

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

=====

(produced by SZGRF/BGR - ERLANGEN and partly by CLL - Observatory)

JULY 2004 UPDATED 16.FEBRUARY.2006

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	
2004/07/01	04:39:40.1	50.100S	162.900E	10.0N		6.1		NEIC-M	
Auckland Islands, New Zealand, region									
Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e SS	T 05:24:11.6	160.4	99.9					
	e SSS	R 05:30:44.1							
MOX	e SS	R 05:25:30.5	161.8	99.5					
	e SSS	R 05:31:10.1							
GRA1	e PKP	Z 04:59:57.5	161.9	102.2					
	e PP	Z 05:04:12.9							
	e SS	T 05:24:36.3							
	e SSS	R 05:31:17.9							
	e L	Z 06:21:35.3			20.7	2550		6.1	
CLZ	e SS	R 05:25:46.4	162.7	95.1					
BUG	e SSS	R 05:31:22.1	164.6	94.6					
Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source	
2004/07/01	05:43:51.0	14.900S	173.300W	2.0N				MIX-A	
Samoa Islands region									
Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 06:03:30.5	145.0	7.6					
Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source	
2004/07/01	06:11: 5.3			N	4.9			SZGRF	
Samoa Islands region									

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:22:03.7			1.3	11	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/01	08:39:25.9	54.110N	40.880W	33.0N	5.0	4.9		SZGRF

North Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z 08:45:19.9	28.7	294.5	1.1	27	5.0		
WLF	e P	Z 08:45:22.8	28.8	297.1	1.4	27	4.9		
BSEG	e P	Z 08:45:27.8	29.4	291.5	2.0	113	5.3		
CLZ	e P	Z 08:45:34.5	30.3	294.9	1.4	35	5.0		
BFO	e P	Z 08:45:38.2	30.7	299.6	1.6	31	5.0		
MOX	e P	Z 08:45:45.9	31.5	297.1	1.5	26	5.0		
GRA1	e P	Z 08:45:47.5	31.7	298.3	0.8	21	5.1		
	e	08:47:27.7							
	e L	Z 08:56:34.6			18.1	2584		4.9	
CLL	e P	Z 08:45:49.4	32.0	296.6	0.9	21	5.1		
BRG	e P	Z 08:45:56.7	32.7	297.5	1.0	7	4.6		
WET	e P	Z 08:45:58.5	32.9	299.5					
GEC2	e P	Z 08:46:04.0	33.5	300.1	1.4	22	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/01	09:20:45.1	53.422N	35.856W	33.0N	5.8	5.3		SZGRF

North Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:26:42.0	29.0	295.7	2.3	357	5.8		
	e L	Z 09:37:11.9			18.7	7509		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/01								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 09:51:59.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/01	14:59:17.5	22.177S	175.840W	33.0N				SZGRF

Tonga Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z	15:18:56.5	146.9	15.7					
HLG	e PKPbc	Z	15:18:59.7	147.9	6.5					
BSEG	e PKPbc	Z	15:18:59.5	147.9	10.8					
RUE	e PKPbc	Z	15:19:01.5	148.8	17.4					
IBBN	e PKPbc	Z	15:19:04.2	149.7	6.6					
CLZ	e PKPbc	Z	15:19:04.7	149.9	11.5					
CLL	e PKPbc	Z	15:19:04.5	150.1	16.6					
BRG	e PKPbc	Z	15:19:05.2	150.3	18.5					
BUG	e PKPbc	Z	15:19:06.0	150.6	5.9					
MOX	e PKPbc	Z	15:19:06.7	150.9	14.3					
GRA1	e PKPbc	Z	15:19:09.3	151.9	14.0					
WET	e PKPbc	Z	15:19:09.4	152.2	17.5					
WLF	e PKPbc	Z	15:19:10.8	152.5	4.0					
STU	e PKPbc	Z	15:19:11.6	153.1	10.3					
FUR	e PKPbc	Z	15:19:12.0	153.4	14.8					
BFO	e PKPbc	Z	15:19:12.6	153.6	8.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/01	16:20:17.7	24.311S	178.207W	33.0N				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z	16:40:01.3	148.6	20.4					
	e PKPab	Z	16:40:07.8							
BSEG	e PKPdf	Z	16:39:58.3	149.7	15.5					
	e PKPbc	Z	16:40:04.4							
	e PKPab	Z	16:40:12.7							
RUE	e PKPbc	Z	16:40:05.8	150.4	22.5					
IBBN	e PKPbc	Z	16:40:09.0	151.6	11.5					
	e PKPab	Z	16:40:21.0							
CLL	e PKPdf	Z	16:40:00.7	151.7	21.9					
	e PKPab	Z	16:40:20.1							
CLZ	e PKPdf	Z	16:40:01.1	151.7	16.7					
	e PKPbc	Z	16:40:08.7							
	e PKPab	Z	16:40:20.5							
BRG	e PKPdf	Z	16:40:00.8	151.8	24.0					
	e PKPbc	Z	16:40:09.0							
	e PKPab	Z	16:40:20.8							
BUG	e PKPdf	Z	16:40:02.3	152.5	10.9					
	e PKPbc	Z	16:40:10.9							
	e PKPab	Z	16:40:23.6							
MOX	e PKPdf	Z	16:40:02.2	152.6	19.7					
	e PKPbc	Z	16:40:10.1							
	e PKPab	Z	16:40:24.0							
GRA1	e PKPdf	Z	16:40:03.6	153.6	19.6					
	e PKPbc	Z	16:40:13.2							

	e	PKPab	Z	16:40:28.8							
GRFO	e	PKPdf	Z	16:40:04.1	153.6	19.6					
WET	e	PKPdf	Z	16:40:03.7	153.7	23.3					
	e	PKPbc	Z	16:40:13.0							
	e	PKPab	Z	16:40:29.0							
STU	e	PKPdf	Z	16:40:05.3	154.9	16.0					
	e	PKPbc	Z	16:40:15.7							
	e	PKPab	Z	16:40:34.2							
FUR	e	PKPdf	Z	16:40:05.4	155.0	20.8					
	e	PKPab	Z	16:40:35.1							
BFO	e	PKPbc	Z	16:40:16.2	155.4	14.4					
	e	PKPab	Z	16:40:36.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/07/01											

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
GRA1	e P	Z 19:57:41.1			1.7	32				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/07/01	22:30:19.5	39.681N	43.058E	33.0N	4.9	4.5		SZGRF			
Turkey											

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
BRG	e P	Z 22:35:22.1	23.1	107.6	1.3	46	4.9			
WET	e P	Z 22:35:23.9	23.3	102.5	1.0	32	4.8			
RUE	e P	Z 22:35:27.5	23.8	110.9						
CLL	e P	Z 22:35:28.7	23.8	107.4	0.9	41	5.0			
FUR	e P	Z 22:35:33.0	24.2	98.6	0.9	26	4.8			
MOX	e P	Z 22:35:34.5	24.5	104.4	0.9	11	4.6			
GRA1	e P	Z 22:35:36.2	24.5	101.9	1.2	77	5.3			
	e S	E 22:40:06.1								
	e L	Z 22:47:37.4			18.7	1563		4.5		
CLZ	e P	Z 22:35:45.0	25.5	105.4	1.0	46	5.1			
STU	e P	Z 22:35:45.6	25.7	97.9	0.9	49	5.1			
BFO	e P	Z 22:35:49.6	26.2	96.2	1.0	12	4.5			
BSEG	e P	Z 22:35:50.7	26.2	109.5	0.9	32	5.0			
IBBN	e P	Z 22:36:00.6	27.2	103.5						
BUG	e P	Z 22:36:01.6	27.3	101.3	1.0	46	5.2			
WLF	e P	Z 22:36:04.2	27.7	96.9						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/07/02	02:16: 3.0	4.949S	12.341W	33.0N	4.7			SZGRF			

North of Ascension Island

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:25:55.2	58.3	207.9	1.0	9	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/02	03:56:13.0	65.696N	20.199W	33.0N	4.0			SZGRF

Iceland

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:01:12.8	22.8	326.3	1.2	6	4.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/02	04:05:35.0	56.540N	156.732W	33.0N	5.1			SZGRF

Alaska Peninsula, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 04:16:37.7	69.0	352.4	1.0	13	5.1		
IBBN	e P	Z 04:16:46.3	70.4	351.0	0.9	19	5.2		
NRDL	e P	Z 04:16:46.0	70.4	352.3	0.9	16	5.1		
RUE	e P	Z 04:16:48.1	70.7	354.5	0.6	24	5.5		
CLZ	e P	Z 04:16:50.0	71.1	352.5	0.8	13	5.1		
BUG	e P	Z 04:16:50.9	71.2	350.8	0.7	21	5.4		
CLL	e P	Z 04:16:54.2	71.8	354.1	0.8	11	5.1		
BRG	e P	Z 04:16:57.1	72.3	354.6	1.0	13	5.0		
MOX	e P	Z 04:16:58.0	72.4	353.3	0.6	19	5.4		
GRA1	e P	Z 04:17:03.6	73.3	353.1	1.2	7	4.6		
WET	e P	Z 04:17:07.1	74.0	354.1	2.3	28	4.9		
GEC2	e P	Z 04:17:09.0	74.3	354.5	0.8	9	4.9		
BFO	e P	Z 04:17:09.6	74.4	351.5	0.6	3	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/02	11:57:16.2	9.730S	65.940E	33.0N	5.1	4.4		SZGRF

Mid-Indian Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 12:09:01.3	76.1	124.0	1.3	19	5.1		
	e S	E 12:18:55.7							
	e L	Z 12:34:18.7			22.0	217		4.4	

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

2004/07/02 18:59:33.9
Hokkaido, Japan, region

41.610N 142.850E 33.0N 5.1 5.1 SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 19:11:21.5	76.1	36.7	1.2	36	5.4		
BSEG	e P	Z 19:11:21.8	76.2	34.6	1.1	26	5.3		
CLL	e P	Z 19:11:27.8	77.4	36.0	1.0	20	5.2		
BRG	e P	Z 19:11:28.3	77.4	36.6	1.1	10	4.9		
NRDL	e P	Z 19:11:28.7	77.4	34.2	1.1	14	5.0		
CLZ	e P	Z 19:11:31.4	77.9	34.3	1.1	29	5.3		
IBBN	e P	Z 19:11:33.8	78.4	32.6	1.2	32	5.2		
MOX	e P	Z 19:11:34.0	78.4	35.0	1.2	13	4.8		
UBBA	e P	Z 19:11:36.2	78.8	34.0	1.7	23	4.9		
GEC2	e P	Z 19:11:37.3	79.1	36.2	1.4	15	4.8		
WET	e P	Z 19:11:38.5	79.2	35.7	1.1	16	5.0		
BUG	e P	Z 19:11:38.9	79.3	32.2	1.1	22	5.0		
GRA1	e P	Z 19:11:39.7	79.3	34.7	1.1	33	5.2		
	e SS	N 19:27:03.1							
	e L	Z 19:50:40.6			19.3	785		5.1	
FUR	e P	Z 19:11:46.5	80.6	34.5	0.7	28	5.4		
STU	e P	Z 19:11:47.2	80.8	33.2	1.0	18	5.1		
WLF	e P	Z 19:11:50.2	81.1	31.3	1.0	10	4.8		
BFO	e P	Z 19:11:50.5	81.5	32.6	1.2	19	5.1		

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/02

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 21:21:18.7							

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/02 22:43:47.9
Tonga Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 23:03:21.0	144.8	359.7					
CLL	e PKPbc	Z 23:03:28.4	147.3	4.4					
BRG	e PKPbc	Z 23:03:29.5	147.7	6.1					
MOX	e PKPbc	Z 23:03:29.8	148.1	2.0					
GRA1	e PKPbc	Z 23:03:38.1	149.0	1.3					
GEC2	e PKPbc	Z 23:03:34.0	149.8	6.0					
BFO	e PKPbc	Z 23:03:36.1	150.3	355.8					
FUR	e PKPbc	Z 23:03:37.0	150.5	1.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/02								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 23:44:17.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/03								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e PKPbc	Z 08:37:18.0							
GRA1	e PKPbc	Z 08:37:16.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/03	14:10:46.6	33.920N	89.610E	33.0N	5.3	4.8		SZGRF
Xizang								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 14:20:20.0	55.5	77.5	0.5	18	5.3		
BRG	e P	Z 14:20:21.6	55.8	76.5	0.9	17	5.1		
CLL	e P	Z 14:20:24.6	56.2	76.2	1.5	23	5.0		
GEC2	e P	Z 14:20:26.7	56.4	75.0	1.6	88	5.5		
WET	e P	Z 14:20:29.3	56.9	74.7	1.6	45	5.2		
BSEG	e P	Z 14:20:32.2	57.2	76.0	1.2	22	5.1		
MOX	e P	Z 14:20:32.1	57.3	74.8	1.1	16	4.9		
NRDL	e P	Z 14:20:35.8	57.7	74.9	1.2	38	5.3		
CLZ	e P	Z 14:20:35.6	57.7	74.7	1.4	50	5.4		
GRA1	e P	Z 14:20:36.3	57.8	74.0	1.9	126	5.6		
	e L	Z 14:46:55.0			21.3	875		4.8	
FUR	e P	Z 14:20:39.3	58.2	73.1	1.6	156	5.8		
IBBN	e P	Z 14:20:45.0	59.1	73.2	1.2	28	5.2		
STU	e P	Z 14:20:46.7	59.3	72.1	1.5	75	5.5		
BUG	e P	Z 14:20:49.2	59.6	72.4	1.2	35	5.3		
BFO	e P	Z 14:20:50.6	60.0	71.3	1.4	31	5.2		
WLF	e P	Z 14:20:58.0	60.9	70.7	1.7	107	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/03	18:36:14.9	36.804N	26.284E	10.0G	3.9			SZGRF
Dodecanese Islands, Greece								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 18:39:46.9	15.1	138.1	1.3	10			

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

8

WET	e P	Z	18:39:54.3	15.7	136.7	1.2	8	3.7
BRG	e P	Z	18:40:06.7	16.6	143.2	0.9	14	4.1
GRA1	e P	Z	18:40:09.9	16.9	134.2	0.9	10	4.0
CLL	e P	Z	18:40:14.1	17.3	141.8	0.8	13	4.1
MOX	e P	Z	18:40:15.7	17.4	137.2	1.2	10	3.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/03	18:44: 6.0	41.410N	141.030E	155.1	4.8			SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 18:55:36.5	75.7	35.9	1.6	20	5.0		
BRG	e P	Z 18:55:42.4	76.8	37.9	1.0	5	4.6		
	e pP	Z 18:56:20.5							
CLL	e P	Z 18:55:42.0	76.9	37.4	0.8	9	4.9		
	e pP	Z 18:56:20.1							
CLZ	e P	Z 18:55:45.5	77.4	35.7	0.9	8	4.8		
MOX	e P	Z 18:55:48.2	77.9	36.3	0.9	4	4.5		
IBBN	e P	Z 18:55:48.6	77.9	33.9	0.6	9	5.1		
GEC2	e P	Z 18:55:51.7	78.5	37.5	1.0	4	4.4		
WET	e P	Z 18:55:52.7	78.6	37.0	1.0	7	4.6		
GRA1	e P	Z 18:55:53.9	78.8	36.0	0.9	16	5.0		
FUR	e P	Z 18:56:00.2	80.0	35.8	0.9	22	5.1		
STU	e P	Z 18:56:01.9	80.3	34.5	0.8	12	5.0		
BFO	e P	Z 18:56:04.8	81.0	33.9	1.1	10	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/03								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z 21:07:05.9							
CLL	e PKP	Z 21:07:05.5							

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

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 05:02:38.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/04	06:01: 1.6	31.343N	92.159E	33.0N	4.3			SZGRF

Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:11:12.6	61.1	74.5	1.3	6	4.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/04	12:31:18.3	42.660N	142.700E	85.8	5.4			SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 12:42:53.5	75.2	36.3	0.8	43	5.6		
BSEG	e P	Z 12:42:53.7	75.2	34.2	0.8	43	5.5		
	e pP	Z 12:43:16.0							
CLL	e P	Z 12:43:00.0	76.4	35.6	0.8	45	5.6		
BRG	e P	Z 12:43:00.2	76.4	36.2	0.9	12	5.0		
NRDL	e P	Z 12:43:00.7	76.4	33.8	0.8	19	5.3		
CLZ	e P	Z 12:43:03.5	76.9	33.9	0.8	51	5.7		
IBBN	e P	Z 12:43:05.7	77.4	32.2	0.8	51	5.7		
MOX	e P	Z 12:43:06.1	77.4	34.6	0.7	16	5.3		
UBBA	e P	Z 12:43:08.2	77.9	33.6	0.6	11	5.1		
GEC2	e P	Z 12:43:09.9	78.1	35.7	0.7	12	5.1		
WET	e P	Z 12:43:10.7	78.2	35.2	0.9	24	5.2		
BUG	e P	Z 12:43:10.6	78.3	31.8	0.8	43	5.5		
	e pP	Z 12:43:33.2							
GRA1	e P	Z 12:43:11.9	78.4	34.2	0.7	72	5.8		
	e pP	Z 12:43:34.2							
FUR	e P	Z 12:43:18.3	79.6	34.1	0.9	64	5.5		
	e pP	Z 12:43:41.0							
STU	e P	Z 12:43:19.4	79.9	32.8	0.8	48	5.5		
WLF	e P	Z 12:43:21.3	80.2	30.9	0.9	17	5.0		
BFO	e P	Z 12:43:22.9	80.5	32.2	0.8	16	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/04	17:07:23.8	6.352N	82.949W	33.0N	5.2	4.7		SZGRF

South of Panama

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 17:20:10.2	87.8	277.3	1.3	16	5.2		
	e PcP	Z 17:20:12.7							
	e S	E 17:30:48.4							
	e SS	E 17:37:01.3							
	e SKKSdf	N 17:44:44.4							
	e L	Z 17:53:30.5			21.7	303		4.7	

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

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 19:42:26.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/04	22:47:36.5	28.715N	138.459E	33.0N	5.0			SZGRF
Bonin Islands, Japan, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:00:26.8	88.7	44.3	1.0	10	5.0		

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

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 23:28:49.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/05	08:00:14.5	43.227N	147.357E	72.2				SZGRF
Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 08:12:08.3	79.5	30.9					
	e pP	Z 08:12:27.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/05	09:22:48.6	38.163N	142.084E	33.0N	5.0			SZGRF
Near east coast of eastern Honshu, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:35:05.9	82.0	36.9	0.9	12	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/05	10:48:28.5	71.049N	71.735W	33.0N	4.5			SZGRF
Baffin Island, Canada, region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	10:55:39.9	37.7	328.3	1.0	14	4.6		
CLL	e P	Z	10:56:05.5	40.8	330.3	0.9	8	4.4		
MOX	e P	Z	10:56:07.3	41.0	330.5	0.9	7	4.4		
BRG	e P	Z	10:56:11.3	41.5	330.7	0.7	4	4.3		
GRA1	e P	Z	10:56:14.1	41.7	331.0	0.9	11	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/06								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PKP	Z	00:08:33.9							
FUR	e PKP	Z	00:08:31.2							
NRDL	e PKP	Z	00:08:27.1							
STU	e PKP	Z	00:08:32.3							
WLF	e PKP	Z	00:08:33.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/06								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	07:28:06.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/06	07:32: 9.7	25.446N	121.668E	33.0N		4.8		gsrc-m
Taiwan								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA2	e P	Z	07:44:37.4	82.8	58.6					
GRA1	e P	Z	07:44:37.3	82.9	58.5					
	e L	Z	08:20:02.4			21.5	400		4.8	
GRB5	e P	Z	07:44:33.0	82.9	58.8					
GRC1	e P	Z	07:44:30.4	83.1	58.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/06								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	12:38:53.6							

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

13

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 20:34:08.7							

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

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z 12:33:26.3							
CLL	e PKP	Z 12:33:25.8							
GEC2	e PKP	Z 12:33:31.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/07	14:13:51.3	42.920N	144.900E	33.0G	5.0			SZGRF
Hokkaido, Japan, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 14:25:35.6	75.6	32.6	0.8	18	5.2		
NRDL	e P	Z 14:25:42.1	76.9	32.2	1.1	12	4.9		
CLL	e P	Z 14:25:42.4	77.0	34.0	0.9	20	5.2		
BRG	e P	Z 14:25:42.7	77.0	34.6	1.0	7	4.8		
CLZ	e P	Z 14:25:45.8	77.4	32.3	0.9	16	5.1		
IBBN	e P	Z 14:25:47.6	77.8	30.6	1.1	31	5.4		
MOX	e P	Z 14:25:48.1	78.0	33.0	1.1	10	4.9		
GEC2	e P	Z 14:25:52.4	78.7	34.2	1.0	5	4.5		
BUG	e P	Z 14:25:52.6	78.7	30.2	0.7	12	5.0		
WET	e P	Z 14:25:53.2	78.8	33.7	1.0	14	4.9		
GRA1	e P	Z 14:25:54.0	78.9	32.7	0.9	20	5.2		
BFO	e P	Z 14:26:05.1	81.1	30.6	1.8	27	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/07	14:35:14.0	32.540N	35.670E	26.1	4.7			SZGRF
Dead Sea region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 14:40:18.1	23.1	126.7	1.0	14	4.4		
WET	e pP	Z 14:40:30.5	23.8	125.9					
BRG	e P	Z 14:40:29.3	24.3	130.7	1.1	17	4.5		
	e pP	Z 14:40:35.6							
GRA1	e P	Z 14:40:35.7	25.0	124.2	0.8	9	4.6		
	e pP	Z 14:40:41.8							
CLL	e P	Z 14:40:34.9	25.0	129.8	0.8	12	4.7		
	e pP	Z 14:40:42.2							
MOX	e P	Z 14:40:38.7	25.3	126.5	0.9	47	5.2		

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

14

	e pP	Z	14:40:45.5						
RUE	e P	Z	14:40:39.1	25.4	133.0	1.1	38	5.0	
	e pP	Z	14:40:46.3						
BFO	e P	Z	14:40:43.2	25.9	117.5	1.1	21	4.7	
	e pP	Z	14:40:50.2						
CLZ	e P	Z	14:40:50.0	26.6	126.5	1.0	10	4.5	
	e pP	Z	14:40:57.2						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/07	17:01:18.7	22.500S	175.100W	33.0N				GSRC-M

Tonga Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z 17:21:02.3	148.3	9.6					
RUE	e PKP	Z 17:21:05.8	149.3	16.2					
NRDL	e PKP	Z 17:21:06.4	149.7	9.6					
IBBN	e PKP	Z 17:21:07.9	150.1	5.3					
CLZ	e PKP	Z 17:21:08.0	150.4	10.3					
CLL	e PKP	Z 17:21:07.7	150.5	15.3					
BRG	e PKP	Z 17:21:08.5	150.8	17.3					
BUG	e PKP	Z 17:21:09.9	151.0	4.5					
MOX	e PKP	Z 17:21:10.7	151.4	13.0					
UBBA	e PKP	Z 17:21:11.4	151.4	9.9					
GRA1	e PKP	Z 17:21:11.7	152.4	12.7					
WET	e PKP	Z 17:21:13.9	152.6	16.2					
GEC2	e PKP	Z 17:21:14.6	152.7	18.0					
WLF	e PKP	Z 17:21:14.8	152.8	2.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/07	18:47:19.2	33.990N	46.210E	33.0N	4.7			SZGRF

Iran-Iraq border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 18:53:15.8	28.8	113.3	0.8	3	4.2		
CLL	e P	Z 18:53:21.6	29.5	112.9	1.2	8	4.4		
FUR	e P	Z 18:53:22.0	29.6	105.7	0.8	18	4.9		
GRA2	e P	Z 18:53:25.7	29.9	108.3	1.2	11	4.6		
GRA1	e P	Z 18:53:26.1	30.0	108.2	1.9	27	4.8		
RGN	e P	Z 18:53:32.8	30.8	118.3	0.9	33	5.2		
CLZ	e P	Z 18:53:37.1	31.3	110.7	0.9	14	4.9		
NRDL	e P	Z 18:53:41.0	31.6	111.4	0.9	14	4.9		
BSEG	e P	Z 18:53:44.3	32.1	113.7	1.2	12	4.7		

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

15

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/07	19:01:42.5	46.674N	153.485E	33.0N	4.8			SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:13:39.4	78.2	25.4	0.9	9	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/07	21:29:23.0	17.526S	168.247E	10.0G		5.7		neic-m

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z 21:48:54.0	140.9	40.9					
CLL	e PKP	Z 21:48:52.8	140.9	39.3					
NRDL	e PKP	Z 21:48:53.5	141.1	34.4					
CLZ	e PKP	Z 21:48:55.4	141.5	35.2					
MOX	e PKP	Z 21:48:56.4	142.0	37.9					
GEC2	e PKP	Z 21:48:55.7	142.5	42.3					
WET	e PKP	Z 21:48:59.5	142.6	40.9					
GRA1	e PKP	Z 21:49:00.1	142.9	38.1					
	e PP	Z 21:52:07.6							
	e SS	N 22:11:00.1							
	e SSS	N 22:16:28.5							
	e L	Z 22:52:02.1			21.8	1536		5.7	
FUR	e PKP	Z 21:48:57.1	144.1	39.5					
STU	e PKP	Z 21:48:58.3	144.4	35.9					
WLF	e PKP	Z 21:48:59.6	144.8	30.5					
BFO	e PKP	Z 21:49:00.5	145.1	34.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/08	00:06:12.0	73.195N	6.978E	33.0N	4.3			SZGRF

Greenland Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 00:11:20.2	23.6	356.9	1.6	15	4.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/08	10:30:43.8	48.020N	150.090E	33.0N	6.2	5.8		SZGRF

Northwest of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 10:42:10.1	72.5	26.9	1.5	192	6.0		
RUE	e P	Z 10:42:11.7	72.8	28.9	1.2	315	6.3		

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

16

NRDL	e P	Z	10:42:17.7	73.9	26.6	1.5	146	5.8
CLL	e P	Z	10:42:18.8	74.1	28.3	1.2	378	6.3
BRG	e P	Z	10:42:19.3	74.2	28.8	1.5	155	5.8
	e PP	Z	10:45:09.5					
CLZ	e P	Z	10:42:21.1	74.4	26.7	1.3	188	6.0
IBBN	e P	Z	10:42:22.4	74.7	25.1	0.9	224	6.2
UBBA	e P	Z	10:42:26.4	75.4	26.3	1.9	294	6.1
BUG	e P	Z	10:42:27.3	75.6	24.7	1.4	218	6.1
WET	e P	Z	10:42:30.6	76.0	27.9	1.5	362	6.3
	e PP	Z	10:45:27.3					
GEC2	e P	Z	10:42:30.3	76.1	28.4	1.9	260	6.0
	e PP	Z	10:45:27.4					
GRA1	e P	Z	10:42:30.6	76.1	27.0	1.5	512	6.4
	e PP	Z	10:45:27.2					
	e S	E	10:52:10.9					
	e L	Z	11:20:18.7			19.9	4383	5.8
FUR	e P	Z	10:42:38.1	77.4	26.8	1.2	580	6.6
STU	e P	Z	10:42:38.0	77.5	25.6	1.4	239	6.1
WLF	e P	Z	10:42:38.7	77.5	23.8	1.6	761	6.6
BFO	e P	Z	10:42:41.7	78.1	25.0	1.3	262	6.2

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/08

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 17:52:54.4							

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/08 19:54:33.8 25.067S 115.918W 10.0N 5.6
 Southern East Pacific Rise

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e PKPdf	Z 20:13:44.5	129.8	279.3					
IBBN	e PKPdf	Z 20:13:48.5	130.0	280.4					
BFO	e PKPdf	Z 20:13:48.1	130.9	277.5					
BSEG	e PKPdf	Z 20:13:48.6	131.1	284.1					
STU	e PKPdf	Z 20:13:49.6	131.5	278.6					
UBBA	e PKPdf	Z 20:13:50.3	131.6	281.1					
CLZ	e PKPdf	Z 20:13:50.0	131.6	282.3					
GRA1	e PKPdf	Z 20:13:52.2	132.6	281.2					
	e SS	N 20:33:59.0							
	e SSS	N 20:38:52.9							
	e L	Z 21:07:18.6			21.6	1192		5.6	
CLL	e PKPdf	Z 20:13:53.0	133.3	284.3					
WET	e PKPdf	Z 20:13:52.3	133.8	282.2					

BRG	e PKPdf	Z	20:13:51.6	134.0	284.7
GEC2	e PKPdf	Z	20:13:51.8	134.4	282.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/08	20:45:10.0	35.439N	141.172E	33.0N	5.0			SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:57:37.6	84.0	38.9	1.1	10	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/09	08:25: 6.4	85.528N	85.238E	33.0N	4.5			SZGRF

North of Severnaya Zemlya

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 08:32:32.3	39.3	6.8	1.7	20	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/09	12:07:32.3	57.060N	157.410W	33.0N	4.9			SZGRF

Alaska Peninsula, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 12:18:34.1	68.6	352.9	1.2	19	5.2		
NRDL	e P	Z 12:18:42.6	70.0	352.8	1.0	15	5.1		
CLZ	e P	Z 12:18:47.0	70.6	353.0	1.0	18	5.1		
BUG	e P	Z 12:18:46.6	70.8	351.2	1.0	20	5.2		
CLL	e P	Z 12:18:51.0	71.3	354.5	1.0	10	4.9		
BRG	e P	Z 12:18:53.9	71.8	355.1	1.0	9	4.8		
MOX	e P	Z 12:18:54.3	71.9	353.7	0.9	12	5.0		
GRA2	e P	Z 12:19:00.1	72.9	353.6					
WET	e P	Z 12:19:03.9	73.5	354.5	1.0	5	4.5		
GEC2	e P	Z 12:19:06.2	73.8	355.0	0.9	6	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/09	14:28:51.7	16.692S	173.860W	33.0G				SZGRF

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z 14:48:22.4	144.1	6.5					
IBBN	e PKPbc	Z 14:48:23.4	144.4	2.7					
CLZ	e PKPbc	Z 14:48:24.4	144.7	7.0					

CLL	e	PKPbc	Z	14:48:24.9	145.0	11.5
BUG	e	PKPbc	Z	14:48:26.1	145.2	1.9
BRG	e	PKPbc	Z	14:48:26.0	145.3	13.2
UBBA	e	PKPbc	Z	14:48:28.0	145.7	6.6
MOX	e	PKPbc	Z	14:48:27.5	145.8	9.3
GRA2	e	PKPbc	Z	14:48:30.6	146.8	9.1
WLF	e	PKPbc	Z	14:48:32.0	147.0	0.0
WET	e	PKPbc	Z	14:48:31.4	147.1	11.9
GEC2	e	PKPbc	Z	14:48:31.7	147.3	13.5
STU	e	PKPbc	Z	14:48:33.7	147.8	5.5
FUR	e	PKPbc	Z	14:48:34.7	148.2	9.4
BFO	e	PKPbc	Z	14:48:34.6	148.3	4.0

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/09

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA2	e P	Z 15:51:02.4							

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/10 00:21: 1.1 8.124S 94.846E 33.0G 5.2 4.8 ML gsrc-m
South Indian Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 00:34:00.7	90.3	102.0	1.0	23	5.4		
BRG	e P	Z 00:34:01.9	90.6	102.2	1.0	8	5.0		
WET	e P	Z 00:34:03.3	90.9	101.4	1.1	13	5.2		
RUE	e P	Z 00:34:03.6	91.1	102.0	1.0	24	5.5		
CLL	e P	Z 00:34:04.3	91.3	101.4	1.0	11	5.1		
FUR	e P	Z 00:34:06.8	91.8	100.2	0.9	15	5.3		
MOX	e P	Z 00:34:08.1	92.0	100.4	1.1	6	4.9		
GRFO	e P	Z 00:34:10.0	92.1	100.1	1.0	9	5.0		
	e S	N 00:45:14.0							
	e SS	N 00:51:34.8							
	e L	Z 01:17:49.9			20.2	393		4.8	
CLZ	e P	Z 00:34:12.5	93.0	99.4	1.2	13	5.2		
BSEG	e P	Z 00:34:12.8	93.4	99.2					

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/10 00:34:57.8 45.791N 26.875E 150.0G gsrc-m
Romania

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

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

19

GEC2	e Pn	Z	00:37:09.7	9.4	103.9
WET	e Pn	Z	00:37:17.5	10.0	104.2
MOX	e Pn	Z	00:37:36.7	11.2	109.7
BFO	e Pn	Z	00:37:59.4	12.9	94.4
BSEG	e Pn	Z	00:38:05.8	13.4	120.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/10	06:19:13.6	21.700S	179.490W	620.1				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	06:37:47.3	146.9	16.9					
	e PKPab	Z	06:37:50.5							
HLG	e PKPab	Z	06:37:52.5	147.0	12.7					
RUE	e PKPab	Z	06:37:53.4	147.6	23.4					
NRDL	e PKPbc	Z	06:37:50.8	148.3	17.2					
	e PKPab	Z	06:37:56.1							
CLL	e PKPbc	Z	06:37:52.0	148.8	22.9					
	e PKPab	Z	06:37:58.3							
	e pPKPab	Z	06:40:13.7							
CLZ	e PKPbc	Z	06:37:52.4	148.9	17.9					
	e PKPab	Z	06:37:59.1							
BRG	e PKPbc	Z	06:37:52.7	149.0	24.8					
	e PKPab	Z	06:37:59.4							
MOX	e PKPbc	Z	06:37:54.4	149.8	20.8					
	e PKPab	Z	06:38:02.6							
BUG	e PKPbc	Z	06:37:54.1	149.8	12.6					
GRFO	e PKPbc	Z	06:37:57.2	150.8	20.7					
	e PKPab	Z	06:38:07.2							
WET	e PKPbc	Z	06:37:56.4	150.9	24.1					
	e PKPab	Z	06:38:07.7							
GEC2	e PKPbc	Z	06:37:57.0	150.9	25.8					
	e PKPab	Z	06:38:07.6							
GRB5	e PKPbc	Z	06:37:57.8	151.2	21.9					
WLF	e PKPab	Z	06:38:10.7	151.7	11.1					
STU	e PKPab	Z	06:38:12.0	152.1	17.4					
FUR	e PKPab	Z	06:38:13.1	152.2	21.8					
BFO	e PKPab	Z	06:38:14.6	152.6	16.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/10								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e Pg	Z	08:08:02.3							
CLZ	e Pg	Z	08:08:31.6							

HLG	e Pg	Z	08:08:13.3
NRDL	e Pg	Z	08:08:23.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/10								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e Pg	Z 08:47:11.8							
CLZ	e Pg	Z 08:47:41.3							
HLG	e Pg	Z 08:47:23.1							
NRDL	e Pg	Z 08:47:33.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/10	09:04:42.6	4.018N	32.090W	33.0N	5.0			SZGRF
Central Mid-Atlantic Ridge								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA2	e P	Z 09:14:36.0	58.5	233.6	1.4	20	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/10	11:07: 7.2	36.636N	139.738E	33.0N	5.0			SZGRF
Eastern Honshu, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 11:19:12.2	79.5	39.1	0.8	11	4.8		
BRG	e P	Z 11:19:16.3	80.4	41.3	1.3	9	4.7		
CLL	e P	Z 11:19:16.3	80.5	40.7	1.5	22	5.0		
CLZ	e P	Z 11:19:20.1	81.1	38.9	1.6	24	5.0		
GEC2	e P	Z 11:19:24.8	82.0	40.9	1.2	4	4.4		
UBBA	e P	Z 11:19:24.7	82.0	38.5	4.9	255	5.6		
WET	e P	Z 11:19:25.6	82.2	40.4	1.3	6	4.6		
GRFO	e P	Z 11:19:27.4	82.4	39.3	0.9	16	5.2		
STU	e P	Z 11:19:34.6	84.0	37.8	0.5	12	5.4		
BFO	e P	Z 11:19:38.2	84.7	37.2	1.9	38	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/10	16:15:27.1	22.370S	177.660W	33.0N				SZGRF
South of Fiji Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 16:35:08.5	147.9	14.0					

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 01:34:26.7							
BRG	e P	Z 01:34:57.5							
BSEG	e P	Z 01:34:53.0							
CLL	e P	Z 01:34:57.3							
CLZ	e P	Z 01:34:57.7							
WET	e P	Z 01:34:33.4							

Date 2004/07/11
 Origin Time 23:08:44.0
 Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 23:18:10.0	54.4	85.0	1.3	101	5.7		
	e PP	Z 23:20:22.2							
BRG	e P	Z 23:18:10.9	54.5	83.9	2.1	227	5.8		
	e	23:18:20.9							
GEC2	e P	Z 23:18:13.8	54.9	82.3	2.0	154	5.7		
	e	23:18:23.7							
CLL	e P	Z 23:18:14.4	55.0	83.6	1.4	57	5.4		
	e	23:18:24.1							
WET	e P	Z 23:18:17.2	55.3	82.0	1.6	98	5.6		
	e	23:18:27.2							
MOX	e P	Z 23:18:21.6	55.9	82.1	2.4	307	5.9		
	e S	E 23:26:16.1							
	e L	Z 23:42:25.9			21.4	18867		6.1	
BSEG	e P	Z 23:18:24.5	56.3	83.3	1.3	163	5.9		
	e PP	Z 23:20:34.4							
GRFO	e P	Z 23:18:25.1	56.3	81.2	1.4	140	5.8		
	e	23:18:34.8							
	e PcP	Z 23:19:13.0							
	e PP	Z 23:20:41.9							
	e S	E 23:26:24.0							
	e L	Z 23:45:20.9			18.6	24017		6.3	
FUR	e P	Z 23:18:26.2	56.5	80.2	1.2	154	5.9		
CLZ	e P	Z 23:18:25.9	56.5	82.0	1.1	82	5.7		
STU	e P	Z 23:18:34.7	57.8	79.2	1.5	118	5.7		
	e	23:18:44.7							
	e PP	Z 23:20:52.3							
IBBN	e P	Z 23:18:36.6	58.1	80.4	1.4	193	5.9		
BFO	e P	Z 23:18:38.2	58.4	78.4	3.1	327	5.8		
	e PP	Z 23:20:59.1							
BUG	e P	Z 23:18:39.7	58.5	79.5	1.5	119	5.7		
	e	23:18:49.5							
WLF	e P	Z 23:18:47.5	59.6	77.7	1.3	91	5.6		
	e	23:18:57.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/11	23:46:22.2	19.630S	125.860W	39.9		6.0		SZGRF
South Pacific Ocean								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e pPKPdf	Z	00:05:27.8	131.5	294.4					
BUG	e pPKPdf	Z	00:05:27.8	131.6	293.2					
BSEG	e pPKPdf	Z	00:05:28.8	132.2	298.3					
	e PP	Z	00:07:54.8							
NRDL	e pPKPdf	Z	00:05:29.7	132.7	296.9					
	e PP	Z	00:07:58.5							
CLZ	e pPKPdf	Z	00:05:31.4	133.2	296.7					
	e PP	Z	00:08:03.9							
RGN	e pPKPdf	Z	00:05:30.8	133.4	302.1					
BFO	e pPKPdf	Z	00:05:31.1	133.4	291.6					
	e PP	Z	00:08:03.7							
UBBA	e pPKPdf	Z	00:05:31.1	133.4	295.4					
	e PP	Z	00:08:04.1							
STU	e PKPdf	Z	00:05:20.3	133.8	292.8					
	e pPKPdf	Z	00:05:32.2							
	e PP	Z	00:08:05.9							
MOX	e pPKPdf	Z	00:05:32.6	134.4	297.0					
	e PP	Z	00:08:10.5							
GRFO	e PKPdf	Z	00:05:21.3	134.6	295.7					
	e PP	Z	00:08:11.2							
	e L	Z	01:03:40.8			19.0	2560		6.0	
GRA2	e PKP	Z	00:05:21.3	134.7	295.8					
RUE	e pPKPdf	Z	00:05:32.9	134.7	300.9					
CLL	e pPKPdf	Z	00:05:32.8	134.9	299.0					
	e PP	Z	00:08:13.0							
FUR	e PKPdf	Z	00:05:23.7	135.3	294.4					
	e pPKPdf	Z	00:05:34.9							
	e PP	Z	00:08:15.8							
BRG	e PKPdf	Z	00:05:22.2	135.6	299.7					
	e pPKPdf	Z	00:05:35.0							
	e PP	Z	00:08:18.3							
WET	e PKPdf	Z	00:05:23.9	135.8	296.9					
	e pPKPdf	Z	00:05:34.8							
	e PP	Z	00:08:18.7							
GEC2	e pPKPdf	Z	00:05:37.0	136.4	297.5					
	e PP	Z	00:08:21.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/12	01:11:25.3	25.517N	123.408E	33.0N	5.2			SZGRF
Northeast of Taiwan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA2	e P	Z 01:23:51.5	83.7	57.3	2.1	36	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/12	16:45: 1.7	44.300N	125.630W	33.0N	5.0	4.2		SZGRF
Off coast of Oregon, United States								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z 16:56:48.4	76.0	329.0	1.6	23	5.1		
CLZ	e P	Z 16:56:52.3	76.6	329.3	1.5	37	5.3		
CLL	e P	Z 16:56:58.6	77.9	331.1	1.4	25	5.2		
MOX	e P	Z 16:56:59.5	78.1	330.2	1.0	13	5.0		
BRG	e P	Z 16:57:02.7	78.6	331.7	1.2	19	5.0		
GRA1	e P	Z 16:57:03.8	78.8	330.1	1.3	32	5.2		
	e L	Z 17:30:03.7			21.6	110		4.2	
STU	e P	Z 16:57:04.4	78.9	328.8	1.1	15	4.9		
BFO	e P	Z 16:57:04.4	79.0	328.3	1.3	19	5.0		
WET	e P	Z 16:57:09.3	79.8	331.2	1.2	11	4.6		
GEC2	e P	Z 16:57:12.1	80.3	331.8	1.4	8	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/13	19:51: 5.5	23.230S	175.493W	33.0G		5.2		SZGRF
Tonga Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z 20:10:45.4	149.0	10.4					
	e PKPbc	Z 20:10:50.1							
	e PKPab	Z 20:10:54.7							
RUE	e PKPdf	Z 20:10:46.7	149.9	17.2					
	e PKPbc	Z 20:10:52.5							
	e PKPab	Z 20:10:56.8							
NRDL	e PKPdf	Z 20:10:47.5	150.4	10.5					
	e PKPbc	Z 20:10:53.5							
	e PKPab	Z 20:11:00.6							
	e PP	Z 20:14:31.9							
IBBN	e PKPdf	Z 20:10:48.9	150.8	6.1					
	e PKPbc	Z 20:10:54.4							
	e PKPab	Z 20:11:03.3							
CLZ	e PKPdf	Z 20:10:48.3	151.0	11.2					
	e PKPbc	Z 20:10:55.2							
	e PKPab	Z 20:11:04.4							
CLL	e PKPdf	Z 20:10:48.1	151.2	16.3					
	e PKPbc	Z 20:10:54.9							
	e PKPab	Z 20:11:04.3							

BRG	e PKPdf	Z	20:10:48.9	151.4	18.3				
	e PKPbc	Z	20:10:55.6						
	e PP	Z	20:14:37.8						
BUG	e PKPdf	Z	20:10:49.6	151.7	5.4				
	e PKPbc	Z	20:10:56.4						
	e PKPab	Z	20:11:06.8						
MOX	e PKPdf	Z	20:10:49.6	152.0	14.0				
	e PKPbc	Z	20:10:57.5						
	e PP	Z	20:14:41.2						
UBBA	e PKPdf	Z	20:10:49.7	152.1	10.8				
	e PKPbc	Z	20:10:56.8						
	e PKPab	Z	20:11:07.6						
GRA1	e PKPdf	Z	20:10:51.5	153.0	13.7				
	e PKPbc	Z	20:10:59.8						
	e PKPab	Z	20:11:12.7						
WET	e PKPdf	Z	20:10:50.7	153.3	17.3	20.0	335	5.2	
	e PKPbc	Z	20:11:00.0						
	e PKPab	Z	20:11:13.7						
GEC2	e PKPdf	Z	20:10:51.6	153.4	19.1				
	e PKPbc	Z	20:10:59.7						
	e PKPab	Z	20:11:14.0						
WLF	e PKPdf	Z	20:10:52.3	153.5	3.4				
	e PKPbc	Z	20:11:01.2						
	e PKPab	Z	20:11:15.0						
STU	e PKPdf	Z	20:10:53.0	154.2	9.9				
	e PKPbc	Z	20:11:02.3						
	e PKPab	Z	20:11:17.8						
FUR	e PKPdf	Z	20:10:52.8	154.5	14.6				
	e PKPbc	Z	20:11:02.5						
	e PKPab	Z	20:11:19.4						
BFO	e PKPdf	Z	20:10:52.8	154.7	8.2				
	e PKPbc	Z	20:11:03.2						
	e PKPab	Z	20:11:18.8						
	e PP	Z	20:14:56.1						

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z	07:41:55.2	141.0	12.6					
BSEG	e PKPbc	Z	07:41:57.7	141.9	8.1					
CLZ	e PKPbc	Z	07:42:03.9	144.0	8.6					
CLL	e PKPbc	Z	07:42:04.2	144.2	13.0					
BRG	e PKPbc	Z	07:42:05.4	144.5	14.7					
BUG	e PKPbc	Z	07:42:05.9	144.6	3.5					
UBBA	e PKPbc	Z	07:42:07.1	145.0	8.2					
MOX	e PKPbc	Z	07:42:06.9	145.0	10.9					
GRA1	e PKPbc	Z	07:42:10.8	146.0	10.5					
WET	e PKPbc	Z	07:42:11.8	146.3	13.5					
WLF	e PKPbc	Z	07:42:12.2	146.4	1.8					
GEC2	e PKPbc	Z	07:42:11.3	146.5	15.0					
STU	e PKPbc	Z	07:42:14.2	147.1	7.2					
FUR	e PKPbc	Z	07:42:15.1	147.5	11.0					
BFO	e PKPbc	Z	07:42:15.2	147.6	5.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/15	04:27:22.1	15.785S	178.297W	577.8				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e Pdiff	Z	04:43:11.6	141.3	13.3					
	e PKPbc	Z	04:45:42.5							
HLG	e PKPbc	Z	04:45:42.9	141.3	9.5					
RUE	e Pdiff	Z	04:43:15.5	142.1	19.1					
	e PKPbc	Z	04:45:45.3							
NRDL	e Pdiff	Z	04:43:22.0	142.7	13.4					
	e PKPbc	Z	04:45:47.4							
IBBN	e Pdiff	Z	04:43:20.3	143.2	9.7					
	e PKPbc	Z	04:45:48.7							
CLZ	e Pdiff	Z	04:43:20.6	143.3	14.0					
	e PKPbc	Z	04:45:48.6							
CLL	e Pdiff	Z	04:43:19.6	143.3	18.4					
	e PKPbc	Z	04:45:48.3							
BRG	e Pdiff	Z	04:43:20.6	143.6	20.1					
	e PKPdf	Z	04:45:47.4							
	e PKPbc	Z	04:45:49.0							
BUG	e PKPdf	Z	04:45:48.4	144.1	9.2					
	e PKPbc	Z	04:45:51.4							
MOX	e PKPdf	Z	04:45:49.0	144.2	16.5					
	e PKPbc	Z	04:45:52.3							
GRA1	e Pdiff	Z	04:43:28.5	145.2	16.2					
	e PKPdf	Z	04:45:50.9							
	e PKPbc	Z	04:45:54.7							
	e pPKPbc	Z	04:48:06.8							
	e PP	Z	04:49:22.0							

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

27

	e	SKSdf	Z	04:52:16.7							
WET	e	PKPdf	Z	04:45:51.3	145.4	19.2					
	e	PKPbc	Z	04:45:55.1							
GEC2	e	PKPdf	Z	04:45:51.2	145.5	20.7					
	e	PKPbc	Z	04:45:55.5							
WLF	e	PKPdf	Z	04:45:52.7	145.9	7.7					
	e	PKPbc	Z	04:45:57.3							
STU	e	PKPdf	Z	04:45:53.3	146.4	13.1					
	e	PKPbc	Z	04:45:58.2							
FUR	e	PKPdf	Z	04:45:53.2	146.7	16.9					
	e	PKPbc	Z	04:45:58.5							
BFO	e	PKPdf	Z	04:45:53.8	147.0	11.8					
	e	PKPbc	Z	04:45:59.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/15	05:10:8.7	40.508N	145.086E	33.0N	5.1			SZGRF
Off east coast of Honshu, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:22:21.1	81.1	33.7	1.0	19	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/15	05:30:42.2	16.637S	178.365W	586.2				SZGRF
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 05:49:04.1	142.1	13.6					
RUE	e PKPbc	Z 05:49:06.8	142.9	19.5					
NRDL	e PKPbc	Z 05:49:09.2	143.5	13.7					
IBBN	e PKPbc	Z 05:49:11.0	144.0	10.0					
CLZ	e PKPbc	Z 05:49:11.0	144.1	14.4					
CLL	e PKPbc	Z 05:49:10.8	144.2	18.8					
BRG	e PKPbc	Z 05:49:11.6	144.4	20.5					
MOX	e PKPbc	Z 05:49:13.8	145.1	16.9					
GRA1	e PKPbc	Z 05:49:16.4	146.0	16.6					
	e PKPab	Z 05:49:20.7							
	e pPKPbc	Z 05:51:30.0							
WET	e PKPbc	Z 05:49:16.9	146.2	19.6					
	e PKPab	Z 05:49:21.0							
GEC2	e PKPbc	Z 05:49:16.9	146.3	21.2					
	e PKPab	Z 05:49:20.8							
WLF	e PKPbc	Z 05:49:19.0	146.8	7.9					
STU	e PKPbc	Z 05:49:19.9	147.3	13.5					
FUR	e PKPbc	Z 05:49:20.2	147.5	17.4					
	e pPKPbc	Z 05:51:35.1							

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

28

BFO e PKPbc Z 05:49:20.5 147.8 12.1
e PKPab Z 05:49:27.0

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/15

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
BFO e PKP Z 06:45:41.5
BRG e PKP Z 06:45:32.5
CLL e PKP Z 06:45:31.6
CLZ e PKP Z 06:45:31.9
GEC2 e PKP Z 06:45:37.9
GRA1 e PKP Z 06:45:37.3
WLF e PKP Z 06:45:39.7

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/15 08:18:22.4 36.281N 71.559E 33.0G 5.2 4.6
Afghanistan-Tajikistan border region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 08:26:33.5 44.8 83.6 0.8 30 5.2
e Z 08:26:36.4 0.9 34
e L Z 08:48:31.3 19.7 633 4.6

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/15 12:06:48.5 48.265N 127.237W 17.4 5.6 5.4
Vancouver Island, Canada, region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
BSEG e P Z 12:18:07.1 71.7 331.8 1.2 90 5.8
IBBN e P Z 12:18:11.7 72.4 330.4 1.9 250 6.0
NRDL e P Z 12:18:14.1 72.9 331.8 1.1 56 5.6
BUG e P Z 12:18:14.9 73.0 330.2 1.6 71 5.5
CLZ e P Z 12:18:18.5 73.6 332.1 1.1 78 5.6
WLF e P Z 12:18:22.5 74.2 329.8 1.1 26 5.2
CLL e P Z 12:18:25.2 74.8 333.8 1.4 102 5.7
MOX e P Z 12:18:26.3 75.0 333.0 1.4 77 5.5
BRG e P Z 12:18:28.9 75.4 334.5 1.4 120 5.8
GRA1 e P Z 12:18:31.2 75.7 332.9 1.1 51 5.6
e pP Z 12:18:36.2
e PP Z 12:21:27.8
e S E 12:28:11.6
e SS E 12:33:08.4

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

29

	e L	Z	12:51:16.3			19.7	2073		5.4
STU	e P	Z	12:18:31.6	75.9	331.8	2.2	109	5.6	
BFO	e P	Z	12:18:32.6	76.0	331.3	1.4	56	5.5	
WET	e P	Z	12:18:36.3	76.7	334.0	1.5	53	5.5	
FUR	e P	Z	12:18:37.9	77.1	333.1	1.1	64	5.6	
GEC2	e P	Z	12:18:39.1	77.2	334.5	1.5	74	5.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/15	21:33:36.0	35.040N	24.710E	33.0N	4.3	3.5		SZGRF

Crete, Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 21:37:22.9	16.0	145.5	1.0	18	4.1		
FUR	e P	Z 21:37:27.4	16.5	137.9	1.1	69	4.7		
WET	e P	Z 21:37:29.2	16.6	143.9	1.3	33	4.3		
BRG	e P	Z 21:37:40.8	17.6	149.7	1.8	25	4.0		
GRA1	e P	Z 21:37:40.9	17.7	141.0	2.0	197	4.9		
	e L	Z 21:46:08.1			18.0	227		3.5	
STU	e P	Z 21:37:43.7	17.9	134.5	0.7	11	4.1		
BFO	e P	Z 21:37:43.9	18.0	131.6	1.4	24	4.1		
MOX	e P	Z 21:37:47.9	18.3	143.7	1.5	12	3.8		
CLL	e P	Z 21:37:49.4	18.3	148.1	0.9	15	4.1		
RUE	e P	Z 21:37:57.0	19.1	151.7	1.2	27	4.4		
CLZ	e P	Z 21:38:03.2	19.7	143.0	1.1	20	4.3		
WLF	e P	Z 21:38:07.9	19.9	130.2	1.2	71	4.8		
NRDL	e P	Z 21:38:11.3	20.3	143.5	1.1	12	4.0		
BUG	e P	Z 21:38:13.2	20.6	135.9	1.1	22	4.4		
IBBN	e P	Z 21:38:19.8	21.1	138.4	1.5	36	4.5		
BSEG	e P	Z 21:38:20.6	21.4	146.1	1.1	45	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/16	03:28:10.7	23.000N	115.000E	33.0N	4.7			SZGRF

Near coast of southeastern China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 03:40:13.6	78.9	67.0	1.0	6	4.6		
CLL	e P	Z 03:40:15.1	79.3	66.4	1.1	6	4.4		
GEC2	e P	Z 03:40:19.1	79.9	66.5	1.1	6	4.5		
WET	e P	Z 03:40:20.6	80.3	65.9	1.9	18	4.7		
NRDL	e P	Z 03:40:22.4	80.4	64.4	1.5	17	4.8		
CLZ	e P	Z 03:40:22.4	80.6	64.5	1.7	20	4.9		
GRA1	e P	Z 03:40:23.3	81.0	64.8	1.1	10	4.8		
BFO	e P	Z 03:40:37.5	83.3	62.6	1.4	9	4.8		
WLF	e P	Z 03:40:39.6	84.0	61.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/16								
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb MS ML
	GEC2	e Pn	N 03:56:59.7					
	WET	e Pn	Z 03:57:00.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/16	07:18:36.0	17.453S	17.442W	33.0N	4.6	4.5		SZGRF
Southern Mid-Atlantic Ridge								
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb MS ML
	GRA1	e P	Z 07:29:55.6	71.8	208.8	0.8	4	4.6
		e S	Z 07:39:47.3					
		e L	Z 08:01:56.9			21.0	310	4.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/16	08:24:33.7	46.489N	155.310E	33.0N	4.6			SZGRF
East of Kuril Islands, Russia								
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb MS ML
	GRA1	e P	Z 08:36:34.2	78.9	24.3	0.9	6	4.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/16								
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb MS ML
	BRG	e PKP	Z 19:57:39.5					
	CLL	e PKP	Z 19:57:39.4					
	CLZ	e PKP	Z 19:57:41.2					
	GRA1	e PKP	Z 19:57:50.4					
	IBBN	e PKP	Z 19:57:41.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/17	23:50:45.9	19.600N	45.660W	33.0N	4.9	3.8		SZGRF
Northern Mid-Atlantic Ridge								
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb MS ML
	WLF	e P	Z 23:59:43.0	50.8	253.0	1.2	13	4.7

BFO	e P	Z	23:59:50.4	51.8	255.9	1.4	18	4.8	
BUG	e P	Z	23:59:53.0	52.0	252.6	1.7	21	4.8	
STU	e P	Z	23:59:56.0	52.4	256.4	1.1	12	4.7	
IBBN	e P	Z	23:59:56.1	52.5	252.5	1.6	43	5.1	
CLZ	e P	Z	00:00:06.6	53.9	255.2	1.3	13	4.8	
GRA1	e P	Z	00:00:06.7	53.9	257.5	1.4	19	4.9	
	e L	Z	00:18:07.2			21.1	84		3.8
NRDL	e P	Z	00:00:06.8	53.9	254.5	1.4	25	5.1	
MOX	e P	Z	00:00:09.5	54.4	257.1	1.5	13	4.7	
BSEG	e P	Z	00:00:10.0	54.4	253.7	1.5	49	5.3	
WET	e P	Z	00:00:13.8	54.9	259.3	1.5	10	4.6	
GEC2	e P	Z	00:00:17.2	55.4	260.2	1.5	16	4.8	
CLL	e P	Z	00:00:17.2	55.4	257.9	1.5	15	4.8	
BRG	e P	Z	00:00:20.9	55.9	259.0	1.5	12	4.7	
RUE	e P	Z	00:00:23.0	56.1	257.8	1.4	31	5.2	

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/16 23:58:24.0 65.715S 179.730W 12.0G 6.4 harvar
 Pacific-Antarctic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e PKPdf	Z 00:18:20.4	161.5	165.7					
	e PP	Z 00:22:50.9							
GEC2	e PKPdf	Z 00:18:19.2	161.7	162.3					
	e PP	Z 00:22:51.9							
BFO	e PKPdf	Z 00:18:20.6	162.1	169.2					
	e PP	Z 00:22:51.8							
	e SSS	Z 00:50:01.7							
WET	e PKPdf	Z 00:18:19.5	162.2	162.9					
	e PP	Z 00:22:53.5							
	e SSS	Z 00:49:52.2							
STU	e PKPdf	Z 00:18:20.6	162.4	167.8					
	e PP	Z 00:22:55.1							
	e SSS	Z 00:49:55.7							
GRA1	e PKPdf	Z 00:18:20.4	163.0	164.5					
	e PP	Z 00:22:57.6							
	e SKKSac	E 00:29:30.3							
	e SS	E 00:43:31.2							
	e SSS	N 00:49:32.9							
	e L	Z 01:42:47.9			20.6	5054		6.4	
BRG	e PKPdf	Z 00:18:21.5	163.6	159.9					
	e PP	Z 00:23:00.1							
WLF	e PKPdf	Z 00:18:20.5	163.7	171.4					
	e PP	Z 00:22:57.2							
MOX	e PKPdf	Z 00:18:21.3	163.8	163.1					
	e PP	Z 00:23:03.4							
CLL	e PKPdf	Z 00:18:22.1	164.2	160.6					

	e PP	Z	00:23:05.7		
RUE	e PKPdf	Z	00:18:22.1	165.1	158.0
	e PP	Z	00:23:08.1		
CLZ	e PKPdf	Z	00:18:22.5	165.2	163.6
	e PP	Z	00:23:11.2		
	e SSS	Z	00:50:21.9		
NRDL	e PKPdf	Z	00:18:22.7	165.9	163.3
	e PP	Z	00:23:13.7		
IBBN	e PKPdf	Z	00:18:21.8	166.1	167.1
	e PP	Z	00:23:15.9		
RGN	e PKPdf	Z	00:18:27.5	167.1	155.3
	e PP	Z	00:23:24.1		
BSEG	e PKPdf	Z	00:18:20.7	167.2	161.1
	e PP	Z	00:23:23.0		
	e SSS	Z	00:50:50.7		
HLG	e PKPdf	Z	00:18:23.7	167.9	165.0
	e PP	Z	00:23:23.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/17	03:39: 8.4	38.887S	42.001E	33.0N	4.7			SZGRF

South Indian Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:52:17.1	92.6	156.5	1.0	4	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/17	06:10:16.5	34.990N	140.410E	33.0N	5.5	4.9		SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 06:22:22.7	79.6	41.6	1.9	160	5.6		
RUE	e P	Z 06:22:30.5	81.0	41.7	1.3	66	5.5		
BSEG	e P	Z 06:22:31.1	81.2	39.4	1.5	58	5.5		
BRG	e P	Z 06:22:35.7	82.1	41.7	2.6	138	5.6		
CLL	e P	Z 06:22:35.7	82.2	41.1	1.3	52	5.5		
NRDL	e P	Z 06:22:37.0	82.4	39.1	1.8	37	5.3		
CLZ	e P	Z 06:22:39.6	82.8	39.2	1.4	53	5.6		
MOX	e P	Z 06:22:41.5	83.2	40.0	1.7	58	5.5		
IBBN	e P	Z 06:22:42.5	83.4	37.3	1.1	22	5.3		
GEC2	e P	Z 06:22:43.8	83.7	41.4	1.7	40	5.4		
WET	e P	Z 06:22:45.0	83.8	40.8	1.7	49	5.5		
GRA1	e P	Z 06:22:46.6	84.1	39.7	1.3	101	5.9		
	e PP	Z 06:26:06.6							
	e S	N 06:33:08.3							
	e L	Z 07:02:28.9			21.0	511		4.9	

BUG	e P	Z	06:22:47.6	84.3	36.9	1.4	53	5.6
FUR	e P	Z	06:22:52.4	85.3	39.6	1.0	41	5.5
STU	e P	Z	06:22:54.0	85.7	38.2	1.5	76	5.6
WLF	e P	Z	06:22:56.6	86.2	36.0	1.5	68	5.6
BFO	e P	Z	06:22:57.0	86.4	37.5	1.3	48	5.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/17	12:17:59.2	54.720S	144.650E	33.0N		5.6		SZGRF

West of Macquarie Island

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e PKPbc	Z	12:37:45.4	149.7	120.0					
WET	e PKPbc	Z	12:37:46.6	150.4	119.4					
BRG	e PKPpdf	Z	12:37:44.5	150.6	117.0					
	e PKPbc	Z	12:37:47.4							
FUR	e PKPpdf	Z	12:37:44.6	150.8	120.7					
	e PKPbc	Z	12:37:48.2							
CLL	e PKPpdf	Z	12:37:43.4	151.3	116.0					
	e PKPbc	Z	12:37:48.8							
	e PKPab	Z	12:37:56.4							
RUE	e PKPpdf	Z	12:37:44.1	151.4	114.3					
	e PKPbc	Z	12:37:49.3							
GRA1	e PKPpdf	Z	12:37:44.3	151.6	118.2					
	e PKPbc	Z	12:37:49.6							
	e PKPab	Z	12:37:57.4							
	e L	Z	13:57:25.0			20.5	968		5.6	
MOX	e PKPbc	Z	12:37:50.2	151.8	116.8					
STU	e PKPbc	Z	12:37:50.9	152.3	119.4					
	e PKPab	Z	12:38:00.4							
BFO	e PKPpdf	Z	12:37:46.2	152.6	120.0					
	e PKPbc	Z	12:37:52.0							
CLZ	e PKPpdf	Z	12:37:45.0	153.0	114.4					
	e PKPbc	Z	12:37:53.4							
	e PKPab	Z	12:38:02.7							
NRDL	e PKPpdf	Z	12:37:45.5	153.4	113.1					
	e PKPbc	Z	12:37:54.1							
	e PKPab	Z	12:38:05.1							
BSEG	e PKPbc	Z	12:37:55.1	153.8	110.5					
	e PKPab	Z	12:38:07.5							
WLF	e PKPpdf	Z	12:37:48.0	154.5	117.4					
	e PKPbc	Z	12:37:56.9							
BUG	e PKPpdf	Z	12:37:48.0	154.6	114.3					
	e PKPbc	Z	12:37:56.6							
	e PKPab	Z	12:38:10.5							
IBBN	e PKPpdf	Z	12:37:48.4	154.7	112.7					
	e PKPbc	Z	12:37:56.7							
	e PKPab	Z	12:38:11.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/07/17											
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	BRG	e PKP	Z 13:14:34.2								
	CLL	e PKP	Z 13:14:33.6								

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
1970/07/20	23:47:11.5	1.597N	97.377E	33.0G	4.7			SZGRF			
Northern Sumatera, Indonesia											
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	GRA1	e P	Z 13:50:38.3	86.3	91.9	1.1	6	4.7			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/07/17											
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	GRA1	e PKP	Z 15:56:33.9								

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/07/17	20:34:46.8	52.592N	173.645W	33.0N	4.7			SZGRF			
Andreanof Islands, Aleutian Islands, United States											
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	CLZ	e P	Z 20:46:29.2	75.5	2.5						
	BRG	e P	Z 20:46:33.9	76.3	4.7						
	GRA1	e P	Z 20:46:40.2	77.6	3.0	1.1	7	4.7			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2004/07/18	03:17:49.5	39.138N	30.187W	33.0N	4.5	3.8		SZGRF			
Azores Islands, Portugal											
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
	GRA1	e P	Z 03:24:03.8	30.9	266.1	1.6	10	4.5			
		e L	Z 03:34:56.1			19.3	196		3.8		

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/18 04:22:23.0 37.786S 175.891E 10.0G 5.2
 North Island, New Zealand

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 04:43:18.4	163.8	48.5					
	e L	Z 05:59:32.3			21.5	366		5.2	

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/18

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:02:51.6							

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/18 07:55: 6.5 0.420N 74.120W 33.0N 4.8
 Colombia SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z 08:07:35.8	84.3	263.5	0.8	12	5.2		
BFO	e P	Z 08:07:36.7	84.7	264.6	1.2	5	4.6		
IBBN	e P	Z 08:07:37.5	84.7	263.8	0.5	7	5.2		
CLZ	e P	Z 08:07:45.5	86.3	265.9	1.2	7	4.7		
BSEG	e P	Z 08:07:45.2	86.4	265.7	1.3	12	4.8		
GRA1	e P	Z 08:07:47.2	86.7	266.7	1.4	12	4.9		
MOX	e P	Z 08:07:49.2	87.0	267.0	1.5	7	4.6		
WET	e P	Z 08:07:52.1	87.7	268.0	1.3	8	4.9		
CLL	e P	Z 08:07:52.8	87.9	268.0	0.9	4	4.7		
GEC2	e P	Z 08:07:54.4	88.3	268.6	1.2	3	4.5		
BRG	e P	Z 08:07:55.6	88.5	268.8	0.9	5	4.8		

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/18 08:31:40.7 32.948N 70.260E 11.7 5.1
 Pakistan SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e pP	Z 08:39:53.1	44.3	91.5	1.2	27	4.9		
GEC2	e pP	Z 08:39:53.8	44.5	89.2	0.9	15	4.9		
RUE	e pP	Z 08:39:54.0	44.5	93.0	1.1	51	5.3		
CLL	e pP	Z 08:39:57.4	44.9	91.2	1.1	18	4.9		
WET	e pP	Z 08:39:57.6	45.0	88.9	1.0	2	4.0		
MOX	e pP	Z 08:40:05.0	45.8	89.4	0.9	25	5.2		

GRA1	e P	Z	08:40:04.7	46.1	88.2				
	e pP	Z	08:40:07.6			1.0	42	5.4	
FUR	e pP	Z	08:40:06.6	46.1	86.8	1.1	22	5.1	
CLZ	e pP	Z	08:40:11.0	46.5	89.6	1.1	41	5.5	
BSEG	e pP	Z	08:40:11.5	46.6	91.5	1.2	38	5.4	
NRDL	e pP	Z	08:40:12.2	46.7	90.0	1.1	28	5.3	
STU	e pP	Z	08:40:17.4	47.4	85.9	1.0	27	5.3	
BFO	e pP	Z	08:40:20.9	48.0	84.9	0.9	8	4.8	
IBBN	e pP	Z	08:40:23.3	48.1	88.0	1.1	68	5.7	
BUG	e pP	Z	08:40:26.0	48.5	86.9	1.1	41	5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/19	03:53:37.3	27.162N	128.139E	33.0N				SZGRF

Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	04:06:09.7	85.0	52.8					
	e		04:06:20.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/19	08:01:57.0	49.080N	126.900W	33.0G	5.8	6.3		SZGRF

Vancouver Island, Canada, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	08:13:04.1	70.9	331.9	1.0	128	6.0		
	e pP	Z	08:13:13.3							
RGN	e pP	Z	08:13:15.1	71.1	333.7					
IBBN	e pP	Z	08:13:17.1	71.6	330.6					
NRDL	e P	Z	08:13:11.6	72.1	332.0					
	e pP	Z	08:13:20.5							
BUG	e pP	Z	08:13:20.4	72.2	330.4					
CLZ	e P	Z	08:13:15.8	72.7	332.3	0.9	85	5.8		
	e pP	Z	08:13:24.6							
RUE	e pP	Z	08:13:26.4	73.1	334.3					
CLL	e P	Z	08:13:22.1	73.9	334.0	1.0	70	5.7		
	e pP	Z	08:13:31.3							
MOX	e P	Z	08:13:23.4	74.2	333.2	0.8	80	5.8		
	e pP	Z	08:13:32.5							
BRG	e P	Z	08:13:26.3	74.6	334.6	1.0	70	5.6		
	e pP	Z	08:13:35.2							
GRA1	e P	Z	08:13:28.7	74.9	333.1	0.9	91	5.8		
	e pP	Z	08:13:37.5							
	e PP	Z	08:16:22.2							
	e S	T	08:23:07.9							
	e SS	R	08:28:04.8							

	e SS	T	08:28:17.6							
	e L	Z	08:46:15.3			18.9	15386		6.3	
STU	e pP	Z	08:13:38.1	75.1	332.0					
BFO	e P	Z	08:13:29.8	75.2	331.5	1.0	88	5.9		
	e pP	Z	08:13:38.8							
WET	e P	Z	08:13:33.6	75.9	334.1	0.9	35	5.5		
	e pP	Z	08:13:42.5							
FUR	e P	Z	08:13:36.5	76.3	333.3	1.2	263	6.2		
	e pP	Z	08:13:45.2							
GEC2	e P	Z	08:13:36.2	76.4	334.7	1.0	51	5.6		
	e pP	Z	08:13:45.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/19	13:40:2.4	29.009N	66.794E	33.0N	4.8			SZGRF

Pakistan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 13:48:11.8	44.7	96.2	1.5	15	4.7		
BRG	e P	Z 13:48:12.9	44.8	98.5	1.4	24	4.9		
MOX	e P	Z 13:48:24.4	46.2	96.2	1.4	21	5.0		
GRA1	e P	Z 13:48:25.9	46.4	95.0	0.8	5	4.6		
CLZ	e P	Z 13:48:32.7	47.1	96.3	1.0	13	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/19	14:37:32.6	34.579N	141.633E	33.0N				SZGRF

Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:50:05.0	85.0	39.0					
	e	14:50:14.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/19	20:58:49.9	43.900N	141.470E	110.5	5.2			SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 21:10:13.3	73.6	36.5	1.3	52	5.4		
	e PcP	Z 21:10:17.9							
BSEG	e P	Z 21:10:13.4	73.7	34.4	1.1	40	5.3		
	e PcP	Z 21:10:18.1							
CLL	e P	Z 21:10:19.9	74.9	35.8	1.1	44	5.4		
	e PcP	Z 21:10:24.8							
BRG	e P	Z 21:10:20.2	74.9	36.3	1.2	16	4.9		

	e PcP	Z	21:10:24.9						
NRDL	e P	Z	21:10:20.4	74.9	34.1	1.0	14	5.0	
	e PcP	Z	21:10:25.0						
CLZ	e P	Z	21:10:23.3	75.4	34.1	1.3	49	5.5	
IBBN	e P	Z	21:10:25.7	75.9	32.5	1.2	46	5.5	
	e PcP	Z	21:10:30.7						
MOX	e P	Z	21:10:26.0	75.9	34.8	1.1	15	5.1	
	e PcP	Z	21:10:31.2						
	e pP	Z	21:10:53.8						
GEC2	e P	Z	21:10:29.9	76.6	35.8	1.1	8	4.8	
	e PcP	Z	21:10:35.2						
WET	e P	Z	21:10:30.7	76.7	35.4	1.2	24	5.2	
	e PcP	Z	21:10:35.7						
	e pP	Z	21:10:58.6						
BUG	e P	Z	21:10:30.4	76.8	32.1	1.0	29	5.3	
GRA1	e P	Z	21:10:31.5	76.8	34.4	1.2	53	5.5	
	e PcP	Z	21:10:37.0						
	e pP	Z	21:10:59.6						
FUR	e P	Z	21:10:38.3	78.1	34.2	0.9	37	5.5	
	e PcP	Z	21:10:43.9						
STU	e P	Z	21:10:39.6	78.3	33.0	0.9	27	5.3	
WLF	e P	Z	21:10:42.4	78.6	31.1	1.3	16	4.9	
BFO	e P	Z	21:10:42.8	79.0	32.4	1.4	25	5.1	
	e PcP	Z	21:10:49.6						
	e pP	Z	21:11:10.8						

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/19 21:36:59.7 29.770N 138.330E 33.0N 4.8
 Southeast of Honshu, Japan SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	21:49:33.7	85.0	43.4	1.3	6	4.7		
BRG	e P	Z	21:49:37.0	85.7	45.9	0.8	2	4.4		
CLL	e P	Z	21:49:37.0	85.8	45.2	1.5	7	4.5		
CLZ	e P	Z	21:49:41.2	86.5	43.3	2.9	34	5.0		
GEC2	e P	Z	21:49:43.8	87.2	45.7	0.9	2	4.3		
IBBN	e P	Z	21:49:44.5	87.3	41.3	0.6	8	5.2		
GRA1	e P	Z	21:49:47.3	87.7	43.9	1.3	9	4.9		
FUR	e P	Z	21:49:52.1	88.8	43.9	1.1	15	5.1		
BFO	e P	Z	21:49:57.2	90.0	41.7	1.1	6	4.7		

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/20 01:21: 6.0 17.200S 176.470W 33.0N
 Fiji Islands region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e PKPbc	Z	01:40:41.8	145.9	13.9					
GRA1	e PKPbc	Z	01:40:45.0	146.9	13.5					
WET	e PKPbc	Z	01:40:45.2	147.2	16.6					
GEC2	e PKPbc	Z	01:40:45.9	147.3	18.2					
WLF	e PKPbc	Z	01:40:46.4	147.5	4.7					
STU	e PKPbc	Z	01:40:48.1	148.1	10.3					
FUR	e PKPbc	Z	01:40:49.0	148.4	14.2					
BFO	e PKPbc	Z	01:40:49.5	148.6	8.8					

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/20 03:40:25.4 19.392S 171.076E 38.4 5.4
 Vanuatu Islands region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	03:59:50.0	142.4	30.7					
	e pPKPbc	Z	04:00:01.2							
BRG	e PKPbc	Z	03:59:53.8	143.7	38.3					
	e pPKPbc	Z	04:00:05.2							
CLL	e PKPbc	Z	03:59:53.6	143.7	36.5					
	e pPKPbc	Z	04:00:05.0							
NRDL	e PKPbc	Z	03:59:54.1	143.7	31.3					
	e pPKPbc	Z	04:00:05.5							
CLZ	e PKPbc	Z	03:59:56.0	144.2	32.2					
	e pPKPbc	Z	04:00:07.5							
IBBN	e PKPbc	Z	03:59:57.2	144.6	27.9					
	e pPKPbc	Z	04:00:08.9							
MOX	e PKPbc	Z	03:59:57.5	144.8	35.0					
	e pPKPbc	Z	04:00:08.9							
GEC2	e PKPbc	Z	03:59:59.1	145.4	39.7					
	e pPKPbc	Z	04:00:10.9							
WET	e PKPbc	Z	03:59:59.7	145.5	38.2					
	e pPKPbc	Z	04:00:11.0							
BUG	e PKPbc	Z	04:00:00.0	145.5	27.7					
	e pPKPbc	Z	04:00:11.5							
GRA1	e PKPbc	Z	04:00:00.4	145.7	35.2					
	e PKPab	Z	04:00:02.0							
	e pPKPbc	Z	04:00:12.4							
	e PP	Z	04:03:24.8							
	e SKKSdf	R	04:16:19.8							
	e SS	T	04:22:33.9							
	e L	Z	05:17:36.1			20.5	678		5.4	
FUR	e PKPbc	Z	04:00:03.8	146.9	36.6					
	e PKPab	Z	04:00:06.4							
	e pPKPbc	Z	04:00:15.3							
STU	e PKPbc	Z	04:00:04.9	147.2	32.8					
	e PKPab	Z	04:00:07.6							

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

40

	e pPKPbc	Z	04:00:16.4						
WLF	e PKPbc	Z	04:00:06.2	147.4	27.1				
	e pPKPbc	Z	04:00:17.6						
BFO	e PKPbc	Z	04:00:06.1	147.9	31.7				
	e PKPab	Z	04:00:10.2						
	e pPKPbc	Z	04:00:18.0						
	e pPKPab	Z	04:00:21.2						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/20	06:49: 7.4	49.690N	28.430W	33.0N	5.0	4.4		SZGRF

Northern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	06:54:01.8	22.2	283.4	1.2	34	4.7		
BUG	e P	Z	06:54:05.5	22.5	279.7	1.5	48	4.8		
IBBN	e P	Z	06:54:08.0	22.7	277.9	2.2	436	5.6		
BFO	e P	Z	06:54:19.3	23.9	287.2	1.4	20	4.5		
BSEG	e P	Z	06:54:20.4	24.0	275.8	1.5	58	4.9		
NRDL	e P	Z	06:54:21.3	24.1	278.9	2.2	130	5.1		
CLZ	e P	Z	06:54:24.6	24.3	280.4	1.8	155	5.2		
GRA1	e P	Z	06:54:33.4	25.3	285.4	1.6	118	5.4		
	e L	Z	07:03:30.8			20.8	1154		4.4	
MOX	e P	Z	06:54:33.6	25.4	283.6	1.8	56	5.0		
FUR	e P	Z	06:54:38.1	25.8	288.4	3.0	664	5.7		
CLL	e P	Z	06:54:38.4	26.1	282.9	1.7	41	4.8		
WET	e P	Z	06:54:42.3	26.5	287.1	2.1	46	4.8		
BRG	e P	Z	06:54:44.6	26.7	284.2	1.3	22	4.7		
GEC2	e P	Z	06:54:48.5	27.1	288.0	1.6	26	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/20	14:16:24.2	19.140N	146.190E	33.0N		6.0		SZGRF

Mariana Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e Pdiff	Z	14:29:49.2	96.1	44.1					
	e PP	Z	14:33:44.0							
RUE	e Pdiff	Z	14:29:54.9	97.4	44.7					
	e PP	Z	14:33:54.8							
BSEG	e Pdiff	Z	14:29:57.1	97.7	41.6					
	e PP	Z	14:33:55.2							
BRG	e Pdiff	Z	14:29:59.3	98.4	45.0					
	e PP	Z	14:33:59.4							
HLG	e Pdiff	Z	14:30:04.3	98.4	39.4					
	e PP	Z	14:34:01.9							
CLL	e Pdiff	Z	14:30:00.0	98.5	44.1					

	e PP	Z	14:34:00.6								
NRDL	e Pdiff	Z	14:30:02.1	98.9	41.5						
	e PP	Z	14:34:06.9								
CLZ	e Pdiff	Z	14:30:03.6	99.3	41.8						
	e PP	Z	14:34:07.3								
MOX	e Pdiff	Z	14:30:05.7	99.6	43.0						
	e PP	Z	14:34:09.4								
IBBN	e Pdiff	Z	14:30:07.2	99.9	39.5						
	e PP	Z	14:34:11.9								
GEC2	e Pdiff	Z	14:30:07.9	100.0	45.0						
	e PP	Z	14:34:13.5								
WET	e Pdiff	Z	14:30:07.2	100.1	44.3						
	e PP	Z	14:34:15.6								
GRA1	e Pdiff	Z	14:30:10.3	100.5	42.8						
	e PP	Z	14:34:17.7								
	e PS	R	14:43:19.4								
	e SS	T	14:48:43.3								
	e SKKSdf	R	14:53:20.5								
	e L	Z	15:19:14.1			19.1	4087		6.0		
FUR	e Pdiff	Z	14:30:15.1	101.6	43.1						
	e PP	Z	14:34:25.3								
STU	e Pdiff	Z	14:30:20.8	102.0	41.2						
	e PP	Z	14:34:29.4								
WLF	e Pdiff	Z	14:30:20.8	102.6	38.5						
	e PP	Z	14:34:33.2								
BFO	e Pdiff	Z	14:30:23.9	102.8	40.5						
	e PP	Z	14:34:33.2								

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/20 18:48:38.1 32.307S 179.721W 23.0G neic-m
 South of Kermadec Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPab	Z	19:09:02.3	157.2	22.4					
	e PP	Z	19:12:39.0							
BRG	e PKPab	Z	19:09:09.3	158.9	33.7					
	e PP	Z	19:12:46.8							
CLZ	e PKPab	Z	19:09:09.6	159.1	24.6					
	e PP	Z	19:12:48.7							
IBBN	e PP	Z	19:12:49.5	159.3	18.1					
MOX	e PKPab	Z	19:09:13.3	159.8	28.8					
GEC2	e PKPab	Z	19:09:17.2	160.6	36.3					
WET	e PKPab	Z	19:09:17.8	160.7	33.9					
GRA1	e PKPab	Z	19:09:18.6	160.8	29.2					
GRFO	e PKPab	Z	19:09:18.6	160.8	29.2					
WLF	e PKPab	Z	19:09:24.0	162.1	16.3					
	e PP	Z	19:13:03.9							

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

42

FUR	e PKPab	Z	19:09:24.5	162.1	31.6
	e PP	Z	19:13:04.3		
STU	e PP	Z	19:13:02.9	162.2	25.4
BFO	e PKPab	Z	19:09:26.3	162.9	23.7
	e PP	Z	19:13:04.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/20	19:19:58.0	43.160N	130.300W	33.0N	5.0			SZGRF
Off coast of Oregon, United States								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z 19:31:55.2	77.9	330.1	1.1	25	5.2		
NRDL	e P	Z 19:31:57.6	78.4	331.7	2.8	69	5.2		
CLZ	e P	Z 19:32:01.7	79.1	331.9	1.5	27	5.0		
MOX	e P	Z 19:32:08.9	80.5	332.9	1.0	8	4.7		
BRG	e P	Z 19:32:11.7	81.0	334.4	0.9	13	4.9		
GRA1	e P	Z 19:32:12.3	81.2	332.7	0.9	12	5.0		
BFO	e P	Z 19:32:14.2	81.5	330.8	1.6	18	5.0		
WET	e P	Z 19:32:17.9	82.2	333.8	1.1	4	4.6		
FUR	e P	Z 19:32:20.9	82.6	332.8	0.5	12	5.4		
GEC2	e P	Z 19:32:20.6	82.7	334.4	1.0	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/20	22:40:52.0	8.772N	93.569E	33.0N	4.7			SZGRF
Nicobar Islands, India, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:52:49.6	78.4	90.1	0.8	5	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/21	00:11:34.8	41.530N	142.140E	33.0N	5.2	5.5		SZGRF
Hokkaido, Japan, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 00:23:20.3	75.9	37.2	1.3	57	5.5		
BSEG	e P	Z 00:23:20.5	76.0	35.1	1.0	42	5.5		
BRG	e P	Z 00:23:26.9	77.2	37.1	1.1	18	5.1		
CLL	e P	Z 00:23:26.6	77.2	36.5	1.0	30	5.4		
NRDL	e P	Z 00:23:27.1	77.2	34.8	1.1	22	5.2		
CLZ	e P	Z 00:23:30.0	77.7	34.9	1.1	37	5.4		
IBBN	e P	Z 00:23:32.9	78.2	33.1	1.0	43	5.4		
MOX	e P	Z 00:23:32.5	78.2	35.5	1.2	19	5.0		
GEC2	e P	Z 00:23:36.1	78.9	36.7	1.2	16	4.9		

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

43

WET	e P	Z	00:23:37.1	79.0	36.2	1.2	28	5.2		
BUG	e P	Z	00:23:37.1	79.1	32.7	1.2	36	5.3		
GRA1	e P	Z	00:23:38.2	79.1	35.2	1.1	47	5.4		
	e PP	Z	00:26:43.3							
	e S	E	00:33:41.0							
	e L	Z	01:02:22.3			18.8	2328		5.5	
FUR	e P	Z	00:23:44.7	80.4	35.0	1.0	39	5.4		
STU	e P	Z	00:23:45.6	80.6	33.7	1.0	26	5.2		
WLF	e P	Z	00:23:48.0	81.0	31.8	1.2	11	4.8		
BFO	e P	Z	00:23:49.3	81.3	33.1	1.3	26	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/21	00:38:28.4	42.354N	144.197E	33.8	5.2	5.5		SZGRF

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	00:50:12.8	75.9	33.3	0.9	26	5.3		
RUE	e P	Z	00:50:12.5	76.0	35.4	0.8	25	5.4		
	e pP	Z	00:50:21.8							
HLG	e P	Z	00:50:14.9	76.5	31.7					
CLL	e P	Z	00:50:18.9	77.2	34.8	1.0	26	5.3		
NRDL	e P	Z	00:50:19.3	77.2	33.0	1.5	24	5.1		
	e pP	Z	00:50:28.9							
BRG	e P	Z	00:50:19.0	77.2	35.3	1.3	25	5.2		
	e pP	Z	00:50:29.2							
CLZ	e P	Z	00:50:22.3	77.7	33.1	0.9	27	5.4		
IBBN	e P	Z	00:50:24.6	78.1	31.4	0.7	29	5.5		
MOX	e P	Z	00:50:24.8	78.2	33.8	1.5	28	5.1		
GEC2	e P	Z	00:50:28.3	79.0	34.9	1.0	11	4.8		
WET	e P	Z	00:50:29.4	79.0	34.4	1.1	20	5.0		
	e pP	Z	00:50:38.6							
BUG	e P	Z	00:50:29.3	79.0	30.9	1.1	25	5.1		
GRA1	e P	Z	00:50:30.4	79.2	33.4	1.0	38	5.4		
	e pP	Z	00:50:40.5							
	e L	Z	01:29:23.2			19.1	1927		5.5	
FUR	e P	Z	00:50:36.9	80.4	33.3	0.9	36	5.4		
	e pP	Z	00:50:47.0							
STU	e P	Z	00:50:37.8	80.7	32.0	0.9	18	5.1		
WLF	e P	Z	00:50:39.4	80.9	30.0	2.5	101	5.4		
BFO	e P	Z	00:50:41.4	81.3	31.4	2.4	101	5.5		
	e pP	Z	00:50:50.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/21	06:29:49.0	20.835N	144.420E	26.1G		5.0		neic-m

Mariana Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PS	Z	06:55:41.2	95.1	45.4					
BSEG	e PS	Z	06:55:44.1	95.5	42.4					
	e SS	Z	07:01:41.1							
BRG	e PS	Z	06:55:49.2	96.1	45.6					
HLG	e PS	Z	06:55:51.0	96.2	40.3					
	e SS	Z	07:01:48.6							
CLL	e PS	Z	06:55:52.2	96.3	44.8					
NRDL	e PS	Z	06:55:54.6	96.6	42.3					
	e SS	Z	07:02:14.4							
CLZ	e PS	Z	06:55:51.4	97.0	42.6					
	e SS	Z	07:01:58.1							
MOX	e PS	Z	06:56:03.2	97.3	43.7					
IBBN	e PS	Z	06:56:07.6	97.7	40.3					
	e SS	Z	07:02:19.0							
WET	e PS	Z	06:56:07.6	97.8	44.9					
GRA1	e PS	Z	06:56:12.5	98.2	43.5					
	e L	Z	07:29:33.9			20.1	497		5.0	
FUR	e PS	Z	06:56:23.5	99.3	43.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/21	11:25:57.7	77.300N	7.780E	33.0N	4.9	3.5		SZGRF

Svalbard, Norway, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	11:31:05.2	23.4	358.6	1.2	29	4.7		
NRDL	e P	Z	11:31:18.4	24.8	358.8	1.2	40	5.0		
CLZ	e P	Z	11:31:24.1	25.5	358.7	1.6	26	4.6		
BUG	e P	Z	11:31:27.5	25.9	0.3	1.6	81	5.1		
CLL	e P	Z	11:31:28.8	26.1	357.4	1.7	25	4.6		
BRG	e P	Z	11:31:33.5	26.5	357.0	1.3	21	4.7		
MOX	e P	Z	11:31:34.9	26.7	358.1	0.9	21	4.9		
GRA1	e P	Z	11:31:43.8	27.6	358.4	0.9	21	5.0		
	e L	Z	11:42:50.6			20.1	134		3.5	
WLF	e P	Z	11:31:43.7	27.6	0.8	1.2	16	4.8		
WET	e P	Z	11:31:49.2	28.2	357.6	1.4	13	4.6		
STU	e P	Z	11:31:51.8	28.5	359.3	1.3	50	5.2		
GEC2	e P	Z	11:31:52.2	28.5	357.3	1.2	15	4.7		
BFO	e P	Z	11:31:55.5	29.0	359.8	1.1	14	4.7		
FUR	e P	Z	11:31:58.3	29.2	358.4	0.4	30	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/21	13:27:20.0	50.935N	98.294E	33.0N		4.5		gsr-c-m

Tuva-Buryatia-Mongolia border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e SS	Z	13:47:25.2	50.1	54.8					
BSEG	e SS	Z	13:47:37.6	50.2	55.1					
NRDL	e SS	Z	13:47:41.5	51.1	54.0					
HLG	e SS	Z	13:47:54.2	51.2	54.0					
CLZ	e SS	Z	13:47:42.3	51.3	53.8					
WET	e SS	Z	13:47:46.8	51.7	53.2					
GRA1	e SS	Z	13:48:01.9	52.2	52.8					
	e L	Z	14:00:35.2			20.4	408		4.5	
IBBN	e SS	Z	13:48:22.8	52.4	52.7					
BFO	e SS	Z	13:48:44.3	54.5	50.7					
WLF	e SS	Z	13:48:50.1	54.8	50.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/21	20:36:57.3	5.486S	150.855E	33.0N		4.9		gsrc-m

New Britain, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PP	Z	20:57:15.3	120.3	51.1					
BSEG	e PP	Z	20:57:31.7	122.0	48.2					
BRG	e PP	Z	20:57:13.8	122.2	53.5					
CLL	e PP	Z	20:57:31.7	122.4	52.3					
HLG	e PP	Z	20:57:28.8	122.9	45.5					
NRDL	e PP	Z	20:57:30.0	123.0	48.7					
CLZ	e PP	Z	20:57:31.7	123.3	49.3					
MOX	e PP	Z	20:57:33.2	123.5	51.2					
GEC2	e PP	Z	20:57:33.3	123.5	54.3					
WET	e PP	Z	20:57:43.6	123.8	53.3					
IBBN	e PP	Z	20:57:42.1	124.2	46.3					
GRA1	e PP	Z	20:57:38.5	124.3	51.3					
	e L	Z	21:52:42.5			20.6	254		4.9	
GRFO	e PP	Z	20:57:38.5	124.3	51.3					
FUR	e PP	Z	20:57:44.7	125.2	52.2					
STU	e PP	Z	20:57:49.3	125.9	49.7					
BFO	e PP	Z	20:58:01.5	126.6	49.0					
WLF	e PP	Z	20:58:00.0	126.8	45.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/21	21:34: 5.2	23.421S	177.217W	33.0N				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	21:53:44.7	149.0	13.5					
	e PKPbc	Z	21:53:49.6							

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

46

NRDL	e	PKPdf	Z	21:53:48.0	150.4	13.7
	e	PKPbc	Z	21:53:53.1		
IBBN	e	PKPdf	Z	21:53:49.4	150.9	9.4
	e	PKPbc	Z	21:53:54.8		
CLZ	e	PKPdf	Z	21:53:49.3	151.0	14.5
	e	PKPbc	Z	21:53:54.3		
CLL	e	PKPdf	Z	21:53:49.0	151.0	19.6
	e	PKPbc	Z	21:53:55.0		
BRG	e	PKPdf	Z	21:53:48.7	151.2	21.6
	e	PKPbc	Z	21:53:55.0		
BUG	e	PKPdf	Z	21:53:50.2	151.8	8.7
	e	PKPbc	Z	21:53:56.6		
MOX	e	PKPdf	Z	21:53:50.1	151.9	17.4
	e	PKPbc	Z	21:53:56.0		
GRA1	e	PKPdf	Z	21:53:53.0	152.9	17.2
	e	PKPbc	Z	21:53:59.2		
WET	e	PKPdf	Z	21:53:50.9	153.1	20.8
	e	PKPbc	Z	21:53:59.6		
GEC2	e	PKPbc	Z	21:53:59.2	153.2	22.6
WLF	e	PKPbc	Z	21:54:01.2	153.6	7.0
BFO	e	PKPbc	Z	21:54:02.7	154.7	12.0

Date 2004/07/21 Origin Time 23:39:23.0 Lat 43.567N Long 126.042W Depth 33.0N mb 4.6 Ms ML Source SZGRF
Off coast of Oregon, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:51:27.0	79.6	330.0	0.9	7	4.6		

Date 2004/07/22 Origin Time 03:56:31.8 Lat 27.958N Long 65.921E Depth 33.0N mb 5.1 Ms ML Source SZGRF
Pakistan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 04:04:42.4	44.8	98.1	1.0	22	5.0		
BRG	e P	Z 04:04:44.3	45.0	100.3	1.0	21	5.0		
RUE	e P	Z 04:04:47.2	45.4	101.7					
WET	e P	Z 04:04:46.5	45.4	97.7					
CLL	e P	Z 04:04:49.2	45.7	99.9	1.2	12	4.8		
FUR	e P	Z 04:04:53.8	46.4	95.4					
MOX	e P	Z 04:04:55.6	46.4	98.0	1.0	32	5.4		
GRA1	e P	Z 04:04:56.6	46.6	96.8	1.0	34	5.4		
	e L	Z 04:45:06.5			21.3	162		4.0	
GRFO	e P	Z 04:04:56.5	46.6	96.8	1.0	28	5.3		
CLZ	e P	Z 04:05:02.8	47.4	98.1	0.9	19	5.2		

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

47

NRDL	e P	Z	04:05:04.9	47.6	98.4	0.9	15	5.1
BSEG	e P	Z	04:05:05.5	47.7	99.9	1.0	18	5.2
STU	e P	Z	04:05:04.8	47.8	94.3			
BFO	e P	Z	04:05:08.7	48.3	93.2	1.1	8	4.8
IBBN	e P	Z	04:05:15.4	49.0	96.2			
BUG	e P	Z	04:05:17.3	49.2	95.1	0.8	26	5.3
WLF	e P	Z	04:05:22.2	49.8	92.7	1.0	20	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/22	04:51:35.9	29.115N	58.466E	10.0G	4.8			neic-m
Southern Iran								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 04:59:03.8	39.2	103.4	1.0	5	4.1		
GRB4	e P	Z 04:58:47.0	40.7	102.2	0.3	39	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/22	09:45: 9.8	25.520N	131.130E	47.7		6.8		SZGRF
Southeast of Ryukyu Islands, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 09:57:35.9	83.9	53.4					
RUE	e P	Z 09:57:40.9	84.9	53.6					
	e pP	Z 09:57:53.9							
BSEG	e P	Z 09:57:44.3	85.6	51.0					
BRG	e P	Z 09:57:44.7	85.8	53.6					
	e pP	Z 09:57:57.9							
CLL	e P	Z 09:57:45.7	86.0	52.9					
	e pP	Z 09:58:00.2							
HLG	e P	Z 09:57:49.4	86.6	49.1					
NRDL	e P	Z 09:57:49.4	86.6	50.8					
CLZ	e P	Z 09:57:50.8	86.9	51.0					
MOX	e P	Z 09:57:51.8	87.1	51.8					
GEC2	e P	Z 09:57:51.9	87.1	53.3					
WET	e P	Z 09:57:53.2	87.3	52.7					
	e pP	Z 09:58:06.0							
GRA1	e P	Z 09:57:55.5	87.9	51.5					
	e pP	Z 09:58:10.1							
	e S	R 10:08:23.0							
	e SS	R 10:14:39.6							
	e L	Z 10:40:15.0			18.4	31555		6.8	
IBBN	e P	Z 09:57:55.6	87.9	49.0					
BUG	e P	Z 09:57:59.0	88.7	48.6					
FUR	e P	Z 09:57:59.9	88.8	51.5					
	e pP	Z 09:58:15.1							

STU	e P	Z	09:58:02.6	89.5	50.0
BFO	e P	Z	09:58:05.6	90.2	49.3
WLF	e P	Z	09:58:07.4	90.4	47.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/22	18:53:59.1	20.635S	172.153E	33.0G				SZGRF

Vanuatu Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	19:13:28.2	143.9	29.7					
	e pPKP	Z	19:13:37.1							
NRDL	e PKPbc	Z	19:13:32.7	145.2	30.4					
	e pPKP	Z	19:13:41.1							
BRG	e PKPbc	Z	19:13:32.2	145.3	37.6					
	e pPKP	Z	19:13:41.0							
CLL	e PKPbc	Z	19:13:32.1	145.3	35.8					
	e pPKP	Z	19:13:40.4							
CLZ	e PKPbc	Z	19:13:35.6	145.7	31.3					
	e pPKPbc	Z	19:13:44.0							
MOX	e PKPbc	Z	19:13:36.9	146.3	34.2					
	e pPKP	Z	19:13:45.2							
GEC2	e PKPbc	Z	19:13:37.2	146.9	39.1					
	e pPKP	Z	19:13:45.3							
BUG	e PKPbc	Z	19:13:38.1	147.0	26.6					
	e pPKP	Z	19:13:45.9							
WET	e PKPbc	Z	19:13:37.5	147.0	37.5					
	e pPKP	Z	19:13:45.9							
GRA1	e PKPbc	Z	19:13:38.6	147.2	34.4					
	e pPKP	Z	19:13:48.2							
WLF	e PKPbc	Z	19:13:43.2	148.9	26.0					
	e pPKPab	Z	19:13:57.2							
BFO	e PKPbc	Z	19:13:43.6	149.4	30.8					
	e pPKPab	Z	19:13:58.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/22	21:35:11.1	19.430S	177.650W	33.0G		4.0		SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	21:54:44.1	145.0	13.2	0.9	52			
RUE	e PKPbc	Z	21:54:46.8	145.8	19.4	1.1	54			
NRDL	e PKPbc	Z	21:54:48.6	146.4	13.3	1.6	64			
IBBN	e PKPbc	Z	21:54:50.2	146.9	9.4	1.0	44			
CLZ	e PKPbc	Z	21:54:50.8	147.0	14.0	1.0	32			
CLL	e PKPbc	Z	21:54:50.6	147.0	18.7	0.6	48			

BRG	e	PKPbc	Z	21:54:51.3	147.2	20.5	0.7	24	
BUG	e	PKPbc	Z	21:54:52.2	147.8	8.7			
MOX	e	PKPbc	Z	21:54:53.1	147.9	16.6	1.6	36	
GRA1	e	PKPbc	Z	21:54:56.2	148.9	16.4	0.7	17	
	e	L	Z	23:01:01.6			20.1	27	4.0
GRFO	e	PKPbc	Z	21:54:56.2	148.9	16.4			
	e	PKPab	Z	21:55:00.5					
WET	e	PKPbc	Z	21:54:56.1	149.1	19.6	1.3	13	
GEC2	e	PKPbc	Z	21:54:56.5	149.2	21.3	0.7	19	
WLF	e	PKPbc	Z	21:54:58.3	149.6	7.1	0.8	27	
STU	e	PKPbc	Z	21:54:58.8	150.1	13.0			
FUR	e	PKPbc	Z	21:54:59.5	150.4	17.2	0.9	36	
	e	PKPab	Z	21:55:06.3					
BFO	e	PKPbc	Z	21:55:00.1	150.7	11.6	1.0	28	
	e	PKPab	Z	21:55:07.2					

Date 2004/07/23 Origin Time 01:25:20.5 Lat 28.749N Long 90.453E Depth 33.0N mb 4.8 Ms ML Source SZGRF
Xizang

Sta GRA1 Phase e P Time 01:35:36.3 Dist 61.8 BAz 77.8 T[s] 1.5 A[nm] 9 mb 4.8 MS ML

Date 2004/07/23 Origin Time 02:04: 5.0 Lat 16.702S Long 174.377W Depth 187.2G mb Ms ML Source neic-m
Tonga Islands

Sta GRA1 Phase e PKP Time 02:23:26.3 Dist 146.7 BAz 9.8 T[s] A[nm] mb MS ML
e pPKP Time 02:24:16.6

Date 2004/07/23 Origin Time Lat Long Depth mb Ms ML Source

Sta BRG Phase e PKP Time 17:12:39.5 Dist BAz T[s] A[nm] mb MS ML
CLL e PKP Time 17:12:39.1
CLZ e PKP Time 17:12:41.9
GEC2 e PKP Time 17:12:44.7
GRA1 e PKP Time 17:12:46.8
e x Time 17:12:56.2
IBBN e PKP Time 17:12:43.9
MOX e PKP Time 17:12:43.5

WLF e PKP Z 17:12:52.6

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/23

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e PKP Z 18:28:04.9

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/23 18:20:55.8 54.840N 160.690W 33.0N 4.8
Alaska Peninsula, United States SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e P	Z 18:32:10.4	70.6	353.1	1.1	151	6.0		
BSEG	e P	Z 18:32:12.6	71.0	354.5	1.3	12	4.9		
NRDL	e P	Z 18:32:21.8	72.4	354.5	3.5	99	5.2		
CLZ	e P	Z 18:32:25.3	73.1	354.6	1.2	13	4.8		
BUG	e P	Z 18:32:25.8	73.2	352.8	0.8	9	4.8		
CLL	e P	Z 18:32:29.3	73.7	356.2	1.0	6	4.7		
BRG	e P	Z 18:32:31.2	74.2	356.8	1.4	8	4.7		
MOX	e P	Z 18:32:32.3	74.3	355.4	0.9	8	4.8		
WLF	e P	Z 18:32:35.5	74.9	352.2	1.1	11	4.9		
GRA1	e P	Z 18:32:37.7	75.2	355.2	0.8	4	4.7		
WET	e P	Z 18:32:41.9	75.9	356.2	1.6	7	4.5		
GEC2	e P	Z 18:32:43.0	76.2	356.7	0.8	3	4.5		
BFO	e P	Z 18:32:45.2	76.4	353.5	1.0	3	4.3		

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/23 22:17: 7.0 32.879S 178.517W 42.0
South of Kermadec Islands neic-m

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPab	Z 22:37:36.9	158.0	20.2					
RUE	e PKPab	Z 22:37:39.1	158.5	29.2					
NRDL	e PKPab	Z 22:37:42.9	159.4	21.0					
CLL	e PKPab	Z 22:37:44.3	159.7	29.0					
	e pPKPab	Z 22:37:57.5							
BRG	e PKPab	Z 22:37:44.7	159.8	31.7					
CLZ	e PKPab	Z 22:37:45.4	160.0	22.3					
IBBN	e PKPab	Z 22:37:45.8	160.0	15.6					
MOX	e PKPab	Z 22:37:48.4	160.7	26.6					
GEC2	e PKPab	Z 22:37:52.5	161.6	34.3					
WET	e PKPab	Z 22:37:52.8	161.6	31.8					

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

51

GRA1	e	PKPab	Z	22:37:53.7	161.7	26.9
WLF	e	PKPab	Z	22:37:58.5	162.9	13.4
FUR	e	PKPab	Z	22:37:59.1	163.0	29.3
STU	e	PKPab	Z	22:37:59.5	163.1	22.8
	e	pPKPab	Z	22:38:11.0		
BFO	e	PKPab	Z	22:38:01.7	163.7	20.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/24	05:36: 9.6	48.958N	106.623E	33.0N	4.2			SZGRF
Mongolia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:45:56.9	57.6	50.7	0.8	2	4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/24	08:09:23.5	40.305N	27.770W	33.0N	4.0			SZGRF
Azores Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 08:15:18.5	28.8	266.0	1.2	3	4.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/24	15:37:27.8	31.120N	35.849E	10.0G				SZGRF
Dead Sea region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 15:43:03.1	24.4	128.5					
WET	e P	Z 15:43:14.8	25.0	127.7					
BRG	e P	Z 15:43:25.6	25.6	132.2					
GRA1	e P	Z 15:43:27.1	26.2	126.0					
	e	15:43:39.6							
MOX	e P	Z 15:43:33.3	26.5	128.1					
CLZ	e P	Z 15:43:50.5	27.9	128.1					
BSEG	e P	Z 15:44:07.3	29.2	130.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/24	19:01: 1.9	35.670N	23.540E	33.0N	4.6			SZGRF
Crete, Greece								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 19:04:32.6	15.0	147.6					

FUR	e P	Z	19:04:38.3	15.4	139.6					
WET	e P	Z	19:04:39.5	15.6	145.9	1.2	51	4.5		
GRA1	e P	Z	19:04:52.4	16.6	142.8	1.2	140	5.0		
BRG	e P	Z	19:04:56.9	16.7	151.9	1.3	57	4.5		
STU	e P	Z	19:04:55.8	16.8	135.9	1.1	49	4.5		
BFO	e P	Z	19:04:57.7	16.9	132.9	1.2	23	4.2		
MOX	e P	Z	19:05:02.6	17.3	145.6	1.4	36	4.3		
CLL	e P	Z	19:05:02.8	17.4	150.1	1.1	32	4.4		
RUE	e P	Z	19:05:13.4	18.2	153.8	1.0	49	4.6		
CLZ	e P	Z	19:05:19.0	18.7	144.7	2.4	155	4.8		
WLF	e P	Z	19:05:21.6	18.9	131.3	1.4	76	4.7		
NRDL	e P	Z	19:05:26.8	19.3	145.2	1.0	45	4.6		
BUG	e P	Z	19:05:29.3	19.6	137.3	1.3	43	4.5		
IBBN	e P	Z	19:05:35.0	20.0	139.9	1.4	40	4.5		
BSEG	e P	Z	19:05:37.2	20.5	147.9	1.1	104	5.0		

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/24 18:55:11.2 28.850N 128.862E 40.4 5.7 6.0
 Ryukyu Islands, Japan SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 19:07:17.4	80.0	53.4	1.7	264	5.9		
RUE	e P	Z 19:07:21.9	81.0	53.4	1.0	99	5.8		
BSEG	e P	Z 19:07:25.8	81.7	51.0	0.9	75	5.8		
BRG	e P	Z 19:07:25.7	81.9	53.4	1.3	74	5.7		
CLL	e P	Z 19:07:26.8	82.1	52.7	1.0	78	5.8		
NRDL	e P	Z 19:07:31.1	82.7	50.7	1.9	143	5.9		
CLZ	e P	Z 19:07:32.2	83.0	50.9	1.2	87	5.9		
MOX	e P	Z 19:07:32.4	83.2	51.7	1.6	50	5.5		
GEC2	e P	Z 19:07:32.2	83.2	53.0	1.1	37	5.5		
WET	e P	Z 19:07:34.5	83.5	52.4	1.4	41	5.5		
IBBN	e P	Z 19:07:36.7	84.0	48.9	1.4	94	5.8		
GRA1	e P	Z 19:07:37.4	84.0	51.3	1.6	177	6.0		
	e pP	Z 19:07:49.2							
	e L	Z 19:50:04.7			19.9	6049		6.0	
BUG	e P	Z 19:07:39.8	84.8	48.5	1.5	76	5.7		
FUR	e P	Z 19:07:41.6	84.9	51.2	1.3	157	6.1		
STU	e P	Z 19:07:43.9	85.6	49.8	1.3	33	5.3		
BFO	e P	Z 19:07:46.3	86.3	49.1	1.9	39	5.2		
WLF	e P	Z 19:07:48.0	86.5	47.6	1.4	39	5.4		

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/24

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

BFO e Pn Z 21:04:43.2

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/25 14:00:54.1 17.087S 69.948W 33.0N 5.5
 Peru-Bolivia border region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 14:14:24.6 97.4 252.3 0.8 11 5.5

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/25 14:35:17.0 1.879S 105.699E 588.7 7.4
 Southern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 14:47:26.2	92.6	89.8	1.7	3421	7.5		
	e pP	Z 14:49:35.5							
	e PP	Z 14:51:15.0							
RUE	e P	Z 14:47:26.7	92.7	89.6	1.9	6220	7.7		
	e pP	Z 14:49:33.0							
GEC2	e P	Z 14:47:26.6	92.7	89.7	1.7	3931	7.6		
	e pP	Z 14:49:35.2							
RGN	e P	Z 14:47:28.5	92.9	89.2					
	e PP	Z 14:51:19.0							
CLL	e P	Z 14:47:28.4	93.2	89.1	1.8	2548	7.3		
WET	e P	Z 14:47:29.0	93.3	89.1	1.5	2756	7.5		
	e pP	Z 14:49:36.7							
MOX	e P	Z 14:47:32.8	94.0	88.0	1.7	1909	7.2		
	e P	Z 14:47:34.2							
GRA1	e P	Z 14:47:34.2	94.3	87.8	1.9	4392	7.5		
	e pP	Z 14:49:39.5							
	e PP	Z 14:51:28.7							
	e SKSac	E 14:57:12.1							
	e S	N 14:57:53.2							
	e sS	N 15:01:46.5							
	e SS	E 15:04:29.2							
	e PKKP	Z 15:04:40.3							
	e PKPPKP	Z 15:12:43.4							
	e	15:15:17.3							
FUR	e P	Z 14:47:33.5	94.4	88.0	1.1	1643	7.3		
BSEG	e P	Z 14:47:36.2	94.7	86.8	1.0	1460	7.4		
CLZ	e P	Z 14:47:36.1	94.8	87.0	1.2	983	7.1		
STU	e P	Z 14:47:39.8	95.7	86.3					
BFO	e P	Z 14:47:42.0	96.3	85.7	1.4	770	7.0		
IBBN	e P	Z 14:47:43.4	96.3	84.8					
BUG	e P	Z 14:47:44.5	96.7	84.6					
WLF	e P	Z 14:47:49.1	97.6	83.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/25	15:33:59.6	4.550S	80.943W	33.0N	5.8			SZGRF
Peru-Ecuador border region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:47:18.5	94.9	268.7	1.5	52	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/25								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 19:48:14.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/25	19:48:54.6	12.404N	96.152E	33.0N	5.0			SZGRF
Andaman Islands, India, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:00:46.2	77.3	85.7	1.1	14	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/25								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 21:08:41.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/26	21:46: 8.4	50.070N	29.034W	33.0N	4.4			SZGRF
Northern Mid-Atlantic Ridge								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:51:35.3	25.6	286.5	1.1	11	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/27	08:44:14.1	42.986N	145.631E	33.0N	4.9			SZGRF
Hokkaido, Japan, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA3	e P	Z 08:56:15.2	79.0	32.2	1.3	14	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/27	14:16:47.8	17.615S	176.029W	33.0N				SZGRF

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 14:36:15.2	143.3	10.2					
RUE	e PKPbc	Z 14:36:18.1	144.3	16.2					
NRDL	e PKPbc	Z 14:36:19.9	144.8	10.2					
IBBN	e PKPbc	Z 14:36:21.6	145.2	6.3					
CLZ	e PKPbc	Z 14:36:22.1	145.4	10.8					
CLL	e PKPbc	Z 14:36:22.0	145.6	15.3					
BRG	e PKPbc	Z 14:36:23.0	145.8	17.1					
BUG	e PKPbc	Z 14:36:23.6	146.1	5.6					
MOX	e PKPbc	Z 14:36:24.5	146.4	13.2					
GRA1	e PKPbc	Z 14:36:27.8	147.4	12.9					
GEC2	e PKPbc	Z 14:36:28.4	147.8	17.6					
WLF	e PKPbc	Z 14:36:29.5	147.9	3.9					
STU	e PKPbc	Z 14:36:30.5	148.6	9.6					
FUR	e PKPbc	Z 14:36:31.2	148.9	13.6					
BFO	e PKPbc	Z 14:36:31.8	149.1	8.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/28	04:05:57.5	36.102N	24.566E	33.0N	4.4			SZGRF

Southern Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:09:51.4	16.7	139.5	1.2	39	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/28	03:56:30.7	1.940S	131.370E	33.0N		6.4		SZGRF

Irian Jaya, Indonesia, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e Pdiff	Z 04:10:45.4	107.5	67.6					
	e PP	Z 04:15:13.5							
RUE	e Pdiff	Z 04:10:48.0	108.0	68.6					
	e PP	Z 04:15:17.6							
BRG	e Pdiff	Z 04:10:50.3	108.5	69.3					
	e PP	Z 04:15:20.9							

CLL	e Pdiff	Z	04:10:51.9	108.9	68.3						
	e PP	Z	04:15:24.2								
BSEG	e Pdiff	Z	04:10:53.4	109.3	65.1						
	e PP	Z	04:15:27.7								
GEC2	e Pdiff	Z	04:10:54.7	109.3	69.7						
WET	e Pdiff	Z	04:10:56.6	109.7	68.9						
	e PP	Z	04:15:30.3								
MOX	e Pdiff	Z	04:10:57.1	109.9	67.4						
	e PP	Z	04:15:32.3								
NRDL	e Pdiff	Z	04:10:57.3	110.0	65.4						
	e PP	Z	04:15:33.1								
CLZ	e Pdiff	Z	04:10:57.7	110.2	65.9						
	e PP	Z	04:15:34.1								
GRA1	e Pdiff	Z	04:10:59.9	110.5	67.3						
	e PP	Z	04:15:36.9								
	e SP	Z	04:24:56.3								
	e SS	N	04:31:03.2								
	e L	Z	05:06:09.7			18.2	9291		6.4		
FUR	e Pdiff	Z	04:11:02.7	111.1	67.9						
	e PP	Z	04:15:40.8								
IBBN	e Pdiff	Z	04:11:03.5	111.4	63.4						
STU	e Pdiff	Z	04:11:07.4	112.1	65.9						
	e PP	Z	04:15:47.7								
BFO	e Pdiff	Z	04:11:10.3	112.8	65.3						
	e PP	Z	04:15:53.3								

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/28

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 10:45:07.4

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/28 10:58:32.8 51.900N 152.799E 33.0N 5.2 5.1 ML SZGRF
Northwest of Kuril Islands, Russia

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
BSEG e P Z 11:09:39.7 69.6 23.6 0.8 9 5.0
NRDL e P Z 11:09:47.7 71.0 23.3
CLL e P Z 11:09:49.2 71.4 24.9 0.7 25 5.4
BRG e P Z 11:09:50.1 71.5 25.3 1.2 12 4.9
CLZ e P Z 11:09:51.1 71.5 23.4 0.8 15 5.1
MOX e P Z 11:09:55.1 72.3 23.9 0.7 9 5.0
GRA1 e P Z 11:10:01.4 73.3 23.6 0.6 40 5.6
e L Z 11:43:36.8 21.7 1129 5.1

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

57

WET	e P	Z	11:10:01.6	73.4	24.5	0.6	19	5.3
GEC2	e P	Z	11:10:01.5	73.4	24.9	0.5	12	5.2
FUR	e P	Z	11:10:09.3	74.7	23.5			
BFO	e P	Z	11:10:12.1	75.3	21.8	0.7	9	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/28								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PKP	Z 18:39:00.7							
BRG	e PKP	Z 18:38:49.0							
CLL	e PKP	Z 18:38:48.8							
CLZ	e PKP	Z 18:38:51.2							
GEC2	e PKP	Z 18:38:54.0							
GRA1	e PKP	Z 18:38:55.4							
IBBN	e PKP	Z 18:38:52.5							
NRDL	e PKP	Z 18:38:49.6							
WET	e PKP	Z 18:38:54.8							
WLF	e PKP	Z 18:39:00.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/28	22:22:12.3	29.360N	83.150E	33.0N	5.0			SZGRF

Nepal

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 22:31:40.7	54.9	85.1					
GEC2	e P	Z 22:31:43.8	55.2	83.5	1.3	15	4.9		
CLL	e P	Z 22:31:44.2	55.4	84.7	1.2	8	4.6		
WET	e P	Z 22:31:46.8	55.7	83.2	1.2	13	4.8		
MOX	e P	Z 22:31:51.3	56.3	83.3	1.1	8	4.7		
	e PcP	Z 22:32:49.6							
GRA1	e P	Z 22:31:54.5	56.7	82.4	1.5	28	5.1		
	e PP	Z 22:34:01.5							
BSEG	e P	Z 22:31:54.7	56.8	84.5	1.1	26	5.2		
	e PP	Z 22:33:59.7							
FUR	e P	Z 22:31:55.8	56.9	81.4	1.2	37	5.3		
CLZ	e P	Z 22:31:56.0	57.0	83.1	1.1	20	5.1		
NRDL	e P	Z 22:31:56.7	57.1	83.4	1.2	31	5.2		
STU	e P	Z 22:32:03.3	58.2	80.4					
IBBN	e P	Z 22:32:06.5	58.5	81.5					
	e PcP	Z 22:32:57.4							
BUG	e P	Z 22:32:09.5	58.9	80.6					
WLF	e P	Z 22:32:17.1	60.0	78.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/28	23:13:14.3	34.840S	179.080E	33.0N				SZGRF

South of Kermadec Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	23:33:11.0	159.3	27.0					
BRG	e PKPdf	Z	23:33:12.3	160.7	39.6					
	e PKPab	Z	23:33:52.6							
CLL	e PKPdf	Z	23:33:12.2	160.7	36.7					
	e PKPab	Z	23:33:52.8							
CLZ	e PKPdf	Z	23:33:13.3	161.2	29.9					
IBBN	e PKPdf	Z	23:33:13.4	161.5	22.9					
	e PKPab	Z	23:33:56.2							
MOX	e PKPdf	Z	23:33:13.6	161.8	34.7					
GEC2	e PKPdf	Z	23:33:14.1	162.3	43.0					
WET	e PKPdf	Z	23:33:14.3	162.5	40.5					
GRA1	e PKPdf	Z	23:33:14.8	162.7	35.5					
	e PKPab	Z	23:34:01.6							
FUR	e PKPdf	Z	23:33:15.3	163.9	38.7					
WLF	e PKPdf	Z	23:33:16.7	164.3	21.9					
BFO	e PKPab	Z	23:34:11.1	164.9	30.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/29	01:22:21.3	61.630N	156.740W	33.0	4.7			SZGRF

Southern Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	01:32:54.1	64.0	353.2	0.7	4	4.8		
NRDL	e P	Z	01:33:03.2	65.4	353.2	1.2	9	4.9		
CLZ	e P	Z	01:33:07.9	66.1	353.3	0.6	10	5.2		
CLL	e P	Z	01:33:11.6	66.8	354.7	0.7	4	4.8		
BRG	e P	Z	01:33:15.2	67.3	355.2	0.9	4	4.6		
MOX	e P	Z	01:33:15.5	67.3	354.0	0.7	7	5.0		
GRA1	e P	Z	01:33:21.1	68.3	353.9	0.8	3	4.6		
WET	e P	Z	01:33:25.7	68.9	354.7	1.0	3	4.4		
GEC2	e P	Z	01:33:27.8	69.3	355.2	1.5	5	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/29	01:44:10.2	11.740N	93.610E	33.0N		5.4		SZGRF

Andaman Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	01:55:46.2	74.4	90.5	1.5	140			
	e S	R	02:05:18.4							

RUE	e P	Z	01:55:46.5	74.5	90.8	1.4	264		
GEC2	e P	Z	01:55:47.2	74.6	89.7	1.1	99		
RGN	e P	Z	01:55:48.0	74.8	91.0	1.3	144		
CLL	e P	Z	01:55:48.9	75.0	89.9	1.6	122		
	e S	R	02:05:23.7						
WET	e P	Z	01:55:50.2	75.1	89.2	1.4	100		
MOX	e P	Z	01:55:54.2	75.9	88.6	1.6	133		
GRA1	e P	Z	01:55:56.4	76.2	88.1	1.6	190		
	e PP	Z	01:58:47.5						
	e S	R	02:05:41.8						
	e L	Z	02:34:00.0			21.9	2186		5.4
GRFO	e P	Z	01:55:56.3	76.2	88.1	1.6	159		
FUR	e P	Z	01:55:56.0	76.2	87.7	1.2	79		
	e S	R	02:05:37.6						
BSEG	e P	Z	01:55:58.1	76.6	88.4	1.2	144		
CLZ	e P	Z	01:55:58.5	76.6	87.9	1.2	138		
NRDL	e P	Z	01:55:59.4	76.8	87.9	1.5	187		
	e S	R	02:05:47.5						
BFO	e P	Z	01:56:06.3	78.1	85.6	1.3	52		
IBBN	e P	Z	01:56:07.3	78.2	86.0	1.2	165		
BUG	e P	Z	01:56:09.3	78.6	85.4	1.2	153		
WLF	e P	Z	01:56:14.5	79.4	84.2	1.7	176		

Date Origin Time Lat Long Depth mb Ms ML Source
 2004/07/29 02:03:18.0 14.840N 91.670E 695.6N 5.0
 Andaman Islands, India, region SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 02:13:28.6	70.8	89.9	1.4	19	5.0		
RUE	e P	Z 02:13:28.9	70.9	90.3	0.9	22	5.3		
GEC2	e P	Z 02:13:29.6	71.0	89.0	1.1	15	5.0		
CLL	e P	Z 02:13:31.5	71.4	89.3	1.5	16	5.0		
WET	e P	Z 02:13:32.7	71.5	88.5	1.2	10	4.8		
MOX	e P	Z 02:13:37.0	72.3	88.0	1.6	16	4.9		
GRA1	e P	Z 02:13:39.2	72.6	87.4	1.3	22	5.1		
GRFO	e P	Z 02:13:39.1	72.6	87.4	1.3	19	5.1		
FUR	e P	Z 02:13:38.5	72.6	87.0	0.5	9	5.1		
BSEG	e P	Z 02:13:40.8	73.0	88.0	1.1	22	5.2		
CLZ	e P	Z 02:13:41.1	73.0	87.4	1.1	18	5.1		
NRDL	e P	Z 02:13:42.2	73.2	87.4	1.4	26	5.2		
STU	e P	Z 02:13:46.3	74.0	85.6	1.1	12	4.8		
BFO	e P	Z 02:13:49.3	74.6	84.8	1.0	2	4.2		
IBBN	e P	Z 02:13:49.9	74.6	85.5	1.2	28	5.2		
BUG	e P	Z 02:13:51.9	75.0	84.9	0.8	11	4.9		
WLF	e P	Z 02:13:57.4	75.9	83.6	1.2	17	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/29	02:15:41.4	13.579N	96.556E	19.9	4.5			SZGRF

Andaman Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e pP	Z	02:27:26.6	74.9	87.0					
RUE	e pP	Z	02:27:27.1	74.9	87.3					
GEC2	e pP	Z	02:27:27.9	75.1	86.2					
WET	e pP	Z	02:27:31.1	75.7	85.7					
GRA1	e P	Z	02:27:31.4	76.7	84.6	0.9	3	4.5		
	e pP	Z	02:27:37.2							
BSEG	e pP	Z	02:27:38.7	76.9	84.9					
CLZ	e pP	Z	02:27:38.8	77.0	84.5					
IBBN	e pP	Z	02:27:47.7	78.6	82.5					
BUG	e pP	Z	02:27:50.0	79.0	82.0					
WLF	e pP	Z	02:27:55.4	79.9	80.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/29	02:18:42.7	12.350N	94.100E	21.3	4.8			SZGRF

Andaman Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	02:30:17.3	74.3	89.7	1.1	11	4.8		
	e pP	Z	02:30:23.6							
RUE	e P	Z	02:30:17.6	74.4	90.0	0.9	18	5.1		
GEC2	e P	Z	02:30:18.4	74.4	88.9	1.0	12	4.9		
	e pP	Z	02:30:24.6							
RGN	e P	Z	02:30:19.4	74.6	90.2					
CLL	e P	Z	02:30:20.3	74.8	89.1	0.9	6	4.6		
WET	e P	Z	02:30:21.5	75.0	88.4	1.0	6	4.6		
	e pP	Z	02:30:27.8							
MOX	e P	Z	02:30:25.7	75.7	87.8	1.0	6	4.7		
	e pP	Z	02:30:31.9							
GRA1	e P	Z	02:30:27.9	76.0	87.3	1.1	7	4.7		
	e pP	Z	02:30:33.8							
GRFO	e P	Z	02:30:27.9	76.0	87.3	1.1	6	4.6		
FUR	e P	Z	02:30:27.4	76.1	86.9					
BSEG	e P	Z	02:30:29.6	76.4	87.6	1.1	14	5.0		
	e pP	Z	02:30:35.5							
CLZ	e P	Z	02:30:29.8	76.5	87.2	0.8	8	4.9		
NRDL	e P	Z	02:30:31.0	76.6	87.1	1.2	12	4.9		
	e pP	Z	02:30:37.1							
BFO	e P	Z	02:30:38.1	78.0	84.8	1.1	4	4.4		
IBBN	e P	Z	02:30:38.7	78.0	85.2	1.2	20	5.1		
	e pP	Z	02:30:44.9							
BUG	e P	Z	02:30:40.7	78.4	84.7	1.0	18	5.1		

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

61

WLF	e P	Z	02:30:46.2	79.3	83.5	1.1	7	4.6
	e pP	Z	02:30:52.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/29	04:08:45.7	43.829N	147.235E	33.0N	4.6			SZGRF
Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:20:46.3	78.9	30.7	0.7	4	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/29	05:35: 5.8	36.566N	28.061E	28.0G	4.2			the
Dodecanese Islands, Greece								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 05:38:47.8	16.1	134.2	1.5	23	4.1		
WET	e P	Z 05:38:54.6	16.7	133.1	0.9	8	3.9		
BRG	e P	Z 05:39:04.1	17.5	139.4	1.4	20	4.1		
CLL	e P	Z 05:39:12.4	18.2	138.1	0.8	29	4.5		
MOX	e P	Z 05:39:14.2	18.4	133.8	0.8	13	4.1		
CLZ	e P	Z 05:39:28.5	19.7	133.7	0.9	14	4.2		
BUG	e P	Z 05:39:38.3	21.0	127.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/29	10:00:30.8	6.622S	79.035W	33.0N	5.1			SZGRF
Near coast of northern Peru								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:13:51.3	95.2	265.9	0.9	7	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/29	13:23:14.5	13.720N	93.850E	33.0N	5.4	5.1		SZGRF
Andaman Islands, India, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 13:34:42.2	73.1	88.9	1.3	34	5.3		
RUE	e P	Z 13:34:42.7	73.1	89.3	1.6	134	5.8		
GEC2	e P	Z 13:34:43.3	73.3	88.1	1.2	36	5.4		
CLL	e P	Z 13:34:45.1	73.6	88.3	2.6	138	5.5		
WET	e P	Z 13:34:46.6	73.8	87.6	1.6	40	5.2		
MOX	e P	Z 13:34:50.8	74.5	87.1	1.3	30	5.2		

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

62

GRA1	e P	Z	13:34:52.7	74.8	86.5	1.8	103	5.5		
	e L	Z	14:12:56.5			21.8	967		5.1	
GRFO	e P	Z	13:34:52.8	74.8	86.5	1.1	29	5.2		
BSEG	e P	Z	13:34:54.6	75.2	87.0	1.3	44	5.3		
CLZ	e P	Z	13:34:54.9	75.2	86.5	1.2	39	5.3		
NRDL	e P	Z	13:34:55.7	75.4	86.4	1.8	138	5.7		
IBBN	e P	Z	13:35:04.1	76.8	84.5	1.6	101	5.7		
BUG	e P	Z	13:35:05.7	77.2	84.0	1.3	50	5.5		
WLF	e P	Z	13:35:11.2	78.1	82.7	1.6	68	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/29	16:15:30.1	12.672N	96.310E	19.9	4.6			SZGRF

Andaman Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 16:27:23.1	77.2	85.4	0.8	4	4.6		
	e pP	Z 16:27:28.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/29	22:21:37.5	4.100S	143.100E	33.0N		5.2		EMSC-A

New Guinea, Papua New Guinea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 22:40:41.6	119.0	58.1					
	e PP	Z 22:41:46.6							
	e L	Z 23:34:58.3			18.9	555		5.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/30	02:40:29.2	44.261N	146.983E	33.0N	4.8			SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 02:52:16.6	76.5	32.0	0.8	7	4.9		
CLZ	e P	Z 02:52:17.6	76.9	30.3	0.9	8	4.9		
GRA1	e P	Z 02:52:27.2	78.4	30.7	0.8	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/30	07:14: 8.5	39.060N	43.820E	26.2	4.7	4.0		SZGRF

Turkey

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

./2004/bul0407.txt

Thu Apr 23 08:38:25 2020

63

GEC2	e P	Z	07:19:18.5	23.6	103.1	1.3	28	4.6		
	e pP	Z	07:19:24.5							
BRG	e P	Z	07:19:21.5	24.0	107.9	1.9	32	4.5		
	e pP	Z	07:19:28.2							
WET	e P	Z	07:19:23.3	24.2	102.9	1.2	17	4.5		
	e pP	Z	07:19:30.9							
CLL	e P	Z	07:19:28.4	24.7	107.6	1.4	29	4.8		
	e pP	Z	07:19:34.8							
MOX	e P	Z	07:19:33.9	25.3	104.7	1.1	8	4.4		
GRA1	e P	Z	07:19:35.6	25.4	102.3					
	e L	Z	07:32:46.1			19.3	413		4.0	
CLZ	e P	Z	07:19:44.1	26.4	105.7	1.3	39	4.9		
	e pP	Z	07:19:50.6							
NRDL	e P	Z	07:19:47.2	26.7	106.6	1.5	41	4.9		
	e pP	Z	07:19:54.0							
IBBN	e P	Z	07:19:59.4	28.1	103.7	1.1	49	5.2		
	e pP	Z	07:20:06.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/30	07:16:36.5	40.900N	43.200E	33.0N	4.6			SZGRF
Turkey-Georgia-Armenia border region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 07:21:31.0	22.2	99.8	2.0	53	4.6		
BRG	e P	Z 07:21:34.0	22.5	104.9	1.4	10	4.2		
WET	e P	Z 07:21:36.5	22.8	99.7	2.0	49	4.7		
CLL	e P	Z 07:21:40.9	23.2	104.8	1.4	15	4.3		
GRA1	e P	Z 07:21:49.0	23.9	99.3	1.3	30	4.7		
CLZ	e P	Z 07:21:56.8	24.9	103.0	1.9	39	4.8		
NRDL	e P	Z 07:21:59.8	25.2	104.1	1.4	19	4.6		
IBBN	e P	Z 07:22:12.1	26.5	101.2	1.0	18	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/30	07:37:44.6	3.000N	127.900E	33.0N		4.8		EMSC-A
Talaud Islands, Indonesia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z 07:51:48.5	104.5	67.2					
	e L	Z 08:42:09.7			19.3	301		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/30	12:14:27.2	57.197S	26.795W	33.0N		4.8		gsrsc-m
South Sandwich Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PP	Z	12:33:30.9	109.5	199.3					
FUR	e PP	Z	12:33:35.8	110.0	200.8					
STU	e PP	Z	12:33:38.3	110.1	199.8					
WLF	e PP	Z	12:33:32.8	110.3	198.3					
GEC2	e PP	Z	12:33:45.7	111.2	202.2					
WET	e PP	Z	12:33:36.4	111.3	201.8					
GRFO	e L	Z	13:15:48.2	111.4	201.0	20.2	254		4.8	
GRA1	e PP	Z	12:33:39.5	111.4	201.0					
MOX	e PP	Z	12:33:38.9	112.4	201.3					
IBBN	e PP	Z	12:34:00.3	113.1	199.5					
BRG	e PP	Z	12:33:46.9	113.1	202.6					
CLZ	e PP	Z	12:33:59.8	113.2	200.9					
CLL	e PP	Z	12:33:57.3	113.3	202.2					
NRDL	e PP	Z	12:33:54.2	113.8	200.8					
HLG	e PP	Z	12:34:10.3	114.9	199.9					
BSEG	e PP	Z	12:34:03.5	115.2	201.2					
RGN	e PP	Z	12:34:01.6	116.4	202.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/30	15:44:45.6	35.560N	138.170E	33.0G	4.7			SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	15:56:57.4	80.7	43.0	1.0	3	4.3		
CLL	e P	Z	15:56:57.3	80.7	42.4	0.9	8	4.8		
CLZ	e P	Z	15:57:01.3	81.4	40.5	1.4	8	4.7		
WERD	e P	Z	15:57:02.6	81.7	41.8	1.1	5	4.6		
MOX	e P	Z	15:57:02.8	81.8	41.3	1.0	5	4.6		
GEC2	e P	Z	15:57:05.4	82.2	42.6	0.9	7	4.8		
WET	e P	Z	15:57:06.3	82.4	42.1	0.9	3	4.6		
GRA1	e P	Z	15:57:08.0	82.7	41.0	0.9	18	5.3		
	e		15:57:28.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/30								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z	18:52:01.5							
CLL	e PKPbc	Z	18:52:01.0							
CLZ	e PKPbc	Z	18:52:01.4							
GEC2	e PKPbc	Z	18:52:05.8							
MOX	e PKPbc	Z	18:52:03.3							
WERD	e PKPbc	Z	18:52:03.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/31	00:35:41.4	53.031N	128.430W	33.0N	4.6			SZGRF

British Columbia, Canada

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 00:47:00.9	71.8	335.8	1.2	7	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/31	04:06: 8.6	11.940N	94.270E	33.0N	4.6			SZGRF

Andaman Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 04:17:45.2	74.7	89.8	1.1	7	4.6		
RUE	e P	Z 04:17:46.1	74.8	90.1	0.8	14	5.0		
GEC2	e P	Z 04:17:46.4	74.9	89.1	1.0	6	4.6		
CLL	e P	Z 04:17:48.4	75.3	89.2	1.2	5	4.5		
WET	e P	Z 04:17:49.4	75.4	88.5	1.0	4	4.4		
WERD	e P	Z 04:17:51.0	75.7	88.4	1.0	4	4.5		
MOX	e P	Z 04:17:53.6	76.2	88.0	1.1	4	4.5		
GRA1	e P	Z 04:17:55.9	76.4	87.4	0.9	7	4.7		
BSEG	e P	Z 04:17:57.6	76.8	87.7	1.0	9	4.8		
CLZ	e P	Z 04:17:57.7	76.9	87.3	1.1	10	4.8		
NRDL	e P	Z 04:17:58.6	77.0	87.2	1.4	9	4.7		
BFO	e P	Z 04:18:06.0	78.4	85.0	0.7	2	4.2		
IBBN	e P	Z 04:18:06.5	78.5	85.4	1.0	10	4.8		
BUG	e P	Z 04:18:08.9	78.8	84.8	1.1	9	4.7		
WLF	e P	Z 04:18:14.0	79.7	83.6	1.4	9	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/31	04:15:54.7	11.900N	94.180E	22.9	5.3			SZGRF

Andaman Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 04:27:24.6	74.7	89.9					
	e pP	Z 04:27:31.4			1.0	26	5.2		
RUE	e P	Z 04:27:25.5	74.8	90.2					
	e pP	Z 04:27:31.5			0.9	52	5.6		
GEC2	e P	Z 04:27:26.1	74.8	89.2					
	e pP	Z 04:27:32.7			1.0	27	5.2		
RGN	e pP	Z 04:27:33.6	75.0	90.4	1.0	32	5.3		
CLL	e P	Z 04:27:27.9	75.2	89.3					
	e pP	Z 04:27:34.4			1.2	26	5.1		

WET	e P	Z	04:27:28.7	75.4	88.6					
	e pP	Z	04:27:35.6			1.2	24	5.1		
WERD	e P	Z	04:27:31.0	75.7	88.5					
	e pP	Z	04:27:37.2			1.0	18	5.2		
MOX	e P	Z	04:27:33.3	76.1	88.1					
	e pP	Z	04:27:39.7			1.1	20	5.2		
GRA1	e P	Z	04:27:34.5	76.4	87.5					
	e pP	Z	04:27:42.0			1.1	29	5.3		
FUR	e pP	Z	04:27:41.2	76.5	87.2	1.0	20	5.2		
BSEG	e P	Z	04:27:37.3	76.8	87.8					
	e pP	Z	04:27:43.6			1.1	45	5.5		
CLZ	e P	Z	04:27:37.4	76.9	87.4					
	e pP	Z	04:27:43.9			1.0	37	5.5		
NRDL	e P	Z	04:27:38.5	77.0	87.3					
	e pP	Z	04:27:45.0			1.3	43	5.4		
STU	e pP	Z	04:27:48.7	77.8	85.8	1.2	16	5.1		
HLG	e pP	Z	04:27:51.5	78.2	85.9	0.9	37	5.5		
BFO	e pP	Z	04:27:51.9	78.4	85.1	1.3	17	5.0		
IBBN	e pP	Z	04:27:52.8	78.4	85.4	1.0	45	5.4		
BUG	e pP	Z	04:27:54.8	78.8	84.9	1.3	55	5.4		
WLF	e pP	Z	04:28:00.0	79.7	83.7	1.3	31	5.1		

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/31

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e PKP Z 06:23:57.0

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/31

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 06:45:59.8

Date Origin Time Lat Long Depth mb Ms ML Source
2004/07/31 07:57: 5.8 13.522S 65.862E 33.0N 4.6 SZGRF
Mid-Indian Ridge

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 08:09:08.5 79.3 126.2 1.3 8 4.6
e 08:09:52.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/31	08:53:37.2	14.272S	65.873E	21.4	5.0			SZGRF

Mid-Indian Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 09:05:33.3	78.1	128.5	1.3	9	4.7		
WET	e P	Z 09:05:35.5	78.7	127.9	1.1	12	4.8		
FUR	e P	Z 09:05:38.7	79.0	126.4	0.8	50	5.6		
BRG	e P	Z 09:05:40.1	79.3	129.1	1.4	13	4.8		
WERD	e P	Z 09:05:43.1	79.8	127.6	2.2	46	5.0		
GRA1	e P	Z 09:05:43.4	79.9	126.6	1.0	12	4.8		
	e pP	Z 09:05:49.5							
CLL	e P	Z 09:05:44.2	80.0	128.3	1.2	22	5.0		
MOX	e P	Z 09:05:45.8	80.3	127.1	1.2	17	4.8		
RUE	e P	Z 09:05:46.3	80.4	129.1	1.1	32	5.2		
STU	e P	Z 09:05:46.6	80.5	124.8	0.6	12	5.0		
BFO	e P	Z 09:05:47.6	80.7	124.0	1.4	22	5.0		
CLZ	e P	Z 09:05:52.9	81.6	126.2	0.9	16	5.1		
NRDL	e P	Z 09:05:56.6	82.2	126.0	2.0	27	5.0		
WLF	e P	Z 09:05:56.8	82.6	122.4	0.8	10	5.0		
BSEG	e P	Z 09:05:59.7	82.9	126.4	2.0	26	5.1		
BUG	e P	Z 09:06:00.0	83.0	123.5	0.9	14	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/31	10:12: 3.7	19.500S	175.500W	33.0N				SZGRF

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 10:31:37.9	145.3	9.7					
NRDL	e PKPbc	Z 10:31:42.2	146.7	9.7					
IBBN	e PKPbc	Z 10:31:43.3	147.1	5.7					
CLZ	e PKPbc	Z 10:31:43.3	147.3	10.3					
CLL	e PKPbc	Z 10:31:44.2	147.5	15.0					
BRG	e PKPbc	Z 10:31:45.3	147.8	16.8					
MOX	e PKPbc	Z 10:31:46.8	148.3	12.9					
WERD	e PKPbc	Z 10:31:47.0	148.4	14.2					
GRA1	e PKPbc	Z 10:31:49.5	149.3	12.5					
GEC2	e PKPbc	Z 10:31:50.6	149.7	17.4					
WLF	e PKPbc	Z 10:31:51.1	149.8	3.1					
STU	e PKPbc	Z 10:31:52.6	150.5	9.0					
BFO	e PKPbc	Z 10:31:53.2	151.0	7.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/31	13:30:40.7	36.938N	71.158E	33.0N	4.5			SZGRF

Afghanistan-Tajikistan border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:38:46.6	44.2	83.1	1.2	11	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/31	14:44:26.8	43.219N	127.483W	33.0N	4.6			SZGRF

Off coast of Oregon, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:56:35.1	80.3	330.8	1.7	11	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/31	16:22:19.2	14.130N	93.940E	33.0N	4.8			SZGRF

Andaman Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 16:33:45.6	72.8	88.6	1.2	12	4.9		
RUE	e P	Z 16:33:45.9	72.9	89.0	0.7	20	5.3		
GEC2	e P	Z 16:33:46.7	73.0	87.8	0.8	10	5.0		
CLL	e P	Z 16:33:48.6	73.4	88.0	0.9	6	4.7		
WET	e P	Z 16:33:49.7	73.5	87.3	0.8	3	4.4		
WERD	e P	Z 16:33:51.4	73.9	87.2	0.8	6	4.6		
MOX	e P	Z 16:33:53.9	74.3	86.7	0.9	6	4.6		
GRA1	e P	Z 16:33:56.0	74.6	86.2	1.0	7	4.7		
BSEG	e P	Z 16:33:57.8	74.9	86.6	1.0	16	5.0		
CLZ	e P	Z 16:33:58.1	75.0	86.1	0.9	12	4.9		
NRDL	e P	Z 16:33:58.9	75.1	86.1	1.6	20	4.9		
IBBN	e P	Z 16:34:06.7	76.5	84.2	1.0	16	5.1		
BUG	e P	Z 16:34:09.2	76.9	83.6	1.0	11	4.9		
WLF	e P	Z 16:34:14.9	77.9	82.4	1.4	16	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/31								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:48:00.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/07/31	20:01:25.0	34.025N	139.513E	33.0N	4.5			SZGRF

Near south coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:13:55.4	84.6	40.8	0.9	3	4.5		

Format description

=====

(K. Klinge Email:klinge@szgrf.bgr.de and A. Schick)

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

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

EPICENTER LINES:

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

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

COMMENT LINE:

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

REGION LINE:

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

PHASE LINE:

Sta	Station code of the reported phase
Phase	Preceded flag for the sharpness of the onset of the phase

e - emergent
i - impulsive
w - weak

ISC phase code

Flag for the direction of the first motion

'+' - compression
'-' - dilatation

Component where the phase was picked

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