

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

(produced by SZGRF/BGR - HANNOVER)

August 2010 UPDATED 18.MARCH.2011

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
2010/08/01	07:31:34.5	30.410N	161.460E	33.0G	5.9			SZGRF

North Pacific Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 07:44:42.5	92.0	24.6	1.1	60	5.8		
RUE	e P	Z 07:44:44.3	92.4	27.5	1.2	82	6.0		
CLL	e P	Z 07:44:49.6	93.7	26.9	0.9	74	6.0		
BRG	e P	Z 07:44:50.0	93.8	27.7	1.0	59	5.9		
FBE	e P	Z 07:44:51.0	93.9	27.2	1.0	93	6.1		
IBBN	e P	Z 07:44:51.4	94.1	22.5	1.0	110	6.1		
TANN	e P	Z 07:44:54.0	94.6	26.5	1.2	43	5.8		
PLN	e P	Z 07:44:54.1	94.7	26.2	1.3	64	5.9		
MOX	e P	Z 07:44:54.1	94.7	25.8	1.2	43	5.8		
UBBA	e P	Z 07:44:55.0	94.9	24.4	1.4	32	5.6		
BUG	e P	Z 07:44:54.8	95.1	22.1	1.1	23	5.5		
MANZ	e P	Z 07:44:56.1	95.1	26.2	1.3	61	5.9		
ROTZ	e P	Z 07:44:57.2	95.3	26.3	1.4	110	6.2		
GRA1	e P	Z 07:44:58.8	95.6	25.5	1.6	158	6.3		
WET	e P	Z 07:44:58.1	95.7	26.9	1.1	28	5.7		
GEC2	e P	Z 07:44:57.5	95.7	27.5	1.0	28	5.7		
TNS	e P	Z 07:44:59.3	95.9	23.2	1.1	33	5.8		
RJOB	e P	Z 07:45:03.3	96.9	26.9	1.0	42	6.0		
WLF	e P	Z 07:45:04.0	97.0	21.3	1.3	64	6.1		
FUR	e P	Z 07:45:04.4	97.0	25.6	1.2	121	6.4		
STU	e P	Z 07:45:04.5	97.0	23.9	1.1	37	5.9		
BFO	e P	Z 07:45:07.1	97.7	23.2	1.3	52	6.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
------	-------------	-----	------	-------	----	----	----	--------

2010/08/02 14:17:20.6
Eastern Siberia, Russia

62.600N 145.710E 22.2 5.4

SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	14:27:05.7	57.1	23.9	2.0	249	5.9		
BSEG	e P	Z	14:27:14.4	58.3	22.3	1.8	69	5.4		
CLL	e P	Z	14:27:26.1	60.1	22.9	1.2	44	5.2		
CLZ	e P	Z	14:27:27.9	60.3	21.9	1.6	82	5.3		
BRG	e P	Z	14:27:27.2	60.3	23.3	1.8	42	5.0		
	e pP	Z	14:27:33.5							
FBE	e P	Z	14:27:28.2	60.4	23.0	1.8	54	5.1		
MOX	e P	Z	14:27:33.0	61.1	22.2	1.4	44	5.5		
TANN	e P	Z	14:27:33.1	61.1	22.5	1.7	60	5.5		
PLN	e P	Z	14:27:33.2	61.1	22.4	1.8	88	5.7		
WERN	e P	Z	14:27:34.2	61.2	22.4	1.4	40	5.4		
UBBA	e P	Z	14:27:33.9	61.3	21.5	1.9	55	5.5		
BUG	e P	Z	14:27:34.7	61.3	20.4	1.5	83	5.7		
MANZ	e P	Z	14:27:36.3	61.6	22.3	1.7	33	5.2		
	e pP	Z	14:27:42.3							
ROTZ	e P	Z	14:27:37.8	61.8	22.3	1.6	38	5.3		
GRA1	e P	Z	14:27:39.8	62.1	21.8	1.6	80	5.6		
WET	e P	Z	14:27:40.6	62.2	22.4	1.5	40	5.3		
TNS	e P	Z	14:27:40.7	62.2	20.7	1.7	51	5.4		
GEC2	e P	Z	14:27:40.7	62.2	22.7	1.4	32	5.3		
	e pP	Z	14:27:46.9							
RJOB	e P	Z	14:27:49.5	63.5	22.1	2.0	78	5.6		
BFO	e P	Z	14:27:52.3	64.0	20.3	1.3	22	5.2		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/02 22:30:44.6 37.498N 141.265E 33.0N 4.7
 Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	22:42:47.1	79.3	37.6	0.8	6	4.6		
BRG	e P	Z	22:42:52.1	80.3	39.8	0.9	5	4.5		
CLL	e P	Z	22:42:52.1	80.3	39.2	0.8	8	4.8		
FBE	e P	Z	22:42:53.5	80.5	39.4	0.7	6	4.7		
NEUB	e P	Z	22:42:55.3	80.9	38.3	0.9	10	4.8		
CLZ	e P	Z	22:42:55.8	80.9	37.4	0.8	5	4.6		
PLN	e P	Z	22:42:57.2	81.3	38.5	1.1	3	4.4		
WERN	e P	Z	22:42:58.0	81.4	38.7	0.8	3	4.5		
MOX	e P	Z	22:42:57.9	81.4	38.2	0.8	2	4.3		
IBBN	e P	Z	22:42:58.7	81.5	35.6	0.7	7	4.9		
MANZ	e P	Z	22:42:59.8	81.7	38.4	0.8	3	4.4		
ROTZ	e P	Z	22:43:00.7	81.8	38.5	1.6	34	5.2		
UBBA	e P	Z	22:43:00.2	81.9	37.0	0.6	2	4.3		
GEC2	e P	Z	22:43:00.6	82.0	39.4	1.0	4	4.4		

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

3

WET	e P	Z	22:43:01.5	82.1	38.9	1.1	5	4.5
GRA1	e P	Z	22:43:03.2	82.3	37.8	0.9	11	5.1
RJOB	e P	Z	22:43:07.6	83.2	38.7	0.9	5	4.7
FUR	e P	Z	22:43:09.0	83.5	37.7	0.7	11	5.2
BFO	e P	Z	22:43:13.9	84.5	35.7	0.9	6	4.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/03	01:48:8.1	10.912N	93.518E	33.0G	5.1			SZGRF

Andaman Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 01:59:44.2	75.0	91.1	1.2	17	4.9		
GEC2	e P	Z 01:59:44.8	75.1	90.4	1.2	20	5.0		
FBE	e P	Z 01:59:46.6	75.4	90.6	1.3	31	5.2		
CLL	e P	Z 01:59:47.2	75.6	90.5	1.4	16	5.0		
RJOB	e P	Z 01:59:47.8	75.7	89.4	1.0	14	5.0		
MANZ	e P	Z 01:59:51.3	76.2	89.4	1.8	48	5.3		
CLZ	e P	Z 01:59:56.8	77.2	88.5	1.1	17	5.1		
IBBN	e P	Z 02:00:05.8	78.8	86.6	1.2	29	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/03	12:02:11.2	37.820S	161.930E	33.0G				SZGRF

East of Australia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPab	Z 12:22:18.2	153.5	69.2					
BRG	e PKPab	Z 12:22:19.9	153.9	72.4					
FBE	e PKPab	Z 12:22:21.8	154.3	71.6					
CLL	e PKPab	Z 12:22:21.9	154.4	70.5					
GEC2	e PKPab	Z 12:22:23.6	154.6	76.2					
BSEG	e PKPab	Z 12:22:24.5	154.8	61.9					
TANN	e PKPab	Z 12:22:24.8	155.0	71.6					
WERD	e PKPab	Z 12:22:25.3	155.1	71.3					
WERN	e PKPab	Z 12:22:25.1	155.1	71.7					
WET	e PKPab	Z 12:22:25.6	155.1	74.7					
PLN	e PKPab	Z 12:22:25.4	155.1	71.1					
MANZ	e PKPab	Z 12:22:26.6	155.3	72.0					
ROTZ	e PKPab	Z 12:22:26.4	155.3	72.6					
MOX	e PKPab	Z 12:22:26.5	155.4	70.1					
CLZ	e PKPab	Z 12:22:28.3	155.7	66.0					
TNS	e PKPab	Z 12:22:36.0	157.4	66.8					
BFO	e PKPab	Z 12:22:38.6	158.2	71.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/03	16:26:30.9	39.110N	69.380E	33.0G	5.4			SZGRF

Tajikistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	16:34:02.6	39.9	86.7	1.6	206	5.5		
BRG	e P	Z	16:34:03.3	39.9	84.9	1.0	70	5.3		
RGN	e P	Z	16:34:05.0	40.1	88.8	1.3	329	5.8		
FBE	e P	Z	16:34:06.5	40.3	84.6	1.8	261	5.6		
GEC2	e P	Z	16:34:06.2	40.3	82.4	1.5	110	5.3		
CLL	e P	Z	16:34:07.2	40.5	84.8	1.5	110	5.4		
WET	e P	Z	16:34:10.1	40.8	82.2	1.7	92	5.2		
TANN	e P	Z	16:34:11.3	40.9	83.4	1.6	102	5.3		
WERN	e P	Z	16:34:11.9	41.0	83.2	1.6	77	5.2		
WERD	e P	Z	16:34:12.2	41.0	83.3	1.6	94	5.3		
RJOB	e P	Z	16:34:12.0	41.0	80.5	1.7	100	5.3		
PLN	e P	Z	16:34:12.6	41.1	83.2	1.5	71	5.2		
ROTZ	e P	Z	16:34:13.6	41.1	82.5	1.7	126	5.4		
MANZ	e P	Z	16:34:13.8	41.2	82.6	1.6	92	5.3		
NEUB	e P	Z	16:34:13.9	41.2	83.8	1.4	138	5.5		
MOX	e P	Z	16:34:15.4	41.4	83.1	1.8	126	5.4		
GRA1	e P	Z	16:34:19.2	41.8	81.7	1.7	284	5.7		
BSEG	e P	Z	16:34:19.6	41.9	85.8	1.6	112	5.4		
FUR	e P	Z	16:34:20.5	42.0	80.1	1.8	340	5.8		
CLZ	e P	Z	16:34:20.5	42.0	83.5	1.6	118	5.4		
UBBA	e P	Z	16:34:23.1	42.4	82.1	1.4	61	5.1		
STU	e P	Z	16:34:30.2	43.2	79.4	1.5	83	5.3		
TNS	e P	Z	16:34:32.0	43.4	80.5	1.4	38	4.9		
IBBN	e P	Z	16:34:32.9	43.6	82.2	1.6	213	5.6		
BFO	e P	Z	16:34:34.9	43.9	78.4	1.8	99	5.2		
BUG	e P	Z	16:34:36.7	44.0	80.9	1.4	79	5.2		
WLF	e P	Z	16:34:44.8	45.0	78.4	1.6	150	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/03	19:42:27.4	7.570S	39.680E	35.8	5.7	4.1		SZGRF

Tanzania

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	19:52:30.4	60.2	148.9	1.0	18	5.1		
GEC2	e P	Z	19:52:35.5	60.8	150.2	1.1	92	5.5		
FUR	e P	Z	19:52:36.7	61.1	147.4	1.9	126	5.4		
WET	e P	Z	19:52:38.2	61.4	149.4	1.2	39	5.1		
	e pP	Z	19:52:48.4							
ROTZ	e P	Z	19:52:43.8	62.1	148.8	1.2	72	5.8		
	e pP	Z	19:52:53.5							
BFO	e P	Z	19:52:45.1	62.3	144.4	1.0	26	5.4		
MANZ	e P	Z	19:52:45.0	62.3	148.8	1.1	58	5.7		

STU	e P	Z	19:52:45.4	62.4	145.4	1.0	42	5.6	
GRA1	e P	Z	19:52:45.7	62.4	147.8	1.0	96	6.0	
	e L	N	20:20:20.8			21.9	154		4.1
WERN	e P	Z	19:52:46.6	62.5	149.2	1.1	28	5.4	
BRG	e P	Z	19:52:46.4	62.5	151.0	1.3	51	5.6	
TANN	e P	Z	19:52:47.2	62.6	149.3	1.3	83	5.8	
	e pP	Z	19:52:56.5						
WERD	e P	Z	19:52:47.9	62.7	149.1	1.2	81	5.8	
FBE	e P	Z	19:52:47.9	62.8	150.4	1.0	35	5.4	
PLN	e P	Z	19:52:48.1	62.8	149.0	1.1	51	5.6	
MOX	e P	Z	19:52:50.0	63.1	148.5	1.1	36	5.4	
	e pP	Z	19:52:59.8						
	e L	Z	20:24:29.4			21.4	171		4.2
CLL	e P	Z	19:52:51.0	63.2	150.1	1.3	63	5.6	
NEUB	e P	Z	19:52:53.0	63.5	148.8	1.2	75	5.7	
UBBA	e P	Z	19:52:54.6	63.8	146.8	1.6	86	5.7	
	e pP	Z	19:53:05.3						
TNS	e P	Z	19:52:55.3	63.8	145.1	1.2	89	5.9	
RUE	e P	Z	19:52:56.4	64.0	151.2	1.1	107	6.0	
	e pP	Z	19:53:06.9						
WLF	e P	Z	19:52:57.9	64.2	142.6	1.0	48	5.7	
CLZ	e P	Z	19:52:59.5	64.5	147.5	2.2	157	5.9	
BUG	e P	Z	19:53:04.6	65.3	144.2	1.4	113	5.9	
	e pP	Z	19:53:15.2						
IBBN	e P	Z	19:53:08.3	65.8	144.9	1.2	104	5.9	
	e pP	Z	19:53:18.9						
BSEG	e P	Z	19:53:10.9	66.3	147.9	1.5	109	5.9	

Date 2010/08/03 Origin Time 22:30:21.5 Lat 23.560S Long 173.030E Depth 33.0G mb Ms ML Source SZGRF
Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	22:50:00.3	147.0	30.0					
RUE	e PKPbc	Z	22:50:00.7	147.0	36.7					
BRG	e PKPbc	Z	22:50:04.0	148.3	38.5					
CLL	e PKPbc	Z	22:50:03.9	148.3	36.5					
FBE	e PKPbc	Z	22:50:04.9	148.4	37.5					
CLZ	e PKPbc	Z	22:50:05.7	148.7	31.8					
NEUB	e PKPbc	Z	22:50:05.6	148.8	34.7					
IBBN	e PKPbc	Z	22:50:06.4	149.1	27.0					
TANN	e PKPbc	Z	22:50:06.6	149.2	36.5					
WERD	e PKPbc	Z	22:50:07.0	149.2	36.3					
PLN	e PKPbc	Z	22:50:06.7	149.2	36.0					
MOX	e PKPbc	Z	22:50:06.7	149.3	34.9					
WERN	e PKPbc	Z	22:50:07.3	149.3	36.5					

MANZ	e	PKPbc	Z	22:50:08.1	149.7	36.4
UBBA	e	PKPbc	Z	22:50:07.8	149.7	32.1
ROTZ	e	PKPbc	Z	22:50:08.5	149.8	36.8
GEC2	e	PKPbc	Z	22:50:08.5	149.9	40.2
WET	e	PKPbc	Z	22:50:08.8	150.0	38.5
BUG	e	PKPbc	Z	22:50:08.8	150.0	26.8
TNS	e	PKPbc	Z	22:50:10.7	150.8	29.9
RJOB	e	PKPbc	Z	22:50:11.3	151.2	40.0
FUR	e	PKPbc	Z	22:50:12.2	151.5	36.9
STU	e	PKPbc	Z	22:50:12.8	151.7	32.6
WLF	e	PKPbc	Z	22:50:14.0	151.9	26.3
BFO	e	PKPbc	Z	22:50:14.3	152.4	31.5

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/04 07:15:31.1 3.800S 149.260E 200.0
 Bismarck Sea SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e	PP	Z 07:35:09.9	118.0	51.8					
RUE	e	PKPdf	Z 07:33:56.1	119.1	53.2					
BSEG	e	PKPdf	Z 07:33:58.0	119.8	49.0					
BRG	e	PKPdf	Z 07:33:57.7	119.9	54.1					
	e	PP	Z 07:35:24.8							
CLL	e	PKPdf	Z 07:33:57.9	120.2	52.9					
FBE	e	PKPdf	Z 07:33:58.4	120.2	53.5					
	e	PP	Z 07:35:26.8							
NEUB	e	PKPdf	Z 07:33:59.3	120.8	51.7					
	e	PP	Z 07:35:32.6							
TANN	e	PKPdf	Z 07:33:59.7	121.0	52.8					
PLN	e	PKPdf	Z 07:34:00.0	121.1	52.5					
	e	PP	Z 07:35:32.9							
WERN	e	PKPdf	Z 07:34:00.1	121.1	52.8					
CLZ	e	PKPdf	Z 07:34:00.3	121.1	50.0					
GEC2	e	PKPdf	Z 07:34:00.0	121.2	54.8					
MOX	e	PKPdf	Z 07:34:00.3	121.3	51.8					
	e	PP	Z 07:35:32.3							
MANZ	e	PKPdf	Z 07:34:00.6	121.4	52.7					
	e	PP	Z 07:35:34.0							
ROTZ	e	PKPdf	Z 07:34:00.8	121.5	52.9					
WET	e	PKPdf	Z 07:34:00.8	121.5	53.8					
	e	PP	Z 07:35:36.5							
UBBA	e	PKPdf	Z 07:34:01.7	121.9	50.1					
IBBN	e	PKPdf	Z 07:34:02.2	122.0	47.1					
	e	PP	Z 07:35:38.9							
GRA1	e	PKPdf	Z 07:34:01.7	122.0	51.9					
	e	PP	Z 07:35:38.4							
RJOB	e	PKPdf	Z 07:34:01.6	122.4	54.5					

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

7

BUG	e PKPdf	Z	07:34:03.4	122.8	47.0
	e PP	Z	07:35:44.6		
FUR	e PKPdf	Z	07:34:03.2	122.9	52.7
TNS	e PKPdf	Z	07:34:04.0	123.1	48.8
STU	e PKPdf	Z	07:34:04.8	123.6	50.3
BFO	e PKPdf	Z	07:34:05.9	124.4	49.6
	e PP	Z	07:35:55.3		
WLF	e PKPdf	Z	07:34:07.5	124.5	46.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/04	10:07: 8.4	23.350S	174.930W	33.0G				SZGRF
Tonga Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	10:26:53.2	149.2	9.4					
IBBN	e PKPbc	Z	10:26:57.8	151.0	5.1					
CLZ	e PKPbc	Z	10:26:58.8	151.2	10.1					
CLL	e PKPbc	Z	10:26:58.8	151.4	15.3					
BRG	e PKPbc	Z	10:26:59.8	151.6	17.3					
NEUB	e PKPbc	Z	10:26:59.6	151.7	13.1					
FBE	e PKPbc	Z	10:27:00.1	151.7	16.2					
BUG	e PKPbc	Z	10:26:59.8	151.9	4.3					
MOX	e PKPbc	Z	10:27:01.0	152.2	13.0					
UBBA	e PKPbc	Z	10:27:00.8	152.3	9.8					
PLN	e PKPdf	Z	10:26:55.3	152.3	14.1					
	e PKPbc	Z	10:27:01.3							
WERD	e PKPbc	Z	10:27:01.5	152.3	14.4					
TANN	e PKPdf	Z	10:26:55.4	152.3	14.7					
	e PKPbc	Z	10:27:01.3							
WERN	e PKPdf	Z	10:26:55.6	152.5	14.6					
	e PKPbc	Z	10:27:01.9							
MANZ	e PKPbc	Z	10:27:02.4	152.8	14.2					
ROTZ	e PKPbc	Z	10:27:02.9	153.0	14.6					
TNS	e PKPbc	Z	10:27:03.3	153.0	6.8					
GRA1	e PKPdf	Z	10:26:56.1	153.2	12.6					
	e PKPbc	Z	10:27:03.2							
WET	e PKPdf	Z	10:26:57.1	153.5	16.2					
	e PKPbc	Z	10:27:03.6							
GEC2	e PKPbc	Z	10:27:04.1	153.6	18.1					
WLF	e PKPbc	Z	10:27:04.7	153.7	2.2					
RJOB	e PKPbc	Z	10:27:06.5	154.8	16.9					
BFO	e PKPbc	Z	10:27:06.9	154.9	7.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/04	12:58:24.0	51.290N	179.640W	33.0G	6.2	6.0		SZGRF

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	13:09:57.1	73.6	8.4	0.9	462	6.5		
BSEG	e P	Z	13:10:01.9	74.4	6.4	1.1	419	6.4		
RUE	e P	Z	13:10:08.3	75.6	8.6	1.2	367	6.4		
IBBN	e P	Z	13:10:12.0	76.2	4.8	1.3	912	6.8		
CLZ	e P	Z	13:10:13.8	76.5	6.4	1.1	465	6.5		
CLL	e P	Z	13:10:14.8	76.8	8.1	1.2	174	6.1		
NEUB	e P	Z	13:10:16.4	77.0	7.3	1.1	494	6.5		
BUG	e P	Z	13:10:16.5	77.1	4.4	1.4	448	6.4		
BRG	e P	Z	13:10:16.9	77.2	8.7	1.2	211	6.1		
FBE	e P	Z	13:10:17.4	77.2	8.3	1.1	338	6.4		
UBBA	e P	Z	13:10:19.1	77.6	6.2	1.6	304	6.2		
MOX	e P	Z	13:10:19.6	77.6	7.2	1.2	232	6.2		
PLN	e P	Z	13:10:20.2	77.7	7.5	1.1	131	6.0		
WERD	e P	Z	13:10:20.5	77.8	7.6	1.2	173	6.1		
TANN	e P	Z	13:10:20.6	77.8	7.7	1.3	165	6.0		
WERN	e P	Z	13:10:21.5	77.9	7.7	1.1	314	6.3		
MANZ	e P	Z	13:10:22.9	78.2	7.5	1.1	128	5.9		
TNS	e P	Z	13:10:23.1	78.3	5.2	1.1	261	6.2		
ROTZ	e P	Z	13:10:24.4	78.4	7.5	1.2	198	6.0		
GRA1	e P	Z	13:10:25.4	78.6	6.9	1.1	498	6.5		
	e L	N	13:57:22.8			20.4	7110		6.0	
WLF	e P	Z	13:10:27.0	78.9	3.7	1.1	258	6.2		
WET	e P	Z	13:10:27.5	79.0	7.9	1.2	134	5.9		
GEC2	e P	Z	13:10:28.5	79.2	8.4	1.0	119	5.8		
STU	e P	Z	13:10:30.5	79.7	5.6	1.2	270	6.1		
FUR	e P	Z	13:10:33.3	80.1	6.9	1.1	311	6.1		
BFO	e P	Z	13:10:33.2	80.1	5.0	1.2	216	6.0		
RJOB	e P	Z	13:10:35.0	80.4	7.9	0.8	112	5.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/04	21:51:24.1	51.570N	179.650E	33.0G	5.5			SZGRF

Rat Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	22:03:00.1	74.1	6.9	1.2	80	5.6		
RUE	e P	Z	22:03:06.3	75.3	9.0	1.0	54	5.6		
IBBN	e P	Z	22:03:10.1	75.9	5.2	1.2	151	6.0		
CLZ	e P	Z	22:03:11.8	76.2	6.8	1.1	88	5.8		
CLL	e P	Z	22:03:13.0	76.5	8.5	1.2	38	5.4		
NEUB	e P	Z	22:03:14.6	76.7	7.7	1.2	100	5.8		
BUG	e P	Z	22:03:14.7	76.8	4.9	1.1	58	5.6		
BRG	e P	Z	22:03:15.0	76.8	9.1	1.1	35	5.4		
FBE	e P	Z	22:03:15.5	76.9	8.7	1.4	91	5.7		
UBBA	e P	Z	22:03:17.2	77.2	6.6	1.7	75	5.6		

MOX	e P	Z	22:03:17.6	77.3	7.6	1.2	43	5.5
PLN	e P	Z	22:03:18.3	77.4	7.9	1.4	34	5.3
WERD	e P	Z	22:03:18.8	77.4	8.0	1.3	42	5.4
TANN	e P	Z	22:03:18.6	77.4	8.1	1.4	45	5.4
WERN	e P	Z	22:03:19.6	77.6	8.1	1.1	57	5.6
MANZ	e P	Z	22:03:20.8	77.9	7.9	1.2	30	5.3
TNS	e P	Z	22:03:21.2	77.9	5.6	1.0	46	5.5
ROTZ	e P	Z	22:03:22.5	78.1	7.9	1.2	44	5.5
GRA1	e P	Z	22:03:23.6	78.3	7.3	1.2	105	5.8
WLF	e P	Z	22:03:25.3	78.6	4.1	1.1	60	5.5
WET	e P	Z	22:03:25.4	78.7	8.3	1.3	36	5.3
GEC2	e P	Z	22:03:26.6	78.9	8.8	1.1	30	5.2
STU	e P	Z	22:03:28.9	79.3	6.0	1.2	54	5.4
FUR	e P	Z	22:03:31.5	79.8	7.3	1.1	59	5.4
BFO	e P	Z	22:03:31.3	79.8	5.5	1.3	44	5.2
RJOB	e P	Z	22:03:33.1	80.1	8.3	1.0	20	5.0

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/04 22:01:50.2 2.960S 146.410E 33.0G SZGRF
 Admiralty Islands, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPdf	Z	22:20:32.0	116.9	55.5					
BSEG	e PKPdf	Z	22:20:33.6	117.7	51.5					
BRG	e PKPdf	Z	22:20:33.6	117.7	56.3					
FBE	e PKPdf	Z	22:20:34.4	118.0	55.8					
NEUB	e PKPdf	Z	22:20:35.5	118.7	54.1					
TANN	e PKPdf	Z	22:20:35.7	118.8	55.1					
WERD	e PKPdf	Z	22:20:35.8	118.8	55.0					
WERN	e PKPdf	Z	22:20:36.0	118.9	55.1					
PLN	e PKPdf	Z	22:20:35.9	118.9	54.8					
GEC2	e PKPdf	Z	22:20:36.2	119.0	57.0					
CLZ	e PKPdf	Z	22:20:36.3	119.0	52.4					
MOX	e PKPdf	Z	22:20:36.1	119.1	54.2					
MANZ	e PKPdf	Z	22:20:36.6	119.2	55.0					
WET	e PKPdf	Z	22:20:36.9	119.3	56.1					
ROTZ	e PKPdf	Z	22:20:36.8	119.3	55.2					
UBBA	e PKPdf	Z	22:20:37.5	119.8	52.5					
GRA1	e PKPdf	Z	22:20:37.6	119.8	54.2					
IBBN	e PKPdf	Z	22:20:38.0	120.0	49.6					
RJOB	e PKPdf	Z	22:20:37.9	120.1	56.7					
FUR	e PKPdf	Z	22:20:39.5	120.7	55.0					
BUG	e PKPdf	Z	22:20:39.2	120.7	49.5					
TNS	e PKPdf	Z	22:20:40.0	120.9	51.2					
STU	e PKPdf	Z	22:20:40.7	121.5	52.7					
BFO	e PKPdf	Z	22:20:42.1	122.2	52.0					
WLF	e PKPdf	Z	22:20:43.2	122.4	49.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/04	23:48: 8.9	47.170N	152.830E	33.0G	5.6	5.4		SZGRF
Kuril Islands, Russia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	23:59:44.2	74.0	25.5	0.9	36	5.4		
RUE	e P	Z	23:59:46.2	74.4	27.6	0.9	75	5.7		
CLL	e P	Z	23:59:52.9	75.7	26.9	1.2	88	5.8		
BRG	e P	Z	23:59:53.6	75.8	27.5	1.2	35	5.4		
CLZ	e P	Z	23:59:55.2	75.9	25.3	0.9	74	5.8		
FBE	e P	Z	23:59:54.8	75.9	27.1	1.0	49	5.6		
NEUB	e P	Z	23:59:55.7	76.1	26.1	1.0	70	5.7		
IBBN	e P	Z	23:59:56.2	76.1	23.6	0.8	94	6.0		
TANN	e P	Z	23:59:58.7	76.6	26.5	1.7	44	5.3		
WERD	e P	Z	23:59:59.0	76.6	26.4	1.4	44	5.4		
PLN	e P	Z	23:59:58.9	76.6	26.3	1.4	40	5.4		
MOX	e P	Z	23:59:58.8	76.6	26.0	1.2	39	5.4		
WERN	e P	Z	23:59:59.5	76.7	26.4	1.2	40	5.4		
BUG	e P	Z	00:00:01.1	77.1	23.2	0.9	68	5.8		
MANZ	e P	Z	00:00:01.3	77.1	26.2	1.0	24	5.3		
ROTZ	e P	Z	00:00:02.7	77.3	26.2	1.1	35	5.4		
GRA1	e P	Z	00:00:04.7	77.6	25.6	0.9	104	6.0		
	e L	Z	00:34:10.3			20.8	1892		5.4	
WET	e P	Z	00:00:04.7	77.6	26.6	1.1	58	5.6		
TNS	e P	Z	00:00:05.9	77.9	23.9	0.8	59	5.8		
RJOB	e P	Z	00:00:11.6	78.9	26.4	0.8	40	5.5		
FUR	e P	Z	00:00:11.8	79.0	25.5	0.9	52	5.5		
STU	e P	Z	00:00:12.0	79.0	24.2	0.8	64	5.7		
BFO	e P	Z	00:00:15.3	79.6	23.7	0.8	55	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/05	18:17:42.4	25.660N	96.537E	33.0G	4.8			SZGRF
Myanmar								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	18:28:29.7	65.8	78.4	0.8	4	4.6		
GEC2	e P	Z	18:28:34.1	66.4	77.4	1.1	8	4.8		
TANN	e P	Z	18:28:36.7	66.9	77.2	0.9	2	4.4		
WET	e P	Z	18:28:37.0	66.9	76.9	0.7	3	4.7		
PLN	e P	Z	18:28:37.6	67.0	77.0	0.8	2	4.4		
NEUB	e P	Z	18:28:38.2	67.1	77.0	0.8	8	5.0		
ROTZ	e P	Z	18:28:39.3	67.2	76.7	0.9	8	4.9		
RJOB	e P	Z	18:28:39.3	67.3	76.3	0.8	8	5.0		
MOX	e P	Z	18:28:40.0	67.3	76.7	0.9	3	4.5		

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

11

BSEG	e P	Z	18:28:39.9	67.4	77.0	0.8	6	4.9
CLZ	e P	Z	18:28:42.8	67.8	76.2	0.8	6	4.9
FUR	e P	Z	18:28:45.3	68.1	75.4	0.8	12	5.2
TNS	e P	Z	18:28:52.8	69.4	74.3	0.8	4	4.6
BFO	e P	Z	18:28:55.9	70.0	73.5	0.9	2	4.3
WLF	e P	Z	18:29:03.0	71.0	72.5	1.1	22	5.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/05	18:54:18.8	31.740N	4.620W	33.0G	4.4			SZGRF

Morocco

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 18:58:41.1	19.3	215.3	0.8	21	4.4		
WLF	e P	Z 18:58:45.0	19.7	208.2	1.3	61	4.7		
STU	e P	Z 18:58:48.8	20.0	216.5	0.9	31	4.6		
FUR	e P	Z 18:58:53.7	20.4	222.0	0.8	52	4.8		
TNS	e P	Z 18:58:59.5	20.9	212.6	0.8	12	4.2		
BUG	e P	Z 18:59:05.0	21.6	208.5	0.9	64	5.0		
WET	e P	Z 18:59:09.0	21.8	223.5	1.4	28	4.5		
UBBA	e P	Z 18:59:10.1	21.9	215.1	1.4	10	4.1		
GEC2	e P	Z 18:59:10.5	22.0	225.6	1.0	22	4.5		
ROTZ	e P	Z 18:59:10.9	22.0	221.2	0.8	7	4.1		
MANZ	e P	Z 18:59:10.7	22.1	220.6	0.9	8	4.1		
WERN	e P	Z 18:59:14.8	22.4	220.7	0.9	12	4.3		
PLN	e P	Z 18:59:15.8	22.5	219.9	1.2	12	4.2		
TANN	e P	Z 18:59:16.2	22.6	220.6	1.1	18	4.5		
NEUB	e P	Z 18:59:20.6	22.9	218.1	1.0	19	4.6		
BRG	e P	Z 18:59:25.8	23.5	222.7	1.0	7	4.2		
BSEG	e P	Z 18:59:37.2	24.6	211.7	0.9	12	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/05	19:04: 7.4	50.920N	155.410E	33.0N	5.0			SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 19:15:35.5	72.9	23.7	1.0	20	5.2		
CLZ	e P	Z 19:15:37.3	73.1	22.2	0.9	17	5.2		
BRG	e P	Z 19:15:36.5	73.1	24.2	1.1	7	4.7		
MOX	e P	Z 19:15:41.5	73.9	22.8	1.1	13	4.9		
TANN	e P	Z 19:15:41.5	73.9	23.3	0.8	4	4.5		
WERD	e P	Z 19:15:41.7	73.9	23.2	1.0	9	4.8		
PLN	e P	Z 19:15:41.6	73.9	23.1	1.2	11	4.8		
WERN	e P	Z 19:15:42.5	74.0	23.2	0.8	14	5.1		
UBBA	e P	Z 19:15:42.5	74.1	21.8	1.0	9	4.7		
BUG	e P	Z 19:15:42.9	74.1	20.2	1.0	17	5.1		

MANZ	e P	Z	19:15:44.2	74.4	23.0	0.9	10	4.8
ROTZ	e P	Z	19:15:45.5	74.5	23.1	0.9	11	4.9
GRA1	e P	Z	19:15:47.6	74.9	22.5	0.8	32	5.4
WET	e P	Z	19:15:48.0	74.9	23.4	0.9	21	5.2
GEC2	e P	Z	19:15:47.8	75.0	23.9	0.7	10	4.9
TNS	e P	Z	19:15:48.3	75.0	20.8	0.7	26	5.4
STU	e P	Z	19:15:54.6	76.2	21.2	0.7	21	5.4
RJOB	e P	Z	19:15:55.3	76.3	23.2	0.9	12	5.1
FUR	e P	Z	19:15:55.2	76.3	22.3	1.0	32	5.4
BFO	e P	Z	19:15:58.0	76.8	20.6	0.8	21	5.3

Date 2010/08/06 Origin Time 02:37:48.9 Lat 34.450N Long 24.950E Depth 17.2 mb 4.8 Ms 4.1 ML Source THE
Crete, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	02:41:41.7	16.6	145.8	1.4	152	4.9		
FUR	e P	Z	02:41:46.3	17.1	138.4	1.0	127	5.0		
WET	e P	Z	02:41:47.6	17.2	144.3	1.4	177	5.0		
ROTZ	e P	Z	02:41:55.7	17.9	143.8	1.6	92	4.7		
BRG	e P	Z	02:41:58.5	18.3	149.8	0.8	23	4.4		
GRA1	e P	Z	02:41:59.7	18.3	141.4	1.4	197	5.0		
	e L	Z	02:50:52.0			19.7	837		4.0	
TANN	e P	Z	02:42:00.6	18.4	145.6	0.9	53	4.7		
BFO	e P	Z	02:42:04.3	18.6	132.2	1.8	60	4.5		
MOX	e P	Z	02:42:06.0	18.9	144.0	0.9	30	4.5		
	e L	Z	02:51:11.3			19.3	967		4.1	
CLL	e P	Z	02:42:06.0	18.9	148.3	0.8	29	4.6		
CLZ	e P	Z	02:42:21.4	20.3	143.3	1.5	114	4.9		
WLF	e P	Z	02:42:24.6	20.5	130.7	1.2	85	4.9		
BUG	e P	Z	02:42:31.7	21.2	136.3	1.1	44	4.7		
IBBN	e P	Z	02:42:36.2	21.7	138.7	1.7	120	5.1		
BSEG	e P	Z	02:42:38.4	22.0	146.3	1.0	128	5.3		

Date 2010/08/06 Origin Time 02:43:12.4 Lat 6.220S Long 150.090E Depth 58.8 mb Ms ML Source NEIC
New Britain, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z	03:02:01.0	122.4	54.7					
CLL	e PKPdf	Z	03:02:01.4	122.7	53.5					
TANN	e PKPdf	Z	03:02:03.2	123.5	53.4					
CLZ	e PKPdf	Z	03:02:03.6	123.6	50.5					
GEC2	e PKPdf	Z	03:02:03.6	123.7	55.5					
WET	e PKPdf	Z	03:02:04.3	124.0	54.5					

RJOB	e	PKPdf	Z	03:02:05.2	124.9	55.2
WLF	e	PKPdf	Z	03:02:10.8	127.1	47.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/06	05:04: 2.5	21.560S	178.210W	625.1				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPbc	Z 05:22:36.2	147.0	14.7					
	e	PKPab	Z 05:22:39.7							
HLG	e	PKPbc	Z 05:22:36.8	147.1	10.5					
	e	PKPab	Z 05:22:39.5							
RUE	e	PKPbc	Z 05:22:37.9	147.7	21.2					
	e	PKPab	Z 05:22:42.4							
IBBN	e	PKPbc	Z 05:22:41.1	148.9	10.8					
	e	PKPab	Z 05:22:47.7							
CLL	e	PKPbc	Z 05:22:41.0	149.0	20.6					
	e	PKPab	Z 05:22:47.5							
	e	PP	Z 05:26:15.0							
CLZ	e	PKPbc	Z 05:22:41.4	149.0	15.6					
	e	PKPab	Z 05:22:48.1							
	e	pPKPbc	Z 05:25:03.8							
	e	PP	Z 05:26:15.7							
BRG	e	PKPbc	Z 05:22:41.6	149.2	22.5					
	e	PKPab	Z 05:22:48.5							
FBE	e	PKPbc	Z 05:22:42.2	149.3	21.4					
	e	PP	Z 05:26:17.0							
BUG	e	PKPbc	Z 05:22:43.1	149.8	10.2					
	e	pPKPbc	Z 05:25:05.9							
MOX	e	PKPbc	Z 05:22:43.3	149.9	18.5					
	e	PKPab	Z 05:22:51.5							
	e	PP	Z 05:26:20.5							
TANN	e	PKPbc	Z 05:22:43.5	150.0	20.1					
	e	PKPab	Z 05:22:51.8							
	e	PP	Z 05:26:20.7							
GUNZ	e	PKPbc	Z 05:22:43.8	150.0	19.9					
UBBA	e	PKPbc	Z 05:22:43.3	150.0	15.4					
ROTZ	e	PKPbc	Z 05:22:45.0	150.6	20.0					
	e	PKPab	Z 05:22:55.0							
	e	PP	Z 05:26:24.8							
TNS	e	PKPbc	Z 05:22:45.7	150.9	12.8					
	e	PKPab	Z 05:22:55.7							
	e	PP	Z 05:26:26.4							
GRA1	e	PKPbc	Z 05:22:45.7	150.9	18.3					
	e	PKPab	Z 05:22:56.2							
	e	PP	Z 05:26:26.4							
WET	e	PKPbc	Z 05:22:45.8	151.0	21.7					

	e	PKPab	Z	05:22:56.7								
	e	PP	Z	05:26:27.0								
GEC2	e	PKPbc	Z	05:22:45.9	151.1	23.4						
	e	PKPab	Z	05:22:56.6								
WLF	e	PKPbc	Z	05:22:48.1	151.7	8.6						
	e	PKPab	Z	05:22:59.6								
STU	e	PKPbc	Z	05:22:48.6	152.2	14.9						
	e	PKPab	Z	05:23:01.1								
FUR	e	PKPbc	Z	05:22:48.7	152.3	19.3						
	e	PKPab	Z	05:23:02.2								
RJOB	e	PKPbc	Z	05:22:48.3	152.4	22.5						
	e	PKPab	Z	05:23:02.6								
BFO	e	PKPbc	Z	05:22:49.5	152.7	13.4						
	e	PKPab	Z	05:23:03.5								

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/06	05:53:58.5	16.095S	175.212W	123.8				SZGRF
Tonga Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e	PKPbc	Z 06:13:16.0	144.2	13.6					
TANN	e	PKPbc	Z 06:13:19.3	145.1	13.0					
TNS	e	PKPbc	Z 06:13:21.5	145.7	6.3					
ROTZ	e	PKPbc	Z 06:13:22.3	145.8	12.7					
	e	pPKPbc	Z 06:13:55.0							
GRA1	e	PKPbc	Z 06:13:22.9	146.0	11.1					
	e	pPKPbc	Z 06:13:55.8							
WET	e	PKPbc	Z 06:13:23.4	146.3	14.1					
WLF	e	PKPbc	Z 06:13:23.7	146.4	2.4					
GEC2	e	PKPbc	Z 06:13:23.8	146.4	15.6					
BFO	e	PKPbc	Z 06:13:27.1	147.6	6.4					
RJOB	e	PKPbc	Z 06:13:27.4	147.7	14.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/06	08:58:37.8					4.5		NEIC
Tonga Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e	PKPdf	Z 09:17:19.6							
	e	PP	Z 09:18:17.3							
BRG	e	PP	Z 09:17:51.6							
CLL	e	PKPdf	Z 09:17:13.1							
	e	PP	Z 09:17:55.0							
CLZ	e	PKPdf	Z 09:17:15.6							
FBE	e	PP	Z 09:17:54.5							

GEC2	e PKPdf	Z	09:17:13.5						
	e PP	Z	09:17:52.8						
GRA1	e L	Z	10:08:01.3	21.5	126			4.5	
MOX	e PKPdf	Z	09:17:15.7						
	e L	Z	10:09:19.2	21.9	126			4.5	
RJOB	e PKPdf	Z	09:17:14.8						
TANN	e PKPdf	Z	09:17:14.2						
	e PP	Z	09:17:57.9						
WERN	e PKPdf	Z	09:17:14.5						
WET	e PKPdf	Z	09:17:14.5						
	e PP	Z	09:17:57.2						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/06	11:18:10.6	66.730N	174.740W	10.0	5.0			GSRC
Near north coast of eastern Siberia, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e P	Z 11:28:33.1	61.4	2.3	1.4	19	5.1		
CLL	e P	Z 11:28:35.4	61.8	3.5	1.6	14	4.9		
BRG	e P	Z 11:28:38.3	62.2	3.9	1.1	9	4.8		
TANN	e P	Z 11:28:42.1	62.7	3.2	1.4	14	4.9		
GRA1	e P	Z 11:28:47.4	63.5	2.6	2.0	43	5.3		
WET	e P	Z 11:28:50.6	64.0	3.3	1.7	16	5.0		
GEC2	e P	Z 11:28:51.9	64.2	3.7	1.1	7	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/06	12:11:57.8	34.910N	24.490E	1.0G	4.1			THE
Crete, Greece								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 12:16:31.8	16.0	146.3	0.8	10	4.0		
WET	e P	Z 12:16:37.8	16.6	144.7	1.0	10	3.9		
GRA1	e P	Z 12:16:51.0	17.7	141.7	1.6	42	4.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/07	05:31:29.8	43.803N	145.103E	43.9	4.8			SZGRF
Hokkaido, Japan, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 05:43:06.4	74.9	32.0	1.0	10	4.8		
	e pP	Z 05:43:18.8							
CLL	e P	Z 05:43:13.4	76.2	33.5	1.0	10	4.9		
	e pP	Z 05:43:26.0							

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

16

BRG	e pP	Z	05:43:25.9	76.3	34.0				
CLZ	e P	Z	05:43:16.4	76.7	31.8	0.8	7	4.8	
	e pP	Z	05:43:29.1						
MOX	e pP	Z	05:43:31.9	77.3	32.5				
ROTZ	e pP	Z	05:43:35.1	77.8	32.7				
GEC2	e P	Z	05:43:23.6	78.1	33.6	1.3	3	4.3	
WET	e P	Z	05:43:24.2	78.1	33.1	1.1	9	4.8	
	e pP	Z	05:43:36.8						
GRA1	e P	Z	05:43:25.0	78.2	32.1	1.6	26	5.0	
	e pP	Z	05:43:37.7						
TNS	e P	Z	05:43:26.9	78.7	30.3	1.9	22	4.9	
	e pP	Z	05:43:39.5						
RJOB	e P	Z	05:43:30.8	79.3	32.9	0.8	6	4.5	
	e pP	Z	05:43:43.4						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/07	07:02:38.9	15.190S	167.380E	173.4				NEIC
Vanuatu Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z	07:21:36.7	138.4	40.6					
	e PKPdf	Z	07:21:44.9							
CLL	e PKPdf	Z	07:21:44.8	138.5	39.0					
TANN	e PKPdf	Z	07:21:46.8	139.4	38.9					
IBBN	e PKPdf	Z	07:21:46.7	139.5	31.2					
MOX	e PKPbc	Z	07:21:38.2	139.5	37.6					
	e PKPdf	Z	07:21:46.7							
ROTZ	e PKPdf	Z	07:21:47.8	140.0	39.1					
UBBA	e PKPdf	Z	07:21:47.3	140.0	35.3					
GEC2	e PKPbc	Z	07:21:41.4	140.0	41.8					
	e PKPdf	Z	07:21:47.5							
WET	e PKPdf	Z	07:21:48.3	140.2	40.4					
BUG	e PKPdf	Z	07:21:48.2	140.4	31.0					
TNS	e PKPbc	Z	07:21:43.9	141.0	33.5					
RJOB	e PKPbc	Z	07:21:44.9	141.3	41.5					
FUR	e PKPbc	Z	07:21:45.6	141.6	39.0					
	e PKPdf	Z	07:21:50.8							
STU	e PKPbc	Z	07:21:46.6	142.0	35.6					
WLF	e PKPbc	Z	07:21:47.6	142.3	30.5					
BFO	e PKPbc	Z	07:21:48.3	142.6	34.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/07	16:04: 6.1	28.977N	128.736E	238.1	5.7			SZGRF
Ryukyu Islands, Japan								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	16:15:56.7	81.6	51.1	0.9	56	5.7		
BRG	e P	Z	16:15:57.2	81.7	53.4	1.2	29	5.3		
	e pP	Z	16:16:54.0							
CLL	e P	Z	16:15:58.3	81.9	52.7	0.9	41	5.5		
TANN	e P	Z	16:16:02.6	82.7	52.3	2.0	96	5.7		
CLZ	e P	Z	16:16:03.9	82.9	50.9	1.1	112	6.0		
MOX	e P	Z	16:16:04.1	83.0	51.7	1.3	35	5.4		
GEC2	e P	Z	16:16:04.3	83.0	53.0	1.4	27	5.3		
WET	e P	Z	16:16:05.7	83.3	52.4	2.4	167	5.8		
UBBA	e P	Z	16:16:07.5	83.7	50.5	1.4	80	5.8		
IBBN	e P	Z	16:16:08.2	83.8	49.0	0.9	113	6.1		
GRA1	e P	Z	16:16:08.7	83.8	51.3	1.5	178	6.1		
RJOB	e P	Z	16:16:10.6	84.2	52.3	0.9	67	5.9		
BUG	e P	Z	16:16:12.0	84.6	48.5	1.8	212	6.1		
FUR	e P	Z	16:16:13.3	84.7	51.2	1.1	124	6.1		
TNS	e P	Z	16:16:13.5	84.8	49.3	1.1	43	5.6		
STU	e P	Z	16:16:16.2	85.4	49.8	1.1	40	5.5		
BFO	e P	Z	16:16:19.1	86.1	49.1	1.6	50	5.4		
	e pP	Z	16:17:16.9							
WLF	e P	Z	16:16:20.8	86.3	47.6	1.2	72	5.7		
	e pP	Z	16:17:17.6							

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/07 16:03:27.9 38.149N 142.383E 33.0G 4.8
 Near east coast of eastern Honshu, Japan SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	16:15:29.3	79.1	36.5	1.0	12	4.9		
BRG	e P	Z	16:15:34.8	80.2	38.7	1.1	6	4.4		
CLL	e P	Z	16:15:34.7	80.2	38.1	1.0	9	4.8		
CLZ	e P	Z	16:15:38.3	80.8	36.3	1.1	10	4.7		
TANN	e P	Z	16:15:39.8	81.1	37.6	1.1	2	4.1		
IBBN	e P	Z	16:15:40.8	81.3	34.5	1.1	11	4.9		
UBBA	e P	Z	16:15:43.8	81.7	35.9	1.4	5	4.5		
GEC2	e P	Z	16:15:43.6	81.9	38.3	1.1	4	4.5		
WET	e P	Z	16:15:44.6	82.0	37.8	1.2	7	4.6		
GRA1	e P	Z	16:15:45.9	82.2	36.7	1.1	13	5.0		
TNS	e P	Z	16:15:48.7	82.8	34.8	0.8	4	4.7		
RJOB	e P	Z	16:15:50.5	83.1	37.6	1.0	9	5.0		
FUR	e P	Z	16:15:51.7	83.4	36.6	0.8	12	5.2		
STU	e P	Z	16:15:53.3	83.7	35.2	1.1	13	5.1		
BFO	e P	Z	16:15:56.6	84.4	34.6	1.1	11	5.0		

Date Origin Time Lat Long Depth mb Ms ML Source

2010/08/07 21:46:31.5 66.479N 134.506W 33.0G 4.6 SZGRF
Northern Yukon Territory, Canada

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	21:56:12.4	56.7	344.0	1.0	16	5.0		
IBBN	e P	Z	21:56:19.9	57.8	343.2	1.2	9	4.7		
CLZ	e P	Z	21:56:26.4	58.7	344.4	0.9	7	4.7		
CLL	e P	Z	21:56:32.2	59.7	345.6	0.9	6	4.6		
TNS	e P	Z	21:56:34.4	59.9	343.9	0.8	4	4.4		
MOX	e P	Z	21:56:35.5	60.1	345.1	0.9	5	4.5		
BRG	e P	Z	21:56:36.4	60.2	346.1	0.8	5	4.3		
TANN	e P	Z	21:56:37.7	60.4	345.5	0.9	4	4.3		
GRA1	e P	Z	21:56:41.5	60.9	345.1	0.9	4	4.3		
WET	e P	Z	21:56:46.9	61.7	345.9	0.8	5	4.8		
GEC2	e P	Z	21:56:49.6	62.2	346.2	1.1	5	4.7		
FUR	e P	Z	21:56:51.2	62.4	345.3	0.8	8	4.9		

Date Origin Time Lat Long Depth mb Ms ML Source
2010/08/08 00:24:11.3 36.610N 28.020E 1.0 4.3
Dodecanese Islands, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WET	e P	Z	00:28:06.6	16.7	133.1	1.5	29	4.2		
FUR	e P	Z	00:28:10.7	16.9	127.1	0.9	27	4.4		
BRG	e P	Z	00:28:17.2	17.5	139.4	2.1	51	4.3		
TANN	e P	Z	00:28:22.0	17.8	135.1	1.1	30	4.3		
GRA1	e P	Z	00:28:20.3	17.8	130.8	1.3	12	3.9		
CLL	e P	Z	00:28:25.2	18.2	138.2	0.9	13	4.0		
MOX	e P	Z	00:28:27.1	18.3	133.8	1.1	36	4.4		
TNS	e P	Z	00:28:39.8	19.6	126.6	1.1	18	4.2		
CLZ	e P	Z	00:28:41.4	19.7	133.8	0.9	36	4.6		
BUG	e P	Z	00:28:54.2	20.9	127.1	1.4	29	4.4		
IBBN	e P	Z	00:28:57.5	21.2	129.8	0.9	18	4.4		
BSEG	e P	Z	00:28:57.2	21.2	137.6					

Date Origin Time Lat Long Depth mb Ms ML Source
2010/08/08 04:06:31.0 34.560N 24.470E 1.0 4.7
Crete, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	04:10:18.5	15.8	142.3	0.8	24	4.4		
GEC2	e P	Z	04:10:23.9	16.4	146.9	0.8	58	4.7		
FUR	e P	Z	04:10:28.8	16.8	139.4	1.5	240	5.1		
WET	e P	Z	04:10:30.0	16.9	145.3	0.9	62	4.7		
GRA1	e P	Z	04:10:42.2	18.0	142.3	1.3	169	5.0		

BRG	e P	Z	04:10:40.8	18.0	150.9	1.0	23	4.3
TANN	e P	Z	04:10:41.7	18.1	146.5	1.4	52	4.5
STU	e P	Z	04:10:42.5	18.2	135.9	0.9	37	4.5
BFO	e P	Z	04:10:45.3	18.3	133.0	1.2	35	4.4
MOX	e P	Z	04:10:48.9	18.6	144.9	1.0	24	4.4
CLL	e P	Z	04:10:48.5	18.7	149.3	0.8	25	4.5
UBBA	e P	Z	04:10:57.5	19.4	141.6	1.6	72	4.7
TNS	e P	Z	04:10:59.9	19.5	137.2	1.0	30	4.5
CLZ	e P	Z	04:11:04.8	20.0	144.1	1.5	72	4.7
WLF	e P	Z	04:11:07.2	20.2	131.5	0.9	67	4.9
BUG	e P	Z	04:11:15.3	20.9	137.0	1.3	84	4.9
IBBN	e P	Z	04:11:19.7	21.4	139.5	1.4	74	4.8
BSEG	e P	Z	04:11:21.5	21.8	147.1	1.0	76	5.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/08	09:00:29.6	40.421N	23.857E	10.0G				SZGRF

Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 09:03:03.3	10.8	128.7					
GEC2	e Pn	Z 09:03:05.9	11.1	135.7					
BFO	e Pn	Z 09:03:41.2	13.6	119.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/08	09:15: 2.2	40.500N	23.812E	10.0G				SZGRF

Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 09:17:34.7	10.7	128.5					
GEC2	e Pn	Z 09:17:38.0	11.0	135.6					
WET	e Pn	Z 09:17:46.0	11.6	134.1					
BFO	e Pn	Z 09:18:09.9	13.5	119.7					
TNS	e Pn	Z 09:18:26.2	14.5	126.3					
CLZ	e Pn	Z 09:18:33.3	14.6	135.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/08	10:23:10.9	51.646N	174.869E	33.0G	5.0			SZGRF

Near Islands, Aleutian Islands, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 10:34:41.8	73.6	9.9	1.1	19	5.0		
IBBN	e P	Z 10:34:52.3	75.5	8.2	1.3	52	5.5		
CLZ	e P	Z 10:34:53.5	75.7	9.9	1.4	22	5.1		

CLL	e P	Z	10:34:54.1	75.9	11.5	2.0	45	5.2
BRG	e P	Z	10:34:56.0	76.2	12.1	1.5	16	4.9
BUG	e P	Z	10:34:56.9	76.4	7.9	1.4	23	5.1
MOX	e P	Z	10:34:58.8	76.7	10.6	1.8	22	5.0
UBBA	e P	Z	10:34:58.7	76.7	9.6	1.8	31	5.1
TANN	e P	Z	10:35:00.1	76.9	11.1	1.8	21	5.0
TNS	e P	Z	10:35:03.2	77.5	8.6	1.0	13	5.0
GRA1	e P	Z	10:35:04.9	77.7	10.3	1.7	46	5.3
WET	e P	Z	10:35:06.7	78.0	11.3	1.7	26	5.1
GEC2	e P	Z	10:35:07.5	78.2	11.8	1.7	23	4.9
WLF	e P	Z	10:35:07.7	78.2	7.1	2.3	77	5.3
STU	e P	Z	10:35:10.5	78.8	9.0	1.0	15	5.0
FUR	e P	Z	10:35:13.1	79.2	10.3	1.5	36	5.1
BFO	e P	Z	10:35:13.3	79.4	8.5	1.2	15	4.8
RJOB	e P	Z	10:35:14.4	79.4	11.2	0.9	5	4.4

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/08 12:04:33.9 51.851N 179.615E 33.0G 5.3 4.7
 Rat Islands, Aleutian Islands, United States SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	12:16:05.8	73.8	6.9	1.0	48	5.5		
RUE	e P	Z	12:16:12.3	75.0	9.0	1.3	43	5.3		
IBBN	e P	Z	12:16:15.9	75.6	5.2	0.9	72	5.8		
CLZ	e P	Z	12:16:17.7	75.9	6.8	0.9	44	5.6		
CLL	e P	Z	12:16:18.7	76.2	8.5	1.3	30	5.3		
BUG	e P	Z	12:16:20.4	76.5	4.9	0.8	32	5.5		
BRG	e P	Z	12:16:20.9	76.6	9.0	1.0	19	5.2		
UBBA	e P	Z	12:16:22.8	77.0	6.6	1.7	55	5.4		
MOX	e P	Z	12:16:23.3	77.0	7.6	1.3	34	5.3		
	e L	Z	12:51:13.3			21.0	373		4.7	
TANN	e P	Z	12:16:24.3	77.2	8.1	1.6	35	5.2		
TNS	e P	Z	12:16:27.0	77.7	5.6	0.8	28	5.5		
GRA1	e P	Z	12:16:29.3	78.0	7.3	1.0	53	5.6		
	e L	Z	12:53:49.2			21.3	383		4.7	
WLF	e P	Z	12:16:31.0	78.3	4.1	0.9	28	5.3		
WET	e P	Z	12:16:31.3	78.4	8.3	1.5	25	5.0		
GEC2	e P	Z	12:16:32.4	78.6	8.8	0.8	12	5.0		
STU	e P	Z	12:16:34.7	79.0	6.0	0.7	20	5.2		
FUR	e P	Z	12:16:37.4	79.5	7.3	1.2	36	5.2		
BFO	e P	Z	12:16:36.9	79.5	5.5	1.4	40	5.1		
RJOB	e P	Z	12:16:38.9	79.8	8.2	0.8	12	4.9		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/08 13:52:13.3 43.089N 38.884W 33.0N 4.7
 SZGRF

North Atlantic Ocean

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TNS	e P	Z	13:58:41.5	32.7	276.0	1.5	24	4.9		
BFO	e P	Z	13:58:44.8	32.8	278.9	1.7	15	4.6		
CLZ	e P	Z	13:58:52.4	33.7	274.9					
GRA1	e P	Z	13:58:58.8	34.5	278.6	1.8	31	4.9		
MOX	e P	Z	13:58:59.7	34.6	277.5	2.4	41	4.9		
TANN	e P	Z	13:59:04.1	35.2	278.4	1.9	12	4.5		
CLL	e P	Z	13:59:05.0	35.4	277.5	2.4	34	4.8		
GEC2	e P	Z	13:59:13.8	36.3	281.3	1.8	10	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/09	00:54: 7.0	49.429N	155.033E	33.0N	4.5			SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	01:05:40.1	74.2	24.6	1.0	6	4.6		
CLZ	e P	Z	01:05:41.9	74.4	23.0	1.1	5	4.5		
GRA1	e P	Z	01:05:52.1	76.1	23.3	0.9	7	4.8		
WET	e P	Z	01:05:52.4	76.2	24.3					
GEC2	e P	Z	01:05:52.1	76.2	24.7	1.2	4	4.4		
TNS	e P	Z	01:05:52.9	76.3	21.6	1.0	5	4.6		
RJOB	e P	Z	01:05:59.6	77.5	24.1	0.9	3	4.3		
BFO	e P	Z	01:06:02.6	78.1	21.4	1.1	4	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/09	02:54:52.5	30.151N	94.363E	33.0G	5.0			SZGRF

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	03:05:04.4	61.3	76.5	1.4	11	4.5		
CLL	e P	Z	03:05:07.3	61.8	76.0	1.2	5	4.6		
GEC2	e P	Z	03:05:09.2	61.9	75.2	1.2	16	5.1		
TANN	e P	Z	03:05:11.3	62.3	75.2	1.5	11	4.9		
WET	e P	Z	03:05:12.1	62.4	74.8	1.3	13	4.9		
BSEG	e P	Z	03:05:14.1	62.7	75.5	1.4	15	4.9		
MOX	e P	Z	03:05:14.4	62.8	74.7	1.4	10	4.7		
RJOB	e P	Z	03:05:14.9	62.8	74.1	1.0	9	4.9		
CLZ	e P	Z	03:05:17.5	63.2	74.5	1.5	22	5.1		
GRA1	e P	Z	03:05:18.3	63.3	74.0	1.3	17	5.0		
FUR	e P	Z	03:05:21.0	63.7	73.3	1.0	28	5.4		
BFO	e P	Z	03:05:32.1	65.5	71.5	1.6	19	5.1		
WLF	e P	Z	03:05:38.8	66.4	70.6	1.2	22	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/09	03:34:15.7	6.100S	113.000E	594.9				NEIC
Jawa, Indonesia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e Pdiff	Z	03:46:59.4	100.4	86.8					
GEC2	e Pdiff	Z	03:47:00.4	100.7	87.0					
CLL	e Pdiff	Z	03:47:01.5	101.0	86.0					
WET	e Pdiff	Z	03:47:02.8	101.2	86.3					
MOX	e Pdiff	Z	03:47:05.6	101.9	85.1					
	e PP	Z	03:51:25.9							
GRA1	e PP	Z	03:51:28.6	102.3	84.9					
CLZ	e Pdiff	Z	03:47:09.0	102.6	83.8					
	e PP	Z	03:51:30.8							
UBBA	e PP	Z	03:51:34.4	102.9	83.7					
TNS	e Pdiff	Z	03:47:15.4	104.0	82.7					
BFO	e Pdiff	Z	03:47:15.6	104.3	83.0					
WLF	e PP	Z	03:51:52.1	105.5	81.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/09	20:25:52.6	21.341S	173.801W	33.0N				SZGRF
Tonga Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	20:45:31.9	147.3	7.1					
IBBN	e PKPbc	Z	20:45:37.0	149.0	2.8					
CLZ	e PKPbc	Z	20:45:38.0	149.3	7.6					
CLL	e PKPbc	Z	20:45:38.2	149.6	12.6					
BRG	e PKPbc	Z	20:45:39.2	149.9	14.5					
BUG	e PKPbc	Z	20:45:39.0	149.9	2.0					
UBBA	e PKPbc	Z	20:45:40.0	150.4	7.2					
MOX	e PKPbc	Z	20:45:40.4	150.4	10.3					
TANN	e PKPbc	Z	20:45:41.0	150.5	11.9					
TNS	e PKPbc	Z	20:45:42.2	151.1	4.3					
GRA1	e PKPbc	Z	20:45:43.0	151.4	9.8					
WLF	e PKPbc	Z	20:45:44.0	151.7	359.9					
WET	e PKPbc	Z	20:45:43.0	151.7	13.2					
GEC2	e PKPbc	Z	20:45:43.8	151.9	14.9					
BFO	e PKPbc	Z	20:45:46.2	153.0	4.4					
RJOB	e PKPbc	Z	20:45:46.4	153.1	13.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/09	22:21:40.4	12.105N	92.448E	33.0G	5.4	4.6		SZGRF

Andaman Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	22:33:09.0	73.4	91.1	0.9	40	5.6		
GEC2	e P	Z	22:33:10.1	73.5	90.3	0.8	46	5.6		
CLL	e P	Z	22:33:12.1	74.0	90.5	1.0	31	5.3		
WET	e P	Z	22:33:13.2	74.1	89.8	0.9	33	5.4		
RJOB	e P	Z	22:33:13.1	74.1	89.3	1.1	23	5.1		
TANN	e P	Z	22:33:14.5	74.3	89.8	1.1	29	5.2		
MOX	e P	Z	22:33:17.6	74.9	89.3	0.9	34	5.4		
	e L	Z	23:10:29.4			20.7	351		4.6	
GRA1	e P	Z	22:33:19.8	75.1	88.7	0.9	46	5.5		
	e L	Z	23:11:59.1			18.4	398		4.7	
FUR	e P	Z	22:33:19.2	75.1	88.3	0.8	31	5.4		
BSEG	e P	Z	22:33:21.9	75.6	89.1	1.1	74	5.7		
CLZ	e P	Z	22:33:22.0	75.6	88.6	0.9	48	5.6		
UBBA	e P	Z	22:33:23.0	75.9	88.1	1.6	24	5.1		
STU	e P	Z	22:33:27.0	76.5	86.9	0.8	22	5.4		
TNS	e P	Z	22:33:29.5	76.9	86.7	0.8	28	5.4		
BFO	e P	Z	22:33:30.1	77.1	86.2	1.0	17	5.1		
IBBN	e P	Z	22:33:31.1	77.2	86.7	1.2	93	5.8		
BUG	e P	Z	22:33:33.1	77.6	86.1	1.3	70	5.6		
WLF	e P	Z	22:33:38.3	78.4	84.9	1.1	30	5.3		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/10 01:41:12.5 29.495N 141.516E 33.0G 5.0 4.4
 Southeast of Honshu, Japan SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	01:53:55.9	87.4	43.0	2.5	38	5.3		
TANN	e P	Z	01:54:00.8	88.3	42.5	2.1	18	4.9		
MOX	e P	Z	01:54:01.4	88.5	41.9	1.5	11	4.9		
	e L	Z	02:41:53.3			18.3	147		4.4	
UBBA	e P	Z	01:54:03.6	89.0	40.7	1.8	16	4.9		
GRA1	e P	Z	01:54:06.0	89.4	41.6	1.6	20	5.1		
	e L	Z	02:41:40.3			18.8	182		4.5	
RJOB	e P	Z	01:54:09.2	90.1	42.8	1.6	10	4.8		
STU	e P	Z	01:54:12.7	90.9	40.1					
WLF	e P	Z	01:54:15.3	91.5	37.7	2.1	51	5.5		
BFO	e P	Z	01:54:15.7	91.6	39.4	1.4	8	4.9		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/10 05:23:46.6 17.590S 167.970E 35.0 7.4
 Vanuatu Islands NEIC

./2010/bull1008.txt

Thu Apr 23 08:38:25 2020

24

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e L	Z	06:45:57.0	141.9	38.3	20.4	57443		7.3	
GRA1	e PKPdf	Z	05:43:18.0	142.8	38.5					
	e L	Z	06:46:25.6			21.5	96302		7.5	
SLE	e PKPbc	Z	05:43:19.6	145.5	36.1					
WILA	e PKPbc	Z	05:43:20.0	145.6	37.1					
PLONS	e PKPbc	Z	05:43:20.4	145.7	38.1					
SULZ	e PKPbc	Z	05:43:20.2	145.8	35.7					
BALST	e PKPbc	Z	05:43:21.1	146.1	35.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	05:50:42.0	39.894N	143.608E	33.0G	5.9			SZGRF

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	06:02:28.8	76.4	37.0	1.3	269	6.2		
RUE	e P	Z	06:02:37.0	77.9	37.1	1.4	234	6.1		
BSEG	e P	Z	06:02:37.3	78.0	34.8	1.5	207	6.0		
HLG	e P	Z	06:02:41.0	78.5	33.1	1.2	320	6.2		
BRG	e P	Z	06:02:43.2	79.1	37.0	1.6	163	5.8		
CLL	e P	Z	06:02:43.1	79.1	36.4	1.6	216	5.9		
CLZ	e P	Z	06:02:46.5	79.7	34.6	1.5	211	5.9		
NEUB	e P	Z	06:02:46.3	79.7	35.5	1.5	225	5.9		
TANN	e P	Z	06:02:48.3	80.1	35.9	1.7	127	5.6		
WERD	e P	Z	06:02:48.5	80.1	35.8	1.6	130	5.6		
PLN	e P	Z	06:02:48.7	80.1	35.7	2.7	733	6.1		
GUNZ	e P	Z	06:02:49.0	80.2	35.8	1.5	130	5.6		
IBBN	e P	Z	06:02:48.9	80.2	32.8	1.6	255	5.9		
MOX	e P	Z	06:02:49.0	80.2	35.4	1.5	127	5.7		
WERN	e P	Z	06:02:49.4	80.2	35.8	1.5	138	5.8		
MANZ	e P	Z	06:02:51.0	80.5	35.6	1.5	117	5.7		
UBBA	e P	Z	06:02:50.6	80.6	34.3	2.5	346	5.9		
GEC2	e P	Z	06:02:52.4	80.9	36.6	1.4	71	5.5		
WET	e P	Z	06:02:53.2	80.9	36.1	1.6	173	5.8		
BUG	e P	Z	06:02:53.2	81.1	32.4	1.5	128	5.7		
GRA1	e P	Z	06:02:54.4	81.1	35.0	1.6	331	6.1		
TNS	e P	Z	06:02:56.8	81.7	33.1	1.5	90	5.7		
RJOB	e P	Z	06:02:59.6	82.1	35.9	1.5	188	6.0		
FUR	e P	Z	06:03:00.7	82.3	34.9	1.5	251	6.2		
STU	e P	Z	06:03:01.8	82.6	33.5	1.4	133	6.0		
WLF	e P	Z	06:03:03.9	82.9	31.5	2.0	311	6.2		
BFO	e P	Z	06:03:05.3	83.3	32.9	2.0	400	6.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	06:14:37.0	17.440S	167.690E	36.8				NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e PKP	Z	06:34:00.8	142.2	43.0					
RJOB	e PKP	Z	06:34:04.4	143.4	42.8					
STU	e PKP	Z	06:34:06.4	144.1	36.6					
WLF	e PKP	Z	06:34:08.0	144.5	31.4					
BFO	e PKP	Z	06:34:08.6	144.8	35.7					
SLE	e PKP	Z	06:34:09.6	145.2	36.4					
WILA	e PKP	Z	06:34:10.2	145.3	37.4					
ECH	e PKP	Z	06:34:10.2	145.4	34.0					
PLONS	e PKP	Z	06:34:10.6	145.4	38.4					
SULZ	e PKP	Z	06:34:10.7	145.6	36.1					
BALST	e PKP	Z	06:34:11.8	145.9	35.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	09:21:57.0	17.960S	167.390E	35.0				NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
STU	e PKPbc	Z	09:41:25.8	144.5	37.5					
WLF	e PKPbc	Z	09:41:27.5	144.9	32.1					
BFO	e PKPbc	Z	09:41:28.1	145.2	36.5					
SLE	e PKPbc	Z	09:41:29.1	145.6	37.3					
WILA	e PKPbc	Z	09:41:29.6	145.7	38.2					
ECH	e PKPbc	Z	09:41:29.6	145.7	34.8					
PLONS	e PKPbc	Z	09:41:30.1	145.8	39.3					
SULZ	e PKPbc	Z	09:41:30.3	145.9	36.9					
BALST	e PKPbc	Z	09:41:31.2	146.2	36.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	11:49:18.0	17.460S	167.760E	35.0				NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TNS	e PKPbc	Z	12:08:45.1	143.3	34.3					
STU	e PKPbc	Z	12:08:47.9	144.2	36.6					
WLF	e PKPbc	Z	12:08:49.5	144.5	31.3					
BFO	e PKPbc	Z	12:08:50.2	144.9	35.6					
SLE	e PKPbc	Z	12:08:51.0	145.3	36.4					
WILA	e PKPbc	Z	12:08:51.8	145.4	37.3					
ECH	e PKPbc	Z	12:08:51.8	145.4	33.9					
PLONS	e PKPbc	Z	12:08:52.1	145.5	38.3					
SULZ	e PKPbc	Z	12:08:52.2	145.6	36.0					
BALST	e PKPbc	Z	12:08:53.4	145.9	35.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	12:12:45.7	18.020S	167.700E	35.0				NEIC
Vanuatu Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e PKPbc	Z	12:32:20.2	145.1	31.7					
BFO	e PKPbc	Z	12:32:20.8	145.4	36.1					
SLE	e PKPbc	Z	12:32:21.6	145.8	36.9					
WILA	e PKPbc	Z	12:32:22.2	145.9	37.8					
ECH	e PKPbc	Z	12:32:22.4	145.9	34.4					
PLONS	e PKPbc	Z	12:32:22.6	145.9	38.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	12:39:46.9	17.560S	167.710E	35.0				NEIC
Vanuatu Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e PKPbc	Z	12:59:10.8	142.3	43.1					
TNS	e PKPbc	Z	12:59:13.4	143.4	34.4					
RJOB	e PKPbc	Z	12:59:14.3	143.5	42.8					
FUR	e PKPbc	Z	12:59:15.3	143.9	40.3					
STU	e PKPbc	Z	12:59:16.4	144.3	36.7					
WLF	e PKPbc	Z	12:59:18.1	144.6	31.4					
BFO	e PKPbc	Z	12:59:18.7	144.9	35.8					
SLE	e PKPbc	Z	12:59:19.7	145.3	36.5					
WILA	e PKPbc	Z	12:59:20.2	145.5	37.4					
ECH	e PKPbc	Z	12:59:20.3	145.5	34.1					
PLONS	e PKPbc	Z	12:59:20.8	145.5	38.5					
SULZ	e PKPbc	Z	12:59:20.8	145.7	36.1					
BALST	e PKPbc	Z	12:59:21.8	146.0	35.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	14:04:14.6	30.380N	94.820E	41.1	5.4			NEIC
Xizang								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:14:43.0	63.4	73.5	0.6	15	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	15:48:44.2	28.700N	128.610E	49.5	5.2			NEIC

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 16:01:14.6	84.0	51.6	1.4	20	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	16:00:38.3	39.360N	143.250E	10.0	4.7			NEIC

Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 16:12:47.4	79.5	37.5	0.8	4	4.4		
CLL	e P	Z 16:12:47.2	79.5	36.9	1.0	9	4.6		
TANN	e P	Z 16:12:52.5	80.4	36.4	1.9	16	4.7		
MOX	e P	Z 16:12:53.1	80.5	35.9	1.0	6	4.6		
GEC2	e P	Z 16:12:56.6	81.2	37.1	1.0	4	4.4		
WET	e P	Z 16:12:57.5	81.3	36.6	1.2	8	4.7		
GRA1	e P	Z 16:12:58.7	81.4	35.5	1.0	11	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	16:02:4.8	20.448S	169.489E	33.0N				SZGRF

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e PKPbc	Z 16:21:39.6	145.6	42.9					
RJOB	e PKPbc	Z 16:21:43.1	146.9	42.7					
FUR	e PKPbc	Z 16:21:43.9	147.2	39.9					
STU	e PKPbc	Z 16:21:45.2	147.6	36.1					
WLF	e PKPbc	Z 16:21:46.7	147.9	30.4					
BFO	e PKPbc	Z 16:21:47.3	148.3	35.1					
SLE	e PKPbc	Z 16:21:48.5	148.7	35.9					
WILA	e PKPbc	Z 16:21:49.0	148.8	36.9					
ECH	e PKPbc	Z 16:21:49.0	148.8	33.3					
PLONS	e PKPbc	Z 16:21:49.5	148.9	38.1					
SULZ	e PKPbc	Z 16:21:49.7	149.0	35.5					
BALST	e PKPbc	Z 16:21:50.6	149.3	35.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	19:05:17.4	17.820S	167.720E	35.0				NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TANN	e PKPbc	Z 19:24:37.9	141.9	40.2					
MOX	e PKPbc	Z 19:24:38.6	142.1	38.8					

GEC2	e	PKPbc	Z	19:24:40.2	142.5	43.3
UBBA	e	PKPbc	Z	19:24:39.9	142.5	36.4
TNS	e	PKPbc	Z	19:24:43.9	143.6	34.6
RJOB	e	PKPbc	Z	19:24:44.8	143.7	43.0
FUR	e	PKPbc	Z	19:24:45.9	144.1	40.5
STU	e	PKPbc	Z	19:24:47.1	144.5	36.9
WLF	e	PKPbc	Z	19:24:48.8	144.9	31.5
BFO	e	PKPbc	Z	19:24:49.3	145.2	35.9
SLE	e	PKPbc	Z	19:24:50.3	145.6	36.7
WILA	e	PKPbc	Z	19:24:50.8	145.7	37.6
ECH	e	PKPbc	Z	19:24:50.9	145.7	34.2
PLONS	e	PKPbc	Z	19:24:51.3	145.8	38.7
SULZ	e	PKPbc	Z	19:24:51.3	145.9	36.3
BALST	e	PKPbc	Z	19:24:52.4	146.2	35.8

Date 2010/08/10
 Origin Time 20:56: 4.2
 Lat 14.653N
 Long 90.215W
 Depth 165.3
 mb 4.8
 Ms
 ML
 Source SZGRF
 Guatemala

Sta	Phase		Time	Dist	Baz	T[s]	A[nm]	mb	MS	ML
WLF	e pP	Z	21:08:51.2	82.9	284.3					
IBBN	e pP	Z	21:08:52.7	83.2	285.2					
TNS	e P	Z	21:08:16.7	84.2	286.0	1.6	33	5.3		
	e pP	Z	21:08:57.8							
BSEG	e P	Z	21:08:16.7	84.2	287.1	0.9	10	5.0		
	e pP	Z	21:08:58.2							
	e sP	Z	21:09:13.8							
BFO	e P	Z	21:08:18.4	84.6	286.1	1.6	18	5.0		
	e pP	Z	21:08:59.6							
CLZ	e P	Z	21:08:20.2	84.9	287.3	1.7	29	5.2		
	e pP	Z	21:09:01.5							
MOX	e P	Z	21:08:25.5	86.0	288.3	1.7	13	4.8		
GRA1	e P	Z	21:08:26.2	86.1	288.1	0.6	7	5.0		
	e pP	Z	21:09:07.5							
	e sP	Z	21:09:23.4							
TANN	e P	Z	21:08:28.4	86.6	289.0	1.4	6	4.6		
	e pP	Z	21:09:10.1							
CLL	e P	Z	21:08:28.2	86.6	289.4	0.8	4	4.6		
	e pP	Z	21:09:09.8							
ROTZ	e P	Z	21:08:29.5	86.6	288.8	0.9	0	3.3		
WET	e P	Z	21:08:31.6	87.3	289.4	1.6	12	4.8		
	e pP	Z	21:09:13.6							
	e sP	Z	21:09:29.5							
BRG	e P	Z	21:08:31.6	87.3	290.1	1.6	9	4.7		
	e pP	Z	21:09:13.6							
RJOB	e pP	Z	21:09:15.3	87.7	289.4					
GEC2	e P	Z	21:08:34.3	87.9	290.0	1.3	5	4.7		

e pP Z 21:09:16.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	21:58:22.5	20.480S	169.307E	33.0G				SZGRF

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e PKPbc	Z	22:18:01.5	146.8	43.0					
FUR	e PKPbc	Z	22:18:02.0	147.2	40.3					
STU	e PKPbc	Z	22:18:03.7	147.5	36.4					
WLF	e PKPbc	Z	22:18:05.4	147.9	30.7					
BFO	e PKPbc	Z	22:18:05.6	148.2	35.4					
SLE	e PKPbc	Z	22:18:06.8	148.6	36.2					
WILA	e PKPbc	Z	22:18:07.4	148.7	37.3					
ECH	e PKPbc	Z	22:18:07.5	148.8	33.6					
PLONS	e PKPbc	Z	22:18:07.9	148.8	38.4					
SULZ	e PKPbc	Z	22:18:07.9	149.0	35.9					
BALST	e PKPbc	Z	22:18:09.0	149.3	35.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	22:27:51.8	43.630N	12.022E	10.0G			3.6	SZGRF

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z	22:28:45.0	3.4	212.7					3.7
KBA	e Pn	Z	22:28:46.5	3.6	195.6					3.4
WTTA	e Pn	Z	22:28:48.5	3.6	175.6					3.8
DAVA	e Pn	Z	22:28:53.4	4.0	156.9					3.8
	e Sn	N	22:29:40.9							
RJOB	e Pn	Z	22:28:54.9	4.1	187.8					3.4
	e Sn	N	22:29:46.0							
WILA	e Pn	Z	22:28:58.2	4.4	148.9					3.9
	e Sn	E	22:29:48.4							
MOA	e Pn	Z	22:28:59.4	4.5	201.2					3.4
	e Sn	E	22:29:50.6							
SULZ	e Pn	Z	22:29:05.3	4.8	143.5					4.0
	e Sn	E	22:29:56.8							
BALST	e Pn	Z	22:29:04.8	4.8	139.1					3.6
	e Sn	E	22:29:56.6							
SLE	e Pn	Z	22:29:03.7	4.8	147.9					3.6
	e Sn	N	22:29:56.3							
GEC2	e Pn	Z	22:29:10.1	5.3	193.2					3.4
	e Sn	E	22:30:10.9							
BFO	e Pn	Z	22:29:10.7	5.4	150.0					3.5
	e Sn	E	22:30:09.5							

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

30

WET	e Pn	Z	22:29:12.6	5.5	186.4	3.4
	e Sn	N	22:30:13.2			
GUNZ	e Pn	Z	22:29:30.6	6.7	181.9	3.8
TANN	e Pn	Z	22:29:29.7	6.8	182.7	3.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	22:34:45.3	20.385S	169.523E	33.0N				SZGRF
Vanuatu Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e PKPbc	Z	22:54:23.8	146.8	42.6					
WLF	e PKPbc	Z	22:54:27.3	147.9	30.3					
BFO	e PKPbc	Z	22:54:27.9	148.2	35.0					
SLE	e PKPbc	Z	22:54:28.7	148.6	35.8					
WILA	e PKPbc	Z	22:54:29.7	148.7	36.8					
ECH	e PKPbc	Z	22:54:29.7	148.8	33.2					
PLONS	e PKPbc	Z	22:54:30.0	148.8	38.0					
SULZ	e PKPbc	Z	22:54:30.3	149.0	35.4					
BALST	e PKPbc	Z	22:54:31.4	149.3	34.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/10	23:18:33.7	14.480S	167.190E	202.2				NEIC
Vanuatu Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	23:37:31.5	136.6	33.6					
	e SKPbc	Z	23:40:49.5							
BRG	e PKPdf	Z	23:37:33.4	137.7	40.4					
	e SKPbc	Z	23:40:52.9							
CLL	e PKPdf	Z	23:37:33.3	137.7	38.8					
	e SKPbc	Z	23:40:52.7							
CLZ	e PKPdf	Z	23:37:34.8	138.3	34.9					
	e SKPbc	Z	23:40:54.7							
TANN	e PKPdf	Z	23:37:35.3	138.6	38.7					
	e SKPbc	Z	23:40:55.6							
IBBN	e PKPdf	Z	23:37:35.3	138.8	31.1					
	e SKPbc	Z	23:40:55.6							
MOX	e PKPbc	Z	23:37:26.0	138.8	37.4					
	e SKPbc	Z	23:40:55.6							
GEC2	e PKPdf	Z	23:37:36.6	139.3	41.5					
	e SKPbc	Z	23:40:57.4							
WET	e PKPdf	Z	23:37:36.9	139.5	40.2					
	e SKPbc	Z	23:40:57.8							
BUG	e PKPdf	Z	23:37:36.7	139.7	30.9					
	e SKPbc	Z	23:40:57.8							

./2010/bull1008.txt

Thu Apr 23 08:38:25 2020

31

GRA1	e PKPbc	Z	23:37:30.1	139.7	37.6
	e SKPbc	Z	23:40:57.6		
MOA	e PKPbc	Z	23:37:30.1	139.8	43.1
TNS	e PKPbc	Z	23:37:31.9	140.3	33.3
	e PKPdf	Z	23:37:38.3		
	e SKPbc	Z	23:40:59.9		
RJOB	e PKPbc	Z	23:37:32.7	140.6	41.2
	e SKPbc	Z	23:41:00.1		
FUR	e PKPbc	Z	23:37:34.5	140.9	38.8
STU	e PKPbc	Z	23:37:35.9	141.2	35.4
WTTA	e PKPbc	Z	23:37:35.8	141.4	40.0
	e PKPdf	Z	23:37:40.3		
WLF	e PKPbc	Z	23:37:36.3	141.6	30.4
BFO	e PKPbc	Z	23:37:36.4	141.9	34.5
DAVA	e PKPbc	Z	23:37:38.5	142.2	37.5
SLE	e PKPbc	Z	23:37:37.5	142.3	35.1
WILA	e PKPbc	Z	23:37:39.2	142.4	36.0
	e SKPbc	Z	23:41:04.8		
ECH	e PKPbc	Z	23:37:38.2	142.4	32.9
PLONS	e PKPbc	Z	23:37:39.6	142.5	37.0
SULZ	e PKPbc	Z	23:37:39.8	142.7	34.8
BALST	e PKPbc	Z	23:37:40.1	143.0	34.3

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/11	01:28:58.5	45.606N	7.823E	10.0G			3.5	SZGRF
Northern Italy								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
DAVA	e Pn	Z	01:29:35.0	2.2	220.9					3.5
	e Sg	N	01:30:07.1							
ECH	e Pn	Z	01:29:40.1	2.6	169.9					3.1
	e Sg	N	01:30:22.4							
BFO	e Pn	Z	01:29:41.1	2.7	187.4					3.4
	e Sg	E	01:30:24.8							
WTTA	e Pn	Z	01:29:47.0	3.1	239.1					3.4
STU	e Pn	Z	01:29:48.5	3.3	196.9					3.7
	e Sg	E	01:30:42.5							
FUR	e Sg	E	01:30:48.9	3.5	224.0					3.7
RJOB	e Pn	Z	01:29:59.4	4.0	239.8					3.4
WLF	e Pn	Z	01:30:03.1	4.2	163.9					3.7
	e Sg	N	01:31:11.2							
TNS	e Pn	Z	01:30:06.9	4.6	185.4					3.5
	e Sg	E	01:31:25.8							
GRA1	e Pn	Z	01:30:07.6	4.7	210.5					3.8
	e Sg	N	01:31:27.3							
OBKA	e Pn	Z	01:30:08.0	4.8	261.5					3.4
	e Sg	N	01:31:29.0							

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

32

WET	e Pn	Z	01:30:10.3	4.9	225.9						
MOA	e Pn	Z	01:30:12.7	5.0	245.4						3.2
	e Pg	Z	01:30:30.0								
GEC2	e Pn	Z	01:30:13.5	5.1	233.1						3.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/11	01:22:43.9	17.220S	168.100E	173.2				NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z 01:41:51.6	140.5	40.9					
CLL	e PKPdf	Z 01:41:52.3	140.6	39.3					
CLZ	e PKPdf	Z 01:41:53.7	141.2	35.3					
GEC2	e PKPdf	Z 01:41:55.4	142.2	42.3					
WET	e PKPdf	Z 01:41:56.6	142.3	40.9					
TNS	e PKPdf	Z 01:41:57.5	143.2	33.7					
RJOB	e PKPdf	Z 01:41:57.6	143.4	42.0					
FUR	e PKPdf	Z 01:41:58.6	143.7	39.5					
STU	e PKPdf	Z 01:42:00.8	144.1	35.9					
WLF	e PKPdf	Z 01:42:00.8	144.4	30.6					
BFO	e PKPdf	Z 01:42:01.4	144.8	34.9					
ECH	e PKPdf	Z 01:42:03.0	145.3	33.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/11	03:29:49.7	17.870S	167.570E	35.0				NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e PKPdf	Z 03:49:15.9	142.5	43.5					
BUG	e PKPdf	Z 03:49:16.3	143.0	32.2					
TNS	e PKPdf	Z 03:49:16.8	143.6	34.8					
RJOB	e PKPdf	Z 03:49:17.2	143.7	43.3					
FUR	e PKPdf	Z 03:49:18.2	144.1	40.7					
STU	e PKPdf	Z 03:49:19.7	144.5	37.1					
WLF	e PKPdf	Z 03:49:21.3	144.9	31.8					
BFO	e PKPdf	Z 03:49:21.8	145.2	36.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/11	03:35:13.9	18.350S	167.930E	33.0N		5.7		SZGRF

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PP	Z 03:57:40.5	140.5	34.6					

BRG	e PKPdf	Z	03:54:38.9	141.5	42.0			
CLL	e PKPdf	Z	03:54:39.1	141.6	40.3			
	e PP	Z	03:57:45.8					
TANN	e PKPdf	Z	03:54:41.9	142.5	40.3			
	e PP	Z	03:57:51.1					
MOX	e PP	Z	03:57:52.1	142.6	38.9			
	e L	Z	05:05:32.4			19.5	1173	5.7
IBBN	e PKPdf	Z	03:54:43.0	142.7	32.1			
	e PP	Z	03:57:53.3					
GEC2	e PKPdf	Z	03:54:44.8	143.1	43.4			
WET	e PP	Z	03:57:55.6	143.2	42.0			
GRA1	e PP	Z	03:57:58.1	143.5	39.1			
	e L	Z	05:09:24.5			18.8	1343	5.7
BUG	e PKPdf	Z	03:54:45.3	143.6	31.9			
	e PP	Z	03:57:58.2					
TNS	e PKPdf	Z	03:54:47.7	144.2	34.6			
	e PP	Z	03:58:01.3					
RJOB	e PKPdf	Z	03:54:48.4	144.3	43.2			
FUR	e PKPdf	Z	03:54:49.6	144.7	40.6			
STU	e PKPdf	Z	03:54:50.4	145.1	36.9			
WLF	e PKPdf	Z	03:54:51.9	145.4	31.5			
	e PP	Z	03:58:07.8					
BFO	e PKPdf	Z	03:54:52.5	145.8	36.0			
	e PP	Z	03:58:09.4					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/11 17:26:36.4 37.177N 54.477E 33.0G 4.8
 Iran-Turkmenistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	17:32:56.2	31.6	96.2	1.0	6	4.5		
BRG	e P	Z	17:32:57.0	31.7	99.7	0.9	13	4.8		
WET	e P	Z	17:33:00.5	32.1	96.0	1.0	5	4.4		
CLL	e P	Z	17:33:02.1	32.3	99.5	0.9	11	4.8		
TANN	e P	Z	17:33:04.7	32.5	97.6	1.0	6	4.5		
MOX	e P	Z	17:33:09.7	33.1	97.2	1.0	18	5.0		
GRA1	e P	Z	17:33:11.1	33.3	95.4	0.9	8	4.7		
CLZ	e P	Z	17:33:17.1	34.0	97.9	1.0	10	4.7		
UBBA	e P	Z	17:33:18.2	34.1	96.0	1.8	30	4.9		
BSEG	e P	Z	17:33:19.3	34.4	100.8	1.2	43	5.2		
STU	e P	Z	17:33:21.9	34.5	92.4	1.0	39	5.3		
BFO	e P	Z	17:33:26.2	35.1	91.1	1.1	6	4.4		
TNS	e P	Z	17:33:26.8	35.1	93.8	0.9	12	4.8		
IBBN	e P	Z	17:33:31.2	35.7	96.2	1.3	35	5.0		
BUG	e P	Z	17:33:33.3	35.9	94.6	1.1	11	4.6		
WLF	e P	Z	17:33:39.8	36.5	91.2	0.9	13	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/11	19:10:21.2	7.440S	107.160E	33.0G	5.4	4.4		NEIC
Jawa, Indonesia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	19:23:52.7	97.8	92.2	1.7	15	5.4		
	e PP	Z	19:27:47.6							
GEC2	e P	Z	19:23:53.1	97.9	92.3	1.3	10	5.4		
	e PP	Z	19:27:51.9							
WET	e P	Z	19:23:55.5	98.4	91.7	1.6	20	5.6		
	e PP	Z	19:27:56.2							
RJOB	e PP	Z	19:27:55.2	98.4	91.8					
MOX	e PP	Z	19:28:02.2	99.3	90.5					
	e L	Z	20:11:11.7			21.8	133		4.4	
	e P	Z	19:24:00.6	99.5	90.3	1.3	8	5.3		
GRA1	e PP	Z	19:28:05.1							
	e L	Z	20:17:01.3			21.3	146		4.5	
	e PP	Z	19:28:14.3	100.8	88.9					
STU	e PP	Z	19:28:17.4	101.3	88.1					
BFO	e PP	Z	19:28:15.9	101.4	88.4					
BUG	e PP	Z	19:28:23.2	102.0	86.9					
WLF	e PP	Z	19:28:29.0	102.8	86.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/11	20:20: 7.6	17.770S	167.900E	10.0		4.9		GSRC
Vanuatu Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e L	Z	21:46:36.4	142.1	38.6	20.0	188		4.8	
GRA1	e PKPbc	Z	20:39:40.4	143.0	38.8					
	e L	Z	21:46:04.8			20.5	242		4.9	
TNS	e PKPbc	Z	20:39:41.8	143.6	34.3					
RJOB	e PKPbc	Z	20:39:42.5	143.8	42.7					
FUR	e PKPbc	Z	20:39:43.7	144.1	40.2					
STU	e PKPbc	Z	20:39:44.9	144.5	36.6					
WLF	e PKPbc	Z	20:39:46.6	144.9	31.2					
BFO	e PKPbc	Z	20:39:47.0	145.2	35.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/11	21:40:48.9	43.733N	12.035E	10.0G			3.2	SZGRF
Central Italy								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
-----	-------	--	------	------	-----	------	-------	----	----	----

OBKA	e Pn	Z	21:41:40.3	3.3	213.5					3.4
KBA	e Pn	Z	21:41:41.8	3.5	195.8					3.0
WTTA	e Pn	Z	21:41:45.0	3.5	175.3					3.5
PLONS	e Pn	Z	21:41:48.4	3.8	149.7					3.3
DAVA	e Pn	Z	21:41:49.4	3.9	156.2					3.4
RJOB	e Pn	Z	21:41:51.0	4.0	187.8					3.1
MOA	e Pn	Z	21:41:55.2	4.4	201.5					3.2
	e Sn	E	21:42:46.4							
BALST	e Pn	Z	21:41:59.8	4.7	138.3					3.3
GEC2	e Pn	Z	21:42:06.8	5.2	193.3					3.1
BFO	e Pn	Z	21:42:07.1	5.3	149.4					3.2
	e Sn	E	21:43:04.9							
WET	e Pn	Z	21:42:08.0	5.4	186.4					3.2
	e Sn	E	21:43:10.6							

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/12 01:39:53.4 56.889N 159.994W 33.0N 4.5 SZGRF
 Alaska Peninsula, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	01:51:12.3	71.6	356.0	1.2	5	4.5		
BRG	e P	Z	01:51:15.4	72.1	356.5	1.0	3	4.4		
MOX	e P	Z	01:51:16.2	72.2	355.2	0.6	4	4.7		
GEC2	e P	Z	01:51:27.3	74.1	356.4	0.9	2	4.1		
RJOB	e P	Z	01:51:33.5	75.2	355.9	0.8	4	4.6		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/12 02:23:10.9 39.887N 27.322E 33.0G 4.0 SZGRF
 Turkey

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	02:26:21.0	13.1	121.6					
WET	e P	Z	02:26:31.0	13.8	126.7					
TANN	e P	Z	02:26:45.1	14.8	129.6	1.2	7			
BFO	e P	Z	02:27:00.1	16.0	114.8	0.9	15	4.1		
WLF	e P	Z	02:27:20.2	17.8	115.2	1.2	15	4.0		
BSEG	e P	Z	02:27:24.1	18.1	133.9	1.2	18	4.1		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/12 02:56:1.7 17.890S 167.880E 35.0 NEIC
 Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
-----	-------	--	------	------	-----	------	-------	----	----	----

RJOB	e	PKPbc	Z	03:15:31.4	143.9	42.9
FUR	e	PKPbc	Z	03:15:32.5	144.2	40.3
STU	e	PKPbc	Z	03:15:34.0	144.6	36.7
WLF	e	PKPbc	Z	03:15:35.7	145.0	31.3
BFO	e	PKPbc	Z	03:15:35.9	145.3	35.8
SLE	e	PKPbc	Z	03:15:37.1	145.7	36.5
WILA	e	PKPbc	Z	03:15:37.0	145.8	37.4
PLONS	e	PKPbc	Z	03:15:37.8	145.9	38.5
SULZ	e	PKPbc	Z	03:15:38.7	146.0	36.1
BALST	e	PKPbc	Z	03:15:39.7	146.4	35.6

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/12 04:47:23.0 22.901S 178.477W 33.0G
 South of Fiji Islands SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPbc	Z 05:07:05.5	148.3	15.5					
IBBN	e	PKPbc	Z 05:07:10.4	150.2	11.6					
CLL	e	PKPbc	Z 05:07:10.4	150.2	21.7					
	e	PKPab	Z 05:07:16.1							
CLZ	e	PKPbc	Z 05:07:10.9	150.3	16.6					
	e	PKPab	Z 05:07:16.5							
BRG	e	PKPbc	Z 05:07:11.0	150.4	23.7					
	e	PKPab	Z 05:07:17.1							
MOX	e	PKPbc	Z 05:07:12.7	151.2	19.6					
	e	PKPab	Z 05:07:20.1							
TANN	e	PKPbc	Z 05:07:13.0	151.2	21.3					
UBBA	e	PKPbc	Z 05:07:12.8	151.3	16.4					
GRA1	e	PKPbc	Z 05:07:15.3	152.1	19.4					
TNS	e	PKPbc	Z 05:07:15.2	152.1	13.8					
	e	PKPab	Z 05:07:24.2							
WET	e	PKPab	Z 05:07:25.2	152.3	22.9					
GEC2	e	PKPbc	Z 05:07:15.4	152.3	24.7					
WLF	e	PKPbc	Z 05:07:17.6	153.0	9.4					
STU	e	PKPbc	Z 05:07:18.1	153.4	16.0					
FUR	e	PKPab	Z 05:07:30.8	153.6	20.5					
RJOB	e	PKPbc	Z 05:07:18.0	153.6	23.9					
	e	PKPab	Z 05:07:31.3							
BFO	e	PKPbc	Z 05:07:19.1	154.0	14.4					
	e	PKPab	Z 05:07:31.9							

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/12 08:56:2.2 17.500S 167.590E 35.0
 Vanuatu Islands NEIC

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e PKPbc	Z	09:15:25.6	142.2	43.2					
RJOB	e PKPbc	Z	09:15:29.3	143.4	42.9					
	e pPKPbc	Z	09:15:59.5							
KBA	e PKPbc	Z	09:15:29.3	143.6	44.3					
WTTA	e PKPbc	Z	09:15:31.9	144.3	41.7					
WLF	e PKPbc	Z	09:15:32.9	144.5	31.5					
	e pPKPbc	Z	09:16:03.2							
BFO	e PKPbc	Z	09:15:33.6	144.8	35.9					
	e pPKPbc	Z	09:16:03.8							
DAVA	e PKPbc	Z	09:15:34.5	145.0	39.1					
	e pPKPbc	Z	09:16:04.7							
SLE	e PKPbc	Z	09:15:34.6	145.2	36.6					
	e pPKPbc	Z	09:16:04.9							
WILA	e PKPbc	Z	09:15:35.2	145.3	37.6					
	e pPKPbc	Z	09:16:05.4							
PLONS	e PKPbc	Z	09:15:35.6	145.4	38.6					
	e pPKPbc	Z	09:16:05.8							
SULZ	e PKPbc	Z	09:15:35.7	145.6	36.3					
	e pPKPbc	Z	09:16:06.0							
BALST	e PKPbc	Z	09:15:36.6	145.9	35.8					
	e pPKPbc	Z	09:16:07.1							

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/12 09:46:5.8 39.370N 20.490E 15.0G 4.2 INFO
 Greece-Albania border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	09:48:29.7	10.0	143.6					
GEC2	e P	Z	09:48:35.9	10.6	150.4					
WET	e P	Z	09:48:42.8	11.2	148.1					
BFO	e P	Z	09:49:04.0	12.5	131.2					
MOX	e P	Z	09:49:07.3	12.9	147.7					
CLL	e P	Z	09:49:19.1	13.0	153.5					
TNS	e P	Z	09:49:30.2	13.8	137.4					
CLZ	e P	Z	09:49:35.2	14.3	146.7	1.1	25			
BUG	e P	Z	09:49:45.8	15.2	137.5	1.3	29			
BSEG	e P	Z	09:49:54.5	16.1	150.5	0.9	16	4.2		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/12 11:54:27.4 0.355S 75.016W 215.4 6.6 SZGRF
 Peru-Ecuador border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	12:06:36.9	84.6	263.0	1.0	894	6.9		

	e pP	Z	12:07:29.3					
	e PKKPbc	Z	12:24:30.2					
BUG	e P	Z	12:06:40.9	85.5	263.7	1.3	1026	6.9
	e pP	Z	12:07:33.4					
	e PKKPbc	Z	12:24:27.8					
	e PKPPKP	Z	12:32:29.8					
BFO	e P	Z	12:06:42.2	85.8	264.8	1.4	239	6.1
	e pP	Z	12:07:34.8					
	e pPP	Z	12:10:58.0					
	e PKKPbc	Z	12:24:26.2					
IBBN	e P	Z	12:06:42.8	85.9	264.1	1.4	1052	6.8
	e pP	Z	12:07:35.3					
	e PKKPbc	Z	12:24:27.0					
TNS	e P	Z	12:06:44.0	86.1	264.7	1.4	740	6.6
	e pP	Z	12:07:36.6					
	e pPP	Z	12:11:00.5					
	e PKKPbc	Z	12:24:26.4					
	e PKPPKP	Z	12:32:28.2					
HLG	e P	Z	12:06:44.1	86.1	264.0	1.2	962	6.8
	e pP	Z	12:07:36.8					
STU	e P	Z	12:06:45.6	86.5	265.4	1.5	809	6.6
	e pP	Z	12:07:38.0					
	e pPP	Z	12:11:03.1					
UBBA	e P	Z	12:06:48.5	87.1	265.9	1.8	472	6.3
	e pP	Z	12:07:41.4					
	e pPP	Z	12:11:08.0					
	e PKKPbc	Z	12:24:23.4					
CLZ	e P	Z	12:06:50.4	87.4	266.2	1.4	642	6.6
	e pP	Z	12:07:43.1					
	e pPP	Z	12:11:10.7					
	e		12:17:02.9					
	e PKKPbc	Z	12:24:23.2					
	e PKPPKP	Z	12:32:25.2					
BSEG	e P	Z	12:06:50.5	87.5	266.0	1.2	392	6.6
	e pP	Z	12:07:43.3					
	e PKKPbc	Z	12:24:23.1					
FUR	e P	Z	12:06:52.1	87.8	267.0	1.3	590	6.7
	e pP	Z	12:07:44.6					
	e PKKPbc	Z	12:24:21.8					
	e PKPPKP	Z	12:32:26.6					
GRA1	e P	Z	12:06:52.5	87.8	266.9	1.4	492	6.6
	e pP	Z	12:07:44.9					
	e PKKPbc	Z	12:24:21.9					
MOX	e P	Z	12:06:53.6	88.1	267.2	1.8	626	6.7
	e pP	Z	12:07:46.5					
	e		12:17:07.8					
	e PKKPbc	Z	12:24:21.0					
	e PKPPKP	Z	12:32:24.2					
NEUB	e P	Z	12:06:54.4	88.3	267.3	1.6	763	6.8

	e pP	Z	12:07:47.2					
	e PKKPbc	Z	12:24:20.8					
	e PKPPKP	Z	12:32:23.5					
MANZ	e P	Z	12:06:55.3	88.4	267.6	1.8	876	6.8
	e pP	Z	12:07:48.1					
	e pPP	Z	12:11:18.9					
	e		12:17:09.9					
	e PKKPbc	Z	12:24:20.7					
PLN	e P	Z	12:06:55.4	88.5	267.6	1.8	953	6.8
	e pP	Z	12:07:48.1					
	e PKKPbc	Z	12:24:20.2					
ROTZ	e P	Z	12:06:55.8	88.5	267.7	1.4	590	6.7
	e pP	Z	12:07:48.4					
	e pPP	Z	12:11:19.5					
	e PKKPbc	Z	12:24:20.4					
	e Y	Z	12:25:04.1					
	e PKPPKP	Z	12:32:24.3					
WERD	e P	Z	12:06:55.9	88.6	267.7	1.6	602	6.6
	e pP	Z	12:07:48.6					
	e		12:17:10.1					
	e PKKPbc	Z	12:24:20.1					
	e PKPPKP	Z	12:32:23.6					
GUNZ	e P	Z	12:06:56.0	88.6	267.7	1.6	581	6.6
	e pP	Z	12:07:48.8					
	e		12:17:10.8					
	e PKKPbc	Z	12:24:20.1					
	e PKPPKP	Z	12:32:23.6					
WERN	e P	Z	12:06:56.3	88.6	267.8	1.4	510	6.6
	e pP	Z	12:07:49.0					
	e		12:17:11.1					
	e PKKPbc	Z	12:24:20.2					
	e PKPPKP	Z	12:32:24.1					
TANN	e P	Z	12:06:56.5	88.7	267.8	1.4	627	6.6
	e pP	Z	12:07:49.2					
	e		12:17:11.1					
	e PKKPbc	Z	12:24:19.8					
	e Y	Z	12:25:03.1					
	e PKPPKP	Z	12:32:23.3					
RJOB	e P	Z	12:06:56.7	88.8	268.1	1.5	416	6.4
	e pP	Z	12:07:49.3					
	e pPP	Z	12:11:22.7					
	e		12:17:13.5					
	e PKKPbc	Z	12:24:18.6					
WET	e P	Z	12:06:57.4	88.9	268.2	1.8	1079	6.8
	e pP	Z	12:07:50.3					
	e		12:17:10.5					
	e PKKPbc	Z	12:24:19.0					
	e Y	Z	12:25:01.9					
CLL	e P	Z	12:06:57.8	89.0	268.2	1.5	571	6.6

	e pP	Z	12:07:50.6						
	e PKKPbc	Z	12:24:18.6						
FBE	e P	Z	12:06:59.3	89.2	268.5	1.3	550	6.6	
	e pP	Z	12:07:52.0						
	e pPP	Z	12:11:24.7						
	e PKKPbc	Z	12:24:18.5						
	e Y	Z	12:25:00.5						
RGN	e P	Z	12:06:59.3	89.3	268.4	1.3	654	6.7	
	e pP	Z	12:07:52.2						
	e Y	Z	12:25:00.3						
GEC2	e P	Z	12:06:59.5	89.4	268.8	1.9	531	6.4	
	e pP	Z	12:07:52.8						
	e pPP	Z	12:11:27.2						
	e		12:17:12.3						
	e PKKPbc	Z	12:24:17.9						
	e Y	Z	12:24:59.6						
	e PKPPKP	Z	12:32:22.4						
RUE	e P	Z	12:07:00.1	89.5	268.8	1.4	584	6.6	
	e pP	Z	12:07:52.9						
	e pPP	Z	12:11:27.0						
	e PKKPbc	Z	12:24:17.6						
	e Y	Z	12:24:59.2						
BRG	e P	Z	12:07:00.8	89.6	269.0	1.2	452	6.6	
	e pP	Z	12:07:53.6						
	e pPP	Z	12:11:28.3						
	e PKKPbc	Z	12:24:17.4						
	e Y	Z	12:24:59.0						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/12	12:53:48.2	17.300S	167.500E	33.0				GSRC
Vanuatu Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ROTZ	e PKPbc	Z	13:13:13.5	141.9	40.3					
GEC2	e PKPbc	Z	13:13:13.2	142.0	43.2					
MOA	e PKPbc	Z	13:13:14.4	142.4	44.8					
RJOB	e PKPbc	Z	13:13:16.7	143.2	42.9					
OBKA	e PKPbc	Z	13:13:16.3	143.2	46.5					
KBA	e PKPbc	Z	13:13:16.7	143.4	44.3					
WTTA	e PKPbc	Z	13:13:19.4	144.1	41.7					
WLF	e PKPbc	Z	13:13:20.3	144.3	31.6					
BFO	e PKPbc	Z	13:13:21.0	144.6	35.9					
DAVA	e PKPbc	Z	13:13:21.9	144.8	39.1					
SLE	e PKPbc	Z	13:13:22.0	145.0	36.6					
WILA	e PKPbc	Z	13:13:22.6	145.1	37.6					
PLONS	e PKPbc	Z	13:13:23.1	145.2	38.6					
SULZ	e PKPbc	Z	13:13:23.1	145.4	36.3					

BALST e PKPbc Z 13:13:24.1 145.7 35.8

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/12 20:33:30.7 16.795S 172.874W 33.0N
 Samoa Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ROTZ	e PKPbc	Z 20:53:09.0	146.8	8.9					
GRA1	e PKPbc	Z 20:53:09.4	146.9	7.2					
WLF	e PKPbc	Z 20:53:10.3	147.1	358.3					
WET	e PKPbc	Z 20:53:10.4	147.3	10.2					
GEC2	e PKPbc	Z 20:53:11.0	147.5	11.8					
FUR	e PKPbc	Z 20:53:13.8	148.4	7.6					
BFO	e PKPbc	Z 20:53:13.8	148.4	2.2					
RJOB	e PKPbc	Z 20:53:14.5	148.7	10.5					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/12

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z 21:51:39.4							
CLL	e PKP	Z 21:51:39.5							
CLZ	e PKP	Z 21:51:42.3							
GEC2	e PKP	Z 21:51:44.3							
TANN	e PKP	Z 21:51:42.3							
WET	e PKP	Z 21:51:47.3							

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/13 01:33:58.3 49.160N 148.950E 384.5 5.3
 Northwest of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 01:44:39.6	71.2	27.2	1.0	20	5.2		
CLL	e P	Z 01:44:48.0	72.7	28.4	0.7	56	5.8		
BRG	e P	Z 01:44:48.6	72.8	28.9	0.9	14	5.1		
CLZ	e P	Z 01:44:50.5	73.0	26.9	0.8	29	5.4		
	e pP	Z 01:46:16.5							
IBBN	e P	Z 01:44:51.8	73.3	25.3	0.9	30	5.3		
	e pP	Z 01:46:16.6							
TANN	e P	Z 01:44:53.8	73.7	28.0	0.9	9	4.8		
MOX	e P	Z 01:44:54.1	73.7	27.5	1.2	23	5.1		
UBBA	e P	Z 01:44:55.8	74.0	26.5	0.9	12	4.9		
BUG	e P	Z 01:44:56.9	74.2	24.9	0.9	25	5.3		

	e pP	Z	01:46:21.5							
ROTZ	e P	Z	01:44:57.9	74.3	27.7	1.0	22	5.2		
WET	e P	Z	01:44:59.8	74.7	28.1	1.1	40	5.4		
	e pP	Z	01:46:25.5							
GEC2	e P	Z	01:44:59.4	74.7	28.5	0.7	18	5.2		
GRA1	e P	Z	01:45:00.0	74.7	27.1	0.8	61	5.7		
	e pP	Z	01:46:25.9							
TNS	e P	Z	01:45:01.5	75.0	25.5	0.8	21	5.2		
RJOB	e P	Z	01:45:07.1	76.0	27.8	0.9	28	5.4		
	e pP	Z	01:46:33.1							
FUR	e P	Z	01:45:07.3	76.0	27.0	0.9	47	5.6		
STU	e P	Z	01:45:07.4	76.1	25.8	0.8	22	5.3		
BFO	e P	Z	01:45:10.9	76.8	25.2	0.9	20	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/13	04:11: 4.0	36.910N	32.900W	11.2	4.5			NEIC

Azores Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:17:46.7	34.0	264.9	1.0	6	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/13	05:40:58.1	37.499N	32.061W	33.0N	4.9	4.5		SZGRF

Azores Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:47:31.2	33.1	265.1	2.0	36	4.9		
	e L	Z 05:59:11.0			20.0	912		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/13	06:28:29.1	38.028N	31.118W	10.0N	4.8	4.2		SZGRF

Azores Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:34:57.2	32.2	265.1	1.1	14	4.8		
	e L	Z 06:47:01.2			19.3	486		4.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/13	07:59: 1.4	37.502N	31.902W	33.0N	5.0	4.7		SZGRF

Azores Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 08:05:33.6	33.0	265.0	1.4	27	5.0		
	e L	Z 08:18:11.9			18.2	1377		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/13	20:20: 8.6	37.050N	142.230E	33.0G	4.8			SZGRF

Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 20:32:21.8	81.1	39.4	0.8	4	4.5		
CLL	e P	Z 20:32:21.9	81.1	38.7	0.9	13	5.0		
FBE	e P	Z 20:32:23.3	81.3	38.9	1.3	21	5.1		
NEUB	e P	Z 20:32:25.3	81.7	37.9	0.9	12	5.0		
CLZ	e P	Z 20:32:25.3	81.7	36.9					
WERD	e P	Z 20:32:26.7	82.0	38.2	1.2	6	4.6		
PLN	e P	Z 20:32:27.4	82.1	38.1					
GUNZ	e P	Z 20:32:27.3	82.1	38.2	1.1	6	4.6		
WERN	e P	Z 20:32:27.8	82.1	38.2	1.6	17	4.9		
NKC	e P	Z 20:32:27.6	82.2	38.3	1.1	8	4.7		
MOX	e P	Z 20:32:27.2	82.2	37.7					
IBBN	e P	Z 20:32:28.3	82.2	35.1					
ROTZ	e P	Z 20:32:30.3	82.6	38.0	1.4	9	4.8		
GRA1	e P	Z 20:32:32.4	83.1	37.4	1.6	29	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/13	21:19:32.1	12.400N	141.480E	4.7		7.4		NEIC

South of Mariana Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e Pdiff	Z 21:33:28.3	101.8	48.7					
BRG	e Pdiff	Z 21:33:28.1	102.1	52.4					
CLL	e Pdiff	Z 21:33:28.0	102.3	51.5					
	e SP	Z 21:46:55.4							
TANN	e SP	Z 21:46:59.3	103.1	51.2					
CLZ	e Pdiff	Z 21:33:32.3	103.2	49.1					
MOX	e Pdiff	Z 21:33:32.7	103.4	50.4					
	e SP	Z 21:47:03.5							
GEC2	e Pdiff	Z 21:33:33.7	103.4	52.5					
ROTZ	e Pdiff	Z 21:33:33.7	103.6	51.1					
UBBA	e SP	Z 21:47:05.3	104.0	49.0					
	e SS	N 21:52:51.7							
GRA1	e Pdiff	Z 21:33:36.2	104.2	50.2					
	e PP	Z 21:37:59.4							
	e SP	Z 21:47:09.5							
	e PKKP	Z 21:47:59.3							

	e SS	N	21:52:42.9						
	e L	Z	22:24:07.6			20.5	115625	7.4	
BUG	e SP	Z	21:47:17.0	104.9	46.4				
FUR	e Pdiff	Z	21:33:43.5	105.1	50.6				
TNS	e Pdiff	Z	21:33:42.1	105.2	47.7				
	e SP	Z	21:47:17.0						
STU	e Pdiff	Z	21:33:45.7	105.8	48.7				
WLF	e Pdiff	Z	21:33:50.1	106.6	45.8				
	e SP	Z	21:47:31.4						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	01:34: 8.0	29.600N	139.010E	33.0G	5.1			SZGRF

Southeast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	01:46:44.3	85.5	42.9	0.9	16	5.1		
BRG	e P	Z	01:46:47.6	86.1	45.5	0.7	7	4.9		
CLL	e P	Z	01:46:47.8	86.2	44.8	1.0	11	4.9		
TANN	e P	Z	01:46:51.8	87.1	44.4	1.1	6	4.7		
MOX	e P	Z	01:46:52.8	87.3	43.8	1.1	5	4.8		
GEC2	e P	Z	01:46:54.8	87.6	45.2	0.9	14	5.3		
ROTZ	e P	Z	01:46:55.4	87.7	44.2	1.1	14	5.2		
IBBN	e P	Z	01:46:55.3	87.7	40.9	1.0	32	5.6		
WET	e P	Z	01:46:55.4	87.8	44.6	1.0	6	4.9		
UBBA	e P	Z	01:46:55.8	87.9	42.5	1.6	14	5.0		
GRA1	e P	Z	01:46:57.7	88.2	43.4	1.0	18	5.4		
BUG	e P	Z	01:46:58.8	88.5	40.5	1.1	14	5.1		
RJOB	e P	Z	01:47:00.7	88.9	44.6	0.9	22	5.4		
FUR	e P	Z	01:47:02.6	89.3	43.4	1.0	39	5.6		
BFO	e P	Z	01:47:07.5	90.4	41.3	1.0	11	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	04:25:12.7	43.580N	142.600E	110.0	5.1			SZGRF

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	04:36:38.7	74.3	33.8	0.8	24	5.3		
CLL	e P	Z	04:36:45.0	75.6	35.2	0.9	21	5.3		
	e pP	Z	04:37:12.9							
BRG	e P	Z	04:36:45.3	75.6	35.7	0.9	7	4.8		
CLZ	e P	Z	04:36:48.6	76.0	33.6	0.8	22	5.4		
IBBN	e P	Z	04:36:51.0	76.5	31.9	0.7	23	5.4		
	e pP	Z	04:37:18.6							
MOX	e P	Z	04:36:51.3	76.6	34.2	0.8	8	4.9		
UBBA	e P	Z	04:36:53.2	77.0	33.2	0.7	5	4.7		

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

45

ROTZ	e P	Z	04:36:54.6	77.1	34.5	1.0	9	4.9
GEC2	e P	Z	04:36:55.1	77.3	35.3	0.8	5	4.7
WET	e P	Z	04:36:56.0	77.4	34.8	0.9	10	4.9
	e pP	Z	04:37:23.9					
BUG	e P	Z	04:36:55.8	77.4	31.5	0.7	17	5.3
	e pP	Z	04:37:24.1					
GRA1	e P	Z	04:36:56.9	77.5	33.8	0.8	23	5.3
TNS	e P	Z	04:36:59.5	78.1	32.1	0.6	6	4.9
RJOB	e P	Z	04:37:02.6	78.6	34.6	0.9	10	4.8
FUR	e P	Z	04:37:03.6	78.8	33.7	0.7	18	5.2
STU	e P	Z	04:37:04.7	79.0	32.4	0.9	16	5.1
BFO	e P	Z	04:37:08.3	79.7	31.8	0.9	9	4.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	07:30:16.6	12.320N	141.470E	9.7		6.3		NEIC

South of Mariana Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z 07:44:19.6	104.2	50.3					
	e SP	Z 07:57:55.0							
	e L	Z 08:33:47.6			21.5	9138		6.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	08:40:29.3	11.430N	62.710W	33.0G	5.3			SZGRF

Windward Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 08:51:23.6	67.7	261.2	1.0	43	5.6		
BUG	e P	Z 08:51:29.6	68.6	261.4	1.6	78	5.7		
BFO	e P	Z 08:51:30.7	68.9	263.5	1.2	11	5.0		
IBBN	e P	Z 08:51:32.3	69.1	261.5	1.0	72	5.9		
TNS	e P	Z 08:51:33.2	69.2	262.8	0.8	39	5.7		
STU	e P	Z 08:51:34.5	69.5	264.0	1.1	44	5.6		
UBBA	e P	Z 08:51:38.9	70.3	263.9	1.7	21	5.1		
CLZ	e P	Z 08:51:41.8	70.6	263.8	1.2	42	5.4		
BSEG	e P	Z 08:51:43.0	70.8	263.0	1.1	36	5.4		
GRA1	e P	Z 08:51:43.7	70.9	265.2	1.4	32	5.3		
MOX	e P	Z 08:51:45.4	71.3	265.2	1.1	8	4.8		
ROTZ	e P	Z 08:51:47.8	71.6	266.0	1.3	14	5.0		
TANN	e P	Z 08:51:48.9	71.8	266.0	1.1	19	5.1		
RJOB	e P	Z 08:51:50.0	71.8	267.1	0.9	18	5.2		
WET	e P	Z 08:51:49.9	72.0	266.7	1.2	22	5.1		
CLL	e P	Z 08:51:51.2	72.2	266.1	1.2	24	5.2		
GEC2	e P	Z 08:51:53.0	72.5	267.4	1.2	32	5.3		
BRG	e P	Z 08:51:54.7	72.8	267.0	1.1	22	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	14:15:32.6	36.150N	71.230E	33.0N	4.5			SZGRF
Afghanistan-Tajikistan border region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 14:23:28.7	42.9	87.2	1.0	7	4.4		
FBE	e P	Z 14:23:31.9	43.2	86.8	0.7	8	4.5		
CLL	e P	Z 14:23:33.0	43.4	86.9	0.9	3	4.1		
TANN	e P	Z 14:23:36.8	43.8	85.6					
NKC	e P	Z 14:23:37.3	43.9	85.4	1.2	9	4.4		
WERD	e P	Z 14:23:36.8	43.9	85.5	1.1	3	4.0		
ROHR	e P	Z 14:23:37.7	43.9	85.3	1.5	4	4.0		
PLN	e P	Z 14:23:37.7	44.0	85.4	1.1	4	4.0		
GRB5	e P	Z 14:23:41.4	44.5	83.7	2.0	29	4.9		
GRA2	e P	Z 14:23:43.5	44.6	84.0	1.1	9	4.6		
GRA1	e P	Z 14:23:43.9	44.7	84.0	1.5	27	4.9		
CLZ	e P	Z 14:23:46.1	45.0	85.5	0.8	6	4.5		
UBBA	e P	Z 14:23:48.3	45.3	84.2	0.8	4	4.4		
TNS	e P	Z 14:23:57.1	46.4	82.6	1.0	6	4.7		
IBBN	e P	Z 14:23:58.6	46.6	84.0	0.7	17	5.3		
BFO	e P	Z 14:23:59.0	46.7	80.7	1.1	6	4.6		
WLF	e P	Z 14:24:09.6	47.9	80.5	0.9	14	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	14:44:37.0	12.260N	141.430E	42.0		5.5		NEIC
South of Mariana Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z 15:02:50.8	104.3	50.4					
	e L	Z 15:49:13.3			20.6	1370		5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	16:35:44.4	12.290N	141.570E	10.0		5.6		NEIC
South of Mariana Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z 16:50:07.2	104.3	50.2					
	e PP	Z 16:54:02.5							
	e L	Z 17:40:28.0			19.8	1725		5.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	18:48: 0.5	52.400N	160.140E	9.2	4.6			NEIC

Off east coast of Kamchatka Peninsula, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:59:40.7	74.6	19.1	1.2	7	4.6		
	e pP	Z 18:59:53.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	20:18: 1.4	28.330N	66.360E	25.9	4.8	4.4		NEIC

Pakistan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:26:26.3	46.6	96.1	0.9	8	4.8		
	e L	Z 20:51:03.1			20.3	477		4.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	22:56:11.1	7.010N	94.460E	33.0N	4.8			SZGRF

Nicobar Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 23:08:10.0	78.6	92.9	1.3	14	4.8		
GEC2	e P	Z 23:08:10.4	78.7	92.3	1.0	11	4.8		
CLL	e P	Z 23:08:12.9	79.2	92.3	1.3	8	4.6		
WET	e P	Z 23:08:13.5	79.2	91.8	1.2	11	4.8		
RJOB	e P	Z 23:08:13.1	79.2	91.4	1.1	6	4.6		
TANN	e P	Z 23:08:15.1	79.5	91.7	1.4	10	4.6		
ROTZ	e P	Z 23:08:16.4	79.7	91.4	0.9	7	4.6		
MOX	e P	Z 23:08:18.0	80.1	91.1	1.0	5	4.4		
GRA1	e P	Z 23:08:19.8	80.3	90.6	1.4	24	4.9		
CLZ	e P	Z 23:08:22.2	80.8	90.3	1.0	10	4.8		
STU	e P	Z 23:08:26.2	81.6	88.9	0.8	6	4.8		
TNS	e P	Z 23:08:28.9	82.1	88.6	1.0	8	4.8		
BFO	e P	Z 23:08:29.0	82.2	88.2	1.1	10	4.9		
IBBN	e P	Z 23:08:30.4	82.4	88.3	1.0	18	5.2		
BUG	e P	Z 23:08:32.4	82.8	87.8	1.1	14	5.1		
WLF	e P	Z 23:08:36.8	83.6	86.7	1.1	8	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/14	23:01: 5.9	12.210N	141.400E	22.5		6.6		NEIC

South of Mariana Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
-----	-------	------	------	-----	------	-------	----	----	----

BSEG	e	Pdiff	Z	23:14:57.2	102.0	48.9					
BRG	e	Pdiff	Z	23:14:57.7	102.2	52.5					
CLL	e	Pdiff	Z	23:14:58.8	102.4	51.6					
	e	PP	Z	23:19:14.1							
	e	SP	Z	23:28:18.9							
TANN	e	Pdiff	Z	23:15:02.7	103.2	51.3					
CLZ	e	Pdiff	Z	23:15:04.3	103.3	49.3					
MOX	e	Pdiff	Z	23:15:04.4	103.5	50.6					
GEC2	e	Pdiff	Z	23:15:04.9	103.5	52.7					
ROTZ	e	Pdiff	Z	23:15:05.2	103.7	51.2					
WET	e	Pdiff	Z	23:15:05.7	103.8	51.9					
	e	SP	Z	23:28:32.1							
UBBA	e	Pdiff	Z	23:15:07.0	104.1	49.1					
IBBN	e	Pdiff	Z	23:15:07.9	104.2	46.8					
GRA1	e	Pdiff	Z	23:15:08.1	104.3	50.4					
	e	SP	Z	23:28:37.6							
	e	PKKP	Z	23:30:56.1							
RJOB	e	Pdiff	Z	23:15:09.9	104.7	52.1					
	e	PP	Z	23:19:29.9							
BUG	e	Pdiff	Z	23:15:11.6	105.0	46.6					
	e	PP	Z	23:19:33.7							
FUR	e	Pdiff	Z	23:15:13.0	105.2	50.8					
TNS	e	Pdiff	Z	23:15:12.7	105.3	47.9					
STU	e	Pdiff	Z	23:15:15.2	105.9	48.8					
BFO	e	Pdiff	Z	23:15:18.4	106.6	48.2					
	e	SP	Z	23:29:01.3							
WLF	e	Pdiff	Z	23:15:19.3	106.7	45.9					
GRA1	e	L	Z	00:05:48.2	104.3	50.4	20.1	18263		6.6	

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/15 02:10:40.7 54.060N 159.760E 33.0G 6.2 5.0 SZGRF
 Near east coast of Kamchatka Peninsula, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 02:21:46.3	69.1	18.6	1.0	256	6.4		
CLL	e P	Z 02:21:57.4	71.0	19.9	1.0	347	6.4		
CLZ	e P	Z 02:21:58.4	71.1	18.4	1.0	465	6.6		
IBBN	e P	Z 02:21:58.3	71.1	16.9	1.1	399	6.4		
BRG	e P	Z 02:21:58.7	71.2	20.4	1.1	141	6.0		
MOX	e P	Z 02:22:03.3	71.9	19.0	1.1	188	6.1		
TANN	e P	Z 02:22:03.7	72.0	19.5	1.3	134	5.9		
BUG	e P	Z 02:22:03.6	72.0	16.6	1.0	243	6.3		
UBBA	e P	Z 02:22:04.3	72.1	18.1	1.7	315	6.2		
ROTZ	e P	Z 02:22:07.9	72.7	19.3	1.1	171	6.1		
GRA1	e P	Z 02:22:09.6	72.9	18.7	1.0	365	6.4		
	e L	Z 02:58:17.0			20.2	744		5.0	
TNS	e P	Z 02:22:09.5	73.0	17.1	1.3	226	6.1		

WET	e P	Z	02:22:10.5	73.1	19.6	1.1	224	6.2
GEC2	e P	Z	02:22:10.7	73.2	20.0	1.1	129	5.9
WLF	e P	Z	02:22:15.4	73.9	15.8	1.6	183	5.9
STU	e P	Z	02:22:16.5	74.2	17.4	1.2	218	6.1
FUR	e P	Z	02:22:17.6	74.4	18.6	1.0	237	6.2
RJOB	e P	Z	02:22:18.4	74.4	19.4	0.9	112	5.9
BFO	e P	Z	02:22:19.8	74.8	16.9	1.2	161	5.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/15	02:18:53.6	41.019N	145.613E	33.0N	4.6			SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:31:04.6	80.8	33.1	0.9	6	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/15	02:51:19.7	22.260S	179.700W	598.0				SZGRF

South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 03:09:57.0	147.4	17.4					
CLL	e PKPbc	Z 03:10:01.7	149.3	23.5					
	e PKPab	Z 03:10:08.7							
IBBN	e PKPbc	Z 03:10:02.1	149.4	13.7					
	e PKPab	Z 03:10:09.1							
CLZ	e PKPbc	Z 03:10:02.1	149.4	18.5					
	e PKPab	Z 03:10:08.9							
BRG	e PKPbc	Z 03:10:02.2	149.5	25.5					
	e PKPab	Z 03:10:09.6							
	e pPKPbc	Z 03:12:17.9							
MOX	e PKPbc	Z 03:10:03.9	150.3	21.5					
TANN	e PKPbc	Z 03:10:03.9	150.3	23.2					
	e PKPab	Z 03:10:12.6							
BUG	e PKPab	Z 03:10:11.4	150.3	13.1					
UBBA	e PKPbc	Z 03:10:04.1	150.5	18.4					
GRA1	e PKPab	Z 03:10:16.9	151.2	21.4					
TNS	e PKPbc	Z 03:10:06.1	151.3	15.9					
	e PKPab	Z 03:10:16.9							
WET	e PKPbc	Z 03:10:06.1	151.3	24.8					
	e PKPab	Z 03:10:17.1							
GEC2	e PKPbc	Z 03:10:06.3	151.4	26.6					
	e PKPab	Z 03:10:17.4							
	e pPKPbc	Z 03:12:23.9							
WLF	e PKPbc	Z 03:10:08.6	152.2	11.7					
	e pPKPbc	Z 03:12:26.4							

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

50

RJOB	e	PKPab	Z	03:10:23.1	152.6	25.8
FUR	e	PKPab	Z	03:10:23.2	152.7	22.6
BFO	e	PKPbc	Z	03:10:10.1	153.2	16.6
	e	PKPab	Z	03:10:24.8		
	e	pPKPbc	Z	03:12:28.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/15	02:52:30.0	21.130S	177.600W	590.5				SZGRF

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPbc	Z	03:11:06.3	146.6	13.5			
	e	PKPab	Z	03:11:09.4					
CLZ	e	PKPbc	Z	03:11:11.4	148.7	14.4			
	e	PKPab	Z	03:11:16.2					
CLL	e	PKPbc	Z	03:11:10.8	148.7	19.3			
BRG	e	PKPbc	Z	03:11:11.6	148.9	21.2			
FBE	e	PKPbc	Z	03:11:12.3	149.0	20.1			
NEUB	e	PKPbc	Z	03:11:12.0	149.0	17.2			
MOX	e	PKPbc	Z	03:11:13.2	149.6	17.2			
PLN	e	PKPbc	Z	03:11:13.5	149.7	18.2			
	e	pPKPbc	Z	03:13:29.2					
TANN	e	PKPbc	Z	03:11:13.5	149.7	18.8			
WERD	e	PKPbc	Z	03:11:13.5	149.7	18.5			
	e	pPKPbc	Z	03:13:29.5					
GUNZ	e	PKPbc	Z	03:11:13.8	149.7	18.6			
	e	pPKPbc	Z	03:13:29.1					
ROHR	e	PKPbc	Z	03:11:14.1	149.9	18.7			
ROTZ	e	PKPbc	Z	03:11:14.9	150.3	18.7			
	e	PKPab	Z	03:11:24.6					
WLF	e	PKPbc	Z	03:11:17.3	151.3	7.3			
FUR	e	PKPab	Z	03:11:32.6	152.0	17.9			
RJOB	e	PKPab	Z	03:11:32.8	152.1	21.1			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/15	04:00:58.6	12.120N	141.420E	15.0		4.9		NEIC

South of Mariana Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e	PP	Z	04:19:15.5	104.4	50.4			
	e	L	Z	05:09:44.2			21.5	375	4.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
------	-------------	-----	------	-------	----	----	----	--------

2010/08/15

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 05:27:08.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/15	05:51:37.5	24.120S	176.080W	33.0N		4.9		SZGRF

South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 06:11:29.3	151.9	17.8					
	e PKPab	Z 06:11:38.2							
BRG	e PKPbc	Z 06:11:29.8	152.1	19.9					
FBE	e PKPbc	Z 06:11:30.2	152.2	18.7					
MOX	e PKPbc	Z 06:11:31.2	152.8	15.5					
PLN	e PKPbc	Z 06:11:31.6	152.9	16.7					
WERD	e PKPbc	Z 06:11:32.0	152.9	17.0					
TANN	e PKPbc	Z 06:11:31.6	152.9	17.3					
GUNZ	e PKPbc	Z 06:11:31.8	153.0	17.1					
	e PKPab	Z 06:11:42.9							
WERN	e PKPbc	Z 06:11:32.2	153.0	17.2					
GRA1	e L	Z 07:18:07.8	153.8	15.2	21.4	202		4.9	
WET	e PKPab	Z 06:11:47.0	154.0	18.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/15	08:46:56.5	12.210N	141.390E	10.2		4.6		NEIC

South of Mariana Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z 09:05:12.8	104.3	50.4					
	e L	Z 09:51:35.1			21.8	190		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/15	11:53:18.7	21.810S	174.590W	7.3				NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 12:13:13.2	151.7	11.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/15	15:09:31.7	5.709S	148.366E	183.8N				SZGRF

New Britain, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	15:27:59.7	121.1	50.9					
	e PKKP	Z	15:38:04.2							
	e pPKKP	Z	15:38:46.9							
BRG	e PKPdf	Z	15:27:59.5	121.1	56.1					
	e PKKP	Z	15:38:03.3							
	e pPKKP	Z	15:38:46.4							
CLL	e PKPdf	Z	15:27:59.7	121.4	54.9					
	e pPKPdf	Z	15:28:45.2							
	e PKKP	Z	15:38:03.3							
TANN	e pPKKP	Z	15:38:45.6	122.1	54.9					
	e PKPdf	Z	15:28:01.6							
	e pPKPdf	Z	15:28:47.8							
CLZ	e PKKP	Z	15:38:00.9	122.3	52.0					
	e pPKKP	Z	15:38:43.1							
	e PKPdf	Z	15:28:02.3							
GEC2	e PKKP	Z	15:38:00.0	122.4	56.9					
	e pPKKP	Z	15:38:41.6							
	e PKPdf	Z	15:28:02.0							
MOX	e PKKP	Z	15:37:59.4	122.4	53.9					
	e pPKKP	Z	15:38:41.6							
	e PKPdf	Z	15:28:02.1							
WET	e PKKP	Z	15:38:41.7	122.6	55.9					
	e pPKKP	Z	15:38:40.8							
	e PKPdf	Z	15:28:02.6							
ROTZ	e PKKP	Z	15:37:58.1	122.6	54.9					
	e pPKKP	Z	15:38:40.8							
	e PKPdf	Z	15:28:02.7							
UBBA	e PKKP	Z	15:37:56.6	123.2	52.2					
	e pPKKP	Z	15:38:39.0							
	e PKPdf	Z	15:28:03.5							
GRA1	e PKKP	Z	15:37:56.6	123.2	54.0					
	e pPKKP	Z	15:38:38.8							
	e SKKPbc	Z	15:41:30.6							
IBBN	e PKKP	Z	15:37:56.4	123.3	49.1					
	e pPKKP	Z	15:38:38.4							
	e PKPdf	Z	15:28:04.0							
RJOB	e PKKP	Z	15:37:55.4	123.5	56.6					
	e PKPdf	Z	15:28:03.6							
FUR	e PKKP	Z	15:37:53.6	124.1	54.9					
	e PKPdf	Z	15:28:05.2							
BUG	e PKKP	Z	15:37:53.6	124.1	49.0					
	e pPKPdf	Z	15:28:52.7							
TNS	e PKKP	Z	15:37:52.2	124.3	50.9					
	e PKPdf	Z	15:28:05.9							

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

53

	e pPKKP	Z	15:38:33.6		
STU	e PKPdf	Z	15:28:06.7	124.8	52.4
	e PKKP	Z	15:37:49.9		
	e pPKKP	Z	15:38:31.5		
BFO	e PKPdf	Z	15:28:07.7	125.5	51.8
	e PKKP	Z	15:37:46.8		
WLF	e PKPdf	Z	15:28:09.5	125.8	48.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/15	22:08:15.2	21.240S	178.270W	33.0G				SZGRF
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	22:27:53.3	146.7	14.7					
CLZ	e PKPbc	Z	22:27:58.8	148.7	15.6					
CLL	e PKPbc	Z	22:27:58.5	148.7	20.5					
	e PKPab	Z	22:28:02.6							
BRG	e PKPbc	Z	22:27:59.3	148.9	22.4					
	e PKPab	Z	22:28:03.7							
MOX	e PKPbc	Z	22:28:00.8	149.6	18.4					
TANN	e PKPbc	Z	22:28:01.6	149.6	20.1					
UBBA	e PKPbc	Z	22:28:01.4	149.7	15.4					
ROTZ	e PKPbc	Z	22:28:03.2	150.3	20.0					
TNS	e PKPab	Z	22:28:10.4	150.5	12.8					
GRA1	e PKPbc	Z	22:28:03.5	150.6	18.2					
WET	e PKPbc	Z	22:28:04.2	150.7	21.6					
GEC2	e PKPbc	Z	22:28:04.5	150.8	23.3					
WLF	e PKPbc	Z	22:28:06.0	151.4	8.6					
	e PKPab	Z	22:28:13.8							
FUR	e PKPbc	Z	22:28:07.5	152.0	19.2					
	e PKPab	Z	22:28:16.6							
RJOB	e PKPbc	Z	22:28:07.1	152.0	22.4					
BFO	e PKPbc	Z	22:28:07.9	152.4	13.4					
	e PKPab	Z	22:28:17.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/16	01:14:56.1	16.540S	176.880W	320.0				GSR
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z	01:33:47.6	142.2	11.3					
IBBN	e PKP	Z	01:33:53.7	144.0	7.6					
CLZ	e PKP	Z	01:33:54.4	144.2	11.9					
CLL	e PKP	Z	01:33:54.8	144.3	16.4					
BRG	e PKP	Z	01:33:55.8	144.6	18.1					

BUG	e	PKP	Z	01:33:56.6	144.9	6.9
MOX	e	PKP	Z	01:33:57.1	145.2	14.4
UBBA	e	PKP	Z	01:33:57.5	145.3	11.6
TANN	e	PKP	Z	01:33:57.6	145.3	15.9
ROTZ	e	PKP	Z	01:34:00.2	146.0	15.7
TNS	e	PKP	Z	01:34:00.3	146.0	9.2
GRA1	e	PKP	Z	01:34:00.9	146.2	14.1
WET	e	PKP	Z	01:34:01.5	146.4	17.1
GEC2	e	PKP	Z	01:34:01.6	146.6	18.6
WLF	e	PKP	Z	01:34:02.7	146.8	5.3
FUR	e	PKP	Z	01:34:04.8	147.7	14.7
RJOB	e	PKP	Z	01:34:05.0	147.8	17.6
BFO	e	PKP	Z	01:34:05.1	147.9	9.4

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/16 03:30:50.1 18.450S 64.600E 33.0G 5.7 5.3
 Mauritius - Reunion region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	03:43:02.2	80.8	131.0	1.2	47	5.4		
	e S	T	03:53:09.0							
GEC2	e P	Z	03:43:03.5	81.1	131.8	1.6	56	5.3		
	e S	T	03:53:10.5							
WET	e P	Z	03:43:06.4	81.7	131.2	1.3	38	5.3		
	e S	T	03:53:15.3							
FUR	e P	Z	03:43:08.5	81.8	129.8	1.4	310	6.2		
	e S	T	03:53:20.6							
BRG	e P	Z	03:43:11.0	82.3	132.2	1.5	67	5.6		
	e S	T	03:53:28.0							
ROTZ	e P	Z	03:43:11.2	82.4	130.7	1.8	82	5.6		
	e S	T	03:53:27.6							
TANN	e P	Z	03:43:13.1	82.7	131.0	1.4	66	5.6		
	e S	T	03:53:31.6							
GRA1	e P	Z	03:43:13.3	82.8	129.9	1.4	136	6.0		
	e S	T	03:53:31.1							
	e L	Z	04:21:35.8			20.3	1294		5.3	
CLL	e P	Z	03:43:14.8	83.0	131.5	1.7	138	5.9		
	e S	T	03:53:35.5							
MOX	e P	Z	03:43:16.0	83.3	130.3	1.4	68	5.7		
	e S	T	03:53:37.7							
STU	e P	Z	03:43:16.0	83.3	128.2	1.5	95	5.8		
	e S	T	03:53:35.1							
BFO	e P	Z	03:43:17.2	83.5	127.4	1.4	94	5.8		
	e S	T	03:53:38.5							
UBBA	e P	Z	03:43:20.6	84.2	129.0	1.8	116	5.8		
	e S	T	03:53:45.8							
TNS	e P	Z	03:43:22.9	84.6	127.7	1.4	70	5.7		

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

55

	e S	T	03:53:50.3						
CLZ	e P	Z	03:43:23.1	84.6	129.4	1.5	130	5.9	
	e S	T	03:53:50.5						
WLF	e P	Z	03:43:27.2	85.4	125.8				
BUG	e P	Z	03:43:29.7	85.9	126.8	1.6	113	5.8	
	e S	T	03:54:04.6						
BSEG	e P	Z	03:43:29.6	86.0	129.5	2.0	117	5.7	
	e S	T	03:54:03.5						
IBBN	e P	Z	03:43:31.1	86.2	127.3	1.7	99	5.7	
	e S	T	03:54:06.1						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/16	12:54:33.0	37.326N	14.824E	10.0G		3.4		SZGRF

Sicily, Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z 12:57:03.9	10.5	171.1					
GEC2	e P	Z 12:57:16.7	11.5	175.5					
WET	e P	Z 12:57:20.1	11.9	172.5					
BFO	e P	Z 12:57:21.7	12.0	154.3					
GRA1	e P	Z 12:57:32.5	12.6	166.8					
	e L	Z 13:02:00.8			22.0	397		3.4	
MOX	e P	Z 12:57:41.1	13.5	169.0					
BRG	e P	Z 12:57:43.9	13.6	177.0					
UBBA	e P	Z 12:57:51.6	13.9	163.9					
CLL	e P	Z 12:57:51.3	14.0	174.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/16	19:03:47.2	72.120N	2.620E	33.0G	4.6			SZGRF

Norwegian Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 19:08:02.7	18.5	352.5	1.2	24	4.3		
CLZ	e P	Z 19:08:22.8	20.6	353.2	1.5	70	4.8		
CLL	e P	Z 19:08:32.8	21.3	351.2	0.8	11	4.2		
UBBA	e P	Z 19:08:34.3	21.6	353.8	1.5	49	4.7		
TNS	e P	Z 19:08:42.5	22.1	355.2	1.5	39	4.6		
GRA1	e P	Z 19:08:48.5	22.8	353.2	1.7	55	4.8		
ROTZ	e P	Z 19:08:48.3	22.8	352.4	1.2	11	4.3		
GEC2	e P	Z 19:08:58.1	23.8	351.6	1.7	42	4.7		
BFO	e P	Z 19:08:58.1	23.9	355.7	1.4	24	4.5		
RJOB	e P	Z 19:09:09.9	24.8	352.6	1.9	29	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/16	19:35:47.4	21.260S	178.730W	598.5				SZGRF
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	19:54:20.1	146.6	15.4					
	e PKPbc	Z	19:54:22.7							
IBBN	e PKPdf	Z	19:54:23.2	148.6	11.6					
	e PKPbc	Z	19:54:27.7							
	e PKPab	Z	19:54:32.7							
	e pPKPbc	Z	19:56:45.0							
CLL	e PKPdf	Z	19:54:23.2	148.6	21.3					
	e PKPbc	Z	19:54:27.8							
CLZ	e PKPdf	Z	19:54:23.8	148.6	16.4					
	e PKPbc	Z	19:54:28.0							
	e pPKPbc	Z	19:56:44.9							
BRG	e PKPdf	Z	19:54:23.8	148.8	23.2					
	e PKPbc	Z	19:54:28.3							
	e PKPab	Z	19:54:33.8							
BUG	e PKPdf	Z	19:54:24.7	149.5	11.1					
	e PKPbc	Z	19:54:29.9							
MOX	e PKPdf	Z	19:54:25.1	149.5	19.3					
	e PKPbc	Z	19:54:29.9							
	e PKPab	Z	19:54:36.3							
TANN	e PKPdf	Z	19:54:25.1	149.5	20.9					
	e PKPbc	Z	19:54:30.1							
UBBA	e PKPdf	Z	19:54:24.9	149.7	16.3					
	e PKPbc	Z	19:54:29.9							
ROTZ	e PKPdf	Z	19:54:25.9	150.2	20.8					
	e PKPbc	Z	19:54:31.7							
TNS	e PKPdf	Z	19:54:26.8	150.5	13.7					
	e PKPbc	Z	19:54:32.4							
	e PKPab	Z	19:54:40.5							
GRA1	e PKPdf	Z	19:54:26.5	150.5	19.1					
	e PKPbc	Z	19:54:32.3							
	e PKPab	Z	19:54:41.1							
WET	e PKPdf	Z	19:54:26.6	150.6	22.5					
	e PKPbc	Z	19:54:32.7							
GEC2	e PKPab	Z	19:54:41.6							
	e PKPdf	Z	19:54:26.6	150.7	24.2					
	e PKPbc	Z	19:54:32.8							
WLF	e PKPab	Z	19:54:42.4							
	e PKPdf	Z	19:54:28.5	151.3	9.5					
	e PKPbc	Z	19:54:34.8							
STU	e PKPab	Z	19:54:44.9							
	e PKPdf	Z	19:54:28.4	151.8	15.8					
	e PKPbc	Z	19:54:35.2							
FUR	e PKPab	Z	19:54:46.0							
	e PKPdf	Z	19:54:28.5	151.9	20.1					

	e PKPbc	Z	19:54:35.5		
	e PKPab	Z	19:54:47.2		
RJOB	e PKPdf	Z	19:54:28.2	151.9	23.3
	e PKPbc	Z	19:54:35.6		
	e PKPab	Z	19:54:47.9		
BFO	e PKPdf	Z	19:54:28.5	152.3	14.3
	e PKPbc	Z	19:54:36.4		
	e PKPab	Z	19:54:49.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/16	22:09:16.2	20.530S	179.500W	33.0N				SZGRF
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	22:28:55.2	147.7	22.3					
	e PKPbc	Z	22:28:57.4							
BRG	e PKPdf	Z	22:28:55.7	147.9	24.2					
	e PKPbc	Z	22:28:58.1							
FBE	e PKPdf	Z	22:28:56.2	148.0	23.1					
	e PKPbc	Z	22:28:58.5							
NEUB	e PKPbc	Z	22:28:58.6	148.1	20.3					
MOX	e PKPdf	Z	22:28:57.5	148.6	20.3					
	e PKPbc	Z	22:28:59.2							
TANN	e PKPdf	Z	22:28:57.3	148.7	21.9					
	e PKPbc	Z	22:28:59.9							
PLN	e PKPbc	Z	22:28:59.7	148.7	21.3					
WERD	e PKPdf	Z	22:28:57.4	148.7	21.6					
	e PKPbc	Z	22:28:59.8							
GUNZ	e PKPbc	Z	22:29:00.0	148.7	21.7					
WERN	e PKPbc	Z	22:29:00.2	148.8	21.8					
NKC	e PKPbc	Z	22:29:00.4	148.8	22.0					
ROHR	e PKPbc	Z	22:29:00.3	148.9	21.8					
GEC2	e PKPbc	Z	22:29:02.3	149.8	25.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/17								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:46:05.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/17	01:39:45.1	14.042N	94.264E	33.0G	4.8			SZGRF
Andaman Islands, India, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:51:22.9	74.9	86.0	1.3	14	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/17								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 01:55:36.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/17								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:53:44.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/17	10:43:55.5	30.230S	177.200W	33.0				GSRC
Kermadec Islands, New Zealand								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 11:04:28.7	159.5	21.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/17	14:43: 6.4	52.686N	163.078W	33.0N	5.0			SZGRF
South of Alaska								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:54:59.2	77.5	356.5	0.9	10	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/17	15:27:24.9	53.157N	172.356W	10.0N	4.7			SZGRF
Andreanof Islands, Aleutian Islands, United States								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:39:18.8	77.1	2.2	1.1	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/17	20:11: 0.6	45.636N	18.314E	10.0G			2.9	SZGRF

Northwestern Balkan Peninsula

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ARSA	e Pn	Z 20:11:39.8	2.5	129.0					2.6
OBKA	e Pn	Z 20:11:43.0	2.8	107.1					2.8
MOA	e Pn	Z 20:11:54.8	3.5	127.1					
KBA	e Pn	Z 20:11:56.7	3.7	111.0					
RJOB	e Pn	Z 20:12:05.7	4.3	117.0					3.2
	e Sn	N 20:12:52.8							
WTTA	e Pn	Z 20:12:13.9	4.9	107.0					
WET	e Pn	Z 20:12:16.0	5.1	131.6					
GRA1	e Pn	Z 20:12:31.8	6.3	127.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/18	16:28:17.1	12.240N	141.470E	33.0		6.2		GSRC

South of Mariana Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z 16:42:19.5	104.3	50.3					
	e L	Z 17:31:04.6			22.0	8042		6.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/18	19:49: 8.3	16.030S	174.160W	130.0				GSRC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 20:08:33.5	146.1	9.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/18	23:33:11.5	31.230N	138.620E	384.2	5.0			SZGRF

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 23:45:00.5	83.9	42.4	1.0	104	5.7		
BRG	e P	Z 23:45:03.6	84.5	44.9	0.8	34	5.3		
CLL	e P	Z 23:45:03.7	84.6	44.3	1.1	62	5.4		
CLZ	e P	Z 23:45:07.7	85.4	42.4	1.5	55	5.3		
	e pP	Z 23:46:36.5							
TANN	e P	Z 23:45:08.1	85.5	43.8	1.1	13	4.8		
MOX	e P	Z 23:45:09.1	85.7	43.2	1.1	13	4.8		
	e pP	Z 23:46:37.9							

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

60

GEC2	e P	Z	23:45:10.7	86.1	44.7	0.9	15	4.9
IBBN	e P	Z	23:45:11.0	86.1	40.4	1.0	46	5.3
ROTZ	e P	Z	23:45:11.3	86.1	43.6	1.2	26	5.1
	e pP	Z	23:46:39.7					
WET	e P	Z	23:45:11.9	86.2	44.1	1.2	14	4.8
UBBA	e P	Z	23:45:11.9	86.3	42.0	0.9	6	4.4
	e pP	Z	23:46:40.2					
GRA1	e P	Z	23:45:13.5	86.6	42.9	1.4	56	5.2
	e pP	Z	23:46:41.0					
BUG	e P	Z	23:45:14.5	86.9	40.0	1.4	27	4.9
RJOB	e P	Z	23:45:17.1	87.3	44.0	0.9	21	5.0
TNS	e P	Z	23:45:17.3	87.4	40.8	0.7	7	4.5
FUR	e P	Z	23:45:18.8	87.7	42.9	0.7	35	5.2
STU	e P	Z	23:45:21.1	88.2	41.4	0.9	14	4.7
WLF	e P	Z	23:45:24.0	88.8	39.1	0.9	14	4.7
BFO	e P	Z	23:45:24.2	88.9	40.7	0.8	17	4.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/19								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 12:40:48.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/19	22:12:55.9	14.203N	90.597W	62.6	5.0			SZGRF
Guatemala								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:25:39.9	86.6	288.1	1.5	20	5.0		
	e pP	Z 22:25:57.4							
	e	Z 22:31:11.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/20	16:40:34.0	54.100N	166.060W	108.9	5.7			SZGRF
Fox Islands, Aleutian Islands, United States								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 16:51:43.9	71.4	359.6	0.9	160	6.2		
HLG	e P	Z 16:51:45.4	71.6	356.3	1.2	302	6.3		
BSEG	e P	Z 16:51:47.1	71.9	357.8	1.1	112	5.9		
RUE	e P	Z 16:51:55.8	73.4	359.9	1.1	125	5.9		
IBBN	e P	Z 16:51:56.2	73.5	356.2	1.3	136	5.8		
	e pP	Z 16:52:23.7							

CLZ	e P	Z	16:51:59.6	74.0	357.8	1.0	114	5.8
BUG	e P	Z	16:52:00.6	74.3	355.9	1.4	115	5.7
CLL	e P	Z	16:52:02.1	74.6	359.4	1.0	53	5.5
NEUB	e P	Z	16:52:03.0	74.7	358.7	1.0	110	5.9
FBE	e P	Z	16:52:04.9	75.0	359.6	1.0	90	5.7
BRG	e P	Z	16:52:04.8	75.0	0.0	1.2	60	5.5
UBBA	e P	Z	16:52:04.6	75.0	357.6	1.6	57	5.3
MOX	e P	Z	16:52:06.3	75.2	358.6	1.1	80	5.7
	e pP	Z	16:52:33.7					
PLN	e P	Z	16:52:07.1	75.4	358.9	0.9	34	5.5
WERD	e P	Z	16:52:07.4	75.4	359.0	1.0	26	5.3
TANN	e P	Z	16:52:07.7	75.5	359.1	1.1	30	5.3
GUNZ	e P	Z	16:52:08.0	75.5	359.0	0.9	31	5.4
TNS	e P	Z	16:52:08.2	75.6	356.7	1.5	89	5.7
	e pP	Z	16:52:35.8					
WERN	e P	Z	16:52:08.6	75.6	359.1	1.2	80	5.7
MANZ	e P	Z	16:52:09.9	75.9	358.9	1.1	31	5.4
	e pP	Z	16:52:37.4					
WLF	e P	Z	16:52:11.1	76.0	355.3	1.3	74	5.7
	e pP	Z	16:52:38.5					
ROTZ	e P	Z	16:52:11.5	76.1	359.0	1.2	57	5.6
GRA1	e P	Z	16:52:12.0	76.2	358.4	1.0	78	5.8
	e pP	Z	16:52:39.5					
WET	e P	Z	16:52:15.0	76.8	359.4	1.4	60	5.5
STU	e P	Z	16:52:16.5	77.1	357.1	1.1	60	5.6
GEC2	e P	Z	16:52:16.6	77.1	359.9	0.9	35	5.5
BFO	e P	Z	16:52:18.4	77.5	356.6	0.9	30	5.4
FUR	e P	Z	16:52:20.5	77.7	358.4	1.0	78	5.8
RJOB	e P	Z	16:52:22.8	78.2	359.3	0.8	55	5.6
	e pP	Z	16:52:50.8					

Date 2010/08/20
 Origin Time 16:57:17.9
 Lat 39.460N
 Long 72.120E
 Depth 33.0G
 mb 4.9
 Ms
 ML
 Source SZGRF
 Kyrgyzstan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 17:05:02.9	41.4	82.6	0.9	18	4.8		
RGN	e P	Z 17:05:03.1	41.4	86.3	0.8	51	5.3		
FBE	e P	Z 17:05:06.1	41.8	82.2	0.8	21	4.9		
GEC2	e P	Z 17:05:06.8	41.9	80.2					
CLL	e P	Z 17:05:06.6	41.9	82.4	0.8	11	4.6		
WET	e P	Z 17:05:10.6	42.4	80.0	0.9	18	4.8		
WERD	e P	Z 17:05:11.7	42.5	81.0	0.9	11	4.6		
PLN	e P	Z 17:05:12.4	42.6	81.0	0.9	8	4.4		
RJOB	e P	Z 17:05:12.7	42.7	78.4	0.8	10	4.6		
ROTZ	e P	Z 17:05:12.7	42.7	80.2	1.0	10	4.5		
MANZ	e P	Z 17:05:13.7	42.7	80.4					

NEUB	e P	Z	17:05:13.2	42.7	81.5	0.9	20	4.8
BSEG	e P	Z	17:05:17.9	43.2	83.4	0.8	18	4.9
GRA1	e P	Z	17:05:19.2	43.3	79.5	0.9	33	5.1
FUR	e P	Z	17:05:20.4	43.6	78.0	0.9	43	5.2
STU	e P	Z	17:05:30.4	44.8	77.3	0.9	25	5.1
IBBN	e P	Z	17:05:31.8	45.0	79.9	0.8	14	4.9
BUG	e P	Z	17:05:35.5	45.5	78.7	0.9	12	4.9
BFO	e P	Z	17:05:35.0	45.5	76.4	0.9	20	5.2
WLF	e P	Z	17:05:44.1	46.5	76.3	1.2	38	5.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/21	00:54:31.6	54.940N	161.450E	33.0G	5.3	4.5		SZGRF
Near east coast of Kamchatka Peninsula, Russia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	01:05:33.3	68.6	17.3	1.0	27	5.4		
RUE	e P	Z	01:05:37.7	69.3	19.2	0.9	54	5.7		
CLZ	e P	Z	01:05:45.7	70.5	17.1	1.1	50	5.6		
CLL	e P	Z	01:05:44.9	70.6	18.6	1.0	55	5.6		
BRG	e P	Z	01:05:46.3	70.8	19.1	1.1	25	5.2		
FBE	e P	Z	01:05:47.2	70.9	18.7	1.1	46	5.5		
NEUB	e P	Z	01:05:47.2	70.9	17.9	0.9	23	5.3		
MOX	e P	Z	01:05:50.7	71.5	17.7	1.0	26	5.3		
PLN	e P	Z	01:05:51.1	71.5	18.0	1.1	24	5.2		
WERD	e P	Z	01:05:51.3	71.5	18.1	1.0	30	5.4		
TANN	e P	Z	01:05:51.1	71.5	18.2	1.2	20	5.1		
GUNZ	e P	Z	01:05:51.7	71.6	18.1	1.1	24	5.2		
WERN	e P	Z	01:05:52.1	71.6	18.1	0.9	24	5.3		
MANZ	e P	Z	01:05:53.9	72.0	17.9	1.0	16	5.1		
ROTZ	e xP	Z	01:05:55.5	72.2	18.0	1.2	25	5.2		
GRA1	e P	Z	01:05:57.0	72.4	17.4	1.0	42	5.5		
	e L	N	01:40:44.8			21.7	257		4.5	
TNS	e P	Z	01:05:56.9	72.4	15.9	0.9	16	5.2		
WET	e P	Z	01:05:58.2	72.6	18.3	1.2	23	5.2		
GEC2	e P	Z	01:05:58.4	72.7	18.7	0.8	11	5.0		
STU	e P	Z	01:06:03.9	73.7	16.2	1.1	21	5.1		
RJOB	e P	Z	01:06:06.0	74.0	18.1	0.9	13	5.0		
BFO	e P	Z	01:06:07.3	74.3	15.7	0.9	12	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/21	05:42:53.9	2.167N	96.631E	33.0G	5.4	5.6		SZGRF
Northern Sumatera, Indonesia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	05:55:19.5	83.7	94.3	1.6	38	5.4		

GEC2	e P	Z	05:55:19.8	83.7	93.9	1.2	52	5.6	
FBE	e P	Z	05:55:21.7	84.1	93.9	1.3	31	5.4	
RJOB	e P	Z	05:55:22.4	84.3	93.1	1.0	22	5.3	
WET	e P	Z	05:55:22.5	84.3	93.3	1.4	37	5.4	
CLL	e P	Z	05:55:22.3	84.3	93.6	1.2	18	5.2	
TANN	e P	Z	05:55:24.1	84.6	93.1	1.3	12	5.0	
WERN	e P	Z	05:55:24.4	84.7	93.0	1.0	9	5.0	
GUNZ	e P	Z	05:55:24.6	84.7	93.0	1.2	18	5.2	
WERD	e P	Z	05:55:24.6	84.7	93.0	1.2	16	5.1	
ROTZ	e P	Z	05:55:25.2	84.7	92.9	1.1	22	5.3	
PLN	e P	Z	05:55:25.0	84.8	92.9	1.3	19	5.2	
MANZ	e P	Z	05:55:25.5	84.8	92.8				
NEUB	e P	Z	05:55:26.3	85.1	92.7	0.9	22	5.4	
MOX	e P	Z	05:55:26.7	85.2	92.5	1.6	29	5.3	
GRA1	e P	Z	05:55:28.3	85.4	92.1	1.2	40	5.5	
	e L	N	06:39:02.2			21.9	2724		5.6
CLZ	e P	Z	05:55:31.0	86.0	91.6				
BSEG	e P	Z	05:55:31.6	86.1	91.7	1.3	45	5.4	
TNS	e P	Z	05:55:36.9	87.2	90.0	1.3	31	5.3	
BFO	e P	Z	05:55:36.8	87.3	89.8	1.1	18	5.1	
IBBN	e P	Z	05:55:39.2	87.6	89.6	1.6	108	5.9	
BUG	e P	Z	05:55:40.7	87.9	89.1	1.5	53	5.7	
WLF	e P	Z	05:55:44.5	88.7	88.2	1.5	59	5.6	

Date 2010/08/21
 Origin Time 16:38: 4.7
 Taiwan
 Lat 24.790N
 Long 121.520E
 Depth 33.0G
 mb 4.9
 Ms
 ML
 Source SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	16:50:18.6	81.2	61.1	0.9	3	4.4		
FBE	e P	Z	16:50:20.5	81.5	60.7	1.0	10	4.9		
CLL	e P	Z	16:50:20.1	81.5	60.5	0.9	10	4.9		
NEUB	e P	Z	16:50:24.2	82.3	59.6	0.9	11	5.0		
TANN	e P	Z	16:50:24.1	82.3	60.0	0.9	3	4.5		
WERD	e P	Z	16:50:24.4	82.4	59.9	0.9	4	4.7		
GEC2	e P	Z	16:50:24.6	82.4	60.7	0.9	10	5.1		
GUNZ	e P	Z	16:50:24.8	82.4	59.9	0.9	6	4.9		
WERN	e P	Z	16:50:24.9	82.4	59.9	0.9	8	4.9		
PLN	e P	Z	16:50:24.7	82.4	59.8	0.9	5	4.8		
MOX	e P	Z	16:50:25.9	82.6	59.4	0.9	5	4.7		
CLZ	e P	Z	16:50:26.7	82.7	58.6	0.9	12	5.1		
WET	e P	Z	16:50:26.1	82.7	60.1	1.1	6	4.8		
MANZ	e P	Z	16:50:26.3	82.7	59.7	1.0	5	4.7		
ROTZ	e P	Z	16:50:26.9	82.8	59.7	0.9	9	5.0		
GRA1	e P	Z	16:50:29.7	83.3	59.0	1.2	16	5.1		
UBBA	e P	Z	16:50:29.6	83.4	58.2	0.7	2	4.5		
RJOB	e P	Z	16:50:29.9	83.4	59.9	0.9	9	5.0		

IBBN	e P	Z	16:50:32.1	83.8	56.7	0.9	13	5.2
WLF	e P	Z	16:50:43.5	86.1	55.3	1.0	15	5.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/22	09:33: 0.3	20.500N	152.000E	33.0G				SZGRF
North Pacific Ocean								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PP	Z	09:50:37.3	98.5	39.1					
BSEG	e Pdiff	Z	09:46:39.7	98.6	36.0					
	e PP	Z	09:50:39.3							
BRG	e Pdiff	Z	09:46:43.2	99.7	39.4					
CLL	e Pdiff	Z	09:46:43.3	99.7	38.6					
	e PP	Z	09:50:47.3							
FBE	e Pdiff	Z	09:46:44.5	99.9	38.9					
	e PP	Z	09:50:48.1							
NEUB	e Pdiff	Z	09:46:46.4	100.3	37.5					
CLZ	e Pdiff	Z	09:46:47.0	100.3	36.2					
	e PP	Z	09:50:52.0							
TANN	e Pdiff	Z	09:46:47.7	100.6	38.2					
	e PP	Z	09:50:54.9							
	e SP	R	09:59:56.4							
WERD	e Pdiff	Z	09:46:48.0	100.7	38.1					
PLN	e Pdiff	Z	09:46:48.1	100.7	37.9					
GUNZ	e Pdiff	Z	09:46:48.4	100.7	38.1					
WERN	e Pdiff	Z	09:46:48.5	100.7	38.1					
MOX	e Pdiff	Z	09:46:48.6	100.8	37.4					
	e PP	Z	09:50:55.0							
	e SP	R	09:59:57.4							
IBBN	e Pdiff	Z	09:46:49.8	100.8	33.9					
	e PP	Z	09:50:56.8							
MANZ	e Pdiff	Z	09:46:49.9	101.1	37.9					
	e PP	Z	09:50:57.1							
	e SP	R	10:00:00.7							
ROTZ	e Pdiff	Z	09:46:51.0	101.2	38.1					
	e SP	R	10:00:01.8							
UBBA	e PP	Z	09:50:58.8	101.2	36.0					
GEC2	e Pdiff	Z	09:46:50.3	101.3	39.5					
WET	e Pdiff	Z	09:46:51.3	101.4	38.7					
	e PP	Z	09:51:00.9							
	e SP	R	10:00:04.3							
GRA1	e Pdiff	Z	09:46:53.0	101.7	37.2					
	e SP	R	10:00:07.3							
BUG	e PP	Z	09:51:02.7	101.7	33.5					
	e SP	R	10:00:09.3							
TNS	e PP	Z	09:51:07.3	102.3	34.7					
STU	e Pdiff	Z	09:46:59.7	103.2	35.6					

	e PP	Z	09:51:14.0		
	e SP	R	10:00:21.8		
WLF	e Pdiff	Z	09:47:02.6	103.6	32.7
BFO	e Pdiff	Z	09:47:02.6	103.9	34.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/22	10:23:10.3	37.406N	19.645E	10.0G				SZGRF

Ionian Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 10:25:48.3	11.5	151.6					
GEC2	e Pn	Z 10:25:56.2	12.2	157.1					
WET	e Pn	Z 10:26:03.5	12.7	154.8					
	e P	Z 10:26:16.5			0.9	16			
ROTZ	e Pn	Z 10:26:13.3	13.5	153.8					
	e P	Z 10:26:25.2			0.8	12			
STU	e Pn	Z 10:26:15.7	13.7	142.4					
BFO	e Pn	Z 10:26:18.6	13.7	138.8					
MANZ	e Pn	Z 10:26:16.5	13.7	153.9					
	e P	Z 10:26:28.2			0.8	32			
GRA1	e Pn	Z 10:26:17.5	13.7	150.6					
	e P	Z 10:26:29.1			0.9	55			
WERN	e Pn	Z 10:26:19.4	13.9	155.3					
	e P	Z 10:26:30.0			0.8	18			
GUNZ	e Pn	Z 10:26:21.3	14.0	155.2					
	e P	Z 10:26:31.1			1.1	56			
TANN	e Pn	Z 10:26:21.3	14.0	155.7					
	e P	Z 10:26:30.7			0.9	13			
WERD	e Pn	Z 10:26:22.1	14.1	155.3					
	e P	Z 10:26:31.4			0.9	28			
BRG	e Pn	Z 10:26:22.8	14.1	161.0					
	e P	Z 10:26:29.8			0.9	29			
PLN	e P	Z 10:26:32.7	14.1	154.9	0.9	35			
FBE	e Pn	Z 10:26:26.2	14.2	159.3					
	e P	Z 10:26:34.1			0.9	42			
MOX	e Pn	Z 10:26:26.1	14.4	153.5					
	e P	Z 10:26:36.3			0.9	28			
CLL	e Pn	Z 10:26:30.0	14.7	158.7					
	e P	Z 10:26:38.9			1.1	56			
NEUB	e P	Z 10:26:41.6	14.9	155.0	1.0	115			
UBBA	e P	Z 10:26:43.1	15.1	149.2	1.0	14			
TNS	e P	Z 10:26:45.3	15.1	143.7	0.7	33			
RUE	e P	Z 10:26:48.5	15.6	162.5	0.9	125			
WLF	e P	Z 10:26:49.7	15.6	136.5	0.9	43			
CLZ	e P	Z 10:26:52.3	15.8	152.0	1.1	25			
IBBN	e P	Z 10:27:06.4	17.1	146.1	0.9	15			
BSEG	e Pn	Z 10:27:10.8	17.7	155.0	0.9	20			

e P Z 10:27:12.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/23	05:58:39.9	48.900N	151.167E	33.0G	5.1			SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 06:10:09.7	73.6	27.2	0.8	28	5.3		
BRG	e P	Z 06:10:10.5	73.7	27.7	1.1	14	4.9		
FBE	e P	Z 06:10:11.5	73.9	27.4	1.0	14	5.0		
CLZ	e P	Z 06:10:12.0	73.9	25.6	0.9	28	5.3		
NEUB	e P	Z 06:10:12.5	74.1	26.4	0.8	23	5.3		
IBBN	e P	Z 06:10:13.1	74.1	24.0	0.9	23	5.2		
WERD	e P	Z 06:10:15.6	74.6	26.7	0.9	8	4.8		
PLN	e P	Z 06:10:15.7	74.6	26.6	1.1	15	4.9		
MOX	e P	Z 06:10:15.7	74.6	26.3	1.1	18	5.0		
GUNZ	e P	Z 06:10:16.1	74.7	26.7	1.0	14	4.9		
WERN	e P	Z 06:10:16.5	74.7	26.7	0.7	13	5.0		
BUG	e P	Z 06:10:18.1	75.0	23.6	1.1	30	5.3		
MANZ	e P	Z 06:10:18.3	75.1	26.5	0.9	9	4.8		
ROTZ	e P	Z 06:10:19.6	75.2	26.5	1.0	17	5.1		
GRA1	e P	Z 06:10:21.7	75.6	25.9	0.8	35	5.5		
WET	e P	Z 06:10:21.7	75.6	26.8	1.0	20	5.2		
GEC2	e P	Z 06:10:21.4	75.6	27.3	0.7	8	4.9		
TNS	e P	Z 06:10:22.8	75.8	24.2	0.7	18	5.3		
RJOB	e P	Z 06:10:28.8	76.9	26.6	1.0	12	5.0		
BFO	e P	Z 06:10:32.3	77.6	24.0	0.9	15	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/24	08:34:22.0	36.810N	71.300E	230.0G	5.4			SZGRF

Afghanistan-Tajikistan border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 08:41:55.4	42.5	86.3	0.9	77	5.5		
RUE	e P	Z 08:41:55.2	42.5	88.0	0.9	93	5.5		
GEC2	e P	Z 08:41:57.7	42.8	84.0	1.0	17	4.7		
FBE	e P	Z 08:41:58.7	42.9	86.0	0.9	100	5.6		
CLL	e P	Z 08:41:59.3	43.1	86.1	0.9	45	5.2		
TANN	e P	Z 08:42:03.1	43.5	84.8	1.0	39	5.1		
WERN	e P	Z 08:42:03.7	43.5	84.6	1.2	23	4.8		
RJOB	e P	Z 08:42:03.1	43.6	82.2	0.8	36	5.2		
GUNZ	e P	Z 08:42:03.9	43.6	84.6	0.9	42	5.2		
WERD	e P	Z 08:42:03.8	43.6	84.7	1.0	42	5.1		
PLN	e P	Z 08:42:04.6	43.7	84.6	0.9	32	5.1		
ROTZ	e P	Z 08:42:05.4	43.7	83.9	1.1	55	5.2		

MANZ	e P	Z	08:42:05.8	43.7	84.1	0.9	46	5.2
NEUB	e P	Z	08:42:05.9	43.8	85.1	0.9	98	5.5
MOX	e P	Z	08:42:07.2	44.0	84.4	0.9	41	5.1
FUR	e P	Z	08:42:11.3	44.5	81.7	1.4	144	5.5
BSEG	e P	Z	08:42:11.7	44.5	86.8	0.8	75	5.7
CLZ	e P	Z	08:42:12.5	44.6	84.8	0.9	65	5.5
UBBA	e P	Z	08:42:14.7	45.0	83.5	0.8	18	5.1
STU	e P	Z	08:42:21.2	45.8	80.9	0.8	62	5.7
TNS	e P	Z	08:42:23.2	46.0	81.8	1.0	40	5.4
BUG	e P	Z	08:42:27.7	46.6	82.1	0.9	69	5.8
WLF	e P	Z	08:42:35.6	47.6	79.8	0.9	108	6.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/25	09:26:18.3	39.744N	143.422E	39.7	4.9			SZGRF
Off east coast of Honshu, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:38:34.4	81.2	35.2	0.9	13	4.9		
	e pP	Z 09:38:45.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/25	22:57:17.6	21.950S	174.490W	15.0		4.8		GSRC
Tonga Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 23:17:13.9	151.9	11.3					
	e L	Z 00:30:43.3			20.2	162		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/26								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z 15:04:59.2							
CLL	e PKP	Z 15:04:59.2							
FBE	e PKP	Z 15:05:00.0							
GEC2	e PKP	Z 15:05:04.2							
GRA1	e PKP	Z 15:05:05.4							
GUNZ	e PKP	Z 15:05:02.7							
MULD	e PKP	Z 15:05:02.0							
NEUB	e PKP	Z 15:05:01.1							
NKC	e PKP	Z 15:05:03.2							
PLN	e PKP	Z 15:05:02.1							
ROHR	e PKP	Z 15:05:03.2							

ROTZ	e PKP	Z	15:05:04.4
SCHD	e PKP	Z	15:05:03.5
TANN	e PKP	Z	15:05:02.3
TAUT	e PKP	Z	15:05:01.7
TRIB	e PKP	Z	15:05:02.9
WERD	e PKP	Z	15:05:02.5
WERN	e PKP	Z	15:05:02.6
WET	e PKP	Z	15:05:04.6
WIMM	e PKP	Z	15:05:00.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/26	15:08: 5.5	36.800N	138.000E	280.0	5.4			SZGRF
Eastern Honshu, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 15:19:38.6	78.7	40.3	1.1	65	5.6		
BRG	e P	Z 15:19:42.7	79.5	42.4	1.0	25	5.1		
CLL	e P	Z 15:19:42.8	79.6	41.8	0.9	65	5.6		
	e pP	Z 15:20:47.6							
CLZ	e P	Z 15:19:47.1	80.3	40.0	1.2	65	5.5		
TANN	e P	Z 15:19:48.0	80.5	41.3	1.1	18	5.0		
MOX	e P	Z 15:19:48.9	80.7	40.8	1.0	22	5.1		
IBBN	e P	Z 15:19:50.1	80.9	38.2	1.1	86	5.7		
ROTZ	e P	Z 15:19:51.7	81.1	41.1	1.8	58	5.3		
GEC2	e P	Z 15:19:50.9	81.1	42.0	0.8	13	5.1		
	e pP	Z 15:20:57.7							
UBBA	e P	Z 15:19:51.7	81.2	39.7	1.2	21	5.1		
WET	e P	Z 15:19:52.2	81.3	41.5	1.2	18	5.1		
	e pP	Z 15:20:57.8							
GRA1	e P	Z 15:19:54.0	81.6	40.4	1.2	85	5.8		
	e pP	Z 15:20:59.5							
BUG	e P	Z 15:19:54.5	81.8	37.8	1.0	30	5.4		
TNS	e P	Z 15:19:57.4	82.3	38.5	0.9	25	5.4		
RJOB	e P	Z 15:19:57.9	82.4	41.3	1.0	47	5.7		
FUR	e P	Z 15:19:59.5	82.7	40.3	1.0	79	5.9		
STU	e P	Z 15:20:01.4	83.1	38.9	1.0	62	5.8		
WLF	e P	Z 15:20:04.5	83.6	36.9	1.3	54	5.6		
BFO	e P	Z 15:20:04.8	83.8	38.3	1.0	45	5.7		
	e pP	Z 15:21:11.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/26	22:30: 0.9	47.107N	16.464E	10.0G				SZGRF
Austria								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
-----	-------	------	------	-----	------	-------	----	----	----

ARSA	e Pg	E	22:30:11.9	0.7	102.3
	e Sg	N	22:30:23.0		
OBKA	e Pn	Z	22:30:24.4	1.4	64.8
	e Sg	E	22:30:47.4		
MOA	e Pn	E	22:30:29.5	1.7	115.7
KBA	e Pn	E	22:30:34.8	2.1	88.1
GEC2	e Pn	E	22:30:42.4	2.5	132.2
WET	e Pn	E	22:30:50.3	3.1	129.1
	e Sg	N	22:31:40.6		
WTTA	e Pn	Z	22:30:52.8	3.3	91.0
ROTZ	e Pn	Z	22:31:00.3	3.9	131.7
NKC	e Sg	N	22:32:09.7	4.1	138.2
BRG	e Sg	N	22:32:09.1	4.1	155.3
ROHR	e Sg	N	22:32:10.9	4.2	137.2
WERN	e Sg	N	22:32:13.0	4.2	138.1
TANN	e Sg	N	22:32:14.8	4.2	139.9
GUNZ	e Sg	N	22:32:14.5	4.2	138.5
WERD	e Sg	N	22:32:17.6	4.3	139.1
FBE	e Sg	N	22:32:16.7	4.3	150.7

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/27 04:40:42.3 9.757S 73.532W 33.0G 4.9
 Peru-Brazil border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:53:57.6	94.1	259.7	0.7	4	4.9		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/27

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 07:40:11.9							

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/27 19:23:50.1 34.060N 53.300E 33.0G 5.4 5.2
 Northern and central Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 19:30:20.7	32.7	102.0	1.2	96	5.6		
BRG	e P	Z 19:30:22.6	33.0	105.3	1.2	23	5.0		
	e S	T 19:35:38.6							
RJOB	e P	Z 19:30:24.3	33.1	99.4	1.1	85	5.6		
	e S	T 19:35:39.1							

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

70

WET	e P	Z	19:30:25.7	33.3	101.6	1.5	60	5.3	
CLL	e P	Z	19:30:28.9	33.7	104.9	1.1	110	5.7	
ROTZ	e P	Z	19:30:30.4	33.8	101.9	1.3	55	5.3	
	e S	T	19:35:54.6						
FUR	e P	Z	19:30:33.0	34.1	98.7	1.2	68	5.5	
MOX	e P	Z	19:30:34.8	34.4	102.6	1.1	22	5.0	
	e S	T	19:36:01.7						
GRA1	e P	Z	19:30:35.8	34.4	100.9	1.3	66	5.4	
	e L	Z	19:47:19.7			21.8	4325		5.2
CLZ	e P	Z	19:30:43.9	35.4	103.1	1.3	90	5.6	
UBBA	e P	Z	19:30:44.1	35.4	101.3	1.7	125	5.6	
	e S	T	19:36:19.0						
STU	e P	Z	19:30:45.5	35.6	97.7	1.1	84	5.5	
NRDL	e P	Z	19:30:46.4	35.7	103.7	1.9	132	5.4	
BSEG	e P	Z	19:30:47.9	36.0	105.8	1.0	106	5.6	
BFO	e P	Z	19:30:49.7	36.1	96.4	1.4	45	5.1	
TNS	e P	Z	19:30:52.2	36.3	99.0	1.4	86	5.4	
BUG	e P	Z	19:31:00.0	37.2	99.6	1.5	168	5.6	
	e S	T	19:36:47.5						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/27	22:14:28.3	52.640N	169.940W	33.0G	4.9			SZGRF
Fox Islands, Aleutian Islands, United States								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 22:26:00.0	73.4	0.2	1.0	11	4.8		
NRDL	e P	Z 22:26:08.2	74.9	0.0	1.0	8	4.7		
IBBN	e P	Z 22:26:09.4	75.0	358.6	0.9	24	5.2		
CLZ	e P	Z 22:26:12.0	75.5	0.2	1.1	16	5.1		
BUG	e P	Z 22:26:14.0	75.9	358.3	1.0	14	5.0		
CLL	e P	Z 22:26:14.6	76.0	1.8	0.9	8	4.9		
BRG	e P	Z 22:26:17.1	76.4	2.4	0.9	11	5.0		
MOX	e P	Z 22:26:18.6	76.7	1.0	1.1	17	5.1		
TNS	e P	Z 22:26:20.9	77.1	359.0	1.3	13	4.9		
ROTZ	e P	Z 22:26:23.7	77.6	1.3	1.0	8	4.8		
WLF	e P	Z 22:26:24.0	77.6	357.6	1.0	14	5.1		
WET	e P	Z 22:26:27.0	78.2	1.7	1.2	8	4.6		
GEC2	e P	Z 22:26:28.4	78.5	2.3	1.0	8	4.7		
BFO	e P	Z 22:26:31.3	79.0	358.9	1.1	10	4.8		
FUR	e P	Z 22:26:32.5	79.2	0.8	1.0	21	5.0		
RJOB	e P	Z 22:26:35.0	79.6	1.7	1.0	11	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/28	00:47:32.9	41.300N	50.300E	33.0G	4.7			SZGRF
Caspian Sea								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	00:53:07.9	26.6	92.5	0.6	8	4.6		
BRG	e P	Z	00:53:08.4	26.6	96.8	0.9	14	4.7		
RJOB	e P	Z	00:53:13.0	27.2	89.6	0.8	17	4.8		
CLL	e P	Z	00:53:13.8	27.3	96.7	0.8	8	4.5		
TANN	e P	Z	00:53:16.3	27.5	94.6	0.9	11	4.7		
ROTZ	e P	Z	00:53:17.2	27.7	93.1	0.8	5	4.4		
MOX	e P	Z	00:53:21.3	28.1	94.3	1.1	31	5.0		
FUR	e P	Z	00:53:22.1	28.2	89.3	0.7	17	5.0		
GRA1	e P	Z	00:53:23.2	28.3	92.2	0.8	10	4.7		
CLZ	e P	Z	00:53:28.6	29.0	95.4	0.7	8	4.6		
UBBA	e P	Z	00:53:30.2	29.1	93.2	0.6	6	4.6		
NRDL	e P	Z	00:53:30.9	29.2	96.3	1.2	8	4.4		
BSEG	e P	Z	00:53:30.8	29.3	99.0	1.0	16	4.8		
STU	e P	Z	00:53:34.1	29.6	88.9	1.0	46	5.3		
TNS	e P	Z	00:53:39.2	30.1	90.9	1.1	18	4.8		
BUG	e P	Z	00:53:46.2	30.9	92.0	0.7	8	4.7		
WLF	e P	Z	00:53:52.2	31.6	88.2	1.1	27	5.1		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/08/28 07:08: 1.5 42.502N 12.877E 10.0G 3.2 4.8 SZGRF
 Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z	07:09:04.8	4.2	197.2					4.8
KBA	e Pn	Z	07:09:10.6	4.6	184.3					
WTTA	e Pn	Z	07:09:13.7	4.8	169.1					
ARSA	e Pn	Z	07:09:17.5	5.1	202.5					
	e Sn	N	07:10:11.7							
DAVA	e Pn	Z	07:09:19.2	5.2	155.0					
RJOB	e Pn	Z	07:09:17.5	5.2	179.3					
MOA	e Pn	Z	07:09:21.8	5.4	190.9					
	e Sn	E	07:10:20.3							
FUR	e Pn	Z	07:09:26.2	5.8	168.2					
GEC2	e Pn	Z	07:09:33.4	6.4	185.5					
WET	e Pn	Z	07:09:37.0	6.6	180.0					
	e L	Z	07:12:45.8			14.4	434		3.1	
BFO	e Pn	Z	07:09:37.2	6.6	149.6					
GRA1	e Pn	Z	07:09:48.3	7.3	170.3					
	e L	Z	07:13:11.7			13.2	454		3.3	
TANN	e Pn	Z	07:09:54.7	7.9	177.8					
MOX	e Pn	Z	07:09:57.8	8.2	173.5					
TNS	e Pn	Z	07:10:01.4	8.3	156.8					
BRG	e Pn	Z	07:10:01.6	8.4	185.4					
WLF	e Pn	Z	07:10:04.3	8.5	144.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/28	14:16:17.1	57.670N	154.269W	10.0N	4.7			SZGRF

Kodiak Island, Alaska, United States, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:27:41.1	72.0	351.9	0.9	5	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/28	22:43:14.9	19.106S	166.778E	33.0G				SZGRF

Vanuatu Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 23:02:18.4	143.7	41.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/29	00:53:16.3	25.624N	104.618E	33.0G	5.1	4.3		SZGRF

Southeastern China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:04:45.4	72.8	70.4	1.2	19	5.1		
	e L	Z 01:38:15.1			20.3	165		4.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/29	01:56:45.1	56.102N	160.096W	10.0N	4.7			SZGRF

Alaska Peninsula, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:08:20.9	74.0	355.0	1.2	9	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/29	06:43:28.1	41.710S	105.130W	10.0		5.0		GSRC

Southern East Pacific Rise

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 07:02:50.5	136.2	255.1					
	e L	Z 07:37:38.4			21.3	331		5.0	

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

73

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/30	23:25:41.5	15.843S	172.725W	33.0G		4.8		SZGRF

Samoa Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e PKPbc	Z 23:45:10.2	143.9	5.1					
CLL	e PKPbc	Z 23:45:10.7	144.2	9.5					
BUG	e PKPbc	Z 23:45:11.7	144.4	360.0					
BRG	e PKPbc	Z 23:45:12.0	144.6	11.1					
UBBA	e PKPbc	Z 23:45:13.2	145.0	4.6					
MOX	e PKPbc	Z 23:45:13.9	145.0	7.3					
TANN	e PKPbc	Z 23:45:14.4	145.2	8.8					
ROTZ	e PKPbc	Z 23:45:16.7	145.8	8.5					
GRA1	e PKPbc	Z 23:45:17.4	146.0	6.8					
WLF	e PKPbc	Z 23:45:18.1	146.2	358.1					
WET	e PKPbc	Z 23:45:18.1	146.4	9.8					
GEC2	e PKPbc	Z 23:45:19.0	146.6	11.3					
STU	e PKPbc	Z 23:45:20.2	147.0	3.4					
BFO	e PKPbc	Z 23:45:21.4	147.5	1.9					
FUR	e PKPbc	Z 23:45:21.5	147.5	7.2					
RJOB	e PKPbc	Z 23:45:22.1	147.8	10.0					
GRA1	e L	Z 00:44:16.3	146.0	6.8	21.3	184		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/30	04:44:14.8	14.620S	174.270W	10.0		5.2		GSRC

Samoa Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 05:03:55.8	144.6	9.2					
	e L	Z 06:06:50.6			21.0	479		5.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/30	05:15:59.0	19.280S	175.750W	189.6				NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 05:35:24.6	149.1	12.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/08/30	12:57:45.3	58.180N	32.180W	10.0	4.5			NEIC

Reykjanes Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
-----	-------	------	------	-----	------	-------	----	----	----

./2010/bul1008.txt

Thu Apr 23 08:38:25 2020

74

GRA1 e P Z 13:03:21.4 26.4 305.4 1.4 14 4.5

Date Origin Time Lat Long Depth mb Ms ML Source
2010/08/30

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKP	Z 19:21:53.7							
GEC2	e PKP	Z 19:21:59.9							
GUNZ	e PKP	Z 19:21:57.0							
MULD	e PKP	Z 19:21:56.9							
PLN	e PKP	Z 19:21:56.5							
ROTZ	e PKP	Z 19:21:58.7							
SCHD	e PKP	Z 19:21:57.4							
TANN	e PKP	Z 19:21:56.9							
TAUT	e PKP	Z 19:21:57.0							
WERD	e PKP	Z 19:21:56.4							

Date Origin Time Lat Long Depth mb Ms ML Source
2010/08/30 19:55:52.2 30.050S 177.350W 60.0
Kermadec Islands, New Zealand

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 20:16:21.5	159.3	21.4					

Date Origin Time Lat Long Depth mb Ms ML Source
2010/08/31 02:30:35.0 41.260N 140.380E 32.0 5.2
Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 02:42:18.6	75.5	38.6	1.1	47	5.5		
BSEG	e P	Z 02:42:19.5	75.6	36.4	1.3	38	5.4		
	e pP	Z 02:42:28.4							
BRG	e P	Z 02:42:25.0	76.7	38.4	1.1	16	5.1		
CLL	e P	Z 02:42:25.0	76.7	37.9	1.0	24	5.3		
	e pP	Z 02:42:34.3							
NRDL	e P	Z 02:42:26.1	76.9	36.1	1.1	18	5.1		
FBE	e P	Z 02:42:26.5	76.9	38.0	1.0	24	5.3		
	e pP	Z 02:42:35.7							
CLZ	e P	Z 02:42:28.9	77.3	36.2	1.0	32	5.4		
TANN	e P	Z 02:42:30.5	77.7	37.4	1.2	10	4.8		
	e pP	Z 02:42:39.6							
WERD	e P	Z 02:42:30.7	77.7	37.3	1.2	11	4.9		
	e pP	Z 02:42:40.0							

PLN	e P	Z	02:42:30.9	77.7	37.2	1.2	16	5.0
GUNZ	e P	Z	02:42:31.1	77.7	37.3	1.3	18	5.0
	e pP	Z	02:42:40.3					
WERN	e P	Z	02:42:31.4	77.8	37.3	1.0	14	5.0
MOX	e P	Z	02:42:31.3	77.8	36.8	1.3	18	5.0
	e pP	Z	02:42:40.4					
IBBN	e P	Z	02:42:31.6	77.8	34.5	1.0	35	5.4
MANZ	e P	Z	02:42:33.2	78.1	37.1	1.0	11	4.9
UBBA	e P	Z	02:42:33.6	78.3	35.8	1.0	8	4.7
ROTZ	e P	Z	02:42:34.4	78.3	37.1	1.3	23	5.0
	e pP	Z	02:42:43.5					
GEC2	e P	Z	02:42:34.3	78.4	38.0	1.3	15	4.9
	e pP	Z	02:42:43.4					
WET	e P	Z	02:42:35.4	78.5	37.5	1.2	19	5.0
GRA1	e P	Z	02:42:36.8	78.7	36.5	1.1	49	5.5
BUG	e P	Z	02:42:36.7	78.7	34.0	1.1	19	5.1
RJOB	e P	Z	02:42:41.7	79.6	37.3	1.0	25	5.1
	e pP	Z	02:42:51.0					
FUR	e P	Z	02:42:43.0	79.9	36.3	1.0	42	5.3
	e pP	Z	02:42:52.3					
STU	e P	Z	02:42:44.5	80.2	35.0	0.8	37	5.4
	e pP	Z	02:42:53.8					
BFO	e P	Z	02:42:48.2	80.9	34.4	1.1	38	5.3
	e pP	Z	02:42:57.5					

Format description

=====

(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