

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

(produced by SZGRF/BGR - HANNOVER)

March 2010 UPDATED 25.SEPTEMBER.2010

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

(Format description at the end of the bulletin)

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/01	03:16:10.8	27.203N	127.950E	33.0G	5.0			SZGRF

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:28:42.5	84.8	52.9	1.2	14	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/02	00:06:33.0	16.104S	172.182W	33.0N				SZGRF

Samoa Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TANN	e PKPbc	Z 00:26:08.2	145.5	7.9					
TNS	e PKPbc	Z 00:26:08.6	145.9	1.1					
ROTZ	e PKPbc	Z 00:26:09.8	146.1	7.6					
GRA1	e PKPbc	Z 00:26:09.8	146.3	5.9					
WLF	e PKPbc	Z 00:26:11.0	146.4	357.1					
WET	e PKPbc	Z 00:26:11.1	146.7	8.9					
GEC2	e PKPbc	Z 00:26:11.5	146.9	10.4					
STU	e PKPbc	Z 00:26:13.1	147.3	2.4					
BFO	e PKPbc	Z 00:26:14.7	147.8	0.9					
FUR	e PKPbc	Z 00:26:15.4	147.8	6.2					
RJOB	e PKPbc	Z 00:26:15.1	148.1	9.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/02	01:56:31.7	45.950N	68.690E	33.0G	4.5			SZGRF

Central Kazakhstan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	02:03:29.6	35.8	75.9	1.0	5	4.4		
CLL	e P	Z	02:03:33.2	36.3	76.0	0.6	10	4.8		
GEC2	e P	Z	02:03:35.4	36.5	73.1	0.8	4	4.3		
TANN	e P	Z	02:03:38.5	36.9	74.5	0.9	5	4.3		
WET	e P	Z	02:03:39.0	36.9	73.1	1.2	6	4.2		
ROTZ	e P	Z	02:03:40.9	37.2	73.6	1.1	6	4.2		
MOX	e P	Z	02:03:42.0	37.3	74.3	1.3	8	4.3		
GRA1	e P	Z	02:03:46.6	37.8	72.9	0.7	13	4.8		
FUR	e P	Z	02:03:50.0	38.3	71.1	1.1	30	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/02	02:51:26.9	19.030N	122.220E	33.0G	5.4	5.7		SZGRF
Philippine Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	03:04:06.4	86.2	64.1	1.8	60	5.4		
	e S	T	03:14:39.4							
CLL	e P	Z	03:04:07.8	86.6	63.4	0.9	17	5.2		
	e S	T	03:14:41.9							
BSEG	e P	Z	03:04:09.3	86.8	61.5	1.3	62	5.6		
	e S	T	03:14:45.5							
GEC2	e P	Z	03:04:11.4	87.3	63.8	1.1	11	4.9		
	e S	T	03:14:50.7							
TANN	e S	T	03:14:50.2	87.3	63.0					
NRDL	e P	Z	03:04:12.7	87.6	61.2	1.2	40	5.4		
	e S	T	03:14:53.1							
WET	e P	Z	03:04:13.2	87.6	63.2	2.3	46	5.2		
	e S	T	03:14:54.2							
MOX	e P	Z	03:04:12.7	87.6	62.3	1.7	40	5.3		
	e S	T	03:14:52.8							
	e L	Z	03:48:18.6			19.9	3458		5.8	
ROTZ	e P	Z	03:04:13.6	87.7	62.7	1.2	16	5.0		
	e S	T	03:14:55.4							
CLZ	e P	Z	03:04:14.0	87.8	61.4	1.1	35	5.6		
	e S	T	03:14:54.7							
RJOB	e P	Z	03:04:15.9	88.3	63.1	1.0	15	5.3		
	e S	T	03:14:59.6							
GRA1	e P	Z	03:04:15.9	88.3	62.0	1.7	52	5.6		
	e S	T	03:15:00.5							
	e L	Z	03:46:45.2			21.8	2620		5.6	
UBBA	e P	Z	03:04:16.6	88.5	61.1	1.7	36	5.4		
	e S	T	03:15:00.9							
IBBN	e P	Z	03:04:19.5	88.9	59.4	1.4	97	5.8		
FUR	e P	Z	03:04:20.0	89.0	62.0	1.8	135	5.9		
	e S	T	03:15:06.2							
TNS	e P	Z	03:04:22.1	89.6	59.9	1.1	13	5.1		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

3

	e S	T	03:15:13.0						
BUG	e P	Z	03:04:22.4	89.6	59.0	1.1	32	5.5	
	e S	T	03:15:12.7						
STU	e P	Z	03:04:23.8	89.9	60.5	1.0	16	5.2	
	e S	T	03:15:16.0						
BFO	e P	Z	03:04:27.7	90.6	59.8	1.8	62	5.5	
	e S	T	03:15:22.6						
WLF	e P	Z	03:04:30.3	91.2	58.1	1.2	65	5.8	
	e S	T	03:15:29.3						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/02	09:35:24.2	26.285N	129.222E	33.0G	5.1	5.1		SZGRF

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e P	Z 09:47:58.6	85.4	52.0	1.4	39	5.4		
GEC2	e P	Z 09:47:58.6	85.5	54.3	0.9	3	4.5		
MOX	e P	Z 09:47:58.9	85.5	52.8	2.0	29	5.1		
	e L	Z 10:30:14.9			18.1	820		5.2	
ROTZ	e P	Z 09:48:00.3	85.7	53.2	1.5	23	5.1		
WET	e P	Z 09:48:00.1	85.7	53.7	1.4	9	4.7		
UBBA	e P	Z 09:48:02.3	86.2	51.7	1.4	17	5.0		
GRA1	e P	Z 09:48:02.9	86.3	52.5	1.4	38	5.3		
	e L	Z 10:30:08.3			18.4	499		4.9	
IBBN	e P	Z 09:48:02.7	86.3	50.0	1.8	86	5.6		
RJOB	e P	Z 09:48:04.5	86.6	53.5	1.1	12	4.9		
BUG	e P	Z 09:48:07.1	87.1	49.6	0.7	8	5.0		
FUR	e P	Z 09:48:07.2	87.2	52.5	0.5	19	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/02	10:42:23.6	10.400S	166.200E	232.0				NEIC

Santa Cruz Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 11:01:21.1	135.6	36.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/02	22:10:39.6	19.300S	176.800W	574.0				NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 22:29:22.1	147.1	17.2					
BRG	e PKPbc	Z 22:29:22.8	147.3	19.0					

TANN	e	PKPbc	Z	22:29:25.6	148.0	16.7
ROTZ	e	PKPbc	Z	22:29:26.9	148.7	16.5
GEC2	e	PKPbc	Z	22:29:27.8	149.3	19.7
RJOB	e	PKPbc	Z	22:29:31.2	150.5	18.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/04	00:18:48.4	22.500N	121.500E	29.7	6.0	6.6		SZGRF

Taiwan region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e S	R 00:41:15.9	81.7	62.5					
BRG	e P	Z 00:31:12.5	83.1	62.5	2.0	242	6.0		
	e pP	Z 00:31:21.1							
	e PP	Z 00:34:29.2							
	e S	R 00:41:30.5							
FBE	e P	Z 00:31:14.1	83.4	62.1	1.5	195	6.0		
	e pP	Z 00:31:22.9							
CLL	e P	Z 00:31:13.8	83.4	61.9	1.3	96	5.8		
	e pP	Z 00:31:22.4							
	e PP	Z 00:34:32.7							
	e S	R 00:41:30.9							
BSEG	e P	Z 00:31:15.1	83.5	60.1	1.5	124	5.9		
	e pP	Z 00:31:23.6							
	e PP	Z 00:34:33.7							
	e S	R 00:41:35.0							
NEUB	e P	Z 00:31:17.7	84.1	61.0	1.3	139	6.0		
	e pP	Z 00:31:26.3							
	e PP	Z 00:34:38.2							
	e S	R 00:41:40.7							
TANN	e P	Z 00:31:17.8	84.1	61.4	1.6	95	5.8		
	e pP	Z 00:31:26.5							
	e PP	Z 00:34:36.6							
	e S	R 00:41:40.1							
WERD	e P	Z 00:31:18.2	84.2	61.3	1.6	104	5.8		
	e pP	Z 00:31:26.9							
GUNZ	e P	Z 00:31:18.3	84.2	61.3	1.5	132	6.0		
	e pP	Z 00:31:27.1							
WERN	e P	Z 00:31:18.5	84.2	61.3	1.4	80	5.8		
	e pP	Z 00:31:27.1							
PLN	e P	Z 00:31:18.6	84.2	61.2	1.7	144	5.9		
	e pP	Z 00:31:27.3							
MOX	e P	Z 00:31:19.6	84.5	60.8	1.5	99	5.8		
	e pP	Z 00:31:28.2							
	e PP	Z 00:34:41.4							
	e S	R 00:41:45.5							
	e L	Z 01:13:37.8			18.0	27182			6.7
WET	e P	Z 00:31:19.8	84.5	61.6	1.7	134	5.9		

	e pP	Z	00:31:28.7						
	e PP	Z	00:34:41.7						
	e S	R	00:41:45.5						
CLZ	e P	Z	00:31:20.5	84.5	60.0	1.3	124	6.0	
	e pP	Z	00:31:29.1						
ROTZ	e P	Z	00:31:20.5	84.5	61.2	1.4	112	5.9	
	e pP	Z	00:31:29.3						
	e PP	Z	00:34:43.3						
	e S	R	00:41:47.2						
HLG	e PP	Z	00:34:43.3	84.6	58.2				
	e S	R	00:41:45.8						
GRA1	e P	Z	00:31:23.5	85.1	60.4	2.4	632	6.4	
	e pP	Z	00:31:32.0						
	e PP	Z	00:34:47.1						
	e S	R	00:41:49.9						
	e L	Z	01:14:21.7			19.5	20242		6.5
IBBN	e P	Z	00:31:25.9	85.7	58.0	1.7	236	6.1	
	e pP	Z	00:31:34.4						
	e PP	Z	00:34:51.3						
	e S	R	00:41:53.0						
FUR	e P	Z	00:31:27.1	85.9	60.4	2.9	1575	6.7	
	e pP	Z	00:31:35.9						
	e PP	Z	00:34:52.6						
	e S	R	00:41:55.0						
BUG	e P	Z	00:31:29.3	86.4	57.6	1.5	154	6.0	
	e pP	Z	00:31:37.9						
	e PP	Z	00:34:58.0						
	e S	R	00:41:57.7						
TNS	e P	Z	00:31:29.8	86.4	58.4	2.9	454	6.2	
	e pP	Z	00:31:38.4						
	e PP	Z	00:34:57.4						
	e S	R	00:41:58.7						
STU	e P	Z	00:31:31.0	86.8	58.9	2.8	466	6.1	
	e pP	Z	00:31:39.7						
	e PP	Z	00:34:58.6						
	e S	R	00:41:59.1						
BFO	e P	Z	00:31:34.4	87.5	58.2	2.8	364	6.0	
	e pP	Z	00:31:43.0						
	e PP	Z	00:35:05.4						
	e S	R	00:42:04.2						
WLF	e P	Z	00:31:37.5	88.0	56.7	1.7	203	6.0	
	e pP	Z	00:31:46.0						
	e PP	Z	00:35:10.5						
	e S	R	00:42:09.6						

Northwest of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	00:47:33.4	73.3	26.6	0.5	35	5.6		
BRG	e P	Z	00:47:34.1	73.5	27.1	1.0	9	4.8		
FBE	e P	Z	00:47:35.2	73.6	26.8	0.9	17	5.1		
NEUB	e P	Z	00:47:36.1	73.8	25.8	0.6	20	5.4		
IBBN	e P	Z	00:47:36.6	73.8	23.5	0.9	22	5.2		
TANN	e P	Z	00:47:39.2	74.3	26.1	1.8	26	5.0		
WERD	e P	Z	00:47:39.4	74.3	26.1	1.4	18	4.9		
PLN	e P	Z	00:47:39.3	74.3	26.0	0.7	9	4.9		
MOX	e P	Z	00:47:39.4	74.3	25.7	1.1	20	5.0		
GUNZ	e P	Z	00:47:39.9	74.4	26.1	0.9	17	5.0		
WERN	e P	Z	00:47:40.2	74.4	26.1	1.1	25	5.1		
BUG	e P	Z	00:47:41.7	74.7	23.1	1.1	25	5.2		
ROTZ	e P	Z	00:47:43.5	74.9	25.9	0.9	16	5.1		
GRA1	e P	Z	00:47:45.4	75.3	25.3	0.6	38	5.7		
WET	e P	Z	00:47:45.4	75.3	26.2	1.2	26	5.2		
INS	e P	Z	00:47:46.6	75.5	23.7	0.7	22	5.4		
FUR	e P	Z	00:47:52.8	76.7	25.2	1.0	33	5.4		
STU	e P	Z	00:47:52.7	76.7	24.0	1.5	39	5.3		
BFO	e P	Z	00:47:56.1	77.3	23.4	0.9	14	5.1		

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/04 08:16:36.9 26.300N 118.690E 24.9 4.8 4.9
Near coast of southeastern China SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	08:28:37.6	78.5	62.2	2.6	48	5.1		
FBE	e P	Z	08:28:39.4	78.8	61.8	1.0	14	4.9		
CLL	e P	Z	08:28:39.0	78.8	61.6	1.0	12	4.9		
TANN	e P	Z	08:28:43.0	79.5	61.1	1.3	8	4.5		
	e pP	Z	08:28:50.1							
GEC2	e P	Z	08:28:43.1	79.6	61.7	1.0	10	4.7		
	e pP	Z	08:28:50.3							
WERD	e P	Z	08:28:43.2	79.6	61.0	3.6	172	5.4		
	e pP	Z	08:28:50.4							
GUNZ	e P	Z	08:28:43.4	79.6	61.0	1.3	16	4.8		
	e pP	Z	08:28:50.8							
WERN	e P	Z	08:28:43.8	79.6	61.0	1.0	10	4.7		
	e pP	Z	08:28:50.7							
NRDL	e P	Z	08:28:44.6	79.8	59.7	1.1	13	4.8		
	e pP	Z	08:28:51.7							
MOX	e P	Z	08:28:44.8	79.9	60.5	0.8	5	4.4		
	e pP	Z	08:28:51.9							
	e L	Z	09:10:59.9			18.3	522		4.9	
WET	e P	Z	08:28:45.1	79.9	61.2	2.4	44	5.0		

	e pP	Z	08:28:52.3						
CLZ	e P	Z	08:28:45.6	80.0	59.8	0.9	20	5.0	
	e pP	Z	08:28:52.6						
ROTZ	e P	Z	08:28:45.8	80.0	60.8	1.0	10	4.7	
	e pP	Z	08:28:53.0						
GRA1	e L	Z	09:11:44.0	80.6	60.1	18.9	424	4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/04	14:02:30.5	13.600S	167.100E	200.0				NEIC
Vanuatu Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPdf	Z	14:21:25.6	134.2	36.8					
BSEG	e PKPdf	Z	14:21:28.3	135.7	33.3					
HLG	e PKPdf	Z	14:21:29.5	136.3	29.9					
BRG	e PKP	Z	14:21:18.5	136.9	39.9					
	e PKPdf	Z	14:21:30.5							
CLL	e PKPdf	Z	14:21:30.4	136.9	38.4					
	e PP	Z	14:24:14.0							
NRDL	e PKP	Z	14:21:19.2	137.0	33.8					
	e PKPdf	Z	14:21:30.7							
FBE	e PKPdf	Z	14:21:31.2	137.1	39.1					
	e PP	Z	14:24:15.8							
CLZ	e PKP	Z	14:21:20.4	137.4	34.6					
	e PKPdf	Z	14:21:31.7							
NEUB	e PKP	Z	14:21:20.4	137.4	36.9					
	e PKPdf	Z	14:21:31.6							
TANN	e PKP	Z	14:21:21.2	137.8	38.3					
	e PKPdf	Z	14:21:32.3							
	e PP	Z	14:24:20.8							
WERD	e PKP	Z	14:21:21.3	137.8	38.1					
	e PKPdf	Z	14:21:32.3							
	e PP	Z	14:24:21.1							
PLN	e PKP	Z	14:21:21.4	137.9	37.9					
	e PP	Z	14:24:21.4							
GUNZ	e PKP	Z	14:21:21.4	137.9	38.2					
	e PKPdf	Z	14:21:32.6							
	e PP	Z	14:24:21.6							
IBBN	e PKP	Z	14:21:21.6	137.9	30.8					
	e PKPdf	Z	14:21:32.5							
	e PP	Z	14:24:22.0							
WERN	e PKP	Z	14:21:21.5	137.9	38.3					
	e PKPdf	Z	14:21:32.7							
	e PP	Z	14:24:22.0							
MOX	e PKP	Z	14:21:21.1	138.0	37.0					
	e PKPdf	Z	14:21:32.5							
	e PP	Z	14:24:21.9							

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

8

UBBA	e PKPdf	Z	14:21:33.1	138.4	34.7
ROTZ	e PKP	Z	14:21:22.4	138.4	38.4
	e PKPdf	Z	14:21:33.3		
GEC2	e PKPdf	Z	14:21:33.5	138.5	41.1
	e PP	Z	14:24:24.8		
WET	e PKPdf	Z	14:21:33.9	138.6	39.8
	e PP	Z	14:24:26.2		
BUG	e PKP	Z	14:21:24.2	138.8	30.6
	e PKPdf	Z	14:21:33.8		
GRA1	e PKPdf	Z	14:21:34.4	138.9	37.1
	e PP	Z	14:24:27.0		
TNS	e PKP	Z	14:21:26.3	139.5	33.0
BFO	e PP	Z	14:24:42.0	141.1	34.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/04	21:17:57.5	19.900S	177.700W	407.0				NEIC
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPab	Z	21:36:49.4	145.4	13.4					
HLG	e PKPab	Z	21:36:49.8	145.5	9.3					
NRDL	e PKPab	Z	21:36:54.8	146.8	13.5					
IBBN	e PKPab	Z	21:36:57.2	147.3	9.5					
CLZ	e PKPab	Z	21:36:57.5	147.4	14.2					
CLL	e PKPab	Z	21:36:57.7	147.5	19.0					
BRG	e PKPab	Z	21:36:59.0	147.7	20.8					
FBE	e PKPab	Z	21:36:59.2	147.8	19.8					
NEUB	e PKPab	Z	21:36:58.9	147.8	16.9					
WERD	e PKPab	Z	21:37:01.9	148.4	18.2					
GUNZ	e PKPab	Z	21:37:02.1	148.5	18.3					
WERN	e PKPab	Z	21:37:02.4	148.6	18.4					
GRA1	e PKPab	Z	21:37:05.8	149.4	16.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/04	22:39:25.5	22.300S	68.300W	105.0				NEIC
Northern Chile								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PP	Z	22:56:47.6	98.1	245.4					
BUG	e Pdiff	Z	22:52:53.0	98.8	245.1					
	e pPdiff	Z	22:53:21.5							
	e PP	Z	22:56:52.7							
STU	e Pdiff	Z	22:52:53.3	98.8	246.1					
TNS	e Pdiff	Z	22:52:54.1	99.0	245.7					
	e pPdiff	Z	22:53:22.3							

IBBN	e Pdiff	Z	22:52:56.1	99.4	245.5
	e pPdiff	Z	22:53:24.4		
FUR	e pPdiff	Z	22:53:26.3	99.8	247.5
UBBA	e pPdiff	Z	22:53:27.3	100.1	247.0
	e PP	Z	22:57:02.2		
GRA1	e Pdiff	Z	22:53:00.6	100.4	247.7
	e PP	Z	22:57:04.0		
RJOB	e pPdiff	Z	22:53:30.2	100.6	248.4
CLZ	e Pdiff	Z	22:53:02.0	100.7	247.4
	e pPdiff	Z	22:53:30.3		
	e PP	Z	22:57:06.8		
NRDL	e pPdiff	Z	22:53:31.0	100.8	247.3
	e PP	Z	22:57:08.2		
MOX	e pPdiff	Z	22:53:31.5	101.0	248.1
	e PP	Z	22:57:09.0		
ROTZ	e Pdiff	Z	22:53:03.6	101.0	248.4
	e pPdiff	Z	22:53:32.0		
	e PP	Z	22:57:09.0		
WET	e Pdiff	Z	22:53:04.1	101.2	248.7
NEUB	e Pdiff	Z	22:53:04.7	101.3	248.3
	e PP	Z	22:57:10.9		
WERN	e Pdiff	Z	22:53:05.1	101.3	248.6
	e pPdiff	Z	22:53:33.3		
	e PP	Z	22:57:11.5		
GUNZ	e PP	Z	22:57:11.6	101.3	248.6
WERD	e PP	Z	22:57:11.6	101.3	248.6
TANN	e Pdiff	Z	22:53:05.5	101.4	248.7
	e pPdiff	Z	22:53:33.6		
	e PP	Z	22:57:12.3		
BSEG	e Pdiff	Z	22:53:05.2	101.5	247.8
	e pPdiff	Z	22:53:33.4		
	e PP	Z	22:57:13.1		
GEC2	e Pdiff	Z	22:53:05.8	101.6	249.3
	e pPdiff	Z	22:53:34.0		
CLL	e Pdiff	Z	22:53:08.0	102.0	249.3
	e pPdiff	Z	22:53:36.0		
	e PP	Z	22:57:16.5		
FBE	e pPdiff	Z	22:53:37.1	102.1	249.4
	e PP	Z	22:57:17.2		
BRG	e pPdiff	Z	22:53:38.0	102.4	249.9
	e PP	Z	22:57:19.8		

Date 2010/03/05
 Origin Time 09:19:37.8
 Lat 36.500S
 Long 73.300W
 Depth 35.0
 mb
 Ms 6.1
 ML
 Source NEIC

Near coast of central Chile

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

10

GRA1	e PP	Z	09:39:03.3	113.8	241.0					
	e L	Z	10:24:02.2			21.9	4348		6.0	
MOX	e L	Z	10:24:00.3	114.5	241.6	21.5	5217		6.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/05	11:47:10.1	36.500S	73.100W	35.0		6.9		NEIC

Near coast of central Chile

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e PKiKP	Z	12:05:44.1	113.7	241.1					
GRA1	e PP	Z	12:06:42.3	113.7	240.9					
	e L	Z	12:51:29.6			21.8	32139		6.9	
MOX	e PKiKP	Z	12:05:44.8	114.4	241.5					
	e L	Z	12:52:20.2			21.0	37951		7.0	
GEC2	e PKiKP	Z	12:05:45.1	114.7	242.1					
TANN	e PKiKP	Z	12:05:45.7	114.8	242.0					
BRG	e PKiKP	Z	12:05:47.3	115.8	243.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/05	16:07:25.0	2.465N	100.047E	33.0G	5.8	6.7		SZGRF

Northern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	16:20:02.9	85.6	91.5	1.9	289	6.1		
GEC2	e P	Z	16:20:02.8	85.7	91.1	1.5	228	6.1		
CLL	e P	Z	16:20:05.5	86.2	90.8	1.8	136	5.8		
WET	e P	Z	16:20:05.2	86.3	90.5	1.8	259	6.1		
TANN	e P	Z	16:20:07.2	86.6	90.3	1.6	90	5.6		
ROTZ	e P	Z	16:20:08.0	86.7	90.1	1.7	130	5.8		
MOX	e P	Z	16:20:09.5	87.1	89.6	1.3	51	5.5		
	e L	Z	17:11:37.4			20.2	32155		6.7	
GRA1	e P	Z	16:20:10.7	87.4	89.3	1.5	148	5.9		
	e L	Z	17:11:29.2			19.0	25739		6.7	
BSEG	e P	Z	16:20:13.5	87.8	88.8	1.3	60	5.8		
CLZ	e P	Z	16:20:13.2	87.9	88.7	1.2	60	5.8		
NRDL	e P	Z	16:20:14.4	88.0	88.5	1.3	52	5.7		
UBBA	e P	Z	16:20:14.0	88.1	88.4	1.8	83	5.8		
TNS	e P	Z	16:20:18.6	89.1	87.2	1.1	62	5.7		
BFO	e P	Z	16:20:20.7	89.3	87.1	1.1	26	5.4		
IBBN	e P	Z	16:20:20.4	89.4	86.7	1.2	46	5.6		
WLF	e P	Z	16:20:27.8	90.6	85.4	1.4	56	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

11

2010/03/06 00:33: 2.1
Mongolia

48.900N 91.500E 15.0 4.8

NEIC

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 00:41:44.4	47.6	60.3	0.7	6	4.8		
CLL	e P	Z 00:41:46.6	47.9	60.2	0.7	10	5.0		
MOX	e P	Z 00:41:55.3	49.0	59.0	0.8	5	4.6		
CLZ	e P	Z 00:41:55.8	49.1	59.3	0.6	5	4.7		
WET	e P	Z 00:41:56.0	49.1	58.5	1.0	7	4.6		
ROTZ	e P	Z 00:41:56.7	49.1	58.7	0.9	6	4.6		
GRA1	e P	Z 00:42:01.3	49.7	58.1	1.2	19	4.9		
FUR	e P	Z 00:42:07.3	50.5	57.1	0.8	13	4.9		

Date Origin Time
2010/03/06 02:40: 6.8
Kuril Islands, Russia

Lat Long Depth mb Ms ML
47.521N 153.880E 33.0N 4.7

Source
SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:51:59.9	77.6	24.8	0.9	6	4.7		

Date Origin Time
2010/03/06 13:31:13.2
Kuril Islands, Russia

Lat Long Depth mb Ms ML
45.266N 147.745E 33.0G 5.2 5.2

Source
SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 13:42:52.7	74.4	29.6	1.0	22	5.2		
CLL	e P	Z 13:43:00.5	75.8	31.0	0.6	30	5.6		
BRG	e P	Z 13:43:00.9	75.9	31.6	1.4	24	5.2		
CLZ	e P	Z 13:43:03.3	76.2	29.4	1.1	42	5.5		
TANN	e P	Z 13:43:06.1	76.8	30.6	1.2	8	4.7		
MOX	e P	Z 13:43:06.5	76.8	30.1	1.3	27	5.2		
	e L	Z 14:22:14.5			18.1	988		5.2	
UBBA	e P	Z 13:43:08.2	77.2	29.0	1.4	18	5.0		
ROTZ	e P	Z 13:43:10.1	77.4	30.3	1.2	22	5.2		
GEC2	e P	Z 13:43:11.1	77.7	31.2	1.2	16	5.0		
WET	e P	Z 13:43:11.8	77.7	30.7	1.1	34	5.4		
GRA1	e P	Z 13:43:12.3	77.8	29.7	1.1	55	5.6		
	e L	Z 14:22:33.9			19.3	1188		5.2	
TNS	e P	Z 13:43:14.1	78.2	28.0	1.1	28	5.2		
RJOB	e P	Z 13:43:18.5	79.0	30.5	1.1	23	5.1		
FUR	e P	Z 13:43:19.3	79.1	29.6	1.0	46	5.5		
STU	e P	Z 13:43:19.8	79.2	28.3	1.0	37	5.3		
BFO	e P	Z 13:43:23.1	79.9	27.7	1.1	20	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/06	19:11:37.5	21.997N	93.212E	33.0G	4.9			SZGRF

Myanmar

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	19:22:28.5	66.5	83.6	0.7	5	4.9		
GEC2	e P	Z	19:22:31.1	66.9	82.5	0.9	7	4.9		
CLL	e P	Z	19:22:31.4	67.0	83.1	1.2	7	4.8		
WET	e P	Z	19:22:34.1	67.3	82.1	1.0	5	4.7		
TANN	e P	Z	19:22:34.5	67.4	82.3	1.2	6	4.7		
ROTZ	e P	Z	19:22:36.8	67.7	81.8	0.9	8	4.9		
MOX	e P	Z	19:22:37.6	67.9	81.8	1.0	3	4.5		
BSEG	e P	Z	19:22:39.8	68.3	82.1	0.8	7	4.9		
GRA1	e P	Z	19:22:40.5	68.3	81.1					
FUR	e P	Z	19:22:41.3	68.5	80.5	0.5	11	5.3		
NRDL	e P	Z	19:22:41.7	68.6	81.4	2.1	40	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/07	07:05:24.5	16.100S	115.300W	10.0		5.6		NEIC

Southern East Pacific Rise

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e PKPdf	Z	07:24:19.1	122.4	283.9					
IBBN	e PKPdf	Z	07:24:19.2	122.7	286.9					
BSEG	e PKPdf	Z	07:24:20.9	123.6	290.3					
TNS	e PKPdf	Z	07:24:21.6	123.7	286.2					
NRDL	e PKPdf	Z	07:24:21.7	124.0	289.2					
BFO	e PKPdf	Z	07:24:22.0	124.1	284.9					
CLZ	e PKPdf	Z	07:24:22.8	124.3	289.0					
UBBA	e PKPdf	Z	07:24:22.9	124.5	288.0					
STU	e PKPdf	Z	07:24:23.4	124.6	286.0					
MOX	e PKPdf	Z	07:24:24.7	125.5	289.4					
	e L	Z	08:16:19.3			21.7	1338		5.6	
GRA1	e PKPdf	Z	07:24:25.4	125.5	288.4					
	e PP	Z	07:26:14.9							
	e L	Z	08:16:46.2			21.1	1880		5.7	
FUR	e PKPdf	Z	07:24:26.0	126.0	287.4					
TANN	e PKPdf	Z	07:24:26.1	126.1	290.0					
CLL	e PKPdf	Z	07:24:25.8	126.1	291.1					
ROTZ	e PKPdf	Z	07:24:26.1	126.1	289.3					
WET	e PKPdf	Z	07:24:27.4	126.7	289.5					
BRG	e PKPdf	Z	07:24:27.3	126.8	291.7					
RJOB	e PKPdf	Z	07:24:28.0	127.1	288.4					
GEC2	e PKPdf	Z	07:24:28.4	127.4	290.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/07								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z 16:18:26.7							
BSEG	e PKPdf	Z 16:18:25.8							
CLL	e PKPdf	Z 16:18:26.0							
CLZ	e PKPdf	Z 16:18:24.1							
FLT1	e PKPdf	Z 16:18:24.6							
GEC2	e PKPdf	Z 16:18:24.3							
GRA1	e PKPdf	Z 16:18:22.8							
GUNZ	e PKPdf	Z 16:18:24.6							
MOX	e PKPdf	Z 16:18:24.0							
NRDL	e PKPdf	Z 16:18:24.4							
PLN	e PKPdf	Z 16:18:24.4							
RJOB	e PKPdf	Z 16:18:22.3							
ROTZ	e PKPdf	Z 16:18:24.6							
TANN	e PKPdf	Z 16:18:24.9							
TNS	e PKPdf	Z 16:18:21.7							
WERD	e PKPdf	Z 16:18:24.6							
WERN	e PKPdf	Z 16:18:24.8							
WET	e PKPdf	Z 16:18:23.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/07								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 21:42:33.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/08	02:32:33.7	37.494N	39.270E	33.0N	5.9	5.7		SZGRF

Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z 02:37:25.3	21.9	108.2	1.0	413	5.8		
WET	e P	Z 02:37:28.1	22.3	111.6	1.3	356	5.6		
BRG	e P	Z 02:37:28.2	22.4	116.9	1.6	387	5.6		
FBE	e P	Z 02:37:32.2	22.7	116.2	1.5	632	5.9		
ROTZ	e P	Z 02:37:35.1	22.9	112.1					
FUR	e P	Z 02:37:36.4	23.0	107.3	1.2	850	6.2		
TANN	e P	Z 02:37:35.7	23.0	113.8	1.4	343	5.7		
CLL	e P	Z 02:37:35.4	23.1	116.5	1.4	623	5.9		
GRA1	e P	Z 02:37:41.0	23.5	110.6					
	e L	Z 02:47:44.2			20.9	21583		5.6	

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

14

MOX	e P	Z	02:37:41.3	23.6	113.1	1.2	151	5.4	
	e L	Z	02:47:56.3			21.4	35034	5.8	
NEUB	e P	Z	02:37:42.3	23.7	114.5	1.6	377	5.7	
STU	e P	Z	02:37:50.5	24.5	106.2	1.3	693	6.2	
RGN	e P	Z	02:37:48.5	24.5	123.3				
BFO	e P	Z	02:37:54.8	24.9	104.3	1.5	178	5.6	
TNS	e P	Z	02:37:59.2	25.3	108.3	2.0	848	6.1	
BSEG	e P	Z	02:38:01.2	25.7	117.8	2.5	1321	6.1	
IBBN	e P	Z	02:38:08.8	26.5	111.5	2.1	768	6.1	
WLF	e P	Z	02:38:10.4	26.6	104.6	1.3	298	5.9	

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/08 05:39:47.6 18.134S 173.700W 63.6 mb MS ML
 Tonga Islands SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	05:59:17.7	145.5	6.4					
IBBN	e PKPbc	Z	05:59:19.2	145.8	2.5					
CLZ	e PKPbc	Z	05:59:20.3	146.1	7.0					
	e pPKPbc	Z	05:59:38.2							
CLL	e PKPbc	Z	05:59:20.6	146.4	11.6					
	e pPKPbc	Z	05:59:39.3							
BRG	e PKPbc	Z	05:59:21.9	146.7	13.3					
MOX	e PKPbc	Z	05:59:23.3	147.2	9.4					
TNS	e PKPbc	Z	05:59:25.2	147.9	3.8					
ROTZ	e PKPbc	Z	05:59:25.8	148.0	10.6					
GRA1	e PKPbc	Z	05:59:25.6	148.2	8.9					
WLF	e PKPbc	Z	05:59:27.3	148.5	359.7					
GEC2	e PKPbc	Z	05:59:27.3	148.7	13.6					
STU	e PKPbc	Z	05:59:28.9	149.3	5.4					
FUR	e PKPbc	Z	05:59:29.8	149.7	9.4					
BFO	e PKPbc	Z	05:59:29.9	149.8	3.8					
RJOB	e PKPbc	Z	05:59:30.3	149.9	12.4					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/08 07:47:41.6 37.468N 39.308E 33.0G 5.8 5.1
 Turkey SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	07:52:30.4	21.7	112.0	1.8	314	5.5		
WET	e P	Z	07:52:36.2	22.3	111.6	1.6	230	5.4		
BRG	e P	Z	07:52:36.5	22.4	116.9	1.9	348	5.5		
ROTZ	e P	Z	07:52:45.0	23.0	112.1	1.1	464	5.9		
FUR	e P	Z	07:52:44.2	23.0	107.3	1.1	482	5.9		
TANN	e P	Z	07:52:43.7	23.1	113.8	2.7	989	5.9		

CLL	e P	Z	07:52:43.8	23.1	116.5	1.3	394	5.8	
GRA1	e P	Z	07:52:49.3	23.5	110.6	1.2	814	6.1	
	e L	Z	08:02:50.4			20.7	4088		4.9
MOX	e P	Z	07:52:49.6	23.6	113.1	2.4	499	5.6	
	e L	Z	08:04:30.4			18.4	7656		5.2
STU	e P	Z	07:52:58.7	24.5	106.2	2.2	960	6.1	
UBBA	e P	Z	07:52:59.8	24.7	111.4	1.6	265	5.7	
CLZ	e P	Z	07:53:01.1	24.8	113.9	1.2	206	5.7	
NRDL	e P	Z	07:53:04.9	25.3	114.8	1.5	141	5.5	
TNS	e P	Z	07:53:07.2	25.4	108.3	1.5	486	6.0	
BSEG	e P	Z	07:53:09.5	25.8	117.8	2.1	1085	6.1	
IBBN	e P	Z	07:53:17.4	26.5	111.5	1.7	498	6.0	
WLF	e P	Z	07:53:18.2	26.6	104.6	1.0	99	5.5	

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/08 09:00:48.6 38.557N 40.838E 33.0G 4.7 3.8 ML SZGRF
 Turkey

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	09:05:41.8	22.0	107.7	1.9	67	4.8		
RJOB	e P	Z	09:05:45.1	22.3	104.0	0.9	24	4.7		
WET	e P	Z	09:05:48.0	22.6	107.4	0.9	11	4.4		
ROTZ	e P	Z	09:05:53.5	23.2	108.0	1.5	66	5.0		
CLL	e P	Z	09:05:54.7	23.3	112.3	1.2	30	4.7		
GRA1	e P	Z	09:05:58.8	23.8	106.6	1.2	63	5.0		
	e L	Z	09:13:25.2			21.8	295		3.7	
MOX	e P	Z	09:06:00.2	23.8	109.1	1.2	11	4.2		
	e L	Z	09:16:01.1			20.1	380		3.9	
UBBA	e P	Z	09:06:09.6	24.9	107.5	1.5	25	4.7		
CLZ	e P	Z	09:06:09.5	25.0	110.1	1.3	29	4.8		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/08 09:47:10.7 19.300N 144.700E 447.0 6.4 Ms ML NEIC
 Mariana Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	09:59:46.7	95.3	45.3	1.4	425	6.8		
BSEG	e P	Z	09:59:54.2	97.0	42.8	1.1	117	6.4		
	e PP	Z	10:03:57.8							
	e PKKPbc	Z	10:16:32.0							
BRG	e P	Z	09:59:57.1	97.6	46.2	1.5	182	6.6		
	e PP	Z	10:04:02.8							
	e PKKPbc	Z	10:16:30.1							
CLL	e P	Z	09:59:57.4	97.7	45.3	1.3	171	6.6		
	e PP	Z	10:04:03.4							

	e	PKKPbc	Z	10:16:29.9					
	e			10:17:01.3					
HLG	e	PP	Z	10:04:03.0	97.7	40.7			
FBE	e	P	Z	09:59:58.4	97.8	45.7	1.4	263	6.8
	e	PP	Z	10:04:04.8					
	e	PKKPbc	Z	10:16:29.8					
NRDL	e	P	Z	09:59:59.2	98.1	42.8	1.7	117	6.3
	e	PP	Z	10:04:06.5					
	e	PKKPbc	Z	10:16:29.5					
NEUB	e	P	Z	10:00:00.5	98.3	44.3	1.4	252	6.8
	e	PP	Z	10:04:08.0					
	e	PKKPbc	Z	10:16:28.3					
CLZ	e	P	Z	10:00:01.4	98.5	43.0	1.4	162	6.6
	e	PP	Z	10:04:09.8					
	e	PKKPbc	Z	10:16:28.3					
TANN	e	P	Z	10:00:01.7	98.6	45.0	1.6	121	6.4
	e	PP	Z	10:04:10.4					
	e	PKKPbc	Z	10:16:27.6					
	e			10:16:57.5					
WERD	e	P	Z	10:00:01.9	98.6	44.8	1.5	122	6.4
	e	PP	Z	10:04:10.9					
	e	PKKPbc	Z	10:16:27.3					
PLN	e	P	Z	10:00:02.1	98.7	44.7			
	e	PP	Z	10:04:11.2					
	e	PKKPbc	Z	10:16:27.3					
GUNZ	e	P	Z	10:00:02.2	98.7	44.9	1.6	191	6.6
	e	PP	Z	10:04:11.1					
	e	PKKPbc	Z	10:16:27.4					
WERN	e	P	Z	10:00:02.4	98.7	44.9	1.4	145	6.5
	e	PP	Z	10:04:11.6					
	e	PKKPbc	Z	10:16:27.5					
	e			10:16:57.2					
MOX	e	P	Z	10:00:02.6	98.8	44.2	1.4	127	6.5
	e	PP	Z	10:04:12.2					
	e	PKKPbc	Z	10:16:27.0					
	e			10:16:56.5					
GEC2	e	P	Z	10:00:03.8	99.1	46.2	1.0	45	6.2
	e	PP	Z	10:04:14.6					
	e	PKKPbc	Z	10:16:25.6					
	e			10:16:54.8					
ROTZ	e	P	Z	10:00:04.6	99.2	44.8	1.4	140	6.5
	e	PP	Z	10:04:15.3					
	e	PKKPbc	Z	10:16:25.7					
	e			10:16:55.0					
IBBN	e	P	Z	10:00:04.3	99.2	40.8	1.2	153	6.6
	e	PP	Z	10:04:14.0					
	e	PKKPbc	Z	10:16:26.1					
	e			10:16:54.8					
WET	e	P	Z	10:00:04.8	99.3	45.5	1.4	44	5.9

	e PP	Z	10:04:16.2						
	e PKKPbc	Z	10:16:25.1						
	e		10:16:54.0						
UBBA	e P	Z	10:00:05.0	99.4	42.8	1.6	110	6.2	
	e PP	Z	10:04:15.7						
	e		10:16:54.1						
GRA1	e P	Z	10:00:06.8	99.7	44.0	1.5	203	6.5	
	e pP	Z	10:01:47.3						
	e PP	Z	10:04:19.0						
	e PKKPbc	Z	10:16:24.5						
	e		10:16:52.8						
BUG	e P	Z	10:00:07.8	100.1	40.4	1.3	188	6.6	
	e		10:16:50.7						
RJOB	e P	Z	10:00:09.5	100.3	45.6	1.0	51	6.0	
	e PP	Z	10:04:23.9						
	e PKKPbc	Z	10:16:22.3						
	e		10:16:49.4						
TNS	e P	Z	10:00:10.3	100.5	41.6	1.4	94	6.1	
	e PKKPbc	Z	10:16:22.6						
	e		10:16:49.3						
FUR	e P	Z	10:00:11.5	100.7	44.2	1.1	143	6.4	
	e PP	Z	10:04:26.9						
	e PKKPbc	Z	10:16:21.6						
STU	e P	Z	10:00:13.6	101.3	42.4	1.5	155	6.4	
	e PP	Z	10:04:29.7						
	e PKKPbc	Z	10:16:19.9						
	e		10:16:45.5						
WLF	e P	Z	10:00:16.9	101.9	39.7	1.4	203	6.5	
	e PKKPbc	Z	10:16:18.4						
	e		10:16:42.9						
BFO	e P	Z	10:00:16.5	102.0	41.7				
	e PP	Z	10:04:34.5						

Date 2010/03/08
 Origin Time 10:14:30.5
 Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 10:19:18.2	21.4	112.0	1.8	51	4.6		
RJOB	e P	Z 10:19:20.3	21.6	108.1	0.9	37	4.8		
WET	e P	Z 10:19:20.4	22.0	111.6	1.0	19	4.5		
BRG	e P	Z 10:19:23.4	22.1	117.0	2.2	120	4.9		
ROTZ	e P	Z 10:19:28.1	22.7	112.1	1.2	103	5.2		
TANN	e P	Z 10:19:28.1	22.8	113.8	1.5	36	4.7		
GRA1	e P	Z 10:19:35.2	23.2	110.6	1.0	135	5.4		
MOX	e P	Z 10:19:36.5	23.3	113.2	1.3	22	4.5		
STU	e P	Z 10:19:42.8	24.2	106.1	1.6	93	5.1		

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Thu Apr 23 08:38:25 2020

18

UBBA	e P	Z	10:19:45.3	24.4	111.4	1.5	39	4.7
CLZ	e P	Z	10:19:45.9	24.5	114.0	1.5	66	5.1
TNS	e P	Z	10:19:52.8	25.1	108.3	1.6	67	5.1
BSEG	e P	Z	10:19:56.1	25.5	117.9	1.5	76	5.1
WLF	e P	Z	10:20:06.4	26.3	104.5	1.7	64	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/08	11:12:19.1	38.206N	39.199E	33.0G	4.8	4.2		SZGRF

Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 11:17:01.8	21.2	110.6	1.1	26	4.5		
RJOB	e P	Z 11:17:05.0	21.4	106.7	1.1	52	4.8		
WET	e P	Z 11:17:11.1	21.8	110.2	1.1	20	4.4		
BRG	e P	Z 11:17:10.6	21.8	115.7	1.1	24	4.6		
ROTZ	e P	Z 11:17:16.2	22.4	110.7	1.7	168	5.2		
FUR	e P	Z 11:17:18.1	22.5	105.9	1.1	92	5.2		
TANN	e P	Z 11:17:19.6	22.5	112.5	1.4	36	4.7		
CLL	e P	Z 11:17:17.0	22.6	115.3	1.2	40	4.8		
GRA1	e P	Z 11:17:21.5	23.0	109.3	1.4	182	5.4		
	e L	Z 11:27:12.1			21.4	564		4.0	
MOX	e P	Z 11:17:23.8	23.1	111.9	1.4	36	4.7		
	e L	Z 11:29:02.4			18.5	945		4.3	
STU	e P	Z 11:17:32.9	24.0	104.8	1.4	63	5.0		
UBBA	e P	Z 11:17:34.8	24.1	110.2	1.6	28	4.6		
CLZ	e P	Z 11:17:33.3	24.3	112.8	1.4	46	4.8		
BFO	e P	Z 11:17:39.0	24.4	102.9	1.2	16	4.4		
TNS	e P	Z 11:17:40.6	24.9	107.1	1.4	45	5.0		
BUG	e P	Z 11:17:51.4	25.9	108.1	1.1	28	4.8		
IBBN	e P	Z 11:17:52.5	25.9	110.4	0.9	22	4.8		
WLF	e P	Z 11:17:52.0	26.1	103.4	1.1	26	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/08	15:04:59.8	38.107N	39.276E	33.0N	4.8	3.8		SZGRF

Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 15:09:44.3	21.3	110.7	1.2	20	4.3		
RJOB	e P	Z 15:09:49.1	21.5	106.8	1.5	31	4.5		
WET	e P	Z 15:09:52.9	21.9	110.3	2.1	51	4.6		
ROTZ	e P	Z 15:09:58.8	22.5	110.8	1.4	66	5.0		
CLL	e P	Z 15:09:57.8	22.7	115.3	1.4	36	4.7		
GRA1	e P	Z 15:10:03.3	23.1	109.4	1.5	122	5.2		
	e L	Z 15:18:41.1			20.9	275		3.7	
MOX	e P	Z 15:10:05.3	23.2	112.0	2.1	40	4.6		

	e L	Z	15:20:15.4			21.7	345	3.8
STU	e P	Z	15:10:14.2	24.1	105.0	1.5	57	4.9
UBBA	e P	Z	15:10:14.9	24.2	110.3	2.1	43	4.6
CLZ	e P	Z	15:10:15.9	24.4	112.9	1.6	42	4.7
NRDL	e P	Z	15:10:19.9	24.8	113.8	1.3	13	4.5
TNS	e P	Z	15:10:22.7	25.0	107.1	1.9	64	5.0
BSEG	e P	Z	15:10:24.9	25.3	116.9	2.4	88	5.1
BUG	e P	Z	15:10:34.7	26.0	108.2	1.2	14	4.4
IBBN	e P	Z	15:10:32.7	26.0	110.5	2.3	108	5.1

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/09 07:46:58.9 18.166S 175.376W 33.0G SZGRF
 Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e PKPbc	Z	08:06:29.4	143.9	5.3					
BSEG	e PKPbc	Z	08:06:28.9	144.0	9.2					
IBBN	e PKPbc	Z	08:06:35.1	145.8	5.3					
CLZ	e PKPbc	Z	08:06:35.8	146.0	9.8					
CLL	e PKPbc	Z	08:06:35.6	146.2	14.4					
BRG	e PKPbc	Z	08:06:36.3	146.5	16.2					
FBE	e PKPbc	Z	08:06:36.8	146.5	15.2					
MOX	e PKPbc	Z	08:06:38.1	147.0	12.3					
PLN	e PKPbc	Z	08:06:38.4	147.1	13.3					
WERD	e PKPbc	Z	08:06:38.5	147.1	13.5					
TANN	e PKPbc	Z	08:06:38.5	147.1	13.8					
GUNZ	e PKPbc	Z	08:06:38.8	147.2	13.6					
ROTZ	e PKPbc	Z	08:06:40.5	147.8	13.6					
GEC2	e PKPbc	Z	08:06:41.6	148.5	16.6					
BFO	e PKPbc	Z	08:06:45.1	149.7	7.0					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/09 14:07: 2.3 52.295N 174.379W 62.7 5.6 SZGRF
 Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	14:18:29.7	73.7	3.0	1.3	78	5.6		
	e pP	Z	14:18:47.0							
NRDL	e P	Z	14:18:37.6	75.1	2.8	1.1	30	5.3		
	e pP	Z	14:18:54.9							
IBBN	e P	Z	14:18:39.3	75.4	1.4	1.1	81	5.8		
	e pP	Z	14:18:56.6							
CLZ	e P	Z	14:18:41.8	75.8	3.0	1.3	94	5.8		
	e pP	Z	14:18:59.0							
CLL	e P	Z	14:18:43.5	76.2	4.6	1.2	66	5.7		

	e pP	Z	14:19:00.8							
BUG	e P	Z	14:18:43.7	76.3	1.0	1.2	45	5.5		
	e pP	Z	14:19:01.0							
BRG	e P	Z	14:18:45.8	76.6	5.2	1.1	92	5.8		
	e pP	Z	14:19:03.0							
UBBA	e pP	Z	14:19:04.3	76.8	2.7					
MOX	e P	Z	14:18:47.9	76.9	3.8	1.1	72	5.7		
	e pP	Z	14:19:05.2							
TANN	e pP	Z	14:19:06.3	77.1	4.3					
TNS	e P	Z	14:18:50.8	77.5	1.8	1.1	75	5.7		
	e pP	Z	14:19:08.1							
ROTZ	e P	Z	14:18:53.0	77.8	4.1	1.1	55	5.6		
	e pP	Z	14:19:10.3							
GRA1	e P	Z	14:18:53.7	77.9	3.5	1.1	140	6.0		
	e pP	Z	14:19:10.7							
WLF	e P	Z	14:18:54.2	78.0	0.3	1.1	43	5.5		
	e pP	Z	14:19:11.6							
WET	e P	Z	14:18:56.0	78.4	4.5	1.0	40	5.4		
	e pP	Z	14:19:13.5							
GEC2	e P	Z	14:18:57.3	78.6	5.0	1.1	50	5.5		
	e pP	Z	14:19:14.5							
STU	e P	Z	14:18:58.7	78.9	2.2	1.1	83	5.7		
	e pP	Z	14:19:15.7							
BFO	e P	Z	14:19:01.1	79.3	1.7	1.2	58	5.4		
	e pP	Z	14:19:18.3							
FUR	e P	Z	14:19:01.5	79.4	3.5	1.4	104	5.6		
	e pP	Z	14:19:19.0							
RJOB	e P	Z	14:19:03.7	79.8	4.5	0.9	40	5.3		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/10 05:18:39.1 19.917S 170.605E 33.0G
 Vanuatu Islands SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TANN	e PKPbc	Z	05:38:11.0	144.9	37.5					
MOX	e PKPbc	Z	05:38:11.1	145.1	36.1					
UBBA	e PKPbc	Z	05:38:12.9	145.5	33.5					
ROTZ	e PKPbc	Z	05:38:13.5	145.6	37.7					
GEC2	e PKPbc	Z	05:38:13.2	145.7	40.8					
WET	e PKPbc	Z	05:38:13.7	145.8	39.3					
GRA1	e PKPbc	Z	05:38:15.0	146.0	36.3					
TNS	e PKPbc	Z	05:38:16.9	146.6	31.5					
RJOB	e PKPbc	Z	05:38:17.5	146.9	40.5					
FUR	e PKPbc	Z	05:38:18.7	147.2	37.8					
STU	e PKPbc	Z	05:38:19.8	147.5	33.9					
WLF	e PKPbc	Z	05:38:21.0	147.8	28.2					
BFO	e PKPbc	Z	05:38:21.3	148.2	32.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/10	06:11:34.6	51.500N	173.500W	44.0	4.8			NEIC

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	06:23:10.6	74.5	2.5	0.8	7	4.7		
NRDL	e P	Z	06:23:18.5	76.0	2.3	0.9	7	4.8		
CLZ	e P	Z	06:23:22.7	76.6	2.5	0.8	7	4.9		
CLL	e P	Z	06:23:24.5	77.0	4.1	1.8	33	5.2		
BRG	e P	Z	06:23:26.9	77.4	4.7	0.9	9	4.9		
MOX	e P	Z	06:23:29.0	77.8	3.3	0.9	7	4.8		
TANN	e P	Z	06:23:30.0	78.0	3.8	1.5	17	5.0		
TNS	e P	Z	06:23:31.8	78.3	1.2	0.8	6	4.7		
ROTZ	e P	Z	06:23:33.9	78.6	3.6	1.4	14	4.8		
GRA1	e P	Z	06:23:34.8	78.7	3.0	1.2	23	5.1		
WLF	e P	Z	06:23:35.5	78.8	359.8	0.6	8	4.9		
WET	e P	Z	06:23:37.0	79.2	4.0	1.0	4	4.2		
GEC2	e P	Z	06:23:38.2	79.5	4.6	1.4	13	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/10	08:07:37.4	8.009N	32.948W	33.0G	4.9			SZGRF

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	08:16:50.0	52.9	231.6	1.0	12	4.8		
TNS	e P	Z	08:17:01.1	54.4	233.7	1.3	16	4.9		
RJOB	e P	Z	08:17:08.5	55.4	239.5	1.1	9	4.7		
GRA1	e P	Z	08:17:09.8	55.5	236.8	1.2	26	5.1		
ROTZ	e P	Z	08:17:13.8	56.1	237.7	1.0	9	4.7		
NRDL	e P	Z	08:17:17.0	56.6	234.1	1.9	36	5.1		
TANN	e P	Z	08:17:17.4	56.6	237.6	1.3	21	5.0		
CLL	e P	Z	08:17:22.9	57.4	237.7	0.7	4	4.5		
BSEG	e P	Z	08:17:23.0	57.5	233.6	1.2	36	5.3		
BRG	e P	Z	08:17:24.4	57.6	238.8	1.2	10	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/10	13:38: 7.1	42.871N	20.742E	10.0G			4.8	SZGRF

Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z	13:39:30.5	5.7	127.4					4.9
ARSA	e Pn	Z	13:39:30.6	5.7	138.0					4.6

JAVC	e Pn	Z	13:39:40.3	6.4	159.2	4.8
KBA	e Pn	Z	13:39:44.5	6.7	126.1	4.9
MOA	e Pn	Z	13:39:45.6	6.7	135.2	4.8
KRUC	e Pn	Z	13:39:48.0	6.9	152.4	4.6
VRAC	e Pn	Z	13:39:50.6	7.0	154.4	4.5
OKC	e Pn	Z	13:39:51.9	7.2	164.6	4.8
	e Sn	E	13:41:12.8			
MORC	e Pn	Z	13:39:51.1	7.2	161.1	4.5
OJC	e Pn	Z	13:39:54.2	7.4	174.6	4.8
RJOB	e Pn	Z	13:39:55.1	7.4	128.2	5.0
	e Sn	N	13:41:16.1			
GEC2	e Pn	Z	13:39:59.1	7.7	138.0	4.7
WTTA	e Pn	Z	13:39:59.6	7.8	121.0	5.3
KHC	e Pn	Z	13:40:04.1	8.0	138.9	4.7
DPC	e Pn	Z	13:40:05.1	8.1	156.3	4.3
DAVA	e Pn	Z	13:40:15.4	8.8	116.0	5.3
WERN	e Pn	Z	13:40:26.0	9.4	139.1	
MOX	e Pn	Z	13:40:30.9	10.0	137.8	
BFO	e Pn	Z	13:40:31.5	10.2	117.6	
TNS	e Pn	Z	13:40:46.8	11.2	126.4	

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/11 06:22:19.1 57.300S 28.100W 309.0
 South Sandwich Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z 06:40:59.9	111.8	201.6					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/11 12:31:25.8 15.834S 172.609W 33.0G 4.9
 Samoa Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e PKPbc	Z 12:50:57.8	145.0	7.1					
	e L	Z 13:49:40.5			21.2	302		5.0	
TANN	e PKPbc	Z 12:50:58.5	145.2	8.6					
TNS	e PKPbc	Z 12:51:00.3	145.6	1.8					
ROTZ	e PKPbc	Z 12:51:01.3	145.8	8.3					
GRA1	e PKPbc	Z 12:51:01.7	146.0	6.6					
	e L	Z 13:48:41.5			21.4	241		4.9	
WLF	e PKPbc	Z 12:51:02.6	146.2	357.9					
WET	e PKPbc	Z 12:51:02.6	146.4	9.6					
GEC2	e PKPbc	Z 12:51:03.1	146.6	11.1					
BFO	e PKPbc	Z 12:51:05.8	147.5	1.7					
FUR	e PKPbc	Z 12:51:06.4	147.5	7.0					

RJOB e PKPbc Z 12:51:06.8 147.8 9.8

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/11 14:39:44.1 34.300S 71.900W 11.0 7.4 NEIC
 Near coast of central Chile

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e Pdiff	Z	14:54:12.3	109.1	239.5					
	e PP	Z	14:58:46.1							
STU	e Pdiff	Z	14:54:16.8	109.8	240.2					
BUG	e Pdiff	Z	14:54:17.6	110.1	239.8					
	e PKKPbc	Z	15:09:22.5							
TNS	e Pdiff	Z	14:54:18.1	110.1	240.2					
FUR	e PKiKP	Z	14:58:21.0	110.8	241.3					
IBBN	e PKKPbc	Z	15:09:20.4	110.8	240.4					
UBBA	e Pdiff	Z	14:54:23.2	111.3	241.4					
	e PKiKP	Z	14:58:22.2							
	e PKKPbc	Z	15:09:18.7							
RJOB	e Pdiff	Z	14:54:23.7	111.4	242.1					
	e PKiKP	Z	14:58:21.9							
GRA1	e Pdiff	Z	14:54:23.9	111.5	241.8					
	e PKiKP	Z	14:58:22.7							
	e PP	Z	14:58:53.9							
	e PKKPbc	Z	15:09:18.2							
	e L	Z	16:00:03.1			20.9	97155		7.4	
CLZ	e PKiKP	Z	14:58:23.7	112.0	242.0					
	e PKKPbc	Z	15:09:16.8							
ROTZ	e Pdiff	Z	14:54:26.6	112.1	242.4					
MOX	e Pdiff	Z	14:54:27.3	112.1	242.4					
	e PKiKP	Z	14:58:23.5							
	e L	Z	15:59:04.1			21.5	94291		7.3	
WET	e PKiKP	Z	14:58:23.3	112.2	242.7					
NRDL	e PKKPbc	Z	15:09:16.1	112.2	242.0					
TANN	e Pdiff	Z	14:54:29.1	112.5	242.8					
	e PKiKP	Z	14:58:24.5							
GEC2	e Pdiff	Z	14:54:28.2	112.5	243.1					
	e PKiKP	Z	14:58:24.0							
BSEG	e Pdiff	Z	14:54:29.9	112.9	242.7					
	e PKiKP	Z	14:58:25.0							
CLL	e Pdiff	Z	14:54:31.3	113.2	243.5					
	e PKiKP	Z	14:58:25.5							
	e PKKPbc	Z	15:09:12.2							
BRG	e Pdiff	Z	14:54:33.0	113.5	244.0					
	e PKiKP	Z	14:58:26.0							
	e PKKPbc	Z	15:09:11.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/11	14:55:30.4	34.300S	71.800W	35.0				NEIC

Near coast of central Chile

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z 15:14:37.0	111.4	241.7					
	e PS	Z 15:24:21.9							
	e PKKPbc	Z 15:25:06.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/11	23:20:18.3	24.080S	174.605W	38.2				SZGRF

South of Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 23:40:05.0	149.9	9.0					
	e pPKPbc	Z 23:40:16.6							
NRDL	e PKPbc	Z 23:40:08.3	151.4	9.0					
	e pPKPbc	Z 23:40:19.9							
IBBN	e PKPbc	Z 23:40:09.4	151.7	4.6					
CLZ	e PKPbc	Z 23:40:10.1	152.0	9.7					
CLL	e PKPbc	Z 23:40:10.2	152.1	15.0					
	e pPKPbc	Z 23:40:21.8							
BRG	e PKPbc	Z 23:40:10.8	152.4	17.0					
BUG	e PKPbc	Z 23:40:11.1	152.6	3.7					
MOX	e PKPbc	Z 23:40:12.0	153.0	12.6					
UBBA	e PKPbc	Z 23:40:11.8	153.0	9.3					
TANN	e PKPbc	Z 23:40:12.3	153.1	14.4					
TNS	e PKPbc	Z 23:40:14.0	153.8	6.3					
	e pPKPbc	Z 23:40:25.4							
ROTZ	e PKPbc	Z 23:40:13.6	153.8	14.2					
GEC2	e PKPbc	Z 23:40:14.8	154.4	17.8					
WLF	e PKPbc	Z 23:40:15.7	154.4	1.6					
STU	e PKPbc	Z 23:40:16.6	155.1	8.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/12	14:16:20.5	48.562N	151.410E	33.0G	5.1	4.4		SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e L	Z 15:01:24.3	71.0	27.9	21.0	258		4.5	
BSEG	e P	Z 14:27:38.7	72.4	25.9	1.5	29	5.2		
CLL	e P	Z 14:27:47.6	74.0	27.2	1.2	40	5.3		
	e L	Z 15:04:55.6			21.1	214		4.4	

BRG	e P	Z	14:27:48.4	74.1	27.7	1.2	15	4.9		
FBE	e P	Z	14:27:49.6	74.2	27.4	1.0	18	5.0		
CLZ	e P	Z	14:27:50.0	74.2	25.6	1.1	33	5.3		
NEUB	e P	Z	14:27:50.4	74.4	26.4	1.2	40	5.3		
TANN	e P	Z	14:27:53.6	74.9	26.7	1.5	18	4.9		
WERD	e P	Z	14:27:53.7	75.0	26.7	1.3	19	5.0		
PLN	e P	Z	14:27:53.6	75.0	26.6					
MOX	e P	Z	14:27:53.7	75.0	26.3	1.2	22	5.1		
GUNZ	e P	Z	14:27:54.1	75.0	26.7	1.2	16	5.0		
WERN	e P	Z	14:27:54.4	75.1	26.7	1.2	24	5.1		
BUG	e P	Z	14:27:56.1	75.4	23.6					
	e L	Z	15:04:50.7			21.1	256		4.5	
ROTZ	e P	Z	14:27:57.6	75.6	26.5	1.2	19	5.1		
GRA1	e P	Z	14:27:59.6	75.9	25.9	1.2	41	5.4		
	e L	Z	15:08:06.4			18.8	185		4.4	
WET	e P	Z	14:27:59.6	76.0	26.9	1.2	30	5.3		
GEC2	e P	Z	14:27:59.3	76.0	27.3	1.2	10	4.8		
TNS	e P	Z	14:28:00.8	76.2	24.2	1.3	26	5.2		
	e L	Z	15:06:23.7			21.7	139		4.2	
RJOB	e P	Z	14:28:06.2	77.2	26.7					
FUR	e P	Z	14:28:07.0	77.3	25.8					
	e L	Z	15:08:18.6			19.2	201		4.5	
STU	e P	Z	14:28:07.1	77.3	24.6					
BFO	e P	Z	14:28:10.2	78.0	24.0	1.2	20	5.1		
	e L	Z	15:06:00.8			20.3	196		4.4	

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/12 17:32: 9.3 34.900N 141.600E 18.0
 Off east coast of Honshu, Japan NEIC

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	17:44:32.8	82.7	40.9					
CLL	e P	Z	17:44:32.5	82.7	40.3					
CLZ	e P	Z	17:44:36.3	83.3	38.4					
TANN	e P	Z	17:44:37.8	83.6	39.8					
MOX	e P	Z	17:44:38.5	83.8	39.2					
ROTZ	e P	Z	17:44:41.2	84.2	39.6					
GEC2	e P	Z	17:44:40.9	84.3	40.6					
WET	e P	Z	17:44:42.0	84.4	40.0					
GRA1	e P	Z	17:44:43.4	84.7	38.9					
BUG	e P	Z	17:44:43.2	84.8	36.1					
TNS	e P	Z	17:44:46.3	85.4	36.9					
RJOB	e P	Z	17:44:47.6	85.5	39.9					
FUR	e P	Z	17:44:48.9	85.9	38.8					
STU	e P	Z	17:44:50.4	86.2	37.4					
WLF	e P	Z	17:44:53.2	86.7	35.2					
BFO	e P	Z	17:44:53.7	86.9	36.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/12	23:19:39.1	21.774N	94.825E	100.0G	5.7	4.5		SZGRF

Myanmar

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	23:30:35.4	67.6	82.5	1.0	43	5.7		
GEC2	e P	Z	23:30:38.6	68.1	81.6	0.8	38	5.7		
	e sP	Z	23:31:05.7							
CLL	e P	Z	23:30:38.4	68.2	82.0	1.1	33	5.5		
	e sP	Z	23:31:05.6							
WET	e P	Z	23:30:41.5	68.6	81.1	1.1	44	5.6		
TANN	e P	Z	23:30:41.8	68.6	81.3	1.0	35	5.6		
	e sP	Z	23:31:09.0							
RJOB	e P	Z	23:30:42.9	68.8	80.5					
ROTZ	e P	Z	23:30:44.1	68.9	80.8	1.0	92	6.0		
MOX	e P	Z	23:30:44.9	69.1	80.7	1.1	39	5.6		
BSEG	e P	Z	23:30:46.7	69.4	81.0	0.9	75	5.8		
GRA1	e P	Z	23:30:48.0	69.5	80.1					
CLZ	e P	Z	23:30:48.5	69.7	80.3	0.9	64	5.8		
NRDL	e P	Z	23:30:48.8	69.7	80.3	1.3	78	5.7		
FUR	e P	Z	23:30:49.1	69.8	79.6	1.3	78	5.7		
STU	e P	Z	23:30:56.8	71.0	78.3	1.1	74	5.7		
TNS	e P	Z	23:30:57.7	71.2	78.3	0.9	52	5.6		
IBBN	e P	Z	23:30:57.6	71.2	78.5	1.1	48	5.5		
BFO	e P	Z	23:31:00.3	71.6	77.6					
BUG	e P	Z	23:31:00.5	71.7	77.8	1.0	44	5.5		
WLF	e P	Z	23:31:07.9	72.7	76.5	1.0	133	6.0		
BRG	e L	Z	00:01:56.6	67.6	82.5	21.4	369		4.6	
WET	e L	Z	00:03:21.3	68.6	81.1	21.1	377		4.6	
GRA1	e L	Z	00:04:15.2	69.5	80.1	21.7	293		4.5	
STU	e L	Z	00:05:13.4	71.0	78.3	19.9	213		4.4	
BFO	e L	Z	00:05:15.1	71.6	77.6	20.6	291		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/13	12:46:24.1	37.580N	141.310E	72.0	5.7	4.9		NEIC

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
AHRW	e P	Z	12:58:45.3							
ASSE	e P	Z	12:58:31.6			1.2	42	5.4		
BFO	e P	Z	12:58:52.2			1.1	116	6.0		
	e L	Z	13:42:11.5			18.2	440		4.9	
BRG	e P	Z	12:58:30.3			1.0	44	5.5		
BSEG	e P	Z	12:58:25.0			1.1	83	5.6		

BUG	e P	Z	12:58:40.9	1.1	50	5.7	
CLL	e P	Z	12:58:30.2	1.0	85	5.7	
	e sP	Z	12:58:50.5				
	e L	Z	13:36:30.9	20.6	467		4.8
CLZ	e P	Z	12:58:33.8	1.2	117	5.8	
	e L	Z	13:39:17.5	19.7	622		5.0
FBE	e P	Z	12:58:31.6	1.1	91	5.7	
FLT1	e P	Z	12:58:29.4	1.2	97	5.6	
FUR	e P	Z	12:58:47.2	0.9	110	6.1	
	e L	Z	13:38:49.6	20.6	873		5.1
GEC2	e P	Z	12:58:39.0	1.0	36	5.4	
	e sP	Z	12:58:59.4				
	e L	Z	13:40:13.8	20.3	377		4.7
GRA1	e P	Z	12:58:41.3	1.1	107	6.0	
GTTG	e P	Z	12:58:35.7	1.1	70	5.7	
	e L	Z	13:39:38.1	20.2	564		4.9
GUNZ	e P	Z	12:58:36.0	1.1	43	5.5	
	e sP	Z	12:58:56.4				
IBBN	e P	Z	12:58:36.6	1.3	129	5.9	
MOX	e P	Z	12:58:36.1	1.1	39	5.4	
NEUB	e P	Z	12:58:33.4	1.2	112	5.8	
NRDL	e P	Z	12:58:31.2	1.0	37	5.4	
PLN	e P	Z	12:58:35.6	1.4	66	5.6	
RGN	e L	Z	13:34:27.8	20.8	582		4.9
RJOB	e P	Z	12:58:45.9	1.0	68	5.8	
ROTZ	e P	Z	12:58:39.0	1.4	88	5.7	
RUE	e P	Z	12:58:24.0	1.4	106	5.7	
STU	e P	Z	12:58:48.8	1.2	112	6.0	
	e L	Z	13:41:00.7	21.0	279		4.6
TANN	e P	Z	12:58:35.3	1.8	69	5.5	
TNS	e P	Z	12:58:44.2	1.0	34	5.5	
	e L	Z	13:40:48.4	18.9	512		4.9
WERD	e P	Z	12:58:35.6	1.7	72	5.5	
	e sP	Z	12:58:56.1				
WERN	e P	Z	12:58:36.3				
WET	e P	Z	12:58:39.9	1.1	47	5.5	
	e L	Z	13:37:47.7	18.5	670		5.0
WLF	e P	Z	12:58:51.0	1.6	110	5.8	

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/13 14:59: 2.3 0.065N 96.319E 33.0G 5.3 5.4
 Off west coast of northern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	15:11:34.5	85.1	95.5	1.3	37	5.5		
	e L	Z	16:00:40.5			20.9	1508		5.4	
BRG	e P	Z	15:11:34.4	85.1	95.9	1.1	18	5.2		

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Thu Apr 23 08:38:25 2020

28

RJOB	e P	Z	15:11:37.0	85.6	94.8	1.0	11	4.9	
WET	e P	Z	15:11:37.4	85.7	94.9	1.0	19	5.2	
	e L	Z	15:56:18.7			21.2	1945		5.5
CLL	e P	Z	15:11:38.0	85.8	95.2	1.0	16	5.1	
	e L	Z	15:54:22.1			20.5	1188		5.3
TANN	e P	Z	15:11:39.5	86.0	94.7	1.2	9	4.8	
ROTZ	e P	Z	15:11:39.9	86.2	94.5	2.2	96	5.5	
MOX	e P	Z	15:11:41.5	86.6	94.1	1.0	9	4.8	
FUR	e L	Z	15:58:45.9	86.6	93.7	19.0	1895		5.5
GRA1	e P	Z	15:11:43.3	86.8	93.7	1.0	26	5.3	
CLZ	e P	Z	15:11:45.8	87.4	93.1	0.9	16	5.1	
	e L	Z	15:57:09.9			21.8	1763		5.4
BSEG	e P	Z	15:11:46.6	87.6	93.2	1.2	42	5.6	
NRDL	e P	Z	15:11:47.3	87.6	93.0	1.5	48	5.6	
STU	e L	Z	15:57:53.4	88.1	92.1	21.7	2028		5.5
TNS	e P	Z	15:11:51.8	88.6	91.6	1.1	19	5.2	
	e L	Z	15:58:48.1			21.3	1144		5.3
BFO	e P	Z	15:11:51.3	88.6	91.5	0.8	8	5.0	
	e L	Z	15:58:02.6			21.0	1513		5.4
IBBN	e P	Z	15:11:53.9	89.1	91.1	1.1	50	5.6	
BUG	e P	Z	15:11:55.2	89.4	90.7	0.9	22	5.4	
WLF	e P	Z	15:11:58.5	90.1	89.8	1.9	86	5.6	

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/13 21:42:42.3 53.492N 160.104E 33.0G 5.6 4.8
 Near east coast of Kamchatka Peninsula, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	21:53:53.7	69.7	18.6	1.3	104	5.8		
NRDL	e P	Z	21:54:01.8	71.1	18.3	1.1	51	5.6		
CLL	e P	Z	21:54:04.9	71.6	19.9	1.2	129	5.9		
	e L	Z	22:28:26.2			21.2	449		4.7	
CLZ	e P	Z	21:54:05.8	71.7	18.4	1.1	127	5.9		
IBBN	e P	Z	21:54:05.7	71.7	16.9	1.5	142	5.9		
BRG	e P	Z	21:54:06.0	71.8	20.4	1.2	52	5.6		
MOX	e P	Z	21:54:10.7	72.6	19.0	1.3	63	5.6		
TANN	e P	Z	21:54:11.0	72.6	19.5	1.4	52	5.5		
BUG	e P	Z	21:54:11.0	72.6	16.5	1.1	67	5.7		
ROTZ	e P	Z	21:54:15.1	73.3	19.3	1.3	56	5.4		
GRA1	e P	Z	21:54:17.0	73.5	18.7	1.3	122	5.8		
TNS	e P	Z	21:54:16.7	73.6	17.1	1.5	79	5.5		
	e L	Z	22:30:15.0			21.7	638		4.9	
WET	e P	Z	21:54:17.6	73.7	19.6	1.2	68	5.5		
GEC2	e P	Z	21:54:17.9	73.8	20.0	1.2	48	5.4		
	e L	Z	22:31:02.8			18.7	600		4.9	
STU	e P	Z	21:54:23.8	74.8	17.4	1.1	64	5.6		
FUR	e P	Z	21:54:24.8	75.0	18.6	1.3	70	5.5		

	e L	Z	22:33:49.3			18.5	614		4.9
RJOB	e P	Z	21:54:25.5	75.0	19.4	1.3	34	5.2	
BFO	e P	Z	21:54:27.1	75.4	16.9	1.8	74	5.5	
	e L	Z	22:31:37.0			20.4	460		4.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/14	00:57:45.6	1.700S	128.100E	52.0		6.0		NEIC

Halmahera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e Pdiff	Z	01:11:47.0	106.3	71.9					
CLL	e Pdiff	Z	01:11:48.5	106.7	71.0					
	e L	Z	02:05:40.0			20.9	5300		6.1	
GEC2	e Pdiff	Z	01:11:50.7	107.1	72.3					
	e L	Z	02:12:38.2			21.3	4751		6.0	
TANN	e Pdiff	Z	01:11:51.7	107.4	70.8					
WET	e Pdiff	Z	01:11:52.8	107.5	71.5					
	e L	Z	02:11:55.9			21.2	3921		5.9	
ROTZ	e Pdiff	Z	01:11:54.0	107.7	70.7					
NRDL	e Pdiff	Z	01:11:55.1	108.0	68.1					
RJOB	e Pdiff	Z	01:11:58.7	108.0	71.8					
CLZ	e Pdiff	Z	01:11:55.5	108.1	68.6					
GRA1	e L	Z	02:07:49.9	108.4	69.9	21.1	3922		5.9	
FUR	e L	Z	02:08:16.3	108.8	70.5	20.9	2525		5.8	
IBBN	e Pdiff	Z	01:12:01.2	109.4	66.1					
TNS	e L	Z	02:07:24.2	109.8	67.4	21.4	4355		6.0	
STU	e L	Z	02:06:11.2	109.9	68.5	21.9	4009		6.0	
BFO	e Pdiff	Z	01:12:04.6	110.6	68.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/14	08:08:1.8	38.233N	142.468E	33.0G	6.4	6.9		SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	08:20:12.9	80.1	38.6	1.1	291	6.1		
	e L	Z	08:58:52.1			19.9	84912		7.1	
CLL	e P	Z	08:20:12.8	80.2	38.0	1.0	417	6.3		
	e L	Z	09:00:48.9			18.2	54518		6.9	
NRDL	e P	Z	08:20:13.8	80.3	36.1	1.1	231	6.1		
CLZ	e P	Z	08:20:16.5	80.7	36.2	1.0	415	6.4		
	e L	Z	09:00:52.8			19.7	43257		6.8	
TANN	e P	Z	08:20:18.3	81.1	37.5	1.3	190	6.0		
MOX	e P	Z	08:20:18.9	81.2	37.0	1.1	248	6.2		
IBBN	e P	Z	08:20:19.3	81.3	34.4	1.0	405	6.5		
ROTZ	e P	Z	08:20:21.8	81.7	37.3	1.3	416	6.4		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

30

GEC2	e P	Z	08:20:21.8	81.8	38.2	1.1	204	6.2	
	e L	Z	08:59:15.2			21.5	38786		6.7
WET	e P	Z	08:20:22.6	81.9	37.7	1.3	328	6.3	
	e L	Z	08:59:57.0			19.6	78079		7.1
GRA1	e P	Z	08:20:24.2	82.1	36.6	1.2	593	6.6	
	e L	Z	09:00:26.2			18.0	36582		6.8
BUG	e P	Z	08:20:23.7	82.2	34.0	1.2	259	6.2	
TNS	e P	Z	08:20:26.8	82.7	34.7	1.0	180	6.2	
	e L	Z	09:02:14.8			21.2	36213		6.7
RJOB	e P	Z	08:20:28.7	83.1	37.5	1.2	413	6.5	
FUR	e P	Z	08:20:30.1	83.3	36.5	1.0	521	6.7	
	e L	Z	09:00:48.8			19.8	69461		7.0
STU	e P	Z	08:20:31.5	83.7	35.1	1.1	417	6.6	
	e L	Z	09:01:28.2			18.3	41786		6.9
WLF	e P	Z	08:20:33.7	84.0	33.1	1.7	523	6.5	
BFO	e P	Z	08:20:34.9	84.3	34.5	1.0	482	6.7	
	e L	Z	09:01:38.4			19.9	41179		6.8

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/14 19:08:54.8 34.253N 75.309E 33.0G 5.1 4.6
 Eastern Kashmir SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 19:17:22.4	46.6	86.2	1.1	28	5.3		
	e L	Z 20:17:10.6			22.0	623			4.5
GEC2	e P	Z 19:17:25.2	47.0	84.2	1.3	10	4.8		
	e L	Z 20:18:59.9			20.4	476			4.4
CLL	e P	Z 19:17:26.4	47.2	85.9	1.2	17	5.0		
	e L	Z 20:17:19.7			20.7	762			4.6
WET	e P	Z 19:17:29.1	47.5	83.9	1.5	16	4.9		
	e L	Z 20:31:00.4			19.3	489			4.5
TANN	e P	Z 19:17:30.3	47.6	84.7					
RJOB	e P	Z 19:17:30.6	47.7	82.5					
ROTZ	e P	Z 19:17:32.5	47.8	84.0	1.3	30	5.3		
GRA1	e P	Z 19:17:37.7	48.5	83.2	1.1	29	5.2		
	e L	Z 20:15:16.4			20.7	519			4.5
FUR	e P	Z 19:17:38.5	48.6	81.9	1.6	75	5.5		
	e L	Z 20:16:07.5			19.3	466			4.5
CLZ	e P	Z 19:17:38.9	48.8	84.5	1.4	33	5.2		
	e L	Z 20:15:21.5			21.8	847			4.7
NRDL	e P	Z 19:17:40.0	48.9	84.8	1.4	38	5.2		
STU	e P	Z 19:17:48.2	49.9	81.0					
	e L	Z 20:14:29.9			20.5	593			4.6
TNS	e P	Z 19:17:49.9	50.2	81.7	1.2	14	4.8		
	e L	Z 20:14:56.7			20.8	1269			4.9
BFO	e P	Z 19:17:52.3	50.6	80.1	1.8	22	4.8		
	e L	Z 20:16:15.2			19.6	621			4.6

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

31

WLF e P Z 19:18:01.9 51.7 79.7 1.1 20 5.0

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/14 20:33:23.6 2.862S 81.130E 41.8 5.6 5.3 ML SZGRF
South Indian Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 20:45:15.1	77.6	109.2	1.1	40	5.5		
	e sP	Z 20:45:32.1							
	e L	Z 21:23:33.0			18.8	1580		5.4	
RJOB	e P	Z 20:45:16.1	77.8	108.3	0.9	59	5.7		
BRG	e P	Z 20:45:18.5	78.1	109.8	0.9	42	5.6		
WET	e P	Z 20:45:18.4	78.2	108.6	1.1	35	5.4		
	e L	Z 21:22:29.7			21.7	1817		5.4	
ROTZ	e P	Z 20:45:22.5	78.8	108.2	1.0	33	5.3		
	e sP	Z 20:45:39.3							
CLL	e P	Z 20:45:22.2	78.8	109.1	0.9	69	5.7		
	e L	Z 21:16:50.9			21.7	1242		5.2	
TANN	e P	Z 20:45:22.4	78.9	108.5	2.3	101	5.4		
FUR	e P	Z 20:45:22.3	78.9	107.2	0.8	43	5.5		
	e sP	Z 20:45:39.0							
	e L	Z 21:20:42.3			21.7	1478		5.3	
GRA1	e P	Z 20:45:25.8	79.4	107.4	1.0	80	5.7		
	e L	Z 21:22:05.6			21.5	1318		5.2	
MOX	e P	Z 20:45:25.8	79.5	107.9	0.9	52	5.5		
STU	e P	Z 20:45:30.5	80.4	105.6	1.0	48	5.4		
	e L	Z 21:23:36.5			21.1	1886		5.4	
CLZ	e P	Z 20:45:31.5	80.6	107.1	0.9	75	5.6		
BFO	e P	Z 20:45:33.0	80.8	104.9	0.9	52	5.5		
	e L	Z 21:23:04.2			22.0	1311		5.2	
NRDL	e P	Z 20:45:33.3	80.9	107.0	1.0	79	5.7		
BSEG	e P	Z 20:45:34.3	81.2	107.4	0.9	82	5.7		
	e sP	Z 20:45:51.3							
TNS	e P	Z 20:45:35.8	81.3	105.3	0.9	86	5.8		
IBBN	e P	Z 20:45:40.4	82.2	105.0					
BUG	e P	Z 20:45:40.8	82.3	104.5					
WLF	e P	Z 20:45:42.4	82.6	103.4					
	e sP	Z 20:45:59.6							

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/14 21:17:37.1 5.502S 65.170E 33.0G 5.4 4.4 ML SZGRF
South Indian Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z 21:28:47.4	70.3	123.1	1.3	16	5.0		

GEC2	e P	Z	21:28:47.7	70.4	124.2	2.6	69	5.3	
	e L	Z	22:02:59.3			21.3	266		4.5
WET	e P	Z	21:28:51.2	71.0	123.6	1.8	39	5.2	
	e L	Z	22:00:39.8			19.6	234		4.4
FUR	e P	Z	21:28:54.5	71.3	121.9	1.7	231	6.0	
BRG	e P	Z	21:28:54.6	71.4	125.0	1.4	28	5.2	
ROTZ	e P	Z	21:28:56.5	71.7	123.2	2.2	91	5.5	
TANN	e P	Z	21:28:57.7	71.9	123.6	2.2	105	5.6	
CLL	e P	Z	21:28:58.9	72.1	124.3	1.4	51	5.5	
	e L	Z	22:01:45.4			20.6	318		4.6
GRA1	e P	Z	21:28:59.1	72.2	122.3	1.5	122	5.8	
MOX	e P	Z	21:29:01.4	72.5	122.9	1.5	37	5.3	
STU	e P	Z	21:29:03.2	72.8	120.3	1.6	76	5.6	
BFO	e P	Z	21:29:05.2	73.1	119.4	2.2	97	5.5	
	e L	Z	22:07:14.5			21.8	187		4.3
CLZ	e P	Z	21:29:08.7	73.8	122.1	1.8	93	5.5	
TNS	e P	Z	21:29:10.3	74.0	120.0	1.3	30	5.2	
NRDL	e P	Z	21:29:11.6	74.3	122.0	2.0	85	5.4	
WLF	e P	Z	21:29:15.7	75.0	117.9	1.6	52	5.3	
BUG	e P	Z	21:29:17.0	75.2	119.3	2.7	224	5.7	

Date 2010/03/15 Origin Time 11:08:28.1 Lat 35.900S Long 73.300W Depth 10.0 mb Ms ML Source NEIC
Off coast of central Chile

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e Pdiff	Z	11:23:00.2	110.5	238.3					
	e PP	Z	11:27:30.7							
BFO	e Pdiff	Z	11:23:02.6	111.1	239.2					
	e PP	Z	11:27:34.5							
STU	e Pdiff	Z	11:23:05.7	111.8	239.9					
	e PP	Z	11:27:39.5							
BUG	e Pdiff	Z	11:23:07.0	112.1	239.6					
	e PP	Z	11:27:41.4							
TNS	e Pdiff	Z	11:23:07.1	112.1	239.9					
	e PP	Z	11:27:41.4							
FUR	e Pdiff	Z	11:23:09.7	112.7	240.9					
	e PP	Z	11:27:45.2							
IBBN	e Pdiff	Z	11:23:10.1	112.8	240.2					
	e PP	Z	11:27:46.5							
UBBA	e Pdiff	Z	11:23:12.2	113.3	241.1					
	e PP	Z	11:27:49.0							
RJOB	e Pdiff	Z	11:23:12.8	113.4	241.7					
	e PP	Z	11:27:49.6							
GRA1	e Pdiff	Z	11:23:12.9	113.4	241.5					
	e PP	Z	11:27:51.5							
CLZ	e Pdiff	Z	11:23:15.3	113.9	241.8					

	e PP	Z	11:27:55.3		
ROTZ	e Pdiff	Z	11:23:15.5	114.0	242.1
	e PP	Z	11:27:55.3		
MOX	e Pdiff	Z	11:23:15.9	114.1	242.1
	e PP	Z	11:27:54.6		
WET	e Pdiff	Z	11:23:15.9	114.1	242.3
	e PP	Z	11:27:56.1		
NRDL	e Pdiff	Z	11:23:16.0	114.1	241.8
	e PP	Z	11:27:55.9		
GEC2	e Pdiff	Z	11:23:17.8	114.4	242.7
	e PP	Z	11:27:57.8		
TANN	e Pdiff	Z	11:23:17.5	114.4	242.5
	e PP	Z	11:27:57.8		
BSEG	e Pdiff	Z	11:23:19.5	114.9	242.6
	e PP	Z	11:28:00.9		
CLL	e Pdiff	Z	11:23:20.7	115.2	243.3
	e PP	Z	11:28:02.8		
BRG	e Pdiff	Z	11:23:22.1	115.5	243.7
	e PP	Z	11:28:06.0		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/15 20:17:32.8 31.622N 79.753E 10.0N 4.8 4.1
 Western Xizang-India border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	20:26:36.3	51.2	85.6	0.9	11	4.8		
GEC2	e P	Z	20:26:38.9	51.5	83.8	1.3	10	4.6		
CLL	e L	Z	20:52:04.9	51.7	85.2	18.5	280		4.3	
WET	e P	Z	20:26:42.6	52.0	83.4	0.9	8	4.6		
	e L	Z	20:50:02.8			21.9	188		4.1	
TANN	e P	Z	20:26:43.3	52.2	84.1	1.0	6	4.5		
ROTZ	e P	Z	20:26:45.8	52.4	83.4	1.0	15	4.9		
MOX	e P	Z	20:26:47.0	52.7	83.7	1.1	8	4.6		
	e L	Z	20:53:53.7			18.1	184		4.2	
GRA1	e L	Z	20:55:18.8	53.0	82.7	20.7	165		4.1	
BSEG	e P	Z	20:26:50.3	53.1	85.2	0.8	15	5.0		
FUR	e P	Z	20:26:51.3	53.2	81.6					
CLZ	e P	Z	20:26:51.7	53.3	83.7	0.8	21	5.1		
NRDL	e P	Z	20:26:52.3	53.4	84.0	0.9	15	5.0		
BFO	e L	Z	20:51:59.5	55.1	79.8	19.8	110		3.9	

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/16 02:22: 4.0 35.337S 72.823W 33.0G 7.0
 Near coast of central Chile

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e PP	Z	02:41:06.7	109.9	238.4					
BFO	e PP	Z	02:41:11.0	110.4	239.3					
	e L	Z	03:24:29.7			21.3	32609		6.9	
STU	e PP	Z	02:41:17.3	111.1	240.0					
BUG	e PP	Z	02:41:18.6	111.4	239.7					
TNS	e PP	Z	02:41:18.8	111.4	240.0					
	e L	Z	03:25:15.8			20.1	45956		7.1	
FUR	e PP	Z	02:41:23.6	112.0	241.1					
	e L	Z	03:27:27.4			20.5	40581		7.0	
IBBN	e PP	Z	02:41:24.3	112.1	240.3					
UBBA	e PP	Z	02:41:27.8	112.6	241.2					
RJOB	e PP	Z	02:41:28.9	112.7	241.9					
GRA1	e PP	Z	02:41:28.9	112.7	241.6					
	e L	Z	03:26:08.5			21.8	40039		7.0	
CLZ	e PP	Z	02:41:33.9	113.3	241.9					
ROTZ	e PP	Z	02:41:32.6	113.3	242.3					
MOX	e PP	Z	02:41:33.7	113.4	242.2					
WET	e PP	Z	02:41:33.0	113.4	242.4					
NRDL	e PP	Z	02:41:34.3	113.4	241.9					
GEC2	e PP	Z	02:41:35.7	113.8	242.8					
TANN	e PP	Z	02:41:36.0	113.8	242.7					
BSEG	e PP	Z	02:41:38.9	114.2	242.6					
CLL	e PP	Z	02:41:40.9	114.5	243.4					
	e L	Z	03:28:10.2			20.5	37124		7.0	
BRG	e PP	Z	02:41:42.9	114.8	243.8					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/16 09:44:18.3 52.520N 142.252E 33.0G 5.8 5.5 ML SZGRF
 Sakhalin Island, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	09:55:07.9	66.3	29.6	1.2	82	5.8		
NRDL	e P	Z	09:55:16.4	67.6	29.2	1.2	87	5.9		
CLL	e P	Z	09:55:16.7	67.7	30.6	1.0	133	6.1		
	e L	Z	10:25:24.6			18.3	2877		5.5	
BRG	e P	Z	09:55:17.1	67.8	31.0	1.9	143	5.9		
CLZ	e P	Z	09:55:19.9	68.1	29.2	1.2	158	6.1		
IBBN	e P	Z	09:55:21.4	68.5	27.8	1.4	137	6.0		
TANN	e P	Z	09:55:23.0	68.7	30.1	1.6	82	5.7		
MOX	e P	Z	09:55:23.6	68.8	29.7	1.3	100	5.9		
UBBA	e P	Z	09:55:25.3	69.1	28.8	1.8	136	5.9		
ROTZ	e P	Z	09:55:27.5	69.3	29.9	1.2	66	5.6		
BUG	e P	Z	09:55:27.0	69.4	27.4	1.4	134	5.9		
GEC2	e P	Z	09:55:28.4	69.6	30.5	1.6	84	5.6		
	e L	Z	10:27:46.2			19.9	2815		5.5	
WET	e P	Z	09:55:29.3	69.7	30.1	1.2	89	5.8		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

35

GRA1	e P	Z	09:55:29.8	69.7	29.3	1.0	125	6.0		
	e L	Z	10:24:17.9			18.4	2364		5.5	
TNS	e P	Z	09:55:31.8	70.1	27.8	1.3	81	5.7		
	e L	Z	10:26:03.0			19.0	4218		5.7	
RJOB	e P	Z	09:55:36.9	70.9	29.8	1.0	45	5.6		
FUR	e P	Z	09:55:37.5	71.0	29.1	1.4	185	6.0		
BFO	e P	Z	09:55:41.5	71.8	27.5	1.2	83	5.7		
	e L	Z	10:30:30.7			19.7	2285		5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/16	12:25:26.3	17.700S	178.800W	566.0				NEIC
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z	12:43:54.0	143.1	14.6					
NRDL	e PKP	Z	12:43:58.7	144.5	14.7					
IBBN	e PKP	Z	12:44:00.4	145.0	10.9					
CLZ	e PKP	Z	12:44:01.0	145.1	15.4					
CLL	e PKP	Z	12:44:00.7	145.1	19.9					
BRG	e PKP	Z	12:44:01.5	145.3	21.7					
BUG	e PKP	Z	12:44:02.8	145.9	10.4					
MOX	e PKP	Z	12:44:03.3	146.0	17.9					
TANN	e PKP	Z	12:44:03.8	146.1	19.5					
ROTZ	e PKP	Z	12:44:05.8	146.7	19.4					
TNS	e PKP	Z	12:44:06.1	147.0	12.7					
GRA1	e PKP	Z	12:44:06.4	147.0	17.7					
WET	e PKP	Z	12:44:06.7	147.2	20.8					
GEC2	e PKP	Z	12:44:07.0	147.2	22.4					
WLF	e PKP	Z	12:44:08.8	147.8	8.9					
STU	e PKP	Z	12:44:09.5	148.3	14.6					
FUR	e PKP	Z	12:44:09.9	148.4	18.6					
RJOB	e PKP	Z	12:44:09.7	148.5	21.5					
BFO	e PKP	Z	12:44:10.6	148.8	13.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/17	04:46: 2.4	5.473S	103.389E	33.0G	5.2	4.2		SZGRF
Southern Sumatera, Indonesia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	04:59:21.3	93.9	93.9	0.7	10	5.3		
GEC2	e P	Z	04:59:21.3	93.9	93.8	0.8	8	5.1		
WET	e P	Z	04:59:23.8	94.5	93.2	0.8	8	5.1		
	e L	Z	05:55:58.4			20.2	76		4.2	
CLL	e P	Z	04:59:23.3	94.5	93.1	1.0	7	4.9		
TANN	e P	Z	04:59:25.1	94.8	92.8	0.8	4	4.9		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

36

ROTZ	e P	Z	04:59:26.2	94.9	92.6	0.8	7	5.1	
MOX	e P	Z	04:59:27.6	95.4	92.1	0.9	5	5.0	
FUR	e L	Z	05:50:39.6	95.5	92.1	19.8	91	4.2	
GRA1	e P	Z	04:59:29.3	95.6	91.9	0.7	11	5.5	
NRDL	e P	Z	04:59:32.3	96.3	90.7	1.1	9	5.2	
TNS	e P	Z	04:59:36.8	97.4	89.7	0.9	11	5.5	
BFO	e P	Z	04:59:37.0	97.4	89.9	1.2	7	5.1	

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/18 07:24:11.2 19.500S 177.700W 512.0 mb Ms ML NEIC
 Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z	07:42:49.6	145.0	13.3					
CLZ	e PKP	Z	07:42:55.5	147.0	14.1					
CLL	e PKP	Z	07:42:55.5	147.1	18.8					
BRG	e PKP	Z	07:42:56.3	147.3	20.6					
MOX	e PKP	Z	07:42:58.0	148.0	16.7					
TANN	e PKP	Z	07:42:58.2	148.0	18.3					
UBBA	e PKP	Z	07:42:58.2	148.1	13.8					
ROTZ	e PKP	Z	07:43:00.1	148.7	18.2					
TNS	e PKP	Z	07:43:00.3	148.9	11.3					
GRA1	e PKP	Z	07:43:00.5	149.0	16.5					
WET	e PKP	Z	07:43:01.2	149.2	19.7					
GEC2	e PKP	Z	07:43:01.3	149.3	21.4					
WLF	e PKP	Z	07:43:02.7	149.7	7.2					
STU	e PKP	Z	07:43:03.4	150.2	13.2					
FUR	e PKP	Z	07:43:03.8	150.4	17.3					
RJOB	e PKP	Z	07:43:03.8	150.5	20.4					
BFO	e PKP	Z	07:43:04.5	150.8	11.7					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/18 07:53:17.5 37.622N 75.285E 33.0G 4.6 mb Ms ML SZGRF
 Tajikistan-Xinjiang border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	08:01:26.0	44.5	82.6	0.8	4	4.4		
GEC2	e P	Z	08:01:29.6	45.0	80.4	1.1	8	4.6		
CLL	e P	Z	08:01:29.6	45.0	82.4	0.7	2	4.2		
WET	e P	Z	08:01:33.5	45.4	80.2	0.8	3	4.4		
RJOB	e P	Z	08:01:35.6	45.7	78.7	0.8	5	4.6		
ROTZ	e P	Z	08:01:36.2	45.8	80.3	1.0	4	4.4		
MOX	e P	Z	08:01:37.5	46.0	80.8	1.0	3	4.3		
BSEG	e P	Z	08:01:39.9	46.3	83.0	0.9	6	4.6		
CLZ	e P	Z	08:01:41.5	46.6	81.0	1.1	11	4.9		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

37

NRDL	e P	Z	08:01:42.1	46.6	81.5	0.8	6	4.8
FUR	e P	Z	08:01:43.1	46.7	78.2	0.7	24	5.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/18	09:14:7.4	23.400S	177.200W	168.0				NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e pPKPbc	Z	09:33:35.3	148.9	13.5					
NRDL	e pPKPbc	Z	09:33:38.6	150.4	13.7					
IBBN	e pPKPbc	Z	09:33:40.0	150.8	9.4					
CLZ	e pPKPbc	Z	09:33:40.4	151.0	14.4					
CLL	e pPKPbc	Z	09:33:40.2	151.0	19.6					
BRG	e pPKPbc	Z	09:33:40.8	151.2	21.6					
BUG	e pPKPbc	Z	09:33:41.7	151.7	8.7					
MOX	e pPKPbc	Z	09:33:42.2	151.9	17.4					
TANN	e pPKPbc	Z	09:33:42.4	152.0	19.1					
UBBA	e pPKPbc	Z	09:33:42.1	152.0	14.2					
ROTZ	e pPKPbc	Z	09:33:44.0	152.6	19.0					
TNS	e pPKPbc	Z	09:33:44.4	152.8	11.4					
GRA1	e pPKPbc	Z	09:33:44.5	152.9	17.2					
WET	e pPKPbc	Z	09:33:44.7	153.1	20.8					
	e PKPab	Z	09:33:56.6							
GEC2	e pPKPbc	Z	09:33:45.0	153.1	22.6					
	e PKPab	Z	09:33:56.9							
WLF	e pPKPbc	Z	09:33:46.4	153.6	6.9					
	e PKPab	Z	09:33:58.9							
STU	e pPKPbc	Z	09:33:47.1	154.1	13.5					
	e PKPab	Z	09:34:00.7							
FUR	e pPKPbc	Z	09:33:47.5	154.3	18.2					
	e PKPab	Z	09:34:01.9							
RJOB	e pPKPbc	Z	09:33:47.3	154.4	21.6					
	e PKPab	Z	09:34:02.7							
BFO	e pPKPbc	Z	09:33:48.3	154.7	11.9					
	e PKPab	Z	09:34:03.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/18	18:51:50.8	22.300S	179.500W	603.0				NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z	19:10:28.4	147.5	17.1					
NRDL	e PKP	Z	19:10:31.6	148.9	17.4					
CLL	e PKP	Z	19:10:33.1	149.4	23.2					
CLZ	e PKP	Z	19:10:33.5	149.5	18.2					

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

38

BRG	e	PKP	Z	19:10:33.6	149.6	25.1
MOX	e	PKP	Z	19:10:35.3	150.4	21.1
TANN	e	PKP	Z	19:10:35.5	150.4	22.8
ROTZ	e	PKP	Z	19:10:37.1	151.0	22.8
TNS	e	PKP	Z	19:10:37.6	151.4	15.5
WET	e	PKP	Z	19:10:37.5	151.4	24.5
GEC2	e	PKP	Z	19:10:37.6	151.5	26.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/19	04:07:55.9	53.850N	140.120E	14.7	5.0			SZGRF

Primorye, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	04:18:34.4	64.5	30.1	2.3	61	5.4		
NRDL	e P	Z	04:18:42.4	65.8	29.7	1.0	10	5.0		
	e pP	Z	04:18:46.5							
CLL	e P	Z	04:18:42.7	65.9	31.0	0.9	19	5.3		
	e pP	Z	04:18:47.2							
BRG	e P	Z	04:18:43.4	66.0	31.4	0.8	5	4.8		
FBE	e P	Z	04:18:45.0	66.2	31.1	1.3	18	5.2		
NEUB	e P	Z	04:18:46.1	66.4	30.3	0.9	14	5.2		
TANN	e P	Z	04:18:49.1	66.9	30.5	1.5	19	5.1		
WERD	e P	Z	04:18:49.6	66.9	30.4	1.2	11	5.0		
MOX	e P	Z	04:18:49.7	67.0	30.1	1.0	8	4.9		
	e pP	Z	04:18:53.5							
WERN	e P	Z	04:18:50.3	67.0	30.4	0.9	9	5.0		
ROHR	e P	Z	04:18:50.9	67.1	30.4	1.0	4	4.6		
UBBA	e P	Z	04:18:51.7	67.3	29.3	1.8	22	5.1		
ROTZ	e P	Z	04:18:53.4	67.5	30.2	1.3	10	4.9		
GEC2	e P	Z	04:18:55.0	67.8	30.8	1.8	19	5.0		
WET	e P	Z	04:18:55.5	67.8	30.5	1.0	10	5.0		
	e pP	Z	04:18:59.6							
GRA1	e P	Z	04:18:55.8	67.9	29.7	1.1	15	5.2		
	e pP	Z	04:19:00.1							
TNS	e P	Z	04:18:58.1	68.3	28.3	0.8	7	5.0		
FUR	e P	Z	04:19:03.7	69.2	29.4	1.2	16	5.0		
WLF	e P	Z	04:19:05.8	69.5	27.0	0.7	13	5.2		
WTTA	e P	Z	04:19:08.4	69.9	29.5					
BFO	e P	Z	04:19:08.8	70.0	27.9	1.2	13	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/19	09:30:46.2	54.608N	109.779E	35.6	5.2	5.4		SZGRF

Lake Baykal, Russia, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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BSEG	e P	Z	09:39:58.9	52.9	45.7	1.7	68	5.3	
BRG	e P	Z	09:40:02.6	53.5	45.8	1.5	32	5.1	
CLL	e P	Z	09:40:03.1	53.6	45.6	1.5	20	4.9	
	e pP	Z	09:40:12.7						
NRDL	e P	Z	09:40:06.9	54.0	44.9	1.4	29	5.1	
	e pP	Z	09:40:16.5						
CLZ	e P	Z	09:40:09.6	54.4	44.7	1.4	26	5.1	
TANN	e P	Z	09:40:10.0	54.5	44.9	0.7	11	5.0	
	e pP	Z	09:40:19.6						
MOX	e P	Z	09:40:11.6	54.7	44.6	0.9	14	5.0	
	e pP	Z	09:40:21.3						
	e L	Z	10:06:00.0			19.3	3662		5.5
GEC2	e P	Z	09:40:13.8	55.0	44.7	1.8	26	5.0	
	e pP	Z	09:40:23.8						
ROTZ	e P	Z	09:40:14.5	55.0	44.5	1.9	55	5.3	
	e pP	Z	09:40:24.4						
IBBN	e P	Z	09:40:14.6	55.2	43.6				
	e pP	Z	09:40:24.5						
WET	e P	Z	09:40:15.3	55.2	44.5	1.7	27	5.0	
UBBA	e P	Z	09:40:15.9	55.3	44.0	2.5	90	5.4	
GRA1	e P	Z	09:40:18.2	55.5	44.0	2.0	52	5.2	
	e pP	Z	09:40:28.0						
	e L	Z	10:06:29.0			18.9	2596		5.3
BUG	e P	Z	09:40:20.8	56.0	43.0	1.7	77	5.5	
	e pP	Z	09:40:30.7						
RJOB	e P	Z	09:40:23.1	56.2	43.8	2.5	104	5.4	
	e pP	Z	09:40:32.8						
TNS	e P	Z	09:40:23.8	56.4	43.0	1.2	11	4.8	
	e pP	Z	09:40:33.6						
FUR	e P	Z	09:40:25.9	56.6	43.3	0.7	14	5.1	
STU	e P	Z	09:40:28.9	57.1	42.7	1.8	87	5.5	
WLF	e P	Z	09:40:34.1	57.8	41.7	1.5	39	5.2	
BFO	e P	Z	09:40:33.8	57.8	42.1	1.8	56	5.3	
	e pP	Z	09:40:43.6						

Date 2010/03/19 Origin Time 16:47:60.0 Lat 18.849S Long 176.555W Depth 55.1 mb Ms ML Source SZGRF
 Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ROTZ	e PKPbc	Z	17:07:39.3	148.3	15.9					
GRA1	e PKPbc	Z	17:07:39.9	148.5	14.2					
	e pPKPbc	Z	17:07:55.8							
WET	e PKPbc	Z	17:07:40.8	148.8	17.4					
GEC2	e PKPbc	Z	17:07:40.9	148.9	19.0					
	e pPKPbc	Z	17:07:57.6							
STU	e pPKPbc	Z	17:08:00.0	149.7	10.8					

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

40

RJOB e PKPbc Z 17:07:44.7 150.1 18.0

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/20 08:44:38.2 50.985N 173.184W 33.0G 4.5 SZGRF
Andreanof Islands, Aleutian Islands, United States

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 08:56:40.6 79.3 2.8 1.2 8 4.5

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/20 08:41:23.1 15.802S 172.145W 33.0N SZGRF
Samoa Islands region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
CLL e PKPbc Z 09:00:53.1 144.3 8.5
BRG e PKPbc Z 09:00:54.1 144.6 10.1
FBE e PKPbc Z 09:00:54.2 144.6 9.2
MOX e PKPbc Z 09:00:55.5 145.0 6.3
WERD e PKPbc Z 09:00:55.9 145.2 7.5
TANN e PKPbc Z 09:00:55.9 145.2 7.8
GUNZ e PKPbc Z 09:00:56.4 145.2 7.6
ROHR e PKPbc Z 09:00:57.1 145.4 7.6
GRB5 e PKPbc Z 09:00:59.2 146.5 6.7

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/20 14:00:50.5 3.430S 152.110E 419.5 SZGRF
New Ireland, Papua New Guinea, region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
BSEG e PKPdf Z 14:18:53.7 120.7 45.9
e SKKSac R 14:26:44.6
e SS E 14:36:26.3
BRG e PKPdf Z 14:18:54.3 121.0 51.0
e SKPdf Z 14:21:52.5
e SKKSac R 14:26:47.8
e SS E 14:36:32.2
CLL e PKPdf Z 14:18:54.4 121.2 49.8
e SKPdf Z 14:21:53.1
e SKKSac R 14:26:48.5
e SS E 14:36:34.0
NRDL e PKPdf Z 14:18:55.8 121.8 46.3
e SKKSac R 14:26:51.9
e SS E 14:36:42.4

TANN	e PKPdf	Z	14:18:56.4	122.1	49.7
	e pPKPdf	Z	14:20:37.9		
	e SKPdf	Z	14:21:54.3		
	e SKKSac	R	14:26:55.3		
	e SS	E	14:36:45.2		
CLZ	e PKPdf	Z	14:18:56.6	122.1	46.9
	e SKPdf	Z	14:21:54.5		
	e SKKSac	R	14:26:54.9		
	e SS	E	14:36:45.2		
MOX	e PKPdf	Z	14:18:56.7	122.3	48.7
	e SKKSac	R	14:26:56.5		
	e SS	E	14:36:47.3		
GEC2	e PKPdf	Z	14:18:56.9	122.4	51.7
	e pPKPdf	Z	14:20:39.5		
	e SKPdf	Z	14:21:55.4		
	e SKKSac	R	14:26:57.4		
	e SS	E	14:36:49.8		
ROTZ	e PKPdf	Z	14:18:57.4	122.6	49.7
	e pPKPdf	Z	14:20:39.8		
	e SKKSac	R	14:26:59.1		
	e SS	E	14:36:52.8		
WET	e PKPdf	Z	14:18:57.6	122.7	50.7
	e SKPdf	Z	14:21:55.9		
	e SKKSac	R	14:26:59.5		
	e SS	E	14:36:52.9		
IBBN	e PKPdf	Z	14:18:58.0	122.9	43.9
	e pPKPdf	Z	14:20:40.6		
UBBA	e PKPdf	Z	14:18:57.9	123.0	46.9
	e SKPdf	Z	14:21:56.7		
	e SKKSac	R	14:27:00.8		
	e SS	E	14:36:55.0		
GRA1	e PKPdf	Z	14:18:58.3	123.1	48.8
	e SKKSac	R	14:27:02.1		
	e SS	E	14:36:59.4		
RJOB	e PKPdf	Z	14:18:58.8	123.6	51.4
	e SKKSac	R	14:27:03.0		
	e SS	E	14:37:01.0		
BUG	e PKPdf	Z	14:18:59.4	123.7	43.7
	e pPKPdf	Z	14:20:41.3		
	e SKKSac	R	14:27:05.5		
	e SS	E	14:37:05.8		
TNS	e PKPdf	Z	14:19:00.3	124.1	45.6
	e SKKSac	R	14:27:08.9		
	e SS	E	14:37:12.0		
FUR	e PKPdf	Z	14:19:00.4	124.1	49.6
	e pPKPdf	Z	14:20:41.7		
	e SKKSac	R	14:27:06.3		
	e SS	E	14:37:10.4		
STU	e PKPdf	Z	14:19:01.5	124.7	47.1

	e SKPdf	Z	14:21:59.8		
	e SKKSac	R	14:27:11.1		
	e SS	E	14:37:18.9		
BFO	e PKPdf	Z	14:19:02.5	125.5	46.4
	e pPKPdf	Z	14:20:43.9		
	e SKKSac	R	14:27:15.4		
	e SS	E	14:37:19.7		
WLF	e PKPdf	Z	14:19:03.7	125.5	43.4
	e pPKPdf	Z	14:20:44.4		
	e SKKSac	R	14:27:17.9		
	e SS	E	14:37:19.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/20	17:21:31.0	52.770N	166.010W	33.0G	5.0			SZGRF
Fox Islands, Aleutian Islands, United States								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 17:33:01.5	73.3	357.7	1.2	16	4.9		
NRDL	e P	Z 17:33:10.0	74.7	357.6	1.1	13	4.9		
IBBN	e P	Z 17:33:10.5	74.8	356.1	1.5	32	5.1		
CLZ	e P	Z 17:33:14.2	75.3	357.7	3.1	134	5.5		
BUG	e P	Z 17:33:15.1	75.6	355.8	1.3	18	5.0		
CLL	e P	Z 17:33:16.6	75.9	359.4	1.0	8	4.8		
BRG	e P	Z 17:33:19.2	76.4	360.0	0.9	8	4.8		
MOX	e P	Z 17:33:20.6	76.6	358.5	0.8	10	5.0		
ROTZ	e P	Z 17:33:25.8	77.5	358.9	1.5	16	4.9		
GRA1	e P	Z 17:33:26.2	77.5	358.3	1.3	24	5.2		
WET	e P	Z 17:33:29.4	78.1	359.3	1.6	17	4.9		
STU	e P	Z 17:33:30.5	78.4	357.0	0.9	17	5.1		
GEC2	e P	Z 17:33:30.8	78.4	359.8	1.0	9	4.7		
FUR	e P	Z 17:33:34.4	79.0	358.3	1.3	27	5.1		
RJOB	e P	Z 17:33:36.7	79.5	359.3	0.9	14	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/20	18:08:12.2	19.840N	75.050W	18.9	5.8	5.2		SZGRF
Cuba region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 18:19:19.7	69.4	276.7	1.5	140	5.9		
	e pP	Z 18:19:25.1							
BUG	e P	Z 18:19:22.4	69.9	276.9	1.6	184	5.9		
	e pP	Z 18:19:27.8							
IBBN	e P	Z 18:19:23.7	70.1	277.0	1.5	224	6.1		
	e pP	Z 18:19:29.1							
TNS	e P	Z 18:19:28.2	70.8	278.2	1.5	149	5.9		

	e pP	Z	18:19:33.6							
BFO	e P	Z	18:19:28.9	71.0	278.8	1.5	74	5.6		
	e pP	Z	18:19:34.3							
BSEG	e P	Z	18:19:31.6	71.4	278.4	1.6	116	5.8		
	e pP	Z	18:19:37.0							
NRDL	e P	Z	18:19:32.4	71.5	278.7	1.5	158	5.9		
	e pP	Z	18:19:37.8							
STU	e P	Z	18:19:32.1	71.5	279.3	2.2	281	6.0		
	e pP	Z	18:19:37.5							
UBBA	e P	Z	18:19:33.3	71.7	279.2	1.6	97	5.7		
	e pP	Z	18:19:38.7							
CLZ	e P	Z	18:19:34.1	71.7	279.1	1.5	170	5.9		
	e pP	Z	18:19:39.4							
GRA1	e P	Z	18:19:39.2	72.6	280.4	1.4	67	5.6		
	e pP	Z	18:19:44.5							
	e L	Z	18:50:53.0			18.2	1335		5.3	
MOX	e P	Z	18:19:39.6	72.7	280.4	1.5	107	5.7		
	e pP	Z	18:19:45.0							
	e L	Z	18:48:22.4			20.2	1300		5.2	
FUR	e P	Z	18:19:41.2	73.0	280.9	1.5	180	6.0		
	e pP	Z	18:19:46.5							
ROTZ	e P	Z	18:19:43.2	73.3	281.1	1.6	160	5.9		
	e pP	Z	18:19:48.6							
TANN	e P	Z	18:19:43.1	73.3	281.1	1.4	104	5.8		
	e pP	Z	18:19:48.5							
CLL	e P	Z	18:19:43.8	73.4	281.3	1.6	106	5.6		
	e pP	Z	18:19:49.2							
WET	e P	Z	18:19:46.4	73.8	281.8	1.5	163	5.8		
	e pP	Z	18:19:51.8							
RJOB	e P	Z	18:19:47.5	74.0	282.1	1.4	57	5.4		
	e pP	Z	18:19:52.9							
BRG	e P	Z	18:19:47.9	74.1	282.1	1.6	135	5.7		
	e pP	Z	18:19:53.3							
GEC2	e P	Z	18:19:49.7	74.4	282.5	1.5	126	5.7		
	e pP	Z	18:19:55.1							

Date 2010/03/20
 Origin Time 19:31:31.0
 Cuba region
 Lat 19.136N
 Long 75.270W
 Depth 33.0G
 mb 5.1
 Ms
 ML
 Source SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 19:42:39.9	70.1	276.4	2.5	87	5.4		
BUG	e P	Z 19:42:44.1	70.6	276.6	1.4	20	5.1		
IBBN	e P	Z 19:42:44.3	70.8	276.7	1.3	48	5.5		
TNS	e P	Z 19:42:48.8	71.5	277.9	1.6	38	5.3		
NRDL	e P	Z 19:42:52.7	72.2	278.4	1.4	27	5.2		
CLZ	e P	Z 19:42:54.6	72.4	278.8	1.3	29	5.2		

GRA1	e P	Z	19:42:59.6	73.3	280.1	1.4	22	5.1
MOX	e P	Z	19:42:59.9	73.4	280.1	1.2	10	4.7
FUR	e P	Z	19:43:01.5	73.6	280.6	1.2	31	5.2
ROTZ	e P	Z	19:43:03.5	73.9	280.8	1.4	19	4.9
TANN	e P	Z	19:43:03.3	74.0	280.8	1.1	14	4.9
CLL	e P	Z	19:43:04.2	74.1	280.9	1.6	18	4.9
WET	e P	Z	19:43:06.6	74.5	281.5	1.5	35	5.2
RJOB	e P	Z	19:43:07.7	74.7	281.8	1.0	7	4.6
BRG	e P	Z	19:43:08.3	74.8	281.8	1.1	8	4.7
GEC2	e P	Z	19:43:10.0	75.0	282.1	1.3	17	4.9

Date 2010/03/20
 Origin Time 21:55:44.7
 Lat 15.970N
 Long 89.920W
 Depth 16.1
 mb 5.7
 Ms 4.9
 ML
 Source SZGRF
 Guatemala

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	22:08:03.4	81.7	285.0	1.6	127	5.8		
	e pP	Z	22:08:08.1			1.6	127			
BUG	e P	Z	22:08:04.2	81.9	285.6	1.4	65	5.6		
	e pP	Z	22:08:08.8			1.4	65			
IBBN	e P	Z	22:08:04.7	82.0	285.8	2.3	244	5.9		
	e pP	Z	22:08:09.4			1.3	57			
TNS	e P	Z	22:08:10.0	83.0	286.6	2.0	197	6.0		
	e pP	Z	22:08:14.7			2.0	197			
BSEG	e P	Z	22:08:10.2	83.0	287.6	1.8	136	5.9		
	e pP	Z	22:08:14.9			1.8	136			
NRDL	e P	Z	22:08:11.8	83.3	287.6	1.7	114	5.8		
	e pP	Z	22:08:16.4			1.7	114			
BFO	e P	Z	22:08:12.5	83.5	286.7	1.3	40	5.5		
	e pP	Z	22:08:17.0			1.3	40			
CLZ	e P	Z	22:08:13.8	83.7	287.9	1.9	156	5.9		
	e pP	Z	22:08:18.5			1.9	156			
UBBA	e P	Z	22:08:13.9	83.8	287.7	1.7	76	5.7		
	e pP	Z	22:08:18.7			1.7	76			
STU	e P	Z	22:08:14.4	83.9	287.3	2.2	208	6.0		
	e pP	Z	22:08:19.2			1.5	58			
MOX	e P	Z	22:08:19.1	84.8	288.9	2.0	136	5.8		
	e pP	Z	22:08:23.8			2.0	136			
	e L	Z	22:45:50.6			20.0	514		4.9	
GRA1	e P	Z	22:08:19.7	84.9	288.7	1.7	130	5.9		
	e pP	Z	22:08:24.4			1.7	130			
	e L	Z	22:44:12.5			19.3	562		5.0	
TANN	e P	Z	22:08:22.1	85.4	289.6	2.1	165	5.8		
	e pP	Z	22:08:26.8			2.1	165			
FUR	e P	Z	22:08:22.0	85.4	288.9	1.4	48	5.5		
	e pP	Z	22:08:26.7			1.4	48			
CLL	e P	Z	22:08:21.9	85.4	289.9	2.2	156	5.7		

	e pP	Z	22:08:26.6			2.2	156	
ROTZ	e P	Z	22:08:22.8	85.4	289.4	1.8	84	5.6
	e pP	Z	22:08:27.5			1.5	58	
WET	e P	Z	22:08:25.7	86.1	290.0	1.6	107	5.7
	e pP	Z	22:08:30.4			1.6	107	
BRG	e P	Z	22:08:25.5	86.1	290.7	1.4	26	5.2
	e pP	Z	22:08:30.2			1.4	26	
RJOB	e P	Z	22:08:27.5	86.5	290.0	1.5	54	5.4
	e pP	Z	22:08:32.2			1.5	54	
GEC2	e P	Z	22:08:28.4	86.7	290.6	1.6	48	5.4
	e pP	Z	22:08:33.1			1.6	48	

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/21 04:29:16.3 14.700S 177.700W 339.0 mb Ms ML NEIC
 Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ROTZ	e PKPbc	Z	04:48:10.6	144.0	16.5					
TNS	e PKPbc	Z	04:48:10.6	144.1	10.2					
GRA1	e PKPbc	Z	04:48:11.2	144.3	14.9					
WET	e PKPbc	Z	04:48:11.9	144.5	17.8					
GEC2	e PKPbc	Z	04:48:12.1	144.6	19.3					
WLF	e PKPbc	Z	04:48:13.6	144.9	6.5					
FUR	e PKPbc	Z	04:48:15.7	145.7	15.5					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/21 06:55:42.0 27.987S 62.404E 33.0N 4.7 mb Ms ML SZGRF
 Southwest Indian Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	07:08:38.5	90.0	136.5	1.0	6	4.7		

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/21 08:17:46.4 52.156N 174.542W 33.0N 4.4 mb Ms ML SZGRF
 Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	08:29:18.5	73.8	3.1	0.9	4	4.4		
IBBN	e P	Z	08:29:28.2	75.5	1.5	0.7	4	4.7		
CLZ	e P	Z	08:29:30.5	75.9	3.1	0.9	4	4.6		
CLL	e P	Z	08:29:32.2	76.3	4.8	0.8	2	4.4		
NEUB	e P	Z	08:29:33.8	76.5	4.0					
BRG	e P	Z	08:29:34.4	76.7	5.3	0.8	3	4.6		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

46

MOX	e P	Z	08:29:36.5	77.1	3.9	1.0	4	4.6
TANN	e P	Z	08:29:37.3	77.3	4.4	0.8	1	4.0
TNS	e P	Z	08:29:39.1	77.6	1.9	0.8	3	4.5
MANZ	e P	Z	08:29:39.9	77.7	4.2			
ROTZ	e P	Z	08:29:41.1	77.9	4.2	1.0	3	4.4
GRA1	e P	Z	08:29:42.1	78.0	3.6	0.9	7	4.8
WET	e P	Z	08:29:44.7	78.5	4.6	0.8	1	4.1
GEC2	e P	Z	08:29:45.8	78.8	5.1	0.9	3	4.3
BFO	e P	Z	08:29:50.1	79.5	1.8	0.8	2	4.1

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/21 18:31:4.5 36.300S 73.000W 35.0 5.3 NEIC
 Near coast of central Chile

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e SP	R	18:59:50.9	111.2	238.7					
IBBN	e SP	R	19:00:05.8	112.9	239.7					
UBBA	e SP	R	19:00:12.5	113.4	240.6					
GRA1	e PP	Z	18:50:17.0	113.5	241.0					
	e SP	R	19:00:15.8							
	e L	Z	19:35:12.7			21.2	697		5.2	
CLZ	e SP	R	19:00:19.3	114.1	241.3					
ROTZ	e SP	R	19:00:18.6	114.1	241.6					
MOX	e SP	R	19:00:22.3	114.2	241.6					
	e L	Z	19:40:48.6			18.3	873		5.4	
WET	e SP	R	19:00:22.1	114.2	241.8					
GEC2	e SP	R	19:00:22.5	114.5	242.2					
TANN	e SP	R	19:00:24.3	114.6	242.0					
BSEG	e SP	R	19:00:25.6	115.0	242.1					
CLL	e SP	R	19:00:27.6	115.3	242.8					
BRG	e SP	R	19:00:33.5	115.6	243.2					

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/21 20:59:53.2 21.945S 174.184W 33.0N SZGRF
 Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	21:19:35.3	147.8	7.9					
IBBN	e PKPbc	Z	21:19:40.1	149.6	3.6					
CLZ	e PKPbc	Z	21:19:41.1	149.9	8.4					
CLL	e PKPbc	Z	21:19:40.9	150.1	13.5					
BRG	e PKPbc	Z	21:19:41.7	150.4	15.4					
MOX	e PKPbc	Z	21:19:42.9	150.9	11.1					
TANN	e PKPbc	Z	21:19:43.5	151.1	12.8					
TNS	e PKPbc	Z	21:19:44.8	151.6	5.1					

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

47

STU e PKPbc Z 21:19:47.8 153.0 6.9

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/22 01:00:39.5 16.200S 69.500W 169.0 5.1 NEIC
Peru-Bolivia border region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 01:13:48.8 96.5 252.5 1.0 6 5.1

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/22 04:00:33.3 48.082N 151.910E 33.0G 4.7 SZGRF
Kuril Islands, Russia

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
CLL e P Z 04:12:08.8 74.6 27.1 0.8 9 4.8
CLZ e P Z 04:12:11.0 74.8 25.5 0.9 8 4.7
MOX e P Z 04:12:14.9 75.6 26.1 0.9 5 4.7
ROTZ e P Z 04:12:19.0 76.2 26.4 0.9 4 4.6
GRA1 e P Z 04:12:20.6 76.5 25.8 0.9 12 5.0
TNS e P Z 04:12:22.0 76.8 24.1 0.8 5 4.7
BFO e P Z 04:12:31.6 78.6 23.9 1.0 6 4.5

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/22 04:36: 8.9 16.979S 14.359W 33.0G 5.0 SZGRF
Southern Mid-Atlantic Ridge

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 04:47:20.1 70.4 206.0 1.8 20 5.0

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/22 05:56:30.1 26.500S 178.400E 615.0 NEIC
South of Fiji Islands

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
BSEG e PKPbc Z 06:15:14.6 151.2 22.5
CLL e PKPbc Z 06:15:18.1 152.8 29.6
e PKPab Z 06:15:32.3
CLZ e PKPab Z 06:15:33.7 153.1 24.2
IBBN e PKPab Z 06:15:34.1 153.3 18.9
WERD e PKPab Z 06:15:36.9 153.8 29.1
GUNZ e PKPab Z 06:15:37.5 153.9 29.3

./2010/bull1003.txt

Thu Apr 23 08:38:25 2020

48

WERN	e	PKPab	Z	06:15:37.6	153.9	29.4
ROHR	e	PKPab	Z	06:15:37.8	154.0	29.4
GEC2	e	PKPab	Z	06:15:40.5	154.7	33.5
GRA1	e	PKPab	Z	06:15:41.5	154.8	27.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/22	10:38:13.0	56.579N	157.248W	33.0G	4.8			SZGRF

Alaska Peninsula, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e P	Z 10:49:28.5	71.1	352.8	1.0	11	4.9		
BUG	e P	Z 10:49:28.8	71.2	351.1	1.0	18	5.1		
BRG	e P	Z 10:49:35.2	72.3	354.9	1.0	8	4.8		
MOX	e P	Z 10:49:35.7	72.4	353.6	1.2	14	4.9		
ROTZ	e P	Z 10:49:41.4	73.3	354.0	1.5	12	4.7		
GRA1	e P	Z 10:49:41.6	73.3	353.4	0.8	4	4.5		
GEC2	e P	Z 10:49:47.1	74.3	354.8	0.9	7	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/22	16:26:32.4	15.200S	167.500E	115.0				NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 16:45:44.3	140.5	37.6					
WLF	e PKPdf	Z 16:45:48.6	142.3	30.3					
BFO	e PKPdf	Z 16:45:48.7	142.7	34.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/22	17:23:35.7	48.027N	141.477E	33.0G	5.0	4.2		SZGRF

Sakhalin Island, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 17:34:44.3	70.0	32.4	1.2	21	5.1		
NRDL	e P	Z 17:34:51.9	71.3	32.0	0.9	10	5.0		
CLL	e P	Z 17:34:51.7	71.3	33.6	0.9	16	5.1		
CLZ	e P	Z 17:34:55.0	71.8	32.0	0.9	14	5.1		
IBBN	e P	Z 17:34:57.3	72.2	30.5	1.2	29	5.3		
TANN	e P	Z 17:34:57.5	72.3	33.1	1.6	15	4.9		
MOX	e P	Z 17:34:58.1	72.4	32.6	1.1	12	4.9		
	e L	Z 18:09:45.8			21.5	95		4.0	
ROTZ	e P	Z 17:35:01.8	72.9	32.8	1.0	7	4.8		
BUG	e P	Z 17:35:02.5	73.1	30.1	1.0	20	5.2		
GEC2	e P	Z 17:35:02.5	73.1	33.5	1.0	5	4.6		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

49

WET	e P	Z	17:35:03.5	73.2	33.1	1.0	13	4.9	
GRA1	e P	Z	17:35:04.3	73.3	32.2	0.8	16	5.1	
	e L	Z	18:11:37.3			18.6	138		4.3
TNS	e P	Z	17:35:06.7	73.8	30.6	1.8	26	5.0	
FUR	e P	Z	17:35:11.5	74.6	32.0	1.3	41	5.3	
STU	e P	Z	17:35:12.5	74.8	30.8	1.3	25	5.1	
BFO	e P	Z	17:35:16.1	75.4	30.3	1.1	16	5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/22	17:54: 5.0	43.945N	18.915E	10.0G			3.4	SZGRF

Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z	17:55:04.8	4.0	128.3					3.6
	e Sn	E	17:55:50.2							
ARSA	e Pn	Z	17:55:06.1	4.1	143.1					3.1
	e Sn	E	17:55:50.3							
KBA	e Pn	Z	17:55:18.7	5.0	126.7					
MOA	e Pn	Z	17:55:20.6	5.1	138.7					3.4
	e Sn	E	17:56:14.9							
WTTA	e Pn	Z	17:55:33.8	6.1	120.5					
	e Sn	N	17:56:38.6							
GEC2	e Pn	Z	17:55:34.1	6.1	141.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/22	19:58:12.6	18.360N	121.260E	40.3	5.8	5.6		SZGRF

Luzon, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	20:10:50.7	86.2	65.2	1.2	81	5.7		
	e sP	Z	20:11:07.2							
CLL	e P	Z	20:10:52.1	86.6	64.5	1.6	119	5.8		
	e sP	Z	20:11:09.3							
	e SKSac	R	20:21:14.3							
ARSA	e P	Z	20:10:53.4	86.8	66.2					
BSEG	e P	Z	20:10:54.0	86.9	62.6	1.6	135	5.8		
	e sP	Z	20:11:10.2							
GEC2	e P	Z	20:10:55.7	87.2	65.0	1.7	84	5.6		
	e SKSac	R	20:21:18.3							
TANN	e P	Z	20:10:55.9	87.3	64.1	2.4	186	5.8		
MOA	e P	Z	20:10:56.4	87.3	65.3					
WET	e P	Z	20:10:57.7	87.6	64.4	2.1	124	5.9		
NRDL	e P	Z	20:10:57.9	87.6	62.4	1.8	114	5.9		
	e sP	Z	20:11:14.1							
MOX	e P	Z	20:10:57.7	87.6	63.5	2.2	150	5.9		

	e L	Z	20:53:32.3			20.7	3070		5.7
OBKA	e P	Z	20:10:57.8	87.7	65.5				
ROTZ	e P	Z	20:10:58.5	87.7	63.9	1.2	42		5.6
	e SKSac	R	20:21:21.0						
CLZ	e P	Z	20:10:58.7	87.8	62.5	2.0	150		6.0
	e SKSac	R	20:21:21.0						
	e S	R	20:21:36.9						
KBA	e P	Z	20:10:59.8	88.2	64.6				
GRA1	e P	Z	20:11:01.3	88.3	63.1	2.0	164		6.0
	e PP	Z	20:14:29.9						
	e SKSac	R	20:21:23.9						
	e S	R	20:21:41.7						
	e L	Z	20:53:39.2			18.7	2139		5.6
UBBA	e SKSac	R	20:21:26.0	88.5	62.2				
	e S	R	20:21:42.5						
FUR	e P	Z	20:11:04.3	89.0	63.1	1.2	81		5.8
	e sP	Z	20:11:20.5						
	e SKSac	R	20:21:27.6						
	e S	R	20:21:43.8						
IBBN	e P	Z	20:11:04.0	89.0	60.5	1.2	74		5.8
	e sP	Z	20:11:20.6						
	e SKSac	R	20:21:30.7						
	e S	R	20:21:46.5						
WTTA	e P	Z	20:11:04.5	89.1	63.4				
TNS	e P	Z	20:11:07.1	89.6	61.0	1.3	38		5.5
BUG	e P	Z	20:11:07.0	89.7	60.1	1.2	57		5.7
STU	e P	Z	20:11:08.2	89.9	61.6	1.5	49		5.5
DAVA	e P	Z	20:11:09.7	90.2	62.1				
BFO	e P	Z	20:11:11.4	90.6	60.9	2.3	126		5.8
	e SKSac	R	20:21:36.0						
WLF	e P	Z	20:11:14.7	91.2	59.3	1.2	63		5.8

Date 2010/03/22 Origin Time 21:46: 3.5 Lat 45.491N Long 147.267E Depth 33.0G mb 5.3 Ms ML Source SZGRF
Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 21:57:36.4	74.0	29.8	1.3	17	4.9		
NRDL	e P	Z 21:57:43.9	75.4	29.5	1.8	45	5.3		
CLL	e P	Z 21:57:44.1	75.5	31.2	1.0	42	5.5		
BRG	e P	Z 21:57:44.7	75.5	31.8	0.9	11	5.0		
CLZ	e P	Z 21:57:47.0	75.8	29.6	1.5	49	5.4		
IBBN	e P	Z 21:57:48.7	76.2	28.0	1.0	34	5.4		
TANN	e P	Z 21:57:49.8	76.4	30.8	0.8	7	4.8		
MOX	e P	Z 21:57:50.2	76.5	30.3	1.2	24	5.2		
UBBA	e P	Z 21:57:52.4	76.9	29.2	0.7	10	5.0		
ROTZ	e P	Z 21:57:53.9	77.1	30.5	1.0	16	5.1		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

51

BUG	e P	Z	21:57:53.6	77.1	27.5	0.8	29	5.5
GEC2	e P	Z	21:57:55.0	77.3	31.4	0.5	14	5.3
WET	e P	Z	21:57:55.6	77.4	30.9	1.1	33	5.4
GRA1	e P	Z	21:57:56.0	77.4	29.9	0.9	50	5.7
TNS	e P	Z	21:57:57.9	77.8	28.2	0.8	21	5.3
FUR	e P	Z	21:58:03.0	78.8	29.8	1.0	35	5.3
STU	e P	Z	21:58:03.5	78.9	28.5	0.9	38	5.4
BFO	e P	Z	21:58:07.0	79.6	27.9	0.9	17	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/23	06:33:26.6	33.900S	178.600W	10.0				NEIC

South of Kermadec Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPab	Z 06:54:06.3	160.7	30.3					
BRG	e PKPab	Z 06:54:06.6	160.7	33.1					
CLZ	e PKPab	Z 06:54:08.0	160.9	23.3					
IBBN	e PKPab	Z 06:54:08.0	161.0	16.4					
TANN	e PKPab	Z 06:54:11.0	161.6	30.3					
MOX	e PKPab	Z 06:54:11.0	161.7	27.9					
ROTZ	e PKPab	Z 06:54:14.1	162.2	30.7					
WET	e PKPab	Z 06:54:15.1	162.5	33.4					
GRA1	e PKPab	Z 06:54:15.9	162.6	28.3					
TNS	e PKPab	Z 06:54:16.3	162.9	20.2					
RJOB	e PKPab	Z 06:54:20.1	163.7	35.8					
BFO	e PKPab	Z 06:54:24.3	164.7	22.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/23	07:44:29.1	20.195S	169.955E	33.0G				SZGRF

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TANN	e PKPbc	Z 08:04:01.1	144.9	38.7					
WERD	e PKPbc	Z 08:04:01.1	145.0	38.5					
PLN	e PKPbc	Z 08:04:01.3	145.0	38.2					
GUNZ	e PKPbc	Z 08:04:01.4	145.0	38.6					
WERN	e PKPbc	Z 08:04:01.7	145.1	38.7					
ROHR	e PKPbc	Z 08:04:01.7	145.1	38.7					
ROTZ	e PKPbc	Z 08:04:03.2	145.5	38.9					
GEC2	e PKPbc	Z 08:04:03.5	145.6	42.0					
WET	e PKPbc	Z 08:04:03.9	145.7	40.5					
GRA1	e PKPbc	Z 08:04:05.0	146.0	37.5					
TNS	e PKPbc	Z 08:04:06.7	146.6	32.7					
STU	e PKPbc	Z 08:04:09.6	147.5	35.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/23	15:02:16.2	37.892N	73.668E	33.0N	4.7			SZGRF

Tajikistan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:10:30.4	45.2	80.4	0.9	10	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/23	15:23:47.5	53.750N	170.170E	21.8	5.1	4.7		SZGRF

Near Islands, Aleutian Islands, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z 15:35:15.5	72.9	10.8					
CLZ	e P	Z 15:35:16.6	73.1	12.3	1.7	20	5.0		
CLL	e P	Z 15:35:17.0	73.2	13.9	1.4	16	4.9		
	e pP	Z 15:35:23.4							
BRG	e P	Z 15:35:18.7	73.5	14.4	1.4	16	4.9		
	e pP	Z 15:35:25.1							
BUG	e P	Z 15:35:22.0	73.8	10.4	1.4	21	5.0		
	e pP	Z 15:35:26.8							
MOX	e P	Z 15:35:22.0	74.1	13.0	1.7	30	5.0		
	e pP	Z 15:35:28.5							
	e L	Z 16:11:41.9			20.4	376		4.7	
UBBA	e P	Z 15:35:21.9	74.1	12.0	1.9	30	5.0		
TANN	e P	Z 15:35:23.2	74.2	13.5	1.4	19	4.9		
	e pP	Z 15:35:29.1							
ROTZ	e P	Z 15:35:27.1	74.8	13.3	1.6	27	5.0		
	e pP	Z 15:35:33.4							
GRA1	e P	Z 15:35:27.9	75.0	12.7	1.8	64	5.4		
	e pP	Z 15:35:34.5							
	e L	Z 16:18:06.1			21.0	377		4.7	
WET	e P	Z 15:35:29.9	75.3	13.6	1.0	14	5.0		
	e pP	Z 15:35:36.4							
GEC2	e P	Z 15:35:30.6	75.5	14.1	1.1	16	5.1		
	e pP	Z 15:35:37.3							
WLF	e P	Z 15:35:31.6	75.7	9.7	1.8	45	5.3		
RJOB	e P	Z 15:35:37.6	76.7	13.5	1.2	13	4.9		
BFO	e P	Z 15:35:37.5	76.8	10.9	1.9	37	5.2		
KBA	e P	Z 15:35:41.0	77.3	13.8	0.8	66	5.8		
WTTA	e P	Z 15:35:40.9	77.4	12.8	1.0	17	5.1		
OBKA	e P	Z 15:35:42.7	77.6	14.5	0.9	43	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

53

2010/03/23 15:51:31.9 37.614N 73.962E 33.0N 4.7 SZGRF
Tajikistan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:59:48.9	45.6	80.5	1.4	12	4.7		

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/23 17:21:0.3 17.410S 177.984E 33.0G SZGRF
Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 17:40:29.2	144.1	24.9					
BRG	e PKPbc	Z 17:40:29.9	144.2	26.6					
CLZ	e PKPbc	Z 17:40:29.4	144.2	20.5					
NEUB	e PKPbc	Z 17:40:30.5	144.5	23.0					
TANN	e PKPbc	Z 17:40:32.4	145.0	24.6					
WERD	e PKPbc	Z 17:40:32.4	145.0	24.3					
GUNZ	e PKPbc	Z 17:40:32.6	145.1	24.4					
ROHR	e PKPbc	Z 17:40:33.0	145.2	24.5					
ROTZ	e PKPbc	Z 17:40:34.7	145.7	24.6					
GRA1	e PKPbc	Z 17:40:36.2	146.0	23.0					
GEC2	e PKPbc	Z 17:40:35.6	146.1	27.6					

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/23 18:50:33.6 34.593N 36.221W 33.0N 4.5 3.6 SZGRF
Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:57:44.8	37.5	264.6	1.0	10	4.5		
	e L	Z 19:09:33.8			21.2	78		3.5	
MOX	e L	Z 19:09:58.6	37.9	263.7	19.8	107		3.7	

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/23 19:08:45.9 34.724N 36.303W 33.0N 4.5 3.8 SZGRF
Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 19:15:29.3	34.2	260.4	1.4	22	4.9		
TNS	e P	Z 19:15:43.9	35.8	261.7	1.5	18	4.7		
STU	e P	Z 19:15:45.5	36.1	264.4	0.6	16	5.1		
NRDL	e P	Z 19:15:54.8	37.2	260.2	1.3	18	4.6		
CLZ	e P	Z 19:15:54.9	37.2	261.3	1.0	14	4.6		
GRA1	e P	Z 19:15:56.8	37.5	264.8	0.7	7	4.5		

	e L	Z	19:28:11.1			21.5	122		3.7
BSEG	e P	Z	19:15:57.4	37.6	258.6	0.8	25	5.0	
MOX	e P	Z	19:16:00.1	37.8	263.9	1.2	7	4.3	
	e L	Z	19:28:23.7			21.3	208		3.9
WET	e P	Z	19:16:05.6	38.5	266.9	1.1	5	4.1	
CLL	e P	Z	19:16:07.8	38.8	264.3	0.9	7	4.3	
GEC2	e P	Z	19:16:10.5	39.1	267.9	0.9	4	4.0	
BRG	e P	Z	19:16:12.1	39.3	265.6	1.2	9	4.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/24	01:46:1.4	43.825N	19.617E	10.0G			3.7	SZGRF

Northwestern Balkan Peninsula

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ARSA	e Pn	Z 01:47:07.9	4.5	138.6					3.5
	e Sn	E 01:47:56.8							
OBKA	e Pn	Z 01:47:07.4	4.5	125.1					3.7
KBA	e Pn	Z 01:47:21.7	5.5	124.2					
MOA	e Pn	Z 01:47:22.4	5.5	135.2					3.5
	e Sn	E 01:48:20.5							
RJOB	e Pn	Z 01:47:31.3	6.2	126.9					3.9
	e Sn	E 01:48:37.8							
GEC2	e Pn	Z 01:47:36.2	6.5	138.7					
WTTA	e Pn	Z 01:47:37.4	6.6	118.7					
DAVA	e Pn	Z 01:47:52.9	7.6	113.4					
BFO	e Pn	Z 01:48:09.3	9.0	115.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/24	02:06:11.1	32.160N	93.250E	33.0G	5.7	5.6		SZGRF

Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 02:16:10.1	59.2	75.6	1.0	67	5.6		
	e S	T 02:24:16.7							
CLL	e P	Z 02:16:13.1	59.7	75.2	1.2	63	5.5		
	e S	T 02:24:22.3							
GEC2	e P	Z 02:16:15.2	59.9	74.3	1.2	105	5.7		
	e S	T 02:24:26.7							
TANN	e P	Z 02:16:17.3	60.2	74.3	1.1	57	5.3		
WET	e P	Z 02:16:18.2	60.3	73.9	1.2	81	5.4		
	e S	T 02:24:33.4							
BSEG	e P	Z 02:16:20.1	60.6	74.7	1.1	111	5.6		
	e S	T 02:24:36.7							
ROTZ	e P	Z 02:16:20.2	60.6	73.8	1.2	110	5.6		
MOX	e P	Z 02:16:20.5	60.7	73.9	1.3	69	5.3		

	e S	T	02:24:36.9							
	e L	Z	02:44:14.4			18.4	4787		5.7	
RJOB	e P	Z	02:16:21.1	60.8	73.1	1.4	81		5.4	
NRDL	e P	Z	02:16:23.5	61.1	73.8	1.2	159		6.1	
	e S	T	02:24:41.1							
CLZ	e P	Z	02:16:23.5	61.1	73.7	1.0	111		6.0	
	e S	T	02:24:41.5							
GRA1	e P	Z	02:16:24.5	61.2	73.1	1.1	122		6.0	
	e S	T	02:24:45.0							
	e L	Z	02:44:42.3			18.1	3750		5.6	
UBBA	e P	Z	02:16:26.7	61.6	72.9	1.9	120		5.8	
	e S	T	02:24:49.8							
FUR	e P	Z	02:16:27.2	61.6	72.3	1.1	216		6.3	
	e S	T	02:24:48.9							
IBBN	e P	Z	02:16:32.9	62.5	72.1	1.5	106		5.7	
TNS	e P	Z	02:16:34.4	62.7	71.5	1.2	66		5.6	
STU	e P	Z	02:16:34.5	62.7	71.3	1.4	120		5.8	
	e S	T	02:25:02.8							
BFO	e P	Z	02:16:38.6	63.4	70.5	1.2	76		5.8	
	e S	T	02:25:10.6							
WLF	e P	Z	02:16:45.5	64.3	69.8	1.3	169		6.1	

Date 2010/03/24
 Origin Time 02:44:45.1
 Lat 31.396N
 Long 93.294E
 Depth 10.2
 mb 5.8
 Ms 5.2
 ML
 Source SZGRF
 Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 02:54:49.5	59.8	76.2	1.7	145	5.7		
CLL	e P	Z 02:54:52.4	60.2	75.8	1.5	96	5.6		
GEC2	e P	Z 02:54:54.6	60.4	74.9	1.5	184	5.7		
TANN	e P	Z 02:54:56.7	60.8	74.9	1.7	130	5.5		
	e pP	Z 02:54:59.6							
WET	e P	Z 02:54:57.6	60.9	74.5	1.7	140	5.5		
ROTZ	e P	Z 02:54:59.5	61.1	74.4	1.4	176	5.7		
BSEG	e P	Z 02:54:59.5	61.1	75.3	1.7	182	5.6		
MOX	e P	Z 02:54:59.8	61.2	74.5	1.7	116	5.4		
	e pP	Z 02:55:02.8							
	e L	Z 03:22:52.8			18.4	1662		5.2	
RJOB	e P	Z 02:55:00.5	61.3	73.7	1.7	166	5.6		
NRDL	e P	Z 02:55:02.8	61.6	74.4	1.5	242	6.2		
CLZ	e P	Z 02:55:02.8	61.7	74.2	1.2	125	6.0		
GRA1	e P	Z 02:55:03.8	61.7	73.7	1.4	165	6.1		
	e pP	Z 02:55:06.4							
	e L	Z 03:23:21.2			18.5	1760		5.3	
FUR	e P	Z 02:55:06.6	62.1	73.0	1.3	254	6.3		
	e pP	Z 02:55:09.6							
UBBA	e P	Z 02:55:06.0	62.2	73.5	1.8	126	5.8		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

56

IBBN	e P	Z	02:55:12.2	63.1	72.6	1.8	222	6.0
STU	e P	Z	02:55:13.8	63.3	71.9	1.6	234	6.1
TNS	e P	Z	02:55:13.8	63.3	72.1	1.7	112	5.7
	e pP	Z	02:55:16.4					
BFO	e P	Z	02:55:18.0	64.0	71.1	1.5	121	5.9
WLF	e P	Z	02:55:24.8	64.9	70.3	1.3	218	6.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/24	04:23:27.8	45.780N	142.910E	33.0N	4.8			SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 04:35:00.5	73.8	33.9	1.1	11	4.8		
CLZ	e P	Z 04:35:04.0	74.2	32.3	0.9	8	4.7		
MOX	e P	Z 04:35:07.0	74.8	32.9	0.8	3	4.4		
ROTZ	e P	Z 04:35:10.7	75.3	33.1	0.9	4	4.6		
GEC2	e P	Z 04:35:11.1	75.6	33.9	0.9	5	4.7		
WET	e P	Z 04:35:12.1	75.6	33.5	0.9	8	4.8		
GRA1	e P	Z 04:35:12.9	75.7	32.5	0.9	15	5.1		
RJOB	e P	Z 04:35:18.9	76.8	33.2	0.8	8	4.9		
FUR	e P	Z 04:35:20.1	77.0	32.3	1.1	26	5.3		
BFO	e P	Z 04:35:24.1	77.9	30.5	1.0	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/24	05:22:21.7	47.500N	145.600E	416.0	4.7			NEIC

Sea of Okhotsk

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 05:33:09.4	73.2	31.3	1.0	12	5.0		
CLZ	e P	Z 05:33:12.3	73.5	29.7	1.2	10	4.7		
MOX	e P	Z 05:33:15.6	74.2	30.3	1.5	11	4.7		
WET	e P	Z 05:33:20.9	75.1	30.9	1.1	6	4.6		
GRA1	e P	Z 05:33:21.0	75.1	30.0	0.8	9	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/24	09:11:50.9	15.910S	173.420W	33.0N				SZGRF

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WERD	e PKPbc	Z 09:31:23.9	145.2	9.7					
TANN	e PKPbc	Z 09:31:24.0	145.2	9.9					
GUNZ	e PKPbc	Z 09:31:24.2	145.2	9.7					
WERN	e PKPbc	Z 09:31:24.6	145.3	9.8					

ROHR	e	PKPbc	Z	09:31:25.0	145.4	9.7
TNS	e	PKPbc	Z	09:31:25.9	145.7	3.2
ROTZ	e	PKPbc	Z	09:31:26.9	145.8	9.7
GRA1	e	PKPbc	Z	09:31:27.5	146.0	8.0
GEC2	e	PKPbc	Z	09:31:28.6	146.6	12.5
FUR	e	PKPbc	Z	09:31:32.0	147.5	8.4
BFO	e	PKPbc	Z	09:31:31.5	147.5	3.1
RJOB	e	PKPbc	Z	09:31:32.6	147.8	11.3

Date 2010/03/24
 Origin Time 14:11:35.7
 Turkey
 Lat 38.580N
 Long 39.900E
 Depth 10.0G
 mb 5.2
 Ms 4.1
 ML
 Source SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	14:16:23.9	21.4	108.8	1.3	64	4.9		
	e S	T	14:20:24.1							
RJOB	e P	Z	14:16:26.1	21.6	105.0	1.1	126	5.3		
	e S	T	14:20:28.4							
BRG	e P	Z	14:16:30.6	22.0	113.9	1.2	46	4.8		
	e S	T	14:20:34.3							
WET	e P	Z	14:16:30.9	22.0	108.5	1.7	96	5.0		
	e S	T	14:20:33.3							
ROTZ	e P	Z	14:16:36.8	22.6	109.1	1.3	254	5.6		
	e S	T	14:20:45.1							
TANN	e P	Z	14:16:37.7	22.7	110.9	1.4	39	4.8		
	e S	T	14:20:46.7							
CLL	e P	Z	14:16:37.5	22.7	113.6	1.1	107	5.3		
	e S	T	14:20:45.1							
FUR	e P	Z	14:16:38.3	22.7	104.3	0.9	204	5.6		
GRA1	e P	Z	14:16:42.7	23.2	107.7	1.3	370	5.8		
	e S	T	14:20:55.9							
	e L	Z	14:26:31.9			22.0	642		4.0	
MOX	e P	Z	14:16:43.9	23.3	110.3	1.2	38	4.8		
	e S	T	14:20:57.0							
	e L	Z	14:28:12.8			20.2	903		4.2	
STU	e P	Z	14:16:53.1	24.2	103.3	1.4	143	5.3		
	e S	T	14:21:11.5							
UBBA	e P	Z	14:16:53.4	24.3	108.6	1.5	71	5.2		
	e S	T	14:21:16.4							
CLZ	e P	Z	14:16:55.2	24.4	111.2	1.2	95	5.4		
	e S	T	14:21:16.4							
BFO	e P	Z	14:16:56.8	24.7	101.5	1.2	34	5.0		
	e S	T	14:21:22.9							
NRDL	e P	Z	14:16:58.5	24.8	112.2	1.4	46	5.0		
TNS	e P	Z	14:17:01.8	25.1	105.6	1.7	170	5.5		
	e S	T	14:21:31.0							
BSEG	e P	Z	14:17:03.7	25.3	115.3	2.0	195	5.4		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

58

IBBN	e P	Z	14:17:11.4	26.1	108.9	1.4	82	5.2
BUG	e P	Z	14:17:12.0	26.1	106.7	1.1	66	5.2
WLF	e P	Z	14:17:13.3	26.4	101.9	1.2	41	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/24								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 17:21:09.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/24	19:54:37.7	46.500N	151.100E	147.0	5.5			NEIC
Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 20:06:00.3	74.2	26.9	0.9	26	5.3		
NRDL	e P	Z 20:06:07.8	75.5	26.6	1.0	28	5.4		
CLL	e P	Z 20:06:08.8	75.8	28.3	1.1	70	5.7		
BRG	e P	Z 20:06:09.6	75.9	28.9	0.9	18	5.2		
CLZ	e P	Z 20:06:11.3	76.0	26.7	1.2	61	5.6		
IBBN	e P	Z 20:06:12.4	76.3	25.0	0.8	49	5.7		
TANN	e P	Z 20:06:14.7	76.7	27.9	0.9	14	5.1		
MOX	e P	Z 20:06:14.9	76.8	27.3	1.5	53	5.4		
UBBA	e P	Z 20:06:16.6	77.1	26.3	0.9	14	5.1		
BUG	e P	Z 20:06:17.5	77.2	24.6	1.1	64	5.7		
ROTZ	e P	Z 20:06:18.8	77.4	27.6	1.0	34	5.4		
WET	e P	Z 20:06:20.7	77.7	28.0	1.1	58	5.6		
GEC2	e P	Z 20:06:20.3	77.7	28.5	1.2	31	5.3		
GRA1	e P	Z 20:06:20.7	77.7	27.0	0.9	78	5.9		
TNS	e P	Z 20:06:22.2	78.0	25.3	1.0	46	5.6		
RJOB	e P	Z 20:06:27.8	79.0	27.8	0.9	34	5.4		
FUR	e P	Z 20:06:28.0	79.1	26.9	1.0	82	5.7		
STU	e P	Z 20:06:28.1	79.1	25.6	0.8	44	5.6		
WLF	e P	Z 20:06:29.6	79.2	23.7	1.0	47	5.4		
BFO	e P	Z 20:06:31.6	79.8	25.0	1.0	43	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/24	19:50:15.4	16.068S	171.374W	32.1				SZGRF
Samoa Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 20:09:43.1	142.1	2.6					
NRDL	e PKPbc	Z 20:09:47.8	143.6	2.4					

IBBN	e	PKPbc	Z	20:09:48.9	143.8	358.6
CLZ	e	PKPbc	Z	20:09:50.4	144.2	2.9
CLL	e	PKPbc	Z	20:09:51.0	144.6	7.3
BUG	e	PKPbc	Z	20:09:51.4	144.6	357.7
BRG	e	PKPbc	Z	20:09:52.4	144.9	8.9
	e	pPKPbc	Z	20:10:02.2		
UBBA	e	PKPbc	Z	20:09:53.5	145.2	2.3
MOX	e	PKPbc	Z	20:09:53.9	145.3	5.1
	e	pPKPbc	Z	20:10:03.4		
TANN	e	PKPbc	Z	20:09:54.6	145.5	6.5
TNS	e	PKPbc	Z	20:09:55.1	145.8	359.7
ROTZ	e	PKPbc	Z	20:09:56.5	146.2	6.2
GRA1	e	PKPbc	Z	20:09:57.0	146.3	4.5
WLF	e	PKPbc	Z	20:09:57.5	146.3	355.7
WET	e	PKPbc	Z	20:09:58.1	146.7	7.5
GEC2	e	PKPbc	Z	20:09:58.3	147.0	9.0
STU	e	PKPbc	Z	20:09:59.4	147.3	1.0
BFO	e	PKPbc	Z	20:10:00.4	147.7	359.5
FUR	e	PKPbc	Z	20:10:00.6	147.8	4.8
RJOB	e	PKPbc	Z	20:10:01.6	148.1	7.6

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/25 05:29:29.2 14.901N 119.211E 33.0G 5.8 6.0
 Luzon, Philippine Islands SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 05:42:20.4	87.8	68.9	1.5	71	5.8		
	e L	Z 06:24:30.8			19.9	6669		6.1	
CLL	e P	Z 05:42:21.8	88.2	68.2	1.5	45	5.6		
	e L	Z 06:24:42.4			18.6	4891		6.0	
BSEG	e P	Z 05:42:24.6	88.6	66.1	0.2	46	6.4		
GEC2	e P	Z 05:42:24.7	88.6	68.7	1.5	65	5.6		
	e L	Z 06:28:46.3			18.3	4121		5.9	
TANN	e P	Z 05:42:25.3	88.8	67.8	2.6	182	5.8		
WET	e P	Z 05:42:26.7	89.0	68.0	1.9	92	5.7		
	e L	Z 06:25:22.3			18.2	5379		6.0	
ROTZ	e P	Z 05:42:27.7	89.2	67.6	1.7	87	5.7		
MOX	e P	Z 05:42:27.2	89.2	67.1	1.6	59	5.6		
	e L	Z 06:25:05.3			20.2	3620		5.8	
NRDL	e P	Z 05:42:28.0	89.3	66.0	1.6	78	5.7		
RJOB	e P	Z 05:42:28.9	89.6	68.0	1.3	59	5.6		
GRA1	e P	Z 05:42:29.6	89.8	66.8	2.2	120	5.7		
	e L	Z 06:25:44.5			19.2	6113		6.0	
UBBA	e P	Z 05:42:31.2	90.1	65.9	2.0	100	5.7		
FUR	e P	Z 05:42:32.9	90.4	66.8	1.8	190	6.1		
	e L	Z 06:25:57.3			20.7	3497		5.8	
TNS	e P	Z 05:42:36.8	91.2	64.7	2.1	144	5.9		

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

60

	e L	Z	06:26:27.4			20.2	4550		5.9
BUG	e P	Z	05:42:37.2	91.4	63.7	1.4	52	5.7	
STU	e P	Z	05:42:37.5	91.4	65.3	1.3	62	5.8	
	e L	Z	06:26:51.6			19.1	5460		6.0
BFO	e P	Z	05:42:40.3	92.1	64.6	2.4	189	6.0	
	e L	Z	06:27:22.6			18.1	5384		6.0
WLF	e P	Z	05:42:44.4	92.8	62.9	2.1	156	6.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/26	05:33:12.3	18.400S	173.200W	34.0				NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 05:52:56.1	148.5	8.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/26	09:37: 2.1	0.351N	17.089W	10.0	4.5			SZGRF

North of Ascension Island

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:46:33.5	55.0	215.4	1.1	6	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/26	10:39: 2.9	6.300S	130.300E	124.0				NEIC

Banda Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z 10:58:15.9	113.3	71.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/26	14:52: 6.4	28.000S	70.700W	35.0		5.9		NEIC

Central Chile

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z 15:06:15.5	106.1	245.5					
	e PP	Z 15:10:33.7							
	e PS	R 15:20:05.7							
	e L	Z 15:55:13.2			19.3	3037		5.9	

./2010/bul1003.txt

Thu Apr 23 08:38:25 2020

61

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/27

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 18:39:40.8

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/27 23:34:59.6 35.200N 27.300E 5.0G 3.8
Dodecanese Islands, Greece

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 23:39:17.6 18.6 134.9 1.5 8 3.8

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/28

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e PKP Z 02:27:01.4
e pPKP Z 02:27:19.9

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/28

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e PKP Z 03:10:39.3

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/28

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e PKP Z 09:20:55.1

Date Origin Time Lat Long Depth mb Ms ML Source
2010/03/28 20:01: 8.0 55.400S 128.200W 10.0 5.2
Pacific-Antarctic Ridge

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e PKP Z 20:21:06.8 155.1 241.1
e L Z 21:34:08.9 22.0 401 5.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/28	21:12:33.5	23.490S	178.870W	33.0N				SZGRF
South of Fiji Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	21:32:17.6	148.8	16.4					
	e PKPab	Z	21:32:21.0							
NRDL	e PKPbc	Z	21:32:21.0	150.2	16.7					
CLL	e PKPbc	Z	21:32:22.4	150.7	22.7					
	e PKPab	Z	21:32:28.9							
IBBN	e PKPbc	Z	21:32:22.4	150.7	12.5					
CLZ	e PKPbc	Z	21:32:22.8	150.8	17.6					
BRG	e PKPbc	Z	21:32:22.9	150.9	24.7					
	e PKPab	Z	21:32:30.1							
MOX	e PKPbc	Z	21:32:24.5	151.7	20.6					
	e PKPab	Z	21:32:33.2							
TANN	e PKPbc	Z	21:32:24.8	151.7	22.3					
UBBA	e PKPbc	Z	21:32:24.5	151.8	17.4					
ROTZ	e PKPbc	Z	21:32:26.3	152.3	22.3					
GRA1	e PKPab	Z	21:32:37.7	152.6	20.5					
WET	e PKPbc	Z	21:32:27.0	152.7	24.1					
	e PKPab	Z	21:32:38.1							
GEC2	e PKPbc	Z	21:32:27.0	152.8	25.9					
WLF	e PKPbc	Z	21:32:29.3	153.5	10.4					
STU	e PKPbc	Z	21:32:29.9	153.9	17.0					
RJOB	e PKPab	Z	21:32:44.0	154.0	25.1					
FUR	e PKPab	Z	21:32:43.6	154.0	21.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/29								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	07:44:44.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/29	17:36:22.0	45.170N	131.224E	33.0N	4.6			SZGRF
Priamurye-Northeastern China border region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	17:47:41.5	71.8	40.0	0.9	5	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/29	17:37:18.6	17.460S	177.555W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	17:56:45.9	143.0	12.5					
NRDL	e PKPbc	Z	17:56:50.3	144.5	12.6					
CLZ	e PKPbc	Z	17:56:52.4	145.1	13.3					
CLL	e PKPbc	Z	17:56:52.4	145.1	17.8					
BRG	e PKPbc	Z	17:56:52.8	145.4	19.5					
MOX	e PKPbc	Z	17:56:55.0	146.0	15.8					
TANN	e PKPbc	Z	17:56:55.4	146.1	17.3					
UBBA	e PKPbc	Z	17:56:55.1	146.1	13.0					
ROTZ	e PKPbc	Z	17:56:57.3	146.7	17.2					
TNS	e PKPbc	Z	17:56:57.4	146.9	10.5					
GEC2	e PKPbc	Z	17:56:58.4	147.3	20.2					
WLF	e PKPbc	Z	17:57:00.0	147.7	6.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/30	01:02:54.4	43.780N	139.720E	33.0G	6.5	5.5		SZGRF

Eastern Sea of Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	01:14:24.2	73.2	35.7	1.3	429	6.4		
BRG	e P	Z	01:14:30.5	74.3	37.5	1.6	461	6.3		
	e S	R	01:24:02.9							
CLL	e P	Z	01:14:30.2	74.3	36.9	1.3	560	6.4		
	e S	R	01:24:03.7							
NRDL	e P	Z	01:14:31.3	74.4	35.3	1.5	454	6.3		
	e S	R	01:24:06.5							
CLZ	e P	Z	01:14:34.2	74.9	35.3	1.5	1054	6.6		
	e S	R	01:24:10.8							
TANN	e P	Z	01:14:36.1	75.2	36.5	1.6	290	6.2		
	e S	R	01:24:14.4							
MOX	e P	Z	01:14:36.9	75.4	36.0	1.4	385	6.3		
	e S	R	01:24:14.9							
IBBN	e P	Z	01:14:36.9	75.4	33.7	1.5	883	6.7		
UBBA	e P	Z	01:14:39.3	75.8	34.9	1.3	273	6.2		
	e S	R	01:24:21.8							
ROTZ	e P	Z	01:14:40.1	75.9	36.2	1.4	445	6.4		
GEC2	e P	Z	01:14:40.4	76.0	37.0	1.3	233	6.2		
	e S	R	01:24:25.3							
WET	e P	Z	01:14:41.4	76.1	36.5	1.3	493	6.5		
	e S	R	01:24:25.8							
BUG	e P	Z	01:14:42.0	76.3	33.3	1.4	938	6.7		
	e S	R	01:24:26.6							

GRA1	e P	Z	01:14:42.6	76.3	35.6	1.4	1163	6.8	
	e S	R	01:24:28.4						
	e L	Z	01:48:42.0			20.9	2436		5.5
TNS	e P	Z	01:14:45.6	76.9	33.9	1.4	546	6.5	
	e S	R	01:24:35.0						
RJOB	e P	Z	01:14:48.0	77.3	36.3	1.2	281	6.3	
	e S	R	01:24:38.6						
FUR	e P	Z	01:14:49.3	77.5	35.4	1.4	954	6.7	
STU	e P	Z	01:14:50.6	77.8	34.2	1.3	605	6.6	
WLF	e P	Z	01:14:53.0	78.2	32.3	2.4	1327	6.6	
	e S	R	01:24:48.2						
BFO	e P	Z	01:14:54.4	78.5	33.6	1.4	859	6.6	
	e S	R	01:24:51.0						

Date Origin Time Lat Long Depth mb Ms ML Source
 2010/03/30 16:54:49.7 13.350N 91.840E 38.8 6.4 6.0
 Andaman Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	17:06:10.7	72.1	90.8	1.1	375	6.4		
	e S	R	17:15:29.9							
GEC2	e P	Z	17:06:11.7	72.2	89.9	1.1	308	6.3		
	e S	R	17:15:32.2							
CLL	e P	Z	17:06:13.8	72.7	90.2	1.7	506	6.4		
	e pP	Z	17:06:24.7							
	e S	R	17:15:36.3							
WET	e P	Z	17:06:14.8	72.8	89.4	1.7	762	6.6		
	e S	R	17:15:39.0							
RJOB	e P	Z	17:06:14.8	72.8	88.9	1.7	452	6.3		
TANN	e P	Z	17:06:16.2	73.0	89.5	1.6	539	6.4		
	e S	T	17:15:43.8							
ROTZ	e P	Z	17:06:17.9	73.2	89.1	1.5	863	6.7		
	e S	T	17:15:44.7							
MOX	e P	Z	17:06:19.3	73.5	88.9	1.9	998	6.5		
	e S	T	17:15:48.3							
GRA1	e P	Z	17:06:21.5	73.8	88.3	1.8	1230	6.6		
	e pP	Z	17:06:32.5							
	e S	T	17:15:52.6							
	e PKPPKP	Z	17:33:57.4							
	e		17:37:24.4							
	e L	Z	17:45:31.2			19.7	8684		6.0	
FUR	e P	Z	17:06:20.8	73.8	87.9	1.1	271	6.2		
	e S	T	17:15:48.5							
BSEG	e P	Z	17:06:23.5	74.3	88.8	1.3	792	6.6		
	e pP	Z	17:06:34.7							
	e S	T	17:15:54.9							
CLZ	e P	Z	17:06:23.6	74.3	88.3	1.2	458	6.4		

	e S	T	17:15:54.6						
NRDL	e P	Z	17:06:24.7	74.4	88.2	1.5	1063	6.7	
	e S	T	17:15:57.4						
UBBA	e P	Z	17:06:25.2	74.6	87.7	1.7	350	6.1	
	e S	T	17:15:58.3						
STU	e P	Z	17:06:28.9	75.2	86.5	1.6	471	6.3	
	e S	T	17:16:05.3						
TNS	e P	Z	17:06:31.1	75.6	86.3	1.0	187	6.2	
BFO	e P	Z	17:06:31.8	75.8	85.8	1.7	367	6.2	
	e S	T	17:16:12.1						
IBBN	e P	Z	17:06:32.7	75.9	86.3	1.3	821	6.7	
	e S	T	17:16:13.7						
BUG	e P	Z	17:06:34.7	76.2	85.8	1.1	428	6.5	
	e S	T	17:16:18.2						
WLF	e P	Z	17:06:40.2	77.1	84.5	1.8	1010	6.6	
	e S	T	17:16:28.7						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2010/03/31	03:51:24.2	51.606N	174.782W	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 04:03:26.2	78.6	3.8	1.4	12	4.7		

Format description

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

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

EPICENTER LINE:

Date Date of the event
Origin Time Origin time of the event
Lat Geographic latitude (N/S) of epicenter in degree
Long Geographic longitude (E/W) of epicenter in degree
Depth Depth of the hypocenter beneath the surface in kilometer
Appended flag indicates the method by which the depth was determined:
 BLANK - free

N - preset depth of 33 kilometer
G - geophysicist preset depth
mb, Ms, ML Magnitudes of the event and magnitude type
Source Abbreviations for the authority (e.g. SZGRF, NEIC, SED, MAD)

REGION LINE:

The region name of the epicenter location.

PHASE LINE:

Sta Station code of the reported phase
Phase Preceded flag for the sharpness of the onset of the phase
 e - emergent
 i - impulsive
 w - weak
ISC phase code
Component where the phase was picked

Time Arrival time of the reported phase
Dist Distance from the epicenter location to the station in degree
BAz Backazimuth from the epicenter location to the station in degree
T[s] Phase Period
A[nm] Phase Amplitude
mb Body wave magnitude
MS Surface wave magnitude
ML Local Richter magnitude