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

(produced by SZGRF/BGR - HANNOVER)

May 2009 UPDATED 18.SEPTEMBER.2009

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

(Format desciption at the end of the bulletin)

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/01	00:34:28.0	0.595N	74.474W	195.6	5.2			SZGRF

Colombia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	00:46:34.5	83.5	263.2	1.0	54	5.7		
	e pP	Z	00:47:22.5							
BUG	e P	Z	00:46:38.5	84.4	263.9	1.1	39	5.5		
	e pP	Z	00:47:26.5							
BFO	e P	Z	00:46:39.8	84.8	265.0	1.0	6	4.8		
IBBN	e P	Z	00:46:40.3	84.8	264.2	1.2	32	5.4		
	e pP	Z	00:47:28.5							
TNS	e P	Z	00:46:41.7	85.0	264.9	1.2	35	5.4		
	e pP	Z	00:47:29.6							
STU	e P	Z	00:46:43.1	85.4	265.6	1.1	27	5.4		
	e pP	Z	00:47:31.1							
UBBA	e pP	Z	00:47:34.5	86.1	266.1					
NRDL	e pP	Z	00:47:35.6	86.2	266.1					
CLZ	e P	Z	00:46:47.9	86.4	266.3	1.2	22	5.1		
	e pP	Z	00:47:36.3							
BSEG	e P	Z	00:46:48.1	86.5	266.1	1.7	46	5.3		
	e pP	Z	00:47:36.6							
FUR	e P	Z	00:46:49.8	86.7	267.2	1.1	21	5.2		
	e pP	Z	00:47:37.7							
GRA1	e P	Z	00:46:49.9	86.8	267.1	1.1	18	5.1		
	e pP	Z	00:47:37.8							
MOX	e P	Z	00:46:51.4	87.1	267.4	1.6	17	4.9		
	e pP	Z	00:47:39.5							
NEUB	e P	Z	00:46:52.2	87.2	267.4	1.4	31	5.2		
	e pP	Z	00:47:40.2							
MANZ	e P	Z	00:46:53.1	87.3	267.8	1.2	18	5.1		

	e pP	Z	00:47:41.1						
PLN	e P	Z	00:46:53.2	87.4	267.8	1.3	84	5.7	
	e pP	Z	00:47:41.2						
ROTZ	e P	Z	00:46:53.2	87.4	267.8	1.3	20	5.1	
	e pP	Z	00:47:41.5						
WERD	e P	Z	00:46:53.5	87.5	267.9	1.5	28	5.2	
	e pP	Z	00:47:41.6						
GUNZ	e P	Z	00:46:53.7	87.5	267.9	1.5	21	5.2	
	e pP	Z	00:47:41.9						
WERN	e P	Z	00:46:53.8	87.5	268.0	1.1	17	5.3	
	e pP	Z	00:47:42.0						
TANN	e P	Z	00:46:54.3	87.6	268.0	1.2	18	5.3	
	e pP	Z	00:47:42.3						
RJOB	e P	Z	00:46:54.4	87.7	268.4	0.9	11	5.2	
	e pP	Z	00:47:42.3						
WET	e P	Z	00:46:55.1	87.8	268.4	1.6	32	5.4	
	e pP	Z	00:47:43.1						
CLL	e P	Z	00:46:55.5	88.0	268.4	1.2	14	5.2	
	e pP	Z	00:47:43.6						
FBE	e P	Z	00:46:57.0	88.2	268.7	1.2	27	5.4	
	e pP	Z	00:47:45.0						
GEC2	e P	Z	00:46:57.2	88.4	269.0	1.0	4	4.7	
	e pP	Z	00:47:45.2						
RUE	e P	Z	00:46:57.9	88.5	269.0	1.1	17	5.3	
	e pP	Z	00:47:46.0						
BRG	e P	Z	00:46:58.3	88.5	269.1	1.1	18	5.2	
	e pP	Z	00:47:46.4						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/01	06:03: 8.4	10.800S	162.300E	34.0		5.7		NEIC

Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPdf	Z	06:22:18.4	131.2	43.0					
BSEG	e PKPdf	Z	06:22:19.0	131.5	38.0					
BRG	e PKPdf	Z	06:22:20.6	132.3	44.2					
CLL	e PKPdf	Z	06:22:20.4	132.4	42.8					
FBE	e PKPdf	Z	06:22:21.4	132.5	43.4					
NRDL	e PKPdf	Z	06:22:21.3	132.7	38.5					
NEUB	e PKPdf	Z	06:22:21.8	133.0	41.4					
CLZ	e PKPdf	Z	06:22:22.3	133.1	39.3					
TANN	e PKPdf	Z	06:22:22.6	133.3	42.7					
WERD	e PKPdf	Z	06:22:22.4	133.3	42.5					
PLN	e PKPdf	Z	06:22:22.7	133.4	42.3					
GUNZ	e PKPdf	Z	06:22:22.7	133.4	42.6					
WERN	e PKPdf	Z	06:22:23.0	133.4	42.7					
MOX	e PKPdf	Z	06:22:22.8	133.5	41.5					

	MANZ	e	PKPdf	Z	06:22:23.5	133.8	42.5			
	GEC2	e	PKPdf	Z	06:22:23.4	133.9	45.2			
	ROTZ	e	PKPdf	Z	06:22:23.6	133.9	42.8			
	UBBA	e	PKPdf	Z	06:22:23.8	134.0	39.4			
	WET	e	PKPdf	Z	06:22:24.1	134.0	44.0			
	GRA1	e	PKPdf	Z	06:22:24.6	134.4	41.6			
		e	L	Z	07:23:38.0			21.8	1544	5.7
	BUG	e	PKPdf	Z	06:22:24.6	134.6	35.6			
	RJOB	e	PKPdf	Z	06:22:25.7	135.1	44.9			
	WLF	e	PKPdf	Z	06:22:28.3	136.4	35.2			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/01	12:05:30.8	21.780S	176.450W	33.0G				SZGRF

Fiji Islands region

	Sta		Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	BSEG	e	PKPdf	Z	12:25:09.5	147.4	11.7					
		e	PKPbc	Z	12:25:11.2							
	RUE	e	PKPdf	Z	12:25:11.2	148.3	18.3					
		e	PKPbc	Z	12:25:13.5							
	NRDL	e	PKPdf	Z	12:25:11.7	148.9	11.8					
		e	PKPbc	Z	12:25:14.8							
	CLZ	e	PKPdf	Z	12:25:13.0	149.5	12.5					
		e	PKPbc	Z	12:25:17.0							
	CLL	e	PKPdf	Z	12:25:12.8	149.6	17.5					
		e	PKPbc	Z	12:25:16.7							
	BRG	e	PKPdf	Z	12:25:13.4	149.8	19.4					
		e	PKPbc	Z	12:25:17.5							
	FBE	e	PKPdf	Z	12:25:13.6	149.9	18.4					
		e	PKPbc	Z	12:25:18.0							
	NEUB	e	PKPdf	Z	12:25:13.5	149.9	15.4					
		e	PKPbc	Z	12:25:17.7							
	BUG	e	PKPdf	Z	12:25:13.9	150.2	7.0					
		e	PKPbc	Z	12:25:18.3							
	MOX	e	PKPdf	Z	12:25:14.3	150.5	15.3					
		e	PKPbc	Z	12:25:19.0							
	PLN	e	PKPdf	Z	12:25:14.5	150.5	16.4					
		e	PKPbc	Z	12:25:19.3							
	WERD	e	PKPdf	Z	12:25:14.5	150.5	16.7					
		e	PKPbc	Z	12:25:19.2							
	TANN	e	PKPdf	Z	12:25:14.5	150.5	17.0					
		e	PKPbc	Z	12:25:19.3							
	UBBA	e	PKPdf	Z	12:25:14.3	150.5	12.2					
		e	PKPbc	Z	12:25:18.9							
	GUNZ	e	PKPdf	Z	12:25:14.7	150.6	16.8					
		e	PKPbc	Z	12:25:19.7							
	WERN	e	PKPdf	Z	12:25:15.0	150.7	16.9					

	e PKPbc	Z	12:25:19.8		
MANZ	e PKPdf	Z	12:25:15.2	151.0	16.6
	e PKPbc	Z	12:25:20.4		
	e PKPab	Z	12:25:27.1		
ROTZ	e PKPdf	Z	12:25:15.6	151.2	16.9
	e PKPbc	Z	12:25:21.0		
TNS	e PKPdf	Z	12:25:16.0	151.3	9.5
	e PKPbc	Z	12:25:21.2		
	e PKPab	Z	12:25:28.7		
GRA1	e PKPbc	Z	12:25:21.6	151.4	15.0
	e PKPab	Z	12:25:29.3		
WET	e PKPdf	Z	12:25:16.1	151.7	18.5
	e PKPbc	Z	12:25:21.6		
	e PKPab	Z	12:25:30.2		
GEC2	e PKPdf	Z	12:25:16.2	151.8	20.2
	e PKPbc	Z	12:25:22.2		
	e PKPab	Z	12:25:30.5		
WLF	e PKPdf	Z	12:25:17.5	152.0	5.2
	e PKPbc	Z	12:25:23.4		
	e PKPab	Z	12:25:32.2		
STU	e PKPdf	Z	12:25:18.0	152.6	11.5
	e PKPbc	Z	12:25:24.3		
	e PKPab	Z	12:25:33.8		
FUR	e PKPbc	Z	12:25:24.5	152.9	15.9
	e PKPab	Z	12:25:35.3		
RJOB	e PKPbc	Z	12:25:24.5	153.0	19.2
	e PKPab	Z	12:25:36.0		
BFO	e PKPbc	Z	12:25:25.1	153.2	9.9
	e PKPab	Z	12:25:36.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/01	12:56:26.9	27.110N	142.259E	33.0	5.6			SZGRF

Bonin Islands, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	13:09:16.8	88.6	44.2	1.1	41	5.6		
	e PP	Z	13:12:53.4							
BSEG	e P	Z	13:09:18.4	89.0	41.5	1.0	112	6.1		
	e PP	Z	13:12:56.6							
BRG	e P	Z	13:09:21.6	89.7	44.3	0.9	29	5.5		
CLL	e P	Z	13:09:21.8	89.8	43.6	1.1	51	5.7		
	e PP	Z	13:13:02.4							
FBE	e P	Z	13:09:22.9	89.9	43.8	1.0	76	5.9		
NRDL	e P	Z	13:09:23.6	90.1	41.3	1.2	21	5.2		
NEUB	e P	Z	13:09:24.9	90.4	42.6	0.9	48	5.8		
CLZ	e P	Z	13:09:25.8	90.5	41.5	1.6	82	5.8		
	e PP	Z	13:13:07.2							

TANN	e P	Z	13:09:26.2	90.7	43.2	1.0	17	5.3
WERD	e P	Z	13:09:26.3	90.7	43.0	1.1	32	5.6
PLN	e P	Z	13:09:26.6	90.8	42.9	1.2	129	6.1
	e PP	Z	13:13:09.5					
GUNZ	e P	Z	13:09:26.8	90.8	43.1	1.0	46	5.7
WERN	e P	Z	13:09:27.0	90.8	43.1	1.1	56	5.8
MOX	e P	Z	13:09:27.0	90.9	42.5	1.2	37	5.6
	e PP	Z	13:13:10.4					
MANZ	e P	Z	13:09:28.4	91.1	42.9	1.0	23	5.5
GEC2	e P	Z	13:09:28.5	91.3	44.1	1.0	35	5.7
ROTZ	e P	Z	13:09:29.3	91.3	43.0	1.0	33	5.6
WET	e P	Z	13:09:29.6	91.4	43.5	1.1	18	5.3
	e PP	Z	13:13:14.9					
UBBA	e P	Z	13:09:29.4	91.4	41.2			
GRA1	e P	Z	13:09:31.5	91.8	42.2	1.0	39	5.7
BUG	e P	Z	13:09:32.4	92.1	39.0	1.2	36	5.6
RJOB	e P	Z	13:09:34.5	92.5	43.5	1.0	40	5.8
TNS	e P	Z	13:09:34.9	92.5	40.0	0.8	14	5.4
FUR	e P	Z	13:09:36.5	92.9	42.3	0.9	87	6.2
STU	e P	Z	13:09:38.4	93.3	40.6	0.9	33	5.7
WLF	e P	Z	13:09:41.4	93.9	38.2	1.0	29	5.6
BFO	e P	Z	13:09:41.4	94.0	40.0	0.9	24	5.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/01	15:44:38.4	7.430N	75.870W	33.0N	4.9			SZGRF

Northern Colombia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	15:56:40.8	79.2	268.8	0.9	16	5.1		
TNS	e P	Z	15:56:48.8	80.7	270.4	1.3	17	4.9		
STU	e P	Z	15:56:51.0	81.2	271.2					
NRDL	e P	Z	15:56:54.1	81.7	271.4	1.0	6	4.6		
BSEG	e P	Z	15:56:54.4	81.8	271.3	0.8	12	5.1		
CLZ	e P	Z	15:56:55.1	81.8	271.7	1.1	8	4.8		
NEUB	e P	Z	15:56:59.6	82.7	272.8	1.5	20	5.1		
MANZ	e P	Z	15:57:01.2	83.0	273.3	1.1	7	4.8		
PLN	e P	Z	15:57:01.0	83.0	273.2	1.3	57	5.6		
WERD	e P	Z	15:57:01.5	83.1	273.4	0.5	3	4.7		
GUNZ	e P	Z	15:57:01.7	83.1	273.4					
WERN	e P	Z	15:57:02.0	83.2	273.4	1.5	9	4.8		
TANN	e P	Z	15:57:02.2	83.2	273.5	1.1	5	4.7		
CLL	e P	Z	15:57:03.4	83.5	273.8	1.0	6	4.8		
WET	e P	Z	15:57:04.0	83.6	273.9	1.3	11	4.9		
FBE	e P	Z	15:57:05.1	83.8	274.1	1.1	8	4.8		
BRG	e P	Z	15:57:06.7	84.1	274.6	1.1	7	4.8		
GEC2	e P	Z	15:57:06.6	84.1	274.6	1.1	8	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/01	21:39:31.8	42.308N	17.602E	10.0G			4.0	SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	21:41:04.7	6.4	146.2					4.1
	e Sn	N	21:42:11.4							
GEC2	e Pn	Z	21:41:13.0	7.1	155.9					3.9
	e Sn	N	21:42:27.0							
WET	e Pn	Z	21:41:19.8	7.6	152.5					
ROTZ	e Pn	Z	21:41:29.9	8.3	151.4					
MANZ	e Pn	Z	21:41:32.9	8.6	151.6					
BFO	e Pn	Z	21:41:37.3	8.9	129.3					
	e Sn	N	21:43:08.9							
WERD	e Pn	Z	21:41:39.1	8.9	153.9					
MOX	e Pn	Z	21:41:42.6	9.3	151.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/02	02:19:19.0	55.553N	161.779W	35.1	5.8	4.8		SZGRF

Alaska Peninsula, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	02:30:27.0	69.8	357.0	0.8	204	6.3		
HLG	e P	Z	02:30:27.6	69.9	353.8	0.9	193	6.2		
BSEG	e P	Z	02:30:29.7	70.3	355.3	1.0	184	6.2		
NRDL	e P	Z	02:30:37.8	71.7	355.2	1.0	93	5.9		
RUE	e P	Z	02:30:39.0	71.9	357.4	1.0	151	6.1		
CLZ	e P	Z	02:30:42.3	72.4	355.4	0.9	113	6.0		
	e pP	Z	02:30:52.4							
CLL	e P	Z	02:30:45.2	73.1	356.9	0.9	80	5.8		
	e pP	Z	02:30:54.4							
NEUB	e P	Z	02:30:45.9	73.1	356.2	0.9	155	6.2		
	e pP	Z	02:30:56.1							
UBBA	e P	Z	02:30:47.2	73.4	355.2					
	e pP	Z	02:30:56.6							
FBE	e P	Z	02:30:48.1	73.4	357.1	1.0	117	5.9		
BRG	e P	Z	02:30:48.2	73.5	357.5	0.9	76	5.7		
	e pP	Z	02:30:58.4							
MOX	e P	Z	02:30:49.2	73.7	356.1	0.9	107	5.9		
PLN	e P	Z	02:30:50.2	73.8	356.4	0.9	262	6.3		
WERD	e P	Z	02:30:50.5	73.9	356.5	0.9	38	5.4		
TNS	e P	Z	02:30:50.6	73.9	354.3	0.9	77	5.7		
	e pP	Z	02:31:00.7							
TANN	e P	Z	02:30:50.9	73.9	356.6	1.0	41	5.4		
	e pP	Z	02:31:01.2							

GUNZ	e P	Z	02:30:51.1	74.0	356.5	0.9	50	5.6	
WERN	e P	Z	02:30:51.7	74.0	356.6	0.9	69	5.7	
WLF	e P	Z	02:30:53.2	74.3	352.9	1.0	86	5.8	
MANZ	e P	Z	02:30:53.1	74.3	356.4	1.1	44	5.4	
ROTZ	e P	Z	02:30:54.7	74.6	356.5	1.0	65	5.6	
GRA1	e P	Z	02:30:54.9	74.6	355.9	0.9	92	5.8	
	e L	Z	03:06:32.1			20.1	529		4.8
WET	e P	Z	02:30:58.5	75.2	356.9	1.1	50	5.6	
	e pP	Z	02:31:08.7						
STU	e P	Z	02:30:59.0	75.4	354.7	0.9	64	5.8	
GEC2	e P	Z	02:31:00.0	75.5	357.4	0.9	60	5.7	
	e pP	Z	02:31:10.2						
BFO	e P	Z	02:31:01.1	75.8	354.2	0.9	47	5.6	
FUR	e P	Z	02:31:03.3	76.1	356.0	0.9	95	5.9	
	e pP	Z	02:31:13.6						
RJOB	e P	Z	02:31:06.0	76.6	356.8	0.9	83	5.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/02	14:58:31.3	23.933S	178.562W	33.0N				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	15:18:17.5	149.3	16.0					
RUE	e PKPbc	Z	15:18:18.8	150.0	23.0					
NRDL	e PKPbc	Z	15:18:20.4	150.7	16.3					
CLL	e PKPbc	Z	15:18:21.5	151.2	22.4					
CLZ	e PKPbc	Z	15:18:22.1	151.3	17.2					
BRG	e PKPbc	Z	15:18:22.2	151.4	24.4					
FBE	e PKPbc	Z	15:18:22.6	151.5	23.3					
NEUB	e PKPbc	Z	15:18:22.5	151.6	20.2					
MOX	e PKPbc	Z	15:18:23.8	152.1	20.2					
TANN	e PKPbc	Z	15:18:23.9	152.2	22.0					
	e PKPab	Z	15:18:29.5							
PLN	e PKPbc	Z	15:18:24.0	152.2	21.4					
WERD	e PKPbc	Z	15:18:23.8	152.2	21.7					
GUNZ	e PKPbc	Z	15:18:24.2	152.2	21.8					
WERN	e PKPbc	Z	15:18:24.4	152.3	21.9					
	e PKPab	Z	15:18:30.1							
UBBA	e PKPbc	Z	15:18:23.9	152.3	17.0					
ROTZ	e PKPbc	Z	15:18:25.4	152.8	22.0					
GRA1	e PKPbc	Z	15:18:25.8	153.1	20.1					
	e PKPab	Z	15:18:33.7							
TNS	e PKPbc	Z	15:18:26.4	153.2	14.3					
WET	e PKPbc	Z	15:18:26.0	153.2	23.7					
	e PKPab	Z	15:18:34.4							
GEC2	e PKPbc	Z	15:18:26.2	153.3	25.6					
	e PKPab	Z	15:18:34.7							

WLF	e PKPbc	Z	15:18:28.6	154.0	9.9	
STU	e PKPbc	Z	15:18:28.9	154.4	16.6	
RJOB	e PKPab	Z	15:18:40.5	154.5	24.8	
FUR	e PKPbc	Z	15:18:29.1	154.5	21.3	
	e PKPab	Z	15:18:39.9			
BFO	e PKPbc	Z	15:18:30.8	155.0	15.0	
	e PKPab	Z	15:18:40.9			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/02	15:44:12.9	36.842N	21.939E	33.0N				SZGRF

Southern Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	15:47:30.0	13.4	150.4	1.0	5			
WET	e P	Z	15:47:35.9	14.0	148.5	0.6	5			
ROTZ	e P	Z	15:47:44.0	14.7	147.8	0.8	2			
GRA1	e P	Z	15:47:48.1	15.0	144.9	0.8	10			
BRG	e P	Z	15:47:47.7	15.1	154.8	0.6	3			
GUNZ	e P	Z	15:47:49.5	15.2	149.3	1.1	5			
TANN	e P	Z	15:47:50.0	15.2	149.8	0.9	4			
WERD	e P	Z	15:47:50.7	15.3	149.4	0.9	4			
PLN	e P	Z	15:47:51.2	15.3	149.1	0.8	25			
MOX	e P	Z	15:47:54.6	15.7	147.9	0.7	2			
CLL	e P	Z	15:47:55.5	15.8	152.8	0.7	5			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/02	18:41: 3.4	46.300N	153.700E	66.0	4.8			NEIC

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	18:52:43.0	75.4	27.4	0.9	12	5.0		
CLL	e P	Z	18:52:49.8	76.7	26.7	0.8	7	4.9		
CLZ	e P	Z	18:52:52.1	76.9	25.1	0.8	4	4.7		
NEUB	e P	Z	18:52:53.7	77.1	25.9	1.2	9	4.8		
TANN	e P	Z	18:52:55.6	77.6	26.3	1.7	10	4.7		
WERD	e P	Z	18:52:55.6	77.7	26.2	2.9	75	5.3		
WERN	e P	Z	18:52:56.5	77.8	26.2	0.8	4	4.6		
GRA1	e P	Z	18:53:01.7	78.6	25.4	0.9	6	4.6		
WET	e P	Z	18:53:01.7	78.7	26.4	0.9	4	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/03	01:20:22.3	18.834S	173.348W	78.0				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	01:39:51.7	145.9	12.1					
NRDL	e PKPbc	Z	01:39:53.0	146.2	5.9					
	e pPKPbc	Z	01:40:14.8							
CLZ	e PKPbc	Z	01:39:54.7	146.9	6.5					
CLL	e PKPbc	Z	01:39:55.4	147.1	11.1					
NEUB	e PKPbc	Z	01:39:56.3	147.4	9.0					
	e pPKPbc	Z	01:40:18.4							
BRG	e PKPbc	Z	01:39:56.5	147.4	12.9					
	e pPKPbc	Z	01:40:18.2							
FBE	e PKPbc	Z	01:39:56.9	147.5	11.9					
	e pPKPbc	Z	01:40:18.9							
UBBA	e PKPbc	Z	01:39:57.4	147.9	6.0					
MOX	e PKPbc	Z	01:39:57.6	147.9	8.9					
WERD	e PKPbc	Z	01:39:58.6	148.1	10.2					
TANN	e PKPbc	Z	01:39:58.3	148.1	10.4					
WERN	e PKPbc	Z	01:39:58.8	148.2	10.3					
TNS	e PKPbc	Z	01:39:59.7	148.6	3.3					
	e pPKPbc	Z	01:40:21.2							
GRA1	e PKPbc	Z	01:40:00.5	148.9	8.4					
	e PKPab	Z	01:40:04.5							
	e pPKPbc	Z	01:40:22.1							
	e pPKPab	Z	01:40:26.2							
WLF	e PKPbc	Z	01:40:01.6	149.2	359.1					
	e pPKPbc	Z	01:40:22.8							
	e pPKPab	Z	01:40:27.4							
WET	e PKPbc	Z	01:40:01.3	149.3	11.6					
GEC2	e PKPbc	Z	01:40:01.6	149.5	13.2					
FUR	e PKPbc	Z	01:40:04.2	150.4	8.9					
	e PKPab	Z	01:40:10.6							
BFO	e PKPbc	Z	01:40:04.2	150.5	3.2					
	e PKPab	Z	01:40:10.6							
RJOB	e PKPbc	Z	01:40:04.6	150.7	11.9					
	e pPKPbc	Z	01:40:27.0							
	e pPKPab	Z	01:40:33.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/03	05:14:43.4	42.011N	13.833E	10.0G			3.4	SZGRF

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z	05:15:50.2	4.5	186.8					3.4
KBA	e Sn	N	05:16:50.5	5.1	175.9					3.1
ARSA	e Pn	Z	05:16:01.7	5.4	193.5					
	e Sn	N	05:16:59.4							
WTTA	e Pn	Z	05:16:02.7	5.5	162.6					3.5

	e Sn	N	05:17:03.5					
RJOB	e Pn	Z	05:16:07.4	5.8	172.3			3.6
	e Sn	N	05:17:08.8					
MOA	e Pn	Z	05:16:08.9	5.8	183.2			
DAVA	e Pn	Z	05:16:10.5	6.0	150.5			3.4
GEC2	e Pn	Z	05:16:21.1	6.8	179.2			3.2
	e Sn	N	05:17:33.2					
WET	e Pn	Z	05:16:25.2	7.2	174.3			
	e Sn	N	05:17:38.5					
BFO	e Sn	N	05:17:45.5	7.4	146.5			
GRA1	e Sn	N	05:17:58.4	7.9	165.7			
MOX	e Sn	N	05:18:16.9	8.8	169.1			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/03	16:21:57.4	14.931N	87.834W	123.1	6.0			SZGRF

Honduras

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	16:34:01.4	81.2	282.7	1.1	89	5.7		
	e pP	Z	16:34:33.5							
	e sP	Z	16:34:45.2							
HLG	e P	Z	16:34:01.6	81.2	283.4	1.0	364	6.3		
	e pP	Z	16:34:33.6							
TNS	e P	Z	16:34:08.3	82.5	284.4	1.7	182	6.0		
	e pP	Z	16:34:39.6							
	e sP	Z	16:34:51.6							
BSEG	e P	Z	16:34:08.2	82.7	285.3	1.3	458	6.5		
	e pP	Z	16:34:40.8							
	e sP	Z	16:34:52.1							
BFO	e P	Z	16:34:08.8	82.9	284.5	1.5	73	5.7		
	e pP	Z	16:34:41.5							
	e sP	Z	16:34:53.4							
NRDL	e P	Z	16:34:10.0	82.9	285.4	1.4	161	6.1		
	e pP	Z	16:34:41.5							
	e sP	Z	16:34:53.5							
CLZ	e P	Z	16:34:11.7	83.3	285.6	1.3	153	6.1		
	e pP	Z	16:34:43.8							
	e sP	Z	16:34:55.0							
UBBA	e P	Z	16:34:11.2	83.3	285.5	1.8	216	6.1		
	e pP	Z	16:34:43.8							
	e sP	Z	16:34:55.1							
STU	e P	Z	16:34:12.1	83.3	285.1	1.1	89	5.9		
	e pP	Z	16:34:44.3							
	e sP	Z	16:34:55.5							
RGN	e P	Z	16:34:16.3	84.2	287.7	1.2	244	6.3		
	e pP	Z	16:34:48.7							
	e sP	Z	16:34:59.8							

NEUB	e P	Z	16:34:16.5	84.3	286.8	1.1	144	6.1
	e pP	Z	16:34:49.1					
	e sP	Z	16:35:00.3					
MOX	e P	Z	16:34:16.8	84.3	286.7	1.2	104	5.9
	e pP	Z	16:34:49.5					
	e sP	N	16:35:00.5					
	e PP	Z	16:37:40.4					
	e S	N	16:44:31.5					
GRA1	e P	Z	16:34:17.6	84.4	286.5	1.1	138	6.1
	e pP	Z	16:34:49.8					
	e sP	Z	16:35:00.5					
	e PP	Z	16:37:40.7					
	e S	N	16:44:31.8					
PLN	e P	Z	16:34:18.9	84.7	287.1	2.4	2894	7.1
	e pP	Z	16:34:51.7					
	e sP	Z	16:35:02.1					
	e PP	Z	16:37:42.0					
WERD	e P	Z	16:34:19.4	84.8	287.2	1.3	115	6.0
	e pP	Z	16:34:52.2					
	e sP	Z	16:35:02.8					
FUR	e P	Z	16:34:20.3	84.8	286.7	1.1	74	5.8
	e pP	Z	16:34:52.6					
	e sP	Z	16:35:02.9					
GUNZ	e P	Z	16:34:19.8	84.9	287.3	1.1	126	6.0
	e pP	Z	16:34:52.9					
	e sP	Z	16:35:03.2					
WERN	e P	Z	16:34:20.4	84.9	287.3	1.2	148	6.1
	e pP	Z	16:34:52.7					
	e sP	Z	16:35:03.6					
	e PP	Z	16:37:39.5					
TANN	e P	Z	16:34:20.3	84.9	287.4	1.2	131	6.0
	e pP	Z	16:34:53.1					
	e sP	Z	16:35:03.5					
	e PP	Z	16:37:43.2					
ROTZ	e P	Z	16:34:20.3	85.0	287.2	1.3	87	5.8
	e pP	Z	16:34:52.3					
	e sP	Z	16:35:03.5					
	e PP	Z	16:37:44.8					
CLL	e P	Z	16:34:19.7	85.0	287.7	1.0	96	6.0
	e pP	Z	16:34:53.1					
	e sP	Z	16:35:03.5					
	e PP	Z	16:37:46.1					
RUE	e P	Z	16:34:20.9	85.1	288.2	1.2	85	5.8
	e pP	Z	16:34:53.0					
	e sP	Z	16:35:03.6					
	e PP	Z	16:37:45.1					
FBE	e P	Z	16:34:22.1	85.3	288.0	1.2	142	6.1
	e pP	Z	16:34:54.9					
	e sP	Z	16:35:05.1					

WET	e P	Z	16:34:23.3	85.6	287.8	1.1	134	6.0
	e pP	Z	16:34:55.2					
	e sP	Z	16:35:06.6					
BRG	e P	Z	16:34:24.2	85.7	288.5	1.3	85	5.7
	e pP	Z	16:34:55.8					
	e sP	Z	16:35:06.9					
	e PP	Z	16:37:48.9					
RJOB	e P	Z	16:34:25.4	85.9	287.8	1.1	61	5.6
	e pP	Z	16:34:56.7					
	e sP	Z	16:35:08.5					
	e PP	Z	16:37:50.8					
GEC2	e P	Z	16:34:26.1	86.2	288.4	1.3	69	5.6
	e pP	Z	16:34:57.7					
	e sP	Z	16:35:09.7					
	e PP	Z	16:37:55.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/03	19:58:42.7	21.817S	175.699W	33.0N				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	20:18:22.5	147.6	10.5					
RUE	e PKPbc	Z	20:18:25.0	148.5	17.0					
NRDL	e PKPbc	Z	20:18:26.5	149.0	10.5					
CLZ	e PKPbc	Z	20:18:28.5	149.6	11.2					
CLL	e PKPbc	Z	20:18:28.2	149.7	16.2					
	e PKPab	Z	20:18:32.8							
BRG	e PKPbc	Z	20:18:28.9	150.0	18.1					
	e PKPab	Z	20:18:33.6							
NEUB	e PKPbc	Z	20:18:28.9	150.0	14.0					
	e PKPab	Z	20:18:34.1							
FBE	e PKPbc	Z	20:18:29.5	150.0	17.0					
	e PKPab	Z	20:18:34.4							
MOX	e PKPbc	Z	20:18:30.5	150.6	13.9					
	e PKPab	Z	20:18:36.4							
PLN	e PKPbc	Z	20:18:30.6	150.7	15.0					
	e PKPab	Z	20:18:36.6							
WERD	e PKPbc	Z	20:18:30.8	150.7	15.3					
	e PKPab	Z	20:18:37.0							
TANN	e PKPbc	Z	20:18:30.7	150.7	15.6					
GUNZ	e PKPbc	Z	20:18:31.2	150.8	15.4					
	e PKPab	Z	20:18:37.6							
WERN	e PKPbc	Z	20:18:31.7	150.8	15.5					
	e PKPab	Z	20:18:37.9							
ROTZ	e PKPbc	Z	20:18:32.1	151.4	15.5					
	e PKPab	Z	20:18:40.3							
TNS	e PKPbc	Z	20:18:32.9	151.4	8.1					

GRA1	e PKPbc	Z	20:18:33.7	151.6	13.6	
	e PKPab	Z	20:18:41.0			
WET	e PKPab	Z	20:18:41.9	151.8	17.1	
GEC2	e PKPbc	Z	20:18:33.4	152.0	18.8	
	e PKPab	Z	20:18:42.4			
WLF	e PKPbc	Z	20:18:34.1	152.1	3.7	
	e PKPab	Z	20:18:43.0			
STU	e PKPab	Z	20:18:45.7	152.8	10.0	
FUR	e PKPbc	Z	20:18:36.1	153.1	14.4	
	e PKPab	Z	20:18:47.3			
RJOB	e PKPbc	Z	20:18:36.1	153.2	17.7	
	e PKPab	Z	20:18:47.6			
BFO	e PKPbc	Z	20:18:37.0	153.3	8.3	
	e PKPab	Z	20:18:46.4			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/04	09:10:25.2	9.480N	65.970W	33.0N	5.1	4.9		SZGRF

Venezuela

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	09:21:41.8	71.2	262.5	0.9	22	5.3		
TNS	e P	Z	09:21:51.0	72.8	264.1	1.1	31	5.3		
UBBA	e P	Z	09:21:56.7	73.8	265.1	1.2	7	4.6		
NRDL	e P	Z	09:21:58.1	74.0	264.7	0.7	12	5.0		
CLZ	e P	Z	09:21:58.9	74.1	265.1	1.0	18	5.1		
GRA1	e P	Z	09:22:01.2	74.5	266.4	0.9	17	5.1		
	e L	Z	09:49:22.9			21.4	716		4.9	
ROTZ	e P	Z	09:22:05.3	75.2	267.2	1.1	11	4.8		
PLN	e P	Z	09:22:04.8	75.2	266.9	1.2	103	5.7		
WERD	e P	Z	09:22:05.4	75.2	267.1	1.3	22	5.0		
GUNZ	e P	Z	09:22:05.5	75.3	267.1	1.2	11	4.8		
WERN	e P	Z	09:22:05.8	75.3	267.2	1.1	21	5.1		
TANN	e P	Z	09:22:06.2	75.3	267.2	1.3	28	5.1		
RJOB	e P	Z	09:22:06.8	75.5	268.1	0.9	14	5.0		
WET	e P	Z	09:22:07.5	75.6	267.8	1.0	12	5.0		
CLL	e P	Z	09:22:08.1	75.7	267.4	1.0	21	5.2		
FBE	e P	Z	09:22:09.5	75.9	267.8	0.9	23	5.3		
GEC2	e P	Z	09:22:09.0	76.1	268.5	0.9	27	5.4		
BRG	e P	Z	09:22:11.5	76.3	268.2	1.3	29	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/05	03:20: 5.8	17.530S	171.560W	33.0N				SZGRF

Tonga Islands region

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

NRDL	e PKPbc	Z	03:39:38.4	145.0	2.8	
CLZ	e PKPbc	Z	03:39:41.0	145.7	3.3	
CLL	e PKPbc	Z	03:39:41.7	146.0	7.8	
NEUB	e PKPbc	Z	03:39:42.7	146.2	5.7	
BRG	e PKPbc	Z	03:39:43.0	146.4	9.5	
FBE	e PKPbc	Z	03:39:43.4	146.4	8.5	
MOX	e PKPbc	Z	03:39:44.3	146.8	5.5	
PLN	e PKPbc	Z	03:39:44.6	146.9	6.5	
WERD	e PKPbc	Z	03:39:44.1	146.9	6.8	
TANN	e PKPbc	Z	03:39:44.4	147.0	7.0	
GUNZ	e PKPbc	Z	03:39:45.0	147.0	6.8	
WERN	e PKPbc	Z	03:39:45.4	147.1	6.9	
MANZ	e PKPbc	Z	03:39:46.2	147.4	6.5	
GRA1	e PKPbc	Z	03:39:47.1	147.8	5.0	
GEC2	e PKPbc	Z	03:39:48.7	148.4	9.6	
BFO	e PKPbc	Z	03:39:50.9	149.2	359.8	
RJOB	e PKPbc	Z	03:39:51.7	149.6	8.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/05	22:47:55.2	17.042S	173.707W	153.8				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	23:07:11.6	144.4	6.3					
CLZ	e PKPbc	Z	23:07:14.0	145.1	6.8					
CLL	e PKPbc	Z	23:07:14.4	145.3	11.3					
NEUB	e PKPbc	Z	23:07:15.5	145.6	9.3					
BRG	e PKPbc	Z	23:07:15.5	145.6	13.0					
	e pPKPbc	Z	23:07:55.9							
FBE	e PKPbc	Z	23:07:15.9	145.7	12.0					
	e pPKPbc	Z	23:07:56.3							
MOX	e PKPbc	Z	23:07:17.1	146.1	9.2					
WERD	e PKPbc	Z	23:07:17.5	146.2	10.4					
TANN	e PKPbc	Z	23:07:17.5	146.3	10.7					
GUNZ	e PKPbc	Z	23:07:17.8	146.3	10.5					
WERN	e PKPbc	Z	23:07:18.1	146.4	10.5					
MANZ	e PKPbc	Z	23:07:19.0	146.7	10.2					
TNS	e PKPbc	Z	23:07:19.1	146.8	3.8					
ROTZ	e PKPbc	Z	23:07:19.7	146.9	10.4					
	e pPKPbc	Z	23:07:59.4							
WLF	e PKPbc	Z	23:07:21.3	147.4	359.8					
GEC2	e PKPbc	Z	23:07:21.2	147.6	13.3					
	e pPKPbc	Z	23:08:01.0							
STU	e PKPbc	Z	23:07:23.0	148.2	5.3					
FUR	e PKPbc	Z	23:07:23.7	148.6	9.2					
BFO	e PKPbc	Z	23:07:23.9	148.7	3.7					
	e pPKPbc	Z	23:08:03.8							

	RJOB	e	PKPbc	Z	23:07:24.2	148.8	12.1			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/06	12:53:59.5	22.500S	172.587E	33.0G				SZGRF

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPbc	Z 13:13:34.9	145.8	30.1					
RUE	e	PKPbc	Z 13:13:34.9	145.9	36.6					
BRG	e	PKPbc	Z 13:13:38.5	147.1	38.3					
CLL	e	PKPbc	Z 13:13:38.2	147.1	36.4					
NRDL	e	PKPbc	Z 13:13:38.7	147.1	30.8					
FBE	e	PKPbc	Z 13:13:39.5	147.3	37.3					
CLZ	e	PKPbc	Z 13:13:40.3	147.6	31.8					
IBBN	e	PKPbc	Z 13:13:41.3	148.0	27.1					
TANN	e	PKPbc	Z 13:13:41.3	148.1	36.4					
WERD	e	PKPbc	Z 13:13:41.3	148.1	36.1					
PLN	e	PKPbc	Z 13:13:41.4	148.1	35.9					
GUNZ	e	PKPbc	Z 13:13:41.6	148.1	36.3					
MOX	e	PKPbc	Z 13:13:41.3	148.2	34.8					
WERN	e	PKPbc	Z 13:13:41.9	148.2	36.4					
MANZ	e	PKPbc	Z 13:13:42.6	148.5	36.3					
ROTZ	e	PKPbc	Z 13:13:42.9	148.7	36.6					
GEC2	e	PKPbc	Z 13:13:42.9	148.8	40.0					
WET	e	PKPbc	Z 13:13:43.4	148.9	38.3					
GRA1	e	PKPbc	Z 13:13:44.2	149.1	35.1					
TNS	e	PKPbc	Z 13:13:45.6	149.6	30.0					
RJOB	e	PKPbc	Z 13:13:45.7	150.0	39.7					
STU	e	PKPbc	Z 13:13:47.8	150.6	32.6					
BFO	e	PKPbc	Z 13:13:49.1	151.3	31.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/06	13:33:11.7	6.649S	154.898E	46.0				NEIC

Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e	PKPdf	Z 13:52:07.8	125.2	50.0					
CLL	e	PKPdf	Z 13:52:07.8	125.4	48.7					
FBE	e	PKPdf	Z 13:52:08.4	125.5	49.3					
PLN	e	PKPdf	Z 13:52:09.8	126.3	48.3					
GEC2	e	PKPdf	Z 13:52:10.5	126.6	50.9					
MANZ	e	PKPdf	Z 13:52:10.7	126.7	48.5					
WET	e	PKPdf	Z 13:52:10.9	126.9	49.8					
GRA1	e	PKPdf	Z 13:52:11.8	127.3	47.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/07	02:06:38.6	16.946S	177.947W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z	02:26:00.6	141.4	17.4					
BSEG	e PKPbc	Z	02:26:05.1	142.5	13.0					
CLZ	e PKPbc	Z	02:26:12.0	144.5	13.8					
CLL	e PKPbc	Z	02:26:11.8	144.5	18.3					
BRG	e PKPbc	Z	02:26:12.6	144.8	20.0					
FBE	e PKPbc	Z	02:26:13.2	144.8	19.0					
MOX	e PKPbc	Z	02:26:14.5	145.4	16.3					
PLN	e PKPbc	Z	02:26:14.7	145.5	17.2					
WERD	e PKPbc	Z	02:26:14.8	145.5	17.5					
TANN	e PKPbc	Z	02:26:14.8	145.5	17.8					
UBBA	e PKPbc	Z	02:26:15.1	145.5	13.5					
GUNZ	e PKPbc	Z	02:26:15.1	145.6	17.6					
ROTZ	e PKPbc	Z	02:26:16.3	146.2	17.6					
TNS	e PKPbc	Z	02:26:17.2	146.3	11.1					
GEC2	e PKPbc	Z	02:26:17.9	146.7	20.6					
WLF	e PKPbc	Z	02:26:19.8	147.1	7.2					
RJOB	e PKPbc	Z	02:26:20.8	148.0	19.6					
BFO	e PKPbc	Z	02:26:21.7	148.2	11.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/07	12:11: 6.2	44.848N	17.313E	10.0G			4.1	SZGRF

Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	12:12:09.4	4.3	131.1					3.9
GEC2	e Pn	Z	12:12:15.2	4.7	147.0					3.9
	e Sn	N	12:13:05.9							
ROTZ	e Pn	Z	12:12:32.4	6.0	143.0					4.0
	e Sn	E	12:13:36.5							
GRA1	e Sn	E	12:13:44.7	6.4	137.3					4.5
WERN	e Pn	Z	12:12:38.1	6.4	146.7					
GUNZ	e Pn	Z	12:12:39.0	6.5	146.8					
WERD	e Pn	Z	12:12:40.6	6.5	147.1					
PLN	e Pn	Z	12:12:41.7	6.6	146.4					
MOX	e Pn	Z	12:12:46.2	6.9	144.4					
TNS	e Pn	Z	12:13:01.0	8.0	128.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

2009/05/07 22:44:13.9 25.057N 54.636E 32.9 5.3 SZGRF
Persian Gulf

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	22:51:43.3	39.7	111.7	1.1	27	4.8		
	e pP	Z	22:51:51.9							
RJOB	e P	Z	22:51:45.3	39.9	109.6	1.1	44	5.0		
WET	e P	Z	22:51:48.0	40.3	111.2	1.2	34	4.9		
	e pP	Z	22:51:56.6							
BRG	e P	Z	22:51:48.0	40.4	114.2	1.1	56	5.1		
FBE	e P	Z	22:51:51.1	40.7	113.6	1.3	48	5.1		
	e pP	Z	22:52:00.0							
ROTZ	e P	Z	22:51:53.9	41.0	111.2	1.1	69	5.3		
	e pP	Z	22:52:02.7							
FUR	e P	Z	22:51:54.1	41.0	108.5	1.3	162	5.6		
	e pP	Z	22:52:02.6							
TANN	e P	Z	22:51:53.8	41.0	112.1	0.1	28	5.9		
WERN	e P	Z	22:51:54.3	41.0	111.9	1.3	46	5.1		
	e pP	Z	22:52:03.2							
CLL	e P	Z	22:51:54.2	41.1	113.7	1.2	82	5.3		
	e pP	Z	22:52:03.1							
MANZ	e P	Z	22:51:54.8	41.1	111.3	1.2	34	5.0		
	e pP	Z	22:52:03.4							
GUNZ	e P	Z	22:51:54.4	41.1	112.0	1.7	37	4.8		
RUE	e P	Z	22:51:53.9	41.1	115.7	1.1	77	5.3		
WERD	e P	Z	22:51:54.6	41.1	112.0	1.2	17	4.6		
	e pP	Z	22:52:03.5							
PLN	e P	Z	22:51:55.4	41.3	111.9	1.3	68	5.2		
GRA1	e P	Z	22:51:58.5	41.5	110.1	1.1	135	5.6		
	e pP	Z	22:52:07.0							
MOX	e P	Z	22:51:58.8	41.6	111.5	1.4	38	4.9		
NEUB	e P	Z	22:51:59.7	41.7	112.3	1.1	76	5.3		
	e pP	Z	22:52:08.4							
RGN	e P	Z	22:52:03.2	42.3	117.3	1.3	157	5.6		
STU	e P	Z	22:52:05.5	42.5	107.1	1.3	41	5.0		
	e pP	Z	22:52:14.2							
UBBA	e P	Z	22:52:07.4	42.6	110.0	1.5	56	5.1		
	e pP	Z	22:52:15.8							
CLZ	e P	Z	22:52:08.7	42.8	111.5	1.1	137	5.6		
	e pP	Z	22:52:17.4							
NRDL	e P	Z	22:52:11.7	43.2	111.8	1.1	127	5.6		
	e pP	Z	22:52:20.4							
TNS	e P	Z	22:52:13.7	43.4	107.9	1.2	79	5.3		
	e pP	Z	22:52:22.2							
BSEG	e P	Z	22:52:14.1	43.6	113.5	1.3	89	5.3		
	e pP	Z	22:52:23.0							
IBBN	e P	Z	22:52:22.0	44.5	109.3	1.3	129	5.7		
	e pP	Z	22:52:30.9							
BUG	e P	Z	22:52:22.4	44.5	107.9	1.2	122	5.7		

	e pP	Z	22:52:31.2			
WLF	e P	Z	22:52:23.7	44.6	105.1	
	e pP	Z	22:52:32.3			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/08								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
KBA	e Pn	Z	01:04:03.0							
	e Sg	E	01:04:59.2							
MOA	e Pn	Z	01:04:15.2							
	e Sg	E	01:05:17.8							
OBKA	e Pn	Z	01:03:56.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/08	13:19:11.3	3.755N	96.196E	45.5N	5.1			SZGRF

Northern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	13:31:27.1	82.2	93.6	0.8	6	4.8		
GEC2	e P	Z	13:31:27.2	82.2	93.2	2.1	79	5.5		
WET	e P	Z	13:31:30.1	82.8	92.6	0.9	6	4.8		
ROTZ	e P	Z	13:31:33.0	83.3	92.2	0.7	7	5.0		
MOX	e P	Z	13:31:34.6	83.7	91.8	0.9	5	4.7		
GRA1	e P	Z	13:31:36.4	83.9	91.4	1.2	18	5.2		
CLZ	e P	Z	13:31:38.9	84.5	91.0	0.7	18	5.4		
NRDL	e P	Z	13:31:39.8	84.6	90.8	0.9	9	5.0		
TNS	e P	Z	13:31:45.4	85.7	89.3	0.7	8	4.9		
IBBN	e P	Z	13:31:47.0	86.1	88.9	0.7	23	5.4		
BUG	e P	Z	13:31:48.0	86.4	88.5	0.6	18	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/08	14:53:51.0	35.100N	22.900E	20.0	4.1			GSRC

Central Mediterranean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	14:57:34.7	15.3	150.3	1.4	12			
WET	e P	Z	14:57:40.3	15.9	148.6	1.1	16			
ROTZ	e P	Z	14:57:47.4	16.6	147.9	2.2	43			
GRA1	e P	Z	14:57:52.3	16.9	145.3	0.9	24			
BRG	e P	Z	14:57:52.9	17.1	154.2	1.3	9	3.8		
GUNZ	e P	Z	14:57:54.1	17.1	149.3	1.9	24			
FBE	e P	Z	14:57:56.0	17.3	152.8	0.9	15	4.1		

CLL	e P	Z	14:58:00.6	17.7	152.5	0.8	8	3.9	
NEUB	e P	Z	14:58:04.1	18.0	149.3	0.9	25		
CLZ	e P	Z	14:58:14.7	19.0	146.9	0.8	8	4.0	
BSEG	e P	Z	14:58:33.0	20.8	149.9	0.9	48	4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/08	21:22:37.3	58.618N	163.887E	27.6	5.8	4.9		SZGRF

Kamchatka Peninsula, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	21:33:19.0	65.4	14.8	1.8	216	6.1		
NRDL	e P	Z	21:33:27.6	66.9	14.5	2.0	135	5.8		
IBBN	e P	Z	21:33:31.1	67.4	13.2	1.4	161	6.0		
CLL	e P	Z	21:33:31.5	67.5	15.9	1.4	120	5.9		
	e pP	Z	21:33:39.4							
BRG	e P	Z	21:33:33.3	67.8	16.4	1.5	67	5.7		
BUG	e P	Z	21:33:36.5	68.3	12.9	1.7	161	6.0		
MOX	e P	Z	21:33:37.4	68.4	15.1	1.5	98	5.8		
TANN	e P	Z	21:33:38.2	68.5	15.5	1.7	123	5.9		
UBBA	e P	Z	21:33:37.9	68.5	14.3	1.6	84	5.7		
	e pP	Z	21:33:45.6							
ROTZ	e P	Z	21:33:42.5	69.2	15.3	1.6	120	5.8		
TNS	e P	Z	21:33:43.1	69.3	13.4	1.6	73	5.6		
	e pP	Z	21:33:50.8							
GRA1	e P	Z	21:33:43.9	69.4	14.8	1.5	152	5.9		
	e L	Z	22:05:47.3			21.6	784		4.9	
WET	e P	Z	21:33:45.5	69.7	15.6	1.7	128	5.8		
GEC2	e P	Z	21:33:46.1	69.8	16.0	1.6	71	5.6		
WLF	e P	Z	21:33:48.5	70.2	12.1	1.4	60	5.5		
STU	e P	Z	21:33:50.7	70.6	13.6	1.4	51	5.5		
FUR	e P	Z	21:33:52.5	70.9	14.7	2.6	415	6.1		
RJOB	e P	Z	21:33:53.7	71.0	15.4	1.1	44	5.5		
	e pP	Z	21:34:01.5							
BFO	e P	Z	21:33:54.0	71.2	13.2	1.6	80	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/09	14:55: 0.6	48.848N	152.019E	33.0N	4.8			SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	15:06:32.1	73.9	26.7	0.6	7	4.9		
MOX	e P	Z	15:06:38.2	74.9	25.8	0.7	3	4.5		
GRA1	e P	Z	15:06:44.1	75.9	25.4	0.6	8	5.0		
WET	e P	Z	15:06:44.1	75.9	26.4	0.7	4	4.7		
GEC2	e P	Z	15:06:43.7	75.9	26.8					

TNS	e P	Z	15:06:45.4	76.1	23.7				
BFO	e P	Z	15:06:54.8	77.9	23.5	1.0	6	4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/09	19:34:38.2	37.330N	143.170E	33.4	5.7	5.1		SZGRF

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	19:46:45.7	80.1	36.3	1.2	140	5.7		
BRG	e P	Z	19:46:51.1	81.2	38.6	1.4	60	5.5		
CLL	e P	Z	19:46:50.9	81.2	37.9	1.3	82	5.7		
NRDL	e P	Z	19:46:51.9	81.3	36.0	1.5	58	5.5		
TANN	e P	Z	19:46:56.2	82.1	37.5	2.0	98	5.6		
	e pP	Z	19:47:05.9							
MOX	e P	Z	19:46:56.8	82.3	36.9	1.6	69	5.6		
	e pP	Z	19:47:06.5							
IBBN	e P	Z	19:46:57.1	82.3	34.3	1.3	88	5.8		
UBBA	e P	Z	19:46:59.2	82.7	35.8	1.3	24	5.3		
ROTZ	e P	Z	19:46:59.8	82.7	37.2	1.9	199	6.0		
GEC2	e P	Z	19:46:59.7	82.9	38.2	1.3	43	5.5		
	e pP	Z	19:47:09.4							
WET	e P	Z	19:47:00.6	83.0	37.7	1.4	61	5.6		
GRA1	e P	Z	19:47:02.0	83.2	36.6	1.8	275	6.2		
	e pP	Z	19:47:11.2							
	e L	Z	20:30:15.3			19.3	796		5.1	
BUG	e P	Z	19:47:01.4	83.2	33.9	1.8	111	5.8		
TNS	e P	Z	19:47:04.8	83.8	34.6	1.7	76	5.7		
RJOB	e P	Z	19:47:06.4	84.1	37.5	1.3	59	5.7		
	e pP	Z	19:47:16.2							
FUR	e P	Z	19:47:07.7	84.4	36.5	1.1	86	5.9		
STU	e P	Z	19:47:09.2	84.7	35.1	1.1	84	5.9		
	e pP	Z	19:47:18.9							
WLF	e P	Z	19:47:11.5	85.1	33.0	1.6	168	6.0		
BFO	e P	Z	19:47:12.5	85.4	34.4	1.3	95	5.8		
	e pP	Z	19:47:22.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/09	20:54:59.7	46.267N	7.182E	10.0G			2.6	SZGRF

Switzerland

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BALST	e Pn	Z	20:55:20.4	1.1	198.4					
	e Sg	N	20:55:36.2							
SULZ	e Pn	Z	20:55:25.6	1.4	207.1					
	e Sg	N	20:55:44.2							

WILA	e Pn	Z	20:55:29.5	1.6	226.4		
	e Sg	N	20:55:52.3				
PLONS	e Pn	Z	20:55:29.3	1.7	243.4		
SLE	e Pn	Z	20:55:28.2	1.7	211.3		
	e Sg	N	20:55:54.4				
DAVA	e Sg	E	20:56:06.9	2.1	242.1		2.4
BFO	e Pn	Z	20:55:34.3	2.2	201.1		
WTTA	e Sg	Z	20:56:42.2	3.2	253.5		
WLF	e Sg	N	20:56:50.4	3.5	168.1		2.7
WET	e Pn	Z	20:56:09.7	4.8	235.2		
	e Sn	N	20:57:02.3				
ROTZ	e Pg	Z	20:56:29.2	4.9	225.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/10	01:16: 5.0	0.900N	85.560W	33.0N	5.1	5.9		SZGRF

Off coast of Ecuador

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e SP	R	01:41:04.1	90.4	271.9					
BUG	e SKSac	R	01:39:39.3	91.1	272.8					
	e SP	R	01:41:10.8							
IBBN	e SKSac	R	01:39:40.8	91.3	273.2					
	e SP	R	01:41:13.8							
	e SS	R	01:46:18.6							
TNS	e SP	R	01:41:20.5	91.9	273.7					
	e SS	R	01:46:24.5							
BFO	e SP	R	01:41:19.3	91.9	273.5					
	e SS	R	01:46:24.6							
STU	e SKSac	R	01:39:47.4	92.5	274.2					
	e SP	R	01:41:25.2							
	e SS	R	01:46:32.4							
BSEG	e SP	R	01:41:29.2	92.7	275.3					
	e SS	R	01:46:37.2							
NRDL	e SKSac	R	01:39:48.9	92.7	275.0					
	e SP	R	01:41:29.2							
	e SS	R	01:46:36.5							
UBBA	e SKSac	R	01:39:49.4	92.8	274.9					
	e SP	R	01:41:30.2							
	e SS	R	01:46:37.8							
GRA1	e P	Z	01:29:23.0	93.7	275.8	1.5	11	5.1		
	e SKSac	R	01:39:54.3							
	e SP	R	01:41:40.0							
	e SS	R	01:46:51.2							
	e L	Z	02:05:05.1			21.9	5246		5.9	
MOX	e SKSac	R	01:39:55.2	93.8	276.1					
	e SP	R	01:41:41.9							
	e SS	R	01:46:54.3							

	e L	Z	02:05:11.2			21.4	4107	5.9
FUR	e SP	R	01:41:41.9	93.9	275.7			
	e SS	R	01:46:54.8					
ROTZ	e SKSac	R	01:40:00.3	94.3	276.5			
	e SP	R	01:41:47.3					
	e SS	R	01:47:01.4					
TANN	e SKSac	R	01:39:58.3	94.4	276.8			
	e SP	R	01:41:48.1					
	e SS	R	01:47:02.7					
CLL	e SKSac	R	01:39:59.5	94.6	277.3			
	e SP	R	01:41:49.7					
	e SS	R	01:47:05.3					
WET	e SKSac	R	01:40:00.6	94.8	277.0			
	e SP	R	01:41:51.8					
	e SS	R	01:47:08.6					
RJOB	e SKSac	R	01:40:01.2	94.9	276.8			
	e SP	R	01:41:53.0					
	e SS	R	01:47:10.4					
BRG	e SKSac	R	01:40:03.0	95.3	278.0			
	e SP	R	01:41:57.0					
	e SS	R	01:47:15.6					
GEC2	e SKSac	R	01:40:03.7	95.4	277.6			
	e SP	R	01:41:57.9					
	e SS	R	01:47:16.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/10	02:29:60.0	42.385N	143.871E	33.0N	4.5			SZGRF

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	02:42:01.2	79.0	33.6	1.0	5	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/10	04:28:42.9	37.503N	142.692E	33.0G	4.8			SZGRF

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	04:41:04.5	82.9	36.8	1.2	7	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/10	14:47:49.1	47.900N	126.960E	33.0G	4.8			SZGRF

Northeastern China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	14:58:32.5	65.8	42.6	0.8	3	4.6		
CLL	e P	Z	14:58:32.2	65.9	42.2	0.6	6	5.0		
NEUB	e P	Z	14:58:36.4	66.4	41.4	0.7	8	5.1		
PLN	e P	Z	14:58:38.6	66.8	41.5	1.1	28	5.4		
GUNZ	e P	Z	14:58:39.0	66.8	41.5	2.1	19	5.0		
WERN	e P	Z	14:58:39.4	66.9	41.5	0.5	4	4.9		
MOX	e P	Z	14:58:39.1	66.9	41.2	0.6	2	4.4		
ROHR	e P	Z	14:58:39.7	67.0	41.5					
ROTZ	e P	Z	14:58:42.4	67.3	41.3	0.7	4	4.8		
GEC2	e P	Z	14:58:41.8	67.4	41.9	0.7	2	4.4		
WET	e P	Z	14:58:43.2	67.5	41.5	0.8	2	4.4		
GRA1	e P	Z	14:58:45.4	67.8	40.7	0.8	10	5.1		
BFO	e P	Z	14:58:59.1	70.1	38.7	0.9	5	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/10	17:34: 7.2	38.000N	67.820E	25.8	5.2	4.5		SZGRF

Southeastern Uzbekistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	17:41:37.6	39.6	87.5	1.0	67	5.2		
GEC2	e P	Z	17:41:40.0	39.9	84.9	1.1	21	4.7		
	e PP	Z	17:43:11.8							
CLL	e P	Z	17:41:41.8	40.1	87.3	1.1	58	5.1		
WET	e P	Z	17:41:44.4	40.4	84.7	1.3	28	4.8		
	e PP	Z	17:43:18.2							
TANN	e P	Z	17:41:45.7	40.5	85.8	1.4	50	5.1		
RJOB	e P	Z	17:41:45.7	40.6	83.0	1.1	20	4.8		
ROTZ	e P	Z	17:41:48.1	40.8	84.9	1.6	96	5.3		
	e pP	Z	17:41:55.0							
MOX	e P	Z	17:41:49.9	41.1	85.5	1.1	46	5.1		
GRA1	e P	Z	17:41:53.5	41.4	84.1	1.3	130	5.5		
	e PP	Z	17:43:31.8							
	e L	Z	18:02:10.7			18.0	551		4.5	
FUR	e P	Z	17:41:53.9	41.5	82.5	1.0	66	5.3		
BSEG	e P	Z	17:41:55.0	41.7	88.3	0.9	156	5.7		
NRDL	e P	Z	17:41:56.5	41.9	86.5	1.1	77	5.3		
UBBA	e P	Z	17:41:57.9	42.1	84.5	0.8	23	5.0		
STU	e P	Z	17:42:04.4	42.8	81.8	1.1	43	5.1		
TNS	e P	Z	17:42:06.8	43.1	82.8	1.5	64	5.1		
IBBN	e P	Z	17:42:08.2	43.3	84.5	1.0	179	5.8		
BFO	e P	Z	17:42:08.9	43.5	80.8	1.0	42	5.1		
	e PP	Z	17:43:49.3							
BUG	e P	Z	17:42:11.3	43.7	83.3	1.2	84	5.4		
WLF	e P	Z	17:42:19.5	44.7	80.7	1.0	107	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/10	22:43: 6.5	23.440S	177.830W	33.0G				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPab	Z	23:03:01.4	150.3	14.8					
CLL	e PKPbc	Z	23:02:56.0	150.9	20.8					
	e PKPab	Z	23:03:03.1							
BRG	e PKPbc	Z	23:02:56.5	151.1	22.8					
MOX	e PKPbc	Z	23:02:58.0	151.8	18.6					
TANN	e PKPbc	Z	23:02:58.0	151.9	20.3					
WET	e PKPab	Z	23:03:12.0	152.9	22.0					
GEC2	e PKPbc	Z	23:03:00.9	153.0	23.8					
RJOB	e PKPab	Z	23:03:18.1	154.3	22.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/11	01:21:13.3	47.760N	152.290E	33.0G	4.8			SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	01:32:51.7	74.7	25.3	0.9	6	4.6		
CLL	e P	Z	01:32:52.6	75.0	27.0	1.2	15	4.9		
BRG	e P	Z	01:32:53.4	75.1	27.5	1.2	7	4.6		
TANN	e P	Z	01:32:58.3	75.9	26.6	0.9	3	4.4		
MOX	e P	Z	01:32:58.6	76.0	26.0	1.0	7	4.7		
UBBA	e P	Z	01:33:00.2	76.2	25.0	0.6	2	4.5		
BUG	e P	Z	01:33:01.1	76.4	23.4	1.1	15	5.0		
ROTZ	e P	Z	01:33:02.5	76.6	26.3	1.0	9	4.8		
GRA1	e P	Z	01:33:04.5	76.9	25.7	0.8	17	5.2		
WET	e P	Z	01:33:04.5	76.9	26.7	1.0	10	4.9		
GEC2	e P	Z	01:33:04.1	77.0	27.2	0.9	5	4.6		
TNS	e P	Z	01:33:05.8	77.2	24.0	1.0	12	5.0		
RJOB	e P	Z	01:33:11.5	78.2	26.5	1.0	8	4.7		
FUR	e P	Z	01:33:11.8	78.3	25.6	0.9	18	5.1		
WLF	e P	Z	01:33:11.2	78.3	22.5	1.3	14	4.8		
STU	e P	Z	01:33:11.8	78.3	24.3	1.1	10	4.8		
BFO	e P	Z	01:33:15.2	79.0	23.8	0.9	10	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/11	05:11:36.9	19.575S	177.363W	370.5				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	05:30:30.5	145.1	12.7					

NRDL	e PKPbc	Z	05:30:34.4	146.6	12.8	
CLL	e PKPbc	Z	05:30:36.2	147.2	18.3	
	e pPKPbc	Z	05:32:06.5			
BRG	e PKPbc	Z	05:30:36.9	147.5	20.1	
MOX	e PKPbc	Z	05:30:38.7	148.1	16.2	
TANN	e PKPbc	Z	05:30:39.0	148.2	17.8	
UBBA	e PKPbc	Z	05:30:39.1	148.2	13.3	
ROTZ	e PKPbc	Z	05:30:40.9	148.9	17.6	
TNS	e PKPbc	Z	05:30:41.1	149.0	10.7	
GRA1	e PKPbc	Z	05:30:41.4	149.1	15.9	
WET	e PKPbc	Z	05:30:42.0	149.3	19.2	
GEC2	e PKPbc	Z	05:30:41.9	149.4	20.8	
WLF	e PKPbc	Z	05:30:43.5	149.8	6.6	
STU	e PKPbc	Z	05:30:44.3	150.3	12.6	
FUR	e PKPbc	Z	05:30:44.7	150.6	16.7	
RJOB	e PKPbc	Z	05:30:44.5	150.7	19.8	
BFO	e PKPbc	Z	05:30:45.4	150.9	11.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/11	05:26:38.7	16.200S	177.800W	10.0				NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ROTZ	e PKP	Z	05:46:16.6	145.5	17.1					
GRA1	e PKP	Z	05:46:17.2	145.7	15.5					
WET	e PKP	Z	05:46:18.1	145.9	18.5					
GEC2	e PKP	Z	05:46:19.9	146.0	20.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/11	14:32:30.6	30.100S	13.800W	10.0	5.3	4.6		NEIC

Southern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z	14:44:41.1	80.9	199.3	1.7	24	5.0		
GEC2	e P	Z	14:44:51.2	82.7	203.8	2.4	41	5.1		
TNS	e P	Z	14:44:51.9	82.7	199.3	1.9	40	5.2		
WET	e P	Z	14:44:51.6	82.7	203.1	1.8	45	5.3		
GRA1	e P	Z	14:44:52.2	82.8	201.6	1.5	51	5.4		
	e L	Z	15:20:08.7			19.1	230		4.6	
ROTZ	e P	Z	14:44:53.7	83.1	202.5	1.8	48	5.4		
UBBA	e P	Z	14:44:56.5	83.6	200.6	1.8	29	5.2		
BUG	e P	Z	14:44:56.6	83.6	198.2	1.6	35	5.3		
TANN	e P	Z	14:44:57.2	83.8	202.6	1.3	14	5.0		
MOX	e L	Z	15:20:47.2	83.8	201.9	18.6	248		4.6	
CLL	e P	Z	14:45:02.3	84.8	203.1	1.8	36	5.3		

NRDL	e P	Z	14:45:05.6	85.2	200.6	1.5	35	5.4	
BSEG	e P	Z	14:45:12.3	86.6	200.7	0.6	24	5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/12	01:26:27.3	5.600S	149.600E	92.0				NEIC

New Britain, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e SP	R	01:56:24.4	121.5	49.6					
BRG	e SP	R	01:56:26.8	121.7	54.8					
CLL	e PKPdf	Z	01:45:09.7	121.9	53.6					
	e SP	R	01:56:27.7							
NRDL	e SP	R	01:56:32.8	122.6	50.1					
TANN	e SP	R	01:56:35.8	122.7	53.5					
WERD	e PKPdf	Z	01:45:11.6	122.7	53.4					
NKC	e PKPdf	Z	01:45:12.7	122.8	53.6					
GEC2	e PKPdf	Z	01:45:12.1	122.9	55.6					
	e SP	R	01:56:38.1							
MOX	e SP	R	01:56:37.7	123.0	52.6					
ROTZ	e SP	R	01:56:41.1	123.2	53.6					
WET	e SP	R	01:56:40.9	123.2	54.6					
UBBA	e SP	R	01:56:42.9	123.7	50.8					
GRA1	e SP	R	01:56:45.2	123.8	52.7					
IBBN	e SP	R	01:56:43.0	123.8	47.7					
RJOB	e SP	R	01:56:46.8	124.1	55.3					
BUG	e SP	R	01:56:50.2	124.6	47.6					
TNS	e SP	R	01:56:53.6	124.8	49.5					
STU	e SP	R	01:56:57.6	125.4	51.1					
BFO	e SP	R	01:57:04.1	126.1	50.4					
WLF	e SP	R	01:57:06.3	126.3	47.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/12	12:38:32.7	12.092S	65.643E	33.0N	5.6	4.7		SZGRF

Mid-Indian Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	12:50:28.1	78.0	125.6	1.7	78	5.6		
	e L	Z	13:35:09.5			18.1	304		4.7	
MOX	e L	Z	13:29:12.9	78.3	126.1	21.9	358		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/12	16:01:44.0	4.700S	152.900E	84.0				NEIC

New Britain, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	16:20:34.3	124.6	48.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/13	01:15:21.4	6.400S	154.900E	92.0				NEIC

Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	01:34:15.4	127.1	47.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/13	21:31:17.8	16.400S	174.900W	89.3				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e PKPbc	Z	21:50:44.2	145.4	11.0					
PLN	e PKPbc	Z	21:50:44.8	145.4	12.0					
	e pPKPbc	Z	21:51:09.3							
WERD	e PKPbc	Z	21:50:45.1	145.5	12.3					
TANN	e PKPbc	Z	21:50:45.3	145.5	12.5					
GUNZ	e PKPbc	Z	21:50:45.4	145.5	12.3					
WERN	e PKPbc	Z	21:50:45.7	145.6	12.4					
NKC	e PKPbc	Z	21:50:46.0	145.7	12.6					
ROTZ	e PKPbc	Z	21:50:47.3	146.1	12.3					
GRA1	e PKPbc	Z	21:50:47.6	146.3	10.6					
WET	e PKPbc	Z	21:50:47.4	146.6	13.7					
WLF	e PKPbc	Z	21:50:48.8	146.7	1.8					
BFO	e PKPbc	Z	21:50:52.4	148.0	5.8					
RJOB	e PKPbc	Z	21:50:52.9	148.0	14.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/13	21:58:26.1	22.684S	171.203E	33.0N				SZGRF

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	22:18:04.5	146.8	38.7					
TANN	e PKPbc	Z	22:18:07.9	147.7	38.7					
MOX	e PKPbc	Z	22:18:08.0	147.8	37.2					
ROTZ	e PKPbc	Z	22:18:09.7	148.3	39.0					
GEC2	e PKPbc	Z	22:18:09.6	148.4	42.3					
TNS	e PKPbc	Z	22:18:12.3	149.3	32.4					
RJOB	e PKPbc	Z	22:18:12.7	149.6	42.1					

	BFO	e PKPbc	Z	22:18:16.2	151.0	34.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/14	04:32:30.6	73.015N	7.962E	33.0N	4.3			SZGRF

Greenland Sea

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	04:37:36.7	23.4	357.6	1.2	11	4.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/14	09:13:43.8	36.200N	26.900E	10.0G	4.8			NOA

Dodecanese Islands, Greece

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	RJOB	e P	Z	09:17:17.0	15.5	132.8					
	GEC2	e P	Z	09:17:22.1	15.9	137.8					
	WET	e P	Z	09:17:28.7	16.5	136.5					
	FUR	e P	Z	09:17:29.5	16.6	130.4					
	ROTZ	e P	Z	09:17:38.1	17.2	136.3					
	BRG	e P	Z	09:17:39.1	17.4	142.7	0.9	24	4.3		
	GRA1	e P	Z	09:17:42.2	17.6	134.0	0.9	107	5.0		
	STU	e P	Z	09:17:48.0	18.0	127.6					
	CLL	e P	Z	09:17:47.8	18.1	141.3	1.3	98	4.8		
	MOX	e P	Z	09:17:49.5	18.1	136.9	1.1	126	5.0		
	BFO	e P	Z	09:17:49.4	18.2	124.8	1.3	102	4.8		
	UBBA	e P	Z	09:17:58.2	19.0	133.9					
	TNS	e P	Z	09:18:00.9	19.3	129.5	0.7	184	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/14								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	14:16:06.9							
		e pPKP	Z	14:16:17.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/15	13:58:39.5	21.003S	176.642W	33.0N				SZGRF

Fiji Islands region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	BSEG	e PKPbc	Z	14:18:18.2	146.6	11.9					

CLL	e PKPbc	Z	14:18:23.5	148.8	17.6
BRG	e PKPbc	Z	14:18:24.2	149.0	19.4
FBE	e PKPbc	Z	14:18:24.4	149.1	18.4
MOX	e PKPbc	Z	14:18:25.8	149.7	15.4
PLN	e PKPbc	Z	14:18:25.9	149.7	16.4
WERD	e PKPbc	Z	14:18:26.0	149.7	16.7
TANN	e PKPbc	Z	14:18:26.1	149.7	17.0
GUNZ	e PKPbc	Z	14:18:26.3	149.8	16.8
WERN	e PKPbc	Z	14:18:26.5	149.9	16.9
MANZ	e PKPbc	Z	14:18:27.1	150.2	16.6
ROTZ	e PKPbc	Z	14:18:27.8	150.4	16.9
TNS	e PKPbc	Z	14:18:28.2	150.5	9.7
GRA1	e PKPbc	Z	14:18:28.1	150.6	15.1
GEC2	e PKPbc	Z	14:18:28.7	151.0	20.2
WLF	e PKPbc	Z	14:18:30.1	151.3	5.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/15	17:38:30.2	58.017N	152.881W	33.0N	5.1			SZGRF

Kodiak Island, Alaska, United States, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	17:49:22.5	67.2	350.4	1.1	35	5.5		
IBBN	e P	Z	17:49:30.7	68.6	349.1	1.2	30	5.4		
NRDL	e P	Z	17:49:30.6	68.6	350.4	1.1	23	5.3		
RUE	e P	Z	17:49:33.1	69.0	352.5	1.4	45	5.5		
BUG	e P	Z	17:49:34.6	69.3	348.9	0.9	29	5.4		
NEUB	e P	Z	17:49:39.4	70.1	351.4	0.9	17	5.1		
CLL	e P	Z	17:49:39.1	70.1	352.1	1.0	10	4.9		
FBE	e P	Z	17:49:42.2	70.5	352.3	1.0	19	5.2		
BRG	e P	Z	17:49:42.4	70.6	352.6	1.2	13	4.9		
MOX	e P	Z	17:49:42.6	70.6	351.4	1.2	16	5.0		
TNS	e P	Z	17:49:43.1	70.7	349.6	1.0	21	5.2		
PLN	e P	Z	17:49:43.7	70.8	351.7	1.0	46	5.6		
WERD	e P	Z	17:49:43.8	70.9	351.8	1.1	6	4.7		
TANN	e P	Z	17:49:44.5	70.9	351.8	1.0	6	4.7		
GUNZ	e P	Z	17:49:45.1	70.9	351.8	1.1	13	5.0		
WERN	e P	Z	17:49:45.3	71.0	351.8	1.5	18	5.0		
MANZ	e P	Z	17:49:47.3	71.3	351.7	1.1	7	4.7		
GRA1	e P	Z	17:49:48.1	71.5	351.2	0.9	10	5.0		
ROTZ	e P	Z	17:49:48.6	71.5	351.7	1.1	16	5.1		
WET	e P	Z	17:49:53.2	72.2	352.1	1.3	11	4.8		
BFO	e P	Z	17:49:54.5	72.5	349.7	2.1	55	5.3		
GEC2	e P	Z	17:49:54.2	72.6	352.6	0.8	7	4.9		
RJOB	e P	Z	17:50:00.1	73.6	352.1	0.8	12	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/15	18:24:28.8	58.002N	154.161W	33.0G	5.5	4.8		SZGRF

Alaska Peninsula, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	18:35:22.1	67.4	351.2	1.1	76	5.8		
IBBN	e P	Z	18:35:29.5	68.7	349.8	1.5	93	5.8		
NRDL	e P	Z	18:35:29.8	68.8	351.1	1.1	53	5.7		
RUE	e P	Z	18:35:32.3	69.1	353.2	1.2	89	5.9		
BUG	e P	Z	18:35:33.9	69.5	349.6	1.0	66	5.7		
NEUB	e P	Z	18:35:38.4	70.2	352.1	1.5	87	5.7		
CLL	e P	Z	18:35:38.3	70.2	352.8	1.3	34	5.3		
FBE	e P	Z	18:35:41.3	70.6	353.0	1.2	58	5.6		
BRG	e P	Z	18:35:41.8	70.7	353.4	1.4	45	5.4		
MOX	e P	Z	18:35:41.9	70.7	352.1	1.2	48	5.5		
	e S	E	18:45:00.2							
	e L	Z	19:11:46.4			19.5	466		4.8	
TNS	e P	Z	18:35:42.7	70.8	350.3	1.1	34	5.4		
PLN	e P	Z	18:35:43.1	70.9	352.4	1.1	124	6.0		
WERD	e P	Z	18:35:43.4	71.0	352.5	1.4	26	5.2		
TANN	e P	Z	18:35:43.7	71.0	352.6	1.0	13	5.0		
GUNZ	e P	Z	18:35:44.1	71.1	352.5	1.0	18	5.1		
WLF	e P	Z	18:35:45.0	71.1	349.1	1.6	80	5.6		
WERN	e P	Z	18:35:44.2	71.1	352.5	1.6	58	5.5		
MANZ	e P	Z	18:35:46.0	71.4	352.4	1.0	13	5.0		
GRA1	e P	Z	18:35:47.5	71.6	351.9	0.9	25	5.4		
	e S	E	18:45:06.5							
	e L	Z	19:13:56.1			18.6	537		4.8	
ROTZ	e P	Z	18:35:47.7	71.7	352.4	1.0	21	5.2		
WET	e P	Z	18:35:52.1	72.3	352.8	2.0	72	5.5		
GEC2	e P	Z	18:35:53.5	72.7	353.3	1.0	14	5.1		
BFO	e P	Z	18:35:53.1	72.7	350.4	2.1	109	5.6		
FUR	e P	Z	18:35:56.6	73.2	352.0	0.9	27	5.3		
RJOB	e P	Z	18:35:59.4	73.7	352.8	0.9	23	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/15	19:23:24.4	57.216N	153.342W	33.0G	5.3	4.8		SZGRF

Kodiak Island, Alaska, United States, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e P	Z	19:34:18.4	67.6	349.1	1.3	381	6.5		
BSEG	e P	Z	19:34:21.3	68.1	350.5	1.1	56	5.7		
NRDL	e P	Z	19:34:29.5	69.5	350.5	1.0	37	5.4		
RUE	e P	Z	19:34:32.2	69.8	352.6	0.9	44	5.6		
BUG	e P	Z	19:34:33.8	70.2	349.0	0.9	50	5.6		
NEUB	e P	Z	19:34:38.5	70.9	351.5	1.3	47	5.5		
CLL	e P	Z	19:34:38.2	70.9	352.2	0.9	14	5.1		

UBBA	e P	Z	19:34:39.5	71.1	350.6	1.6	25	5.1	
FBE	e P	Z	19:34:41.2	71.3	352.4	1.0	27	5.3	
BRG	e P	Z	19:34:41.4	71.4	352.8	1.1	18	5.1	
MOX	e P	Z	19:34:41.6	71.4	351.5	0.8	26	5.4	
	e S	E	19:44:05.6						
	e L	Z	20:13:26.6			18.7	488		4.8
TNS	e P	Z	19:34:42.2	71.5	349.7	0.9	23	5.3	
PLN	e P	Z	19:34:42.6	71.6	351.8	0.9	79	5.9	
WERD	e P	Z	19:34:43.1	71.7	351.9	0.9	11	5.0	
TANN	e P	Z	19:34:43.5	71.7	352.0	1.1	15	5.0	
GUNZ	e P	Z	19:34:43.7	71.8	351.9	1.0	17	5.1	
WLF	e P	Z	19:34:44.0	71.8	348.5	1.3	38	5.4	
WERN	e P	Z	19:34:44.4	71.9	351.9	0.8	16	5.2	
MANZ	e P	Z	19:34:45.7	72.1	351.8	1.0	12	4.9	
GRA1	e P	Z	19:34:47.3	72.3	351.3	0.8	20	5.3	
	e S	E	19:44:18.0						
	e L	Z	20:12:36.8			18.5	502		4.8
ROTZ	e P	Z	19:34:47.2	72.4	351.8	0.9	15	5.2	
STU	e P	Z	19:34:51.2	73.0	350.2	0.7	18	5.2	
WET	e P	Z	19:34:51.1	73.0	352.3	1.1	11	4.8	
BFO	e P	Z	19:34:52.9	73.4	349.8	0.9	11	4.9	
GEC2	e P	Z	19:34:53.2	73.4	352.7	0.8	9	4.8	
FUR	e P	Z	19:34:55.9	73.9	351.4	0.7	24	5.3	
RJOB	e P	Z	19:34:59.2	74.4	352.3	0.8	23	5.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/16	00:53:46.0	32.711S	178.231W	33.0G		6.8		SZGRF

South of Kermadec Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPdf	Z	01:13:39.7	156.7	25.2					
BSEG	e PKPdf	Z	01:13:41.1	157.9	19.4					
HLG	e PKPdf	Z	01:13:41.1	158.1	13.9					
RUE	e PKPdf	Z	01:13:41.7	158.4	28.4					
NRDL	e PKPdf	Z	01:13:42.6	159.3	20.2					
	e PKPab	Z	01:14:17.0							
CLL	e PKPdf	Z	01:13:43.0	159.7	28.2					
	e PKPab	Z	01:14:18.4							
	e		01:14:48.1							
BRG	e PKPdf	Z	01:13:43.1	159.8	30.9					
	e PKPab	Z	01:14:19.0							
IBBN	e PKPdf	Z	01:13:43.6	159.9	14.8					
	e PKPab	Z	01:14:19.4							
NEUB	e PKPdf	Z	01:13:43.6	160.1	25.4					
TANN	e PKPdf	Z	01:13:44.2	160.6	28.1					
WERD	e PKPdf	Z	01:13:44.2	160.6	27.7					
PLN	e PKPdf	Z	01:13:44.2	160.6	27.2					

MOX	e	PKPdf	Z	01:13:44.0	160.7	25.7			
	e	PKPab	Z	01:14:22.7					
	e			01:14:52.4					
	e	PP	Z	01:17:59.9					
	e	L	Z	02:39:36.1			18.8	9724	6.7
GUNZ	e	PKPdf	Z	01:13:44.3	160.7	27.8			
	e	PKPab	Z	01:14:23.1					
WERN	e	PKPdf	Z	01:13:44.3	160.8	28.0			
	e	PKPab	Z	01:14:23.4					
BUG	e	PKPdf	Z	01:13:44.3	160.8	14.2			
UBBA	e	PKPdf	Z	01:13:44.2	160.9	21.6			
MANZ	e	PKPdf	Z	01:13:44.5	161.1	27.8			
	e	PKPab	Z	01:14:24.8					
ROTZ	e	PKPdf	Z	01:13:44.8	161.3	28.3			
	e	PKPab	Z	01:14:25.7					
GEC2	e	PKPdf	Z	01:13:45.1	161.6	33.4			
WET	e	PKPdf	Z	01:13:45.0	161.6	30.9			
GRA1	e	PKPdf	Z	01:13:45.1	161.6	26.0			
	e	PKPab	Z	01:14:27.6					
	e	PP	Z	01:18:06.9					
	e	L	Z	02:32:22.9			20.9	14792	6.8
TNS	e	PKPdf	Z	01:13:45.7	161.8	18.3			
WLF	e	PKPdf	Z	01:13:47.2	162.7	12.5			
RJOB	e	PKPdf	Z	01:13:46.0	162.8	33.0			
	e	PKPab	Z	01:14:32.8					
FUR	e	PKPdf	Z	01:13:46.4	163.0	28.3			
STU	e	PKPdf	Z	01:13:46.6	163.0	21.8			
	e			01:15:02.6					
BFO	e	PKPdf	Z	01:13:47.1	163.6	19.9			
	e	PKPab	Z	01:14:37.4					
	e			01:15:05.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/16	18:21:19.0	56.153N	153.517W	33.0G	5.1			SZGRF

Kodiak Island, Alaska, United States, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e P	Z	18:32:25.0	68.6	349.0	1.4	156	6.1		
RGN	e P	Z	18:32:25.3	68.8	352.2	1.2	110	6.0		
BSEG	e P	Z	18:32:27.0	69.1	350.4	0.9	26	5.4		
IBBN	e P	Z	18:32:35.0	70.4	349.1	0.9	15	5.1		
NRDL	e P	Z	18:32:35.3	70.5	350.4	1.0	20	5.2		
RUE	e P	Z	18:32:37.8	70.9	352.6	0.7	22	5.4		
BUG	e P	Z	18:32:39.2	71.2	348.8	0.8	27	5.4		
NEUB	e P	Z	18:32:44.2	72.0	351.4	0.8	20	5.3		
CLL	e P	Z	18:32:43.9	72.0	352.2	0.9	8	4.9		
UBBA	e P	Z	18:32:45.5	72.2	350.4					

BRG	e P	Z	18:32:47.0	72.5	352.7	1.1	14	5.0
MOX	e P	Z	18:32:47.4	72.5	351.4	1.0	16	5.1
TNS	e P	Z	18:32:47.8	72.6	349.6	1.4	16	5.0
PLN	e P	Z	18:32:48.7	72.7	351.7	0.9	42	5.6
WERD	e P	Z	18:32:49.0	72.8	351.8	0.9	6	4.7
TANN	e P	Z	18:32:49.4	72.8	351.9	1.1	8	4.7
GUNZ	e P	Z	18:32:49.4	72.8	351.8	1.2	13	4.9
WLF	e P	Z	18:32:49.5	72.8	348.3	1.4	32	5.3
WERN	e P	Z	18:32:50.1	72.9	351.8	1.1	11	4.9
MANZ	e P	Z	18:32:51.1	73.2	351.7	1.8	15	4.7
GRA1	e P	Z	18:32:52.7	73.4	351.2	0.8	10	4.9
ROTZ	e P	Z	18:32:52.9	73.4	351.8	0.9	9	4.8
STU	e P	Z	18:32:56.8	74.1	350.1	0.9	10	4.9
WET	e P	Z	18:32:56.6	74.1	352.2	1.4	17	4.9
BFO	e P	Z	18:32:58.3	74.4	349.6	1.1	11	4.8
GEC2	e P	Z	18:32:58.7	74.5	352.7	0.8	5	4.5
FUR	e P	Z	18:33:01.5	74.9	351.3	1.0	13	4.9
RJOB	e P	Z	18:33:04.7	75.5	352.2	0.9	10	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/16	18:22:38.8	57.767N	153.152W	33.0N	5.7	5.8		SZGRF

Kodiak Island, Alaska, United States, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	18:33:30.7	67.2	352.2	1.2	172	6.1		
BSEG	e P	Z	18:33:32.4	67.5	350.5	1.1	134	6.1		
IBBN	e P	Z	18:33:40.6	68.8	349.2	1.0	68	5.9		
NRDL	e P	Z	18:33:40.8	68.9	350.5	1.5	143	6.0		
RUE	e P	Z	18:33:43.2	69.2	352.6	1.0	123	6.0		
BUG	e P	Z	18:33:45.0	69.6	349.0	1.2	113	5.9		
NEUB	e P	Z	18:33:49.4	70.3	351.5	1.1	110	5.9		
CLL	e P	Z	18:33:49.3	70.3	352.2	1.1	48	5.5		
UBBA	e P	Z	18:33:50.7	70.5	350.6	1.5	75	5.6		
BRG	e P	Z	18:33:52.7	70.8	352.8	1.4	80	5.7		
MOX	e P	Z	18:33:52.8	70.9	351.5	1.1	99	5.8		
	e		18:34:32.5							
	e PP	Z	18:36:36.7							
	e S	N	18:43:21.0							
	e SS	N	18:47:50.6							
	e L	Z	19:10:05.2			19.1	3980		5.7	
TNS	e P	Z	18:33:53.3	71.0	349.7	1.1	64	5.7		
PLN	e P	Z	18:33:54.0	71.1	351.8	1.2	371	6.4		
WERD	e P	Z	18:33:54.5	71.1	351.9	1.1	52	5.6		
TANN	e P	Z	18:33:54.7	71.2	352.0	1.2	56	5.6		
GUNZ	e P	Z	18:33:54.9	71.2	351.9	1.3	65	5.6		
WLF	e P	Z	18:33:55.2	71.2	348.5	1.1	72	5.7		
WERN	e P	Z	18:33:55.5	71.3	351.9	1.6	133	5.8		

MANZ	e P	Z	18:33:57.0	71.6	351.8	1.2	40	5.4	
GRA1	e P	Z	18:33:58.3	71.8	351.3	1.0	72	5.7	
	e		18:34:37.8						
	e PP	Z	18:36:44.3						
	e S	N	18:43:27.7						
	e SS	N	18:48:22.8						
	e L	Z	19:12:15.7			18.0	6408		5.9
ROTZ	e P	Z	18:33:58.5	71.8	351.8	1.3	68	5.6	
STU	e P	Z	18:34:02.3	72.5	350.2	0.9	52	5.6	
WET	e P	Z	18:34:02.4	72.5	352.2	1.7	97	5.7	
BFO	e P	Z	18:34:04.2	72.8	349.8	1.0	32	5.4	
GEC2	e P	Z	18:34:04.7	72.8	352.7	1.4	53	5.5	
FUR	e P	Z	18:34:07.2	73.3	351.4	0.9	54	5.6	
RJOB	e P	Z	18:34:10.9	73.9	352.3	0.9	74	5.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/16	18:37:51.9	56.838N	153.468W	69.2	5.6			SZGRF

Kodiak Island, Alaska, United States, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e P	Z	18:48:44.0	67.9	349.1	1.1	165	6.2		
RGN	e P	Z	18:48:45.2	68.1	352.3	1.1	208	6.3		
BSEG	e P	Z	18:48:47.2	68.4	350.5	1.1	127	6.0		
IBBN	e P	Z	18:48:55.2	69.8	349.2	1.3	82	5.7		
NRDL	e P	Z	18:48:55.7	69.8	350.5	1.0	66	5.7		
RUE	e P	Z	18:48:57.7	70.2	352.6	1.1	91	5.8		
BUG	e P	Z	18:48:59.8	70.6	349.0	1.0	90	5.9		
NEUB	e P	Z	18:49:04.6	71.3	351.5	1.1	72	5.7		
CLL	e P	Z	18:49:04.1	71.3	352.2	1.2	38	5.4		
BRG	e P	Z	18:49:06.8	71.8	352.8	1.2	48	5.5		
MOX	e P	Z	18:49:07.7	71.8	351.5	1.2	67	5.7		
	e pP	Z	18:49:25.5							
	e sP	Z	18:49:33.4							
TNS	e P	Z	18:49:08.1	71.9	349.7	1.2	48	5.5		
PLN	e P	Z	18:49:08.2	72.0	351.8	1.2	190	6.1		
WERD	e P	Z	18:49:09.1	72.1	351.9	1.5	42	5.3		
TANN	e P	Z	18:49:09.3	72.1	352.0	1.8	69	5.5		
GUNZ	e P	Z	18:49:09.6	72.2	351.9	1.6	52	5.4		
WLF	e P	Z	18:49:09.7	72.2	348.5	1.6	154	5.9		
WERN	e P	Z	18:49:10.6	72.2	351.9	1.4	61	5.5		
MANZ	e P	Z	18:49:10.9	72.5	351.8	1.5	43	5.4		
GRA1	e P	Z	18:49:12.5	72.7	351.3	1.3	55	5.5		
	e pP	Z	18:49:31.0							
	e sP	Z	18:49:38.9							
ROTZ	e P	Z	18:49:13.6	72.7	351.9	1.1	39	5.4		
STU	e P	Z	18:49:16.5	73.4	350.2	1.5	50	5.3		
WET	e P	Z	18:49:16.9	73.4	352.3	1.6	75	5.5		

BFO	e P	Z	18:49:18.3	73.7	349.7	1.3	31	5.2
GEC2	e P	Z	18:49:18.6	73.8	352.7	1.4	31	5.2
FUR	e P	Z	18:49:22.2	74.2	351.4	1.3	62	5.5
RJOB	e P	Z	18:49:25.4	74.8	352.3	1.0	28	5.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/16	20:05:31.0	44.632N	149.891E	33.0N				SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	20:17:32.3	79.0	28.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/16								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:40:58.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/17	02:03:37.3	55.374N	169.774E	33.0N	4.4			SZGRF

Komandorsky Islands, Russia, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	02:15:06.6	73.4	12.5	1.3	6	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/17	06:23: 0.5	16.800S	173.400W	35.0		4.8		NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKP	Z	06:42:32.8	145.1	10.8					
	e pPKP	Z	06:42:55.7							
BUG	e PKP	Z	06:42:33.3	145.4	1.1					
BRG	e PKP	Z	06:42:34.1	145.4	12.5					
UBBA	e PKP	Z	06:42:35.4	145.9	5.8					
MOX	e PKP	Z	06:42:35.5	145.9	8.6					
	e pPKP	Z	06:42:58.0							
TANN	e PKP	Z	06:42:35.7	146.1	10.1					
TNS	e PKP	Z	06:42:37.5	146.5	3.2					
ROTZ	e PKP	Z	06:42:38.4	146.7	9.8					
GRA1	e PKP	Z	06:42:39.0	146.9	8.1					

	e L	Z	07:50:44.0			21.1	157	4.8	
WLF	e PKP	Z	06:42:39.9	147.1	359.2				
	e pPKP	Z	06:43:01.2						
WET	e PKP	Z	06:42:39.7	147.3	11.2				
GEC2	e PKP	Z	06:42:40.4	147.4	12.7				
STU	e PKP	Z	06:42:41.3	148.0	4.7				
	e pPKP	Z	06:43:05.1						
FUR	e PKP	Z	06:42:43.0	148.4	8.6				
	e pPKP	Z	06:43:05.1						
BFO	e PKP	Z	06:42:42.5	148.4	3.2				
RJOB	e PKP	Z	06:42:43.4	148.6	11.5				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/17	11:59: 4.2	38.200N	22.700E	10.0G		3.9		NOA

Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	12:02:32.3	14.1	140.1					
	e L	Z	12:08:38.2			20.0	1088	3.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/17	11:57:36.2	36.982N	72.002E	33.0N	4.9			SZGRF

Afghanistan-Tajikistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	12:05:46.3	44.7	82.5	0.9	13	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/17	19:24:23.4	82.480N	8.840W	33.0N	5.3	4.1		SZGRF

North of Svalbard

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	19:30:22.2	29.1	354.9	1.4	131	5.6		
NRDL	e P	Z	19:30:34.4	30.5	355.2	1.4	45	5.2		
	e PcP	Z	19:33:32.2							
IBBN	e P	Z	19:30:35.5	30.6	355.8	1.2	42	5.3		
BUG	e P	Z	19:30:42.3	31.4	356.0	1.0	54	5.4		
CLL	e P	Z	19:30:45.9	31.8	354.7	1.3	44	5.2		
	e PcP	Z	19:33:36.0							
UBBA	e P	Z	19:30:49.4	32.1	355.4	1.3	26	5.0		
BRG	e P	Z	19:30:50.5	32.3	354.6	1.2	34	5.1		
	e PcP	Z	19:33:37.2							
MOX	e P	Z	19:30:51.9	32.4	355.1	1.5	47	5.2		

TNS	e P	Z	19:30:54.3	32.7	355.9	1.0	33	5.2	
TANN	e P	Z	19:30:54.3	32.7	354.9	1.2	44	5.3	
	e PcP	Z	19:33:37.8						
WLF	e P	Z	19:30:58.1	33.1	356.4	1.1	45	5.3	
ROTZ	e P	Z	19:31:00.2	33.3	355.1	0.8	17	5.0	
GRA1	e P	Z	19:31:00.2	33.3	355.3	1.0	34	5.2	
	e L	Z	19:42:57.2			18.4	332		4.1
WET	e P	Z	19:31:06.0	34.0	355.0	2.4	244	5.7	
STU	e P	Z	19:31:07.3	34.1	355.9	0.9	59	5.5	
GEC2	e P	Z	19:31:09.2	34.3	354.9	1.3	35	5.1	
BFO	e P	Z	19:31:10.8	34.5	356.1	0.9	50	5.4	
	e PcP	Z	19:33:43.4						
FUR	e P	Z	19:31:13.7	34.9	355.5	1.0	31	5.2	
	e PcP	Z	19:33:44.4						
RJOB	e P	Z	19:31:18.2	35.4	355.2	1.0	18	4.9	
	e PcP	Z	19:33:45.9						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/17	19:49:57.0	22.987N	36.041E	33.0G	4.5			SZGRF

Sudan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	19:56:32.7	33.0	134.9	1.4	9	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/17	22:39:27.1	38.100N	22.700E	10.0G		3.6		noa

Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:42:55.8	14.2	140.3					
	e L	Z	22:49:01.7			18.4	439		3.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/18								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	02:41:28.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/18	20:23:27.4	19.500S	177.300E	35.0		4.4		NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	20:43:16.3	147.8	25.2					
	e L	Z	21:45:11.8			20.9	70		4.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/19	03:17:10.0	5.675S	68.063E	33.0N	4.7			SZGRF

Chagos Archipelago region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	03:28:42.3	73.9	119.9	1.1	8	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/19	07:22:50.8	5.999S	67.817E	33.0N	4.8			SZGRF

Carlsberg Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	07:34:23.9	74.1	120.3	1.7	16	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/19	16:54:35.2	25.620N	37.940E	33.0G	5.2			SZGRF

Western Arabian Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	17:00:38.6	29.7	129.3					
GEC2	e P	Z	17:00:41.4	29.9	132.1	1.3	43	5.2		
WET	e P	Z	17:00:45.8	30.5	131.2	1.3	22	4.9		
FUR	e P	Z	17:00:47.6	30.7	127.6					
BRG	e P	Z	17:00:52.3	31.2	135.0	1.1	42	5.3		
ROTZ	e P	Z	17:00:52.8	31.3	131.0	1.8	67	5.3		
TANN	e P	Z	17:00:55.8	31.6	132.2	1.8	79	5.3		
GRA1	e P	Z	17:00:56.2	31.7	129.5	1.3	30	5.1		
	e PcP	Z	17:03:46.9							
CLL	e P	Z	17:00:58.5	31.9	134.1	1.9	80	5.3		
MOX	e P	Z	17:01:00.5	32.1	131.3	1.3	69	5.4		
STU	e P	Z	17:01:00.8	32.2	125.5					
BFO	e P	Z	17:01:03.0	32.4	123.8	1.3	38	5.2		
UBBA	e P	Z	17:01:07.6	33.0	129.2	2.3	58	5.1		
NRDL	e P	Z	17:01:16.7	34.1	131.3	1.2	21	4.9		
WLF	e P	Z	17:01:19.5	34.3	122.7	1.5	48	5.1		
BUG	e P	Z	17:01:22.3	34.8	126.2					
BSEG	e P	Z	17:01:24.3	34.9	133.1	1.7	84	5.3		
IBBN	e P	Z	17:01:25.1	35.0	127.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/19	17:35: 2.9	25.040N	37.650E	33.0G	5.7	4.6		SZGRF

Western Arabian Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	17:41:09.5	30.0	130.4	2.5	388	5.8		
	e PcP	Z	17:44:12.5							
GEC2	e P	Z	17:41:12.1	30.3	133.2	1.6	217	5.7		
WET	e P	Z	17:41:16.6	30.9	132.3	1.5	76	5.4		
	e PcP	Z	17:44:14.4							
FUR	e P	Z	17:41:18.3	31.0	128.7	1.2	113	5.7		
BRG	e P	Z	17:41:23.0	31.6	135.9	1.4	197	5.8		
ROTZ	e P	Z	17:41:23.5	31.6	132.1	1.8	247	5.8		
TANN	e P	Z	17:41:26.6	31.9	133.2	1.8	350	6.0		
	e S	R	17:46:38.2							
GRA1	e P	Z	17:41:27.0	32.0	130.5	2.0	282	5.9		
	e PP	Z	17:42:41.7							
	e PcP	Z	17:44:16.6							
	e S	R	17:46:38.7							
	e L	Z	17:55:57.1			20.8	1441		4.6	
CLL	e P	Z	17:41:29.2	32.3	135.0	1.6	206	5.8		
MOX	e P	Z	17:41:31.3	32.5	132.2	1.5	318	6.0		
STU	e P	Z	17:41:31.6	32.5	126.6	2.0	252	5.8		
BFO	e P	Z	17:41:33.8	32.7	124.8	1.5	104	5.6		
UBBA	e P	Z	17:41:38.4	33.4	130.2	2.3	201	5.6		
	e PcP	Z	17:44:21.0							
TNS	e P	Z	17:41:42.0	33.8	127.3	1.6	64	5.3		
	e PcP	Z	17:44:21.6							
	e S	R	17:47:06.8							
NRDL	e P	Z	17:41:47.5	34.4	132.2	1.4	93	5.5		
	e S	R	17:47:14.6							
WLF	e P	Z	17:41:50.2	34.6	123.6	1.7	177	5.7		
BUG	e P	Z	17:41:53.1	35.1	127.2	1.2	41	5.2		
	e PcP	Z	17:44:26.0							
BSEG	e P	Z	17:41:55.0	35.3	134.0	1.8	352	6.0		
	e S	R	17:47:31.2							
IBBN	e P	Z	17:41:55.8	35.4	128.8	1.3	68	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/19	19:29:51.0	33.620N	74.310E	13.4N	4.8			SZGRF

Southwestern Kashmir

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	19:38:24.8	46.4	87.6	0.9	15	5.1		

GEC2	e P	Z	19:38:26.5	46.7	85.5	0.9	4	4.5
CLL	e P	Z	19:38:28.8	47.0	87.3	0.7	6	4.8
TANN	e P	Z	19:38:32.2	47.4	86.1	1.1	6	4.6
RJOB	e P	Z	19:38:31.8	47.4	83.9	0.8	10	5.0
ROTZ	e P	Z	19:38:34.4	47.6	85.3	1.1	8	4.8
GRA1	e P	Z	19:38:39.5	48.2	84.6	0.8	8	4.9
BSEG	e P	Z	19:38:40.5	48.5	87.6	1.1	25	5.1
NRDL	e P	Z	19:38:42.2	48.7	86.2	0.9	9	4.8
BFO	e P	Z	19:38:53.9	50.3	81.4	1.1	8	4.6
WLF	e P	Z	19:39:03.9	51.5	81.0	1.0	16	4.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/19	19:57:18.3	25.200N	37.700E	10.0	4.4			NEIC

Western Arabian Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	20:03:43.7	31.9	130.3	1.1	6	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/20	09:57:53.0	6.202S	66.441E	27.4	5.2	4.1		SZGRF

South Indian Ocean

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	10:09:11.4	71.6	122.4	1.0	10	4.9		
GEC2	e P	Z	10:09:11.7	71.7	123.5	1.2	6	4.6		
WET	e P	Z	10:09:15.0	72.3	122.9	1.2	8	4.7		
FUR	e P	Z	10:09:18.4	72.6	121.2	1.4	128	5.9		
BRG	e P	Z	10:09:18.4	72.7	124.3	1.3	22	5.1		
ROTZ	e P	Z	10:09:20.1	73.0	122.5	1.5	19	5.0		
TANN	e P	Z	10:09:21.9	73.2	122.9	2.1	48	5.3		
CLL	e P	Z	10:09:22.8	73.4	123.6	1.3	39	5.4		
GRA1	e P	Z	10:09:23.1	73.5	121.6	1.3	79	5.7		
	e L	Z	11:15:56.2			19.3	128		4.2	
MOX	e P	Z	10:09:25.1	73.8	122.2	1.4	28	5.1		
	e pP	Z	10:09:32.9							
	e L	Z	11:02:48.6			21.8	116		4.1	
STU	e P	Z	10:09:26.8	74.1	119.6	1.4	48	5.3		
BFO	e P	Z	10:09:29.0	74.4	118.8	1.3	25	5.1		
UBBA	e P	Z	10:09:30.6	74.7	120.8	1.5	36	5.2		
TNS	e P	Z	10:09:34.0	75.3	119.4	1.3	32	5.2		
NRDL	e P	Z	10:09:35.0	75.5	121.3	1.4	20	5.0		
BSEG	e P	Z	10:09:38.4	76.2	121.8	1.9	77	5.5		
WLF	e P	Z	10:09:39.5	76.3	117.3	1.1	23	5.2		
BUG	e P	Z	10:09:41.0	76.5	118.6	1.1	27	5.3		
IBBN	e P	Z	10:09:41.7	76.7	119.2	1.0	17	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/20	15:18:42.1	7.514S	66.505E	33.0N	5.0			SZGRF

Mid-Indian Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	15:30:06.4	72.7	123.2	1.3	7	4.6		
WET	e P	Z	15:30:10.2	73.4	123.6	1.9	13	4.7		
FUR	e P	Z	15:30:13.5	73.8	122.0	1.4	56	5.4		
BRG	e P	Z	15:30:13.5	73.8	124.9	1.5	13	4.7		
ROTZ	e P	Z	15:30:15.3	74.1	123.2	1.9	30	5.0		
FBE	e P	Z	15:30:15.8	74.1	124.4	1.1	16	5.0		
MANZ	e P	Z	15:30:16.4	74.3	123.1	1.4	13	4.8		
WERN	e P	Z	15:30:17.2	74.3	123.4	1.4	34	5.2		
TANN	e P	Z	15:30:16.9	74.3	123.5	1.7	16	4.8		
GUNZ	e P	Z	15:30:17.5	74.4	123.4	1.6	33	5.1		
WERD	e P	Z	15:30:17.8	74.4	123.4	1.8	26	5.0		
PLN	e P	Z	15:30:18.3	74.5	123.3	2.3	259	5.9		
CLL	e P	Z	15:30:17.8	74.5	124.2	1.4	17	4.9		
GRA1	e P	Z	15:30:18.3	74.6	122.3	1.7	50	5.3		
MOX	e P	Z	15:30:20.2	74.9	122.9	1.5	17	4.8		
NEUB	e P	Z	15:30:21.3	75.1	123.1	2.0	44	5.2		
STU	e P	Z	15:30:22.0	75.3	120.4	1.3	26	5.1		
BFO	e P	Z	15:30:24.0	75.5	119.5	1.2	10	4.7		
UBBA	e P	Z	15:30:25.6	75.9	121.5	1.8	27	5.1		
TNS	e P	Z	15:30:29.1	76.4	120.1	1.4	16	5.0		
NRDL	e P	Z	15:30:30.4	76.7	121.9	1.4	10	4.8		
BSEG	e P	Z	15:30:33.8	77.3	122.4	1.3	15	4.9		
WLF	e P	Z	15:30:34.5	77.4	118.0	0.7	5	4.7		
BUG	e P	Z	15:30:35.9	77.7	119.3	0.6	6	4.9		
IBBN	e P	Z	15:30:37.0	77.8	119.9	0.4	9	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/21	00:29:44.5	15.200S	173.400W	35.0		4.5		NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	00:49:19.3	145.3	7.9					
	e L	Z	01:47:53.3			20.8	85		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/21	01:41:42.2	22.540S	178.230W	33.0N				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	02:01:24.3	147.9	15.0					
NRDL	e PKPbc	Z	02:01:27.6	149.4	15.2					
IBBN	e PKPab	Z	02:01:34.0	149.9	11.1					
CLL	e PKPbc	Z	02:01:29.5	149.9	21.1					
BRG	e PKPbc	Z	02:01:29.9	150.1	23.0					
	e PKPab	Z	02:01:35.5							
BUG	e PKPbc	Z	02:01:31.4	150.8	10.4					
MOX	e PKPbc	Z	02:01:31.7	150.9	18.9					
	e PKPab	Z	02:01:38.4							
TANN	e PKPbc	Z	02:01:31.9	150.9	20.6					
ROTZ	e PKPbc	Z	02:01:33.3	151.6	20.6					
TNS	e PKPab	Z	02:01:42.9	151.8	13.1					
GRA1	e PKPab	Z	02:01:43.1	151.8	18.8					
WET	e PKPbc	Z	02:01:34.3	152.0	22.3					
	e PKPab	Z	02:01:43.8							
GEC2	e PKPbc	Z	02:01:33.9	152.0	24.0					
WLF	e PKPbc	Z	02:01:36.4	152.7	8.8					
STU	e PKPbc	Z	02:01:36.7	153.1	15.3					
FUR	e PKPbc	Z	02:01:37.0	153.3	19.8					
	e PKPab	Z	02:01:49.1							
RJOB	e PKPbc	Z	02:01:37.0	153.3	23.2					
	e PKPab	Z	02:01:49.4							
BFO	e PKPbc	Z	02:01:37.8	153.7	13.8					
	e PKPab	Z	02:01:50.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/21	07:35:28.8	7.800N	127.100E	35.0		4.6		NEIC

Philippine Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z	07:49:09.6	100.2	64.9					
	e L	Z	08:37:34.9			19.7	177		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/21	12:33:49.8	36.640N	77.700E	33.0G	5.4	3.7		SZGRF

Kashmir-Xinjiang border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	12:42:16.3	46.6	82.0	0.6	30	5.6		
GEC2	e P	Z	12:42:20.4	47.1	79.9	0.9	20	5.3		
CLL	e P	Z	12:42:20.2	47.1	81.7	0.7	24	5.4		
WET	e P	Z	12:42:23.6	47.6	79.7	0.6	12	5.1		
TANN	e P	Z	12:42:24.2	47.6	80.6	1.0	26	5.2		

ROTZ	e P	Z	12:42:26.5	47.9	79.8	0.9	19	5.1	
RJOB	e P	Z	12:42:25.9	47.9	78.4	0.8	13	5.0	
MOX	e P	Z	12:42:27.7	48.1	80.2	0.9	26	5.3	
BSEG	e P	Z	12:42:30.6	48.4	82.2	0.8	101	5.8	
GRA1	e P	Z	12:42:32.1	48.5	79.1	1.0	50	5.4	
	e L	Z	13:04:58.3			18.5	78		3.7
NRDL	e P	Z	12:42:32.8	48.7	80.8	0.9	55	5.5	
FUR	e P	Z	12:42:33.7	48.8	77.8	0.8	93	5.8	
UBBA	e P	Z	12:42:35.0	49.1	79.2	0.8	12	4.9	
STU	e P	Z	12:42:42.4	50.0	77.0	1.0	76	5.6	
TNS	e P	Z	12:42:43.6	50.2	77.7	0.7	18	5.1	
IBBN	e P	Z	12:42:43.9	50.2	79.0	0.6	27	5.3	
BUG	e P	Z	12:42:47.2	50.6	77.9	0.9	44	5.4	
WLF	e P	Z	12:42:55.8	51.7	75.8	0.8	43	5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/21	13:51:52.1	52.063N	157.765E	33.0G	5.1			SZGRF

Kamchatka Peninsula, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:03:26.9	74.4	20.6	0.9	17	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/21	14:29:39.4	23.520S	177.880W	33.0G				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	14:49:24.1	149.0	14.7					
IBBN	e PKPbc	Z	14:49:29.0	150.9	10.7					
CLL	e PKPbc	Z	14:49:28.7	151.0	20.9					
	e PKPab	Z	14:49:35.5							
BRG	e PKPdf	Z	14:49:24.3	151.2	22.9					
	e PKPbc	Z	14:49:29.2							
	e PKPab	Z	14:49:36.2							
BUG	e PKPbc	Z	14:49:31.1	151.8	10.0					
MOX	e PKPdf	Z	14:49:24.8	151.9	18.7					
	e PKPbc	Z	14:49:31.5							
TANN	e PKPbc	Z	14:49:31.4	151.9	20.5					
UBBA	e PKPdf	Z	14:49:25.5	152.0	15.5					
	e PKPbc	Z	14:49:31.3							
	e PKPab	Z	14:49:41.1							
ROTZ	e PKPbc	Z	14:49:33.0	152.6	20.4					
TNS	e PKPdf	Z	14:49:26.4	152.8	12.8					
	e PKPbc	Z	14:49:33.2							
	e PKPab	Z	14:49:43.8							

GRA1	e PKPbc	Z	14:49:33.3	152.9	18.5	
	e PKPab	Z	14:49:44.8			
WET	e PKPbc	Z	14:49:33.7	153.0	22.2	
	e PKPab	Z	14:49:45.0			
GEC2	e PKPdf	Z	14:49:27.2	153.1	24.0	
	e PKPbc	Z	14:49:33.6			
	e PKPab	Z	14:49:45.4			
WLF	e PKPdf	Z	14:49:28.4	153.7	8.4	
	e PKPbc	Z	14:49:36.5			
	e PKPab	Z	14:49:48.0			
STU	e PKPdf	Z	14:49:28.9	154.1	15.0	
	e PKPbc	Z	14:49:36.5			
	e PKPab	Z	14:49:49.4			
FUR	e PKPab	Z	14:49:50.4	154.3	19.7	
RJOB	e PKPbc	Z	14:49:36.4	154.3	23.1	
	e PKPab	Z	14:49:50.7			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/22	00:24:18.1	14.204N	90.159W	33.0N	4.9			SZGRF

Guatemala

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:36:57.4	86.4	287.8	1.4	15	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/22	07:18: 3.3	22.345S	179.526W	33.0G				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	07:37:43.7	147.5	17.1					
NRDL	e PKPbc	Z	07:37:47.3	149.0	17.5					
CLL	e PKPbc	Z	07:37:48.8	149.4	23.2					
BRG	e PKPbc	Z	07:37:49.4	149.6	25.2					
	e PKPab	Z	07:37:54.7							
FBE	e PKPbc	Z	07:37:49.9	149.7	24.1					
NEUB	e PKPbc	Z	07:37:49.8	149.8	21.1					
MOX	e PKPbc	Z	07:37:51.1	150.4	21.2					
TANN	e PKPbc	Z	07:37:51.3	150.4	22.9					
WERD	e PKPbc	Z	07:37:51.3	150.4	22.6					
PLN	e PKPbc	Z	07:37:51.3	150.4	22.3					
GUNZ	e PKPbc	Z	07:37:51.7	150.5	22.7					
WERN	e PKPab	Z	07:37:59.1	150.5	22.8					
ROTZ	e PKPbc	Z	07:37:53.1	151.1	22.9					
GRA1	e PKPbc	Z	07:37:53.7	151.4	21.1					
TNS	e PKPbc	Z	07:37:53.7	151.4	15.6					

WET	e PKPab	Z	07:38:03.1	151.5	24.6
GEC2	e PKPbc	Z	07:37:53.9	151.5	26.3
WLF	e PKPbc	Z	07:37:56.1	152.3	11.4
BFO	e PKPbc	Z	07:37:57.5	153.3	16.3

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/22	13:31:40.1	48.500N	151.200E	33.0	5.0			SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	13:43:14.3	74.0	27.4	0.9	20	5.2		
MOX	e P	Z	13:43:20.4	75.0	26.4	1.0	10	4.8		
BUG	e P	Z	13:43:23.2	75.4	23.8	0.9	13	5.1		
ROTZ	e P	Z	13:43:24.4	75.6	26.7	1.0	11	4.9		
GRA1	e P	Z	13:43:26.5	75.9	26.1	0.9	27	5.4		
WET	e P	Z	13:43:26.2	76.0	27.0	1.0	14	5.1		
GEC2	e P	Z	13:43:26.0	76.0	27.5	0.9	6	4.7		
TNS	e P	Z	13:43:27.7	76.2	24.4	0.8	14	5.1		
RJOB	e P	Z	13:43:33.4	77.2	26.8	1.0	9	4.8		
BFO	e P	Z	13:43:37.0	78.0	24.1	0.9	12	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/22	19:24:10.5	16.726N	99.243W	55.0	5.9	4.7		SZGRF

Near coast of Guerrero, Mexico

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z	19:36:48.7	86.8	293.5	1.4	295	6.2		
BUG	e P	Z	19:36:48.9	86.8	293.1	1.6	322	6.2		
WLF	e P	Z	19:36:49.2	86.9	292.4	1.2	264	6.2		
BSEG	e P	Z	19:36:52.3	87.5	295.4	2.0	568	6.6		
NRDL	e P	Z	19:36:54.0	88.0	295.3	1.3	56	5.7		
TNS	e P	Z	19:36:54.6	88.0	294.1	1.0	149	6.3		
	e sP	Z	19:37:16.7							
UBBA	e P	Z	19:36:57.2	88.6	295.3	3.2	460	6.2		
BFO	e P	Z	19:36:57.0	88.7	294.0	2.1	146	5.8		
STU	e P	Z	19:36:59.5	89.0	294.7	1.1	67	5.8		
MOX	e P	Z	19:37:02.3	89.6	296.5	1.1	35	5.5		
	e L	N	20:20:07.9			20.5	365		4.8	
GRA1	e P	Z	19:37:03.3	89.8	296.2	1.1	54	5.7		
	e L	N	20:19:18.1			20.3	174		4.5	
CLL	e P	Z	19:37:04.2	90.1	297.6	1.1	47	5.6		
TANN	e P	Z	19:37:04.8	90.2	297.2	1.2	40	5.5		
ROTZ	e P	Z	19:37:05.3	90.4	297.0	1.2	33	5.6		
FUR	e P	Z	19:37:06.5	90.5	296.2	1.1	42	5.7		
BRG	e P	Z	19:37:07.7	90.8	298.3	1.1	50	5.8		

WET	e P	Z	19:37:08.5	91.0	297.5	1.1	46	5.7
RJOB	e P	Z	19:37:11.8	91.6	297.4	1.2	34	5.5
GEC2	e P	Z	19:37:11.4	91.7	298.1	1.0	32	5.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/22	19:48:45.8	23.120S	179.060W	33.0				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	20:08:33.7	150.3	22.8					
BRG	e PKPbc	Z	20:08:34.2	150.5	24.8					
MOX	e PKPbc	Z	20:08:35.9	151.2	20.7					
TANN	e PKPbc	Z	20:08:36.2	151.3	22.5					
GRA1	e PKPab	Z	20:08:48.6	152.2	20.6					
TNS	e PKPbc	Z	20:08:38.5	152.3	15.0					
	e PKPab	Z	20:08:47.8							
WET	e PKPab	Z	20:08:49.0	152.3	24.2					
GEC2	e PKPbc	Z	20:08:38.6	152.4	26.0					
WLF	e PKPbc	Z	20:08:41.0	153.1	10.7					
STU	e PKPab	Z	20:08:53.4	153.5	17.2					
RJOB	e PKPab	Z	20:08:55.0	153.6	25.2					
FUR	e PKPbc	Z	20:08:41.4	153.6	21.8					
	e PKPab	Z	20:08:54.6							
BFO	e PKPbc	Z	20:08:42.4	154.1	15.7					
	e PKPab	Z	20:08:55.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/23	02:59:30.9	23.640S	179.480W	585.1				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	03:18:14.4	149.4	24.4					
	e pPKPbc	Z	03:20:28.5							
NRDL	e PKPbc	Z	03:18:16.5	150.2	17.9					
	e PKPab	Z	03:18:25.5							
	e pPKPbc	Z	03:20:30.7							
CLL	e PKPbc	Z	03:18:17.3	150.7	23.9					
	e PKPab	Z	03:18:27.2							
	e pPKPbc	Z	03:20:31.6							
IBBN	e PKPbc	Z	03:18:18.2	150.8	13.7					
	e PKPab	Z	03:18:28.8							
	e pPKPbc	Z	03:20:32.5							
BRG	e PKPbc	Z	03:18:17.8	150.9	25.9					
	e PKPab	Z	03:18:28.2							
	e pPKPbc	Z	03:20:31.8							

FBE	e PKPbc	Z	03:18:18.4	151.0	24.8	
MOX	e PKPbc	Z	03:18:19.9	151.7	21.8	
	e PKPab	Z	03:18:31.5			
	e pPKPbc	Z	03:20:34.1			
	e pPKPab	Z	03:20:40.2			
TANN	e PKPbc	Z	03:18:19.6	151.7	23.5	
	e PKPab	Z	03:18:32.0			
	e pPKPbc	Z	03:20:34.0			
WERD	e pPKPbc	Z	03:20:33.8	151.7	23.2	
PLN	e PKPbc	Z	03:18:19.4	151.7	22.9	
	e pPKPbc	Z	03:20:33.8			
BUG	e PKPab	Z	03:18:33.2	151.7	13.1	
	e pPKPbc	Z	03:20:34.8			
GUNZ	e pPKPbc	Z	03:20:33.8	151.7	23.3	
UBBA	e PKPab	Z	03:18:32.7	151.8	18.7	
	e pPKPbc	Z	03:20:34.6			
	e pPKPab	Z	03:20:41.9			
MANZ	e PKPbc	Z	03:18:20.6	152.1	23.2	
ROTZ	e PKPab	Z	03:18:35.2	152.3	23.5	
	e pPKPbc	Z	03:20:36.0			
GRA1	e PKPab	Z	03:18:36.3	152.6	21.7	
	e pPKPbc	Z	03:20:36.7			
	e pPKPab	Z	03:20:45.6			
WET	e PKPab	Z	03:18:36.4	152.7	25.3	
	e pPKPbc	Z	03:20:36.7			
TNS	e PKPab	Z	03:18:36.5	152.7	16.0	
	e pPKPbc	Z	03:20:36.8			
GEC2	e PKPab	Z	03:18:36.1	152.7	27.1	
	e pPKPbc	Z	03:20:36.6			
WLF	e PKPab	Z	03:18:40.8	153.6	11.7	
	e pPKPbc	Z	03:20:39.6			
	e pPKPab	Z	03:20:50.2			
STU	e PKPbc	Z	03:18:25.2	154.0	18.3	
	e PKPab	Z	03:18:41.9			
	e pPKPbc	Z	03:20:39.6			
RJOB	e PKPab	Z	03:18:41.8	154.0	26.4	
	e pPKPab	Z	03:20:50.6			
FUR	e PKPab	Z	03:18:42.3	154.0	23.0	
	e pPKPbc	Z	03:20:39.6			
	e pPKPab	Z	03:20:51.4			
BFO	e PKPab	Z	03:18:44.2	154.5	16.8	
	e pPKPbc	Z	03:20:40.8			
	e pPKPab	Z	03:20:53.2			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/23	04:47:40.8	36.939N	22.167E	10.0G	4.2			SZGRF

Southern Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	04:50:45.0	12.8	144.0					
WET	e P	Z	04:51:02.4	13.9	147.6					
ROTZ	e P	Z	04:51:13.7	14.7	147.0					
GRA1	e P	Z	04:51:18.6	15.0	144.1	1.4	47			
BFO	e P	Z	04:51:17.5	15.2	133.3	1.2	15			
MOX	e P	Z	04:51:22.5	15.6	147.1	1.8	26	4.1		
CLL	e P	Z	04:51:24.7	15.8	152.1	1.6	21	4.0		
TNS	e P	Z	04:51:35.3	16.5	138.2	1.2	23	4.2		
WLF	e P	Z	04:51:41.8	17.2	131.7	1.0	31	4.4		
NRDL	e P	Z	04:51:50.3	17.7	146.7	1.5	44	4.4		
BUG	e P	Z	04:51:51.7	17.9	138.1	2.0	66	4.4		
IBBN	e P	Z	04:51:58.5	18.4	140.9	1.5	47	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/23	16:58:31.8	45.803N	10.903E	10.0G			2.9	SZGRF

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WTTA	e Pn	Z	16:58:57.8	1.5	199.3					3.1
	e Sg	E	16:59:19.6							
DAVA	e Pn	Z	16:58:58.3	1.6	154.3					2.8
	e Sg	E	16:59:25.0							
KBA	e Pn	Z	16:59:06.6	2.1	233.7					2.6
	e Sn	Z	16:59:31.1							
	e Sg	E	16:59:39.0							
RJOB	e Pn	Z	16:59:10.0	2.3	214.5					2.8
	e Sg	E	16:59:45.3							
FUR	e Pn	Z	16:59:09.5	2.4	186.3					3.1
	e Sg	N	16:59:47.0							
OBKA	e Sg	E	16:59:55.4	2.6	255.7					3.0
BFO	e Pn	Z	16:59:18.5	3.1	144.3					2.7
	e Sn	E	16:59:54.6							
MOA	e Pn	Z	16:59:19.5	3.1	229.6					2.8
	e Sg	N	17:00:09.8							
GEC2	e Pn	Z	16:59:25.0	3.6	213.0					2.8
GRA1	e Sg	E	17:00:36.0	3.9	183.3					3.3
ROTZ	e Sn	E	17:00:18.5	4.1	193.0					2.8
MANZ	e Sg	E	17:00:45.9	4.3	191.4					2.9
MOX	e Sn	E	17:00:37.9	4.9	185.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/23	20:00:36.8	22.280S	178.110W	33.0N				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	20:20:21.6	149.1	14.9					
IBBN	e PKPbc	Z	20:20:22.8	149.6	10.8					
	e PKPab	Z	20:20:27.8							
CLL	e PKPbc	Z	20:20:23.1	149.7	20.7					
	e PKPab	Z	20:20:28.0							
BRG	e PKPbc	Z	20:20:23.7	149.9	22.7					
	e PKPab	Z	20:20:29.2							
BUG	e PKPab	Z	20:20:31.7	150.5	10.2					
MOX	e PKPbc	Z	20:20:25.4	150.6	18.6					
TANN	e PKPbc	Z	20:20:25.6	150.7	20.3					
ROTZ	e PKPbc	Z	20:20:27.3	151.3	20.2					
TNS	e PKPbc	Z	20:20:27.7	151.6	12.8					
	e PKPab	Z	20:20:36.2							
GRA1	e PKPbc	Z	20:20:28.7	151.6	18.4					
	e PKPab	Z	20:20:36.8							
WET	e PKPbc	Z	20:20:28.5	151.8	21.9					
	e PKPab	Z	20:20:37.6							
GEC2	e PKPbc	Z	20:20:28.2	151.8	23.7					
WLF	e PKPbc	Z	20:20:30.6	152.4	8.5					
STU	e PKPbc	Z	20:20:31.1	152.9	15.0					
FUR	e PKPbc	Z	20:20:31.5	153.1	19.4					
	e PKPab	Z	20:20:42.8							
RJOB	e PKPbc	Z	20:20:30.8	153.1	22.8					
	e PKPab	Z	20:20:43.2							
BFO	e PKPbc	Z	20:20:32.1	153.4	13.4					
	e PKPab	Z	20:20:43.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/23	20:42:54.0	44.484N	16.100E	10.0G			3.1	SZGRF

Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z	20:43:31.0	2.3	151.2					3.3
	e Sn	N	20:43:59.7							
ARSA	e Pn	Z	20:43:38.4	2.8	171.5					2.5
KBA	e Pn	Z	20:43:44.0	3.2	142.5					3.0
MOA	e Pn	Z	20:43:49.2	3.6	158.7					3.2
	e Sn	N	20:44:30.6							
RJOB	e Pn	Z	20:43:53.9	4.0	143.6					3.1
	e Sn	N	20:44:40.2							
WTTA	e Pn	Z	20:43:56.0	4.2	130.2					3.5
GEC2	e Pn	Z	20:44:02.8	4.7	158.4					3.2
	e Sn	N	20:44:53.8							
WET	e Pn	Z	20:44:09.7	5.2	153.5					
	e Sn	N	20:45:06.2							

ROTZ	e Pn	Z	20:44:18.6	5.9	151.9	
BFO	e Sg	N	20:46:20.2	6.6	122.8	
MOX	e Pn	Z	20:44:32.1	6.9	152.2	
	e Sn	N	20:45:46.4			
CLL	e Sg	N	20:46:35.0	7.1	161.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/24	00:58: 7.3	30.690S	176.170W	33.0G		6.1		SZGRF

Kermadec Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPdf	Z	01:17:58.9	157.7	14.4					
	e PP	Z	01:22:10.4							
	e SKKSac	R	01:29:03.7							
	e SS	T	01:42:04.7							
IBBN	e PKPdf	Z	01:17:58.8	158.2	9.1					
	e PKPab	Z	01:18:34.9							
	e PP	Z	01:22:18.6							
	e SKKSac	R	01:29:06.5							
	e SS	T	01:42:13.2							
CLL	e PKPdf	Z	01:17:58.9	158.3	21.8					
	e PKPab	Z	01:18:34.1							
	e PP	Z	01:22:17.9							
	e SKKSac	R	01:29:05.5							
	e SS	T	01:42:09.0							
BRG	e PKPdf	Z	01:17:59.6	158.5	24.3					
	e PKPab	Z	01:18:35.0							
	e PP	Z	01:22:18.5							
	e SKKSac	R	01:29:07.4							
	e SS	T	01:42:09.0							
BUG	e PKPdf	Z	01:18:00.4	159.1	8.3					
	e PKPab	Z	01:18:38.5							
	e PP	Z	01:22:23.5							
	e SKKSac	R	01:29:12.6							
	e SS	T	01:42:21.6							
MOX	e PKPdf	Z	01:18:00.0	159.2	19.2					
	e PKPab	Z	01:18:38.5							
	e PP	Z	01:22:17.8							
	e SKKSac	R	01:29:11.8							
	e SS	T	01:42:21.6							
	e L	Z	02:52:39.2			18.5	1987		6.0	
TANN	e PKPdf	Z	01:17:59.9	159.2	21.4					
	e PKPab	Z	01:18:38.7							
	e PP	Z	01:22:17.8							
	e SS	T	01:42:23.7							
ROTZ	e PKPdf	Z	01:18:01.5	159.9	21.4					
	e PKPab	Z	01:18:42.2							

	e PP	Z	01:22:26.6							
	e SKKSac	R	01:29:16.8							
	e SS	T	01:42:32.2							
TNS	e PKPdf	Z	01:18:02.0	160.2	11.8					
	e PKPab	Z	01:18:43.2							
	e PP	Z	01:22:23.5							
	e SKKSac	R	01:29:19.7							
	e SS	T	01:42:34.3							
GRA1	e PKPdf	Z	01:18:01.5	160.2	19.1					
	e PKPab	Z	01:18:43.3							
	e PP	Z	01:22:24.0							
	e SKKSac	R	01:29:18.2							
	e SS	T	01:42:36.4							
	e L	Z	02:35:12.6			19.5	3225	6.2		
WET	e PKPdf	Z	01:18:01.3	160.3	23.7					
	e PKPab	Z	01:18:43.4							
	e PP	Z	01:22:28.5							
	e SKKSac	R	01:29:17.8							
	e SS	T	01:42:36.4							
GEC2	e PKPdf	Z	01:18:01.6	160.4	26.0					
	e PKPab	Z	01:18:43.2							
	e PP	Z	01:22:28.5							
	e SKKSac	R	01:29:17.8							
WLF	e PKPdf	Z	01:18:02.9	160.9	6.1					
	e SS	T	01:42:42.7							
STU	e PKPdf	Z	01:18:02.8	161.5	14.6					
	e PKPab	Z	01:18:48.5							
	e PP	Z	01:22:35.5							
	e SKKSac	R	01:29:25.3							
	e SS	T	01:42:44.8							
RJOB	e PKPdf	Z	01:18:02.9	161.6	25.2					
	e PKPab	Z	01:18:49.1							
	e PP	Z	01:22:35.2							
	e SKKSac	R	01:29:23.0							
	e SS	T	01:42:49.1							
BFO	e PKPdf	Z	01:18:03.4	162.0	12.6					
	e PKPab	Z	01:18:51.1							
	e PP	Z	01:22:38.7							
	e SKKSac	R	01:29:28.6							
	e SS	T	01:42:51.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/24	02:00:13.3	31.400S	177.600W	10.0				NEIC

Kermadec Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPab	Z	02:20:43.1	158.2	17.9					

CLL	e PKPab	Z	02:20:45.1	158.6	25.5
IBBN	e PKPab	Z	02:20:45.8	158.7	12.7
BRG	e PKPab	Z	02:20:46.1	158.7	28.1
TANN	e PKPab	Z	02:20:49.7	159.6	25.3
MOX	e PKPab	Z	02:20:49.6	159.6	23.1
ROTZ	e PKPab	Z	02:20:53.3	160.2	25.4
GRA1	e PKPab	Z	02:20:54.4	160.6	23.2
GEC2	e PKPab	Z	02:20:54.3	160.6	30.2
WET	e PKPab	Z	02:20:54.7	160.6	27.8
TNS	e PKPab	Z	02:20:53.9	160.6	15.7
RJOB	e PKPab	Z	02:21:00.2	161.8	29.6
STU	e PKPab	Z	02:20:59.7	161.9	19.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/24	03:21:50.1	31.400S	177.800W	10.0				NEIC

Kermadec Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPab	Z	03:42:19.3	158.1	18.4					
CLL	e PKPab	Z	03:42:21.3	158.6	26.0					
BRG	e PKPab	Z	03:42:22.3	158.7	28.5					
IBBN	e PKPab	Z	03:42:22.2	158.7	13.2					
MOX	e PKPab	Z	03:42:25.9	159.5	23.5					
ROTZ	e PKPab	Z	03:42:29.3	160.2	25.9					
GRA1	e PKPab	Z	03:42:30.8	160.5	23.6					
GEC2	e PKPab	Z	03:42:30.4	160.5	30.7					
WET	e PKPab	Z	03:42:30.9	160.5	28.3					
TNS	e PKPab	Z	03:42:30.6	160.6	16.2					
RJOB	e PKPab	Z	03:42:36.4	161.8	30.1					
BFO	e PKPab	Z	03:42:38.3	162.4	17.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/24	16:17:52.8	41.296N	22.648E	10.0G				SZGRF

Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	16:20:09.6	9.5	129.0					
GEC2	e P	Z	16:20:14.6	9.8	136.8					
WET	e P	Z	16:20:21.6	10.4	135.2					
ROTZ	e P	Z	16:20:31.1	11.2	135.3					
BRG	e P	Z	16:20:32.5	11.3	144.5					
TANN	e P	Z	16:20:36.3	11.5	138.3					
GRA1	e P	Z	16:20:37.9	11.6	132.1					
CLL	e P	Z	16:20:42.4	12.0	142.8					
MOX	e P	Z	16:20:43.3	12.1	136.5					

STU	e P	Z	16:20:44.3	12.1	123.2	
BFO	e P	Z	16:20:46.5	12.3	119.5	
NRDL	e P	Z	16:21:12.2	14.1	137.8	
WLF	e P	Z	16:21:12.6	14.2	119.8	
IBBN	e P	Z	16:21:21.5	14.9	131.5	
HLG	e P	Z	16:21:39.4	16.2	136.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/24	19:37: 6.3	41.310N	22.715E	10.0G				NEIC

Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	19:39:25.5	9.5	128.7					
GEC2	e Pn	Z	19:39:28.7	9.8	136.5					
WET	e Pn	Z	19:39:38.0	10.4	134.9					
ROTZ	e Pn	Z	19:39:46.9	11.2	135.1					
TANN	e Pn	Z	19:39:52.0	11.5	138.1					
CLL	e Pn	Z	19:39:56.7	12.0	142.5					
MOX	e Pn	Z	19:40:00.2	12.1	136.3					
STU	e Pn	Z	19:39:57.9	12.1	123.0					
BFO	e Pn	Z	19:40:01.1	12.4	119.3					
TNS	e Pn	Z	19:40:16.5	13.3	126.5					
WLF	e Pn	Z	19:40:29.9	14.3	119.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/25								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	15:26:52.2			1.0	10			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/25	19:59:26.4	52.732N	159.892E	33.0G	5.0			SZGRF

Off east coast of Kamchatka Peninsula, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	20:11:00.4	74.2	19.1	0.9	16	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/26	00:49:43.8	20.058S	175.685W	33.0G				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	01:09:19.9	145.8	10.1					
CLL	e PKPbc	Z	01:09:25.7	148.0	15.5					
BRG	e PKPbc	Z	01:09:26.5	148.3	17.4					
BUG	e PKPbc	Z	01:09:27.2	148.5	5.3					
MOX	e PKPbc	Z	01:09:27.8	148.9	13.4					
UBBA	e PKPbc	Z	01:09:28.4	148.9	10.4					
ROTZ	e PKPbc	Z	01:09:30.0	149.6	14.8					
TNS	e PKPbc	Z	01:09:29.9	149.7	7.7					
GEC2	e PKPbc	Z	01:09:31.2	150.2	18.0					
WLF	e PKPbc	Z	01:09:32.1	150.4	3.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/26	10:31:20.3	43.170N	143.170E	33.0N	5.1	4.4		SZGRF

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	10:43:00.4	74.9	33.6	0.9	32	5.3		
CLL	e P	Z	10:43:06.7	76.1	35.0	1.0	23	5.3		
BRG	e P	Z	10:43:06.9	76.1	35.6	0.9	7	4.8		
NRDL	e P	Z	10:43:07.2	76.1	33.3	1.0	11	4.9		
MOX	e P	Z	10:43:12.8	77.2	34.0	0.8	8	4.9		
	e L	Z	11:19:36.1			18.2	168		4.4	
ROTZ	e P	Z	10:43:16.1	77.7	34.3	1.0	12	5.0		
GEC2	e P	Z	10:43:16.6	77.9	35.2	1.1	8	4.8		
WET	e P	Z	10:43:17.5	77.9	34.7	0.9	14	5.1		
BUG	e P	Z	10:43:17.3	78.0	31.3	1.1	22	5.2		
GRA1	e P	Z	10:43:18.4	78.1	33.7	0.9	26	5.4		
	e L	Z	11:21:21.2			18.4	118		4.3	
TNS	e P	Z	10:43:21.0	78.6	31.9	1.1	11	4.8		
RJOB	e P	Z	10:43:23.9	79.1	34.5	0.9	19	5.1		
BFO	e P	Z	10:43:29.7	80.3	31.6	1.6	30	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/26	12:04: 7.3	43.505N	135.780E	350.0G	5.0			GSRC

Primorye, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	12:15:01.1	73.0	40.1	0.8	6	4.8		
CLL	e P	Z	12:15:01.0	73.0	39.6	0.7	13	5.2		
MOX	e P	Z	12:15:07.5	74.1	38.6	1.4	10	4.6		
ROTZ	e P	Z	12:15:10.7	74.5	38.8	1.1	12	4.8		
GEC2	e P	Z	12:15:10.7	74.6	39.6	0.7	6	4.8		
WET	e P	Z	12:15:11.7	74.8	39.1	1.0	9	4.8		
GRA1	e P	Z	12:15:13.3	75.0	38.2	1.1	26	5.2		

BUG	e P	Z	12:15:13.2	75.1	36.0	0.9	19	5.1
TNS	e P	Z	12:15:16.4	75.7	36.5	2.0	40	5.2
RJOB	e P	Z	12:15:18.3	75.9	38.9	0.8	14	5.2
STU	e P	Z	12:15:21.4	76.5	36.8	1.2	24	5.2
BFO	e P	Z	12:15:25.2	77.2	36.2	1.3	21	5.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/26	22:27:36.6	22.229N	119.859E	46.8	5.4			SZGRF

Taiwan region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	22:40:02.0	83.4	63.5					
WET	e P	Z	22:40:04.3	83.7	63.0					
MOX	e L	Z	23:21:02.1	83.8	62.2	20.1	264			
ROTZ	e P	Z	22:40:05.0	83.8	62.5					
GRA1	e P	Z	22:40:04.2	84.4	61.8	1.7	46	5.4		
	e pP	Z	22:40:17.8							
	e L	Z	23:21:27.4			18.2	278			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/27	00:04:47.0	24.430S	175.600W	33.0				SZGRF

South of Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	00:24:34.6	150.2	10.9					
	e PKPab	Z	00:24:40.4							
NRDL	e PKPbc	Z	00:24:37.8	151.6	11.0					
CLL	e PKPbc	Z	00:24:39.4	152.3	17.0					
	e PKPab	Z	00:24:49.4							
BRG	e PKPbc	Z	00:24:39.9	152.6	19.1					
MOX	e PKPab	Z	00:24:53.1	153.2	14.7					
ROTZ	e PKPab	Z	00:24:56.5	153.9	16.4					
TNS	e PKPab	Z	00:24:56.5	154.0	8.4					
GEC2	e PKPab	Z	00:24:58.9	154.5	20.0					
WLF	e PKPab	Z	00:24:59.9	154.7	3.7					
BFO	e PKPab	Z	00:25:04.8	155.9	8.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/27	02:08:45.2	19.380S	172.190W	33.0N				SZGRF

Tonga Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	02:28:19.4	145.4	4.2					

RUE	e PKPbc	Z	02:28:22.9	146.6	10.3
NRDL	e PKPbc	Z	02:28:24.1	146.8	4.0
CLL	e PKPbc	Z	02:28:26.5	147.8	9.2
MOX	e PKPbc	Z	02:28:28.8	148.6	6.9
WERD	e PKPbc	Z	02:28:29.3	148.7	8.2
GUNZ	e PKPbc	Z	02:28:29.5	148.8	8.3
WERN	e PKPbc	Z	02:28:30.1	148.9	8.4
TNS	e PKPbc	Z	02:28:30.5	149.2	1.2
MANZ	e PKPbc	Z	02:28:30.7	149.2	7.9
ROTZ	e PKPbc	Z	02:28:31.4	149.4	8.2
GRA1	e PKPbc	Z	02:28:32.0	149.6	6.4
WET	e PKPbc	Z	02:28:32.8	150.0	9.6
GEC2	e PKPbc	Z	02:28:32.5	150.2	11.2
STU	e PKPbc	Z	02:28:34.1	150.6	2.7
BFO	e PKPbc	Z	02:28:34.9	151.0	1.0
FUR	e PKPbc	Z	02:28:34.9	151.1	6.8
RJOB	e PKPbc	Z	02:28:35.4	151.4	9.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/27	02:50:29.2	31.960S	17.870W	33.0N	5.2			SZGRF

Southern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z	03:02:53.2	83.6	202.1	1.3	24	5.3		
FUR	e P	Z	03:02:56.4	84.3	204.5	1.5	49	5.5		
WET	e P	Z	03:03:02.9	85.6	205.8	1.4	25	5.2		
GRA1	e P	Z	03:03:03.4	85.6	204.4	1.1	24	5.3		
ROTZ	e P	Z	03:03:04.9	86.0	205.2	1.5	22	5.1		
CLL	e P	Z	03:03:13.0	87.6	205.8	1.8	22	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/28	00:23:46.8	14.500N	92.300W	67.0	4.7			NEIC

Near coast of Chiapas, Mexico

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:36:27.7	87.4	289.6	1.2	5	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/28	08:24:49.7	17.640N	85.290W	33.0G	6.5	7.1		SZGRF

North of Honduras

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	08:36:48.4	77.6	282.7	1.8	1058	6.7		

	e	L	Z	09:21:00.7			21.4	118567	7.2
BUG	e	P	Z	08:36:49.5	77.9	283.1	1.5	652	6.5
	e	L	Z	09:19:58.8			19.4	86471	7.1
IBBN	e	P	Z	08:36:50.3	77.9	283.3	1.7	1204	6.7
	e	L	Z	09:17:02.8			20.8	86881	7.1
TNS	e	P	Z	08:36:55.4	78.9	284.3	1.7	989	6.6
	e	L	Z	09:15:09.0			19.4	78164	7.1
BSEG	e	P	Z	08:36:56.6	79.0	285.0	1.6	2205	6.9
	e	L	Z	09:16:38.5			21.9	153906	7.3
BFO	e	P	Z	08:36:57.1	79.3	284.5	1.5	432	6.2
	e	L	Z	09:23:19.5			19.8	95580	7.1
NRDL	e	P	Z	08:36:57.7	79.3	285.1	1.5	902	6.6
UBBA	e	P	Z	08:37:00.0	79.7	285.3	1.9	879	6.4
	e	L	Z	09:15:59.5			19.4	79332	7.1
STU	e	P	Z	08:36:59.6	79.7	285.1	1.6	676	6.3
	e	L	Z	09:19:59.3			19.8	84396	7.1
NEUB	e	P	Z	08:37:05.0	80.6	286.6	1.6	762	6.5
MOX	e	P	Z	08:37:05.1	80.7	286.5	1.6	556	6.3
	e	L	Z	09:17:07.7			19.7	93828	7.1
GRA1	e	P	Z	08:37:05.5	80.7	286.4	1.5	757	6.5
	e	PKKPbc	Z	08:55:52.3					
	e	P’P’df	Z	09:03:47.4					
	e	L	Z	09:14:55.0			21.1	93996	7.1
PLN	e	P	Z	08:37:07.2	81.1	287.0	1.6	3508	7.1
WERD	e	P	Z	08:37:07.8	81.2	287.1	1.5	447	6.3
MANZ	e	P	Z	08:37:07.9	81.2	287.0	1.7	424	6.2
FUR	e	P	Z	08:37:07.9	81.2	286.7	1.5	509	6.3
	e	L	Z	09:23:02.4			21.6	66849	7.0
GUNZ	e	P	Z	08:37:08.1	81.2	287.1	1.7	750	6.4
WERN	e	P	Z	08:37:08.3	81.3	287.1	1.5	650	6.5
ROTZ	e	P	Z	08:37:08.9	81.3	287.1	1.6	569	6.3
	e	L	Z	09:16:24.5			19.9	119399	7.3
CLL	e	P	Z	08:37:08.6	81.3	287.5	1.6	642	6.4
	e	L	Z	09:22:51.7			19.5	75602	7.1
RUE	e	P	Z	08:37:09.0	81.4	287.9	1.1	386	6.5
FBE	e	P	Z	08:37:10.8	81.7	287.8	1.5	800	6.6
WET	e	P	Z	08:37:12.0	81.9	287.7	1.6	888	6.7
	e	L	Z	09:14:35.3			21.7	75238	7.0
BRG	e	P	Z	08:37:12.4	82.0	288.2	1.5	667	6.5
	e	L	Z	09:23:12.4			19.8	84680	7.1
RJOB	e	P	Z	08:37:13.6	82.3	287.8	1.6	625	6.5
	e	L	Z	09:25:22.5			19.9	85876	7.1
GEC2	e	P	Z	08:37:15.0	82.5	288.3	1.6	826	6.7
	e	L	Z	09:25:25.9			19.6	80320	7.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/29	00:58:38.3	3.969S	127.524E	55.0G		5.2		NEIC

Seram, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKiKP	Z	01:16:59.9	107.8	73.8					
	e L	Z	02:03:17.9			18.9	847		5.3	
CLL	e L	Z	01:58:43.5	108.2	72.9	20.2	696		5.2	
GEC2	e PKiKP	Z	01:17:01.0	108.5	74.2					
	e L	Z	02:02:26.2			18.8	464		5.1	
BSEG	e PKiKP	Z	01:17:02.4	108.9	69.7					
	e L	Z	01:59:04.0			18.2	873		5.4	
WET	e PKiKP	Z	01:17:02.0	108.9	73.5					
	e L	Z	02:04:45.2			18.1	585		5.2	
ROTZ	e L	Z	02:04:24.9	109.2	72.7	21.3	548		5.1	
MOX	e L	Z	02:01:53.1	109.3	71.9	18.7	736		5.3	
RJOB	e PKiKP	Z	01:17:02.4	109.4	73.9					
	e L	Z	02:00:40.3			21.4	630		5.2	
NRDL	e PKiKP	Z	01:17:03.4	109.5	70.0					
	e L	Z	02:01:30.1			19.6	721		5.3	
GRA1	e PKiKP	Z	01:17:03.4	109.8	71.9					
	e PP	Z	01:17:25.2							
	e L	Z	02:02:09.4			18.3	602		5.2	
UBBA	e L	Z	01:56:35.4	110.2	70.5	21.3	550		5.1	
FUR	e PKiKP	Z	01:17:04.4	110.2	72.5					
	e L	Z	02:02:19.3			19.1	647		5.2	
IBBN	e L	Z	02:00:39.7	111.0	68.0	19.1	738		5.3	
TNS	e PKiKP	Z	01:17:06.6	111.3	69.4					
	e L	Z	02:01:02.1			18.1	595		5.2	
STU	e PKiKP	Z	01:17:06.4	111.4	70.5					
	e L	Z	01:58:20.0			22.0	489		5.0	
BUG	e L	Z	01:57:03.8	111.6	67.9	18.6	698		5.3	
BFO	e PKiKP	Z	01:17:07.3	112.0	70.0					
	e L	Z	01:58:35.0			20.6	566		5.1	
WLF	e PKiKP	Z	01:17:10.1	112.9	67.6					
	e L	Z	02:00:05.0			20.3	724		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/29	06:20:18.3	17.153S	168.347E	38.0		5.6		NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e L	Z	07:40:08.8	139.5	33.4	21.6	2555		5.9	
BRG	e PKPdf	Z	06:39:45.7	140.6	40.6					
	e L	Z	07:50:42.5			19.4	936		5.5	
CLL	e L	Z	07:38:25.1	140.6	38.9	21.2	840		5.5	
NRDL	e L	Z	07:40:30.3	140.7	34.0	22.0	1324		5.6	
IBBN	e PKPdf	Z	06:39:46.3	141.7	30.8					
	e L	Z	07:45:58.3			21.1	1346		5.7	

	MOX	e	L	Z	07:46:21.7	141.7	37.5	20.2	1133	5.6
	ROTZ	e	PKPdf	Z	06:39:43.6	142.1	39.0			
		e	L	Z	07:46:06.2			20.5	1027	5.6
	UBBA	e	L	Z	07:43:01.1	142.2	35.1	22.0	1213	5.6
	GEC2	e	PKPdf	Z	06:39:43.2	142.2	41.9			
		e	L	Z	07:47:30.0			19.1	1293	5.7
	WET	e	PKPdf	Z	06:39:44.5	142.3	40.5			
		e	L	Z	07:44:43.1			20.9	835	5.5
	BUG	e	L	Z	07:45:07.1	142.6	30.6	21.1	1002	5.6
	GRA1	e	PKPdf	Z	06:39:45.0	142.6	37.7			
		e	L	Z	07:43:23.3			20.9	839	5.5
	TNS	e	PKPdf	Z	06:39:45.6	143.2	33.2			
		e	L	Z	07:43:11.1			21.3	1066	5.6
	RJOB	e	PKPdf	Z	06:39:46.5	143.4	41.6			
		e	L	Z	07:42:43.1			21.2	1054	5.6
	FUR	e	PKPdf	Z	06:39:49.3	143.8	39.0			
		e	L	Z	07:47:44.2			20.2	843	5.5
	STU	e	PKPdf	Z	06:39:48.4	144.1	35.5			
		e	L	Z	07:47:42.9			20.1	1070	5.6
	WLF	e	PKPdf	Z	06:39:49.8	144.5	30.2			
		e	L	Z	07:46:52.4			20.2	1180	5.7
	BFO	e	PKPdf	Z	06:39:50.6	144.8	34.5			
		e	L	Z	07:42:39.9			21.7	923	5.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/29	14:48:44.5	16.897S	173.322W	281.6				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	15:07:44.3	144.3	5.6					
IBBN	e PKPbc	Z	15:07:45.9	144.6	1.8					
CLL	e PKPbc	Z	15:07:47.2	145.2	10.6					
BUG	e PKPbc	Z	15:07:48.8	145.5	1.0					
BRG	e PKPbc	Z	15:07:48.3	145.5	12.3					
UBBA	e PKPbc	Z	15:07:50.3	146.0	5.7					
MOX	e PKPbc	Z	15:07:50.1	146.0	8.5					
	e pPKPbc	Z	15:08:59.5							
TANN	e PKPbc	Z	15:07:50.6	146.2	10.0					
	e pPKPbc	Z	15:09:00.0							
TNS	e PKPbc	Z	15:07:52.1	146.6	3.1					
	e pPKPbc	Z	15:09:01.9							
ROTZ	e PKPbc	Z	15:07:52.8	146.8	9.7					
	e pPKPbc	Z	15:09:02.6							
GRA1	e PKPbc	Z	15:07:53.4	147.0	8.0					
	e pPKPbc	Z	15:09:03.2							
WLF	e PKPdf	Z	15:07:52.4	147.2	359.1					
	e PKPbc	Z	15:07:54.7							

	e pPKPbc	Z	15:09:04.6			
WET	e PKPdf	Z	15:07:51.6	147.4	11.0	
	e PKPbc	Z	15:07:54.0			
	e pPKPbc	Z	15:09:04.3			
GEC2	e PKPdf	Z	15:07:51.9	147.5	12.6	
	e PKPbc	Z	15:07:54.4			
	e pPKPbc	Z	15:09:04.1			
STU	e PKPdf	Z	15:07:53.1	148.1	4.6	
	e PKPbc	Z	15:07:56.3			
FUR	e PKPbc	Z	15:07:57.3	148.5	8.4	
	e PKPab	Z	15:08:00.6			
	e pPKPbc	Z	15:09:08.7			
BFO	e PKPbc	Z	15:07:57.4	148.5	3.0	
	e PKPab	Z	15:08:01.9			
	e pPKPbc	Z	15:09:07.6			
RJOB	e PKPbc	Z	15:07:57.5	148.8	11.3	
	e PKPab	Z	15:08:01.9			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/29	15:26:25.9	43.800S	107.100W	10.0		5.2		NEIC

Southern East Pacific Rise

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e PKPdf	Z	15:45:45.8	135.4	250.8					
	e PKiKP	Z	15:45:47.2							
	e PP	Z	15:48:23.1							
	e L	Z	16:40:51.4			21.9	603		5.3	
BFO	e PKPdf	Z	15:45:46.7	136.3	250.7					
	e PKiKP	Z	15:45:48.5							
	e PP	Z	15:48:26.5							
	e L	Z	16:42:55.1			21.8	326		5.0	
BUG	e PKiKP	Z	15:45:49.4	136.6	253.2					
	e L	Z	16:39:54.1			21.7	439		5.1	
TNS	e PKiKP	Z	15:45:50.3	137.0	252.6					
	e L	Z	16:44:48.1			19.7	538		5.3	
STU	e PKPdf	Z	15:45:48.1	137.0	251.6					
	e PKiKP	Z	15:45:50.2							
	e L	Z	16:43:03.2			21.4	253		4.9	
IBBN	e PKiKP	Z	15:45:50.4	137.2	254.4					
	e L	Z	16:41:48.4			21.4	441		5.2	
UBBA	e L	Z	16:45:51.4	138.1	254.2	18.7	466		5.2	
FUR	e L	Z	16:43:38.1	138.1	252.0	21.5	370		5.1	
GRA1	e PKiKP	Z	15:45:53.7	138.5	253.6					
	e L	Z	16:45:10.6			20.8	427		5.2	
NRDL	e L	Z	16:41:29.6	138.6	256.0	22.0	582		5.3	
RJOB	e PKiKP	Z	15:45:53.9	139.0	252.3					
	e L	Z	16:44:37.4			20.3	516		5.3	

MOX	e PKiKP	Z	15:45:54.4	139.0	254.9			
	e L	Z	16:46:01.6			20.1	437	5.2
BSEG	e PKiKP	Z	15:45:54.2	139.0	257.8			
	e L	Z	16:44:06.4			19.4	768	5.5
ROTZ	e PKiKP	Z	15:45:54.4	139.2	254.3			
	e L	Z	16:49:58.1			19.8	281	5.0
WET	e PKiKP	Z	15:45:55.0	139.4	253.9			
	e L	Z	16:44:54.2			21.2	453	5.2
TANN	e L	Z	16:45:30.3	139.5	255.1	20.8	309	5.0
GEC2	e PKiKP	Z	15:45:55.7	139.9	254.0			
	e L	Z	16:42:43.8			21.4	386	5.1
CLL	e PKiKP	Z	15:45:56.0	140.0	256.5			
	e L	Z	16:45:30.5			21.2	413	5.2
BRG	e PKiKP	Z	15:45:56.7	140.5	256.5			
	e L	Z	16:41:00.3			20.9	304	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/29	16:03:15.1	46.103N	145.696E	33.0N	4.7			SZGRF

Sea of Okhotsk

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	16:14:49.7	74.4	31.9	0.6	7	4.9		
ROTZ	e P	Z	16:14:59.5	76.0	31.2	1.2	5	4.5		
GEC2	e P	Z	16:15:00.4	76.3	32.0	1.4	5	4.4		
WET	e P	Z	16:15:01.0	76.3	31.6	1.1	8	4.8		
GRA1	e P	Z	16:15:01.6	76.4	30.6	0.5	10	5.1		
TNS	e P	Z	16:15:03.9	76.8	28.9	1.0	5	4.6		
BFO	e P	Z	16:15:12.9	78.5	28.6	0.8	4	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/29	19:51:18.4	5.900N	125.800E	159.0				NEIC

Mindanao, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e Pdiff	Z	20:04:39.9	98.9	69.1					
CLL	e Pdiff	Z	20:04:41.4	99.2	68.3					
BSEG	e Pdiff	Z	20:04:44.0	99.7	65.6					
GEC2	e Pdiff	Z	20:04:43.8	99.7	69.2					
TANN	e Pdiff	Z	20:04:44.6	99.9	68.0					
WET	e Pdiff	Z	20:04:45.9	100.1	68.5					
	e pPdiff	Z	20:05:26.3							
ROTZ	e Pdiff	Z	20:04:46.8	100.3	67.9					
	e pPdiff	Z	20:05:27.5							
MOX	e Pdiff	Z	20:04:46.5	100.3	67.3					
NRDL	e Pdiff	Z	20:04:47.3	100.4	65.7					

RJOB	e Pdiff	Z	20:04:47.6	100.7	68.7	
GRA1	e Pdiff	Z	20:04:49.6	100.9	67.1	
	e pPdiff	Z	20:05:30.1			
	e PP	Z	20:09:40.8			
UBBA	e Pdiff	Z	20:04:50.6	101.2	65.9	
	e pPdiff	Z	20:05:31.2			
IBBN	e Pdiff	Z	20:04:53.6	101.8	63.8	
TNS	e Pdiff	Z	20:04:55.9	102.3	64.7	
	e pPdiff	Z	20:05:36.4			
BUG	e Pdiff	Z	20:04:56.3	102.5	63.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/29	21:33:57.6	64.292N	21.305W	33.0N	4.7	3.9		SZGRF

Iceland

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	21:38:15.2	19.0	315.5	1.2	59	4.7		
	e L	Z	21:45:09.0			20.8	651		3.9	
IBBN	e P	Z	21:38:18.8	19.1	320.0	1.5	50	4.5		
	e L	Z	21:45:22.6			21.5	345		3.6	
BUG	e P	Z	21:38:21.8	19.6	321.8	0.9	31	4.5		
	e L	Z	21:45:47.3			20.9	673		4.0	
NRDL	e P	Z	21:38:26.1	19.9	318.4	1.4	46	4.5		
	e L	Z	21:46:43.6			19.7	635		4.0	
WLF	e P	Z	21:38:32.8	20.6	325.4	1.2	28	4.4		
	e L	Z	21:45:50.7			21.9	570		3.9	
TNS	e P	Z	21:38:37.7	21.0	323.1	1.4	72	4.8		
	e L	Z	21:47:22.0			18.0	1318		4.4	
UBBA	e P	Z	21:38:39.9	21.2	321.4	1.1	24	4.4		
	e L	Z	21:46:48.4			21.2	335		3.7	
MOX	e P	Z	21:38:47.3	21.9	320.9	1.1	37	4.7		
	e L	Z	21:48:05.8			18.6	548		4.0	
CLL	e P	Z	21:38:47.9	22.0	319.2	1.4	49	4.7		
	e L	Z	21:47:26.1			21.1	426		3.8	
TANN	e P	Z	21:38:54.1	22.5	320.9	1.0	37	4.8		
	e L	Z	21:47:17.9			22.0	470		3.9	
STU	e P	Z	21:38:53.6	22.5	324.9	0.9	61	5.1		
	e L	Z	21:47:35.1			20.7	880		4.2	
BFO	e P	Z	21:38:53.5	22.5	325.9	1.0	35	4.8		
	e L	Z	21:47:02.2			21.2	535		4.0	
GRA1	e P	Z	21:38:55.0	22.5	322.5	1.5	64	4.9		
	e L	Z	21:47:07.2			22.0	260		3.6	
BRG	e P	Z	21:38:55.4	22.7	319.6	1.2	40	4.8		
	e L	Z	21:47:36.1			21.7	422		3.8	
ROTZ	e P	Z	21:38:58.1	22.9	321.9	1.4	36	4.7		
	e L	Z	21:48:03.0			19.2	408		3.9	
WET	e P	Z	21:39:05.0	23.6	322.5	0.8	17	4.6		

	e	L	Z	21:47:52.8			21.5	363	3.8
FUR	e	P	Z	21:39:06.3	23.8	324.6	0.9	27	4.8
	e	L	Z	21:49:05.4			18.1	921	4.3
GEC2	e	P	Z	21:39:10.3	24.2	322.6	1.7	21	4.4
	e	L	Z	21:48:20.6			21.9	416	3.9
RJOB	e	P	Z	21:39:15.2	24.7	324.4	0.8	47	5.3
	e	L	Z	21:49:09.7			19.6	459	4.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/29	23:48: 3.9	6.200S	151.000E	48.0		4.6		NEIC

New Britain, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPdf	Z 00:06:55.6	122.7	48.5					
	e	L	Z 01:02:45.8			18.4	220		4.8	
BRG	e	PKPdf	Z 00:06:55.7	122.9	53.8					
	e	pPKPdf	Z 00:07:05.5							
	e	L	Z 01:04:10.4			19.5	178		4.7	
CLL	e	PKPdf	Z 00:06:55.8	123.1	52.6					
	e	pPKPdf	Z 00:07:05.8							
	e	L	Z 01:00:53.9			20.1	117		4.5	
NRDL	e	PKPdf	Z 00:06:57.3	123.7	48.9					
TANN	e	PKPdf	Z 00:06:57.8	123.9	52.5					
	e	L	Z 01:04:59.0			18.8	133		4.6	
CLZ	e	L	Z 01:02:43.0	124.0	49.6	20.6	142		4.6	
MOX	e	pPKPdf	Z 00:07:07.9	124.2	51.5					
	e	L	Z 01:01:36.1			21.6	115		4.5	
GEC2	e	pPKPdf	Z 00:07:08.0	124.2	54.6					
	e	L	Z 01:02:32.5			20.1	124		4.6	
ROTZ	e	L	Z 01:00:56.3	124.4	52.6	20.7	122		4.5	
WET	e	PKPdf	Z 00:06:58.8	124.5	53.6					
	e	L	Z 00:56:08.6			20.6	112		4.5	
UBBA	e	PKPdf	Z 00:06:59.4	124.9	49.7					
	e	L	Z 01:02:33.4			19.2	138		4.6	
IBBN	e	PKPdf	Z 00:06:59.7	124.9	46.5					
	e	L	Z 01:05:20.4			20.0	192		4.8	
GRA1	e	PKPdf	Z 00:06:59.6	125.0	51.6					
	e	pPKPdf	Z 00:07:09.7							
	e	L	Z 01:05:30.7			19.5	106		4.5	
RJOB	e	L	Z 01:03:31.3	125.3	54.3	18.2	135		4.7	
BUG	e	L	Z 00:57:51.3	125.7	46.4	22.0	127		4.5	
FUR	e	PKPdf	Z 00:07:01.6	125.9	52.5					
	e	L	Z 01:01:19.0			21.9	89		4.4	
TNS	e	PKPdf	Z 00:07:01.9	126.0	48.4					
	e	L	Z 01:03:06.3			19.3	142		4.7	
STU	e	L	Z 01:02:12.6	126.6	50.0	21.0	107		4.5	
BFO	e	L	Z 01:02:24.2	127.3	49.3	20.5	104		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/30	02:55: 9.9	42.223N	13.717E	10.0G			3.8	SZGRF

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z	02:56:15.9	4.3	188.2					3.9
KBA	e Pn	Z	02:56:23.5	4.9	176.7					3.8
	e Sn	N	02:57:17.6							
ARSA	e Pn	Z	02:56:26.6	5.2	195.0					3.3
WTTA	e Pn	N	02:56:28.4	5.3	162.9					
	e Sn	N	02:57:27.9							3.9
RJOB	e Pn	Z	02:56:32.4	5.6	172.9					3.8
	e Sn	N	02:57:35.2							
MOA	e Pn	Z	02:56:33.6	5.6	184.1					3.6
	e Sn	E	02:57:38.2							
OBER	e Pn	Z	02:56:35.9	5.7	153.7					3.8
	e Sn	N	02:57:39.9							
PLONS	e Pn	Z	02:56:34.7	5.7	145.9					
	e Sn	N	02:57:38.8							
DAVA	e Pn	Z	02:56:35.7	5.7	150.3					3.9
	e Sn	N	02:57:40.4							
WILA	e Sn	N	02:57:51.8	6.2	145.0					
GEC2	e Pn	Z	02:56:45.1	6.6	179.9					3.9
	e Sn	N	02:57:59.5							
SULZ	e Sn	N	02:57:59.1	6.6	141.2					
WET	e Pn	Z	02:56:50.2	6.9	174.9					
	e Sn	N	02:58:05.0							
BFO	e Pn	Z	02:56:53.6	7.2	146.2					
	e Sn	N	02:58:12.6							
ECH	e Pn	Z	02:56:57.4	7.6	140.0					
	e Sn	N	02:58:18.2							
ROTZ	e Sn	N	02:58:20.7	7.6	171.5					
GRA1	e Sn	E	02:58:23.1	7.7	166.0					
MOX	e Sn	N	02:58:42.6	8.5	169.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/30	19:56:45.6	6.700S	149.900E	49.0		5.0		NEIC

New Britain, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e L	Z	21:08:57.0	120.9	52.7	20.5	554		5.2	
RUE	e PKPdf	Z	20:15:34.9	121.9	54.2					
	e L	Z	21:11:48.5			20.2	450		5.1	
BSEG	e PKPdf	Z	20:15:36.5	122.6	49.9					

	e L	Z	21:10:24.6			20.7	493	5.1
BRG	e PKPdf	Z	20:15:36.5	122.8	55.2			
	e L	Z	21:10:52.5			19.9	368	5.0
CLL	e PKPdf	Z	20:15:36.7	123.0	54.0			
	e L	Z	21:10:32.1			20.4	418	5.1
HLG	e L	Z	21:09:41.2	123.6	47.2	21.8	388	5.0
NEUB	e L	Z	21:12:50.1	123.7	52.8	19.5	454	5.1
NRDL	e PKPdf	Z	20:15:38.4	123.7	50.4			
	e L	Z	21:10:20.0			21.9	435	5.1
TANN	e PKPdf	Z	20:15:38.4	123.8	53.9			
	e L	Z	21:08:42.9			20.4	262	4.9
GEC2	e PKPdf	Z	20:15:38.8	124.0	56.0			
	e L	Z	21:11:18.5			20.5	378	5.0
MOX	e PKPdf	Z	20:15:38.9	124.1	52.9			
	e L	Z	21:12:33.0			20.1	362	5.0
MANZ	e L	Z	21:08:55.5	124.2	53.8	21.1	313	4.9
ROTZ	e PKPdf	Z	20:15:39.4	124.3	54.0			
	e L	Z	21:12:08.0			19.5	310	5.0
WET	e PKPdf	Z	20:15:39.5	124.3	55.0			
	e L	Z	21:10:56.8			21.4	302	4.9
UBBA	e PKPdf	Z	20:15:40.7	124.8	51.2			
	e L	Z	21:13:24.3			19.0	445	5.1
GRA1	e PKPdf	Z	20:15:40.6	124.9	53.0			
	e L	Z	21:12:15.0			18.5	345	5.1
IBBN	e PKPdf	Z	20:15:40.6	124.9	48.0			
	e L	Z	21:11:21.2			21.2	356	5.0
RJOB	e PKPdf	Z	20:15:40.6	125.1	55.8			
	e L	Z	21:12:37.9			20.5	371	5.0
BUG	e PKPdf	Z	20:15:42.1	125.7	47.9			
	e L	Z	21:11:22.8			21.6	462	5.1
FUR	e PKPdf	Z	20:15:42.2	125.7	54.0			
	e L	Z	21:09:27.1			21.6	301	4.9
TNS	e PKPdf	Z	20:15:42.8	125.9	49.8			
	e L	Z	21:13:11.6			20.8	398	5.1
STU	e PKPdf	Z	20:15:43.6	126.5	51.5			
	e L	Z	21:14:04.7			20.1	323	5.0
BFO	e PKPdf	Z	20:15:44.5	127.2	50.8			
	e L	Z	21:14:35.2			21.0	244	4.9
WLF	e PKPdf	Z	20:15:46.0	127.4	47.7			
	e L	Z	21:13:01.4			20.6	333	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/30	20:15: 6.5	6.800N	126.500E	74.0				NEIC

Mindanao, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z	20:28:48.0	100.6	66.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/31	00:46:54.0	2.255N	31.747W	33.0N	4.7	4.1		SZGRF

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TNS	e P	Z	00:56:49.6	58.8	229.0	1.0	7	4.6		
GRA1	e P	Z	00:56:56.3	59.8	232.0	1.4	19	4.9		
	e L	Z	01:20:12.7			19.2	125		4.1	
UBBA	e P	Z	00:56:56.9	59.9	230.3	1.9	11	4.6		
WET	e P	Z	00:57:00.0	60.3	233.9					
ROTZ	e P	Z	00:57:00.4	60.4	232.9	1.2	8	4.6		
MOX	e L	Z	01:18:30.6	60.6	232.0	18.4	140		4.1	
GEC2	e P	Z	00:57:02.2	60.6	234.8	1.3	11	4.7		
KHC	e P	Z	00:57:02.8	60.7	234.6	1.4	13	4.5		
TANN	e P	Z	00:57:04.1	60.9	232.9	1.2	12	4.6		
BSEG	e P	Z	00:57:11.8	62.1	229.3	1.1	26	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/31	09:27:54.9	53.592N	157.619E	33.0N	4.8	3.8		SZGRF

Kamchatka Peninsula, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	09:38:58.4	69.1	20.1	0.9	18	5.3		
NRDL	e P	Z	09:39:06.1	70.5	19.8	0.9	6	4.7		
CLL	e P	Z	09:39:09.0	71.0	21.3	0.9	13	5.1		
IBBN	e P	Z	09:39:10.5	71.2	18.4	1.4	21	5.1		
BRG	e P	Z	09:39:10.2	71.2	21.8	1.2	6	4.6		
MOX	e P	Z	09:39:14.7	71.9	20.4	0.8	7	4.8		
	e L	Z	10:10:31.0			18.7	65		3.9	
TANN	e P	Z	09:39:14.9	72.0	20.9	1.8	12	4.7		
BUG	e P	Z	09:39:15.6	72.1	18.0	0.9	10	5.0		
UBBA	e P	Z	09:39:16.0	72.1	19.5	1.3	5	4.5		
ROTZ	e P	Z	09:39:19.1	72.6	20.7	0.9	6	4.7		
GRA1	e P	Z	09:39:21.2	72.9	20.1	1.3	24	5.2		
	e L	Z	10:11:40.3			20.2	55		3.8	
TNS	e P	Z	09:39:21.3	73.0	18.5	0.7	5	4.7		
WET	e P	Z	09:39:21.9	73.0	21.0	1.0	10	4.9		
GEC2	e P	Z	09:39:21.9	73.1	21.4	0.7	5	4.8		
RJOB	e P	Z	09:39:29.6	74.4	20.8	0.9	6	4.6		
BFO	e P	Z	09:39:31.6	74.8	18.3	0.9	4	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/31	15:33: 0.6	37.960N	142.950E	33.0N	5.1	3.8		SZGRF

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	15:45:04.1	79.5	36.2	0.9	30	5.2		
BRG	e P	Z	15:45:09.4	80.6	38.4	0.8	8	4.8		
CLL	e P	Z	15:45:09.3	80.6	37.8	1.0	22	5.1		
NRDL	e P	Z	15:45:10.3	80.7	35.9	0.9	8	4.8		
TANN	e P	Z	15:45:14.4	81.5	37.3	1.0	4	4.5		
MOX	e P	Z	15:45:15.2	81.6	36.8	1.5	16	4.9		
	e L	Z	16:26:12.9			18.7	49		3.9	
IBBN	e P	Z	15:45:15.7	81.7	34.2	0.7	20	5.4		
UBBA	e P	Z	15:45:17.8	82.1	35.6	1.4	8	4.7		
ROTZ	e P	Z	15:45:18.2	82.1	37.1	1.7	26	5.1		
GEC2	e P	Z	15:45:18.2	82.2	38.0	1.3	11	4.9		
WET	e P	Z	15:45:19.1	82.3	37.5	1.1	10	4.9		
GRA1	e P	Z	15:45:20.6	82.6	36.4	1.0	23	5.4		
	e L	Z	16:25:56.2			20.9	25		3.6	
BUG	e P	Z	15:45:19.9	82.6	33.7	0.9	10	5.0		
TNS	e P	Z	15:45:22.7	83.2	34.5	0.9	9	5.0		
RJOB	e P	Z	15:45:25.2	83.5	37.3	0.9	18	5.3		
FUR	e P	Z	15:45:26.4	83.8	36.3	0.8	34	5.6		
STU	e P	Z	15:45:27.9	84.1	34.9	1.5	33	5.3		
WLF	e P	Z	15:45:30.1	84.4	32.8	1.9	35	5.3		
BFO	e P	Z	15:45:31.0	84.8	34.3	0.9	22	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/05/31	16:14:28.4	17.948S	178.380E	33.0N		4.3		SZGRF

Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e L	Z	17:38:21.1	145.6	22.7	21.8	51		4.3	
ROTZ	e PKPbc	Z	16:34:05.0	146.3	24.2					
GRA1	e PKPbc	Z	16:34:06.1	146.6	22.6					
	e L	Z	17:31:45.0			21.5	57		4.3	
WET	e PKPbc	Z	16:34:06.0	146.7	25.7					
GEC2	e PKPbc	Z	16:34:06.0	146.7	27.3					
TNS	e PKPbc	Z	16:34:06.0	146.7	17.6					
WLF	e PKPbc	Z	16:34:09.4	147.7	13.9					
STU	e PKPbc	Z	16:34:09.9	148.0	19.7					
RJOB	e PKPbc	Z	16:34:10.0	148.0	26.5					
FUR	e PKPbc	Z	16:34:09.9	148.0	23.6					
BFO	e PKPbc	Z	16:34:11.6	148.6	18.4					

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

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

EPICENTER LINE:

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

REGION LINE:
The region name of the epicenter location.

PHASE LINE:

Sta	Station code of the reported phase
Phase	Preceded flag for the sharpness of the onset of the phase e - emergent i - impulsive w - weak ISC phase code Component where the phase was picked
Time	Arrival time of the reported phase
Dist	Distance from the epicenter location to the station in degree
BAz	Backazimuth from the epicenter location to the station in degree
T[s]	Phase Period
A[nm]	Phase Amplitude
mb	Body wave magnitude
MS	Surface wave magnitude
ML	Local Richter magnitude