

MONTHLY BULLETIN of REGIONAL and TELESEISMIC EVENTS RECORDED with GRF- and GRSN-STATIONS in GERMANY
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(produced by SZGRF/BGR - HANNOVER)

April 2009 UPDATED 17.SEPTEMBER.2009

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

(Format description at the end of the bulletin)

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/01	02:57:22.9	18.480S	177.584W	33.0G				SZGRF

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 03:16:57.3	144.0	12.8					
NRDL	e PKPbc	Z 03:17:01.9	145.5	12.9					
IBBN	e PKPbc	Z 03:17:03.6	145.9	9.1					
CLZ	e PKPbc	Z 03:17:04.1	146.1	13.6					
CLL	e PKPbc	Z 03:17:03.9	146.1	18.2					
BRG	e PKPbc	Z 03:17:04.7	146.3	20.0					
MOX	e PKPbc	Z 03:17:06.6	147.0	16.2					
TANN	e PKPbc	Z 03:17:06.8	147.1	17.7					
ROTZ	e PKPbc	Z 03:17:08.9	147.7	17.6					
TNS	e PKPbc	Z 03:17:09.1	147.9	10.8					
GRA1	e PKPbc	Z 03:17:09.4	148.0	15.9					
GEC2	e PKPbc	Z 03:17:10.0	148.3	20.7					
WLF	e PKPbc	Z 03:17:11.8	148.7	6.8					
RJOB	e PKPbc	Z 03:17:12.9	149.5	19.7					
BFO	e PKPbc	Z 03:17:13.6	149.8	11.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/01	03:55: 5.8	3.610S	144.680E	33.0N		6.7		SZGRF

Near north coast of New Guinea, Papua New Guinea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z 04:13:47.9	117.4	58.4					
	e PP	Z 04:14:59.9							
BSEG	e PKPdf	Z 04:13:48.7	117.5	53.5					

	e PP	Z	04:15:01.2				
CLL	e PKPdf	Z	04:13:49.0	117.6	57.3		
	e PP	Z	04:15:01.6				
TANN	e PKPdf	Z	04:13:49.9	118.4	57.2		
	e PP	Z	04:15:07.5				
NRDL	e PKPdf	Z	04:13:50.2	118.5	54.0		
	e PP	Z	04:15:08.1				
GEC2	e PKPdf	Z	04:13:50.8	118.6	59.1		
	e PP	Z	04:15:08.2				
CLZ	e PKPdf	Z	04:13:51.0	118.7	54.5		
	e PP	Z	04:15:10.0				
MOX	e Pdiff	Z	04:10:12.2	118.7	56.3		
	e PKPdf	Z	04:13:51.1				
	e PP	Z	04:15:09.6				
	e PS	Z	04:24:56.7				
	e SS	N	04:31:38.5				
	e SSS	N	04:35:49.9				
	e L	Z	05:06:02.8			21.5	26329
WET	e PKPdf	Z	04:13:51.3	118.9	58.2		6.8
	e PP	Z	04:15:10.3				
ROTZ	e PKPdf	Z	04:13:52.4	118.9	57.2		
	e PP	Z	04:15:11.0				
GRA1	e Pdiff	Z	04:10:17.2	119.5	56.3		
	e PKPdf	Z	04:13:52.2				
	e PP	Z	04:15:14.8				
	e PS	Z	04:25:00.1				
	e SS	N	04:31:55.0				
	e SSS	N	04:36:08.3				
	e L	Z	05:05:12.6			21.8	13205
UBBA	e PKPdf	Z	04:13:52.9	119.5	54.6		6.5
	e PP	Z	04:15:15.0				
RJOB	e PKPdf	Z	04:13:52.7	119.7	58.8		
	e PP	Z	04:15:16.3				
IBBN	e PKPdf	Z	04:13:53.5	119.7	51.7		
	e PP	Z	04:15:16.3				
FUR	e PKPdf	Z	04:13:54.1	120.3	57.1		
	e PP	Z	04:15:20.4				
BUG	e PKPdf	Z	04:13:54.4	120.5	51.6		
	e PP	Z	04:15:22.0				
TNS	e PKPdf	Z	04:13:54.7	120.6	53.4		
	e PP	Z	04:15:23.3				
STU	e PKPdf	Z	04:13:55.3	121.1	54.8		
	e PP	Z	04:15:26.1				
BFO	e PKPdf	Z	04:13:56.7	121.8	54.2		
	e PP	Z	04:15:31.2				
WLF	e PP	Z	04:15:33.6	122.1	51.3		

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/01	19:59:16.7	16.880S	174.413W	33.0N		4.4		SZGRF

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z 20:18:47.4	144.2	7.4					
IBBN	e PKPbc	Z 20:18:48.8	144.5	3.6					
CLZ	e PKPbc	Z 20:18:49.7	144.8	8.0					
CLL	e PKPbc	Z 20:18:49.7	145.1	12.5					
BRG	e PKPbc	Z 20:18:50.4	145.4	14.2					
MOX	e PKPbc	Z 20:18:52.6	145.9	10.3					
	e L	Z 20:58:13.3			19.7	66		4.4	
TANN	e PKPbc	Z 20:18:53.1	146.0	11.8					
ROTZ	e PKPbc	Z 20:18:55.4	146.7	11.6					
GRA1	e PKPbc	Z 20:18:57.3	146.9	9.9					
	e L	Z 20:52:02.5			18.9	60		4.4	
WLF	e PKPbc	Z 20:18:56.5	147.2	1.0					
BFO	e PKPbc	Z 20:19:00.0	148.5	5.0					
RJOB	e PKPbc	Z 20:19:00.4	148.6	13.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/02	00:03:21.4	36.374N	157.308E	18.6	4.9			SZGRF

North Pacific Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 00:15:56.2	85.3	26.1					
	e pP	Z 00:16:01.8			0.8	12			
NRDL	e P	Z 00:16:02.9	86.7	25.9	0.8	4	4.5		
	e pP	Z 00:16:07.3							
CLL	e P	Z 00:16:03.4	86.9	28.1	2.1	25	5.0		
BRG	e P	Z 00:16:04.5	87.0	28.8					
	e pP	Z 00:16:10.1							
TANN	e P	Z 00:16:07.5	87.8	27.6					
MOX	e P	Z 00:16:07.3	87.9	27.0					
	e pP	Z 00:16:13.3							
UBBA	e P	Z 00:16:08.8	88.2	25.8					
ROTZ	e P	Z 00:16:11.4	88.5	27.4					
WET	e P	Z 00:16:12.5	88.8	27.9					
GRA1	e P	Z 00:16:12.5	88.9	26.7					
GEC2	e P	Z 00:16:12.5	88.9	28.5					
TNS	e P	Z 00:16:14.6	89.1	24.6					
RJOB	e P	Z 00:16:19.1	90.1	27.9					
FUR	e P	Z 00:16:18.8	90.2	26.7	0.8	9	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2009/04/04 05:32:32.3
Panay, Philippine Islands

11.620N 122.990E 71.2 5.9 5.9 SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 05:45:37.3	92.6	67.9	1.4	104	6.1		
CLL	e P	Z 05:45:38.7	93.0	67.2	1.3	56	5.8		
BSEG	e P	Z 05:45:40.8	93.4	64.9	17.2	91378	7.8		
GEC2	e P	Z 05:45:41.4	93.5	67.9	1.3	62	5.8		
TANN	e P	Z 05:45:42.1	93.6	66.8	1.3	42	5.6		
WET	e P	Z 05:45:43.4	93.9	67.2	1.1	36	5.6		
MOX	e P	Z 05:45:43.9	94.1	66.1	1.2	48	5.7		
	e pP	Z 05:46:04.4							
	e L	Z 06:36:18.7			19.2	3770		5.9	
NRDL	e P	Z 05:45:44.3	94.1	64.8	1.3	78	5.9		
CLZ	e P	Z 05:45:45.1	94.3	65.1	1.0	45	5.7		
RJOB	e P	Z 05:45:45.4	94.5	67.2	1.2	24	5.5		
GRA1	e P	Z 05:45:46.5	94.7	65.9	1.6	61	5.8		
	e pP	Z 05:46:07.0							
	e L	Z 06:36:45.4			21.8	5432		6.0	
UBBA	e P	Z 05:45:47.7	94.9	64.8	1.6	54	5.7		
IBBN	e P	Z 05:45:50.4	95.5	62.9	1.3	103	6.2		
TNS	e P	Z 05:45:53.2	96.1	63.6	1.4	47	5.8		
BUG	e P	Z 05:45:53.1	96.2	62.6	1.1	38	5.9		
BFO	e P	Z 05:45:56.0	97.0	63.7	1.3	14	5.4		
WLF	e P	Z 05:46:00.5	97.6	61.9	1.4	58	6.1		

Date Origin Time Lat Long Depth mb Ms ML Source
2009/04/04 11:07:11.2 21.150S 173.810W 33.0G 5.6 ML SZGRF
Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 11:26:55.3	147.1	7.1					
NRDL	e PKPbc	Z 11:26:58.7	148.5	7.0					
IBBN	e PKPbc	Z 11:27:00.3	148.8	2.8					
CLZ	e PKPbc	Z 11:27:01.3	149.1	7.6					
CLL	e PKPbc	Z 11:27:01.4	149.4	12.5					
BRG	e PKPbc	Z 11:27:01.6	149.7	14.4					
BUG	e PKPbc	Z 11:27:02.4	149.7	2.0					
UBBA	e PKPbc	Z 11:27:02.9	150.2	7.2					
MOX	e PKPbc	Z 11:27:03.5	150.2	10.2					
	e L	Z 12:42:56.8			19.2	1057		5.7	
TANN	e PKPbc	Z 11:27:03.9	150.3	11.9					
TNS	e PKPbc	Z 11:27:04.8	150.9	4.3					
GRA1	e PKPbc	Z 11:27:06.1	151.2	9.8					
	e L	Z 12:40:40.8			21.0	583		5.4	
WLF	e PKPbc	Z 11:27:06.8	151.5	359.9					
WET	e PKPbc	Z 11:27:06.5	151.5	13.2					

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GEC2	e	PKPbc	Z	11:27:06.5	151.7	14.9						
STU	e	PKPbc	Z	11:27:08.3	152.3	6.0						
FUR	e	PKPbc	Z	11:27:09.4	152.7	10.4						
BFO	e	PKPbc	Z	11:27:09.2	152.8	4.4						
RJOB	e	PKPbc	Z	11:27:11.2	152.9	13.6						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/04	11:59:59.8	18.595S	174.063E	33.0G				SZGRF
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML		
GRA1	e	PKPbc	Z	12:19:40.6	146.0	30.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/04	17:01:43.0	23.550S	176.460W	33.0N				SZGRF
South of Fiji Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML		
BSEG	e	PKPbc	Z	17:20:13.5	149.2	12.2					
NRDL	e	PKPbc	Z	17:20:17.0	150.6	12.3					
CLZ	e	PKPbc	Z	17:20:18.8	151.2	13.1					
CLL	e	PKPbc	Z	17:20:18.4	151.3	18.3					
BRG	e	PKPbc	Z	17:20:19.0	151.5	20.3					
BUG	e	PKPbc	Z	17:20:19.7	152.0	7.3					
MOX	e	PKPbc	Z	17:20:20.7	152.2	16.0					
TANN	e	PKPbc	Z	17:20:20.8	152.3	17.8					
UBBA	e	PKPbc	Z	17:20:20.8	152.3	12.8					
ROTZ	e	PKPbc	Z	17:20:22.4	152.9	17.7					
TNS	e	PKPbc	Z	17:20:23.0	153.1	10.0					
GRA1	e	PKPbc	Z	17:20:22.7	153.2	15.8					
GEC2	e	PKPbc	Z	17:20:23.3	153.5	21.2					
WLF	e	PKPbc	Z	17:20:24.5	153.8	5.4					
BFO	e	PKPbc	Z	17:20:26.8	154.9	10.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/04	21:22:14.4	15.324N	90.313W	33.0G	5.0	4.7		SZGRF
Guatemala								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML		
GRA1	e	P	Z	21:34:54.5	85.6	288.6	1.5	21	5.0		
	e	L	Z	22:08:54.6			20.9	302		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/05								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z 08:08:26.9							
CLL	e PKPbc	Z 08:08:26.1							
CLZ	e PKPbc	Z 08:08:26.0							
DREG	e PKPbc	Z 08:08:28.9							
GEC2	e PKPbc	Z 08:08:31.7							
GRA1	e PKPbc	Z 08:08:30.5							
IBBN	e PKPbc	Z 08:08:25.2							
MOX	e PKPbc	Z 08:08:28.1							
NRDL	e PKPbc	Z 08:08:24.1							
TANN	e PKPbc	Z 08:08:28.6							
TNS	e PKPbc	Z 08:08:30.3							
UBBA	e PKPbc	Z 08:08:27.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/05	08:00:21.4	42.950N	146.090E	53.3N	4.6	4.2		SZGRF
Off southeast coast of Hokkaido, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 08:12:05.8	76.0	31.7	0.8	9	5.1		
NRDL	e P	Z 08:12:12.7	77.3	31.4	0.9	3	4.6		
CLL	e P	Z 08:12:12.1	77.3	33.2	0.8	6	4.9		
BRG	e P	Z 08:12:12.6	77.4	33.8	1.1	4	4.6		
CLZ	e P	Z 08:12:15.3	77.8	31.5	0.8	7	5.0		
IBBN	e P	Z 08:12:17.6	78.2	29.8	0.8	6	4.8		
MOX	e P	Z 08:12:17.7	78.4	32.2	0.8	2	4.4		
	e L	Z 08:48:38.4			21.6	113		4.2	
UBBA	e P	Z 08:12:20.4	78.8	31.2	0.6	2	4.3		
ROTZ	e P	Z 08:12:21.7	78.9	32.5	0.9	3	4.4		
BUG	e P	Z 08:12:22.8	79.1	29.4	0.7	5	4.7		
GEC2	e P	Z 08:12:22.2	79.1	33.4	1.0	2	4.1		
WET	e P	Z 08:12:23.1	79.2	32.9	0.9	4	4.6		
GRA1	e P	Z 08:12:24.0	79.3	31.9	0.8	7	4.9		
	e L	Z 08:49:41.2			18.7	109		4.2	
TNS	e P	Z 08:12:25.7	79.8	30.1	0.7	2	4.4		
RJOB	e P	Z 08:12:29.7	80.4	32.7	0.9	5	4.8		
STU	e P	Z 08:12:31.6	80.8	30.4	0.9	6	5.0		
BFO	e P	Z 08:12:35.3	81.4	29.8	0.8	2	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/05	09:36:21.0	31.940N	132.190E	41.3	5.7	6.4		SZGRF

Southeast of Shikoku, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 09:48:35.4	80.6	46.9	1.4	77	5.5		
BRG	e P	Z 09:48:37.1	81.0	49.2	1.6	55	5.3		
CLL	e P	Z 09:48:37.6	81.1	48.6	1.6	116	5.7		
NRDL	e P	Z 09:48:41.6	81.6	46.6	1.7	55	5.4		
CLZ	e P	Z 09:48:42.8	82.0	46.7	1.5	107	5.7		
TANN	e P	Z 09:48:42.6	82.0	48.1	1.5	35	5.3		
MOX	e P	Z 09:48:44.2	82.2	47.5	2.0	75	5.5		
	e pP	Z 09:48:56.2							
	e L	Z 10:29:08.9			19.9	11906		6.3	
GEC2	e P	Z 09:48:44.7	82.4	48.8	1.6	34	5.3		
ROTZ	e P	Z 09:48:45.9	82.5	47.8	1.5	108	5.8		
WET	e P	Z 09:48:46.4	82.6	48.3	1.7	64	5.6		
IBBN	e P	Z 09:48:47.4	82.8	44.9	1.6	98	5.8		
UBBA	e P	Z 09:48:47.4	82.8	46.4	1.6	80	5.7		
GRA1	e P	Z 09:48:49.2	83.1	47.1	1.5	211	6.2		
	e pP	Z 09:49:01.0							
	e L	Z 10:30:05.7			18.9	15940		6.4	
RJOB	e P	Z 09:48:51.9	83.6	48.1	1.6	89	5.8		
BUG	e P	Z 09:48:51.2	83.6	44.4	1.6	86	5.7		
TNS	e P	Z 09:48:53.4	84.0	45.2	1.6	102	5.8		
FUR	e P	Z 09:48:53.6	84.1	47.1	1.6	232	6.2		
STU	e P	Z 09:48:56.2	84.6	45.6	1.6	110	5.8		
BFO	e P	Z 09:48:59.8	85.4	45.0	1.6	120	5.8		
WLF	e P	Z 09:49:00.4	85.4	43.5	1.6	121	5.8		

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/05 12:56:26.7 3.940S 66.900E 10.0G 5.0 4.3 ML SZGRF
 South Indian Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z 13:07:37.3	70.0	120.7	0.8	8	4.9		
GEC2	e P	Z 13:07:37.0	70.0	121.8	0.9	2	4.3		
WET	e P	Z 13:07:42.6	70.6	121.2	1.0	4	4.5		
BRG	e P	Z 13:07:43.4	71.0	122.6	0.8	7	4.8		
FUR	e P	Z 13:07:44.0	71.1	119.5	0.8	46	5.7		
ROTZ	e P	Z 13:07:45.5	71.3	120.8	0.9	7	4.7		
TANN	e P	Z 13:07:47.9	71.5	121.2	1.0	3	4.3		
CLL	e P	Z 13:07:48.1	71.7	121.9	1.0	15	5.0		
GRA1	e P	Z 13:07:48.7	71.9	119.9	0.9	49	5.5		
	e L	Z 13:41:03.7			21.7	208		4.4	
MOX	e P	Z 13:07:50.5	72.1	120.5	0.8	12	4.9		
	e L	Z 13:36:57.8			20.8	140		4.2	
STU	e P	Z 13:07:52.9	72.6	117.9	0.9	30	5.3		
BFO	e P	Z 13:07:55.2	72.9	117.0	0.8	7	4.7		

UBBA	e P	Z	13:07:56.5	73.1	119.1	0.9	3	4.4
CLZ	e P	Z	13:07:58.2	73.4	119.7	0.9	17	5.2
TNS	e P	Z	13:07:59.9	73.7	117.6	1.0	25	5.3
NRDL	e P	Z	13:08:00.8	73.9	119.7	0.9	13	5.1
BSEG	e P	Z	13:08:03.7	74.5	120.2	0.8	8	4.9
WLF	e P	Z	13:08:05.8	74.7	115.5	0.8	9	4.9
BUG	e P	Z	13:08:06.8	74.9	116.9	0.9	18	5.2
IBBN	e P	Z	13:08:08.3	75.0	117.6	0.9	12	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/05	20:20:52.2	44.400N	12.000E	6			5.1	NEIC
Northern Italy								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	20:21:47.6	3.5	189.7					5.1
	e Sg	N	20:22:45.6							
FUR	e Pn	Z	20:21:53.0	3.9	172.5					5.4
	e Sg	E	20:22:58.6							
GEC2	e Pn	Z	20:22:02.5	4.7	195.3					5.1
	e Sg	E	20:23:27.5							
BFO	e Pn	Z	20:22:04.1	4.7	146.4					4.9
STU	e Pn	Z	20:22:05.8	4.8	155.6					5.3
WET	e Pn	Z	20:22:04.8	4.9	187.6					5.1
GRA1	e Pn	Z	20:22:12.1	5.4	174.2					
	e Sg	E	20:23:50.1							
ROTZ	e Pn	Z	20:22:12.4	5.4	181.7					
TANN	e Pn	Z	20:22:22.3	6.1	183.2					
	e Sg	E	20:24:12.8							
MOX	e Pn	Z	20:22:24.4	6.3	177.6					
	e Sg	E	20:24:21.6							
TNS	e Pn	Z	20:22:26.7	6.4	156.5					
UBBA	e Pn	Z	20:22:29.5	6.6	167.6					
WLF	e Pn	Z	20:22:31.1	6.7	141.1					
BRG	e Pn	Z	20:22:30.3	6.7	192.1					
CLL	e Pn	Z	20:22:34.2	7.0	186.0					
CLZ	e Pn	Z	20:22:42.9	7.6	171.2					
BUG	e Pn	Z	20:22:47.2	7.8	154.3					
NRDL	e Pn	Z	20:22:52.6	8.3	170.6					
IBBN	e Pn	Z	20:22:56.8	8.5	159.0					
BSEG	e Pn	Z	20:23:11.2	9.7	172.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/05	20:48:57.4	42.400N	13.400E	10.0G			4.0	NEIC
Southern Italy								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	20:50:18.0	5.4	175.5					
	e Sn	N	20:51:20.0							
GEC2	e Pn	Z	20:50:30.6	6.5	182.2					
	e Sn	N	20:51:44.1							
WET	e Pn	Z	20:50:35.7	6.8	176.9					
	e Sn	Z	20:51:48.4							
BFO	e Pn	Z	20:50:38.0	6.9	147.5					
ROTZ	e Pn	Z	20:50:39.2	7.4	173.4					
	e Sn	N	20:52:04.3							
GRA1	e Pn	Z	20:50:45.0	7.5	167.7					
MOX	e Pn	Z	20:50:56.8	8.4	171.1					
BRG	e Pn	Z	20:50:57.3	8.5	182.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	01:32:41.4	42.377N	13.323E	10.0G			6.4	EMSC

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	01:34:02.9	5.4	175.8					6.1
FUR	e Pn	Z	01:34:11.1	6.0	165.3					6.8
GEC2	e Pn	Z	01:34:16.3	6.5	182.5					6.4
WET	e Pn	Z	01:34:20.7	6.8	177.2					6.1
BFO	e Pn	Z	01:34:22.6	6.9	147.7					6.2
STU	e Pn	Z	01:34:25.5	7.0	154.2					6.4
ROTZ	e Pn	Z	01:34:29.7	7.4	173.6					6.3
GRA1	e Pn	Z	01:34:29.8	7.5	168.0					6.7
TANN	e Pn	Z	01:34:38.3	8.1	175.5					
MOX	e Pn	Z	01:34:42.1	8.4	171.3					6.5
BRG	e Pn	Z	01:34:44.1	8.5	183.1					6.5
TNS	e Pn	Z	01:34:46.5	8.5	155.0					6.3
UBBA	e Pn	Z	01:34:48.0	8.7	163.6					6.4
WLF	e Pn	Z	01:34:49.6	8.8	143.0					6.3
CLL	e Pn	Z	01:34:51.0	8.9	178.5					6.6
BUG	e Pn	Z	01:35:08.6	10.0	153.2					
NRDL	e Pn	Z	01:35:11.5	10.3	166.7					
IBBN	e Pn	Z	01:35:17.3	10.6	157.1					
BSEG	e Pn	Z	01:35:30.4	11.7	169.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	02:37: 5.3	42.415N	13.319E	10.0G			5.2	EMSC

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	02:38:26.1	5.3	175.8					5.1

FUR	e Pn	Z	02:38:34.2	5.9	165.2	5.6
GEC2	e Pn	Z	02:38:39.5	6.4	182.5	5.2
WET	e Pn	Z	02:38:44.1	6.7	177.2	5.1
BFO	e Pn	Z	02:38:45.7	6.9	147.5	5.0
STU	e Pn	Z	02:38:49.1	7.0	154.1	5.4
ROTZ	e Pn	Z	02:38:53.1	7.4	173.6	5.0
GRA1	e Pn	Z	02:38:53.1	7.4	167.9	5.5
TANN	e Pn	Z	02:39:02.5	8.0	175.5	5.1
MOX	e Pn	Z	02:39:05.3	8.3	171.3	5.3
BRG	e Pn	Z	02:39:08.3	8.5	183.1	5.3
TNS	e Pn	Z	02:39:09.4	8.5	154.9	5.2
UBBA	e Pn	Z	02:39:11.4	8.7	163.6	5.2
WLF	e Pn	Z	02:39:14.8	8.8	142.9	
CLL	e Pn	Z	02:39:14.2	8.9	178.5	5.4
CLZ	e Pn	Z	02:39:25.9	9.6	166.9	
BUG	e Pn	Z	02:39:30.4	9.9	153.1	
NRDL	e Pn	Z	02:39:33.7	10.3	166.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	03:56:48.1	42.382N	13.339E	10.0G			4.6	EMSC

Northern Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 03:58:08.2	5.4	175.7					4.7
FUR	e Pn	Z 03:58:15.8	6.0	165.2					4.9
GEC2	e Pn	Z 03:58:21.9	6.5	182.4					4.5
WET	e Pn	Z 03:58:26.0	6.8	177.1					4.5
BFO	e Pn	Z 03:58:28.3	6.9	147.6					4.5
ROTZ	e Pn	Z 03:58:35.8	7.4	173.5					4.4
GRA1	e Pn	Z 03:58:36.9	7.5	167.9					4.8
TANN	e Pn	Z 03:58:44.4	8.1	175.4					4.5
MOX	e Pn	Z 03:58:48.3	8.3	171.2					4.8
BRG	e Pn	Z 03:58:51.9	8.5	183.0					4.5
TNS	e Pn	Z 03:58:52.8	8.5	154.9					4.6
WLF	e Pn	Z 03:58:55.5	8.8	142.9					4.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	04:47:54.9	42.326N	13.288E	10.0G			4.0	EMSC

Central Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 04:49:17.3	5.4	176.1					4.0
GEC2	e Pn	Z 04:49:31.1	6.5	182.7					3.9
WET	e Pn	Z 04:49:35.3	6.8	177.4					3.9
BFO	e Pn	Z 04:49:36.8	6.9	148.1					4.0

ROTZ	e Pn	Z	04:49:43.5	7.5	173.8	3.9
GRA1	e Pn	Z	04:49:43.1	7.5	168.2	4.3
MOX	e Pn	Z	04:49:57.0	8.4	171.5	4.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	07:17:16.1	42.473N	13.401E	10.0G			4.3	EMSC

Central Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 07:18:34.0	5.3	175.1					4.3
GEC2	e Pn	Z 07:18:47.9	6.4	182.0					4.1
WET	e Pn	Z 07:18:52.1	6.7	176.7					4.2
BFO	e Pn	Z 07:18:55.1	6.9	146.9					4.2
ROTZ	e Pn	Z 07:19:02.3	7.3	173.1					4.2
GRA1	e Pn	Z 07:19:01.2	7.4	167.4					4.6
TANN	e Pn	Z 07:19:10.3	8.0	175.0					4.2
MOX	e Pn	Z 07:19:14.8	8.3	170.8					4.3
TNS	e Pn	Z 07:19:17.0	8.5	154.4					4.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	09:47:41.7	49.830N	154.550E	33.0G	5.3	4.6		SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z 09:59:16.4	73.3	23.1	1.5	33	5.2		
CLL	e P	Z 09:59:18.1	73.7	24.7	1.4	53	5.4		
BRG	e P	Z 09:59:19.0	73.8	25.2	1.7	34	5.1		
CLZ	e P	Z 09:59:20.1	73.9	23.1	1.1	35	5.3		
TANN	e P	Z 09:59:24.2	74.7	24.3	1.3	17	4.9		
MOX	e P	Z 09:59:24.1	74.7	23.8	1.0	16	5.0		
	e L	Z 10:35:58.7			20.3	308		4.6	
UBBA	e P	Z 09:59:25.7	74.9	22.8	1.4	29	5.1		
ROTZ	e P	Z 09:59:28.3	75.3	24.0	1.4	34	5.3		
GRA1	e P	Z 09:59:30.1	75.6	23.4	1.6	86	5.6		
	e L	Z 10:36:48.5			21.0	324		4.6	
WET	e P	Z 09:59:30.4	75.7	24.4	1.5	53	5.5		
TNS	e P	Z 09:59:31.0	75.8	21.8	0.8	18	5.2		
RJOB	e P	Z 09:59:37.7	77.0	24.2	0.9	14	5.1		
FUR	e P	Z 09:59:37.7	77.0	23.3	1.2	65	5.6		
BFO	e P	Z 09:59:40.7	77.6	21.5	1.4	37	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	16:38:10.7	42.376N	13.325E	10.0G			4.6	EMSC

Central Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 16:39:32.4	5.4	175.8					4.4
GEC2	e Pn	Z 16:39:46.4	6.5	182.5					4.5
WET	e Pn	Z 16:39:50.3	6.8	177.2					4.4
BFO	e Pn	Z 16:39:52.6	6.9	147.7					4.4
ROTZ	e Pn	Z 16:40:00.1	7.4	173.6					4.4
GRA1	e Pn	Z 16:39:58.7	7.5	167.9					4.8
MOX	e Pn	Z 16:40:12.0	8.4	171.3					4.7
CLL	e Pn	Z 16:40:19.4	8.9	178.5					4.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	18:12:44.8	41.460N	65.070E	77.8N	4.6			SZGRF

Central Kazakhstan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 18:19:38.3	35.9	84.8	1.0	10	4.6		
CLL	e P	Z 18:19:42.6	36.4	84.7	0.9	8	4.4		
ROTZ	e P	Z 18:19:48.6	37.1	82.2	1.3	10	4.4		
MOX	e P	Z 18:19:50.2	37.4	82.9	1.2	9	4.4		
GRA1	e P	Z 18:19:54.2	37.7	81.4	0.9	8	4.4		
BSEGE	e P	Z 18:19:55.2	37.8	86.2	0.7	27	5.1		
CLZ	e P	Z 18:19:55.8	38.0	83.6	1.0	10	4.5		
NRDL	e P	Z 18:19:56.6	38.1	84.2	1.0	12	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	21:56:55.0	42.386N	13.300E	10.0G			4.0	EMSC

Central Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 21:58:16.4	5.4	176.0					4.0
FUR	e Pn	Z 21:58:16.3	5.9	165.4					4.3
GEC2	e Pn	Z 21:58:30.7	6.5	182.6					3.9
WET	e Pn	Z 21:58:34.4	6.8	177.4					3.9
BFO	e Pn	Z 21:58:36.7	6.9	147.8					4.0
ROTZ	e Pn	Z 21:58:43.6	7.4	173.7					3.8
GRA1	e Pn	Z 21:58:44.5	7.4	168.1					4.3
TANN	e Pn	Z 21:58:51.1	8.0	175.6					4.0
MOX	e Pn	Z 21:58:54.5	8.3	171.4					4.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	22:47:15.2	42.339N	13.234E	10.0G			4.1	EMSC

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	22:48:37.0	5.4	176.6					4.0
FUR	e Pn	Z	22:48:43.0	6.0	166.0					4.2
GEC2	e Pn	Z	22:48:50.6	6.5	183.0					4.0
WET	e Pn	Z	22:48:54.9	6.8	177.8					3.9
BFO	e Pn	Z	22:48:56.6	6.9	148.3					3.9
GRA1	e Pn	Z	22:49:04.6	7.5	168.5					4.3
TANN	e Pn	Z	22:49:13.2	8.1	175.9					4.0
MOX	e Pn	Z	22:49:16.4	8.4	171.8					4.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/06	23:15:37.7	42.475N	13.409E	10.0G			5.2	EMSC

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	23:16:58.0	5.3	175.1					5.0
FUR	e Pn	Z	23:17:07.1	5.9	164.5					5.6
GEC2	e Pn	Z	23:17:11.2	6.4	181.9					5.2
WET	e Pn	Z	23:17:15.7	6.7	176.6					5.0
BFO	e Pn	Z	23:17:17.9	6.9	146.8					5.0
STU	e Pn	Z	23:17:19.5	6.9	153.4					5.3
ROTZ	e Pn	Z	23:17:23.9	7.3	173.0					5.0
GRA1	e Pn	Z	23:17:24.8	7.4	167.3					5.5
TANN	e Pn	Z	23:17:33.4	8.0	175.0					5.1
MOX	e Pn	Z	23:17:37.9	8.3	170.8					5.3
BRG	e Pn	Z	23:17:40.4	8.4	182.7					5.3
TNS	e Pn	Z	23:17:41.7	8.5	154.3					5.2
UBBA	e Pn	Z	23:17:43.8	8.7	163.1					5.2
WLF	e Pn	Z	23:17:46.9	8.8	142.3					5.1
CLL	e Pn	Z	23:17:44.8	8.8	178.0					5.3
CLZ	e Pn	Z	23:17:57.1	9.6	166.4					
NRDL	e Pn	Z	23:18:07.0	10.3	166.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/07	01:38:56.4	46.940N	151.120E	81.1	4.8			SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	01:50:34.9	73.8	26.7	0.9	7	4.7		
CLL	e P	Z	01:50:43.4	75.4	28.1	0.6	14	5.3		
BRG	e P	Z	01:50:44.1	75.5	28.6	0.7	3	4.5		
CLZ	e P	Z	01:50:45.9	75.6	26.5	0.7	7	4.9		
TANN	e P	Z	01:50:49.1	76.3	27.7	0.8	2	4.3		

MOX	e P	Z	01:50:49.4	76.4	27.1	0.7	4	4.7
UBBA	e P	Z	01:50:51.3	76.7	26.1	0.6	4	4.7
BUG	e P	Z	01:50:52.0	76.8	24.4	0.7	6	4.8
ROTZ	e P	Z	01:50:53.3	77.0	27.4	0.8	5	4.7
WET	e P	Z	01:50:55.2	77.3	27.8	1.0	10	4.9
GRA1	e P	Z	01:50:55.2	77.3	26.8	0.8	14	5.2
GEC2	e P	Z	01:50:54.7	77.3	28.3	1.0	7	4.7
	e pP	Z	01:51:16.2					
TNS	e P	Z	01:50:56.7	77.6	25.1	0.6	7	5.0
RJOB	e P	Z	01:51:02.2	78.6	27.6	0.7	6	4.7
FUR	e P	Z	01:51:02.5	78.7	26.7	0.9	18	5.1
STU	e P	Z	01:51:02.4	78.7	25.4	0.6	9	5.0
BFO	e P	Z	01:51:06.0	79.4	24.8	0.7	4	4.5

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/07 04:23:34.7 47.270N 151.440E 33.0G 6.3 7.1 ML SZGRF
 Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	04:35:11.8	73.6	26.4	0.8	184	6.1		
NRDL	e P	Z	04:35:19.3	74.9	26.0	0.9	167	6.1		
CLL	e P	Z	04:35:20.2	75.2	27.8	0.7	278	6.5		
BRG	e P	Z	04:35:21.0	75.3	28.3	1.0	138	6.0		
CLZ	e P	Z	04:35:22.7	75.4	26.1	0.9	256	6.4		
IBBN	e P	Z	04:35:23.8	75.7	24.5	0.8	357	6.6		
TANN	e P	Z	04:35:26.2	76.1	27.3	0.8	68	5.8		
MOX	e P	Z	04:35:26.3	76.2	26.8	1.2	507	6.5		
	e L	Z	05:14:29.4			20.0	92600		7.1	
UBBA	e P	Z	04:35:27.9	76.5	25.8	0.8	101	6.0		
BUG	e P	Z	04:35:28.8	76.6	24.1	0.8	256	6.4		
ROTZ	e P	Z	04:35:30.2	76.8	27.1	0.9	227	6.3		
GRA1	e P	Z	04:35:32.1	77.1	26.4	0.8	561	6.8		
	e L	Z	05:13:34.2			20.3	78429		7.0	
WET	e P	Z	04:35:32.1	77.1	27.4	1.0	401	6.5		
GEC2	e P	Z	04:35:31.7	77.1	27.9	0.8	140	6.2		
TNS	e P	Z	04:35:33.6	77.4	24.7	0.8	324	6.5		
RJOB	e P	Z	04:35:39.2	78.4	27.2	0.8	267	6.3		
FUR	e P	Z	04:35:39.3	78.5	26.3	0.9	551	6.6		
WLF	e P	Z	04:35:39.8	78.5	23.2	0.8	120	6.0		
STU	e P	Z	04:35:39.5	78.5	25.1	0.8	274	6.4		
BFO	e P	Z	04:35:42.9	79.2	24.5	0.9	318	6.3		

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/07 09:26:30.7 42.313N 13.349E 10.0G 5.0 ML EMSC
 Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	09:27:51.4	5.4	175.7					4.9
GEC2	e Pn	Z	09:28:04.9	6.5	182.3					5.0
WET	e Pn	Z	09:28:10.5	6.8	177.1					4.9
BFO	e Pn	Z	09:28:12.2	7.0	147.8					4.8
ROTZ	e Pn	Z	09:28:19.0	7.5	173.5					4.9
GRA1	e Pn	Z	09:28:19.1	7.5	167.9					5.3
TANN	e Pn	Z	09:28:27.7	8.1	175.4					5.0
MOX	e Pn	Z	09:28:30.1	8.4	171.2					5.1
BRG	e Pn	Z	09:28:33.9	8.6	182.9					5.1
CLZ	e Pn	Z	09:28:50.6	9.7	166.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/07	15:18:44.7	37.106N	16.244W	10.0G	5.1	3.7		SZGRF

Azores-Cape St. Vincent Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	15:23:23.4	20.4	240.5	0.9	112	5.1		
BFO	e P	Z	15:23:32.1	21.1	247.0	0.8	50	4.9		
STU	e P	Z	15:23:40.3	21.8	247.2	0.9	49	4.9		
BUG	e P	Z	15:23:39.1	21.9	238.4	0.9	34	4.8		
IBBN	e P	Z	15:23:46.5	22.7	237.4	0.9	63	5.1		
FUR	e P	Z	15:23:51.4	22.9	251.3	1.9	1057	6.0		
UBBA	e P	Z	15:23:53.2	23.1	243.8	1.6	136	5.2		
GRA1	e P	Z	15:23:54.8	23.4	247.9	0.9	53	5.1		
	e L	Z	15:31:24.2			20.7	183		3.5	
RJOB	e P	Z	15:23:59.3	23.7	254.1	0.8	116	5.5		
CLZ	e P	Z	15:23:58.9	23.8	242.3	0.9	22	4.7		
NRDL	e P	Z	15:24:00.3	24.0	240.6	0.9	49	5.0		
MOX	e P	Z	15:24:00.9	24.0	246.4	0.8	48	5.1		
	e L	Z	15:33:29.6			18.2	410		3.9	
ROTZ	e P	Z	15:24:01.4	24.0	249.0	0.9	33	4.8		
WET	e P	Z	15:24:02.4	24.2	251.2	1.2	72	5.1		
TANN	e P	Z	15:24:04.6	24.4	248.0	0.8	21	4.7		
GEC2	e P	Z	15:24:07.3	24.6	252.8	1.0	75	5.4		
BSEG	e P	Z	15:24:07.4	24.8	238.2	1.2	170	5.7		
CLL	e P	Z	15:24:10.0	25.1	246.9	1.0	32	5.0		
BRG	e P	Z	15:24:13.9	25.4	249.0	0.8	24	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/07	17:47:38.3	42.300N	13.400E	10.0G			6.0	EMSC

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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RJOB	e Pn	Z	17:48:59.8	5.5	175.3	5.8
FUR	e Pn	Z	17:49:08.7	6.1	164.9	6.4
GEC2	e Pn	Z	17:49:13.4	6.5	182.0	6.0
WET	e Pn	Z	17:49:17.2	6.9	176.8	5.8
BFO	e Pn	Z	17:49:19.6	7.0	147.6	5.8
STU	e Pn	Z	17:49:22.2	7.1	154.0	6.2
ROTZ	e Pn	Z	17:49:26.2	7.5	173.2	5.9
GRA1	e Pn	Z	17:49:26.5	7.5	167.6	6.3
TANN	e Pn	Z	17:49:35.0	8.1	175.1	5.9
MOX	e Pn	Z	17:49:38.7	8.4	171.0	6.0
BRG	e Pn	Z	17:49:41.2	8.6	182.7	6.1
UBBA	e Pn	Z	17:49:44.7	8.8	163.4	5.9
WLF	e Pn	Z	17:49:44.6	8.9	143.0	5.9
CLL	e Pn	Z	17:49:46.7	9.0	178.1	
CLZ	e Pn	Z	17:49:58.1	9.8	166.7	
BUG	e Pn	Z	17:50:04.9	10.0	153.1	
NRDL	e Pn	Z	17:50:09.2	10.4	166.4	
BSEG	e Pn	Z	17:50:26.5	11.8	168.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/07	21:34:30.9	42.345N	13.371E	10.0G			4.7	EMSC
Central Italy								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 21:35:52.0	5.4	175.5					4.4
FUR	e Pn	Z 21:36:01.0	6.0	165.0					5.0
GEC2	e Pn	Z 21:36:05.8	6.5	182.2					4.5
WET	e Pn	Z 21:36:10.0	6.8	176.9					4.4
BFO	e Pn	Z 21:36:12.6	7.0	147.5					4.5
ROTZ	e Pn	Z 21:36:19.6	7.5	173.4					4.6
GRA1	e Pn	Z 21:36:20.1	7.5	167.7					5.1
TANN	e Pn	Z 21:36:28.9	8.1	175.2					
MOX	e Pn	Z 21:36:32.1	8.4	171.1					4.7
WLF	e Pn	Z 21:36:40.7	8.9	142.9					4.7
CLL	e Pn	Z 21:36:40.8	9.0	178.3					4.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/08	00:59:19.4	47.730N	150.140E	33.0G	5.3	4.2		SZGRF
Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 01:10:51.8	72.8	27.0	0.8	17	5.2		
NRDL	e P	Z 01:10:59.3	74.1	26.7	0.8	12	5.0		
CLL	e P	Z 01:11:00.4	74.4	28.4	0.7	22	5.3		
CLZ	e P	Z 01:11:02.8	74.7	26.8	0.8	19	5.2		

TANN	e P	Z	01:11:06.2	75.3	27.9	0.7	6	4.8	
MOX	e P	Z	01:11:06.4	75.4	27.4	0.7	10	5.0	
	e L	Z	01:49:54.5			20.9	140		4.2
UBBA	e P	Z	01:11:08.1	75.7	26.4	0.7	7	4.9	
BUG	e P	Z	01:11:08.9	75.9	24.8	0.8	17	5.2	
ROTZ	e P	Z	01:11:10.3	76.0	27.7	0.9	16	5.2	
WET	e P	Z	01:11:12.3	76.3	28.0	0.9	25	5.4	
GEC2	e P	Z	01:11:11.8	76.3	28.5	0.8	13	5.1	
GRA1	e P	Z	01:11:12.2	76.3	27.1	0.8	42	5.6	
	e L	Z	01:49:08.0			21.1	147		4.3
TNS	e P	Z	01:11:13.6	76.6	25.4	0.8	26	5.4	
RJOB	e P	Z	01:11:19.2	77.6	27.8	0.8	23	5.3	
FUR	e P	Z	01:11:19.5	77.7	26.9	0.9	49	5.6	
STU	e P	Z	01:11:19.6	77.7	25.7	0.8	24	5.4	
WLF	e P	Z	01:11:21.6	77.8	23.9	0.8	10	5.0	
BFO	e P	Z	01:11:23.0	78.4	25.1	0.9	28	5.3	

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/08 03:00:35.2 42.271N 13.424E 10.0G 3.9 EMSC
 Central Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 03:01:58.3	5.5	175.1					3.8
GEC2	e Pn	Z 03:02:12.1	6.6	181.8					3.8
WET	e Pn	Z 03:02:15.7	6.9	176.6					3.8
BFO	e Pn	Z 03:02:20.4	7.0	147.6					4.0
MOX	e Pn	Z 03:02:38.5	8.5	170.9					4.0

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/08 04:27:42.5 42.304N 13.434E 10.0G 4.0 EMSC
 Central Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 04:29:05.1	5.5	175.0					4.0
GEC2	e Pn	Z 04:29:18.5	6.5	181.7					3.9
WET	e Pn	Z 04:29:22.3	6.9	176.6					4.0
BFO	e Pn	Z 04:29:26.4	7.0	147.4					4.0
ROTZ	e Pn	Z 04:29:31.8	7.5	173.0					3.9
GRA1	e Pn	Z 04:29:31.9	7.5	167.4					

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/08 08:22:41.4 5.785N 38.992W 10.0G 5.6 3.9 SZGRF
 North Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 08:32:53.4	60.7	241.2	1.2	46	5.6		
	e L	Z 08:46:24.3			21.7	80		3.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/08	16:18:4.8	47.070N	151.430E	56.6	4.8			SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z 16:29:41.6	75.1	26.1	0.8	4	4.5		
CLL	e P	Z 16:29:42.7	75.3	27.8	0.8	7	4.9		
CLZ	e P	Z 16:29:45.3	75.6	26.2	0.8	8	4.9		
TANN	e P	Z 16:29:48.6	76.3	27.4	0.8	2	4.3		
MOX	e P	Z 16:29:48.7	76.3	26.9	0.7	3	4.6		
UBBA	e P	Z 16:29:50.5	76.6	25.9	0.6	3	4.6		
BUG	e P	Z 16:29:51.6	76.8	24.2	0.8	8	4.9		
ROTZ	e P	Z 16:29:52.5	76.9	27.2	0.9	5	4.7		
WET	e P	Z 16:29:54.5	77.3	27.5	0.9	8	4.9		
GRA1	e P	Z 16:29:54.4	77.3	26.5	0.7	15	5.2		
	e pP	Z 16:30:10.3							
GEC2	e P	Z 16:29:54.0	77.3	28.0	0.8	4	4.6		
RJOB	e P	Z 16:30:01.5	78.6	27.3	0.8	5	4.6		
BFO	e P	Z 16:30:05.3	79.3	24.6	0.9	8	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/08	20:50:52.2	47.700N	152.290E	115.0N	4.6			SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 21:02:14.2	73.4	25.6	0.9	7	4.7		
NRDL	e P	Z 21:02:21.8	74.7	25.3	0.8	4	4.4		
CLL	e P	Z 21:02:22.9	75.0	27.0	0.8	5	4.6		
CLZ	e P	Z 21:02:24.4	75.3	25.4	0.7	5	4.7		
TANN	e P	Z 21:02:28.6	76.0	26.6	0.8	2	4.3		
MOX	e P	Z 21:02:28.9	76.0	26.1	1.0	4	4.5		
UBBA	e P	Z 21:02:30.1	76.3	25.1	0.7	2	4.4		
BUG	e P	Z 21:02:31.4	76.4	23.4	1.0	13	5.0		
ROTZ	e P	Z 21:02:32.8	76.6	26.4	0.8	4	4.6		
GRA1	e P	Z 21:02:33.9	77.0	25.7	0.7	12	5.1		
WET	e P	Z 21:02:34.8	77.0	26.7	0.9	7	4.8		
GEC2	e P	Z 21:02:34.3	77.0	27.2	0.8	3	4.4		
RJOB	e P	Z 21:02:41.8	78.3	26.5	0.8	5	4.6		
BFO	e P	Z 21:02:45.5	79.0	23.8	0.8	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/08	22:56:51.0	42.551N	13.344E	10.0G			4.3	EMSC

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	22:58:10.8	5.2	175.5					4.2
FUR	e Pn	Z	22:58:18.2	5.8	164.7					4.6
GEC2	e Pn	Z	22:58:24.3	6.3	182.4					4.2
WET	e Pn	Z	22:58:27.9	6.6	177.0					4.1
BFO	e Pn	Z	22:58:30.3	6.8	146.9					4.4
ROTZ	e Pn	Z	22:58:37.4	7.3	173.4					4.2
GRA1	e Pn	Z	22:58:37.5	7.3	167.6					4.5
TANN	e Pn	Z	22:58:47.1	7.9	175.3					4.2
MOX	e Pn	Z	22:58:49.9	8.2	171.0					4.3

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/09	00:52:59.0	42.440N	13.352E	10.0G				INGV

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	00:54:19.8	5.3	175.6					
	e Sn	N	00:55:21.0							
GEC2	e Pn	N	00:54:33.5	6.4	182.3					
	e Sn	E	00:55:45.7							
BFO	e Pn	Z	00:54:39.7	6.9	147.3					
GRA1	e Pn	Z	00:54:47.0	7.4	167.7					
MOX	e Pn	Z	00:54:58.1	8.3	171.1					
	e Sn	N	00:56:25.0							
WLF	e Pn	Z	00:55:08.5	8.8	142.7					
BUG	e Pn	Z	00:55:26.3	9.9	153.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/09	01:46:48.0	25.027N	70.888E	41.0	4.8			SZGRF

India-Pakistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	01:55:38.4	50.1	96.8	0.8	6	4.6		
	e pP	Z	01:55:49.4							
BRG	e P	Z	01:55:39.3	50.2	98.7	0.8	9	4.8		
	e pP	Z	01:55:50.7							
RJOB	e P	Z	01:55:41.9	50.6	95.2	0.9	5	4.4		
CLL	e P	Z	01:55:44.0	50.9	98.3	0.8	6	4.6		
TANN	e P	Z	01:55:45.9	51.1	97.1	0.9	8	4.6		

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ROTZ	e P	Z	01:55:46.9	51.2	96.4	0.9	5	4.4
NEUB	e P	Z	01:55:49.6	51.6	97.1	0.9	17	5.0
FUR	e P	Z	01:55:49.8	51.6	94.3	0.8	12	4.9
MOX	e P	Z	01:55:50.3	51.6	96.6	0.9	19	5.0
GRA1	e P	Z	01:55:51.9	51.8	95.5	0.9	17	5.0
CLZ	e P	Z	01:55:56.6	52.5	96.5	0.9	16	4.9
UBBA	e pP	Z	01:56:09.4	52.7	95.4			
NRDL	e P	Z	01:55:58.3	52.8	96.7	0.9	15	4.9
BSEG	e P	Z	01:55:58.5	52.8	98.0	0.9	40	5.3
	e pP	Z	01:56:09.6					
BFO	e P	Z	01:56:03.9	53.6	92.2	0.9	5	4.6
IBBN	e P	Z	01:56:08.9	54.2	94.6	0.9	24	5.2
HLG	e pP	Z	01:56:20.1	54.3	96.1			
BUG	e P	Z	01:56:10.6	54.4	93.6	1.0	17	5.0
WLF	e P	Z	01:56:16.3	55.1	91.5	1.1	17	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/09	03:14:52.7	42.354N	13.464E	10.0G				INGV
Central Italy								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	03:16:14.2	5.4	174.7					
	e Sn	Z	03:17:16.8							
GEC2	e Pn	Z	03:16:27.7	6.5	181.6					
	e Sn	Z	03:17:38.6							
WET	e Pn	Z	03:16:31.6	6.8	176.3					
	e Sn	Z	03:17:45.0							
BFO	e Pn	Z	03:16:34.6	7.0	147.0					
ROTZ	e Pn	Z	03:16:41.1	7.5	172.8					
GRA1	e Sn	Z	03:18:05.2	7.5	167.2					
WERN	e Pn	Z	03:16:47.9	8.0	174.2					
	e Sn	Z	03:18:11.1							
GUNZ	e Pn	Z	03:16:49.0	8.0	174.0					
TANN	e Pn	Z	03:16:49.4	8.1	174.7					
PLN	e Pn	Z	03:16:51.1	8.2	173.2					
FBE	e Pn	Z	03:16:55.8	8.6	179.5					
	e Sn	Z	03:18:26.9							
CLL	e Sn	Z	03:18:36.3	9.0	177.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/09	04:13: 8.4	22.420S	171.030E	33.0G				SZGRF
Southeast of Loyalty Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	04:32:42.0	145.3	38.9					

BSEG	e	PKPbc	Z	04:32:42.1	145.3	32.4
HLG	e	PKPbc	Z	04:32:44.0	145.8	28.5
BRG	e	PKPbc	Z	04:32:45.2	146.4	40.6
CLL	e	PKPbc	Z	04:32:45.5	146.5	38.8
NRDL	e	PKPbc	Z	04:32:46.0	146.6	33.2
FBE	e	PKPbc	Z	04:32:46.2	146.6	39.7
CLZ	e	PKPbc	Z	04:32:47.5	147.0	34.2
NEUB	e	PKPbc	Z	04:32:47.5	147.0	37.0
TANN	e	PKPbc	Z	04:32:48.4	147.4	38.8
WERD	e	PKPbc	Z	04:32:48.6	147.4	38.5
PLN	e	PKPbc	Z	04:32:48.6	147.4	38.3
IBBN	e	PKPbc	Z	04:32:48.5	147.5	29.7
GUNZ	e	PKPbc	Z	04:32:48.7	147.5	38.6
WERN	e	PKPbc	Z	04:32:49.1	147.5	38.8
MOX	e	PKPbc	Z	04:32:48.6	147.5	37.3
ROTZ	e	PKPbc	Z	04:32:50.2	148.0	39.0
UBBA	e	PKPbc	Z	04:32:50.1	148.0	34.5
GEC2	e	PKPbc	Z	04:32:50.2	148.0	42.3
WET	e	PKPbc	Z	04:32:50.7	148.2	40.7
BUG	e	PKPbc	Z	04:32:50.9	148.4	29.5
GRA1	e	PKPbc	Z	04:32:51.4	148.4	37.6
	e	PKPab	Z	04:32:55.0		
RJOB	e	PKPbc	Z	04:32:53.1	149.3	42.1
FUR	e	PKPab	Z	04:32:59.7	149.6	39.2
STU	e	PKPbc	Z	04:32:55.3	150.0	35.2
	e	PKPab	Z	04:33:00.8		
WLF	e	PKPbc	Z	04:32:56.4	150.3	29.1
BFO	e	PKPbc	Z	04:32:56.4	150.7	34.1
	e	PKPab	Z	04:33:03.5		

Date 2009/04/09
 Origin Time 04:32:46.0
 Lat 42.445N
 Long 13.387E
 Depth 10.0G
 mb
 Ms
 ML
 Source EMSC
 Central Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 04:34:06.1	5.3	175.3					
GEC2	e Pn	Z 04:34:19.8	6.4	182.1					
	e Sn	Z 04:35:27.5							
WET	e Pn	Z 04:34:23.8	6.7	176.8					
	e Sn	Z 04:35:37.0							
BFO	e Pn	Z 04:34:27.1	6.9	147.1					
	e Sn	Z 04:35:45.8							
WERN	e Pn	Z 04:34:42.3	7.9	174.5					
MOX	e Sn	Z 04:36:14.3	8.3	170.9					
FBE	e Sn	Z 04:36:17.0	8.5	179.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/09	04:43:12.3	42.541N	13.344E	10.0G				EMSC

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	04:44:28.5	5.2	175.5					
	e Sn	Z	04:45:30.8							
GEC2	e Pn	Z	04:44:44.4	6.3	182.4					
	e Sn	Z	04:45:55.0							
WET	e Pn	Z	04:44:49.3	6.6	177.0					
	e Sn	Z	04:45:59.7							
BFO	e Pn	Z	04:44:50.2	6.8	146.9					
	e Sn	Z	04:46:04.1							
ROTZ	e Sn	Z	04:46:16.2	7.3	173.4					
MOX	e Sn	Z	04:46:38.9	8.2	171.0					
WLF	e Sn	Z	04:46:56.4	8.7	142.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/09	08:10:50.1	5.750N	95.000E	65.9	5.4			SZGRF

Northern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	08:22:50.3	79.9	93.3	0.8	28	5.2		
GEC2	e P	Z	08:22:50.7	80.0	92.8	0.8	69	5.6		
	e pP	Z	08:23:08.4							
RUE	e P	Z	08:22:51.3	80.1	93.5	0.7	111	5.9		
FBE	e P	Z	08:22:52.5	80.3	92.9					
WET	e P	Z	08:22:53.6	80.5	92.2	0.8	39	5.5		
RJOB	e P	Z	08:22:52.9	80.5	91.9	0.6	39	5.6		
	e pP	Z	08:23:14.0							
CLL	e P	Z	08:22:53.0	80.5	92.6	0.9	23	5.2		
TANN	e P	Z	08:22:55.1	80.8	92.1	0.7	9	4.9		
WERN	e P	Z	08:22:55.6	80.9	92.0					
GUNZ	e P	Z	08:22:55.7	80.9	92.0					
WERD	e P	Z	08:22:55.6	80.9	92.0					
ROTZ	e P	Z	08:22:56.5	81.0	91.8	0.8	33	5.4		
PLN	e P	Z	08:22:56.1	81.0	91.9					
NEUB	e P	Z	08:22:57.4	81.3	91.7	0.8	39	5.5		
MOX	e P	Z	08:22:58.0	81.4	91.5	0.7	16	5.2		
FUR	e P	Z	08:22:58.6	81.5	90.8	0.6	52	5.8		
GRA1	e P	Z	08:22:59.7	81.6	91.0	0.9	42	5.6		
	e pP	Z	08:23:17.2							
CLZ	e P	Z	08:23:02.3	82.2	90.7	0.9	45	5.6		
	e pP	Z	08:23:19.8							
BSEG	e P	Z	08:23:02.7	82.2	90.9	0.8	72	5.9		
NRDL	e P	Z	08:23:03.3	82.3	90.5	1.3	81	5.7		

	e pP	Z	08:23:20.3						
UBBA	e P	Z	08:23:03.2	82.4	90.2	0.6	5	4.8	
STU	e P	Z	08:23:06.0	82.9	89.3	0.8	30	5.6	
BFO	e P	Z	08:23:08.8	83.5	88.6	0.7	25	5.5	
IBBN	e P	Z	08:23:10.7	83.8	88.7	0.6	39	5.8	
	e pP	Z	08:23:28.4						
BUG	e P	Z	08:23:12.1	84.1	88.2	0.7	25	5.6	
WLF	e P	Z	08:23:17.0	84.9	87.1	0.9	20	5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/09	16:34:18.3	35.510N	72.410E	183.9	4.9			SZGRF
Pakistan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 16:42:08.2	44.0	87.0	0.9	15	4.7		
	e pP	Z 16:42:48.1							
RGN	e P	Z 16:42:10.7	44.3	90.3	0.8	63	5.4		
	e pP	Z 16:42:51.0							
GEC2	e P	Z 16:42:10.5	44.3	84.8	1.0	4	4.1		
CLL	e P	Z 16:42:12.1	44.6	86.8	0.8	8	4.7		
TANN	e P	Z 16:42:16.0	45.0	85.5	0.9	5	4.5		
	e pP	Z 16:42:56.7							
ROTZ	e P	Z 16:42:18.3	45.2	84.6	1.0	8	4.6		
NEUB	e P	Z 16:42:18.7	45.3	85.7	0.9	20	5.1		
MOX	e P	Z 16:42:20.1	45.5	85.1	1.0	9	4.8		
	e pP	Z 16:43:00.2							
BSEG	e P	Z 16:42:24.8	46.1	87.3	0.8	37	5.5		
CLZ	e P	Z 16:42:25.4	46.2	85.3	1.0	14	5.0		
NRDL	e P	Z 16:42:26.4	46.3	85.8	0.9	12	5.0		
UBBA	e P	Z 16:42:27.7	46.5	84.1	0.6	4	4.7		
TNS	e P	Z 16:42:36.6	47.5	82.4	0.8	6	4.7		
IBBN	e P	Z 16:42:37.6	47.7	83.8	0.8	21	5.3		
BUG	e P	Z 16:42:40.6	48.1	82.7	1.0	17	5.1		
	e pP	Z 16:43:21.7							
WLF	e P	Z 16:42:48.7	49.1	80.4	0.8	12	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/09	19:38:17.4	42.541N	13.344E	10.0G				EMSC
Central Italy								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 19:39:37.2	5.2	175.5					
	e Sn	Z 19:40:39.5							
FUR	e Pn	Z 19:39:46.0	5.8	164.8					
GEC2	e Pn	Z 19:39:50.9	6.3	182.4					

	e Sn	Z	19:41:03.9		
WET	e Pn	Z	19:39:55.1	6.6	177.0
BFO	e Pn	Z	19:39:57.0	6.8	146.9
	e Sn	Z	19:41:14.4		
ROTZ	e Pn	Z	19:40:04.5	7.3	173.4
GRA1	e Pn	Z	19:40:03.9	7.3	167.6
WERN	e Pn	Z	19:40:11.4	7.8	174.7
GUNZ	e Pn	Z	19:40:13.5	7.9	174.5
TANN	e Pn	Z	19:40:12.9	7.9	175.3
WERD	e Pn	Z	19:40:14.1	7.9	174.5
PLN	e Pn	Z	19:40:14.4	8.0	173.7
MOX	e Pn	Z	19:40:16.0	8.2	171.0
	e Sn	Z	19:41:44.4		
BRG	e Pn	Z	19:40:18.9	8.3	183.0
FBE	e Pn	Z	19:40:18.8	8.4	180.1
	e Sn	Z	19:41:48.6		
TNS	e Pn	Z	19:40:20.9	8.4	154.5
UBBA	e Pn	Z	19:40:22.6	8.6	163.3
WLF	e Pn	Z	19:40:25.1	8.7	142.4
	e Sn	Z	19:42:02.2		
NEUB	e Pn	Z	19:40:24.8	8.7	172.4
CLL	e Pn	Z	19:40:24.7	8.8	178.3
CLZ	e Pn	Z	19:40:35.4	9.5	166.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/09	22:40:7.0	42.529N	13.259E	10.0G				EMSC
Central Italy								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 22:41:26.5	5.2	176.2					
	e Sn	Z 22:42:24.8							
GEC2	e Pn	Z 22:41:40.1	6.3	183.0					
WET	e Pn	Z 22:41:43.2	6.6	177.6					
BFO	e Pn	Z 22:41:46.3	6.8	147.4					
	e Sn	Z 22:43:02.6							
WERN	e Pn	Z 22:42:01.6	7.8	175.2					
MOX	e Sn	Z 22:43:33.4	8.2	171.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/09	23:22:16.3	22.569S	172.922E	33.0G				SZGRF
Southeast of Loyalty Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 23:41:53.6	146.0	29.6					
NRDL	e PKPbc	Z 23:41:57.3	147.3	30.3					

BRG	e	PKPbc	Z	23:41:57.3	147.3	37.8
CLL	e	PKPbc	Z	23:41:57.2	147.3	36.0
CLZ	e	PKPbc	Z	23:41:59.1	147.8	31.3
NEUB	e	PKPbc	Z	23:41:59.1	147.8	34.1
IBBN	e	PKPbc	Z	23:42:00.1	148.2	26.6
TANN	e	PKPbc	Z	23:42:00.0	148.2	35.9
MOX	e	PKPbc	Z	23:42:00.2	148.4	34.4
ROTZ	e	PKPbc	Z	23:42:01.7	148.9	36.1
GEC2	e	PKPbc	Z	23:42:01.9	149.0	39.5
WET	e	PKPbc	Z	23:42:02.2	149.1	37.9
GRA1	e	PKPbc	Z	23:42:01.5	149.3	34.6
STU	e	PKPbc	Z	23:42:06.6	150.8	32.0
WLF	e	PKPbc	Z	23:42:07.6	151.0	25.8
BFO	e	PKPbc	Z	23:42:07.9	151.5	30.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/10	03:10:19.0	47.170N	151.870E	33.0G	5.1			SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	03:21:49.6	72.4	28.2	0.9	17	5.2		
BSEG	e P	Z	03:21:57.3	73.8	26.1	0.8	15	5.1		
NRDL	e P	Z	03:22:04.7	75.1	25.8	0.9	12	5.0		
CLL	e P	Z	03:22:06.0	75.4	27.5	0.8	23	5.3		
BRG	e P	Z	03:22:06.6	75.5	28.1	0.8	7	4.8		
CLZ	e P	Z	03:22:08.3	75.6	25.9	0.8	19	5.3		
NEUB	e P	Z	03:22:08.5	75.8	26.7	1.0	25	5.3		
IBBN	e P	Z	03:22:09.4	75.9	24.3	0.8	26	5.4		
TANN	e P	Z	03:22:11.7	76.3	27.1	0.8	5	4.7		
MOX	e P	Z	03:22:11.9	76.4	26.6	1.0	15	5.1		
UBBA	e P	Z	03:22:13.4	76.7	25.6	0.8	5	4.8		
BUG	e P	Z	03:22:14.4	76.8	23.9	0.9	22	5.3		
ROTZ	e P	Z	03:22:15.7	77.0	26.8	0.8	15	5.2		
GRA1	e P	Z	03:22:17.8	77.3	26.2	0.7	42	5.6		
WET	e P	Z	03:22:17.7	77.3	27.2	0.9	23	5.3		
GEC2	e P	Z	03:22:17.3	77.4	27.7	0.8	11	5.0		
TNS	e P	Z	03:22:19.1	77.6	24.5	0.8	24	5.4		
RJOB	e P	Z	03:22:24.7	78.6	27.0	0.8	19	5.2		
FUR	e P	Z	03:22:25.0	78.7	26.1	0.9	36	5.4		
WLF	e P	Z	03:22:25.3	78.7	23.0	0.9	9	4.8		
STU	e P	Z	03:22:25.0	78.7	24.9	0.8	21	5.2		
BFO	e P	Z	03:22:28.5	79.4	24.3	0.9	21	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/10	03:50:17.5	19.866S	177.911W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	04:09:51.9	145.4	13.7					
CLZ	e PKPbc	Z	04:09:57.6	147.4	14.6					
CLL	e PKPbc	Z	04:09:57.5	147.4	19.3					
BRG	e PKPbc	Z	04:09:58.1	147.6	21.1					
NEUB	e PKPbc	Z	04:09:58.4	147.7	17.2					
MOX	e PKPbc	Z	04:09:59.6	148.3	17.2					
TANN	e PKPbc	Z	04:10:00.1	148.4	18.8					
UBBA	e PKPbc	Z	04:09:59.4	148.4	14.3					
ROTZ	e PKPbc	Z	04:10:01.7	149.0	18.7					
TNS	e PKPbc	Z	04:10:02.5	149.2	11.7					
GRA1	e PKPbc	Z	04:10:02.7	149.3	17.0					
GEC2	e PKPbc	Z	04:10:02.7	149.6	21.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/10	14:57:29.9	22.674S	177.390W	33.0				SZGRF
South of Fiji Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	15:17:12.2	148.2	13.6					
NRDL	e PKPbc	Z	15:17:15.8	149.6	13.8					
IBBN	e PKPab	Z	15:17:21.6	150.1	9.6					
CLZ	e PKPbc	Z	15:17:17.8	150.2	14.5					
CLL	e PKPbc	Z	15:17:17.4	150.3	19.6					
	e PKPab	Z	15:17:22.6							
BRG	e PKPbc	Z	15:17:18.0	150.5	21.6					
	e PKPab	Z	15:17:23.7							
NEUB	e PKPbc	Z	15:17:18.5	150.6	17.4					
BUG	e PKPbc	Z	15:17:19.2	151.0	8.9					
	e PKPab	Z	15:17:26.6							
MOX	e PKPbc	Z	15:17:19.7	151.2	17.4					
	e PKPab	Z	15:17:25.9							
TANN	e PKPbc	Z	15:17:20.0	151.2	19.1					
	e PKPab	Z	15:17:26.7							
UBBA	e PKPbc	Z	15:17:19.8	151.3	14.3					
	e PKPab	Z	15:17:26.6							
ROTZ	e PKPbc	Z	15:17:21.6	151.9	19.0					
TNS	e PKPbc	Z	15:17:22.1	152.1	11.6					
	e PKPab	Z	15:17:31.0							
GRA1	e PKPbc	Z	15:17:22.2	152.1	17.2					
	e PKPab	Z	15:17:31.4							
WET	e PKPbc	Z	15:17:22.3	152.3	20.7					
	e PKPab	Z	15:17:32.0							
GEC2	e PKPbc	Z	15:17:22.5	152.4	22.5					
WLF	e PKPbc	Z	15:17:24.4	152.9	7.2					

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STU	e PKPbc	Z	15:17:24.9	153.4	13.7
	e PKPab	Z	15:17:34.8		
FUR	e PKPbc	Z	15:17:25.1	153.6	18.2
	e PKPab	Z	15:17:36.4		
RJOB	e PKPbc	Z	15:17:24.9	153.6	21.6
BFO	e PKPbc	Z	15:17:25.9	153.9	12.1
	e PKPab	Z	15:17:38.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/10	15:46:18.6	42.342N	13.378E	10.0G				EMSC
Central Italy								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 15:47:40.6	5.4	175.4					
	e Sn	Z 15:48:43.8							
GEC2	e Pn	Z 15:47:54.4	6.5	182.1					
	e Sn	Z 15:49:07.2							
WET	e Pn	Z 15:47:59.3	6.8	176.9					
	e Sn	Z 15:49:12.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/12	01:54:43.4	47.792N	150.991E	33.0G	4.7			SZGRF
Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 02:06:10.2	73.0	26.4	0.9	7	4.7		
NRDL	e P	Z 02:06:17.7	74.3	26.1	0.9	6	4.6		
CLL	e P	Z 02:06:18.7	74.6	27.8	0.9	10	4.9		
BRG	e P	Z 02:06:19.5	74.7	28.3	0.9	3	4.4		
CLZ	e P	Z 02:06:21.2	74.8	26.2	0.9	10	4.8		
NEUB	e P	Z 02:06:22.0	75.0	27.0	1.0	11	5.0		
IBBN	e P	Z 02:06:22.4	75.1	24.6	0.8	9	4.9		
TANN	e P	Z 02:06:24.4	75.5	27.4	0.8	2	4.3		
MOX	e P	Z 02:06:24.7	75.6	26.9	1.0	6	4.7		
UBBA	e P	Z 02:06:26.1	75.9	25.9	0.8	2	4.2		
BUG	e P	Z 02:06:27.4	76.0	24.2	0.9	9	4.9		
ROTZ	e P	Z 02:06:28.6	76.2	27.1	0.9	6	4.8		
WET	e P	Z 02:06:30.6	76.5	27.5	0.9	10	4.9		
GRA1	e P	Z 02:06:30.6	76.5	26.5	0.9	13	5.1		
GEC2	e P	Z 02:06:30.3	76.5	27.9	0.9	4	4.5		
TNS	e P	Z 02:06:32.1	76.8	24.8	0.8	8	4.9		
RJOB	e P	Z 02:06:37.7	77.8	27.3	0.9	6	4.7		
FUR	e P	Z 02:06:37.8	77.9	26.4	0.9	12	5.0		
STU	e P	Z 02:06:38.0	77.9	25.1	0.9	7	4.7		
BFO	e P	Z 02:06:41.3	78.6	24.6	0.9	8	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/12	04:49:28.3	18.256S	177.514W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	05:08:58.3	143.8	12.7					
NRDL	e PKPbc	Z	05:09:03.0	145.2	12.8					
IBBN	e PKPbc	Z	05:09:04.6	145.7	8.9					
CLZ	e PKPbc	Z	05:09:05.2	145.8	13.4					
CLL	e PKPbc	Z	05:09:05.0	145.9	18.0					
BRG	e PKPbc	Z	05:09:05.7	146.1	19.8					
NEUB	e PKPbc	Z	05:09:05.7	146.2	16.0					
BUG	e PKPbc	Z	05:09:06.8	146.6	8.3					
TANN	e PKPbc	Z	05:09:07.9	146.9	17.5					
UBBA	e PKPbc	Z	05:09:07.4	146.9	13.1					
ROTZ	e PKPbc	Z	05:09:10.0	147.5	17.4					
TNS	e PKPbc	Z	05:09:10.3	147.7	10.6					
WET	e PKPbc	Z	05:09:10.4	148.0	18.9					
GEC2	e PKPbc	Z	05:09:11.1	148.1	20.5					
WLF	e PKPbc	Z	05:09:12.8	148.5	6.7					
STU	e PKPbc	Z	05:09:13.6	149.0	12.4					
FUR	e PKPbc	Z	05:09:14.1	149.2	16.5					
RJOB	e PKPbc	Z	05:09:14.0	149.3	19.5					
BFO	e PKPbc	Z	05:09:14.8	149.6	11.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/12	08:13: 5.9	46.414N	12.916E	10.0G			3.0	SZGRF

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
KBA	e Pg	Z	08:13:18.3	0.7	204.0					2.5
	e Sg	Z	08:13:29.5							
OBKA	e Pg	Z	08:13:25.5	1.1	265.8					2.5
	e Sg	N	08:13:44.4							
WTTA	e Pn	Z	08:13:26.3	1.2	133.7					2.8
	e Sn	N	08:13:43.2							
RJOB	e Pn	Z	08:13:29.1	1.3	176.4					2.6
	e Sg	N	08:13:48.1							
MOA	e Pg	Z	08:13:36.7	1.7	213.1					2.5
	e Sg	N	08:14:01.3							
ARSA	e Pn	Z	08:13:39.0	2.0	245.8					2.1
	e Sg	N	08:14:08.0							
OBER	e Pn	Z	08:13:41.5	2.0	118.0					3.0
	e Sg	N	08:14:10.9							

FUR	e Pn	Z	08:13:40.6	2.1	146.9	3.5
	e Sg	E	08:14:12.1			
DAVA	e Pn	Z	08:13:44.5	2.3	111.7	3.1
	e Sg	N	08:14:16.5			
GEC2	e Pn	Z	08:13:46.1	2.5	192.6	2.9
	e Sg	N	08:14:25.1			
WET	e Pn	Z	08:13:49.1	2.7	179.5	2.8
	e Sg	Z	08:14:31.9			
ROTZ	e Pn	Z	08:13:57.4	3.4	171.7	3.1
	e Pg	Z	08:14:09.6			
	e Sg	N	08:14:53.5			
STU	e Pn	Z	08:13:59.2	3.4	131.8	
GRA1	e Pn	Z	08:13:58.5	3.5	160.3	
	e Pg	Z	08:14:10.2			
BFO	e Pn	Z	08:14:01.7	3.6	120.0	
NKC	e Sg	N	08:15:06.7	3.8	175.2	3.4
WERN	e Pn	Z	08:14:05.2	3.9	174.5	3.2
	e Sg	Z	08:15:08.7			
GUNZ	e Pn	Z	08:14:06.5	4.0	174.2	3.3
	e Sg	E	08:15:11.4			
TANN	e Pn	Z	08:14:06.7	4.0	175.5	3.3
	e Sg	N	08:15:14.8			
WERD	e Pn	Z	08:14:07.4	4.1	174.0	3.2
	e Sg	N	08:15:13.0			
PLN	e Pn	Z	08:14:08.5	4.1	172.7	4.1
	e Sg	E	08:15:16.5			
MOX	e Pn	Z	08:14:10.4	4.3	168.0	
	e Sg	N	08:15:23.6			
FBE	e Sg	E	08:15:27.6	4.5	183.8	
DPC	e Sg	N	08:15:30.2	4.5	211.2	
TNS	e Pn	Z	08:14:19.0	4.8	140.3	
NEUB	e Sg	E	08:15:41.3	4.9	170.7	
CLL	e Pn	Z	08:14:18.4	4.9	180.7	
	e Sg	N	08:15:40.3			
WLF	e Pn	Z	08:14:30.4	5.6	123.2	
	e Sg	N	08:16:02.3			
CLZ	e Sg	Z	08:16:08.0	5.7	162.0	

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/12 11:22:31.4 18.108S 179.977W 33.0G
 Fiji Islands region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	11:41:57.8	143.3	16.5					
NRDL	e PKPbc	Z	11:42:02.4	144.7	16.7					
CLL	e PKPbc	Z	11:42:04.7	145.2	22.0					
IBBN	e PKPbc	Z	11:42:04.9	145.3	13.0					

CLZ	e	PKPbc	Z	11:42:03.9	145.3	17.5
BRG	e	PKPbc	Z	11:42:04.4	145.4	23.8
NEUB	e	PKPbc	Z	11:42:06.4	145.6	20.0
MOX	e	PKPbc	Z	11:42:05.5	146.2	20.1
TANN	e	PKPbc	Z	11:42:06.2	146.2	21.6
UBBA	e	PKPbc	Z	11:42:07.6	146.3	17.3
GRA1	e	PKPbc	Z	11:42:10.7	147.2	19.9
TNS	e	PKPbc	Z	11:42:10.4	147.2	14.9
WET	e	PKPbc	Z	11:42:10.4	147.3	23.0
GEC2	e	PKPbc	Z	11:42:10.8	147.3	24.6
WLF	e	PKPbc	Z	11:42:12.5	148.1	11.1
STU	e	PKPbc	Z	11:42:13.8	148.4	16.8
RJOB	e	PKPbc	Z	11:42:13.3	148.6	23.8
BFO	e	PKPbc	Z	11:42:14.5	149.0	15.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/12	17:25:36.5	22.418S	172.059E	33.0N				SZGRF
Southeast of Loyalty Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e	PKPbc	Z 17:45:15.0	146.8	39.0					
CLL	e	PKPbc	Z 17:45:15.0	146.9	37.2					
NRDL	e	PKPbc	Z 17:45:15.4	146.9	31.6					
CLZ	e	PKPbc	Z 17:45:17.1	147.4	32.6					
IBBN	e	PKPbc	Z 17:45:18.4	147.8	28.0					
TANN	e	PKPbc	Z 17:45:18.0	147.8	37.2					
MOX	e	PKPbc	Z 17:45:18.4	147.9	35.6					
ROTZ	e	PKPbc	Z 17:45:19.7	148.4	37.4					
GEC2	e	PKPbc	Z 17:45:19.9	148.5	40.7					
WET	e	PKPbc	Z 17:45:20.6	148.6	39.1					
RJOB	e	PKPbc	Z 17:45:23.7	149.7	40.5					
STU	e	PKPbc	Z 17:45:24.0	150.3	33.4					
WLF	e	PKPbc	Z 17:45:25.9	150.6	27.3					
BFO	e	PKPbc	Z 17:45:26.6	151.0	32.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/13	05:30:40.1	18.740S	179.850W	33.0G				SZGRF
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPbc	Z 05:49:10.7	143.9	16.5					
HLG	e	PKPbc	Z 05:49:11.6	144.1	12.5					
RUE	e	PKPbc	Z 05:49:13.4	144.6	22.7					
IBBN	e	PKPbc	Z 05:49:17.4	145.9	12.9					
BRG	e	PKPbc	Z 05:49:18.3	146.1	23.8					

FBE	e	PKPbc	Z	05:49:18.7	146.2	22.9
NEUB	e	PKPdf	Z	05:49:17.0	146.3	20.1
	e	PKPbc	Z	05:49:18.6		
MOX	e	PKPdf	Z	05:49:17.7	146.8	20.1
	e	PKPbc	Z	05:49:20.5		
BUG	e	PKPdf	Z	05:49:17.5	146.8	12.4
	e	PKPbc	Z	05:49:20.1		
TANN	e	PKPdf	Z	05:49:18.0	146.8	21.7
	e	PKPbc	Z	05:49:21.0		
PLN	e	PKPdf	Z	05:49:17.9	146.8	21.1
	e	PKPbc	Z	05:49:20.5		
WERD	e	PKPdf	Z	05:49:18.1	146.8	21.4
	e	PKPbc	Z	05:49:20.6		
GUNZ	e	PKPbc	Z	05:49:20.6	146.9	21.5
WERN	e	PKPbc	Z	05:49:21.1	147.0	21.6
	e	PKPab	Z	05:49:23.6		
UBBA	e	PKPdf	Z	05:49:17.8	147.0	17.3
	e	PKPbc	Z	05:49:20.3		
ROTZ	e	PKPbc	Z	05:49:22.7	147.5	21.6
GRA1	e	PKPbc	Z	05:49:23.4	147.8	20.0
TNS	e	PKPbc	Z	05:49:23.0	147.8	14.9
	e	PKPab	Z	05:49:26.1		
WET	e	PKPdf	Z	05:49:20.0	147.9	23.1
	e	PKPbc	Z	05:49:23.6		
	e	PKPab	Z	05:49:26.9		
GEC2	e	PKPbc	Z	05:49:23.8	148.0	24.7
	e	PKPab	Z	05:49:27.7		
WLF	e	PKPbc	Z	05:49:25.4	148.7	11.0
STU	e	PKPdf	Z	05:49:22.0	149.1	16.8
	e	PKPbc	Z	05:49:26.4		
	e	PKPab	Z	05:49:30.9		
FUR	e	PKPbc	Z	05:49:27.0	149.2	20.9
	e	PKPab	Z	05:49:32.4		
RJOB	e	PKPbc	Z	05:49:26.8	149.2	23.9
BFO	e	PKPdf	Z	05:49:22.4	149.7	15.5
	e	PKPbc	Z	05:49:27.6		
	e	PKPab	Z	05:49:33.7		

Date 2009/04/13
 Origin Time 19:09:50.5
 Lat 42.335N
 Long 13.326E
 Depth 10.0G
 mb
 Ms
 ML
 Source EMSC
 Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	19:11:12.0	5.4	175.8					
	e Sn	Z	19:12:14.8							
GEC2	e Pn	Z	19:11:25.4	6.5	182.4					
	e Sn	Z	19:12:38.8							

WET	e Pn	Z	19:11:30.3	6.8	177.2
	e Sn	Z	19:12:43.3		
BFO	e Pn	Z	19:11:32.7	6.9	147.8
GUNZ	e Pn	Z	19:11:49.1	8.1	174.7
TANN	e Pn	Z	19:11:49.6	8.1	175.5
WERD	e Pn	Z	19:11:49.6	8.1	174.7
MOX	e Pn	Z	19:11:51.3	8.4	171.3
	e Sn	Z	19:13:21.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/13	21:14:25.7	42.541N	13.344E	10.0G				EMSC
Central Italy								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	21:15:44.6	5.2	175.5					
	e Sn	Z	21:16:48.6							
OBER	e Pn	Z	21:15:47.4	5.3	155.0					
	e Sn	Z	21:16:50.1							
GEC2	e Pn	Z	21:15:58.4	6.3	182.4					
WET	e Pn	Z	21:16:02.2	6.6	177.0					
	e Sn	Z	21:17:15.6							
BFO	e Pn	Z	21:16:05.3	6.8	146.9					
	e Sn	Z	21:17:21.9							
ROTZ	e Pn	Z	21:16:11.7	7.3	173.4					
	e Sn	Z	21:17:30.1							
GRA1	e Pn	Z	21:16:11.9	7.3	167.6					
WERN	e Pn	Z	21:16:18.3	7.8	174.7					
GUNZ	e Pn	Z	21:16:19.8	7.9	174.5					
TANN	e Pn	Z	21:16:19.5	7.9	175.3					
WERD	e Pn	Z	21:16:20.8	7.9	174.5					
PLN	e Pn	Z	21:16:20.9	8.0	173.7					
MOX	e Pn	Z	21:16:23.1	8.2	171.0					
BRG	e Pn	Z	21:16:25.0	8.3	183.0					
FBE	e Pn	Z	21:16:28.3	8.4	180.1					
	e Sn	Z	21:17:57.2							
UBBA	e Pn	Z	21:16:29.9	8.6	163.3					
WLF	e Pn	Z	21:16:32.7	8.7	142.4					
NEUB	e Pn	Z	21:16:31.7	8.7	172.4					
	e Sn	Z	21:18:10.0							
CLL	e Pn	Z	21:16:31.2	8.8	178.3					
CLZ	e Pn	Z	21:16:43.6	9.5	166.6					
BUG	e Pn	Z	21:16:48.2	9.8	152.8					
NRDL	e Pn	Z	21:16:53.0	10.2	166.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2009/04/14 01:48:37.7 0.935S 18.422W 33.0N 4.5 SZGRF
Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z	01:58:02.6	54.5	213.6	0.8	3	4.4		
WLF	e P	Z	01:58:04.4	54.8	210.6	1.3	11	4.7		
FUR	e P	Z	01:58:10.1	55.4	217.0	0.9	8	4.7		
RJOB	e P	Z	01:58:11.6	55.7	218.8	0.8	6	4.7		
TNS	e P	Z	01:58:14.2	56.1	213.0	0.7	3	4.5		
GRA1	e P	Z	01:58:18.0	56.7	216.3	0.9	4	4.4		
BUG	e P	Z	01:58:18.7	56.7	211.2	0.8	4	4.5		
WET	e P	Z	01:58:20.2	56.9	218.3	0.8	5	4.6		
GEC2	e P	Z	01:58:21.1	57.0	219.4	0.8	3	4.3		
ROTZ	e P	Z	01:58:21.2	57.1	217.4	1.0	2	4.1		
MOX	e P	Z	01:58:25.2	57.6	216.4	0.9	3	4.3		
IBBN	e P	Z	01:58:25.0	57.6	211.5	0.9	4	4.5		
TANN	e P	Z	01:58:26.1	57.7	217.4	0.8	3	4.4		
NEUB	e P	Z	01:58:29.1	58.1	216.3	0.7	5	4.6		
NRDL	e P	Z	01:58:32.1	58.5	214.0	1.0	3	4.3		
BRG	e P	Z	01:58:32.5	58.6	218.8	0.7	2	4.2		
BSEG	e P	Z	01:58:40.2	59.8	213.8	0.8	17	5.1		

Date Origin Time Lat Long Depth mb Ms ML Source
2009/04/14 03:04:20.3 49.060N 154.810E 33.0G 5.3 5.1 ML SZGRF
Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	03:15:47.2	71.5	25.5	0.7	41	5.7		
BSEG	e P	Z	03:15:54.8	72.7	23.5	0.8	21	5.3		
HLG	e P	Z	03:15:56.7	73.1	21.9	0.9	33	5.5		
NRDL	e P	Z	03:16:02.4	74.1	23.2	0.9	16	5.1		
CLL	e P	Z	03:16:04.2	74.5	24.9	0.8	24	5.3		
BRG	e P	Z	03:16:05.1	74.6	25.4	1.0	13	4.9		
CLZ	e P	Z	03:16:06.0	74.7	23.3	0.9	34	5.4		
IBBN	e P	Z	03:16:06.6	74.8	21.7	0.9	34	5.4		
NEUB	e P	Z	03:16:06.6	74.9	24.1	0.8	16	5.1		
TANN	e P	Z	03:16:10.1	75.4	24.4	0.8	5	4.7		
MOX	e P	Z	03:16:10.0	75.4	23.9	0.9	16	5.2		
UBBA	e P	Z	03:16:11.1	75.7	22.9	0.9	10	5.0		
BUG	e P	Z	03:16:11.8	75.8	21.3	0.9	37	5.5		
ROTZ	e P	Z	03:16:13.9	76.1	24.2	0.9	18	5.2		
GRA1	e P	Z	03:16:16.1	76.4	23.6	0.8	35	5.5		
	e L	Z	03:53:38.9			20.6	909		5.1	
WET	e P	Z	03:16:16.3	76.5	24.6	0.8	19	5.3		
GEC2	e P	Z	03:16:16.2	76.5	25.0	0.8	9	5.0		
TNS	e P	Z	03:16:16.9	76.6	21.9	0.8	34	5.6		
WLF	e P	Z	03:16:22.8	77.7	20.4	1.3	49	5.5		

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RJOB	e P	Z	03:16:23.7	77.8	24.4	0.8	16	5.2
STU	e P	Z	03:16:23.2	77.8	22.2	1.1	44	5.5
FUR	e P	Z	03:16:23.7	77.8	23.5	0.9	35	5.5
BFO	e P	Z	03:16:26.6	78.4	21.7	1.0	32	5.3

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/14	06:14:15.7	34.202N	23.690E	33.0N	4.0			EMSC
Crete, Greece								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 06:18:04.9	16.4	149.5	0.8	13	4.1		
FUR	e P	Z 06:18:12.0	16.8	141.9	0.7	33	4.6		
WET	e P	Z 06:18:11.9	16.9	147.8	0.8	7	3.9		
ROTZ	e P	Z 06:18:22.1	17.7	147.2	0.8	8	3.9		
BRG	e P	Z 06:18:27.8	18.1	153.2	0.8	7	3.8		
TANN	e P	Z 06:18:27.5	18.2	148.9	0.8	5	3.7		
BFO	e P	Z 06:18:29.5	18.2	135.4	0.7	6	3.8		
MOX	e P	Z 06:18:33.6	18.6	147.2	0.8	6	3.9		
CLL	e P	Z 06:18:35.3	18.8	151.5	0.9	14	4.2		
UBBA	e P	Z 06:18:43.6	19.4	143.8	0.7	3	3.7		
CLZ	e P	Z 06:18:48.5	20.1	146.3	0.7	6	3.9		
WLF	e P	Z 06:18:51.7	20.1	133.6	0.9	14	4.2		
NRDL	e P	Z 06:19:00.0	20.7	146.7	0.8	8	4.1		
BSEG	e P	Z 06:19:06.2	21.9	149.1	0.8	21	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/14	12:48:57.0	30.391S	177.944W	5.0G				NEIC
Kermadec Islands, New Zealand								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPab	Z 13:09:10.8	154.5	23.1					
BSEG	e PKPab	Z 13:09:16.3	155.7	17.5					
CLL	e PKPab	Z 13:09:24.3	157.6	25.4					
BRG	e PKPab	Z 13:09:25.1	157.7	27.9					
IBBN	e PKPab	Z 13:09:25.3	157.7	13.0					
CLZ	e PKPab	Z 13:09:24.9	157.7	19.2					
TANN	e PKPab	Z 13:09:28.9	158.5	25.2					
MOX	e PKPab	Z 13:09:28.7	158.5	23.0					
UBBA	e PKPab	Z 13:09:28.7	158.7	19.2					
ROTZ	e PKPab	Z 13:09:31.8	159.2	25.3					
WET	e PKPab	Z 13:09:33.4	159.5	27.6					
GEC2	e PKPab	Z 13:09:33.0	159.5	29.9					
RJOB	e PKPab	Z 13:09:38.8	160.8	29.3					
FUR	e PKPab	Z 13:09:39.1	160.9	25.0					
BFO	e PKPab	Z 13:09:41.3	161.4	17.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/14	13:05:16.1	47.910N	150.907E	33.0G	4.7			SZGRF
Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z 13:16:50.1	74.2	26.1	0.8	6	4.7		
CLL	e P	Z 13:16:50.9	74.4	27.8	0.8	8	4.8		
BRG	e P	Z 13:16:51.8	74.5	28.3	0.8	4	4.4		
CLZ	e P	Z 13:16:53.3	74.7	26.2	0.8	8	4.8		
TANN	e P	Z 13:16:56.6	75.4	27.4	0.7	2	4.4		
MOX	e P	Z 13:16:56.9	75.4	26.9	0.9	4	4.6		
UBBA	e P	Z 13:16:58.7	75.7	25.9	0.8	2	4.4		
ROTZ	e P	Z 13:17:00.6	76.0	27.1	0.8	5	4.7		
WET	e P	Z 13:17:02.6	76.4	27.5	0.9	8	4.9		
GRA1	e P	Z 13:17:02.6	76.4	26.5	0.7	15	5.2		
GEC2	e P	Z 13:17:02.4	76.4	27.9	0.8	4	4.6		
RJOB	e P	Z 13:17:10.1	77.7	27.3	0.8	6	4.7		
BFO	e P	Z 13:17:13.5	78.4	24.6	0.8	7	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/14	13:56:23.0	42.529N	13.259E	10.0G				EMSC
Central Italy								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 13:57:42.0	5.2	176.2					
	e Sn	Z 13:58:39.9							
GEC2	e Pn	Z 13:57:55.6	6.3	183.0					
	e Sn	Z 13:59:04.5							
BFO	e Pn	Z 13:58:02.0	6.8	147.4					
	e Sn	Z 13:59:16.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/14	17:27:34.6	42.625N	13.218E	10.0G				EMSC
Central Italy								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 13:57:42.0	5.1	176.5					
	e Sn	N 13:58:40.6							
OBER	e Pn	Z 13:57:42.7	5.2	155.6					
	e Sn	N 13:58:43.0							
GEC2	e Pn	Z 13:57:53.9	6.2	183.3					
	e Sn	E 13:59:04.7							

BFO	e Pn	Z	13:58:02.0	6.7	147.2
	e Sn	E	13:59:14.1		
ROTZ	e Sn	E	13:59:25.9	7.2	174.0
GRA1	e Sn	E	13:59:28.3	7.2	168.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/14	14:22: 8.4	16.836S	178.739W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	14:41:37.2	143.7	14.4					
CLL	e PKPbc	Z	14:41:37.7	144.3	19.5					
BRG	e PKPbc	Z	14:41:38.7	144.5	21.2					
MOX	e PKPbc	Z	14:41:40.7	145.2	17.5					
TANN	e PKPbc	Z	14:41:40.9	145.2	19.0					
UBBA	e PKPbc	Z	14:41:41.0	145.3	14.8					
ROTZ	e PKPbc	Z	14:41:43.6	145.9	18.9					
WET	e PKPbc	Z	14:41:44.5	146.3	20.4					
GEC2	e PKPbc	Z	14:41:44.8	146.4	21.9					
WLF	e PKPbc	Z	14:41:46.9	146.9	8.6					
RJOB	e PKPbc	Z	14:41:48.2	147.7	21.0					
BFO	e PKPbc	Z	14:41:49.1	148.0	12.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/14	20:17:28.9	42.527N	13.242E	10.0G				EMSC

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	20:18:47.0	5.2	176.4					
	e Sn	N	20:19:47.0							
OBER	e Pn	Z	20:18:49.0	5.3	155.8					
	e Sn	N	20:19:49.6							
FUR	e Sn	E	20:20:00.2	5.8	165.5					
GEC2	e Pn	Z	20:19:00.6	6.3	183.1					
	e Sn	N	20:20:10.6							
WET	e Pn	Z	20:19:04.1	6.6	177.7					
	e Sn	N	20:20:16.6							
BFO	e Pn	Z	20:19:06.7	6.7	147.5					
	e Sn	Z	20:20:20.9							
ROTZ	e Sn	N	20:20:30.7	7.3	174.0					
GRA1	e Sn	E	20:20:31.9	7.3	168.2					
GUNZ	e Pn	Z	20:19:21.7	7.9	175.1					
	e Sn	N	20:20:47.0							
TANN	e Pn	Z	20:19:22.5	7.9	175.8					
	e Sn	N	20:20:48.2							

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MOX	e Pn	Z	20:19:26.2	8.2	171.6
	e Sn	N	20:20:53.4		
TNS	e Pn	Z	20:19:30.1	8.4	155.0
	e Sn	N	20:20:58.8		
FBE	e Sn	N	20:20:59.3	8.4	180.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/14	23:29:28.5	18.406S	176.408W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	23:49:04.1	145.5	11.0					
CLZ	e PKPbc	Z	23:49:08.1	146.1	11.6					
CLL	e PKPbc	Z	23:49:07.3	146.3	16.2					
BUG	e PKPbc	Z	23:49:10.7	146.8	6.4					
MOX	e PKPbc	Z	23:49:12.8	147.1	14.1					
UBBA	e PKPbc	Z	23:49:11.8	147.2	11.3					
TANN	e PKPbc	Z	23:49:10.3	147.2	15.7					
ROTZ	e PKPbc	Z	23:49:11.6	147.9	15.5					
TNS	e PKPbc	Z	23:49:11.6	147.9	8.7					
GRA1	e PKPbc	Z	23:49:10.5	148.1	13.8					
WET	e PKPbc	Z	23:49:12.5	148.4	17.0					
GEC2	e PKPbc	Z	23:49:13.2	148.5	18.6					
WLF	e PKPbc	Z	23:49:12.8	148.7	4.7					
STU	e PKPbc	Z	23:49:16.4	149.3	10.5					
RJOB	e PKPbc	Z	23:49:17.1	149.7	17.5					
BFO	e PKPbc	Z	23:49:17.4	149.8	9.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/15	06:55:11.3	82.480N	101.210W	24.0	4.4			SZGRF

Arctic Ocean

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	07:02:40.1	39.4	348.9	0.9	10	4.5		
	e pP	Z	07:02:46.3							
NRDL	e P	Z	07:02:51.1	40.8	349.2	0.9	6	4.3		
	e pP	Z	07:02:57.9							
CLZ	e P	Z	07:02:56.9	41.4	349.4	0.8	6	4.4		
	e pP	Z	07:03:03.7							
NEUB	e pP	Z	07:03:09.9	42.2	349.7					
CLL	e P	Z	07:03:03.1	42.2	349.8	0.8	7	4.4		
	e pP	Z	07:03:09.9							
UBBA	e P	Z	07:03:04.5	42.4	349.6	0.8	3	4.1		
	e pP	Z	07:03:10.9							
MOX	e P	Z	07:03:07.9	42.7	349.8	0.7	5	4.4		

	e pP	Z	07:03:13.7							
BRG	e P	Z	07:03:08.1	42.8	350.0	0.9	6	4.4		
	e pP	Z	07:03:14.5							
TNS	e P	Z	07:03:08.2	42.8	349.5	0.8	4	4.2		
	e pP	Z	07:03:14.2							
TANN	e P	Z	07:03:09.8	43.1	349.9	0.8	5	4.3		
	e pP	Z	07:03:16.1							
WLF	e P	Z	07:03:10.5	43.1	349.5	0.7	6	4.5		
	e pP	Z	07:03:16.5							
GRA1	e P	Z	07:03:15.6	43.6	349.9	0.8	8	4.5		
	e pP	Z	07:03:21.3							
ROTZ	e P	Z	07:03:15.5	43.7	350.0	0.8	3	4.0		
	e pP	Z	07:03:21.8							
WET	e P	Z	07:03:20.4	44.4	350.2	0.8	4	4.4		
	e pP	Z	07:03:27.1							
BFO	e P	Z	07:03:22.6	44.6	349.9	0.8	5	4.5		
GEC2	e P	Z	07:03:24.2	44.8	350.3	0.7	3	4.3		
	e pP	Z	07:03:30.3							
RJOB	e P	Z	07:03:31.2	45.7	350.4	0.6	2	4.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/15	17:47:36.2	2.050S	99.460E	31.2	5.0			SZGRF
Southern Sumatera, Indonesia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 18:00:27.5	88.8	94.5	1.1	14	5.1		
BRG	e P	Z 18:00:27.5	88.8	94.8	0.9	9	5.0		
RUE	e P	Z 18:00:29.2	89.0	94.7	0.8	24	5.5		
	e pP	Z 18:00:38.8							
RJOB	e P	Z 18:00:29.7	89.3	93.8	0.8	7	4.9		
WET	e P	Z 18:00:30.2	89.3	93.9	0.9	11	5.1		
	e pP	Z 18:00:38.7							
CLL	e P	Z 18:00:29.5	89.4	94.0	1.1	12	5.0		
	e pP	Z 18:00:39.1							
TANN	e P	Z 18:00:32.2	89.7	93.6	1.1	6	4.8		
	e pP	Z 18:00:40.6							
ROTZ	e P	Z 18:00:32.7	89.8	93.4	0.9	7	4.9		
MANZ	e P	Z 18:00:33.0	89.9	93.3	0.9	10	5.0		
	e pP	Z 18:00:41.8							
NEUB	e P	Z 18:00:33.6	90.1	93.1	0.8	13	5.2		
MOX	e P	Z 18:00:34.6	90.2	93.0	0.9	6	4.8		
	e pP	Z 18:00:44.0							
GRA1	e P	Z 18:00:35.4	90.4	92.7	0.9	10	5.0		
CLZ	e P	Z 18:00:38.1	91.0	92.0	1.0	8	5.0		
TNS	e P	Z 18:00:43.8	92.2	90.5	0.9	11	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/15	20:01:38.3	3.275S	100.066E	37.2	5.5	6.3		SZGRF

Southern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	20:14:34.3	90.1	94.9	1.1	43	5.6		
	e pP	Z	20:14:45.1							
BRG	e P	Z	20:14:34.4	90.1	95.1	1.0	37	5.6		
	e pP	Z	20:14:45.3							
RUE	e P	Z	20:14:35.3	90.3	94.9	1.0	101	6.0		
	e pP	Z	20:14:46.1							
RJOB	e P	Z	20:14:35.9	90.6	94.2	0.8	12	5.3		
WET	e P	Z	20:14:36.8	90.6	94.3	1.0	34	5.6		
	e pP	Z	20:14:47.9							
CLL	e P	Z	20:14:36.6	90.7	94.3	1.1	36	5.6		
	e pP	Z	20:14:47.6							
TANN	e P	Z	20:14:38.4	91.0	93.9	1.1	21	5.4		
ROTZ	e P	Z	20:14:39.5	91.1	93.7	1.1	29	5.5		
	e pP	Z	20:14:50.3							
MANZ	e P	Z	20:14:39.8	91.2	93.7	1.1	44	5.7		
	e pP	Z	20:14:50.7							
NEUB	e P	Z	20:14:40.4	91.5	93.4	1.0	49	5.8		
	e pP	Z	20:14:50.6							
MOX	e P	Z	20:14:41.0	91.6	93.3	1.1	31	5.5		
	e pP	Z	20:14:51.8							
FUR	e P	Z	20:14:40.5	91.6	93.1					
	e pP	Z	20:14:51.9							
GRA1	e P	Z	20:14:42.3	91.7	93.0	1.1	36	5.6		
	e pP	Z	20:14:53.1							
CLZ	e L	Z	21:04:21.4	92.4	92.3	19.1	9503	5.5	6.3	
	e P	Z	20:14:44.4							
BSEG	e pP	Z	20:14:55.7	92.5	92.1	1.0	30	5.6		
	e P	Z	20:14:44.5							
NRDL	e pP	Z	20:14:56.1	92.6	92.0					
	e P	Z	20:14:56.5							
UBBA	e P	Z	20:14:45.3	92.6	92.0	1.6	58	5.8		
	e pP	Z	20:14:50.3							
TNS	e P	Z	20:14:50.3	93.6	90.9	0.9	27	5.6		
	e pP	Z	20:15:01.2							
BFO	e P	Z	20:14:50.1	93.6	90.9	1.0	8	5.0		
	e pP	Z	20:15:00.7							
BUG	e P	Z	20:14:54.2	94.3	89.9	0.9	7	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/15	22:53: 8.7	42.534N	13.293E	2.0G				EMSC

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	22:54:27.9	5.2	176.0					
	e Sn	N	22:55:28.3							
GEC2	e Pn	Z	22:54:41.7	6.3	182.7					
	e Sn	N	22:55:51.9							
WET	e Sn	E	22:55:56.6	6.6	177.3					
BFO	e Pn	Z	22:54:48.1	6.8	147.2					
	e Sn	N	22:55:59.8							
ROTZ	e Pn	Z	22:54:55.6	7.3	173.7					
	e Sn	E	22:56:10.2							
MANZ	e Pn	Z	22:54:58.5	7.5	173.3					
	e Sn	N	22:56:16.0							
WERN	e Sn	E	22:56:25.5	7.8	175.0					
WERD	e Sn	E	22:56:33.2	7.9	174.7					
MOX	e Pn	Z	22:55:07.5	8.2	171.3					
	e Sn	E	22:56:35.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/16	23:42:57.0	34.699N	70.108E	33.0G	5.1	3.9		SZGRF

Southeastern Afghanistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	23:50:57.9	43.1	89.7	1.0	31	5.0		
GEC2	e P	Z	23:50:59.5	43.3	87.3	1.1	16	4.7		
FBE	e P	Z	23:51:01.0	43.4	89.3	1.0	32	5.0		
CLL	e P	Z	23:51:02.2	43.7	89.4	1.1	16	4.6		
RJOB	e P	Z	23:51:05.4	44.0	85.5	0.9	12	4.7		
TANN	e P	Z	23:51:05.7	44.0	88.0	1.0	14	4.7		
WERN	e P	Z	23:51:06.0	44.1	87.9	0.9	10	4.6		
GUNZ	e P	Z	23:51:06.1	44.1	87.9	1.0	19	4.8		
WERD	e P	Z	23:51:06.4	44.1	88.0	1.0	17	4.8		
ROTZ	e P	Z	23:51:07.4	44.2	87.2	1.0	25	4.9		
PLN	e P	Z	23:51:06.8	44.2	87.9	1.1	103	5.5		
MANZ	e P	Z	23:51:07.2	44.3	87.3	1.1	33	5.0		
NEUB	e P	Z	23:51:07.8	44.4	88.3	1.0	42	5.3		
MOX	e P	Z	23:51:09.6	44.6	87.7	1.2	29	5.1		
GRA1	e P	Z	23:51:12.6	44.9	86.4	0.9	34	5.3		
BSEG	e P	Z	23:51:14.9	45.3	89.9	1.0	33	5.2		
CLZ	e P	Z	23:51:15.4	45.3	87.9	1.2	30	5.1		
NRDL	e P	Z	23:51:16.5	45.4	88.4	1.0	19	5.1		
STU	e P	Z	23:51:22.6	46.2	84.1					
IBBN	e P	Z	23:51:28.2	46.9	86.4	1.1	54	5.6		
BUG	e P	Z	23:51:30.6	47.2	85.2	1.2	36	5.4		
WLF	e P	Z	23:51:37.8	48.1	82.8	1.1	28	5.3		
GRA1	e L	Z	00:14:17.4	44.9	86.4	21.9	172		3.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/16	00:43:26.3	6.500S	154.100E	46.0				NEIC

Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z	01:02:21.7	124.8	50.8					
TANN	e PKPdf	Z	01:02:24.1	125.8	49.4					
CLZ	e PKPdf	Z	01:02:22.8	125.8	46.4					
GUNZ	e PKPdf	Z	01:02:23.9	125.9	49.3					
WERN	e PKPdf	Z	01:02:24.0	125.9	49.4					
GEC2	e PKPdf	Z	01:02:24.6	126.2	51.6					
MANZ	e PKPdf	Z	01:02:24.6	126.3	49.3					
WET	e PKPdf	Z	01:02:24.9	126.4	50.6					
STU	e PKPdf	Z	01:02:28.0	128.5	46.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/16	14:25:12.9	33.280N	27.520E	33.0G	4.3			SZGRF

Eastern Mediterranean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	14:29:27.6	18.7	141.4	0.6	13	4.3		
WET	e P	Z	14:29:35.0	19.2	140.1	0.7	11	4.2		
ROTZ	e P	Z	14:29:42.6	20.0	139.8	0.7	4	3.8		
BRG	e P	Z	14:29:46.1	20.2	145.4					
MANZ	e P	Z	14:29:45.0	20.2	140.0	0.8	6	3.9		
TANN	e P	Z	14:29:48.1	20.4	141.4	0.9	16	4.2		
GUNZ	e P	N	14:29:48.4	20.4	141.1					
WERD	e P	Z	14:29:48.3	20.5	141.2					
BFO	e P	Z	14:29:52.1	20.8	129.3	0.8	7	4.1		
CLL	e P	Z	14:29:53.8	20.9	144.0	0.9	13	4.2		
MOX	e P	Z	14:29:53.4	20.9	140.1	0.8	8	4.1		
UBBA	e P	Z	14:30:01.8	21.7	137.2	0.9	2	3.6		
TNS	e P	Z	14:30:04.0	22.0	133.2	0.7	10	4.4		
CLZ	e P	Z	14:30:08.4	22.3	139.6	0.8	10	4.3		
WLF	e P	Z	14:30:14.5	22.8	128.0	1.0	23	4.6		
NRDL	e P	Z	14:30:14.8	22.9	140.1	0.9	15	4.5		
BSEG	e P	Z	14:30:25.2	24.0	142.5	0.7	28	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/16	21:27:51.2	34.080N	70.300E	10.0G	5.7	4.7		SZGRF

Southeastern Afghanistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	21:35:56.7	43.6	90.2	1.2	109	5.4		

RUE	e P	Z	21:35:56.9	43.7	91.7	1.0	100	5.5	
	e PP	Z	21:37:38.8						
GEC2	e P	Z	21:35:57.8	43.8	87.9	1.2	56	5.2	
	e PP	Z	21:37:41.0						
FBE	e P	Z	21:36:00.0	44.0	89.8	1.3	142	5.5	
CLL	e P	Z	21:36:00.9	44.2	89.9	1.4	84	5.3	
WET	e P	Z	21:36:01.6	44.3	87.6	2.0	59	5.0	
	e PP	Z	21:37:45.8						
RJOB	e P	Z	21:36:02.8	44.4	86.1	1.4	58	5.3	
TANN	e P	Z	21:36:04.4	44.5	88.6	1.4	93	5.5	
WERN	e P	Z	21:36:05.0	44.6	88.4	1.8	135	5.6	
GUNZ	e P	Z	21:36:05.1	44.6	88.4	1.4	102	5.6	
WERD	e P	Z	21:36:05.1	44.6	88.5	1.3	88	5.5	
ROTZ	e P	Z	21:36:06.3	44.7	87.7	1.6	212	5.8	
PLN	e P	Z	21:36:05.8	44.7	88.4	1.3	381	6.2	
MANZ	e P	Z	21:36:06.8	44.8	87.9	1.5	226	5.9	
NEUB	e P	Z	21:36:07.4	45.0	88.9	1.5	180	5.8	
MOX	e P	Z	21:36:08.6	45.1	88.2	1.5	192	5.8	
GRA1	e P	Z	21:36:11.5	45.4	86.9	1.3	175	5.8	
	e L	Z	21:58:12.3			18.2	736		4.7
FUR	e P	Z	21:36:10.8	45.4	85.5	1.9	224	5.9	
CLZ	e P	Z	21:36:14.3	45.8	88.4	1.6	211	5.9	
BSEG	e P	Z	21:36:14.4	45.8	90.4	1.5	241	6.0	
NRDL	e P	Z	21:36:15.4	46.0	88.8	1.3	102	5.7	
	e PP	Z	21:38:02.7						
UBBA	e P	Z	21:36:16.2	46.1	87.1	1.8	152	5.7	
STU	e P	Z	21:36:21.4	46.7	84.6	1.6	210	6.0	
BFO	e P	Z	21:36:25.5	47.4	83.6	1.5	36	5.3	
IBBN	e P	Z	21:36:26.7	47.4	86.9	1.5	231	6.1	
BUG	e P	Z	21:36:29.5	47.8	85.7	0.7	64	5.9	
WLF	e P	Z	21:36:36.8	48.6	83.3	2.0	375	6.1	

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/17 02:08:26.5 19.070S 65.270W 33.0G 5.8 5.9
 Southern Bolivia SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 02:21:36.7	93.1	243.8	1.3	103	6.1		
BFO	e P	Z 02:21:39.7	93.8	245.3	1.3	21	5.3		
BUG	e P	Z 02:21:42.5	94.5	244.7	1.4	84	5.9		
STU	e P	Z 02:21:43.2	94.5	246.0	1.0	47	5.8		
IBBN	e P	Z 02:21:45.2	95.2	245.2	1.2	61	5.9		
FUR	e P	Z 02:21:48.6	95.6	247.4	0.9	33	5.8		
	e PP	Z 02:25:48.5							
UBBA	e P	Z 02:21:48.7	95.8	246.8	1.7	35	5.6		
	e PP	Z 02:25:49.5							
GRA1	e P	Z 02:21:50.6	96.1	247.6	1.1	32	5.7		

	e L	Z	03:02:55.0				21.8	4124		5.9
RJOB	e P	Z	02:21:52.0	96.3	248.5		1.7	27		5.5
CLZ	e P	Z	02:21:51.6	96.4	247.1		1.2	43		5.9
NRDL	e P	Z	02:21:52.0	96.5	247.0		1.3	35		5.7
MOX	e P	Z	02:21:53.0	96.7	247.9		1.2	16		5.5
ROTZ	e P	Z	02:21:53.6	96.7	248.3		1.1	14		5.5
MANZ	e P	Z	02:21:53.8	96.7	248.2		1.2	38		5.9
WET	e P	Z	02:21:54.3	96.9	248.7		1.2	20		5.6
	e PP	Z	02:25:58.2							
PLN	e P	Z	02:21:54.4	97.0	248.3		1.3	123		6.4
	e PP	Z	02:25:58.4							
NEUB	e P	Z	02:21:54.4	97.0	248.1		1.1	24		5.7
WERN	e P	Z	02:21:55.0	97.0	248.5		1.1	22		5.7
	e PP	Z	02:25:58.7							
GUNZ	e P	Z	02:21:54.7	97.0	248.4		1.5	30		5.7
	e PP	Z	02:25:58.7							
TANN	e P	Z	02:21:55.3	97.1	248.5		1.2	22		5.7
	e PP	Z	02:25:59.6							
BSEG	e P	Z	02:21:54.2	97.2	247.3		1.1	52		6.1
	e PP	Z	02:25:59.1							
GEC2	e P	Z	02:21:56.0	97.3	249.3		1.3	16		5.5
CLL	e P	Z	02:21:57.7	97.8	249.1		1.1	20		5.8
	e PP	Z	02:26:03.7							
FBE	e P	Z	02:21:58.4	97.8	249.3		1.4	33		5.9
	e PP	Z	02:26:04.8							
BRG	e P	Z	02:21:59.7	98.2	249.7		1.5	22		5.7
	e PP	Z	02:26:07.1							

Date 2009/04/17 Origin Time 04:09:59.0 Lat 7.402S Long 128.263E Depth 136.9G mb Ms ML Source NEIC
Banda Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKiKP	Z	04:28:16.4	111.0	75.4					
FBE	e PKiKP	Z	04:28:17.3	111.3	74.9					
CLL	e PKiKP	Z	04:28:17.0	111.4	74.4					
GEC2	e PKiKP	Z	04:28:17.6	111.6	76.0					
WET	e PKiKP	Z	04:28:18.6	112.1	75.2					
WERD	e PKiKP	Z	04:28:18.4	112.1	74.2					
WERN	e PKiKP	Z	04:28:18.7	112.1	74.3					
GUNZ	e PKiKP	Z	04:28:18.7	112.1	74.2					
PLN	e PKiKP	Z	04:28:18.6	112.2	74.0					
NEUB	e PKiKP	Z	04:28:18.6	112.2	73.4					
MANZ	e PKiKP	Z	04:28:19.2	112.3	74.2					
RJOB	e PKiKP	Z	04:28:18.9	112.5	75.7					
CLZ	e PKiKP	Z	04:28:20.3	112.8	72.0					
FUR	e PKiKP	Z	04:28:20.9	113.3	74.2					

STU	e PKiKP	Z	04:28:23.0	114.5	72.2
BFO	e PKiKP	Z	04:28:23.9	115.2	71.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/17	14:52:7.6	47.716N	151.204E	33.0G	5.6	5.3		SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	15:03:42.7	74.4	26.0	0.9	43	5.5		
CLL	e P	Z	15:03:43.7	74.7	27.7	0.6	52	5.8		
BRG	e P	Z	15:03:44.4	74.8	28.2	0.9	18	5.1		
FBE	e P	Z	15:03:45.5	74.9	27.9	1.2	65	5.5		
CLZ	e P	Z	15:03:46.1	75.0	26.1	1.6	151	5.8		
NEUB	e P	Z	15:03:46.6	75.1	26.9	0.9	60	5.6		
IBBN	e P	Z	15:03:47.2	75.2	24.5	0.9	76	5.8		
TANN	e P	Z	15:03:49.5	75.6	27.3	1.6	42	5.3		
WERD	e P	Z	15:03:49.7	75.7	27.2	1.1	36	5.4		
PLN	e P	Z	15:03:49.8	75.7	27.1	1.2	168	6.1		
MOX	e P	Z	15:03:49.7	75.7	26.8	0.8	28	5.4		
GUNZ	e P	Z	15:03:50.1	75.7	27.2	1.0	46	5.6		
WERN	e P	Z	15:03:50.5	75.8	27.2	0.9	56	5.7		
UBBA	e P	Z	15:03:51.1	76.0	25.8	0.9	24	5.3		
MANZ	e P	Z	15:03:52.3	76.1	27.0	0.9	27	5.4		
BUG	e P	Z	15:03:52.3	76.1	24.1	1.1	84	5.8		
ROTZ	e P	Z	15:03:53.7	76.3	27.0	0.9	55	5.7		
GRA1	e P	Z	15:03:55.6	76.7	26.4	0.7	126	6.1		
	L	Z	15:44:32.4			18.3	1423		5.3	
WET	e P	Z	15:03:55.6	76.7	27.4	1.0	84	5.8		
GEC2	e P	Z	15:03:55.1	76.7	27.8	1.0	39	5.5		
TNS	e P	Z	15:03:57.0	76.9	24.7	1.0	82	5.8		
RJOB	e P	Z	15:04:02.6	77.9	27.2	0.8	64	5.8		
FUR	e P	Z	15:04:02.9	78.0	26.3	0.9	88	5.9		
WLF	e P	Z	15:04:03.1	78.1	23.2	2.3	153	5.7		
STU	e P	Z	15:04:02.9	78.1	25.0	0.9	84	5.9		
BFO	e P	Z	15:04:06.3	78.7	24.5	0.9	84	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/17	16:11:56.0	9.295S	158.894E	500.0G				NEIC

Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKiKP	Z	16:30:05.1	128.8	41.3					
BRG	e PKiKP	Z	16:30:06.2	129.4	47.2					
	e SKPbc	Z	16:32:40.9							
CLL	e SKPbc	Z	16:32:41.1	129.6	45.9					

FBE	e PKiKP	Z	16:30:06.9	129.7	46.5
	e SKPbc	Z	16:32:42.0		
NRDL	e PKiKP	Z	16:30:07.5	129.9	41.8
	e SKPbc	Z	16:32:43.1		
NEUB	e PKiKP	Z	16:30:08.0	130.2	44.5
	e SKPbc	Z	16:32:44.0		
CLZ	e SKPbc	Z	16:32:44.9	130.3	42.5
TANN	e PKiKP	Z	16:30:08.3	130.4	45.8
	e SKPbc	Z	16:32:45.0		
WERD	e PKiKP	Z	16:30:08.4	130.5	45.6
	e SKPbc	Z	16:32:45.1		
PLN	e PKiKP	Z	16:30:08.5	130.5	45.4
	e SKPbc	Z	16:32:45.4		
GUNZ	e PKiKP	Z	16:30:08.7	130.5	45.7
	e SKPbc	Z	16:32:45.4		
WERN	e PKiKP	Z	16:30:08.6	130.6	45.8
	e SKPbc	Z	16:32:45.6		
MOX	e PKiKP	Z	16:30:08.7	130.6	44.7
	e SKPbc	Z	16:32:45.7		
MANZ	e PKiKP	Z	16:30:09.4	130.9	45.6
	e SKPbc	Z	16:32:46.8		
GEC2	e PKiKP	Z	16:30:09.4	130.9	48.2
	e SKPbc	Z	16:32:46.6		
ROTZ	e PKiKP	Z	16:30:09.6	131.0	45.9
	e SKPbc	Z	16:32:47.5		
IBBN	e PKiKP	Z	16:30:09.6	131.0	39.2
	e SKPbc	Z	16:32:47.3		
WET	e PKiKP	Z	16:30:09.4	131.1	47.1
	e SKPbc	Z	16:32:47.5		
UBBA	e PKiKP	Z	16:30:09.8	131.2	42.7
	e SKPbc	Z	16:32:48.1		
RJOB	e PKiKP	Z	16:30:11.5	132.1	47.9
	e SKPbc	Z	16:32:51.2		
FUR	e SKPbc	Z	16:32:53.0	132.6	45.8
STU	e PKiKP	Z	16:30:14.1	133.1	43.0
WLF	e PKiKP	Z	16:30:15.8	133.7	38.7
	e SKPbc	Z	16:32:57.1		
BFO	e SKPbc	Z	16:32:56.7	133.8	42.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/18	23:31:29.9	54.420N	171.000E	26.6	5.3	4.4		SZGRF
Near Islands, Aleutian Islands, United States								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	23:42:45.1	70.5	11.8	0.9	26	5.4		
HLG	e P	Z	23:42:44.7	70.5	10.3	1.6	774	6.6		
NRDL	e P	Z	23:42:53.1	71.9	11.6	1.6	15	4.9		

	e pP	Z	23:43:00.8								
IBBN	e P	Z	23:42:56.5	72.4	10.1	0.7	34	5.6			
	e pP	Z	23:43:04.1								
CLZ	e P	Z	23:42:57.3	72.5	11.7	1.2	26	5.2			
	e pP	Z	23:43:04.9								
CLL	e P	Z	23:42:57.5	72.7	13.2	1.8	54	5.4			
	e pP	Z	23:43:05.2								
BRG	e P	Z	23:42:59.4	73.0	13.7	1.7	50	5.4			
	e pP	Z	23:43:07.1								
FBE	e P	Z	23:43:00.1	73.0	13.4	1.5	60	5.5			
	e pP	Z	23:43:07.6								
BUG	e P	Z	23:43:01.6	73.3	9.8	2.1	56	5.2			
	e pP	Z	23:43:08.6								
MOX	e P	Z	23:43:02.8	73.5	12.3	1.8	33	5.1			
	e pP	Z	23:43:10.3								
UBBA	e P	Z	23:43:03.0	73.6	11.4	1.7	32	5.1			
	e pP	Z	23:43:10.5								
PLN	e P	Z	23:43:03.4	73.6	12.6	1.6	138	5.7			
	e pP	Z	23:43:10.9								
MANZ	e P	Z	23:43:06.2	74.1	12.6	1.4	18	4.9			
	e pP	Z	23:43:13.7								
ROTZ	e P	Z	23:43:07.9	74.3	12.6	1.4	30	5.1			
	e pP	Z	23:43:15.3								
TNS	e P	Z	23:43:07.6	74.3	10.4	1.6	24	5.0			
	e pP	Z	23:43:15.3								
GRA1	e P	Z	23:43:09.0	74.5	12.0	1.7	70	5.4			
	e pP	Z	23:43:16.5								
WET	e P	Z	23:43:10.6	74.8	13.0	1.1	22	5.1			
	e pP	Z	23:43:18.3								
GEC2	e P	Z	23:43:11.4	75.0	13.4	0.7	18	5.2			
	e pP	Z	23:43:19.2								
WLF	e pP	Z	23:43:20.2	75.1	9.1						
STU	e pP	Z	23:43:22.8	75.7	10.8						
FUR	e P	Z	23:43:17.2	76.0	12.0	1.4	29	5.2			
	e pP	Z	23:43:24.8								
RJOB	e P	Z	23:43:18.4	76.2	12.9	1.8	26	5.1			
	e pP	Z	23:43:26.5								
BFO	e P	Z	23:43:18.1	76.2	10.3	1.9	42	5.2			
	e pP	Z	23:43:25.9								
GRA1	e L	Z	00:23:25.0	74.5	12.0	20.2	206	4.4			

Date 2009/04/18
 Origin Time 02:23:48.7
 Lat 29.500S
 Long 176.500W
 Depth 64.1
 mb
 Ms
 ML
 Source SZGRF
 Kermadec Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	02:23:36.6	155.1	14.2					

	e PKPbc	Z	02:23:45.7		
	e PKPab	Z	02:23:59.1		
	e pPKPab	Z	02:24:17.1		
HLG	e pPKPab	Z	02:24:17.7	155.1	9.1
RUE	e PKPdf	Z	02:23:37.7	155.8	22.3
	e PKPbc	Z	02:23:47.1		
NRDL	e PKPdf	Z	02:23:38.3	156.5	14.5
	e PKPbc	Z	02:23:48.5		
	e PKPab	Z	02:24:04.9		
	e pPKPab	Z	02:24:23.1		
IBBN	e PKPdf	Z	02:23:39.0	157.0	9.5
	e PKPbc	Z	02:23:49.6		
	e PKPab	Z	02:24:07.5		
	e pPKPab	Z	02:24:25.6		
CLL	e PKPdf	Z	02:23:39.0	157.1	21.6
	e PKPbc	Z	02:23:49.6		
	e PKPab	Z	02:24:07.1		
	e pPKPab	Z	02:24:25.3		
CLZ	e PKPdf	Z	02:23:39.2	157.1	15.5
	e PKPab	Z	02:24:07.7		
	e pPKPab	Z	02:24:25.9		
BRG	e PKPdf	Z	02:23:39.3	157.2	24.1
	e PKPab	Z	02:24:08.4		
	e pPKPab	Z	02:24:26.3		
FBE	e PKPdf	Z	02:23:39.7	157.3	22.7
	e PKPab	Z	02:24:09.0		
	e pPKPab	Z	02:24:27.1		
NEUB	e PKPdf	Z	02:23:39.7	157.4	19.0
	e PKPab	Z	02:24:08.9		
	e pPKPab	Z	02:24:27.0		
BUG	e PKPdf	Z	02:23:40.3	157.9	8.7
	e PKPab	Z	02:24:11.1		
	e pPKPab	Z	02:24:29.0		
MOX	e PKPdf	Z	02:23:40.3	158.0	19.1
	e PKPbc	Z	02:23:51.5		
	e PKPab	Z	02:24:11.3		
	e pPKPab	Z	02:24:29.4		
TANN	e PKPdf	Z	02:23:40.3	158.0	21.2
	e PKPab	Z	02:24:11.7		
	e pPKPab	Z	02:24:29.8		
PLN	e PKPdf	Z	02:23:40.4	158.0	20.5
	e PKPab	Z	02:24:11.6		
	e pPKPab	Z	02:24:29.6		
WERD	e PKPdf	Z	02:23:40.2	158.0	20.9
	e PKPab	Z	02:24:11.7		
	e pPKPab	Z	02:24:29.8		
GUNZ	e PKPdf	Z	02:23:40.5	158.1	21.0
	e PKPab	Z	02:24:12.4		
	e pPKPab	Z	02:24:30.3		

UBBA	e	PKPdf	Z	02:23:40.4	158.1	15.3
	e	PKPab	Z	02:24:11.7		
	e	pPKPab	Z	02:24:29.9		
WERN	e	PKPdf	Z	02:23:40.6	158.2	21.2
	e	PKPab	Z	02:24:12.5		
	e	pPKPab	Z	02:24:30.7		
MANZ	e	PKPdf	Z	02:23:40.7	158.5	20.8
	e	PKPab	Z	02:24:13.9		
	e	pPKPab	Z	02:24:31.6		
ROTZ	e	PKPdf	Z	02:23:41.1	158.7	21.3
	e	PKPab	Z	02:24:15.1		
	e	pPKPab	Z	02:24:33.0		
TNS	e	PKPdf	Z	02:23:41.7	158.9	12.1
	e	PKPab	Z	02:24:15.9		
	e	pPKPab	Z	02:24:33.8		
GRA1	e	PKPdf	Z	02:23:41.6	159.0	19.0
	e	PKPab	Z	02:24:16.3		
	e	pPKPab	Z	02:24:34.4		
WET	e	PKPdf	Z	02:23:41.5	159.1	23.4
	e	PKPab	Z	02:24:16.9		
	e	pPKPab	Z	02:24:34.8		
GEC2	e	PKPdf	Z	02:23:41.4	159.1	25.7
	e	PKPab	Z	02:24:16.6		
	e	pPKPab	Z	02:24:34.5		
WLF	e	PKPdf	Z	02:23:43.2	159.7	6.7
	e	PKPab	Z	02:24:19.8		
	e	pPKPab	Z	02:24:38.0		
STU	e	PKPdf	Z	02:23:43.1	160.2	14.8
	e	PKPab	Z	02:24:21.4		
	e	pPKPab	Z	02:24:39.1		
FUR	e	PKPdf	Z	02:23:43.0	160.4	20.6
	e	PKPab	Z	02:24:22.3		
	e	pPKPab	Z	02:24:40.5		
RJOB	e	PKPdf	Z	02:23:42.6	160.4	24.8
	e	PKPab	Z	02:24:22.6		
	e	pPKPab	Z	02:24:40.7		
BFO	e	PKPdf	Z	02:23:43.4	160.8	12.9
	e	PKPab	Z	02:24:23.8		
	e	pPKPab	Z	02:24:41.7		

Date 2009/04/18
 Origin Time 03:55:25.7
 Lat 41.671N
 Long 133.811E
 Depth 33.0G
 mb 5.4
 Ms
 ML
 Source SZGRF
 Sea of Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	04:06:49.6	72.6	42.7	1.2	45	5.5		
BSEG	e P	Z	04:06:51.8	72.9	40.7	1.0	100	5.9		

BRG	e P	Z	04:06:55.9	73.7	42.5	0.9	23	5.2
CLL	e P	Z	04:06:56.1	73.8	41.9	0.8	45	5.6
FBE	e P	Z	04:06:57.5	73.9	42.1	0.9	53	5.6
NRDL	e P	Z	04:06:58.3	74.0	40.3	1.0	22	5.2
NEUB	e P	Z	04:06:59.8	74.3	41.1	0.8	50	5.6
CLZ	e P	Z	04:07:00.9	74.4	40.3	0.9	39	5.4
TANN	e P	Z	04:07:01.8	74.6	41.4	2.0	63	5.3
WERD	e P	Z	04:07:02.0	74.7	41.3	1.0	20	5.1
PLN	e P	Z	04:07:02.3	74.7	41.2	1.0	102	5.8
GUNZ	e P	Z	04:07:02.3	74.7	41.3	0.9	25	5.2
WERN	e P	Z	04:07:02.6	74.8	41.3	0.8	26	5.3
MOX	e P	Z	04:07:02.8	74.8	40.9	1.2	25	5.1
IBBN	e P	Z	04:07:04.3	75.1	38.7	1.4	60	5.4
MANZ	e P	Z	04:07:04.5	75.1	41.1	1.0	19	5.1
ROTZ	e P	Z	04:07:05.5	75.2	41.1	1.8	74	5.5
GEC2	e P	Z	04:07:05.0	75.3	41.9	1.1	21	5.2
UBBA	e P	Z	04:07:05.5	75.4	39.9	0.9	16	5.2
WET	e P	Z	04:07:06.3	75.4	41.5	1.0	25	5.3
GRA1	e P	Z	04:07:08.4	75.7	40.5	0.9	95	5.9
BUG	e P	Z	04:07:09.2	76.0	38.2	0.9	30	5.4
TNS	e P	Z	04:07:12.2	76.4	38.8	1.1	32	5.4
RJOB	e P	Z	04:07:12.5	76.5	41.2	0.9	34	5.5
FUR	e P	Z	04:07:14.4	76.9	40.3	0.9	58	5.7
STU	e P	Z	04:07:16.5	77.3	39.1	0.9	38	5.5
WLF	e P	Z	04:07:19.9	77.8	37.2	1.4	31	5.2
BFO	e P	Z	04:07:20.5	78.0	38.5	0.9	58	5.7

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/18 09:05:55.3 42.126N 13.558E 10.0G 4.1 SZGRF
 Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	09:07:17.7	5.6	174.2					4.2
	e Sn	E	09:08:19.4							
GEC2	e Pn	Z	09:07:31.5	6.7	180.9					4.1
	e Sn	E	09:08:41.2							
WET	e Pn	Z	09:07:35.5	7.0	175.9					4.1
	e Sn	N	09:08:47.6							
BFO	e Pn	Z	09:07:37.7	7.2	147.4					4.0
	e Sn	E	09:08:53.7							
ROTZ	e Pn	Z	09:07:45.3	7.7	172.5					
	e Sn	E	09:09:03.1							
GUNZ	e Pn	Z	09:07:53.1	8.3	173.7					
	e Sn	E	09:09:19.9							
MOX	e Pn	Z	09:07:57.5	8.6	170.3					
	e Sn	N	09:09:25.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/18	17:49:42.1	20.720S	177.480W	594.8				SZGRF
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	18:08:16.3	146.3	13.2					
HLG	e PKPbc	Z	18:08:16.8	146.3	9.1					
RUE	e PKPbc	Z	18:08:18.5	147.1	19.6					
NRDL	e PKPdf	Z	18:08:16.4	147.7	13.4					
	e PKPbc	Z	18:08:20.2							
IBBN	e PKPdf	Z	18:08:17.5	148.2	9.3					
	e PKPbc	Z	18:08:21.0							
CLZ	e PKPdf	Z	18:08:17.9	148.3	14.1					
	e PKPbc	Z	18:08:22.1							
	e pPKPbc	Z	18:10:38.0							
CLL	e PKPdf	Z	18:08:17.5	148.3	18.9					
	e PKPbc	Z	18:08:21.9							
	e pPKPbc	Z	18:10:37.6							
BRG	e PKPdf	Z	18:08:17.6	148.5	20.8					
	e PKPbc	Z	18:08:22.4							
	e pPKPbc	Z	18:10:38.4							
FBE	e PKPdf	Z	18:08:18.5	148.6	19.7					
	e PKPbc	Z	18:08:22.9							
	e pPKPbc	Z	18:10:38.9							
BUG	e PKPbc	Z	18:08:23.6	149.1	8.7					
	e pPKPbc	Z	18:10:40.9							
MOX	e PKPdf	Z	18:08:18.7	149.2	16.8					
	e PKPbc	Z	18:08:24.1							
	e pPKPbc	Z	18:10:41.1							
PLN	e PKPdf	Z	18:08:19.0	149.3	17.8					
	e PKPbc	Z	18:08:24.2							
	e PKPab	Z	18:08:30.4							
	e pPKPbc	Z	18:10:41.0							
UBBA	e PKPdf	Z	18:08:19.1	149.3	13.8					
	e PKPbc	Z	18:08:23.9							
	e PKPab	Z	18:08:30.2							
	e pPKPbc	Z	18:10:40.7							
MANZ	e PKPdf	Z	18:08:19.9	149.8	18.0					
	e PKPbc	Z	18:08:25.4							
	e pPKPbc	Z	18:10:40.7							
ROTZ	e PKPdf	Z	18:08:19.9	150.0	18.3					
	e PKPbc	Z	18:08:26.1							
	e PKPab	Z	18:08:33.5							
	e pPKPbc	Z	18:10:41.0							
TNS	e PKPbc	Z	18:08:26.4	150.1	11.2					
	e PKPab	Z	18:08:34.2							
	e pPKPbc	Z	18:10:42.0							

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GRA1	e PKPdf	Z	18:08:20.6	150.2	16.6
	e PKPbc	Z	18:08:26.6		
	e PKPab	Z	18:08:34.4		
	e pPKPbc	Z	18:10:42.0		
WET	e PKPdf	Z	18:08:20.9	150.4	19.9
	e PKPbc	Z	18:08:26.9		
	e PKPab	Z	18:08:35.2		
	e pPKPbc	Z	18:10:42.4		
GEC2	e PKPdf	Z	18:08:20.6	150.5	21.6
	e PKPbc	Z	18:08:27.0		
	e PKPab	Z	18:08:35.3		
	e pPKPbc	Z	18:10:42.5		
WLF	e PKPdf	Z	18:08:22.2	150.9	7.0
	e PKPbc	Z	18:08:28.7		
	e PKPab	Z	18:08:38.0		
	e pPKPbc	Z	18:10:44.3		
STU	e PKPdf	Z	18:08:22.9	151.4	13.1
	e PKPbc	Z	18:08:29.4		
	e PKPab	Z	18:08:39.7		
FUR	e PKPbc	Z	18:08:29.7	151.7	17.5
	e PKPab	Z	18:08:40.9		
RJOB	e PKPbc	Z	18:08:29.5	151.7	20.6
	e PKPab	Z	18:08:41.3		
BFO	e PKPdf	Z	18:08:22.5	152.0	11.6
	e PKPbc	Z	18:08:30.5		
	e PKPab	Z	18:08:41.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/18	19:18:4.4	46.713N	151.266E	33.0G	6.7	6.7		SZGRF
Kuril Islands, Russia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	19:29:30.5	72.7	28.8	1.7	1622	6.9		
BSEG	e P	Z	19:29:37.3	74.0	26.7	1.4	885	6.6		
RUE	e P	Z	19:29:39.0	74.4	28.8	1.3	781	6.6		
HLG	e P	Z	19:29:39.7	74.4	25.1	1.2	450	6.4		
NRDL	e P	Z	19:29:44.7	75.4	26.4	1.4	521	6.5		
CLL	e P	Z	19:29:45.7	75.6	28.1	1.3	800	6.7		
BRG	e P	Z	19:29:46.5	75.7	28.7	1.4	480	6.4		
FBE	e P	Z	19:29:47.5	75.9	28.3	1.8	1551	6.8		
CLZ	e P	Z	19:29:48.2	75.9	26.5	1.4	1322	6.9		
IBBN	e P	Z	19:29:49.3	76.2	24.8	3.0	6405	7.2		
PLN	e P	Z	19:29:51.9	76.6	27.5	1.7	5534	7.4		
MOX	e P	Z	19:29:51.8	76.6	27.2	1.5	805	6.6		
UBBA	e P	Z	19:29:53.4	76.9	26.1	1.7	1045	6.7		
MANZ	e P	Z	19:29:54.3	77.1	27.4	1.2	458	6.5		
BUG	e P	Z	19:29:54.3	77.1	24.4	1.4	989	6.8		

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ROTZ	e P	Z	19:29:55.6	77.2	27.4	1.4	738	6.6	
WET	e P	Z	19:29:57.5	77.6	27.8	1.3	1043	6.8	
GRA1	e P	Z	19:29:57.6	77.6	26.8	1.1	925	6.8	
	e L	Z	20:11:18.4			20.7	34959		6.7
GEC2	e P	Z	19:29:57.1	77.6	28.3	1.3	494	6.5	
TNS	e P	Z	19:29:59.0	77.9	25.1	1.2	630	6.6	
RJOB	e P	Z	19:30:04.6	78.8	27.6	1.3	538	6.4	
FUR	e P	Z	19:30:04.7	78.9	26.7	1.2	1320	6.8	
STU	e P	Z	19:30:04.9	79.0	25.4	1.3	911	6.6	
WLF	e P	Z	19:30:05.3	79.0	23.5	1.9	1764	6.8	
BFO	e P	Z	19:30:08.3	79.6	24.8	1.2	858	6.5	

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/19 04:08:32.9 42.336N 77.057E 33.0G 5.2 5.0
 Lake Issyk-Kul, Kyrgyzstan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	04:16:27.7	42.8	75.9	1.2	26	4.8		
FBE	e P	Z	04:16:30.7	43.2	75.6	1.1	46	5.1		
CLL	e P	Z	04:16:31.0	43.3	75.8	1.1	28	4.9		
GEC2	e P	Z	04:16:34.1	43.5	73.7	1.2	48	5.1		
WET	e P	Z	04:16:36.7	43.9	73.5	1.6	46	5.0		
PLN	e P	Z	04:16:37.2	44.0	74.4	1.4	177	5.6		
ROTZ	e P	Z	04:16:38.6	44.2	73.7	1.4	31	4.8		
MANZ	e P	Z	04:16:38.6	44.2	73.9	1.4	29	4.8		
MOX	e P	Z	04:16:39.4	44.3	74.3	1.4	41	5.0		
NRDL	e P	Z	04:16:43.0	44.7	75.1	1.3	50	5.3		
CLZ	e P	Z	04:16:42.9	44.7	74.7	1.1	26	5.1		
GRA1	e P	Z	04:16:44.0	44.8	73.1	1.0	58	5.5		
	e L	Z	04:35:50.0			21.2	1792		5.0	
UBBA	e P	Z	04:16:47.4	45.2	73.5	1.3	18	4.8		
FUR	e P	Z	04:16:47.2	45.2	71.7	0.9	63	5.5		
IBBN	e P	Z	04:16:54.0	46.2	73.5	1.6	62	5.4		
STU	e P	Z	04:16:56.4	46.4	71.1	1.2	66	5.6		
TNS	e P	Z	04:16:56.6	46.4	72.0	1.1	16	5.0		
BUG	e P	Z	04:16:59.0	46.7	72.4	1.2	35	5.4		
BFO	e P	Z	04:17:01.3	47.0	70.2	1.0	40	5.5		
WLF	e P	Z	04:17:07.8	47.9	70.2	1.1	36	5.4		

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/19 05:23:28.0 4.017N 126.609E 35.0G
 Talaud Islands, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e Pdiff	Z	05:37:12.4	100.4	69.2					

BRG	e	Pdiff	Z	05:37:14.5	100.8	69.6
FBE	e	Pdiff	Z	05:37:16.1	101.2	69.1
CLL	e	Pdiff	Z	05:37:15.8	101.2	68.7
GEC2	e	Pdiff	Z	05:37:18.2	101.7	69.8
BSEG	e	Pdiff	Z	05:37:18.4	101.7	66.0
PLN	e	Pdiff	Z	05:37:19.8	102.0	68.2
WET	e	Pdiff	Z	05:37:20.1	102.1	69.1
MANZ	e	Pdiff	Z	05:37:20.9	102.3	68.3
ROTZ	e	Pdiff	Z	05:37:21.3	102.3	68.4
MOX	e	Pdiff	Z	05:37:20.9	102.3	67.7
NRDL	e	Pdiff	Z	05:37:21.8	102.4	66.1
CLZ	e	Pdiff	Z	05:37:22.4	102.6	66.4
RJOB	e	Pdiff	Z	05:37:22.1	102.7	69.3
GRA1	e	Pdiff	Z	05:37:23.8	102.9	67.6
UBBA	e	Pdiff	Z	05:37:24.6	103.2	66.4
FUR	e	Pdiff	Z	05:37:26.0	103.4	68.0
IBBN	e	Pdiff	Z	05:37:27.9	103.8	64.1
TNS	e	Pdiff	Z	05:37:30.2	104.3	65.2
BUG	e	Pdiff	Z	05:37:30.5	104.5	63.9
STU	e	Pdiff	Z	05:37:30.6	104.5	66.1
BFO	e	Pdiff	Z	05:37:33.3	105.2	65.5
WLF	e	Pdiff	Z	05:37:37.5	105.9	63.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/19	09:05:46.5	24.794N	142.930E	33.0G	5.2			SZGRF

Volcano Islands, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	09:18:49.2	91.3	41.9	1.5	46	5.6		
BRG	e P	Z	09:18:52.2	92.0	44.9	1.5	9	4.9		
CLL	e P	Z	09:18:52.5	92.1	44.2	1.5	19	5.2		
FBE	e P	Z	09:18:53.6	92.2	44.4	1.2	17	5.3		
PLN	e P	Z	09:18:57.1	93.1	43.5	1.8	107	6.0		
MOX	e P	Z	09:18:57.6	93.2	43.1	1.3	12	5.2		
MANZ	e P	Z	09:18:59.1	93.5	43.5	2.1	40	5.4		
IBBN	e P	Z	09:18:59.3	93.5	39.9	1.4	21	5.3		
GEC2	e P	Z	09:18:59.0	93.6	44.8	1.3	7	4.8		
ROTZ	e P	Z	09:18:59.9	93.6	43.6	1.8	29	5.3		
WET	e P	Z	09:19:00.2	93.7	44.1	2.7	32	5.2		
GRB2	e P	Z	09:19:02.4	94.2	43.2	1.1	8	5.0		
GRB5	e P	Z	09:19:02.9	94.3	43.2	1.6	22	5.3		
GRC4	e P	Z	09:19:03.1	94.4	43.1	1.5	16	5.2		
GRC1	e P	Z	09:19:03.1	94.4	43.1	1.6	15	5.2		
GRC3	e P	Z	09:19:03.5	94.5	43.1	1.6	13	5.1		
GRC2	e P	Z	09:19:03.9	94.6	43.0	2.2	40	5.5		

RJOB e P Z 09:19:04.8 94.8 44.1 1.4 8 5.0

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/19 11:09:59.1 4.528N 96.746E 33.0G 5.1
 Northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRB5	e P	Z 11:22:22.8	83.4	90.8	1.8	25	5.1		
GRB2	e P	Z 11:22:23.1	83.4	90.8	0.8	12	5.2		
GRC3	e P	Z 11:22:23.0	83.4	90.7	0.7	6	4.9		
GRC4	e P	Z 11:22:23.3	83.5	90.6	0.7	7	5.0		
GRC1	e P	Z 11:22:23.1	83.5	90.6	0.7	7	5.0		
GRC2	e P	Z 11:22:23.5	83.5	90.5	2.1	31	5.2		
GRA2	e P	Z 11:22:24.2	83.6	90.6	2.3	55	5.4		
GRA1	e P	Z 11:22:24.8	83.7	90.5	2.1	46	5.3		

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/19 12:39:48.9 44.696N 7.864E 10.0G 4.3
 Northern Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
PLONS	e Pn	Z 12:40:30.0	2.6	204.7					
	e Sn	E 12:40:58.6							
BALST	e Pn	Z 12:40:31.0	2.6	177.4					
	e Sn	N 12:41:01.2							
WILA	e Pn	Z 12:40:33.4	2.8	195.3					
SULZ	e Pn	Z 12:40:33.3	2.8	183.6					
	e Sn	N 12:41:05.6							
DAVA	e Pn	Z 12:40:35.5	2.9	209.1					4.6
	e Sn	N 12:41:08.6							
SLE	e Pn	Z 12:40:36.4	3.1	188.3					
	e Sn	N 12:41:11.1							
OBER	e Pn	Z 12:40:38.3	3.2	212.8					4.3
	e Sn	E 12:41:13.6							
BFO	e Pn	Z 12:40:43.3	3.6	185.2					4.0
	e Sn	N 12:41:23.1							
STU	e Pn	Z 12:40:50.4	4.2	193.1					4.3
	e Sn	N 12:41:34.8							
FUR	e Pn	Z 12:40:51.2	4.2	215.4					4.7
	e Sn	N 12:41:36.7							
KBA	e Pn	Z 12:40:56.5	4.5	240.0					4.2
RJOB	e Pn	Z 12:40:57.2	4.6	230.1					4.5
	e Sn	N 12:41:47.6							
WLF	e Pn	Z 12:41:04.9	5.1	166.2					
	e Sn	N 12:41:58.2							

MOA	e Pn	Z	12:41:08.1	5.4	236.9
	e Sn	N	12:42:06.5		
GRA1	e Pn	Z	12:41:06.9	5.5	205.8
	e Sn	N	12:42:06.1		
TNS	e Pn	Z	12:41:09.3	5.5	184.3
	e Sn	E	12:42:09.4		
WET	e Pn	Z	12:41:09.9	5.6	219.5
	e Sn	E	12:42:07.6		
GEC2	e Pn	Z	12:41:12.6	5.8	226.1
	e Sn	E	12:42:13.2		
MOX	e Pn	Z	12:41:19.7	6.5	204.4
	e Sn	E	12:42:29.4		

Date
2009/04/19

Origin Time Lat Long Depth mb Ms ML Source

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ASSE	e PKPbc	Z	23:09:50.6							
BFO	e PKPbc	Z	23:09:59.9							
	e PKPab	Z	23:10:11.0							
BRG	e PKPbc	Z	23:09:52.2							
BSEG	e PKPbc	Z	23:09:46.0							
BUG	e PKPbc	Z	23:09:53.3							
CLL	e PKPbc	Z	23:09:51.5							
	e PKPab	Z	23:09:55.5							
CLZ	e PKPbc	Z	23:09:51.8							
	e PKPab	Z	23:09:55.7							
DREG	e PKPbc	Z	23:09:55.8							
FBE	e PKPbc	Z	23:09:52.7							
	e PKPab	Z	23:09:57.2							
FLT1	e PKPbc	Z	23:09:49.6							
	e PKPab	Z	23:09:52.6							
FUR	e PKPab	Z	23:10:10.0							
GEC2	e PKPbc	Z	23:09:56.6							
GRA1	e PKPab	Z	23:10:04.0							
GTTG	e PKPbc	Z	23:09:52.5							
	e PKPab	Z	23:09:56.9							
GUNZ	e PKPbc	Z	23:09:54.5							
	e PKPab	Z	23:10:00.1							
MANZ	e PKPbc	Z	23:09:55.5							
MOX	e PKPbc	Z	23:09:53.9							
NEUB	e PKPbc	Z	23:09:52.6							
NRDL	e PKPbc	Z	23:09:49.7							
PLN	e PKPbc	Z	23:09:54.1							
	e PKPab	Z	23:09:59.7							
RJOB	e PKPab	Z	23:10:10.6							
ROTZ	e PKPbc	Z	23:09:55.8							

STU	e	PKPab	Z	23:10:08.6
TANN	e	PKPbc	Z	23:09:54.2
	e	PKPab	Z	23:09:59.8
TNS	e	PKPbc	Z	23:09:56.4
	e	PKPab	Z	23:10:03.3
WERD	e	PKPbc	Z	23:09:54.2
	e	PKPab	Z	23:09:59.8
WERN	e	PKPbc	Z	23:09:54.6
	e	PKPab	Z	23:10:00.6
WET	e	PKPbc	Z	23:09:56.6
	e	PKPab	Z	23:10:04.7
WLF	e	PKPbc	Z	23:09:58.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/20	07:22:49.1	28.071N	129.185E	34.0	5.0	4.8		SZGRF

Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	07:35:08.7	82.6	51.2	1.0	30	5.5		
	e pP	Z	07:35:18.9							
BRG	e P	Z	07:35:09.3	82.7	53.6	0.9	9	5.0		
	e pP	Z	07:35:19.4							
CLL	e P	Z	07:35:10.2	82.9	52.9	1.0	15	5.2		
	e pP	Z	07:35:20.1							
FBE	e P	Z	07:35:11.0	82.9	53.2	1.2	21	5.2		
	e pP	Z	07:35:20.8							
NEUB	e P	Z	07:35:13.7	83.6	52.0	0.9	14	5.2		
	e pP	Z	07:35:23.8							
NRDL	e P	Z	07:35:13.7	83.6	50.9	1.4	14	5.0		
	e pP	Z	07:35:23.6							
TANN	e P	Z	07:35:14.6	83.7	52.5	1.4	5	4.6		
	e pP	Z	07:35:24.2							
WERD	e P	Z	07:35:14.6	83.8	52.3	1.8	19	5.0		
	e pP	Z	07:35:24.6							
GUNZ	e P	Z	07:35:15.2	83.8	52.4	1.4	13	5.0		
	e pP	Z	07:35:24.9							
PLN	e P	Z	07:35:15.1	83.8	52.2	1.6	42	5.4		
	e pP	Z	07:35:24.7							
WERN	e P	Z	07:35:15.1	83.8	52.4	1.7	20	5.1		
	e pP	Z	07:35:25.2							
CLZ	e P	Z	07:35:15.6	83.8	51.0	1.2	15	5.1		
	e pP	Z	07:35:25.4							
MOX	e P	Z	07:35:15.9	84.0	51.9	1.1	4	4.6		
	e pP	Z	07:35:25.7							
GEC2	e P	Z	07:35:16.1	84.0	53.2	0.9	4	4.6		
	e pP	Z	07:35:26.0							
MANZ	e P	Z	07:35:16.8	84.1	52.2	1.2	7	4.7		

	e pP	Z	07:35:26.8							
ROTZ	e P	Z	07:35:17.7	84.2	52.2	1.0		5	4.7	
	e pP	Z	07:35:27.4							
WET	e P	Z	07:35:17.5	84.3	52.7	0.9		4	4.6	
	e pP	Z	07:35:27.2							
UBBA	e P	Z	07:35:18.8	84.7	50.7	1.0		6	4.8	
GRA1	e L	Z	08:17:37.9	84.8	51.5	19.1		349		4.8
RJOB	e P	Z	07:35:22.4	85.2	52.5	0.9		7	4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/20	08:54:11.0	8.390N	71.880W	127.7	5.4			SZGRF
Venezuela								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	09:05:43.7	75.9	266.3	1.4	98	5.7		
BUG	e P	Z	09:05:47.9	76.7	266.8	0.9	52	5.6		
IBBN	e P	Z	09:05:49.9	77.0	267.0	1.0	71	5.8		
BFO	e P	Z	09:05:50.6	77.2	268.3	1.6	34	5.2		
	e pP	Z	09:06:22.4							
TNS	e P	Z	09:05:52.0	77.4	268.0	1.2	66	5.6		
STU	e P	Z	09:05:54.0	77.8	268.9	1.2	56	5.5		
UBBA	e P	Z	09:05:57.4	78.4	269.1	1.7	50	5.4		
NRDL	e P	Z	09:05:58.0	78.5	268.8	1.2	60	5.5		
	e pP	Z	09:06:30.0							
CLZ	e P	Z	09:05:58.9	78.6	269.1	0.9	52	5.5		
	e pP	Z	09:06:31.0							
BSEG	e P	Z	09:05:58.5	78.6	268.7	0.9	120	5.9		
	e pP	Z	09:06:30.5							
GRA1	e P	Z	09:06:01.6	79.2	270.2	1.5	60	5.4		
FUR	e P	Z	09:06:02.0	79.2	270.6	1.4	77	5.5		
MOX	e P	Z	09:06:02.8	79.4	270.3	1.6	40	5.2		
	e pP	Z	09:06:35.0							
NEUB	e P	Z	09:06:03.4	79.5	270.4	1.4	77	5.4		
MANZ	e P	Z	09:06:04.9	79.7	270.8	1.2	54	5.4		
	e pP	Z	09:06:36.7							
PLN	e P	Z	09:06:04.8	79.7	270.8	1.1	197	5.9		
	e pP	Z	09:06:36.9							
ROTZ	e P	Z	09:06:05.4	79.8	271.0	1.5	40	5.1		
WERD	e P	Z	09:06:05.3	79.8	270.9	1.1	39	5.2		
	e pP	Z	09:06:37.2							
GUNZ	e P	Z	09:06:05.5	79.9	270.9	1.2	29	5.1		
	e pP	Z	09:06:37.6							
WERN	e P	Z	09:06:05.8	79.9	271.0	1.1	38	5.2		
TANN	e P	Z	09:06:06.0	79.9	271.0	1.1	49	5.4		
	e pP	Z	09:06:37.9							
RJOB	e P	Z	09:06:07.2	80.2	271.8	1.1	16	4.8		
	e pP	Z	09:06:40.5							

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WET	e P	Z	09:06:07.6	80.2	271.6	1.3	46	5.3
CLL	e P	Z	09:06:07.4	80.3	271.3	1.5	53	5.3
	e pP	Z	09:06:39.3					
RGN	e P	Z	09:06:08.5	80.4	271.0	1.1	118	5.7
	e pP	Z	09:06:40.6					
FBE	e P	Z	09:06:08.9	80.5	271.6	1.0	35	5.4
RUE	e P	Z	09:06:09.7	80.7	271.7	1.0	46	5.4
GEC2	e P	Z	09:06:10.2	80.8	272.2	1.0	38	5.4
	e pP	Z	09:06:42.1					
BRG	e P	Z	09:06:10.7	80.9	272.1	1.0	27	5.3
	e pP	Z	09:06:42.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/20	12:02:36.0	47.917N	151.384E	33.0G	4.9	4.2		SZGRF
Kuril Islands, Russia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	12:14:10.9	74.3	25.8	0.9	9	4.8		
CLL	e P	Z	12:14:12.1	74.6	27.5	1.2	26	5.1		
BRG	e P	Z	12:14:12.8	74.7	28.0	1.0	6	4.6		
FBE	e P	Z	12:14:13.8	74.8	27.7	0.8	12	5.0		
CLZ	e P	Z	12:14:14.4	74.8	25.9	1.3	18	4.9		
NEUB	e P	Z	12:14:14.4	75.0	26.7	0.6	16	5.2		
TANN	e P	Z	12:14:17.7	75.5	27.1	0.7	2	4.5		
WERD	e P	Z	12:14:17.9	75.5	27.0	1.0	5	4.6		
PLN	e P	Z	12:14:18.0	75.5	26.9	1.0	27	5.4		
MOX	e P	Z	12:14:18.0	75.6	26.6	1.0	8	4.8		
GUNZ	e P	Z	12:14:18.4	75.6	27.0	1.1	10	4.9		
WERN	e P	Z	12:14:18.5	75.7	27.0	0.9	10	4.9		
MANZ	e P	Z	12:14:20.5	76.0	26.8	1.1	9	4.8		
ROTZ	e P	Z	12:14:21.9	76.2	26.8	0.9	10	4.9		
GRA1	e L	Z	12:51:58.5	76.5	26.2	20.3	119		4.2	
WET	e P	Z	12:14:23.8	76.5	27.2	1.1	18	5.1		
GEC2	e P	Z	12:14:23.4	76.5	27.6	1.1	8	4.8		
TNS	e P	Z	12:14:25.2	76.8	24.5	0.9	12	5.0		
RJOB	e P	Z	12:14:30.8	77.8	27.0	0.6	9	5.1		
BFO	e P	Z	12:14:34.4	78.6	24.3	1.0	16	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/20	20:02:27.3	15.100S	173.700W	35.0F				NEIC
Tonga Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e PKPbc	Z	20:21:59.1	144.2	8.6					
PLN	e PKPbc	Z	20:21:59.4	144.3	9.6					

WERD	e	PKPbc	Z	20:21:59.6	144.3	9.8
TANN	e	PKPbc	Z	20:21:59.8	144.3	10.1
GUNZ	e	PKPbc	Z	20:22:00.0	144.4	9.9
WERN	e	PKPbc	Z	20:22:00.4	144.5	10.0
MANZ	e	PKPbc	Z	20:22:01.0	144.8	9.6
TNS	e	PKPbc	Z	20:22:00.5	144.8	3.4
ROTZ	e	PKPbc	Z	20:22:01.2	145.0	9.8
GRA1	e	PKPbc	Z	20:22:02.0	145.2	8.2
WLF	e	PKPbc	Z	20:22:03.1	145.4	359.6
WET	e	PKPbc	Z	20:22:03.5	145.5	11.1
GEC2	e	PKPbc	Z	20:22:03.8	145.7	12.6
STU	e	PKPbc	Z	20:22:05.8	146.3	4.9
FUR	e	PKPbc	Z	20:22:07.0	146.7	8.6
BFO	e	PKPbc	Z	20:22:06.9	146.7	3.4
RJOB	e	PKPbc	Z	20:22:07.8	146.9	11.4

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/21 00:53:14.1 19.700S 169.900E 35.0G NEIC
 Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e	PKPbc	Z	01:12:41.1	143.5	40.2				
CLL	e	PKPbc	Z	01:12:41.3	143.6	38.5				
NRDL	e	PKPbc	Z	01:12:42.0	143.6	33.3				
FBE	e	PKPbc	Z	01:12:42.6	143.7	39.3				
CLZ	e	PKPbc	Z	01:12:43.6	144.1	34.2				
NEUB	e	PKPbc	Z	01:12:43.6	144.1	36.7				
TANN	e	PKPbc	Z	01:12:45.2	144.5	38.4				
WERD	e	PKPbc	Z	01:12:45.3	144.5	38.2				
PLN	e	PKPbc	Z	01:12:45.5	144.5	37.9				
IBBN	e	PKPbc	Z	01:12:45.2	144.6	29.9				
GUNZ	e	PKPbc	Z	01:12:45.7	144.6	38.3				
WERN	e	PKPbc	Z	01:12:45.8	144.6	38.4				
MOX	e	PKPbc	Z	01:12:45.5	144.6	37.0				
MANZ	e	PKPbc	Z	01:12:46.8	144.9	38.3				
UBBA	e	PKPbc	Z	01:12:46.7	145.1	34.4				
ROTZ	e	PKPbc	Z	01:12:47.5	145.1	38.6				
GEC2	e	PKPbc	Z	01:12:47.2	145.2	41.7				
WET	e	PKPbc	Z	01:12:48.0	145.3	40.2				
BUG	e	PKPbc	Z	01:12:47.8	145.5	29.7				
GRA1	e	PKPbc	Z	01:12:48.7	145.5	37.2				
TNS	e	PKPbc	Z	01:12:50.5	146.1	32.5				
RJOB	e	PKPbc	Z	01:12:50.8	146.4	41.4				
FUR	e	PKPbc	Z	01:12:52.3	146.7	38.7				
STU	e	PKPbc	Z	01:12:53.1	147.1	34.9				
WLF	e	PKPbc	Z	01:12:54.5	147.4	29.2				
BFO	e	PKPbc	Z	01:12:54.8	147.7	33.9				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/21	01:25:22.6	44.065N	16.594E	10.0G			3.4	SZGRF
Northwestern Balkan Peninsula								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	01:26:29.6	4.5	142.9					3.5
	e Sn	E	01:27:18.1							
GEC2	e Pn	Z	01:26:38.4	5.2	156.3					3.2
	e Sn	E	01:27:33.3							
WET	e Pn	Z	01:26:44.8	5.7	151.9					3.4
	e Sn	N	01:27:44.8							
ROTZ	e Pn	Z	01:26:54.9	6.4	150.7					3.5
	e Sn	E	01:28:02.6							
MANZ	e Pn	Z	01:26:59.1	6.7	151.0					3.6
	e Sn	E	01:28:08.8							
TNS	e Pn	Z	01:27:20.2	8.3	135.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/21								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ASSE	e PKPbc	Z	02:57:19.3							
BFO	e PKPbc	Z	02:57:28.9							
	e PKPab	Z	02:57:41.0							
BRG	e PKPbc	Z	02:57:20.8							
	e PKPab	Z	02:57:26.6							
BSEG	e PKPbc	Z	02:57:14.8							
BUG	e PKPbc	Z	02:57:22.3							
CLL	e PKPbc	Z	02:57:20.2							
	e PKPab	Z	02:57:25.1							
CLZ	e PKPbc	Z	02:57:20.4							
	e PKPab	Z	02:57:25.8							
DREG	e PKPbc	Z	02:57:24.1							
	e PKPab	Z	02:57:32.6							
FBE	e PKPbc	Z	02:57:21.4							
	e PKPab	Z	02:57:27.2							
FLT1	e PKPbc	Z	02:57:18.3							
	e PKPab	Z	02:57:22.8							
FUR	e PKPbc	Z	02:57:28.0							
	e PKPab	Z	02:57:40.1							
GEC2	e PKPbc	Z	02:57:25.3							
GRA1	e PKPbc	Z	02:57:25.0							
	e PKPab	Z	02:57:33.9							
GTTG	e PKPbc	Z	02:57:21.1							

	e	PKPab	Z	02:57:26.8
GUNZ	e	PKPbc	Z	02:57:22.9
	e	PKPab	Z	02:57:30.1
IBBN	e	PKPbc	Z	02:57:20.0
MANZ	e	PKPbc	Z	02:57:23.9
	e	PKPab	Z	02:57:31.5
MOX	e	PKPbc	Z	02:57:22.4
	e	PKPab	Z	02:57:29.4
NEUB	e	PKPbc	Z	02:57:21.3
	e	PKPab	Z	02:57:27.1
NRDL	e	PKPbc	Z	02:57:18.4
PLN	e	PKPbc	Z	02:57:22.7
	e	PKPab	Z	02:57:29.8
RJOB	e	PKPab	Z	02:57:40.4
ROTZ	e	PKPbc	Z	02:57:24.2
	e	PKPab	Z	02:57:32.5
RUE	e	PKPbc	Z	02:57:17.0
TANN	e	PKPbc	Z	02:57:22.7
	e	PKPab	Z	02:57:29.7
TNS	e	PKPbc	Z	02:57:24.7
	e	PKPab	Z	02:57:33.4
UBBA	e	PKPab	Z	02:57:29.6
WERD	e	PKPbc	Z	02:57:22.8
	e	PKPab	Z	02:57:29.6
WERN	e	PKPbc	Z	02:57:23.1
	e	PKPab	Z	02:57:30.5
WET	e	PKPbc	Z	02:57:25.1
	e	PKPab	Z	02:57:34.4
WLF	e	PKPbc	Z	02:57:26.9
	e	PKPab	Z	02:57:37.3

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/21	05:26:17.0	51.590N	155.180E	173.0	6.1			SZGRF
Northwest of Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 05:37:07.1	69.2	24.2	1.8	626	6.4		
BSEG	e P	Z 05:37:15.1	70.5	22.3	1.9	468	6.3		
HLG	e P	Z 05:37:16.8	70.8	20.8	1.3	197	6.1		
RUE	e P	Z 05:37:17.8	71.0	24.2	1.7	442	6.3		
	e pP	Z 05:37:59.4							
NRDL	e P	Z 05:37:22.9	71.9	22.0	1.7	188	5.9		
	e pP	Z 05:38:04.3							
CLL	e P	Z 05:37:24.8	72.3	23.6	1.7	300	6.2		
	e pP	Z 05:38:06.5							
CLZ	e P	Z 05:37:26.7	72.4	22.1	1.6	356	6.2		
	e pP	Z 05:38:08.2							

BRG	e P	Z	05:37:26.0	72.4	24.1	1.6	141	5.9
	e pP	Z	05:38:07.6					
FBE	e P	Z	05:37:26.9	72.5	23.7	1.8	347	6.2
	e pP	Z	05:38:08.5					
IBBN	e P	Z	05:37:27.2	72.5	20.5	2.0	367	6.2
NEUB	e P	Z	05:37:27.5	72.6	22.8	1.8	296	6.1
	e pP	Z	05:38:09.1					
MOX	e P	Z	05:37:30.9	73.2	22.7	1.6	191	5.9
	e pP	Z	05:38:12.6					
TANN	e P	Z	05:37:31.1	73.2	23.1	1.8	209	5.9
	e pP	Z	05:38:12.8					
WERD	e P	Z	05:37:31.1	73.2	23.1	1.7	263	6.0
	e pP	Z	05:38:12.8					
PLN	e P	Z	05:37:31.2	73.2	23.0	2.2	2660	6.9
	e pP	Z	05:38:12.9					
GUNZ	e P	Z	05:37:31.5	73.3	23.1	1.7	279	6.0
	e pP	Z	05:38:13.2					
WERN	e P	Z	05:37:31.9	73.3	23.1	1.7	235	5.9
	e pP	Z	05:38:13.6					
UBBA	e P	Z	05:37:32.1	73.4	21.7	1.8	248	5.9
	e pP	Z	05:38:13.5					
BUG	e P	Z	05:37:32.3	73.5	20.1	1.9	328	6.0
MANZ	e P	Z	05:37:33.7	73.7	22.9	1.7	152	5.8
	e pP	Z	05:38:15.4					
ROTZ	e P	Z	05:37:35.2	73.9	22.9	1.6	215	5.9
	e pP	Z	05:38:16.8					
GRA1	e P	Z	05:37:37.0	74.2	22.3	1.7	485	6.2
	e pP	Z	05:38:18.7					
WET	e P	Z	05:37:37.5	74.3	23.2	1.7	326	6.1
	e pP	Z	05:38:19.2					
GEC2	e P	Z	05:37:37.4	74.3	23.7	1.6	160	5.8
	e pP	Z	05:38:19.2					
TNS	e P	Z	05:37:37.7	74.3	20.7	1.7	187	5.8
WLF	e P	Z	05:37:43.7	75.4	19.3	2.4	741	6.4
STU	e P	Z	05:37:44.2	75.5	21.0	1.9	273	6.1
	e pP	Z	05:38:25.9					
FUR	e P	Z	05:37:44.7	75.6	22.2	1.6	358	6.2
	e pP	Z	05:38:26.5					
RJOB	e P	Z	05:37:45.2	75.6	23.0	1.9	258	6.0
	e pP	Z	05:38:27.0					
BFO	e P	Z	05:37:47.6	76.1	20.5	2.1	311	6.1
	e pP	Z	05:38:29.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/21	08:37:24.6	51.678N	177.168W	33.0N	5.0	4.1		SZGRF
Andreanof Islands, Aleutian Islands, United States								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e P	Z	08:49:10.2	76.3	4.8	1.6	33	5.2		
CLL	e P	Z	08:49:11.8	76.7	6.5	0.9	10	4.9		
FBE	e P	Z	08:49:14.3	77.0	6.7	0.9	20	5.3		
BRG	e P	Z	08:49:14.3	77.0	7.0	1.3	17	5.0		
MOX	e P	Z	08:49:16.5	77.4	5.6	1.4	21	5.1		
PLN	e P	Z	08:49:17.2	77.5	5.9	1.1	35	5.4		
WERD	e P	Z	08:49:17.0	77.6	6.0	1.1	8	4.8		
TANN	e P	Z	08:49:17.4	77.6	6.1	1.5	15	4.9		
GUNZ	e P	Z	08:49:17.4	77.6	6.0	1.6	26	5.1		
WERN	e P	Z	08:49:18.5	77.7	6.0	1.1	16	5.1		
TNS	e P	Z	08:49:19.4	78.0	3.6	1.1	12	4.9		
MANZ	e P	Z	08:49:19.8	78.0	5.9	0.9	6	4.8		
ROTZ	e P	Z	08:49:21.4	78.2	5.9	1.0	9	4.8		
GRA1	e P	Z	08:49:22.2	78.4	5.3	1.5	48	5.3		
	e L	Z	09:22:00.1			21.9	106		4.1	
WET	e P	Z	08:49:24.6	78.8	6.3	1.3	10	4.7		
GEC2	e P	Z	08:49:25.7	79.0	6.8	1.0	8	4.7		
BFO	e P	Z	08:49:29.4	79.9	3.5	2.0	35	4.9		

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/21 09:57:53.3 38.400N 142.290E 43.5 5.4 5.0
 Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	10:09:53.8	78.8	36.4	1.0	86	5.7		
	e pP	Z	10:10:06.6							
BRG	e P	Z	10:09:59.2	79.9	38.6	1.0	27	5.1		
	e pP	Z	10:10:11.8							
CLL	e P	Z	10:09:59.2	79.9	38.0	1.0	54	5.4		
	e pP	Z	10:10:11.9							
NRDL	e P	Z	10:10:00.4	80.1	36.1	1.0	19	5.0		
FBE	e P	Z	10:10:00.6	80.1	38.2	1.0	54	5.4		
	e pP	Z	10:10:13.1							
NEUB	e P	Z	10:10:02.9	80.5	37.2	1.2	78	5.6		
	e pP	Z	10:10:15.2							
CLZ	e P	Z	10:10:02.7	80.5	36.2	1.1	63	5.6		
TANN	e P	Z	10:10:04.2	80.9	37.6	1.1	13	4.8		
	e pP	Z	10:10:16.9							
WERD	e P	Z	10:10:04.6	80.9	37.5	1.2	19	5.0		
	e pP	Z	10:10:17.3							
PLN	e P	Z	10:10:04.8	80.9	37.4	1.3	95	5.7		
	e pP	Z	10:10:17.4							
GUNZ	e P	Z	10:10:05.0	81.0	37.5	1.1	26	5.2		
	e pP	Z	10:10:17.6							
WERN	e P	Z	10:10:05.1	81.0	37.5	1.1	26	5.2		
	e pP	Z	10:10:17.7							

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MOX	e P	Z	10:10:05.0	81.0	37.0	1.3	26	5.1
	e pP	Z	10:10:17.8					
IBBN	e P	Z	10:10:05.6	81.1	34.4	1.0	70	5.6
MANZ	e P	Z	10:10:07.0	81.3	37.3	1.1	29	5.3
UBBA	e P	Z	10:10:07.4	81.5	35.9	1.4	21	5.1
ROTZ	e P	Z	10:10:07.8	81.5	37.3	1.2	33	5.3
	e pP	Z	10:10:20.5					
GEC2	e P	Z	10:10:08.0	81.6	38.3	1.0	22	5.2
	e pP	Z	10:10:20.7					
WET	e P	Z	10:10:09.1	81.7	37.7	1.2	31	5.3
	e pP	Z	10:10:21.7					
GRA1	e P	Z	10:10:10.3	81.9	36.6	1.0	50	5.6
	e pP	Z	10:10:22.0					
	e L	Z	10:51:28.8			18.7	570	5.0
BUG	e P	Z	10:10:10.0	81.9	34.0	0.8	25	5.4
TNS	e P	Z	10:10:13.3	82.5	34.8	0.9	16	5.2
RJOB	e P	Z	10:10:14.9	82.8	37.6	0.9	38	5.6
FUR	e P	Z	10:10:16.3	83.1	36.6	1.0	68	5.8
STU	e P	Z	10:10:18.3	83.4	35.2	1.1	70	5.8
	e pP	Z	10:10:30.4					
WLF	e P	Z	10:10:20.0	83.8	33.1	1.5	47	5.5
BFO	e P	Z	10:10:20.9	84.1	34.5	1.1	70	5.8
	e pP	Z	10:10:33.9					

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/21 17:32:24.2 9.600S 71.300W 623.0 5.0 NEIC
 Peru-Brazil border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	17:44:15.0	89.4	254.2	0.9	19	5.3		
BFO	e P	Z	17:44:19.0	90.5	255.8	0.9	4	4.6		
TNS	e P	Z	17:44:22.4	91.0	256.0	1.3	16	5.2		
CLZ	e P	Z	17:44:29.7	92.5	257.5	1.0	5	4.8		
GRA1	e P	Z	17:44:29.8	92.6	258.1	1.2	10	5.1		
MOX	e P	Z	17:44:31.9	93.0	258.4	0.8	3	4.8		
MANZ	e P	Z	17:44:33.0	93.2	258.7	1.2	8	5.0		
RJOB	e P	Z	17:44:32.7	93.2	259.1	0.7	6	5.1		
ROTZ	e P	Z	17:44:33.2	93.2	258.8	1.0	10	5.2		
PLN	e P	Z	17:44:33.4	93.4	258.8	1.3	34	5.6		
WERD	e P	Z	17:44:33.7	93.4	258.9	1.5	11	5.1		
WERN	e P	Z	17:44:34.1	93.5	259.0	1.0	5	4.9		
TANN	e P	Z	17:44:34.5	93.5	259.0	1.6	11	5.0		
WET	e P	Z	17:44:34.2	93.6	259.3	1.0	8	5.1		
CLL	e P	Z	17:44:36.4	94.0	259.5	1.5	9	4.9		
GEC2	e P	Z	17:44:36.2	94.0	259.9	0.8	6	5.0		
BRG	e P	Z	17:44:38.9	94.5	260.2	1.2	8	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/21	19:45: 9.7	14.113N	54.786E	27.5	5.1	4.6		SZGRF
Owen Fracture Zone region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	19:53:49.5	48.3	119.7	1.1	11	4.9		
	e sP	Z	19:54:01.0							
GEC2	e P	Z	19:53:49.3	48.3	121.5	2.6	48	5.2		
	e sP	Z	19:54:01.4							
WET	e P	Z	19:53:53.3	49.0	120.8	1.4	9	4.6		
	e sP	Z	19:54:05.0							
BRG	e P	Z	19:53:56.6	49.3	123.2	1.0	9	4.7		
	e pP	Z	19:54:03.1							
	e sP	Z	19:54:08.1							
FUR	e P	Z	19:53:57.8	49.4	118.4	0.8	54	5.6		
	e pP	Z	19:54:04.6							
	e sP	Z	19:54:09.5							
FBE	e P	Z	19:53:59.6	49.6	122.6	1.4	24	4.9		
	e pP	Z	19:54:06.2							
	e sP	Z	19:54:11.2							
ROTZ	e P	Z	19:53:59.5	49.7	120.6	1.6	23	4.9		
	e pP	Z	19:54:06.1							
	e sP	Z	19:54:11.2							
MANZ	e P	Z	19:54:00.8	49.8	120.6	1.4	17	4.8		
	e pP	Z	19:54:07.2							
	e sP	Z	19:54:12.4							
WERN	e P	Z	19:54:01.4	49.8	121.1	1.5	40	5.1		
	e sP	Z	19:54:12.8							
TANN	e P	Z	19:54:01.1	49.8	121.3	2.9	139	5.4		
	e sP	Z	19:54:12.8							
GUNZ	e P	Z	19:54:01.8	49.9	121.1	1.4	33	5.1		
	e sP	Z	19:54:13.3							
WERD	e P	Z	19:54:01.7	49.9	121.2	1.4	20	4.9		
	e sP	Z	19:54:13.5							
CLL	e P	Z	19:54:02.3	50.0	122.5	1.7	41	5.1		
	e sP	Z	19:54:13.9							
PLN	e P	Z	19:54:02.5	50.0	121.0	2.5	532	6.0		
	e sP	Z	19:54:14.4							
GRA1	e P	Z	19:54:03.2	50.2	119.5	0.9	16	4.9		
	e pP	Z	19:54:09.7							
	e sP	Z	19:54:14.7							
	e L	Z	20:22:16.7			18.1	505		4.6	
RUE	e P	Z	19:54:04.0	50.3	124.2	1.1	27	5.1		
	e pP	Z	19:54:10.6							
	e sP	Z	19:54:15.6							
MOX	e P	Z	19:54:05.7	50.4	120.6	0.9	12	4.8		
	e pP	Z	19:54:12.2							

	e sP	Z	19:54:17.3						
NEUB	e P	Z	19:54:07.2	50.6	121.2	0.9	41	5.3	
	e pP	Z	19:54:13.7						
	e sP	Z	19:54:18.8						
BFO	e P	Z	19:54:11.4	51.2	115.6	1.1	16	4.9	
	e sP	Z	19:54:23.4						
CLZ	e P	Z	19:54:15.3	51.7	120.1	2.4	136	5.5	
	e pP	Z	19:54:21.8						
	e sP	Z	19:54:26.9						
TNS	e P	Z	19:54:17.0	52.0	117.1	1.6	30	5.0	
	e pP	Z	19:54:23.6						
	e sP	Z	19:54:28.8						
NRDL	e P	Z	19:54:18.9	52.2	120.3	1.3	42	5.2	
	e pP	Z	19:54:25.6						
	e sP	Z	19:54:30.4						
WLF	e P	Z	19:54:25.9	53.1	114.4	0.9	16	4.9	
	e pP	Z	19:54:32.4						
	e sP	Z	19:54:37.3						
BUG	e P	Z	19:54:26.6	53.2	116.7	0.9	11	4.8	
	e pP	Z	19:54:33.0						
	e sP	Z	19:54:37.9						
IBBN	e P	Z	19:54:27.4	53.3	117.8	0.8	14	5.0	
	e sP	Z	19:54:39.1						

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/21 21:10:03.4 10.900S 166.000E 71.0
 Santa Cruz Islands NEIC

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKiKP	Z	21:29:15.6	134.0	39.7					
CLL	e PKPdf	Z	21:29:13.1	134.0	38.3					
	e PKiKP	Z	21:29:15.5							
NRDL	e PKPdf	Z	21:29:13.1	134.1	33.9					
	e PKiKP	Z	21:29:15.8							
FBE	e PKiKP	Z	21:29:16.3	134.2	39.0					
CLZ	e PKPdf	Z	21:29:14.0	134.5	34.6					
	e PKiKP	Z	21:29:17.1							
NEUB	e PKPdf	Z	21:29:14.3	134.5	36.8					
	e PKiKP	Z	21:29:16.8							
TANN	e PKPdf	Z	21:29:14.6	134.9	38.2					
	e PKiKP	Z	21:29:17.6							
WERD	e PKPdf	Z	21:29:14.6	134.9	37.9					
	e PKiKP	Z	21:29:17.5							
PLN	e PKiKP	Z	21:29:17.5	135.0	37.7					
GUNZ	e PKPdf	Z	21:29:15.3	135.0	38.0					
	e PKiKP	Z	21:29:17.6							
IBBN	e PKiKP	Z	21:29:17.6	135.0	31.0					

WERN	e	PKiKP	Z	21:29:18.0	135.0	38.1
MOX	e	PKPdf	Z	21:29:15.2	135.0	36.9
	e	PKiKP	Z	21:29:17.5		
MANZ	e	PKPdf	Z	21:29:16.1	135.4	38.0
	e	PKiKP	Z	21:29:18.5		
ROTZ	e	PKiKP	Z	21:29:18.8	135.5	38.2
GEC2	e	PKPdf	Z	21:29:16.4	135.6	40.7
	e	PKiKP	Z	21:29:19.0		
WET	e	PKiKP	Z	21:29:19.2	135.7	39.5
BUG	e	PKiKP	Z	21:29:19.3	135.9	30.8
GRA1	e	PKPdf	Z	21:29:16.9	136.0	37.0
TNS	e	PKiKP	Z	21:29:21.0	136.6	33.0
FUR	e	PKiKP	Z	21:29:21.9	137.2	38.1
STU	e	PKPdf	Z	21:29:20.0	137.5	34.9
	e	PKiKP	Z	21:29:22.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/22	01:48:28.8	13.600S	167.100E	217.0				NEIC
Vanuatu Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e	PKPdf	Z	02:07:24.2	135.7	38.5				
BSEG	e	PKPdf	Z	02:07:24.2	135.8	33.2				
BRG	e	PKPdf	Z	02:07:26.0	136.9	39.8				
CLL	e	PKPdf	Z	02:07:26.0	136.9	38.3				
NRDL	e	PKPdf	Z	02:07:26.4	137.0	33.7				
FBE	e	PKPdf	Z	02:07:26.8	137.1	39.0				
CLZ	e	PKPdf	Z	02:07:27.2	137.5	34.5				
NEUB	e	PKPdf	Z	02:07:27.2	137.5	36.7				
TANN	e	PKPdf	Z	02:07:28.0	137.8	38.2				
WERD	e	PKPdf	Z	02:07:27.8	137.9	37.9				
PLN	e	PKPdf	Z	02:07:27.9	137.9	37.7				
GUNZ	e	PKPdf	Z	02:07:28.2	137.9	38.0				
IBBN	e	PKPdf	Z	02:07:28.4	137.9	30.6				
WERN	e	PKPdf	Z	02:07:28.2	138.0	38.1				
MOX	e	PKPdf	Z	02:07:28.1	138.0	36.9				
MANZ	e	PKPdf	Z	02:07:28.5	138.3	38.0				
ROTZ	e	PKPdf	Z	02:07:28.6	138.5	38.3				
GEC2	e	PKPdf	Z	02:07:28.9	138.5	40.9				
WET	e	PKPdf	Z	02:07:29.4	138.7	39.6				
BUG	e	PKPdf	Z	02:07:29.4	138.8	30.5				
TNS	e	PKPdf	Z	02:07:31.0	139.5	32.8				
FUR	e	PKPdf	Z	02:07:31.7	140.1	38.2				
STU	e	PKPdf	Z	02:07:32.6	140.4	34.8				
WLF	e	PKPdf	Z	02:07:33.7	140.7	29.9				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/22	09:26:2.1	39.176N	77.446E	33.0N	5.0	4.3		SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	09:34:13.1	44.9	79.4	1.0	12	4.8		
FBE	e P	Z	09:34:16.2	45.3	79.0	1.0	28	5.1		
CLL	e P	Z	09:34:16.6	45.4	79.2	1.1	18	5.0		
GEC2	e P	Z	09:34:18.1	45.5	77.2	1.2	28	5.2		
TANN	e P	Z	09:34:21.1	45.9	78.0	1.1	12	4.8		
WET	e P	Z	09:34:21.6	45.9	77.0	1.0	14	4.9		
WERN	e P	Z	09:34:21.7	46.0	77.8	1.2	10	4.8		
WERD	e P	Z	09:34:21.7	46.0	77.9	1.3	15	4.9		
GUNZ	e P	Z	09:34:21.9	46.0	77.8	1.1	13	4.9		
PLN	e P	Z	09:34:22.4	46.1	77.8	1.4	64	5.5		
ROTZ	e P	Z	09:34:24.0	46.2	77.2	1.5	18	4.9		
MANZ	e P	Z	09:34:23.7	46.2	77.3	1.5	14	4.8		
MOX	e P	Z	09:34:24.7	46.4	77.6	1.0	10	4.9		
BSEG	e P	Z	09:34:25.9	46.5	79.8	1.3	52	5.5		
GRA1	e P	Z	09:34:29.3	46.9	76.5	1.1	37	5.4		
	e L	Z	09:54:43.7			21.6	393		4.3	
CLZ	e P	Z	09:34:28.6	46.9	77.9	1.1	14	5.0		
NRDL	e P	Z	09:34:29.0	46.9	78.3	1.1	26	5.3		
FUR	e P	Z	09:34:31.9	47.2	75.2	0.8	29	5.4		
IBBN	e P	Z	09:34:40.0	48.4	76.6	1.2	26	5.1		
TNS	e P	Z	09:34:41.0	48.5	75.2	1.4	11	4.7		
BUG	e P	Z	09:34:44.0	48.9	75.5	1.3	17	4.9		
BFO	e P	Z	09:34:45.3	49.0	73.6	1.0	8	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/22	15:18:19.1	17.200S	174.500W	192.0				NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	15:37:31.8	144.4	7.3					
IBBN	e PKPbc	Z	15:37:33.2	144.8	3.4					
CLZ	e PKPbc	Z	15:37:34.4	145.1	7.8					
CLL	e PKPbc	Z	15:37:34.7	145.3	12.3					
BRG	e PKPbc	Z	15:37:36.0	145.6	14.0					
FBE	e PKPbc	Z	15:37:36.4	145.6	13.0					
BUG	e PKPbc	Z	15:37:35.9	145.6	2.7					
UBBA	e PKPbc	Z	15:37:37.0	146.1	7.4					
MOX	e PKPbc	Z	15:37:37.4	146.1	10.2					
PLN	e PKPbc	Z	15:37:37.8	146.2	11.1					
WERD	e PKPbc	Z	15:37:37.8	146.2	11.4					
TANN	e PKPbc	Z	15:37:38.0	146.2	11.7					

GUNZ	e	PKPbc	Z	15:37:38.2	146.3	11.5
WERN	e	PKPbc	Z	15:37:38.7	146.4	11.6
MANZ	e	PKPbc	Z	15:37:39.3	146.7	11.2
TNS	e	PKPbc	Z	15:37:39.5	146.8	4.8
ROTZ	e	PKPbc	Z	15:37:40.1	146.9	11.4
GRA1	e	PKPbc	Z	15:37:40.7	147.1	9.7
WET	e	PKPbc	Z	15:37:41.4	147.4	12.8
WLF	e	PKPbc	Z	15:37:42.0	147.4	0.8
GEC2	e	PKPbc	Z	15:37:41.7	147.6	14.4
STU	e	PKPbc	Z	15:37:43.5	148.2	6.3
FUR	e	PKPbc	Z	15:37:44.4	148.6	10.3
BFO	e	PKPbc	Z	15:37:44.4	148.7	4.8
RJOB	e	PKPbc	Z	15:37:44.9	148.8	13.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/22	16:48: 4.3	19.700S	177.800W	534.0				NEIC
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e	PKPbc	Z	17:06:41.7	145.1	13.4				
NRDL	e	PKPbc	Z	17:06:45.7	146.5	13.6				
CLZ	e	PKPbc	Z	17:06:47.7	147.1	14.3				
CLL	e	PKPbc	Z	17:06:47.6	147.2	19.0				
	e	PKP	Z	17:06:50.4						
BRG	e	PKPbc	Z	17:06:48.3	147.4	20.8				
FBE	e	PKPbc	Z	17:06:48.8	147.5	19.8				
	e	PKP	Z	17:06:51.9						
MOX	e	PKPbc	Z	17:06:49.9	148.1	16.9				
	e	PKP	Z	17:06:54.3						
PLN	e	PKPbc	Z	17:06:50.2	148.1	18.0				
	e	PKP	Z	17:06:54.5						
TANN	e	PKPbc	Z	17:06:50.3	148.1	18.5				
	e	PKP	Z	17:06:54.7						
WERD	e	PKPbc	Z	17:06:50.3	148.1	18.2				
	e	PKP	Z	17:06:55.0						
GUNZ	e	PKPbc	Z	17:06:50.7	148.2	18.3				
	e	PKP	Z	17:06:55.0						
WERN	e	PKPbc	Z	17:06:50.7	148.3	18.4				
	e	PKP	Z	17:06:55.4						
MANZ	e	PKPbc	Z	17:06:51.5	148.6	18.1				
ROTZ	e	PKPbc	Z	17:06:52.1	148.8	18.4				
TNS	e	PKPbc	Z	17:06:52.4	149.0	11.5				
GRA1	e	PKP	Z	17:06:58.7	149.1	16.7				
WET	e	PKPbc	Z	17:06:53.0	149.2	20.0				
	e	PKP	Z	17:06:59.5						
GEC2	e	PKPbc	Z	17:06:53.1	149.3	21.6				
WLF	e	PKPbc	Z	17:06:54.7	149.8	7.4				

STU	e	PKPbc	Z	17:06:55.6	150.3	13.4
FUR	e	PKPbc	Z	17:06:56.1	150.5	17.6
	e	PKP	Z	17:07:05.0		
RJOB	e	PKPbc	Z	17:06:55.7	150.6	20.6
	e	PKP	Z	17:07:05.9		
BFO	e	PKPbc	Z	17:06:56.4	150.8	11.9
	e	PKP	Z	17:07:05.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/23	02:11:41.6	55.430N	161.680E	152.8	5.4			SZGRF
Near east coast of Kamchatka Peninsula, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 02:22:27.2	68.1	17.0	1.0	40	5.6		
HLG	e P	Z 02:22:30.0	68.3	15.6	1.2	278	6.4		
RUE	e P	Z 02:22:31.7	68.9	18.9	1.0	48	5.7		
NRDL	e P	Z 02:22:35.6	69.5	16.8	1.0	14	5.1		
IBBN	e P	Z 02:22:39.3	70.1	15.4	1.1	32	5.4		
CLZ	e P	Z 02:22:39.7	70.1	16.8	1.2	50	5.5		
	e pP	Z 02:23:16.9							
CLL	e P	Z 02:22:39.0	70.1	18.3	1.3	65	5.6		
	e pP	Z 02:23:15.8							
BRG	e P	Z 02:22:40.5	70.4	18.8	1.1	33	5.4		
	e pP	Z 02:23:17.9							
FBE	e P	Z 02:22:41.3	70.4	18.4	1.1	55	5.6		
	e pP	Z 02:23:18.0							
NEUB	e P	Z 02:22:41.2	70.5	17.6	1.1	34	5.4		
BUG	e P	Z 02:22:44.6	71.0	15.0	1.1	31	5.4		
MOX	e P	Z 02:22:44.8	71.0	17.4	1.1	33	5.4		
PLN	e P	Z 02:22:45.3	71.1	17.7	1.0	146	6.1		
	e pP	Z 02:23:22.3							
WERD	e P	Z 02:22:45.3	71.1	17.8	1.0	41	5.5		
	e pP	Z 02:23:22.4							
TANN	e P	Z 02:22:45.4	71.1	17.9	1.1	24	5.2		
GUNZ	e P	Z 02:22:45.9	71.2	17.8	1.0	32	5.4		
	e pP	Z 02:23:23.1							
UBBA	e P	Z 02:22:45.6	71.2	16.5	1.6	41	5.3		
WERN	e P	Z 02:22:46.3	71.2	17.8	0.9	39	5.6		
	e pP	Z 02:23:23.5							
MANZ	e P	Z 02:22:48.1	71.6	17.6	1.0	27	5.3		
ROTZ	e P	Z 02:22:49.7	71.8	17.7	1.1	33	5.4		
TNS	e P	Z 02:22:50.7	72.0	15.6	1.1	16	5.1		
GRA1	e P	Z 02:22:51.2	72.0	17.1	1.0	54	5.7		
WET	e P	Z 02:22:52.5	72.2	18.0	1.1	38	5.5		
	e pP	Z 02:23:29.4							
GEC2	e P	Z 02:22:52.8	72.3	18.4	1.0	24	5.3		
WLF	e P	Z 02:22:56.4	72.9	14.2	1.2	26	5.2		

STU	e P	Z	02:22:58.1	73.3	15.9	1.4	34	5.2
FUR	e P	Z	02:22:59.5	73.5	17.0	1.0	31	5.3
RJOB	e P	Z	02:23:00.4	73.6	17.8	0.9	27	5.3
BFO	e P	Z	02:23:01.4	73.9	15.4	1.4	29	5.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/23	07:37:14.9	48.076N	151.432E	33.0N	5.2	4.2		SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z 07:48:48.4	74.2	25.7	1.0	19	5.1		
CLL	e P	Z 07:48:49.6	74.4	27.4	1.1	33	5.3		
BRG	e P	Z 07:48:50.1	74.6	27.9	1.4	15	4.8		
FBE	e P	Z 07:48:51.2	74.7	27.6	1.2	21	5.0		
CLZ	e P	Z 07:48:51.8	74.7	25.8	1.1	32	5.3		
NEUB	e P	Z 07:48:52.2	74.9	26.6	1.1	31	5.3		
TANN	e P	Z 07:48:55.3	75.4	27.0	1.3	8	4.7		
WERD	e P	Z 07:48:55.2	75.4	26.9	1.1	13	5.0		
PLN	e P	Z 07:48:55.4	75.4	26.8	1.2	73	5.7		
MOX	e P	Z 07:48:55.5	75.4	26.5	1.2	20	5.1		
GUNZ	e P	Z 07:48:55.9	75.5	26.9	1.0	16	5.1		
WERN	e P	Z 07:48:56.2	75.5	26.9	1.0	18	5.2		
UBBA	e P	Z 07:48:56.9	75.7	25.5	1.5	16	4.9		
BUG	e P	Z 07:48:58.1	75.9	23.8	1.1	31	5.3		
MANZ	e P	Z 07:48:58.0	75.9	26.7	1.0	11	5.0		
ROTZ	e P	Z 07:48:59.3	76.0	26.7	0.9	15	5.1		
GRA1	e P	Z 07:49:01.4	76.4	26.1	1.0	45	5.6		
	e L	Z 08:27:18.8			20.2	112		4.2	
WET	e P	Z 07:49:01.3	76.4	27.1	1.0	24	5.3		
GEC2	e P	Z 07:49:00.9	76.4	27.5	0.9	10	5.0		
TNS	e P	Z 07:49:02.7	76.7	24.4	1.0	29	5.4		
RJOB	e P	Z 07:49:08.4	77.7	26.9	0.7	16	5.2		
FUR	e P	Z 07:49:08.6	77.8	26.0	0.9	39	5.6		
STU	e P	Z 07:49:08.7	77.8	24.7	0.9	32	5.4		
BFO	e P	Z 07:49:11.9	78.4	24.2	0.9	24	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/23	08:59:36.4	17.500S	177.400W	391.0				NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e PKPbc	Z 09:18:28.5	145.2	8.3					
CLZ	e PKPbc	Z 09:18:29.1	145.3	12.8					
CLL	e PKPbc	Z 09:18:29.1	145.4	17.3					
BRG	e PKPbc	Z 09:18:29.9	145.7	19.0					

FBE	e	PKPbc	Z	09:18:30.5	145.7	18.1
NEUB	e	PKPbc	Z	09:18:30.0	145.7	15.3
PLN	e	PKPbc	Z	09:18:32.1	146.4	16.2
WERD	e	PKPbc	Z	09:18:32.0	146.4	16.5
TANN	e	PKPbc	Z	09:18:32.2	146.4	16.8
WERN	e	PKPbc	Z	09:18:32.6	146.5	16.7
MANZ	e	PKPbc	Z	09:18:33.6	146.9	16.4
ROTZ	e	PKPbc	Z	09:18:34.3	147.1	16.6
TNS	e	PKPbc	Z	09:18:34.3	147.2	10.0
GEC2	e	PKPbc	Z	09:18:35.5	147.6	19.7
STU	e	PKPbc	Z	09:18:37.8	148.5	11.7
RJOB	e	PKPbc	Z	09:18:38.6	148.9	18.7
BFO	e	PKPbc	Z	09:18:39.0	149.0	10.3

Date Origin Time Lat Long Depth mb Ms ML Source
2009/04/23

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 15:08:03.6							

Date Origin Time Lat Long Depth mb Ms ML Source
2009/04/23 15:14: 9.0
Southern Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z 15:15:16.8	4.6	187.2					
KBA	e Pn	Z 15:15:24.5	5.1	176.4					
	e Sn	E 15:16:18.5							
ARSA	e Pn	Z 15:15:28.0	5.4	193.8					
	e Sn	E 15:16:25.3							
WTTA	e Pn	Z 15:15:30.5	5.5	163.3					
	e Sn	N 15:16:28.9							
RJOB	e Pn	Z 15:15:33.8	5.8	172.8					
	e Sn	E 15:16:35.4							
MOA	e Pn	Z 15:15:34.4	5.9	183.6					
	e Sn	E 15:16:37.0							
OBER	e Pn	Z 15:15:36.5	6.0	154.4					
	e Sn	N 15:16:38.4							
DAVA	e Pn	Z 15:15:36.1	6.0	151.2					
GEC2	e Pn	Z 15:15:48.2	6.9	179.6					
	e Sn	E 15:17:00.1							
WET	e Pn	Z 15:15:50.9	7.2	174.7					
	e Sn	E 15:17:06.5							
BFO	e Pn	Z 15:15:54.4	7.4	147.0					
	e Sn	E 15:17:11.7							

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MOX e Pn Z 15:16:13.3 8.8 169.5

Date Origin Time Lat Long Depth mb Ms ML Source
2009/04/23 19:20:14.7 34.007N 123.650E 33.0N 5.0
Yellow Sea SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 19:31:54.6	75.3	53.3	0.9	11	5.0		
FBE	e P	Z 19:31:55.3	75.4	53.5	0.9	12	5.0		
NEUB	e P	Z 19:31:58.3	76.0	52.5	0.9	18	5.2		
NRDL	e P	Z 19:31:58.0	76.0	51.6	1.2	10	4.8		
TANN	e P	Z 19:31:58.8	76.1	52.8	1.9	18	4.9		
PLN	e P	Z 19:31:59.4	76.2	52.6	1.2	37	5.4		
WERN	e P	Z 19:31:59.8	76.2	52.7	1.4	15	4.9		
CLZ	e P	Z 19:32:00.0	76.3	51.6	1.2	24	5.2		
MOX	e P	Z 19:32:00.2	76.4	52.2	2.8	37	5.0		
GEC2	e P	Z 19:32:00.5	76.4	53.3	2.6	52	5.2		
ROTZ	e P	Z 19:32:02.0	76.6	52.5	1.3	12	4.9		
GRA1	e P	Z 19:32:05.7	77.2	51.8	1.3	21	5.1		
RJOB	e P	Z 19:32:06.9	77.6	52.5	0.9	7	4.8		

Date Origin Time Lat Long Depth mb Ms ML Source
2009/04/23 21:48:57.8 41.701N 13.886E 10.0G
Southern Italy SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z 21:50:08.7	4.8	185.9					
KBA	e Pn	Z 21:50:16.5	5.4	175.7					
	e Sn	N 21:51:12.9							
ARSA	e Pn	Z 21:50:20.4	5.7	192.5					
WTTA	e Pn	Z 21:50:22.4	5.8	163.1					
RJOB	e Pn	Z 21:50:25.6	6.1	172.3					
	e Sn	E 21:51:29.0							
MOA	e Pn	Z 21:50:26.9	6.2	182.6					
	e Sn	N 21:51:32.4							
OBER	e Pn	Z 21:50:29.8	6.3	154.6					
	e Sn	E 21:51:32.5							
DAVA	e Pn	Z 21:50:28.7	6.3	151.5					
	e Sn	E 21:51:37.0							
GEC2	e Pn	Z 21:50:39.3	7.1	178.9					
	e Sn	N 21:51:54.5							
WET	e Pn	Z 21:50:44.1	7.5	174.2					
BFO	e Pn	Z 21:50:46.4	7.7	147.3					
	e Sn	N 21:52:06.0							
MOX	e Pn	Z 21:51:05.6	9.1	169.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/24	05:37:34.4	31.692S	177.716W	10.0G		5.1		NEIC

Kermadec Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPab	Z	05:58:10.4	157.0	17.7					
NRDL	e PKPab	Z	05:58:16.0	158.4	18.4					
CLL	e PKPab	Z	05:58:18.3	158.9	26.0					
BRG	e PKPab	Z	05:58:19.2	159.0	28.6					
FBE	e PKPab	Z	05:58:20.1	159.1	27.3					
TANN	e PKPab	Z	05:58:23.1	159.8	25.8					
WERD	e PKPab	Z	05:58:23.0	159.8	25.4					
MOX	e PKPab	Z	05:58:22.7	159.8	23.6					
	e		05:58:43.8							
	e L	Z	07:11:44.2			19.6	252		5.1	
GUNZ	e PKPab	Z	05:58:23.4	159.9	25.6					
WERN	e PKPab	Z	05:58:23.7	159.9	25.8					
MANZ	e PKPab	Z	05:58:25.1	160.3	25.5					
ROTZ	e PKPab	Z	05:58:26.4	160.5	26.0					
GRA1	e PKPab	Z	05:58:27.5	160.8	23.7					
	e		05:58:48.8							
	e L	Z	07:14:12.8			18.5	253		5.1	
GEC2	e PKPab	Z	05:58:27.4	160.8	30.8					
WET	e PKPab	Z	05:58:27.9	160.8	28.4					
TNS	e PKPab	Z	05:58:27.1	160.9	16.2					
RJOB	e PKPab	Z	05:58:33.4	162.1	30.3					
FUR	e PKPab	Z	05:58:33.6	162.2	25.7					
BFO	e PKPab	Z	05:58:35.0	162.7	17.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/24	23:05:13.9	47.331N	151.155E	33.0G	5.2	4.1		SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	23:16:47.5	73.4	26.5	0.9	26	5.3		
RUE	e P	Z	23:16:49.3	73.8	28.6	1.1	36	5.3		
NRDL	e P	Z	23:16:55.1	74.8	26.2	1.0	14	4.9		
CLL	e P	Z	23:16:56.1	75.0	27.9	1.1	30	5.2		
BRG	e P	Z	23:16:56.7	75.1	28.4	1.2	17	4.9		
FBE	e P	Z	23:16:57.8	75.3	28.1	1.1	21	5.2		
CLZ	e P	Z	23:16:58.5	75.3	26.3	1.4	46	5.4		
NEUB	e P	Z	23:16:58.7	75.5	27.1	1.1	35	5.4		
TANN	e P	Z	23:17:02.0	76.0	27.5	1.9	28	5.1		
WERD	e P	Z	23:17:02.0	76.0	27.4	1.8	28	5.1		

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PLN	e P	Z	23:17:02.1	76.0	27.3	1.3	80	5.7	
MOX	e P	Z	23:17:02.1	76.0	27.0	1.4	24	5.1	
	e L	Z	23:54:34.5			18.7	111		4.2
GUNZ	e P	Z	23:17:02.4	76.1	27.4	1.0	16	5.1	
WERN	e P	Z	23:17:02.7	76.1	27.4	1.1	16	5.1	
MANZ	e P	Z	23:17:04.5	76.5	27.2	0.9	8	4.8	
ROTZ	e P	Z	23:17:05.9	76.6	27.2	1.1	19	5.1	
WET	e P	Z	23:17:07.8	77.0	27.6	1.4	29	5.2	
GRA1	e P	Z	23:17:07.8	77.0	26.6	1.6	62	5.5	
	e L	Z	23:54:30.8			18.8	94		4.1
GEC2	e P	Z	23:17:07.4	77.0	28.1	1.6	19	5.0	
TNS	e P	Z	23:17:09.3	77.3	24.9	1.5	26	5.1	
RJOB	e P	Z	23:17:15.0	78.3	27.4	2.0	33	5.0	
FUR	e P	Z	23:17:15.1	78.3	26.5	1.7	61	5.3	
STU	e P	Z	23:17:15.2	78.4	25.2	2.0	58	5.3	
BFO	e P	Z	23:17:18.5	79.0	24.7	1.9	44	5.2	

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/25 01:36:31.2 34.744N 12.920E 10.0G 3.9 3.1 SZGRF
 Central Mediterranean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z	01:39:54.2	14.0	164.2					
GEC2	e P	Z	01:39:56.4	14.1	182.6					
STU	e P	Z	01:39:58.1	14.3	167.5					
WET	e P	Z	01:39:59.4	14.4	179.9					
GRA1	e P	Z	01:40:09.5	15.0	174.6	1.0	7			
	e L	Z	01:46:15.6			22.0	133		3.0	
WERN	e P	Z	01:40:17.1	15.5	178.3	1.1	7	3.7		
GUNZ	e P	Z	01:40:17.3	15.6	178.2	1.2	11	3.8		
TANN	e P	Z	01:40:17.3	15.7	178.6	1.0	4	3.4		
WERD	e P	Z	01:40:17.1	15.7	178.1					
TNS	e P	Z	01:40:17.8	15.8	166.4	1.6	42	4.3		
MOX	e P	Z	01:40:19.3	15.9	176.1	1.1	8	3.7		
	e L	Z	01:46:30.1			20.7	183		3.2	
UBBA	e P	Z	01:40:23.4	16.2	171.4	1.8	22	4.0		
CLL	e P	Z	01:40:24.7	16.6	180.2	1.3	18	4.0		
CLZ	e P	Z	01:40:34.0	17.2	172.9	1.3	12	3.9		
NRDL	e P	Z	01:40:45.8	17.9	172.4	1.3	7	3.6		
BSEG	e P	Z	01:41:01.6	19.3	173.5	1.2	20	4.2		

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/25 13:17:14.6 70.561N 4.054W 33.0G 4.7 3.4 SZGRF
 Jan Mayen Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	13:21:22.1	17.8	341.0	1.0	106	4.9		
BSEG	e P	Z	13:21:22.6	17.8	344.3	1.9	166	4.8		
NRDL	e P	Z	13:21:38.8	19.2	345.6	1.5	20	4.1		
CLZ	e P	Z	13:21:46.1	19.8	345.9	1.9	55	4.5		
CLL	e P	Z	13:21:56.2	20.8	344.0	1.6	34	4.4		
MOX	e P	Z	13:21:59.9	21.2	345.6	2.1	98	4.8		
	e L	Z	13:29:24.7			21.1	167		3.4	
FBE	e P	Z	13:22:03.0	21.2	344.0	2.0	69	4.6		
PLN	e P	Z	13:22:02.7	21.4	345.3	1.7	233	5.3		
WERD	e P	Z	13:22:03.5	21.5	345.2	1.6	37	4.6		
TANN	e P	Z	13:22:03.5	21.6	345.1	1.7	46	4.6		
GUNZ	e P	Z	13:22:03.1	21.6	345.2	1.9	52	4.6		
WERN	e P	Z	13:22:07.5	21.7	345.2	2.1	74	4.8		
MANZ	e P	Z	13:22:09.8	21.9	345.6	1.7	36	4.5		
GRA1	e P	Z	13:22:10.8	22.1	346.5	1.2	27	4.6		
	e L	Z	13:30:12.5			20.9	144		3.4	
ROTZ	e P	Z	13:22:10.4	22.1	345.7	2.0	57	4.7		
STU	e P	Z	13:22:14.6	22.7	348.6					
WET	e P	Z	13:22:16.8	22.9	345.5	2.0	37	4.6		
BFO	e P	Z	13:22:17.4	23.0	349.5	1.7	60	4.8		
GEC2	e P	Z	13:22:20.5	23.3	345.1	1.7	30	4.6		

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/25 13:54:34.8 41.147N 142.986E 45.0 4.9 4.1
 Hokkaido, Japan, region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	14:06:21.4	76.6	34.7	1.3	39	5.4		
BRG	e P	Z	14:06:27.8	77.8	36.8	0.9	7	4.8		
	e pP	Z	14:06:40.6							
CLL	e P	Z	14:06:27.7	77.8	36.2	0.8	12	5.1		
FBE	e P	Z	14:06:29.0	78.0	36.4	1.3	18	5.1		
CLZ	e P	Z	14:06:31.1	78.3	34.5	1.4	25	5.0		
NEUB	e P	Z	14:06:31.1	78.3	35.3	0.7	14	5.1		
TANN	e P	Z	14:06:32.8	78.7	35.7	1.8	12	4.6		
WERD	e P	Z	14:06:33.0	78.8	35.6	1.1	8	4.6		
PLN	e P	Z	14:06:33.4	78.8	35.5	1.2	44	5.4		
GUNZ	e P	Z	14:06:33.5	78.8	35.6	0.8	6	4.6		
MOX	e P	Z	14:06:33.5	78.9	35.2	1.0	7	4.6		
	e pP	Z	14:06:46.7							
	e L	Z	14:42:28.5			21.1	112		4.2	
WERN	e P	Z	14:06:33.7	78.9	35.6	1.0	7	4.6		
	e pP	Z	14:06:46.9							
MANZ	e P	Z	14:06:35.7	79.2	35.4	0.9	7	4.6		
	e pP	Z	14:06:48.8							
ROTZ	e P	Z	14:06:36.8	79.4	35.5	1.1	10	4.6		

	e pP	Z	14:06:49.6								
GEC2	e P	Z	14:06:37.0	79.5	36.3	0.8		6	4.6		
WET	e P	Z	14:06:38.1	79.6	35.8	1.1		16	4.9		
GRA1	e P	Z	14:06:39.1	79.8	34.8	0.9		22	5.1		
	e pP	Z	14:06:52.4								
	e L	Z	14:44:41.9				20.7	97		4.1	
RJOB	e P	Z	14:06:44.3	80.8	35.6	0.9		15	5.0		
FUR	e P	Z	14:06:45.5	81.0	34.7	1.0		33	5.3		
STU	e P	Z	14:06:46.8	81.3	33.4	0.8		23	5.3		
BFO	e P	Z	14:06:50.2	82.0	32.7	1.2		17	5.0		

Date Origin Time Lat Long Depth mb Ms ML Source
2009/04/25

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z 16:33:24.1							
CLL	e P	Z 16:33:26.3							
CLZ	e P	Z 16:33:17.0							
FLT1	e P	Z 16:33:12.6							
GEC2	e P	Z 16:33:47.6							
GRA1	e P	Z 16:33:41.1							
MOX	e P	Z 16:33:30.6							
NEUB	e P	Z 16:33:27.5							
PLN	e P	Z 16:33:33.4							
RJOB	e P	Z 16:33:59.4							
TANN	e P	Z 16:33:35.2							
TNS	e P	Z 16:33:36.8							
UBBA	e P	Z 16:33:29.4							
WERD	e P	Z 16:33:33.3							
WERN	e P	Z 16:33:36.0							
WET	e P	Z 16:33:43.5							
WLF	e P	Z 16:33:43.5							

Date Origin Time Lat Long Depth mb Ms ML Source
2009/04/25 17:18:46.8 45.948N 26.942E 33.0G
Romania SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 17:21:00.0	9.4	103.0					
RJOB	e Pn	Z 17:21:05.8	9.8	95.3					
BRG	e Pn	Z 17:21:06.6	9.9	114.7					
WET	e Pn	Z 17:21:09.2	10.0	103.3					
FBE	e Pn	Z 17:21:12.1	10.3	113.7					
ROTZ	e Pn	Z 17:21:16.2	10.6	105.5					
TANN	e Pn	Z 17:21:16.3	10.6	109.3					

WERN	e Pn	Z	17:21:17.0	10.6	108.5
CLL	e Pn	Z	17:21:16.4	10.6	114.8
GUNZ	e Pn	Z	17:21:17.7	10.7	108.8
MANZ	e Pn	Z	17:21:17.7	10.7	106.5
WERD	e Pn	Z	17:21:17.8	10.7	109.2
RUE	e Pn	Z	17:21:17.9	10.8	122.1
PLN	e Pn	Z	17:21:19.0	10.8	109.1
FUR	e Pn	Z	17:21:20.1	10.9	95.9
GRA1	e Pn	Z	17:21:24.1	11.2	103.6
MOX	e Pn	Z	17:21:24.1	11.2	108.9
NEUB	e Pn	Z	17:21:25.3	11.3	111.8
RGN	e Pn	Z	17:21:37.4	12.2	129.2
UBBA	e Pn	Z	17:21:38.1	12.2	106.9
STU	e Pn	Z	17:21:38.5	12.3	96.6
CLZ	e Pn	Z	17:21:40.3	12.3	112.0
NRDL	e Pn	Z	17:21:44.1	12.8	114.2
TNS	e Pn	Z	17:21:48.6	13.0	102.0
BSEG	e Pn	Z	17:21:50.2	13.3	120.1
BUG	e Pn	Z	17:22:02.7	14.0	105.3
WLF	e Pn	Z	17:22:06.4	14.4	97.0

Date Origin Time Lat Long Depth mb Ms ML Source
2009/04/25

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ASSE	e PKPbc	Z 20:18:42.6							
BRG	e PKPbc	Z 20:18:45.1							
BSEG	e PKPbc	Z 20:18:36.4							
CLL	e PKPbc	Z 20:18:43.7							
CLZ	e PKPbc	Z 20:18:45.0							
FBE	e PKPbc	Z 20:18:45.8							
FLT1	e PKPbc	Z 20:18:41.5							
FUR	e PKPbc	Z 20:18:59.3							
GRA1	e PKPbc	Z 20:18:52.7							
GUNZ	e PKPbc	Z 20:18:48.9							
IBBN	e PKPbc	Z 20:18:45.2							
MOX	e PKPbc	Z 20:18:48.4							
PLN	e PKPbc	Z 20:18:48.6							
RJOB	e PKPbc	Z 20:18:59.4							
WERN	e PKPbc	Z 20:18:49.1							
WET	e PKPbc	Z 20:18:53.4							
WLF	e PKPbc	Z 20:18:57.8							

Date Origin Time Lat Long Depth mb Ms ML Source
2009/04/26 00:06:39.5 29.033S 176.450W 33.0 SZGRF

Kermadec Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e		00:26:38.0	153.5	19.4					
	e PKPab	Z	00:26:52.7							
BSEG	e PKPdf	Z	00:26:30.6	154.6	13.9					
	e		00:26:40.6							
	e PKPab	Z	00:26:57.2							
HLG	e		00:26:41.0	154.7	8.9					
RUE	e PKPdf	Z	00:26:31.2	155.4	21.9					
	e		00:26:41.7							
	e PKPab	Z	00:27:00.1							
NRDL	e PKPdf	Z	00:26:31.5	156.0	14.2					
	e		00:26:43.5							
	e PKPab	Z	00:27:02.3							
IBBN	e PKPdf	Z	00:26:32.8	156.5	9.3					
	e		00:26:45.1							
	e PKPab	Z	00:27:05.5							
CLL	e PKPdf	Z	00:26:32.4	156.6	21.2					
	e		00:26:44.4							
	e PKPab	Z	00:27:04.6							
CLZ	e PKPdf	Z	00:26:32.1	156.6	15.2					
	e		00:26:45.2							
	e PKPab	Z	00:27:05.7							
BRG	e PKPdf	Z	00:26:32.4	156.8	23.6					
	e		00:26:44.9							
	e PKPab	Z	00:27:05.6							
FBE	e PKPdf	Z	00:26:33.4	156.9	22.3					
	e		00:26:45.1							
	e PKPab	Z	00:27:06.5							
NEUB	e PKPdf	Z	00:26:33.7	157.0	18.7					
	e		00:26:45.5							
	e PKPab	Z	00:27:07.1							
BUG	e PKPab	Z	00:27:09.0	157.4	8.5					
MOX	e PKPdf	Z	00:26:33.8	157.6	18.7					
	e		00:26:46.6							
	e PKPab	Z	00:27:08.8							
	e PP	Z	00:30:46.1							
	e PPP	Z	00:34:32.0							
	e SS	N	00:50:36.1							
	e SSS	N	00:56:43.3							
TANN	e PKPdf	Z	00:26:33.7	157.6	20.8					
	e		00:26:46.6							
	e PKPab	Z	00:27:09.1							
PLN	e PKPdf	Z	00:26:34.0	157.6	20.1					
	e		00:26:46.7							
	e PKPab	Z	00:27:09.3							
WERD	e PKPdf	Z	00:26:33.7	157.6	20.4					
	e		00:26:46.8							

	e PKPab	Z	00:27:09.2		
GUNZ	e		00:26:47.0	157.7	20.6
	e PKPab	Z	00:27:09.8		
UBBA	e PKPdf	Z	00:26:34.3	157.7	15.0
	e PKPab	Z	00:27:09.8		
WERN	e PKPab	Z	00:27:10.1	157.7	20.7
MANZ	e PKPdf	Z	00:26:34.6	158.1	20.4
	e		00:26:47.6		
	e PKPab	Z	00:27:11.8		
ROTZ	e PKPab	Z	00:27:12.5	158.2	20.8
TNS	e PKPdf	Z	00:26:35.3	158.5	11.7
	e		00:26:48.7		
	e PKPab	Z	00:27:13.7		
GRA1	e PKPdf	Z	00:26:35.0	158.5	18.6
	e		00:26:48.4		
	e PKPab	Z	00:27:14.1		
	e PP	Z	00:30:49.2		
	e PPP	Z	00:34:41.9		
	e SS	N	00:50:49.9		
	e SSS	N	00:56:53.0		
WET	e PKPdf	Z	00:26:35.3	158.7	22.9
	e		00:26:49.2		
	e PKPab	Z	00:27:12.8		
GEC2	e PKPdf	Z	00:26:35.2	158.7	25.1
	e		00:26:48.8		
	e PKPab	Z	00:27:14.0		
WLF	e PKPdf	Z	00:26:35.6	159.3	6.4
	e PKPab	Z	00:27:17.5		
STU	e PKPdf	Z	00:26:36.8	159.8	14.4
	e		00:26:51.2		
	e PKPab	Z	00:27:19.6		
FUR	e PKPab	Z	00:27:19.6	160.0	20.1
RJOB	e PKPab	Z	00:27:19.6	160.0	24.2
BFO	e PKPdf	Z	00:26:37.1	160.4	12.5
	e		00:26:52.8		
	e PKPab	Z	00:27:21.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/26	00:38:30.8	52.469N	165.442W	33.0G	4.9			SZGRF
South of Aleutian Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e P	Z	00:50:19.4	76.9	358.2	0.6	3	4.6		
GRA1	e P	Z	00:50:25.2	77.8	357.9	1.6	31	5.2		
	e		00:50:36.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/26	03:56:48.0	36.943N	143.233E	33.0G	4.8			SZGRF

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	04:08:57.4	80.5	36.4	1.4	18	4.9		
BRG	e P	Z	04:09:02.3	81.6	38.7	1.1	6	4.6		
CLL	e P	Z	04:09:02.5	81.6	38.1	0.8	7	4.8		
FBE	e P	Z	04:09:04.1	81.7	38.3	0.7	6	4.8		
NEUB	e P	Z	04:09:05.8	82.1	37.2	0.9	10	4.9		
CLZ	e P	Z	04:09:06.0	82.1	36.3	1.1	7	4.7		
PLN	e P	Z	04:09:07.7	82.6	37.4					
WERN	e P	Z	04:09:08.2	82.6	37.6	0.9	4	4.6		
MOX	e P	Z	04:09:08.4	82.6	37.0	1.2	3	4.4		
IBBN	e P	Z	04:09:08.8	82.7	34.4	0.6	10	5.2		
MANZ	e P	Z	04:09:10.1	83.0	37.3	0.9	3	4.5		
GEC2	e P	Z	04:09:11.2	83.2	38.4					
WET	e P	Z	04:09:12.2	83.3	37.8	1.5	7	4.7		
GRA1	e P	Z	04:09:13.2	83.6	36.7	1.3	18	5.1		
RJOB	e P	Z	04:09:18.1	84.5	37.7	1.1	6	4.7		
FUR	e P	Z	04:09:19.2	84.8	36.6	0.7	9	5.1		
STU	e P	Z	04:09:20.8	85.1	35.2	1.1	12	5.0		
WLF	e P	Z	04:09:22.7	85.5	33.1	1.5	16	4.9		
BFO	e P	Z	04:09:23.9	85.8	34.6	1.0	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/26	18:15:25.2	14.924N	117.613E	33.0N	5.0			SZGRF

Philippine Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	18:28:05.1	86.4	70.1	1.3	34	5.3		
BRG	e P	Z	18:28:06.8	86.8	70.1	0.8	10	5.0		
FBE	e P	Z	18:28:08.7	87.1	69.7	1.2	17	5.0		
CLL	e P	Z	18:28:08.5	87.2	69.4	1.3	10	4.8		
GEC2	e P	Z	18:28:10.8	87.6	69.8	1.0	4	4.7		
BSEG	e P	Z	18:28:11.2	87.8	67.4	1.0	14	5.2		
TANN	e P	Z	18:28:11.6	87.8	69.0	1.0	6	4.9		
WERD	e P	Z	18:28:11.8	87.9	68.8	1.0	7	5.0		
GUNZ	e P	Z	18:28:12.0	87.9	68.9	1.0	10	5.1		
WERN	e P	Z	18:28:12.1	87.9	68.9	1.0	7	5.0		
NEUB	e P	Z	18:28:12.1	88.0	68.5	1.0	11	5.1		
PLN	e P	Z	18:28:12.3	88.0	68.7	1.7	73	5.7		
WET	e P	Z	18:28:12.7	88.1	69.2	2.0	17	5.0		
ROTZ	e P	Z	18:28:13.4	88.2	68.7	1.2	9	5.0		
MOX	e P	Z	18:28:13.5	88.3	68.3	1.3	10	5.0		
NRDL	e P	Z	18:28:14.6	88.4	67.2	1.4	15	5.0		

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CLZ	e P	Z	18:28:15.2	88.5	67.4	1.1	11	5.0
GRA1	e P	Z	18:28:16.3	88.9	68.0	1.8	18	5.0
IBBN	e P	Z	18:28:20.6	89.8	65.3			
TNS	e P	Z	18:28:23.1	90.3	65.9			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/25								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z 18:29:32.2							
BSEG	e PKPdf	Z 18:29:32.7							
CLL	e PKPdf	Z 18:29:32.4							
CLZ	e PKPdf	Z 18:29:34.3							
DREG	e PKPdf	Z 18:29:38.7							
FLT1	e PKPdf	Z 18:29:32.9							
FUR	e PKPdf	Z 18:29:38.4							
GEC2	e PKPdf	Z 18:29:34.6							
GRA1	e PKPdf	Z 18:29:36.8							
GTTG	e PKPdf	Z 18:29:35.0							
GUNZ	e PKPdf	Z 18:29:34.6							
IBBN	e PKPdf	Z 18:29:36.1							
MANZ	e PKPdf	Z 18:29:35.1							
MOX	e PKPdf	Z 18:29:34.5							
PLN	e PKPdf	Z 18:29:34.2							
RJOB	e PKPdf	Z 18:29:36.4							
ROTZ	e PKPdf	Z 18:29:35.2							
STU	e PKPdf	Z 18:29:39.0							
TANN	e PKPdf	Z 18:29:34.3							
WERD	e PKPdf	Z 18:29:34.5							
WERN	e PKPdf	Z 18:29:34.6							
WET	e PKPdf	Z 18:29:35.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/26	23:54: 3.3	40.146N	74.520E	28.8	5.1	5.0		SZGRF
Kyrgyzstan-Xinjiang border region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 00:01:55.5	42.5	80.2	2.0	97	5.2		
	e pP	Z 00:02:03.0			2.0	97			
FBE	e P	Z 00:01:58.7	42.9	79.8	1.0	41	5.1		
	e pP	Z 00:02:05.5			1.0	41			
CLL	e P	Z 00:01:58.9	43.0	80.0	1.2	33	4.9		
	e pP	Z 00:02:06.6			1.2	33			
GEC2	e P	Z 00:02:00.0	43.1	77.9	1.1	49	5.2		
	e pP	Z 00:02:07.7			1.1	49			

WET	e P	Z	00:02:03.6	43.5	77.7	1.0	26	4.9	
	e pP	Z	00:02:11.4			1.0	26		
TANN	e pP	Z	00:02:11.3	43.5	78.7	1.2	26		
WERN	e pP	Z	00:02:12.0	43.6	78.5	1.4	22		
WERD	e P	Z	00:02:04.3	43.6	78.6	1.2	22	4.7	
	e pP	Z	00:02:12.0			1.2	22		
GUNZ	e P	Z	00:02:04.2	43.6	78.6	1.2	24	4.8	
	e pP	Z	00:02:12.3			1.2	24		
MANZ	e P	Z	00:02:06.2	43.8	78.0	1.3	18	4.7	
RJOB	e pP	Z	00:02:13.6	43.9	76.2				
MOX	e pP	Z	00:02:15.1	44.0	78.4	1.2	27		
	e L	Z	00:21:29.5			18.0	1772	5.0	
GRA1	e P	Z	00:02:11.8	44.4	77.2	1.1	52	5.4	
	e pP	Z	00:02:19.7			1.1	52		
	e L	Z	00:21:46.5			18.3	1571	5.0	
CLZ	e pP	Z	00:02:19.4	44.5	78.8	1.1	18		
NRDL	e P	Z	00:02:12.0	44.6	79.3	1.2	68	5.4	
FUR	e pP	Z	00:02:22.0	44.8	75.7	1.0	60		
STU	e pP	Z	00:02:31.2	46.0	75.1	1.0	33		
	e PP	Z	00:04:13.2						
IBBN	e pP	Z	00:02:31.7	46.0	77.5	1.3	59		
TNS	e PP	Z	00:04:13.4	46.1	76.0				
BUG	e PP	Z	00:04:16.0	46.5	76.4				
BFO	e P	Z	00:02:28.4	46.6	74.2	1.1	24	5.2	
	e pP	Z	00:02:36.2			1.1	24		
WLF	e P	Z	00:02:36.6	47.6	74.1	1.1	39	5.5	
	e pP	Z	00:02:44.6			1.1	39		

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/27 15:58: 2.1 19.853S 176.209W 33.0N
 Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	16:17:37.5	145.6	10.9					
CLL	e PKPbc	Z	16:17:43.2	147.7	16.4					
BRG	e PKPbc	Z	16:17:44.0	148.0	18.2					
MOX	e PKPbc	Z	16:17:45.8	148.6	14.2					
WERD	e PKPbc	Z	16:17:45.9	148.7	15.5					
TANN	e PKPbc	Z	16:17:45.9	148.7	15.8					
GUNZ	e PKPbc	Z	16:17:46.2	148.7	15.6					
WERN	e PKPbc	Z	16:17:46.3	148.8	15.7					
MANZ	e PKPbc	Z	16:17:47.3	149.1	15.4					
ROTZ	e PKPbc	Z	16:17:47.7	149.3	15.7					
TNS	e PKPbc	Z	16:17:48.1	149.4	8.6					
GRA1	e PKPbc	Z	16:17:48.3	149.6	13.9					
GEC2	e PKPbc	Z	16:17:48.8	149.9	18.9					
FUR	e PKPbc	Z	16:17:51.9	151.1	14.7					

BFO e PKPbc Z 16:17:52.4 151.3 8.9

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/27 16:46:31.8 16.761N 98.425W 37.7 5.5 5.5
 Near coast of Guerrero, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z 16:59:09.5	86.3	292.9	1.2	44	5.4		
WLF	e P	Z 16:59:09.9	86.3	291.8	1.2	32	5.3		
BSEG	e P	Z 16:59:12.9	87.0	294.8	1.2	91	5.8		
	e pP	Z 16:59:23.9							
	e PP	Z 17:02:36.8							
TNS	e P	Z 16:59:15.2	87.5	293.5	1.1	52	5.8		
	e pP	Z 16:59:26.5							
NRDL	e P	Z 16:59:15.2	87.5	294.7	1.2	38	5.6		
	e pP	Z 16:59:26.1							
CLZ	e P	Z 16:59:17.5	87.9	294.9	1.2	51	5.7		
	e pP	Z 16:59:28.3							
UBBA	e P	Z 16:59:18.4	88.1	294.6	1.6	44	5.5		
BFO	e P	Z 16:59:17.9	88.2	293.5	1.2	29	5.5		
	e pP	Z 16:59:29.1							
	e PP	Z 17:02:46.1							
RGN	e PP	Z 17:02:47.4	88.3	297.2					
STU	e P	Z 16:59:20.2	88.5	294.1	1.3	41	5.5		
	e pP	Z 16:59:31.8							
	e PP	Z 17:02:49.3							
NEUB	e P	Z 16:59:22.3	89.0	296.0	1.1	38	5.5		
MOX	e P	Z 16:59:23.0	89.1	295.9	1.5	27	5.3		
	e pP	Z 16:59:33.8							
	e PP	Z 17:02:54.1							
	e S	N 17:09:06.2							
	e SS	E 17:15:55.0							
	e L	Z 17:42:14.9			19.9	1711		5.5	
GRA1	e P	Z 16:59:24.5	89.3	295.6	1.4	57	5.6		
	e PP	Z 17:02:56.6							
	e S	N 17:09:25.2							
	e SS	N 17:16:04.5							
	e L	Z 17:42:20.0			19.1	1586		5.5	
PLN	e P	Z 16:59:24.6	89.5	296.3	1.6	281	6.2		
WERD	e P	Z 16:59:25.2	89.6	296.4	1.5	41	5.4		
	e pP	Z 16:59:36.2							
CLL	e P	Z 16:59:24.8	89.6	297.0	1.1	22	5.3		
	e pP	Z 16:59:35.7							
	e PP	Z 17:02:57.5							
GUNZ	e P	Z 16:59:25.5	89.7	296.4	1.6	58	5.5		
	e pP	Z 16:59:36.5							
MANZ	e P	Z 16:59:26.0	89.7	296.3	1.4	24	5.2		

	e pP	Z	16:59:36.7						
TANN	e P	Z	16:59:25.6	89.7	296.5	1.5	41	5.4	
	e pP	Z	16:59:36.7						
WERN	e P	Z	16:59:26.0	89.7	296.5	1.5	48	5.5	
	e pP	Z	16:59:36.9						
ROTZ	e P	Z	16:59:26.6	89.9	296.3	1.5	35	5.4	
	e pP	Z	16:59:37.8						
FBE	e P	Z	16:59:27.1	90.0	297.2	1.4	47	5.5	
	e pP	Z	16:59:38.0						
FUR	e P	Z	16:59:26.8	90.0	295.6	1.4	61	5.6	
	e pP	Z	16:59:38.0						
BRG	e P	Z	16:59:28.5	90.4	297.7	1.2	31	5.5	
	e pP	Z	16:59:39.5						
	e PP	Z	17:03:04.2						
WET	e P	Z	16:59:29.9	90.5	296.9	1.5	51	5.6	
	e pP	Z	16:59:40.7						
	e PP	Z	17:03:06.3						
RJOB	e P	Z	16:59:32.1	91.1	296.8	1.7	42	5.5	
	e pP	Z	16:59:43.2						
GEC2	e P	Z	16:59:32.1	91.2	297.5	1.5	34	5.4	
	e pP	Z	16:59:43.4						

Date 2009/04/27
 Origin Time 20:04: 8.8
 Kyrgyzstan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	20:11:45.6	40.2	83.5	1.0	274	5.9		
BRG	e P	Z	20:11:47.5	40.3	79.6	1.0	29	4.9		
FBE	e P	Z	20:11:50.5	40.7	79.3	1.0	59	5.3		
CLL	e P	Z	20:11:51.2	40.8	79.5	1.0	45	5.1		
GEC2	e P	Z	20:11:52.4	40.9	77.1	1.5	78	5.2		
TANN	e P	Z	20:11:56.1	41.3	78.1	1.2	45	5.1		
WET	e P	Z	20:11:56.4	41.4	77.0	1.4	35	4.9		
WERN	e P	Z	20:11:56.6	41.4	77.9	1.4	29	4.8		
WERD	e P	Z	20:11:56.7	41.4	78.1	1.2	41	5.0		
GUNZ	e P	Z	20:11:56.5	41.4	78.0	1.2	56	5.1		
PLN	e P	Z	20:11:57.2	41.5	78.0	1.3	182	5.7		
NEUB	e P	Z	20:11:57.8	41.6	78.6	1.0	72	5.3		
ROTZ	e P	Z	20:11:58.5	41.6	77.3	1.5	27	4.8		
MANZ	e P	Z	20:11:58.6	41.7	77.5	1.2	23	4.8		
RJOB	e P	Z	20:11:59.0	41.7	75.4					
MOX	e P	Z	20:11:59.7	41.8	77.9	1.3	48	5.1		
	e L	Z	20:30:20.5			18.5	813		4.6	
BSEG	e P	Z	20:12:00.6	42.0	80.6	0.9	124	5.6		
GRA1	e P	Z	20:12:03.7	42.3	76.6	1.3	102	5.4		
	e L	Z	20:30:00.3			19.1	406		4.3	

CLZ	e P	Z	20:12:03.9	42.3	78.4	1.1	32	5.0
NRDL	e P	Z	20:12:03.9	42.4	78.9	1.0	81	5.4
FUR	e P	Z	20:12:07.3	42.6	75.0	1.6	135	5.4
STU	e P	Z	20:12:16.0	43.8	74.5	1.5	99	5.3
IBBN	e P	Z	20:12:15.7	43.8	77.2	0.8	50	5.3
TNS	e P	Z	20:12:16.7	43.9	75.5	1.3	25	4.8
BUG	e P	Z	20:12:19.9	44.3	76.0	1.2	55	5.2
BFO	e P	Z	20:12:22.1	44.5	73.5	1.1	34	5.2
WLF	e P	Z	20:12:29.4	45.5	73.6	1.1	43	5.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/27	21:37:36.7	36.984N	142.350E	44.6	5.2	4.8		SZGRF
Off east coast of Honshu, Japan								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	21:49:42.6	80.0	39.4	1.3	43	5.2		
BSEG	e P	Z	21:49:43.2	80.1	37.0	1.1	50	5.3		
BRG	e P	Z	21:49:48.2	81.2	39.3	0.9	13	5.0		
CLL	e P	Z	21:49:48.2	81.2	38.7	1.0	32	5.4		
	e pP	Z	21:50:00.9							
NRDL	e P	Z	21:49:49.3	81.4	36.7	1.1	11	4.9		
FBE	e P	Z	21:49:49.6	81.4	38.9	1.1	33	5.4		
NEUB	e P	Z	21:49:51.4	81.8	37.8	1.0	32	5.4		
CLZ	e P	Z	21:49:52.0	81.8	36.9	1.1	25	5.3		
	e pP	Z	21:50:04.6							
TANN	e P	Z	21:49:53.1	82.1	38.2	1.3	8	4.7		
WERD	e P	Z	21:49:53.5	82.1	38.1	1.1	9	4.8		
PLN	e P	Z	21:49:53.6	82.2	38.0	1.3	80	5.7		
GUNZ	e P	Z	21:49:53.9	82.2	38.1	1.2	19	5.2		
WERN	e P	Z	21:49:54.2	82.2	38.2	1.1	20	5.2		
MOX	e P	Z	21:49:54.1	82.3	37.7	1.3	16	5.1		
	e pP	Z	21:50:07.5							
	e L	Z	22:30:48.1			19.2	382		4.8	
IBBN	e P	Z	21:49:54.7	82.3	35.0	1.4	47	5.5		
	e pP	Z	21:50:08.1							
MANZ	e P	Z	21:49:55.8	82.6	37.9	0.8	13	5.2		
ROTZ	e P	Z	21:49:57.0	82.7	38.0	1.0	19	5.3		
UBBA	e P	Z	21:49:56.3	82.7	36.5	1.6	15	5.0		
GEC2	e P	Z	21:49:56.8	82.8	39.0	1.2	13	5.0		
WET	e P	Z	21:49:57.8	82.9	38.4	1.1	13	5.1		
GRA1	e P	Z	21:49:59.3	83.2	37.3	1.0	38	5.6		
	e L	Z	22:30:53.3			19.6	418		4.8	
BUG	e P	Z	21:49:58.9	83.2	34.6	0.7	15	5.3		
TNS	e P	Z	21:50:02.3	83.8	35.4	0.9	12	5.1		
	e pP	Z	21:50:15.6							
RJOB	e P	Z	21:50:03.6	84.1	38.3	0.9	16	5.2		
FUR	e P	Z	21:50:04.9	84.4	37.2	0.9	30	5.5		

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STU	e P	Z	21:50:06.6	84.7	35.8	0.9	36	5.6
	e pP	Z	21:50:19.0					
WLF	e P	Z	21:50:09.2	85.1	33.7	1.6	43	5.4
BFO	e P	Z	21:50:10.0	85.4	35.2	1.1	29	5.3
	e pP	Z	21:50:22.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/28	11:21:24.5	43.455N	145.975E	30.3	5.9	5.3		SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 11:32:58.3	74.0	33.7	0.8	228	6.3		
BSEG	e P	Z 11:33:06.7	75.5	31.6	0.8	250	6.4		
RUE	e P	Z 11:33:07.1	75.6	33.7	0.8	170	6.2		
NRDL	e P	Z 11:33:13.7	76.8	31.3	0.9	61	5.7		
CLL	e P	Z 11:33:13.5	76.9	33.1	0.8	160	6.2		
BRG	e P	Z 11:33:13.9	76.9	33.6	0.9	64	5.8		
FBE	e P	Z 11:33:15.1	77.1	33.2	0.8	121	6.1		
	e pP	Z 11:33:23.9							
CLZ	e P	Z 11:33:16.8	77.3	31.4	0.8	151	6.2		
NEUB	e P	Z 11:33:16.6	77.3	32.2	0.9	139	6.1		
IBBN	e P	Z 11:33:18.8	77.7	29.7	0.7	152	6.2		
	e pP	Z 11:33:27.6							
TANN	e P	Z 11:33:19.1	77.8	32.6	1.0	36	5.5		
WERD	e P	Z 11:33:19.3	77.8	32.5	0.9	47	5.6		
PLN	e P	Z 11:33:19.4	77.8	32.4	1.0	314	6.4		
GUNZ	e P	Z 11:33:19.7	77.9	32.5	0.8	61	5.8		
MOX	e P	Z 11:33:19.6	77.9	32.1	0.8	63	5.8		
WERN	e P	Z 11:33:20.0	77.9	32.5	0.8	67	5.9		
UBBA	e P	Z 11:33:21.5	78.3	31.0					
MANZ	e P	Z 11:33:21.8	78.3	32.3	0.9	50	5.5		
ROTZ	e P	Z 11:33:23.1	78.4	32.4	1.1	78	5.7		
	e pP	Z 11:33:31.8							
BUG	e P	Z 11:33:23.5	78.6	29.3	0.9	102	5.9		
GEC2	e P	Z 11:33:23.8	78.7	33.2	0.8	48	5.6		
WET	e P	Z 11:33:24.6	78.7	32.7	1.2	146	5.9		
	e pP	Z 11:33:33.3							
GRA1	e P	Z 11:33:25.3	78.8	31.7	0.9	147	6.0		
	e L	Z 12:11:57.8			19.1	1387		5.3	
TNS	e P	Z 11:33:27.5	79.3	29.9	0.9	65	5.6		
RJOB	e P	Z 11:33:31.2	79.9	32.5	0.9	91	5.7		
FUR	e P	Z 11:33:31.9	80.1	31.6	0.9	142	5.9		
STU	e P	Z 11:33:32.8	80.3	30.3	0.9	103	5.8		
WLF	e P	Z 11:33:34.0	80.5	28.4					
BFO	e P	Z 11:33:36.0	81.0	29.7	0.9	53	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/28	18:14:37.3	22.229S	172.763E	33.0G		5.7		SZGRF

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	18:34:12.2	145.6	29.6					
RUE	e PKPbc	Z	18:34:12.2	145.7	36.1					
NRDL	e PKPbc	Z	18:34:16.0	146.9	30.4					
BRG	e PKPbc	Z	18:34:15.8	146.9	37.8					
CLL	e PKPbc	Z	18:34:15.6	147.0	36.0					
FBE	e PKPbc	Z	18:34:16.6	147.1	36.9					
CLZ	e PKPbc	Z	18:34:17.7	147.4	31.3					
NEUB	e PKPbc	Z	18:34:17.5	147.5	34.1					
IBBN	e PKPbc	Z	18:34:18.7	147.8	26.7					
TANN	e PKPbc	Z	18:34:18.7	147.9	35.9					
WERD	e PKPbc	Z	18:34:18.7	147.9	35.7					
PLN	e PKPbc	Z	18:34:18.8	147.9	35.4					
GUNZ	e PKPbc	Z	18:34:19.1	148.0	35.8					
MOX	e PKPbc	Z	18:34:19.0	148.0	34.4					
WERN	e PKPbc	Z	18:34:19.3	148.0	35.9					
MANZ	e PKPbc	Z	18:34:20.1	148.4	35.8					
UBBA	e PKPbc	Z	18:34:19.9	148.4	31.6					
ROTZ	e PKPbc	Z	18:34:20.6	148.5	36.1					
GEC2	e PKPbc	Z	18:34:20.5	148.6	39.5					
BUG	e PKPbc	Z	18:34:20.9	148.7	26.5					
WET	e PKPbc	Z	18:34:21.0	148.7	37.8					
GRA1	e PKPbc	Z	18:34:21.5	148.9	34.6					
	e L	Z	20:10:51.2			18.8	1105		5.7	
TNS	e PKPbc	Z	18:34:22.9	149.4	29.5					
RJOB	e PKPbc	Z	18:34:23.1	149.9	39.2					
FUR	e PKPbc	Z	18:34:24.4	150.2	36.2					
STU	e PKPbc	Z	18:34:25.2	150.4	32.0					
WLF	e PKPbc	Z	18:34:26.4	150.6	25.9					
BFO	e PKPbc	Z	18:34:26.5	151.1	30.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/29	17:22: 6.8	25.194N	122.712E	33.0G	4.8	4.5		SZGRF

Taiwan region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	17:34:22.7	81.9	59.4	1.3	8	4.7		
FBE	e P	Z	17:34:23.3	81.9	59.6	1.2	10	4.8		
TANN	e P	Z	17:34:26.9	82.6	58.9	1.0	4	4.5		
WERD	e P	Z	17:34:27.2	82.7	58.8	1.1	4	4.5		
GUNZ	e P	Z	17:34:27.5	82.7	58.8	1.0	6	4.8		
WERN	e P	Z	17:34:27.4	82.7	58.8	1.2	9	4.9		

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GEC2	e P	Z	17:34:27.6	82.7	59.6	0.9	7	4.9		
CLZ	e P	Z	17:34:29.3	83.0	57.5	1.0	7	4.8		
MANZ	e P	Z	17:34:29.3	83.0	58.6	0.9	4	4.6		
ROTZ	e P	Z	17:34:29.6	83.1	58.6	1.1	8	4.8		
GRA1	e P	Z	17:34:32.6	83.7	57.9	1.2	13	5.0		
	e L	Z	18:18:16.2			21.4	202		4.5	
RJOB	e P	Z	17:34:33.0	83.8	58.8	1.1	7	4.8		
BUG	e P	Z	17:34:38.2	84.8	55.1					
WLF	e P	Z	17:34:46.2	86.4	54.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/29	18:53: 4.6	40.612N	72.639E	33.0G	4.6	3.9		SZGRF

Kyrgyzstan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 19:00:43.7	41.0	84.6	0.9	57	5.3		
BRG	e P	Z 19:00:44.4	41.1	80.8	0.9	10	4.5		
FBE	e P	Z 19:00:47.6	41.4	80.5	0.8	15	4.8		
CLL	e P	Z 19:00:48.1	41.6	80.7	0.8	10	4.6		
GEC2	e P	Z 19:00:49.1	41.6	78.4	0.9	11	4.6		
WET	e P	Z 19:00:52.8	42.1	78.2	1.0	12	4.6		
TANN	e P	Z 19:00:52.7	42.1	79.4	0.9	6	4.3		
GUNZ	e P	Z 19:00:53.5	42.2	79.2	1.1	10	4.4		
WERD	e P	Z 19:00:53.4	42.2	79.3	0.8	5	4.3		
PLN	e P	Z 19:00:54.2	42.3	79.2	1.0	31	5.0		
NEUB	e P	Z 19:00:54.8	42.4	79.8	0.8	12	4.7		
MANZ	e P	Z 19:00:55.4	42.4	78.7	0.4	3	4.4		
RJOB	e P	Z 19:00:57.1	42.4	76.7	1.0	8	4.4		
MOX	e P	Z 19:00:56.6	42.6	79.1	1.0	10	4.5		
GRA1	e P	Z 19:01:01.1	43.0	77.8	0.8	17	4.8		
	e L	Z 19:20:02.7			19.5	146		3.9	
CLZ	e P	Z 19:01:01.1	43.1	79.5	0.9	8	4.5		
NRDL	e P	Z 19:01:01.6	43.1	80.0	1.0	18	4.8		
UBBA	e P	Z 19:01:04.0	43.5	78.2	1.2	7	4.3		
IBBN	e P	Z 19:01:13.2	44.6	78.2	0.8	18	5.1		
BUG	e P	Z 19:01:17.1	45.1	77.1	0.8	12	4.9		
BFO	e P	Z 19:01:17.7	45.2	74.7	0.8	7	4.6		
WLF	e P	Z 19:01:26.5	46.2	74.7	0.8	8	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/30	00:02: 6.4	47.634N	42.393W	33.0N	5.0	3.8		SZGRF

North Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z 00:08:28.6	31.8	283.1	1.1	19	4.9		

IBBN	e P	Z	00:08:28.9	31.9	282.0	1.4	71	5.4	
TNS	e P	Z	00:08:38.2	32.8	285.6	1.7	22	4.8	
NRDL	e P	Z	00:08:42.0	33.3	283.1	1.5	66	5.3	
CLZ	e P	Z	00:08:46.0	33.6	284.2	1.9	51	5.1	
NEUB	e P	Z	00:08:54.6	34.6	285.9	1.0	13	4.8	
MOX	e P	Z	00:08:55.4	34.7	286.6	1.0	7	4.5	
GRA1	e L	Z	00:19:11.0	34.7	287.7	18.7	180		3.8
PLN	e P	Z	00:08:56.5	35.0	287.1	0.0	355	7.8	
WERD	e P	Z	00:08:57.2	35.1	287.2	0.8	4	4.4	
MANZ	e P	Z	00:08:57.6	35.2	287.7	1.8	23	4.8	
GUNZ	e P	Z	00:08:57.6	35.2	287.3	1.2	6	4.4	
WERN	e P	Z	00:08:58.2	35.2	287.5	1.2	9	4.6	
TANN	e P	Z	00:08:58.2	35.3	287.3	0.8	7	4.6	
CLL	e P	Z	00:08:57.8	35.3	286.4	0.9	23	5.1	
RUE	e P	Z	00:08:57.9	35.5	285.2	0.8	18	5.0	
FBE	e P	Z	00:09:01.3	35.6	287.1	1.0	22	5.0	
BRG	e P	Z	00:09:07.2	36.0	287.5	1.1	14	4.7	
GEC2	e P	Z	00:09:10.8	36.5	290.0	1.5	9	4.4	

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/04/30 04:55: 5.2 60.188N 151.089W 33.0G 5.1 3.8
 Kenai Peninsula, Alaska, United States SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z	05:05:50.3	66.2	348.7	0.9	11	5.1		
NRDL	e P	Z	05:05:50.6	66.3	349.9	1.1	16	5.2		
CLZ	e P	Z	05:05:55.4	67.0	350.1	0.9	22	5.4		
BUG	e P	Z	05:05:54.9	67.0	348.5	0.9	22	5.4		
NEUB	e P	Z	05:05:59.8	67.8	350.9	1.0	23	5.4		
CLL	e P	Z	05:05:59.5	67.8	351.5	0.9	9	5.0		
UBBA	e P	Z	05:06:01.0	67.9	350.0	1.1	6	4.7		
FBE	e P	Z	05:06:02.7	68.2	351.7	1.0	13	5.1		
BRG	e P	Z	05:06:03.1	68.3	352.1	1.0	13	5.1		
MOX	e P	Z	05:06:03.1	68.3	350.8	0.9	17	5.3		
TNS	e P	Z	05:06:03.5	68.4	349.2	1.0	11	5.0		
PLN	e P	Z	05:06:04.4	68.5	351.1	0.9	62	5.8		
WERD	e P	Z	05:06:04.7	68.6	351.2	1.0	7	4.8		
TANN	e P	Z	05:06:05.1	68.6	351.3	1.1	9	4.9		
GUNZ	e P	Z	05:06:05.3	68.6	351.2	1.1	11	5.0		
WERN	e P	Z	05:06:06.0	68.7	351.3	1.1	14	5.1		
MANZ	e P	Z	05:06:07.3	69.0	351.1	0.8	5	4.8		
GRA1	e P	Z	05:06:09.0	69.2	350.7	0.8	12	5.1		
	e L	Z	05:32:00.5			21.8	65			3.8
ROTZ	e P	Z	05:06:09.1	69.2	351.2	1.0	14	5.1		
STU	e P	Z	05:06:12.9	69.9	349.7					
WET	e P	Z	05:06:13.2	69.9	351.6	1.4	16	5.0		
BFO	e P	Z	05:06:14.7	70.2	349.3	1.1	10	4.9		

GEC2	e P	Z	05:06:15.2	70.3	352.0	1.0	8	4.8
RJOB	e P	Z	05:06:21.4	71.3	351.6	0.9	11	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2009/04/30	10:04:30.7	26.710N	58.966E	69.2	5.4			SZGRF

Southern Iran

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	10:12:12.5	41.2	105.6	0.8	106	5.6		
RJOB	e P	Z	10:12:15.3	41.5	103.6	0.6	118	5.8		
BRG	e P	Z	10:12:15.6	41.7	108.1	0.6	37	5.3		
WET	e P	Z	10:12:16.7	41.8	105.2	1.2	36	5.0		
FBE	e P	Z	10:12:18.7	42.0	107.5	0.7	26	5.0		
RUE	e P	Z	10:12:19.8	42.3	109.6	1.0	187	5.8		
	e pP	Z	10:12:36.7							
CLL	e P	Z	10:12:21.5	42.4	107.6	0.7	212	6.0		
ROTZ	e P	Z	10:12:22.1	42.4	105.2	0.9	40	5.1		
TANN	e P	Z	10:12:21.6	42.4	106.1	0.9	12	4.6		
WERN	e P	Z	10:12:21.8	42.4	105.9	1.0	14	4.7		
GUNZ	e P	Z	10:12:22.2	42.5	106.0	0.9	17	4.8		
MANZ	e P	Z	10:12:22.8	42.5	105.3	0.9	14	4.7		
WERD	e P	Z	10:12:22.4	42.5	106.0	0.9	16	4.7		
FUR	e P	Z	10:12:23.6	42.6	102.6	0.9	73	5.4		
PLN	e P	Z	10:12:23.3	42.6	105.9	0.8	63	5.4		
GRA1	e P	Z	10:12:27.2	43.0	104.2	0.8	80	5.5		
	e pP	Z	10:12:44.7							
MOX	e P	Z	10:12:26.7	43.0	105.6	0.8	29	5.1		
NEUB	e P	Z	10:12:27.3	43.1	106.3	0.6	239	6.1		
RGN	e P	Z	10:12:27.1	43.2	111.2	0.7	208	6.0		
UBBA	e P	Z	10:12:35.0	44.0	104.2	0.7	28	5.1		
CLZ	e P	Z	10:12:35.5	44.1	105.6	0.8	162	5.8		
STU	e P	Z	10:12:34.9	44.1	101.4	0.8	32	5.1		
NRDL	e P	Z	10:12:37.7	44.4	106.0	0.9	106	5.6		
	e pP	Z	10:12:54.9							
BFO	e P	Z	10:12:38.6	44.6	100.2	1.0	12	4.8		
TNS	e P	Z	10:12:42.2	44.9	102.2	1.0	83	5.6		
IBBN	e P	Z	10:12:48.4	45.7	103.6	1.0	155	6.0		
BUG	e P	Z	10:12:49.8	45.8	102.3	0.7	153	6.1		
WLF	e P	Z	10:12:52.8	46.2	99.6	0.7	69	5.8		

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