17:51:14.0	54.6	301.9	0.9	15	5.0
CLL	e P	Z	17:51:13.8	54.7	301.9	1.1	8	4.7
WERD	e P	Z	17:51:14.7	54.7	302.0	1.0	9	4.8
	e pP	Z	17:51:21.2					
GUNZ	e P	Z	17:51:15.1	54.8	302.1	1.0	16	5.0
TANN	e P	Z	17:51:15.4	54.8	302.1	1.8	29	5.0
	e pP	Z	17:51:21.9					
WERN	e P	Z	17:51:15.7	54.9	302.1	1.2	20	5.0
	e pP	Z	17:51:22.3					
MANZ	e P	Z	17:51:15.6	54.9	302.2	1.9	26	4.9
	e pP	Z	17:51:22.1					
ROTZ	e P	Z	17:51:17.2	55.0	302.4	4.1	199	5.5
FBE	e P	Z	17:51:17.2	55.0	302.3	2.2	111	5.5
BRG	e P	Z	17:51:19.4	55.4	302.6	1.4	26	5.1
FUR	e P	Z	17:51:19.7	55.4	302.8			
WET	e P	Z	17:51:22.2	55.7	303.1	1.1	14	4.9
	e pP	Z	17:51:28.6					
GEC2	e P	Z	17:51:26.7	56.4	303.7			
	e pP	Z	17:51:33.1					
RJOB	e P	Z	17:51:27.6	56.5	303.8	1.2	21	5.1

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/23 18:58:52.3 16.155S 174.093W 33.0G
 Tonga Islands SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e PKPbc	Z 19:18:30.4	145.2	9.6					
TANN	e PKPbc	Z 19:18:30.7	145.3	11.1					
GUNZ	e PKPbc	Z 19:18:31.0	145.4	10.9					
WERN	e PKPbc	Z 19:18:31.5	145.5	11.0					
TNS	e PKPbc	Z 19:18:33.0	145.9	4.4					
ROTZ	e PKPbc	Z 19:18:33.4	146.0	10.9					
GRA1	e PKPbc	Z 19:18:33.7	146.2	9.2					

WLF	e	PKPbc	Z	19:18:34.6	146.5	0.4
WET	e	PKPbc	Z	19:18:35.0	146.5	12.2
GEC2	e	PKPbc	Z	19:18:34.7	146.7	13.7
FUR	e	PKPbc	Z	19:18:38.7	147.7	9.7
BFO	e	PKPbc	Z	19:18:38.4	147.8	4.4
RJOB	e	PKPbc	Z	19:18:38.6	147.9	12.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/24	04:08:44.4	7.714N	92.530E	33.9	5.2	4.9		SZGRF

Nicobar Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	04:20:24.3	76.8	94.0	1.8	58	5.4		
	e pP	Z	04:20:34.1							
GEC2	e P	Z	04:20:24.5	76.9	93.3	1.0	21	5.2		
	e pP	Z	04:20:34.2							
RUE	e P	Z	04:20:25.3	77.0	94.2	0.8	50	5.7		
	e pP	Z	04:20:35.0							
FBE	e P	Z	04:20:26.7	77.2	93.5	1.0	44	5.5		
	e pP	Z	04:20:36.3							
RJOB	e P	Z	04:20:26.8	77.4	92.4	1.1	15	5.0		
	e pP	Z	04:20:36.4							
WET	e P	Z	04:20:27.6	77.4	92.8	1.2	22	5.2		
	e pP	Z	04:20:37.4							
CLL	e P	Z	04:20:27.3	77.4	93.3	1.3	25	5.2		
	e pP	Z	04:20:37.0							
TANN	e P	Z	04:20:29.4	77.7	92.7	1.2	17	5.0		
	e pP	Z	04:20:39.2							
WERN	e P	Z	04:20:29.8	77.8	92.6	1.1	12	5.0		
	e pP	Z	04:20:39.7							
GUNZ	e P	Z	04:20:29.9	77.8	92.6	1.1	22	5.2		
	e pP	Z	04:20:39.7							
WERD	e P	Z	04:20:29.9	77.8	92.6	1.1	18	5.1		
	e pP	Z	04:20:39.6							
ROTZ	e P	Z	04:20:30.6	77.9	92.4	1.1	28	5.3		
	e pP	Z	04:20:40.4							
PLN	e P	Z	04:20:30.5	77.9	92.5	1.5	26	5.1		
	e pP	Z	04:20:40.3							
MANZ	e P	Z	04:20:31.1	77.9	92.3	1.1	43	5.5		
	e pP	Z	04:20:40.9							
NEUB	e P	Z	04:20:31.8	78.2	92.3	1.0	29	5.3		
	e pP	Z	04:20:41.3							
MOX	e P	Z	04:20:32.5	78.3	92.1	1.4	30	5.2		
	e pP	Z	04:20:42.2							
	e L	Z	04:59:45.4			20.3	573		4.9	
GRA1	e P	Z	04:20:34.0	78.5	91.6	1.1	43	5.4		
	e pP	Z	04:20:44.0							

	e L	Z	05:01:59.5			18.6	674	5.0
CLZ	e P	Z	04:20:36.9	79.1	91.4	0.9	25	5.2
	e pP	Z	04:20:46.7					
BSEG	e P	Z	04:20:37.6	79.2	91.7	1.1	42	5.4
	e pP	Z	04:20:47.2					
TNS	e P	Z	04:20:43.5	80.3	89.6	1.1	21	5.0
	e pP	Z	04:20:53.3					
BFO	e P	Z	04:20:43.6	80.4	89.2	1.2	21	5.0
	e pP	Z	04:20:53.5					
IBBN	e P	Z	04:20:45.7	80.7	89.4	1.6	74	5.5
	e pP	Z	04:20:55.5					
BUG	e P	Z	04:20:47.3	81.0	88.9	1.2	31	5.2
	e pP	Z	04:20:57.1					
WLF	e P	Z	04:20:51.8	81.8	87.7	1.1	23	5.2
	e pP	Z	04:21:01.7					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/24 05:32:25.5 5.230S 152.230E 33.0G 5.9
 New Britain, Papua New Guinea, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PP	Z 05:52:42.1	120.6	49.5					
RUE	e PP	Z 05:52:49.7	121.8	51.0					
BSEG	e PKPdf	Z 05:51:17.9	122.4	46.6					
	e PP	Z 05:52:54.4							
BRG	e PKPdf	Z 05:51:18.2	122.7	51.9					
	e PP	Z 05:52:56.3							
CLL	e PKPdf	Z 05:51:18.3	122.9	50.7					
	e PP	Z 05:52:57.2							
FBE	e PKPdf	Z 05:51:18.9	122.9	51.3					
HLG	e PKPdf	Z 05:51:19.6	123.2	43.9					
	e PP	Z 05:52:59.9							
NEUB	e PKPdf	Z 05:51:19.8	123.5	49.5					
	e PP	Z 05:53:01.8							
TANN	e PKPdf	Z 05:51:20.2	123.7	50.6					
	e PP	Z 05:53:03.2							
WERD	e PKPdf	Z 05:51:20.3	123.7	50.4					
CLZ	e PKPdf	Z 05:51:20.7	123.7	47.7					
	e PP	Z 05:53:03.9							
GUNZ	e PKPdf	Z 05:51:20.5	123.8	50.5					
PLN	e PKPdf	Z 05:51:20.4	123.8	50.3					
WERN	e PKPdf	Z 05:51:20.6	123.8	50.6					
MOX	e PKPdf	Z 05:51:20.7	124.0	49.6					
	e PP	Z 05:53:05.1							
	e L	Z 06:47:43.1			22.0	2915		5.9	
GEC2	e PKPdf	Z 05:51:20.7	124.0	52.7					
	e PP	Z 05:53:04.7							

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MANZ	e PKPdf	Z	05:51:21.2	124.1	50.5				
	e PP	Z	05:53:06.2						
ROTZ	e PKPdf	Z	05:51:21.3	124.2	50.7				
	e PP	Z	05:53:07.2						
WET	e PKPdf	Z	05:51:21.3	124.3	51.7				
	e PP	Z	05:53:07.1						
IBBN	e PKPdf	Z	05:51:22.2	124.6	44.7				
	e PP	Z	05:53:09.2						
UBBA	e PKPdf	Z	05:51:22.1	124.6	47.8				
	e PP	Z	05:53:09.3						
GRA1	e PKPdf	Z	05:51:22.2	124.8	49.7				
	e PP	Z	05:53:10.5						
	e L	Z	06:45:54.3			21.8	3332		6.0
RJOB	e PKPdf	Z	05:51:22.5	125.2	52.4				
	e PP	Z	05:53:13.3						
BUG	e PKPdf	Z	05:51:23.6	125.4	44.6				
	e PP	Z	05:53:14.9						
FUR	e PKPdf	Z	05:51:24.0	125.7	50.6				
	e PP	Z	05:53:16.7						
TNS	e PKPdf	Z	05:51:24.3	125.7	46.5				
	e PP	Z	05:53:17.5						
STU	e PKPdf	Z	05:51:25.4	126.4	48.0				
	e PP	Z	05:53:21.3						
BFO	e PKPdf	Z	05:51:26.4	127.1	47.4				
	e PP	Z	05:53:25.5						
WLF	e PKPdf	Z	05:51:27.8	127.2	44.2				
	e PP	Z	05:53:27.2						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/24	11:45:4.2	46.700N	152.600E	53.0	4.9			NEIC
Kuril Islands, Russia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	11:56:40.3	74.8	27.9	1.1	26	5.2		
CLL	e P	Z	11:56:47.1	76.0	27.3	0.7	16	5.2		
BRG	e P	Z	11:56:47.9	76.1	27.8	1.0	5	4.6		
FBE	e P	Z	11:56:48.9	76.3	27.4	0.9	8	4.8		
CLZ	e P	Z	11:56:49.4	76.3	25.6	0.9	14	5.1		
IBBN	e P	Z	11:56:50.6	76.5	24.0	1.0	18	5.2		
TANN	e P	Z	11:56:52.9	77.0	26.8	1.2	6	4.6		
WERD	e P	Z	11:56:53.1	77.0	26.7	1.0	7	4.7		
PLN	e P	Z	11:56:53.2	77.0	26.6	0.9	7	4.8		
MOX	e P	Z	11:56:53.1	77.0	26.3	1.0	9	4.8		
GUNZ	e P	Z	11:56:53.5	77.1	26.7	0.8	8	4.9		
WERN	e P	Z	11:56:53.9	77.1	26.8	0.9	11	5.0		
BUG	e P	Z	11:56:55.5	77.4	23.6	0.8	14	5.1		
MANZ	e P	Z	11:56:55.6	77.5	26.5	0.9	7	4.8		

ROTZ	e P	Z	11:56:57.1	77.6	26.6	1.0	9	4.8
GRA1	e P	Z	11:56:59.0	78.0	26.0	0.8	18	5.3
WET	e P	Z	11:56:59.0	78.0	27.0	0.8	9	5.0
GEC2	e P	Z	11:56:58.7	78.0	27.4	0.7	5	4.7
TNS	e P	Z	11:57:00.3	78.3	24.2	0.8	12	4.9
RJOB	e P	Z	11:57:06.2	79.3	26.8	0.7	8	4.8
BFO	e P	Z	11:57:09.6	80.0	24.0	0.9	11	4.8

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/24 14:26:23.4 25.850S 179.000W 33.0G NEIC
 South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	14:46:13.6	151.1	17.5					
HLG	e PKPbc	Z	14:46:14.2	151.2	12.9					
RUE	e PKPbc	Z	14:46:14.7	151.7	24.8					
CLL	e PKPdf	Z	14:46:09.7	152.9	24.3					
	e PKPbc	Z	14:46:17.5							
CLZ	e PKPdf	Z	14:46:10.4	153.1	18.9					
	e PKPbc	Z	14:46:18.2							
IBBN	e PKPdf	Z	14:46:10.3	153.1	13.5					
BRG	e PKPdf	Z	14:46:10.1	153.1	26.4					
	e PKPbc	Z	14:46:17.8							
FBE	e PKPbc	Z	14:46:18.5	153.2	25.3					
MOX	e PKPdf	Z	14:46:11.2	153.9	22.1					
	e PKPab	Z	14:46:34.0							
TANN	e PKPdf	Z	14:46:11.3	153.9	24.0					
	e PKPbc	Z	14:46:19.6							
WERD	e PKPdf	Z	14:46:11.2	153.9	23.7					
	e PKPbc	Z	14:46:19.6							
PLN	e PKPbc	Z	14:46:19.6	153.9	23.3					
GUNZ	e PKPbc	Z	14:46:19.9	154.0	23.8					
	e PKPab	Z	14:46:34.4							
WERN	e PKPbc	Z	14:46:20.1	154.0	23.9					
MANZ	e PKPbc	Z	14:46:20.7	154.4	23.6					
ROTZ	e PKPbc	Z	14:46:20.9	154.6	24.0					
WET	e PKPdf	Z	14:46:12.5	154.9	25.9					
TNS	e PKPdf	Z	14:46:12.9	155.0	16.0					
	e PKPbc	Z	14:46:22.1							
GEC2	e PKPdf	Z	14:46:12.4	155.0	27.9					
	e PKPbc	Z	14:46:21.7							

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/24 20:13:58.0 55.226N 163.863W 33.0N 4.7 SZGRF
 Unimak Island, Alaska, United States, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	20:25:11.4	70.7	356.5	1.1	8	4.8		
IBBN	e P	Z	20:25:20.3	72.2	355.0	1.3	22	5.1		
RUE	e P	Z	20:25:20.7	72.3	358.6	1.0	16	5.1		
CLZ	e P	Z	20:25:24.1	72.8	356.6	1.0	9	4.9		
BUG	e P	Z	20:25:24.6	73.1	354.7	1.1	10	4.9		
CLL	e P	Z	20:25:26.7	73.4	358.1	0.9	7	4.7		
NEUB	e P	Z	20:25:27.6	73.5	357.4	0.7	13	5.1		
FBE	e P	Z	20:25:29.6	73.8	358.3	1.0	10	4.8		
BRG	e P	Z	20:25:29.6	73.9	358.7	0.9	6	4.6		
MOX	e P	Z	20:25:30.8	74.1	357.3	1.2	9	4.7		
PLN	e P	Z	20:25:31.8	74.2	357.6	0.8	2	4.3		
TNS	e P	Z	20:25:32.5	74.4	355.5	1.0	5	4.5		
GUNZ	e P	Z	20:25:32.5	74.4	357.7	1.0	5	4.5		
WERN	e P	Z	20:25:33.2	74.4	357.8	1.3	10	4.7		
MANZ	e P	Z	20:25:34.6	74.7	357.6	1.4	6	4.4		
WLF	e P	Z	20:25:35.1	74.8	354.1	1.1	12	4.8		
ROTZ	e P	Z	20:25:36.3	75.0	357.7	1.0	5	4.5		
GRA1	e P	Z	20:25:36.5	75.0	357.1	1.1	11	4.8		
WET	e P	Z	20:25:39.8	75.6	358.1	1.3	6	4.5		
GEC2	e P	Z	20:25:41.3	75.9	358.6	0.9	4	4.5		
BFO	e P	Z	20:25:42.8	76.2	355.4	1.2	5	4.5		
RJOB	e P	Z	20:25:47.5	77.0	358.0	0.8	6	4.8		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/24 23:48:35.2 36.290N 72.130E 137.9 4.7
 Afghanistan-Tajikistan border region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	23:56:25.0	43.3	86.3	1.5	19	4.6		
	e pP	Z	23:56:56.1							
RGN	e P	Z	23:56:27.6	43.6	89.7	1.1	62	5.3		
	e pP	Z	23:56:58.6							
FBE	e P	Z	23:56:28.2	43.7	86.0	1.6	31	4.8		
CLL	e P	Z	23:56:29.1	43.9	86.1	1.6	17	4.5		
TANN	e P	Z	23:56:32.8	44.3	84.8	1.1	5	4.2		
	e pP	Z	23:57:04.1							
GUNZ	e P	Z	23:56:33.6	44.4	84.6	1.2	7	4.5		
	e pP	Z	23:57:04.8							
WERD	e P	Z	23:56:33.5	44.4	84.7	1.2	6	4.4		
	e pP	Z	23:57:04.7							
ROTZ	e P	Z	23:56:35.1	44.5	84.0	1.3	11	4.6		
	e pP	Z	23:57:06.2							
MANZ	e P	Z	23:56:35.0	44.6	84.1	1.1	8	4.5		
	e pP	Z	23:57:06.5							
NEUB	e P	Z	23:56:35.7	44.7	85.1	1.0	14	4.8		

	e pP	Z	23:57:06.6						
MOX	e P	Z	23:56:37.0	44.8	84.4	1.1	7	4.5	
GRA1	e P	Z	23:56:40.5	45.2	83.2	1.2	16	4.8	
	e pP	Z	23:57:11.6						
BSEG	e P	Z	23:56:41.4	45.4	86.7	0.9	14	5.0	
CLZ	e P	Z	23:56:42.3	45.5	84.7	1.2	13	4.8	
	e pP	Z	23:57:13.5						
IBBN	e P	Z	23:56:54.4	47.0	83.2	1.2	21	5.1	
	e pP	Z	23:57:25.7						
WLF	e P	Z	23:57:05.5	48.4	79.8	1.1	12	4.8	
	e pP	Z	23:57:36.9						

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/25 07:28:56.5 7.439N 93.030E 34.5 5.0 4.4
 Nicobar Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	07:40:47.4	77.4	93.8	1.5	25	5.1		
	e pP	Z	07:40:57.6							
GEC2	e P	Z	07:40:47.8	77.4	93.1	0.9	10	5.0		
	e pP	Z	07:40:57.7							
FBE	e P	Z	07:40:50.0	77.7	93.3	1.3	33	5.3		
	e pP	Z	07:40:59.8							
WET	e P	Z	07:40:50.9	77.9	92.6	1.4	16	4.9		
	e pP	Z	07:41:00.7							
CLL	e P	Z	07:40:50.7	78.0	93.1	1.2	15	5.0		
	e pP	Z	07:41:00.6							
TANN	e P	Z	07:40:52.6	78.3	92.5	1.3	12	4.9		
	e pP	Z	07:41:02.4							
WERN	e P	Z	07:40:53.1	78.3	92.4	1.2	10	4.8		
	e pP	Z	07:41:03.0							
GUNZ	e P	Z	07:40:53.3	78.3	92.4	1.1	17	5.1		
	e pP	Z	07:41:03.0							
WERD	e P	Z	07:40:53.1	78.4	92.4	1.3	16	5.0		
	e pP	Z	07:41:03.1							
ROTZ	e P	Z	07:40:53.9	78.4	92.2	1.2	20	5.1		
	e pP	Z	07:41:03.9							
PLN	e P	Z	07:40:53.7	78.5	92.3	1.2	11	4.9		
	e pP	Z	07:41:03.7							
MANZ	e P	Z	07:40:54.3	78.5	92.1	1.2	28	5.2		
	e pP	Z	07:41:04.3							
NEUB	e P	Z	07:40:54.9	78.7	92.1	1.1	25	5.2		
MOX	e P	Z	07:40:55.8	78.8	91.9	1.4	19	4.9		
	e pP	Z	07:41:05.7							
	e L	Z	08:20:10.0			21.3	200		4.4	
GRA1	e P	Z	07:40:57.5	79.0	91.4	0.9	21	5.2		
	e pP	Z	07:41:07.3							

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	e L	Z	08:22:31.7			18.8	169	4.4
CLZ	e P	Z	07:41:00.1	79.6	91.1	0.9	13	4.9
	e pP	Z	07:41:10.4					
BSEG	e P	Z	07:41:00.8	79.7	91.5	1.2	26	5.0
	e pP	Z	07:41:10.9					
TNS	e P	Z	07:41:06.9	80.8	89.4	1.3	19	5.0
BFO	e P	Z	07:41:06.9	80.9	89.0	1.2	13	4.8
	e pP	Z	07:41:16.9					
IBBN	e P	Z	07:41:08.7	81.2	89.2	1.4	31	5.2
	e pP	Z	07:41:19.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/25	15:23:17.3	28.820N	131.488E	43.0G	4.9	4.2		NEIC
Southeast of Ryukyu Islands, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 15:35:40.3	83.2	51.5	0.8	6	4.9		
CLL	e P	Z 15:35:41.2	83.4	50.8	0.8	20	5.4		
FBE	e P	Z 15:35:42.0	83.5	51.0	0.8	15	5.2		
NEUB	e P	Z 15:35:44.8	84.0	49.9	0.8	28	5.6		
TANN	e P	Z 15:35:45.5	84.2	50.4	0.9	4	4.6		
WERD	e P	Z 15:35:45.8	84.3	50.2	1.2	6	4.7		
CLZ	e P	Z 15:35:46.1	84.3	48.9	1.0	14	5.2		
GUNZ	e P	Z 15:35:46.2	84.3	50.3	0.9	7	4.9		
WERN	e P	Z 15:35:46.3	84.3	50.3	0.9	9	5.0		
MOX	e L	Z 16:17:44.4	84.5	49.8	18.3	117		4.3	
MANZ	e P	Z 15:35:47.9	84.7	50.1	1.1	4	4.6		
ROTZ	e P	Z 15:35:48.6	84.8	50.1	0.9	4	4.6		
WET	e P	Z 15:35:48.6	84.8	50.6	1.1	3	4.4		
GRA1	e L	Z 16:17:48.6	85.3	49.4	20.0	106		4.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/25	17:09: 5.0	16.237N	96.606W	33.0G	5.0	4.6		SZGRF
Oaxaca, Mexico								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 17:21:40.9	85.6	290.1	1.5	40	5.3		
IBBN	e P	Z 17:21:40.9	85.7	291.1	1.1	24	5.2		
BUG	e P	Z 17:21:40.7	85.7	290.8	1.3	19	5.1		
BSEG	e P	Z 17:21:44.7	86.5	293.0	1.2	14	5.0		
TNS	e P	Z 17:21:46.4	86.8	291.8	1.1	14	5.0		
BFO	e P	Z 17:21:48.9	87.5	291.8	1.5	9	4.9		
UBBA	e P	Z 17:21:49.3	87.5	292.9	2.3	28	5.2		
MOX	e P	Z 17:21:54.2	88.5	294.2	1.2	7	4.8		
	e L	Z 18:02:04.1			20.4	221		4.6	

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GRA1	e P	Z	17:21:55.4	88.7	293.9	1.8	19	5.0	
	e L	Z	17:59:25.4			21.7	211		4.5
PLN	e P	Z	17:21:56.1	88.9	294.6	1.5	14	5.0	
WERD	e P	Z	17:21:56.6	89.0	294.7	1.2	8	4.8	
CLL	e P	Z	17:21:56.4	89.0	295.2	1.1	8	4.9	
GUNZ	e P	Z	17:21:56.9	89.1	294.7	1.1	7	4.8	
MANZ	e P	Z	17:21:57.0	89.1	294.6	1.1	7	4.8	
TANN	e P	Z	17:21:57.1	89.1	294.8	1.2	11	5.0	
WERN	e P	Z	17:21:57.3	89.1	294.8	1.2	12	5.0	
ROTZ	e P	Z	17:21:57.9	89.2	294.6	1.2	6	4.7	
FBE	e P	Z	17:21:58.7	89.4	295.5	1.2	12	5.0	
BRG	e P	Z	17:22:00.0	89.8	296.0	1.2	11	4.9	
WET	e P	Z	17:22:01.0	89.9	295.2	1.2	10	4.9	
RJOB	e P	Z	17:22:03.3	90.4	295.1	1.7	14	5.0	
GEC2	e P	Z	17:22:03.6	90.5	295.8	1.4	8	4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/25	20:55:39.8	25.661S	176.688W	37.0G				NEIC
South of Fiji Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	21:15:29.1	151.3	13.2					
RUE	e PKPbc	Z	21:15:31.0	152.0	20.4					
CLZ	e PKPbc	Z	21:15:33.9	153.3	14.3					
CLL	e PKPbc	Z	21:15:33.7	153.3	19.7					
BRG	e PKPbc	Z	21:15:34.2	153.5	21.9					
	e PKPab	Z	21:15:46.3							
FBE	e PKPbc	Z	21:15:34.8	153.6	20.7					
	e PKPab	Z	21:15:47.1							
NEUB	e PKPab	Z	21:15:46.8	153.6	17.4					
BUG	e PKPbc	Z	21:15:34.9	154.0	8.2					
MOX	e PKPbc	Z	21:15:35.6	154.2	17.4					
PLN	e PKPbc	Z	21:15:35.8	154.3	18.6					
	e PKPab	Z	21:15:48.3							
TANN	e PKPbc	Z	21:15:35.8	154.3	19.3					
WERD	e PKPbc	Z	21:15:35.9	154.3	18.9					
	e PKPab	Z	21:15:49.6							
GUNZ	e PKPab	Z	21:15:49.8	154.3	19.0					
WERN	e PKPab	Z	21:15:50.5	154.4	19.2					
MANZ	e PKPbc	Z	21:15:36.9	154.7	18.8					
GRA1	e PKPab	Z	21:15:53.5	155.2	17.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/26	00:18:33.5	26.100N	129.400E	30.0	4.9	4.5		NEIC
Ryukyu Islands, Japan								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	00:31:01.1	83.5	54.6	1.3	30	5.4		
BSEG	e P	Z	00:31:04.9	84.3	52.1	1.0	14	5.1		
BRG	e P	Z	00:31:05.1	84.4	54.6	1.0	8	4.9		
CLL	e P	Z	00:31:06.0	84.6	53.9	1.0	11	5.1		
FBE	e P	Z	00:31:06.9	84.7	54.1	1.0	12	5.1		
NEUB	e P	Z	00:31:09.8	85.3	53.0	0.8	8	4.9		
TANN	e P	Z	00:31:10.4	85.4	53.4	2.6	28	4.9		
WERD	e P	Z	00:31:10.6	85.5	53.3	1.4	4	4.4		
GUNZ	e P	Z	00:31:10.9	85.5	53.3	1.5	14	4.9		
PLN	e P	Z	00:31:11.0	85.5	53.2	1.9	9	4.5		
WERN	e P	Z	00:31:11.2	85.5	53.4	1.4	8	4.7		
GEC2	e P	Z	00:31:11.7	85.7	54.2	1.2	7	4.6		
MOX	e L	Z	01:18:09.2	85.7	52.8	18.9	112		4.3	
ROTZ	e P	Z	00:31:13.5	85.9	53.2	1.1	7	4.7		
WET	e P	Z	00:31:13.2	86.0	53.7	1.5	7	4.6		
GRA1	e L	Z	01:14:06.3	86.5	52.5	18.2	296		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/26	05:30:23.0	10.130S	162.110E	44.9		6.9		SZGRF

Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PP	Z	05:51:35.3	129.2	41.1					
RUE	e PKPdf	Z	05:49:29.3	130.5	42.8					
	e pPKPdf	Z	05:49:42.5							
	e PP	Z	05:51:43.6							
BSEG	e PKPdf	Z	05:49:29.5	130.8	37.9					
	e pPKPdf	Z	05:49:43.0							
	e PP	Z	05:51:46.0							
HLG	e PP	Z	05:51:50.3	131.4	34.8					
BRG	e PKPdf	Z	05:49:31.1	131.6	44.0					
	e pPKPdf	Z	05:49:44.6							
	e PP	Z	05:51:51.0							
CLL	e PKPdf	Z	05:49:31.1	131.7	42.6					
	e pPKPdf	Z	05:49:44.6							
	e PP	Z	05:51:51.4							
FBE	e PKPdf	Z	05:49:31.7	131.8	43.3					
	e pPKPdf	Z	05:49:45.2							
NEUB	e PKPdf	Z	05:49:32.4	132.3	41.2					
	e pPKPdf	Z	05:49:45.9							
	e PP	Z	05:51:55.1							
CLZ	e PKPdf	Z	05:49:33.0	132.4	39.1					
	e pPKPdf	Z	05:49:46.3							
	e PP	Z	05:51:56.3							
TANN	e PKPdf	Z	05:49:33.0	132.6	42.5					

	e pPKPdf	Z	05:49:46.8					
	e PP	Z	05:51:57.5					
WERD	e PKPdf	Z	05:49:33.1	132.6	42.3			
	e pPKPdf	Z	05:49:46.8					
PLN	e PKPdf	Z	05:49:33.3	132.7	42.1			
	e pPKPdf	Z	05:49:46.9					
GUNZ	e PKPdf	Z	05:49:33.5	132.7	42.4			
	e pPKPdf	Z	05:49:47.0					
WERN	e PKPdf	Z	05:49:33.5	132.7	42.5			
	e pPKPdf	Z	05:49:47.1					
MOX	e PKPdf	Z	05:49:33.3	132.8	41.3			
	e pPKPdf	Z	05:49:47.0					
	e PP	Z	05:51:58.7					
	e L	Z	06:51:04.4			21.9	19742	6.8
IBBN	e PKPdf	Z	05:49:33.5	133.0	35.6			
	e pPKPdf	Z	05:49:47.4					
	e PP	Z	05:51:59.9					
MANZ	e PKPdf	Z	05:49:33.9	133.1	42.4			
	e pPKPdf	Z	05:49:47.8					
	e PP	Z	05:52:00.6					
GEC2	e PKPdf	Z	05:49:34.1	133.2	45.0			
	e pPKPdf	Z	05:49:47.4					
	e PP	Z	05:52:01.0					
ROTZ	e PKPdf	Z	05:49:34.2	133.2	42.6			
	e pPKPdf	Z	05:49:47.9					
	e PP	Z	05:52:01.5					
UBBA	e PKPdf	Z	05:49:34.3	133.3	39.3			
	e pPKPdf	Z	05:49:47.8					
	e PP	Z	05:52:01.8					
WET	e PKPdf	Z	05:49:34.6	133.3	43.8			
	e pPKPdf	Z	05:49:48.1					
	e PP	Z	05:52:02.4					
GRA1	e PKPdf	Z	05:49:34.9	133.7	41.5			
	e PP	Z	05:52:04.5					
	e L	Z	06:48:54.5			22.0	28077	6.9
BUG	e PKPdf	Z	05:49:35.3	133.9	35.5			
	e PP	Z	05:52:05.6					
RJOB	e PKPdf	Z	05:49:35.8	134.4	44.7			
	e PP	Z	05:52:09.2					
TNS	e PKPdf	Z	05:49:36.1	134.4	37.7			
	e pPKPdf	Z	05:49:50.0					
	e PP	Z	05:52:09.2					
FUR	e PKPdf	Z	05:49:37.1	134.8	42.5			
	e pPKPdf	Z	05:49:50.4					
	e PP	Z	05:52:11.6					
STU	e PKPdf	Z	05:49:37.9	135.2	39.5			
	e PP	Z	05:52:14.6					
WLF	e PP	Z	05:52:18.1	135.7	35.1			
BFO	e PP	Z	05:52:19.2	135.9	38.7			

Date Origin Time
2010/06/26 09:50:39.4
Jawa, Indonesia

Lat Long Depth mb Ms ML Source
7.500S 108.660E 33.0G NEIC

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e Pdiff	Z	10:04:15.8	98.8	91.1					
	e PP	Z	10:08:17.2							
GEC2	e Pdiff	Z	10:04:16.3	98.9	91.2					
	e PP	Z	10:08:17.3							
RUE	e PP	Z	10:08:17.6	98.9	90.7					
RGN	e PP	Z	10:08:20.6	99.2	90.0					
CLL	e Pdiff	Z	10:04:17.9	99.4	90.3					
	e PP	Z	10:08:21.2							
WET	e Pdiff	Z	10:04:18.8	99.4	90.6					
	e PP	Z	10:08:21.7							
RJOB	e PP	Z	10:08:22.4	99.5	90.7					
TANN	e Pdiff	Z	10:04:19.8	99.7	90.0					
	e PP	Z	10:08:24.6							
WERN	e Pdiff	Z	10:04:20.3	99.8	90.0					
GUNZ	e Pdiff	Z	10:04:20.4	99.8	89.9					
WERD	e Pdiff	Z	10:04:20.3	99.8	89.9					
ROTZ	e Pdiff	Z	10:04:21.1	99.9	90.0					
	e PP	Z	10:08:26.0							
PLN	e Pdiff	Z	10:04:20.8	99.9	89.8					
MANZ	e Pdiff	Z	10:04:21.4	99.9	89.8					
	e PP	Z	10:08:26.7							
NEUB	e PP	Z	10:08:27.2	100.1	89.4					
MOX	e Pdiff	Z	10:04:22.1	100.3	89.3					
	e PP	Z	10:08:28.7							
FUR	e PP	Z	10:08:30.4	100.5	89.5					
GRA1	e PP	Z	10:08:31.2	100.5	89.2					
BSEG	e Pdiff	Z	10:04:25.9	101.0	87.7					
	e PP	Z	10:08:33.7							
CLZ	e Pdiff	Z	10:04:25.8	101.0	88.1					
	e PP	Z	10:08:34.2							
UBBA	e PP	Z	10:08:35.9	101.3	88.1					
STU	e PP	Z	10:08:40.3	101.9	87.9					
TNS	e Pdiff	Z	10:04:31.6	102.3	87.0					
	e PP	Z	10:08:44.1							
BFO	e PP	Z	10:08:44.6	102.5	87.3					
IBBN	e PP	Z	10:08:46.0	102.6	86.0					
BUG	e PP	Z	10:08:49.0	103.0	85.8					
WLF	e PP	Z	10:08:55.2	103.8	85.3					

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/26	18:40:14.1	4.600S	77.200W	112.0				NEIC

Northern Peru

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e PcP	Z	18:52:58.3	89.2	262.0					
BUG	e PcP	Z	18:53:02.6	90.2	262.8					
IBBN	e PcP	Z	18:53:04.6	90.6	263.2					
TNS	e PcP	Z	18:53:05.4	90.8	263.7					
STU	e PcP	Z	18:53:06.7	91.1	264.3					
CLZ	e PcP	Z	18:53:12.2	92.1	265.3					
BSEG	e PcP	Z	18:53:12.8	92.3	265.3					
MOX	e PcP	Z	18:53:15.0	92.8	266.2					
NEUB	e PcP	Z	18:53:15.7	92.9	266.3					
MANZ	e PcP	Z	18:53:16.6	93.1	266.5					
ROTZ	e PcP	Z	18:53:16.9	93.1	266.6					
PLN	e PcP	Z	18:53:16.7	93.1	266.6					
WERD	e PcP	Z	18:53:17.1	93.2	266.7					
GUNZ	e PcP	Z	18:53:17.3	93.2	266.7					
WERN	e PcP	Z	18:53:17.5	93.3	266.7					
TANN	e PcP	Z	18:53:17.7	93.3	266.8					
WET	e PcP	Z	18:53:18.3	93.5	267.0					
CLL	e PcP	Z	18:53:19.2	93.7	267.3					
FBE	e PcP	Z	18:53:20.6	93.9	267.5					
GEC2	e PcP	Z	18:53:20.4	94.1	267.6					
BRG	e PcP	Z	18:53:22.0	94.3	268.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/26	21:43:31.3	34.710N	24.770E	31.0	3.8			NOA

Crete, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	21:47:18.1	16.7	146.5	0.8	5	3.7		
WET	e P	Z	21:47:23.9	17.2	144.9	1.0	6	3.7		
MANZ	e P	Z	21:47:34.4	18.2	144.6	0.9	3	3.4		
WERN	e P	Z	21:47:37.8	18.3	145.8	0.7	3	3.6		
TANN	e P	Z	21:47:38.4	18.4	146.2	0.8	2	3.4		
BFO	e P	Z	21:47:40.5	18.6	132.9	0.6	4	3.9		
MOX	e P	Z	21:47:42.4	18.9	144.6	0.6	2	3.5		
NEUB	e P	Z	21:47:47.4	19.3	145.9	1.0	10	4.0		
TNS	e P	Z	21:47:55.5	19.9	136.9	0.8	6	3.8		
WLF	e P	Z	21:48:03.9	20.5	131.3	0.7	14	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/27	06:32:12.3	12.952N	46.467E	33.0G	5.1			SZGRF

Western Gulf of Aden

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 06:40:25.1	44.9	131.7	1.1	32	5.2		
WET	e P	Z 06:40:29.0	45.5	130.9	1.9	35	5.0		
FUR	e P	Z 06:40:31.0	45.7	128.3	0.9	23	5.2		
BRG	e P	Z 06:40:34.8	46.2	133.4	1.0	11	4.9		
ROTZ	e P	Z 06:40:35.1	46.3	130.6	1.4	23	5.0		
MANZ	e P	Z 06:40:36.3	46.5	130.6	1.1	13	4.9		
FBE	e P	Z 06:40:37.3	46.5	132.8	1.1	17	5.0		
WERN	e P	Z 06:40:37.6	46.5	131.2	1.4	18	4.9		
TANN	e P	Z 06:40:37.8	46.6	131.4	1.3	16	5.0		
GUNZ	e P	Z 06:40:38.0	46.6	131.2	1.2	26	5.2		
WERD	e P	Z 06:40:38.4	46.7	131.2	1.0	28	5.3		
GRA1	e P	Z 06:40:38.3	46.7	129.4	1.3	21	5.1		
	e L	Z 07:01:54.3			19.6	137			
PLN	e P	Z 06:40:39.4	46.8	131.1	1.2	29	5.3		
CLL	e P	Z 06:40:40.4	46.9	132.6	1.1	16	5.0		
MOX	e P	Z 06:40:42.1	47.1	130.5	1.1	19	5.1		
	e L	Z 07:04:03.9			18.9	156			
STU	e P	Z 06:40:42.3	47.2	126.4	1.3	26	5.2		
BFO	e P	Z 06:40:44.3	47.4	125.1	1.3	29	5.2		
NEUB	e P	Z 06:40:44.2	47.4	131.1	1.2	22	5.1		
CLZ	e P	Z 06:40:52.6	48.5	129.9	1.2	17	5.1		
WLF	e P	Z 06:40:59.4	49.3	123.8	1.0	27	5.2		

Date Origin Time Lat Long Depth mb Ms ML Source
2010/06/27 08:47:42.6 4.400S 101.400E 27.0 5.1 NEIC
Southern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e PcP	Z 09:00:48.6	91.8	94.6					
BRG	e PcP	Z 09:00:48.7	91.8	94.7					
RUE	e PcP	Z 09:00:49.6	92.0	94.6					
FBE	e PcP	Z 09:00:50.7	92.2	94.3					
RJOB	e PcP	Z 09:00:50.3	92.3	94.0					
WET	e PcP	Z 09:00:51.2	92.4	94.0					
CLL	e PcP	Z 09:00:51.3	92.4	94.0					
TANN	e PcP	Z 09:00:52.8	92.7	93.6					
WERN	e PcP	Z 09:00:53.1	92.8	93.6					
GUNZ	e PcP	Z 09:00:53.4	92.8	93.5					
WERD	e PcP	Z 09:00:53.3	92.8	93.5					
ROTZ	e PcP	Z 09:00:53.8	92.8	93.5					
PLN	e PcP	Z 09:00:53.8	92.9	93.4					
MANZ	e PcP	Z 09:00:54.2	92.9	93.4					
NEUB	e PcP	Z 09:00:54.8	93.2	93.1					
MOX	e PcP	Z 09:00:55.3	93.3	93.0					

	e L	Z	09:53:43.5			20.3	537	5.0
GRA1	e PcP	Z	09:00:56.6	93.5	92.7			
	e L	Z	09:52:43.6			19.5	905	5.2
CLZ	e PcP	Z	09:00:59.0	94.1	91.9			
BSEG	e PcP	Z	09:00:59.5	94.2	91.7			
UBBA	e PcP	Z	09:00:59.7	94.3	91.7			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/27	09:43:56.7	13.930N	96.905E	33.0N	4.9			SZGRF

Andaman Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	09:55:33.9	74.8	86.5	1.0	13	4.9		
RUE	e P	Z	09:55:34.1	74.8	86.8	0.7	20	5.2		
GEC2	e P	Z	09:55:35.4	75.1	85.7	1.1	11	4.8		
FBE	e P	Z	09:55:36.3	75.2	86.0	0.9	16	5.1		
WET	e P	Z	09:55:38.4	75.6	85.2	1.1	9	4.8		
TANN	e P	Z	09:55:39.3	75.8	85.2	1.2	8	4.7		
WERN	e P	Z	09:55:39.8	75.9	85.1	1.0	6	4.7		
GUNZ	e P	Z	09:55:40.0	75.9	85.1	1.4	13	4.9		
WERD	e P	Z	09:55:39.8	75.9	85.1	1.0	7	4.7		
PLN	e P	Z	09:55:40.4	76.0	85.0	0.9	6	4.7		
ROTZ	e P	Z	09:55:41.2	76.0	84.9	1.2	16	5.0		
MANZ	e P	Z	09:55:41.3	76.1	84.8	1.3	14	4.9		
MOX	e P	Z	09:55:42.1	76.3	84.6	1.1	10	4.9		
GRA1	e P	Z	09:55:44.6	76.7	84.1	1.2	17	5.1		
CLZ	e P	Z	09:55:46.4	77.0	84.0	1.3	19	5.1		
UBBA	e P	Z	09:55:47.5	77.3	83.4	2.3	50	5.2		
IBBN	e P	Z	09:55:54.9	78.5	82.0	1.2	30	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/27	10:51:47.2	13.282N	95.758E	30.0	4.8	4.3		NEIC

Andaman Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	11:03:24.5	74.6	87.8	1.1	12	4.8		
RUE	e P	Z	11:03:24.9	74.6	88.1	1.8	59	5.3		
GEC2	e P	Z	11:03:25.9	74.8	87.0	1.2	14	4.8		
FBE	e P	Z	11:03:27.0	75.0	87.3	0.9	11	4.9		
CLL	e P	Z	11:03:27.4	75.2	87.2	1.3	9	4.6		
WET	e P	Z	11:03:29.0	75.4	86.5	1.5	13	4.7		
TANN	e P	Z	11:03:30.0	75.6	86.5	1.3	6	4.6		
GUNZ	e P	Z	11:03:30.5	75.6	86.4	1.3	10	4.8		
WERD	e P	Z	11:03:30.7	75.7	86.4	1.0	5	4.6		
ROTZ	e P	Z	11:03:31.9	75.8	86.2	1.2	11	4.9		

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MANZ	e P	Z	11:03:31.9	75.8	86.1	1.1	7	4.7
MOX	e P	Z	11:03:33.0	76.1	85.9	1.0	6	4.6
	e L	Z	11:42:06.6			20.4	153	4.3
GRA1	e L	Z	11:41:41.9	76.4	85.4	21.6	160	4.3
BSEG	e P	Z	11:03:36.5	76.6	85.7	1.2	14	5.0
CLZ	e P	Z	11:03:37.1	76.8	85.3	1.4	17	5.0
TNS	e P	Z	11:03:44.6	78.1	83.4	0.9	7	4.8
IBBN	e P	Z	11:03:45.7	78.3	83.3	1.1	14	5.0
BUG	e P	Z	11:03:47.8	78.7	82.8	1.3	14	4.8
WLF	e P	Z	11:03:51.4	79.7	81.6	1.3	13	4.7

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/27 14:19:14.6 9.046S 160.965E 31.0
 Bougainville - Solomon Islands region NEIC

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	14:38:20.9	129.3	38.7					
BRG	e PKPdf	Z	14:38:22.4	130.1	44.7					
CLL	e PKPdf	Z	14:38:22.3	130.2	43.3					
FBE	e PKPdf	Z	14:38:23.1	130.4	44.0					
CLZ	e PKPdf	Z	14:38:24.2	130.9	39.9					
TANN	e PKPdf	Z	14:38:24.3	131.1	43.2					
WERD	e PKPdf	Z	14:38:24.5	131.2	43.0					
PLN	e PKPdf	Z	14:38:24.5	131.2	42.8					
GUNZ	e PKPdf	Z	14:38:24.6	131.2	43.1					
WERN	e PKPdf	Z	14:38:24.7	131.3	43.2					
MANZ	e PKPdf	Z	14:38:25.2	131.6	43.1					
GEC2	e PKPdf	Z	14:38:25.2	131.7	45.7					
WET	e PKPdf	Z	14:38:25.7	131.9	44.5					
GRA1	e PKPdf	Z	14:38:26.2	132.2	42.2					
STU	e PKPdf	Z	14:38:29.3	133.8	40.3					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/27 21:03:30.3 42.766N 141.895E 33.0G 5.1
 Hokkaido, Japan, region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	21:14:59.1	73.3	36.8	1.3	53	5.4		
RUE	e P	Z	21:15:07.4	74.8	36.8	1.2	45	5.4		
BSEG	e P	Z	21:15:07.9	74.8	34.7	1.1	36	5.3		
HLG	e P	Z	21:15:11.2	75.4	33.1	0.8	28	5.5		
BRG	e P	Z	21:15:14.2	76.0	36.6	1.0	10	4.9		
CLL	e P	Z	21:15:14.0	76.0	36.1	1.0	21	5.2		
FBE	e P	Z	21:15:15.5	76.2	36.3	1.1	20	5.2		
CLZ	e P	Z	21:15:17.5	76.5	34.4	1.0	25	5.3		

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NEUB	e P	Z	21:15:17.1	76.5	35.3	0.9	26	5.4
TANN	e P	Z	21:15:19.5	76.9	35.6	1.1	8	4.7
WERD	e P	Z	21:15:19.6	77.0	35.5	1.2	12	4.9
PLN	e P	Z	21:15:19.8	77.0	35.4	1.2	10	4.8
IBBN	e P	Z	21:15:20.0	77.0	32.7	0.8	24	5.4
GUNZ	e P	Z	21:15:20.1	77.0	35.5	1.1	12	4.9
MOX	e P	Z	21:15:20.1	77.1	35.1	1.2	15	5.0
WERN	e P	Z	21:15:20.4	77.1	35.5	1.1	18	5.1
MANZ	e P	Z	21:15:22.2	77.4	35.3	1.0	8	4.8
UBBA	e P	Z	21:15:22.2	77.5	34.0	1.5	13	4.8
ROTZ	e P	Z	21:15:23.4	77.6	35.3	1.2	16	5.0
GEC2	e P	Z	21:15:23.8	77.7	36.2	1.0	9	4.8
WET	e P	Z	21:15:24.6	77.8	35.7	1.1	17	5.1
BUG	e P	Z	21:15:24.8	77.9	32.3	1.1	21	5.2
GRA1	e P	Z	21:15:25.7	78.0	34.7	1.0	32	5.4
TNS	e P	Z	21:15:28.4	78.5	32.9	1.0	9	4.8
RJOB	e P	Z	21:15:31.2	79.0	35.5	0.9	20	5.2
FUR	e P	Z	21:15:32.3	79.2	34.6	0.9	32	5.2
BFO	e P	Z	21:15:37.0	80.2	32.7	1.3	23	4.9

Date 2010/06/27 Origin Time 23:48:13.7 Lat 13.159N Long 121.638E Depth 33.0N mb 5.2 Ms ML Source SZGRF
Mindoro, Philippine Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 00:01:13.0	90.6	68.1	1.0	16	5.2		
FBE	e P	Z 00:01:14.7	90.9	67.6	2.6	152	5.9		
CLL	e P	Z 00:01:14.2	91.0	67.3	1.2	15	5.2		
GEC2	e P	Z 00:01:16.9	91.5	67.9	1.3	14	5.1		
TANN	e P	Z 00:01:17.6	91.6	66.9	1.1	10	5.0		
WERD	e P	Z 00:01:17.9	91.7	66.8	1.1	12	5.1		
NEUB	e P	Z 00:01:18.2	91.7	66.4	1.4	29	5.4		
GUNZ	e P	Z 00:01:18.3	91.7	66.8	1.0	16	5.3		
WERN	e P	Z 00:01:18.2	91.7	66.9	0.9	9	5.1		
PLN	e P	Z 00:01:18.4	91.8	66.7	1.4	18	5.2		
WET	e P	Z 00:01:18.9	91.9	67.3	1.6	17	5.1		
MANZ	e P	Z 00:01:19.7	92.0	66.7	1.6	16	5.1		
MOX	e P	Z 00:01:19.3	92.0	66.3	1.0	10	5.1		
ROTZ	e P	Z 00:01:19.9	92.0	66.8	1.3	17	5.2		
CLZ	e P	Z 00:01:20.9	92.2	65.2	1.7	19	5.2		
GRA1	e P	Z 00:01:22.4	92.6	66.0	1.3	14	5.1		
UBBA	e P	Z 00:01:23.3	92.9	65.0					

Date 2010/06/28 Origin Time 00:18:13.5 Lat 18.270S Long 168.020E Depth 64.0G mb Ms ML Source NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 00:37:38.4	143.5	39.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/28	12:07:28.3	30.970N	141.900E	31.6	5.9	5.5		SZGRF

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 12:19:56.7	83.7	42.4	1.0	111	6.0		
	e pP	Z 12:20:05.8							
RUE	e P	Z 12:20:03.3	85.1	42.6	1.6	162	6.0		
	e pP	Z 12:20:12.5							
HLG	e P	Z 12:20:08.2	86.1	38.2	3.2	857	6.3		
	e pP	Z 12:20:17.3							
BRG	e P	Z 12:20:08.5	86.2	42.7	2.1	168	5.8		
	e pP	Z 12:20:17.7							
CLL	e P	Z 12:20:08.6	86.3	42.0	2.2	182	5.8		
	e pP	Z 12:20:17.8							
FBE	e P	Z 12:20:09.8	86.4	42.2	1.2	65	5.6		
	e pP	Z 12:20:19.0							
NEUB	e P	Z 12:20:11.7	86.9	41.0	2.0	212	5.9		
	e pP	Z 12:20:20.9							
TANN	e P	Z 12:20:13.3	87.2	41.5	1.9	64	5.4		
	e pP	Z 12:20:22.6							
	e PP	Z 12:23:39.3							
WERD	e P	Z 12:20:13.4	87.2	41.4	2.0	100	5.6		
	e pP	Z 12:20:22.7							
	e PP	Z 12:23:39.5							
PLN	e P	Z 12:20:14.0	87.2	41.3	2.9	294	6.1		
	e pP	Z 12:20:23.2							
	e PP	Z 12:23:39.6							
GUNZ	e P	Z 12:20:13.8	87.3	41.4	2.2	143	5.9		
	e pP	Z 12:20:23.0							
	e PP	Z 12:23:39.8							
WERN	e P	Z 12:20:14.0	87.3	41.5	2.0	100	5.8		
	e pP	Z 12:20:23.3							
	e PP	Z 12:23:40.2							
MOX	e P	Z 12:20:14.1	87.3	40.9	1.9	59	5.6		
	e pP	Z 12:20:23.3							
	e PP	Z 12:23:40.5							
IBBN	e P	Z 12:20:15.3	87.6	38.0	3.2	909	6.5		
	e pP	Z 12:20:24.4							
MANZ	e P	Z 12:20:15.7	87.6	41.3	1.7	54	5.6		
	e pP	Z 12:20:24.9							
	e PP	Z 12:23:42.9							

./2010/bul1006.txt

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ROTZ	e P	Z	12:20:16.5	87.8	41.3	2.7	249	6.1	
	e pP	Z	12:20:25.8						
	e PP	Z	12:23:44.0						
GEC2	e P	Z	12:20:16.0	87.8	42.4	2.4	103	5.7	
	e pP	Z	12:20:25.2						
	e PP	Z	12:23:44.4						
UBBA	e P	Z	12:20:16.6	87.9	39.7	2.0	76	5.7	
	e pP	Z	12:20:25.9						
	e PP	Z	12:23:43.6						
WET	e P	Z	12:20:17.0	87.9	41.8	2.2	82	5.7	
	e pP	Z	12:20:26.3						
	e PP	Z	12:23:45.8						
GRA1	e P	Z	12:20:18.6	88.2	40.6	2.2	224	6.0	
	e pP	Z	12:20:27.9						
	e L	Z	13:02:39.3			19.9	2033		5.5
BUG	e P	Z	12:20:19.1	88.5	37.6	2.8	337	6.1	
	e pP	Z	12:20:28.4						
TNS	e P	Z	12:20:21.8	89.0	38.5	3.0	220	5.9	
	e pP	Z	12:20:31.0						
	e PP	Z	12:23:53.4						
RJOB	e P	Z	12:20:22.1	89.0	41.7				
FUR	e pP	Z	12:20:31.3						
	e P	Z	12:20:23.8	89.4	40.6	1.9	198	6.0	
	e pP	Z	12:20:33.0						
STU	e PP	Z	12:23:57.5						
	e P	Z	12:20:25.6	89.8	39.1				
	e pP	Z	12:20:34.8						
WLF	e PP	Z	12:24:00.5						
	e P	Z	12:20:28.5	90.3	36.8				
	e pP	Z	12:20:37.7						
BFO	e PP	Z	12:24:04.7						
	e P	Z	12:20:28.8	90.5	38.4				
	e pP	Z	12:20:38.0						

Date 2010/06/28 Origin Time 18:19: 8.2 Lat 8.950S Long 160.830E Depth 35.0G mb Ms ML Source NEIC
 Bougainville - Solomon Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z 18:38:13.0	129.2	38.9					
HLG	e PKPdf	Z 18:38:14.4	129.9	35.8					
BRG	e PKPdf	Z 18:38:14.6	130.0	44.8					
CLL	e PKPdf	Z 18:38:14.5	130.1	43.4					
FBE	e PKPdf	Z 18:38:15.3	130.2	44.1					
TANN	e PKPdf	Z 18:38:16.6	131.0	43.3					
WERD	e PKPdf	Z 18:38:16.6	131.0	43.1					
PLN	e PKPdf	Z 18:38:16.8	131.1	42.9					

GUNZ	e	PKPdf	Z	18:38:16.9	131.1	43.2
WERN	e	PKPdf	Z	18:38:17.1	131.1	43.3
MOX	e	PKPdf	Z	18:38:16.9	131.2	42.2
IBBN	e	PKPdf	Z	18:38:17.4	131.4	36.6
MANZ	e	PKPdf	Z	18:38:17.7	131.5	43.2
GEC2	e	PKPdf	Z	18:38:17.7	131.5	45.7
ROTZ	e	PKPdf	Z	18:38:17.9	131.6	43.4
WET	e	PKPdf	Z	18:38:18.1	131.7	44.6
UBBA	e	PKPdf	Z	18:38:17.9	131.7	40.2
STU	e	PKPdf	Z	18:38:21.9	133.6	40.4
WLF	e	PKPdf	Z	18:38:23.4	134.1	36.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/28	23:14:35.0	18.230S	167.990E	30.0G				NEIC
Vanuatu Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e	PKPbc	Z	23:34:04.1	143.4	39.0			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/29	01:24:4.8	4.800S	153.820E	173.0G				NEIC
New Ireland, Papua New Guinea, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e	PKPdf	Z	01:42:44.4	125.2	47.8			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/29	11:48:28.0	49.591N	153.457E	33.0	5.7	5.0		SZGRF
Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e	P	Z	11:59:41.0	70.6	26.1	0.7	153	6.3
BSEG	e	P	Z	11:59:48.7	71.9	24.1	1.0	46	5.6
RUE	e	P	Z	11:59:51.0	72.4	26.1	0.9	78	5.8
CLL	e	P	Z	11:59:57.9	73.6	25.5	0.7	102	6.0
BRG	e	P	Z	11:59:58.7	73.8	26.0	0.8	34	5.4
CLZ	e	P	Z	11:59:59.9	73.8	23.9	1.3	119	5.7
FBE	e	P	Z	11:59:59.8	73.9	25.6	0.8	76	5.8
IBBN	e	P	Z	12:00:00.6	74.0	22.3	1.1	85	5.7
NEUB	e	P	Z	12:00:00.5	74.0	24.7	1.6	147	5.8
TANN	e	P	Z	12:00:03.8	74.6	25.0	1.8	96	5.5
WERD	e	P	Z	12:00:03.9	74.6	24.9	1.1	46	5.4
MOX	e	P	Z	12:00:03.9	74.6	24.5	1.3	71	5.5

PLN	e P	Z	12:00:04.0	74.6	24.9	0.9	40	5.4
GUNZ	e P	Z	12:00:04.4	74.7	25.0	0.8	51	5.6
WERN	e P	Z	12:00:04.7	74.7	25.0	0.7	73	5.8
UBBA	e P	Z	12:00:05.2	74.9	23.6	1.7	109	5.6
BUG	e P	Z	12:00:05.7	74.9	21.9	1.0	72	5.7
MANZ	e P	Z	12:00:06.6	75.1	24.8	0.9	41	5.4
ROTZ	e P	Z	12:00:08.0	75.2	24.8	1.0	60	5.7
GRA1	e P	Z	12:00:09.8	75.6	24.2	0.7	123	6.1
	e L	Z	12:37:36.9			21.0	772	5.0
WET	e P	Z	12:00:10.1	75.6	25.1	0.9	79	5.9
GEC2	e P	Z	12:00:09.8	75.7	25.6	0.7	46	5.7
TNS	e P	Z	12:00:10.8	75.8	22.5	0.8	70	5.8
STU	e P	Z	12:00:17.1	76.9	22.9	1.0	71	5.7
FUR	e P	Z	12:00:17.4	77.0	24.1	0.9	107	6.0
BFO	e P	Z	12:00:20.5	77.6	22.3	1.2	80	5.7

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/29 12:55:33.7 16.894S 172.295W 33.0G
 Samoa Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	13:15:00.4	142.9	4.1					
IBBN	e PKPbc	Z	13:15:05.3	144.6	0.1					
CLZ	e PKPbc	Z	13:15:06.6	145.0	4.5					
CLL	e PKPbc	Z	13:15:07.0	145.3	8.9					
BUG	e PKPbc	Z	13:15:07.8	145.5	359.3					
NEUB	e PKPbc	Z	13:15:08.0	145.5	6.9					
BRG	e PKPbc	Z	13:15:08.2	145.7	10.6					
FBE	e PKPbc	Z	13:15:08.7	145.7	9.6					
UBBA	e PKPbc	Z	13:15:09.5	146.0	3.9					
MOX	e PKPbc	Z	13:15:09.7	146.1	6.7					
PLN	e PKPbc	Z	13:15:10.1	146.2	7.7					
WERD	e PKPbc	Z	13:15:10.2	146.2	7.9					
TANN	e PKPbc	Z	13:15:10.3	146.3	8.2					
GUNZ	e PKPbc	Z	13:15:10.5	146.3	8.0					
WERN	e PKPbc	Z	13:15:10.9	146.4	8.1					
TNS	e PKPbc	Z	13:15:11.4	146.7	1.3					
MANZ	e PKPbc	Z	13:15:11.6	146.7	7.7					
ROTZ	e PKPbc	Z	13:15:12.3	146.9	7.9					
GRA1	e PKPbc	Z	13:15:12.8	147.1	6.2					
WLF	e PKPbc	Z	13:15:13.7	147.2	357.3					
WET	e PKPbc	Z	13:15:13.6	147.5	9.2					
GEC2	e PKPbc	Z	13:15:14.0	147.7	10.8					
BFO	e PKPbc	Z	13:15:16.4	148.6	1.1					
FUR	e PKPbc	Z	13:15:16.4	148.6	6.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/29	15:32:57.5	17.370S	172.770W	22.0G				NEIC

Tonga Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 15:52:33.0	145.8	9.8					
BRG	e PKPbc	Z 15:52:34.3	146.1	11.5					
FBE	e PKPbc	Z 15:52:34.7	146.1	10.5					
UBBA	e PKPbc	Z 15:52:35.5	146.5	4.8					
MOX	e PKPbc	Z 15:52:35.9	146.5	7.6					
PLN	e PKPbc	Z 15:52:36.2	146.7	8.6					
WERD	e PKPbc	Z 15:52:36.2	146.7	8.8					
TANN	e PKPbc	Z 15:52:36.4	146.7	9.1					
GUNZ	e PKPbc	Z 15:52:36.7	146.8	8.9					
WERN	e PKPbc	Z 15:52:36.8	146.8	9.0					
MANZ	e PKPbc	Z 15:52:37.7	147.1	8.6					
ROTZ	e PKPbc	Z 15:52:38.5	147.4	8.8					
WLF	e PKPbc	Z 15:52:39.7	147.7	358.1					
GEC2	e PKPbc	Z 15:52:40.2	148.1	11.7					
BFO	e PKPbc	Z 15:52:42.9	149.0	2.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/30	03:02:23.9	47.359N	25.179W	33.0G	4.8			SZGRF

Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:07:36.1	24.0	278.5	1.5	47	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/30	04:31: 5.5	23.280S	179.310E	603.4				SZGRF

South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z 04:49:41.3	147.0	24.1					
BSEG	e PKPbc	Z 04:49:44.5	148.2	19.5					
HLG	e PKPbc	Z 04:49:45.2	148.4	15.2					
RUE	e PKPpdf	Z 04:49:40.6	148.8	26.3					
	e PKPbc	Z 04:49:45.8							
CLL	e PKPpdf	Z 04:49:42.3	150.0	25.8					
	e PKPbc	Z 04:49:48.8							
	e PKPab	Z 04:49:57.1							
	e pPKPbc	Z 04:52:06.6							
BRG	e PKPpdf	Z 04:49:42.7	150.2	27.8					
	e PKPbc	Z 04:49:49.2							

	e PKPab	Z	04:49:57.7		
	e pPKPbc	Z	04:52:07.1		
CLZ	e PKPdf	Z	04:49:43.0	150.2	20.8
	e PKPbc	Z	04:49:49.5		
	e PKPab	Z	04:49:57.8		
	e pPKPbc	Z	04:52:07.1		
IBBN	e PKPdf	Z	04:49:42.8	150.3	15.8
	e PKPbc	Z	04:49:49.5		
	e PKPab	Z	04:49:58.2		
	e pPKPbc	Z	04:52:07.0		
FBE	e PKPdf	Z	04:49:43.1	150.3	26.7
	e PKPbc	Z	04:49:49.9		
	e PKPab	Z	04:49:58.7		
	e pPKPbc	Z	04:52:07.6		
NEUB	e PKPdf	Z	04:49:43.3	150.5	23.7
	e PKPbc	Z	04:49:49.9		
	e PKPab	Z	04:49:58.9		
	e pPKPbc	Z	04:52:07.6		
TANN	e PKPdf	Z	04:49:44.1	151.0	25.5
	e PKPbc	Z	04:49:51.1		
	e PKPab	Z	04:50:01.7		
	e pPKPbc	Z	04:52:09.2		
WERD	e PKPdf	Z	04:49:43.9	151.0	25.2
	e PKPbc	Z	04:49:51.1		
	e PKPab	Z	04:50:01.6		
	e pPKPbc	Z	04:52:09.0		
MOX	e PKPdf	Z	04:49:44.0	151.0	23.8
	e PKPbc	Z	04:49:51.0		
	e PKPab	Z	04:50:01.2		
	e pPKPbc	Z	04:52:09.0		
PLN	e PKPdf	Z	04:49:44.3	151.0	24.9
	e PKPbc	Z	04:49:51.1		
	e PKPab	Z	04:50:01.7		
	e pPKPbc	Z	04:52:09.1		
GUNZ	e PKPdf	Z	04:49:44.3	151.1	25.3
	e PKPbc	Z	04:49:51.5		
	e PKPab	Z	04:50:02.1		
	e pPKPbc	Z	04:52:09.3		
WERN	e PKPdf	Z	04:49:44.4	151.1	25.5
	e PKPbc	Z	04:49:51.7		
	e PKPab	Z	04:50:02.5		
	e pPKPbc	Z	04:52:09.7		
BUG	e PKPdf	Z	04:49:44.1	151.2	15.3
	e PKPbc	Z	04:49:51.1		
	e PKPab	Z	04:50:01.9		
	e pPKPbc	Z	04:52:08.9		
UBBA	e PKPdf	Z	04:49:44.2	151.2	20.7
	e PKPbc	Z	04:49:51.2		
	e PKPab	Z	04:50:02.2		

MANZ	e pPKPbc	Z	04:52:09.2	151.5	25.2
	e PKPdf	Z	04:49:44.7		
	e PKPbc	Z	04:49:52.2		
	e PKPab	Z	04:50:03.8		
ROTZ	e pPKPbc	Z	04:52:10.2	151.7	25.6
	e PKPdf	Z	04:49:45.1		
	e PKPbc	Z	04:49:52.5		
	e PKPab	Z	04:50:04.8		
GRA1	e pPKPbc	Z	04:52:10.7	152.0	23.8
	e PKPdf	Z	04:49:45.6		
	e PKPbc	Z	04:49:53.2		
	e PKPab	Z	04:50:06.2		
WET	e pPKPbc	Z	04:52:11.6	152.0	27.3
	e PKPdf	Z	04:49:45.6		
	e PKPbc	Z	04:49:53.5		
	e PKPab	Z	04:50:06.3		
GEC2	e pPKPbc	Z	04:52:11.4	152.0	29.1
	e PKPdf	Z	04:49:45.5		
	e PKPbc	Z	04:49:53.2		
	e PKPab	Z	04:50:05.9		
TNS	e pPKPbc	Z	04:52:11.3	152.1	18.2
	e PKPdf	Z	04:49:45.7		
	e PKPbc	Z	04:49:53.5		
	e PKPab	Z	04:50:06.1		
WLF	e pPKPbc	Z	04:52:11.5	153.1	14.0
	e PKPdf	Z	04:49:47.6		
	e PKPbc	Z	04:49:56.1		
	e PKPab	Z	04:50:10.3		
STU	e pPKPbc	Z	04:52:14.1	153.3	20.6
	e PKPdf	Z	04:49:47.2		
	e PKPbc	Z	04:49:56.1		
	e PKPab	Z	04:50:11.2		
FUR	e pPKPbc	Z	04:52:14.2	153.4	25.1
	e PKPdf	Z	04:49:47.2		
	e PKPbc	Z	04:50:12.1		
	e PKPab	Z	04:50:12.1		
BFO	e pPKPbc	Z	04:52:14.1	153.9	19.1
	e PKPdf	Z	04:49:47.9		
	e PKPbc	Z	04:49:57.1		
	e PKPab	Z	04:50:13.9		
e pPKPbc	Z	04:52:15.4			

Date 2010/06/30
 Origin Time 07:15:17.1
 Lat 46.389N
 Long 0.528W
 Depth 10.0G
 mb
 Ms
 ML 4.2
 Source SZGRF
 France

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e Sg	E 07:18:15.1	5.5	236.3					4.1

BFO	e Pn	Z	07:16:47.3	6.3	255.4						4.1
	e Sg	N	07:18:35.8								
STU	e Sg	N	07:18:59.5	7.0	253.7						
TNS	e Pn	Z	07:16:58.9	7.1	240.7						4.3
	e Pg	Z	07:17:32.0								
	e Sg	N	07:19:02.9								
BUG	e Sg	N	07:19:05.0	7.2	228.4						
GRA1	e Sg	N	07:19:48.9	8.5	251.6						

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/06/30 07:22:25.4 17.300N 100.740W 40.1 5.6 6.1 SZGRF
 Guerrero, Mexico

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z	07:35:08.5	87.1	295.0	2.2	294	6.0		
	e pP	Z	07:35:20.2							
BUG	e P	Z	07:35:08.5	87.2	294.6	1.9	171	5.9		
	e pP	Z	07:35:20.2							
WLF	e P	Z	07:35:08.8	87.3	293.9	2.2	343	6.1		
	e pP	Z	07:35:20.6							
NEUB	e P	Z	07:35:21.0	89.8	298.1	0.5	21	5.6		
	e S	Z	07:46:06.6							
MOX	e P	Z	07:35:21.6	90.0	298.0	1.5	24	5.2		
	e pP	Z	07:35:33.3							
	e PP	Z	07:38:51.2							
GRA1	e S	Z	07:46:11.2							
	e P	Z	07:35:22.9	90.2	297.7	1.5	44	5.5		
	e pP	Z	07:35:34.8							
	e PP	Z	07:38:52.8							
PLN	e L	Z	07:46:11.1							
	e L	Z	08:15:12.8			21.7	7315		6.1	
	e P	Z	07:35:23.6	90.4	298.4	1.7	49	5.6		
	e pP	Z	07:35:35.2							
CLL	e PP	Z	07:38:54.6							
	e P	Z	07:35:23.8	90.5	299.1	1.7	42	5.5		
	e pP	Z	07:35:35.5							
WERD	e S	Z	07:46:10.4							
	e P	Z	07:35:24.0	90.5	298.5	1.6	38	5.5		
	e pP	Z	07:35:35.6							
GUNZ	e PP	Z	07:38:55.1							
	e P	Z	07:35:24.2	90.6	298.5	1.6	48	5.6		
	e pP	Z	07:35:36.0							
TANN	e PP	Z	07:38:55.4							
	e P	Z	07:35:24.5	90.6	298.6	1.6	43	5.5		
	e pP	Z	07:35:36.2							
	e PP	Z	07:38:55.9							
	e S	Z	07:46:16.5							

MANZ	e P	Z	07:35:24.4	90.6	298.4	1.4	28	5.4
	e pP	Z	07:35:36.2					
	e PP	Z	07:38:55.8					
	e S	Z	07:46:16.6					
WERN	e P	Z	07:35:24.6	90.6	298.6	1.8	78	5.7
	e pP	Z	07:35:36.4					
	e PP	Z	07:38:56.0					
ROTZ	e P	Z	07:35:25.4	90.8	298.4	1.5	30	5.4
	e pP	Z	07:35:37.1					
	e PP	Z	07:38:57.4					
	e S	Z	07:46:18.0					
FBE	e P	Z	07:35:25.9	90.9	299.3	1.8	63	5.7
	e pP	Z	07:35:37.6					
FUR	e S	Z	07:46:15.0	91.0	297.7			
BRG	e P	Z	07:35:27.4	91.2	299.8	1.6	44	5.5
	e pP	Z	07:35:39.1					
	e PP	Z	07:39:01.3					
WET	e P	Z	07:35:28.6	91.5	298.9	1.7	60	5.7
	e pP	Z	07:35:40.2					
	e PP	Z	07:39:02.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/06/30	22:34:40.0	24.150N	124.310E	32.9	5.3	4.9		SZGRF
Southwestern Ryukyu Islands, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 22:47:05.0	83.3	59.5	1.7	33	5.3		
BSEG	e P	Z 22:47:06.6	83.6	57.0	1.4	50	5.5		
	e pP	Z 22:47:16.2							
CLL	e P	Z 22:47:06.0	83.6	58.8	1.2	24	5.3		
	e pP	Z 22:47:15.6							
FBE	e P	Z 22:47:06.7	83.6	59.0	1.5	49	5.5		
	e pP	Z 22:47:16.2							
NEUB	e P	Z 22:47:09.7	84.3	57.9	1.3	31	5.4		
	e pP	Z 22:47:19.4							
TANN	e P	Z 22:47:10.1	84.3	58.3	1.6	22	5.1		
	e pP	Z 22:47:19.6							
WERD	e P	Z 22:47:10.4	84.4	58.2	1.5	22	5.2		
	e pP	Z 22:47:19.9							
GUNZ	e P	Z 22:47:10.6	84.4	58.2	1.5	38	5.4		
	e pP	Z 22:47:20.2							
WERN	e P	Z 22:47:10.7	84.4	58.3	1.4	27	5.3		
	e pP	Z 22:47:20.4							
PLN	e P	Z 22:47:10.8	84.5	58.1	1.6	30	5.3		
	e pP	Z 22:47:20.4							
GEC2	e P	Z 22:47:10.7	84.5	59.1	1.2	10	4.9		
	e pP	Z 22:47:20.1							

MOX	e P	Z	22:47:11.7	84.7	57.7	1.5	23	5.2	4.9
	e L	Z	23:30:02.6			20.7	473		
CLZ	e P	Z	22:47:12.2	84.7	56.9	1.4	46	5.5	
	e pP	Z	22:47:21.8						
MANZ	e P	Z	22:47:12.4	84.7	58.0	1.4	16	5.0	
	e pP	Z	22:47:21.9						
WET	e P	Z	22:47:12.5	84.8	58.5	1.9	25	5.1	
ROTZ	e P	Z	22:47:12.9	84.8	58.1	1.7	31	5.3	
GRA1	e P	Z	22:47:15.6	85.4	57.4	1.4	30	5.2	
	e L	Z	23:29:10.1			21.7	427		4.8
UBBA	e P	Z	22:47:15.5	85.4	56.5	1.8	24	5.0	

Format description

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(T. Plenefisch, Email: plene@szgrf.bgr.de)

In general all regional and teleseismic events clearly recorded with stations of the Gräfenberg-Array (GRF) and stronger events recorded with stations of the German Regional Seismological Network (GRSN) are included in this bulletin. Each event is reported by an EPICENTER LINE, a REGION LINE and a block of PHASE LINES.

EPICENTER LINE:

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, SED, MAD)

REGION LINE:

The region name of the epicenter location.

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

Component where the phase was picked

Time	Arrival time of the reported phase
Dist	Distance from the epicenter location to the station in degree
BAz	Backazimuth from the epicenter location 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