

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

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(produced by SZGRF/BGR - ERLANGEN)

MARCH 2008            UPDATED    22.SEPTEMBER.2008

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
2008/03/01	00:07: 3.8	35.100N	25.800E	19.0	4.0			KAN

Crete, Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WET	e P	Z 00:11:11.6	17.0	141.1	1.6	19	4.0		
ROTZ	e P	Z 00:11:15.6	17.7	140.8	2.0	35	4.2		
GRA1	e P	Z 00:11:23.4	18.1	138.4	1.5	36	4.3		
TANN	e P	Z 00:11:21.2	18.1	142.6	1.3	10	3.8		
WERD	e P	Z 00:11:21.8	18.2	142.3	1.5	12	3.8		
CLL	e P	Z 00:11:30.7	18.6	145.5	2.2	34	4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/01	07:43: 9.2	43.646N	11.270E	10.0G			4.8	SZGRF

Central Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WITA	e Pn	Z 07:44:04.5	3.6	184.2					5.0
	e Sn	E 07:44:48.2							
KBA	e Pn	Z 07:44:06.7	3.7	203.8					4.6
DAVA	e Pn	Z 07:44:08.1	3.8	164.5					4.9
	e Sn	E 07:44:50.2							
RJOB	e Pn	Z 07:44:14.2	4.2	195.2					4.7
	e Sn	Z 07:45:02.1							
ARSA	e Pn	Z 07:44:20.0	4.7	221.2					
MOA	e Pn	Z 07:44:20.5	4.7	207.5					4.7
	e Sn	E 07:45:12.4							
BFO	e Pn	Z 07:44:25.6	5.1	155.4					
GEC2	e Pn	Z 07:44:29.6	5.5	198.8					

WET	e Pn	Z	07:44:31.1	5.6	192.0
GRA1	e Pn	Z	07:44:36.1	6.0	179.7
TNS	e Pn	Z	07:44:49.0	6.9	162.6
MOX	e Pn	Z	07:44:51.3	7.0	182.1
BRG	e Pn	Z	07:44:56.7	7.5	195.1
CLL	e Pn	Z	07:45:00.4	7.8	189.3

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/01	08:07:59.9	43.596N	11.113E	10.0G			3.9	SZGRF

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WTTA	e Pn	Z	08:08:58.7	3.7	185.9					4.2
	e Sn	N	08:09:40.0							
DAVA	e Sn	Z	08:09:43.4	3.8	166.4					3.9
KBA	e Pn	Z	08:08:59.0	3.8	205.1					3.8
ARSA	e Sn	N	08:10:05.1	4.8	221.9					3.5
MOA	e Pn	Z	08:09:12.3	4.8	208.5					3.8
BFO	e Pn	Z	08:09:15.9	5.1	156.8					4.0
	e Sn	N	08:10:12.0							
GEC2	e Pn	Z	08:09:21.3	5.5	199.8					
WET	e Pn	Z	08:09:23.1	5.7	193.0					
MOX	e Pn	Z	08:09:41.2	7.1	183.0					
BRG	e Pn	Z	08:09:49.2	7.5	195.8					
CLL	e Pn	Z	08:09:52.4	7.8	190.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/01	08:43:47.6	43.997N	11.347E	10.0G			4.3	SZGRF

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WTTA	e Pn	Z	08:44:39.5	3.3	183.6					4.5
KBA	e Pn	Z	08:44:40.5	3.4	205.1					4.2
DAVA	e Pn	Z	08:44:42.1	3.4	162.2					4.4
RJOB	e Pn	Z	08:44:47.6	3.9	195.6					4.3
MOA	e Pn	Z	08:44:53.9	4.4	208.9					4.4
	e Sn	N	08:45:43.6							
BFO	e Pn	Z	08:44:59.0	4.8	153.2					4.4
	e Sn	N	08:45:54.5							
GEC2	e Pn	Z	08:45:03.0	5.1	199.4					4.1
WET	e Pn	Z	08:45:05.7	5.3	192.1					
	e Sn	E	08:46:03.8							
TNS	e Pn	Z	08:45:22.5	6.5	161.3					
MOX	e Pn	Z	08:45:24.7	6.7	181.7					
BRG	e Pn	Z	08:45:31.4	7.1	195.3					

CLL e Pn Z 08:45:33.8 7.4 189.3

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/01 10:43: 8.2 44.076N 11.358E 10.0G 4.0 SZGRF  
 Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
DAVA	e Pn	Z	10:44:01.4	3.4	161.6					4.3
	e Sn	N	10:44:42.9							
MOA	e Pn	Z	10:44:13.0	4.3	209.2					4.0
	e Sn	N	10:45:04.4							
ARSA	e Pn	Z	10:44:14.8	4.3	224.0					3.6
GEC2	e Pn	Z	10:44:22.7	5.0	199.6					4.0
	e Sn	N	10:45:19.4							
WET	e Pn	Z	10:44:24.8	5.2	192.2					
ROTZ	e Pn	Z	10:44:31.1	5.7	186.1					
	e Sn	E	10:45:34.1							
MANZ	e Sn	N	10:45:40.6	5.9	185.2					
WERN	e Pn	Z	10:44:39.4	6.2	186.7					
MOX	e Sn	N	10:45:55.8	6.6	181.6					

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/01 18:51:32.5 54.348N 159.590E 122.0 5.5 SZGRF  
 Near east coast of Kamchatka Peninsula, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	19:02:22.2	68.8	18.6					
NRDL	e P	Z	19:02:30.9	70.2	18.3					
CLL	e P	Z	19:02:34.4	70.7	19.9	1.5	77	5.7		
	e pP	Z	19:03:04.0							
IBBN	e P	Z	19:02:34.8	70.8	16.9					
BRG	e P	Z	19:02:35.7	70.9	20.4					
	e pP	Z	19:03:05.8							
MOX	e P	Z	19:02:39.3	71.6	19.0					
TANN	e P	Z	19:02:40.2	71.7	19.5	1.9	71	5.6		
BUG	e P	Z	19:02:40.7	71.7	16.6					
UBBA	e P	Z	19:02:41.0	71.8	18.1	1.7	69	5.6		
MANZ	e P	Z	19:02:43.4	72.2	19.2	1.6	34	5.3		
ROTZ	e P	Z	19:02:44.6	72.3	19.3	1.6	56	5.5		
	e pP	Z	19:03:14.8							
GRA1	e P	Z	19:02:46.6	72.6	18.7	1.6	142	5.9		
	e pP	Z	19:03:17.2							
TNS	e P	Z	19:02:47.0	72.7	17.1	1.4	53	5.6		
WET	e P	Z	19:02:47.4	72.8	19.6	1.5	46	5.4		
	e pP	Z	19:03:17.2							

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GEC2	e P	Z	19:02:47.8	72.9	20.0	1.5	32	5.2
WLF	e P	Z	19:02:52.4	73.6	15.8	1.6	53	5.4
STU	e P	Z	19:02:54.4	73.9	17.4	1.6	55	5.4
RJOB	e P	Z	19:02:55.7	74.1	19.4	1.7	39	5.3
BFO	e P	Z	19:02:57.5	74.5	16.9	2.0	78	5.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/01	19:51:59.4	20.200S	69.800W	36.0		5.2		NEIC

Northern Chile

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e Pdiff	Z 20:05:25.4	96.6	246.4					
BFO	e Pdiff	Z 20:05:28.0	97.4	247.9					
BUG	e Pdiff	Z 20:05:31.3	98.0	247.5					
STU	e Pdiff	Z 20:05:31.9	98.1	248.5					
TNS	e Pdiff	Z 20:05:32.5	98.2	248.2					
GRC2	e PP	Z 20:09:39.3	99.5	250.1					
GRA1	e Pdiff	Z 20:05:39.2	99.7	250.1					
	e L	Z 20:46:43.8			21.4	875		5.2	
NRDL	e Pdiff	Z 20:05:40.7	100.0	249.8					
MOX	e Pdiff	Z 20:05:41.2	100.3	250.6					
ROTZ	e Pdiff	Z 20:05:42.0	100.3	250.9					
MANZ	e Pdiff	Z 20:05:42.0	100.3	250.8					
WET	e Pdiff	Z 20:05:43.1	100.5	251.2					
BSEG	e Pdiff	Z 20:05:42.5	100.6	250.2					
GEC2	e Pdiff	Z 20:05:44.7	101.0	251.8					
CLL	e Pdiff	Z 20:05:46.3	101.3	251.7					
BRG	e Pdiff	Z 20:05:48.5	101.7	252.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/01	23:06:47.0	35.400S	179.400W	42.0				NEIC

East of North Island, New Zealand

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 23:27:37.8	163.7	32.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/02	00:20:10.2	36.490N	32.230W	23.2	5.0	4.8		SZGRF

Azores Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z 00:26:33.0	31.6	257.4					
BFO	e P	Z 00:26:33.2	31.8	263.4	1.2	15	4.8		

UBBA	e P	Z	00:26:46.1	33.2	261.0	1.5	28	5.0		
NRDL	e P	Z	00:26:48.2	33.5	258.6	1.5	31	5.0		
GRA1	e P	Z	00:26:51.8	33.8	263.8	1.6	72	5.3		
	e pP	Z	00:26:57.9							
	e L	Z	00:39:54.0			18.2	1618		4.8	
BSEG	e P	Z	00:26:53.3	34.0	256.7	1.5	76	5.4		
MOX	e P	Z	00:26:54.2	34.2	262.7	1.4	29	5.0		
ROTZ	e P	Z	00:26:57.5	34.4	264.5	1.9	51	5.1		
TANN	e P	Z	00:26:58.6	34.7	263.8	1.5	30	5.0		
RJOB	e P	Z	00:27:00.0	34.7	267.9					
WET	e P	Z	00:27:01.1	34.8	266.0	1.2	14	4.7		
CLL	e P	Z	00:27:03.3	35.1	263.0	1.3	18	4.7		
GEC2	e P	Z	00:27:03.8	35.3	267.1	1.3	16	4.7		
BRG	e P	Z	00:27:07.9	35.6	264.4	1.5	37	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/02	01:34:22.9	36.028N	33.439W	24.5	5.2			SZGRF
Azores Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:41:11.3	34.9	264.2	1.9	53	5.2		
	e pP	Z 01:41:17.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/02	02:36:37.9	21.790S	179.760W	574.8				SZGRF
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 02:55:16.2	147.0	17.3					
	e pPKPbc	Z 02:57:26.7							
NRDL	e PKPbc	Z 02:55:19.8	148.4	17.7					
CLL	e PKPbc	Z 02:55:20.7	148.9	23.4					
	e PKPab	Z 02:55:26.5							
BRG	e PKPbc	Z 02:55:22.1	149.0	25.3					
MOX	e PKPbc	Z 02:55:23.4	149.8	21.4					
	e pPKPbc	Z 02:57:36.2							
TANN	e PKPbc	Z 02:55:23.4	149.8	23.0					
BUG	e PKPbc	Z 02:55:23.4	149.8	13.1					
UBBA	e PKPbc	Z 02:55:23.7	150.0	18.3					
MANZ	e PKPbc	Z 02:55:24.8	150.3	22.7					
ROTZ	e PKPbc	Z 02:55:25.6	150.5	23.0					
GRA1	e PKPbc	Z 02:55:26.0	150.8	21.2					
	e PKPab	Z 02:55:35.0							
TNS	e PKPbc	Z 02:55:26.1	150.8	15.8					
	e PKPab	Z 02:55:34.2							

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WET	e	PKPbc	Z	02:55:26.0	150.9	24.7
	e	PKPab	Z	02:55:35.6		
	e	pPKPbc	Z	02:57:39.7		
GEC2	e	PKPbc	Z	02:55:26.4	150.9	26.4
WLF	e	PKPbc	Z	02:55:27.8	151.7	11.7
STU	e	PKPbc	Z	02:55:28.8	152.1	18.0
RJOB	e	PKPbc	Z	02:55:28.9	152.2	25.6
	e	PKPab	Z	02:55:41.5		
FUR	e	PKPbc	Z	02:55:29.3	152.2	22.4
	e	PKPab	Z	02:55:40.9		
BFO	e	PKPbc	Z	02:55:30.0	152.7	16.5
	e	PKPab	Z	02:55:42.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/02	05:11:45.3	50.804N	179.243W	33.0N	5.2	5.5		SZGRF
Andreanof Islands, Aleutian Islands, United States								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:23:46.9	79.1	6.7	2.0	53	5.2		
	e S	T 05:33:42.1							
	e SS	R 05:38:58.3							
	e L	Z 06:01:09.6			21.3	2332		5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/02	05:41:37.2	36.200N	21.900E	2.0	3.9			THE
Southern Greece								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:45:14.4	15.6	146.1	1.5	14	3.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/02								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 11:34:11.2							
	e Sn	E 11:35:08.4							
MOX	e Sn	N 11:35:43.6							
WET	e Pn	Z 11:34:12.7							
	e Sn	E 11:35:09.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2008/03/02

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 20:51:59.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/02								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 21:33:40.2							
FBE	e PKPbc	Z 21:33:41.4							
GEC2	e PKPbc	Z 21:33:46.1							
GRA1	e PKPbc	Z 21:33:41.9							
GUNZ	e PKPbc	Z 21:33:43.4							
ROTZ	e PKPbc	Z 21:33:45.3							
WERD	e PKPbc	Z 21:33:43.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/02								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 22:18:56.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/03	01:06:33.9	48.194N	156.774E	33.0N	5.4			SZGRF

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:18:27.8	77.7	22.7	0.7	21	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/03	02:37:25.1	3.590S	99.230E	33.0N	5.8	6.0		SZGRF

Southwest of Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 02:50:20.4	89.8	95.7	1.5	135	5.9		
BRG	e P	Z 02:50:20.6	89.8	95.9	1.7	129	5.9		
RJOB	e P	Z 02:50:22.2	90.3	95.1	1.1	38	5.6		
WET	e P	Z 02:50:23.1	90.3	95.1	1.2	64	5.7		
CLL	e P	Z 02:50:23.0	90.4	95.2	1.1	58	5.7		
TANN	e P	Z 02:50:24.8	90.7	94.8	1.8	92	5.8		

ROTZ	e P	Z	02:50:25.8	90.8	94.6	1.1	49	5.8		
MOX	e P	Z	02:50:27.3	91.3	94.1	1.3	65	5.8		
FUR	e P	Z	02:50:27.3	91.3	93.9	1.1	64	5.9		
GRA1	e P	Z	02:50:28.4	91.5	93.8	1.2	119	6.1		
	e PP	Z	02:54:06.2							
	e S	N	03:01:24.2							
	e SS	N	03:07:20.1							
	e L	Z	03:38:59.9			20.8	5227		6.0	
BSEG	e P	Z	02:50:31.6	92.3	93.0	1.5	71	5.8		
UBBA	e P	Z	02:50:31.9	92.3	92.9	1.6	51	5.6		
NRDL	e P	Z	02:50:32.2	92.3	92.9	1.8	96	5.8		
STU	e P	Z	02:50:34.0	92.7	92.3	1.1	48	5.8		
TNS	e P	Z	02:50:36.7	93.3	91.7	1.0	94	6.1		
BFO	e P	Z	02:50:36.3	93.3	91.7	1.5	63	5.8		
IBBN	e P	Z	02:50:38.8	93.7	91.0	1.4	45	5.6		
WLF	e P	Z	02:50:43.5	94.7	90.0	1.3	55	5.8		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/03 09:31:19.8 48.762N 152.728E 33.0N 6.4 6.8 SZGRF  
 Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 09:42:44.1	72.5	24.9	1.1	241	6.2		
NRDL	e P	Z 09:42:51.7	73.9	24.6	1.0	167	6.0		
CLL	e P	Z 09:42:52.9	74.2	26.3	0.9	321	6.4		
BRG	e P	Z 09:42:53.7	74.3	26.8	1.2	186	6.0		
IBBN	e P	Z 09:42:56.2	74.6	23.1	0.9	321	6.3		
MOX	e P	Z 09:42:58.9	75.2	25.3	2.0	784	6.5		
BUG	e P	Z 09:43:01.3	75.5	22.7	1.0	321	6.4		
ROTZ	e P	Z 09:43:02.9	75.8	25.6					
GRA1	e P	Z 09:43:04.6	76.1	25.0	0.9	535	6.7		
	e S	Z 09:52:52.7							
	e S	E 09:52:56.3							
	e L	Z 10:21:23.5			19.1	50126		6.8	
WET	e P	Z 09:43:04.9	76.2	26.0					
GEC2	e P	Z 09:43:05.0	76.2	26.4					
TNS	e P	Z 09:43:06.2	76.4	23.3	0.9	399	6.6		
RJOB	e P	Z 09:43:12.8	77.5	25.8	0.9	260	6.3		
WLF	e P	Z 09:43:12.2	77.5	21.8					
FUR	e P	Z 09:43:12.2	77.5	24.9	1.2	582	6.6		
STU	e P	Z 09:43:12.3	77.5	23.7	0.9	233	6.3		
BFO	e P	Z 09:43:15.2	78.1	23.1	0.9	276	6.3		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/03 11:22:44.0 47.547N 154.966E 33.0N 5.4 SZGRF



Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:34:38.6	77.8	24.1	1.0	32	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/03	13:49:35.9	18.837N	122.905E	33.0N	6.0			SZGRF

Luzon, Philippine Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 14:02:17.3	86.8	63.7	1.1	189	6.1		
CLL	e P	Z 14:02:18.6	87.1	63.0	1.1	192	6.1		
BSEG	e P	Z 14:02:20.3	87.3	61.0	1.1	284	6.3		
GEC2	e P	Z 14:02:22.5	87.8	63.4	1.4	135	6.1		
NRDL	e P	Z 14:02:24.3	88.1	60.8	1.4	211	6.3		
WET	e P	Z 14:02:24.5	88.2	62.8	1.5	90	5.9		
MOX	e P	Z 14:02:24.3	88.2	61.9	1.7	152	6.1		
ROTZ	e P	Z 14:02:25.2	88.3	62.3	1.5	134	6.1		
RJOB	e P	Z 14:02:27.5	88.8	62.7					
GRA1	e S	E 14:12:54.9	88.9	61.6					
	e SS	N 14:19:00.7							
UBBA	e P	Z 14:02:27.9	89.0	60.7					
IBBN	e P	Z 14:02:30.4	89.5	59.0	1.3	154	6.1		
FUR	e P	Z 14:02:31.0	89.5	61.6	1.0	99	6.0		
TNS	e P	Z 14:02:33.6	90.1	59.5	1.1	82	5.9		
BUG	e P	Z 14:02:33.5	90.2	58.6	1.2	127	6.0		
STU	e P	Z 14:02:34.8	90.5	60.1	1.6	99	5.9		
BFO	e P	Z 14:02:38.0	91.2	59.4	1.4	38	5.5		
WLF	e P	Z 14:02:41.2	91.7	57.7	1.0	177	6.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/03	14:11:26.3	15.498N	124.854E	21.0	6.6	6.9		SZGRF

Philippine Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 14:24:22.3	90.0	64.1	1.8	1249	6.8		
BRG	e P	Z 14:24:25.0	90.6	64.2	1.6	436	6.5		
FBE	e P	Z 14:24:26.6	90.9	63.7	1.7	733	6.7		
CLL	e P	Z 14:24:26.2	90.9	63.4	1.6	448	6.5		
BSEG	e P	Z 14:24:27.9	91.1	61.3	1.6	493	6.6		
GEC2	e P	Z 14:24:29.9	91.6	64.0	1.6	310	6.4		
TANN	e P	Z 14:24:29.9	91.6	63.0	1.6	279	6.3		
WERD	e P	Z 14:24:30.2	91.7	62.9	1.6	323	6.4		
WERN	e P	Z 14:24:30.5	91.7	63.0	1.6	310	6.4		
PLN	e P	Z 14:24:30.6	91.7	62.8	1.8	821	6.8		

NRDL	e P	Z	14:24:31.8	91.9	61.1	1.7	825	6.8
WET	e P	Z	14:24:31.8	91.9	63.4	1.7	307	6.4
MOX	e P	Z	14:24:31.6	92.0	62.4	1.6	373	6.5
MANZ	e P	Z	14:24:32.1	92.0	62.8	1.7	369	6.4
	e pP	Z	14:24:38.2					
ROTZ	e P	Z	14:24:32.4	92.0	62.9	1.6	376	6.5
RJOB	e P	Z	14:24:34.5	92.6	63.4	1.7	301	6.5
GRA1	e P	Z	14:24:35.0	92.6	62.1	1.7	560	6.7
	e pP	Z	14:24:41.3					
	e S	T	14:35:58.0					
	e L	Z	15:14:30.4			18.7	41940	6.9
UBBA	e P	Z	14:24:35.4	92.8	61.1	1.7	511	6.7
IBBN	e P	Z	14:24:37.6	93.3	59.2	1.6	738	6.8
FUR	e P	Z	14:24:38.1	93.3	62.2	1.5	459	6.7
TNS	e P	Z	14:24:41.0	93.9	59.9	1.6	765	6.8
BUG	e P	Z	14:24:40.7	94.0	58.9	1.6	454	6.6
STU	e P	Z	14:24:41.9	94.2	60.6	1.7	373	6.4
BFO	e P	Z	14:24:44.9	95.0	59.9	1.7	234	6.3
WLF	e P	Z	14:24:48.2	95.5	58.1	1.7	831	7.0

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/03 14:35:35.6 44.145N 149.306E 33.0N 5.3  
 Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:47:38.2	79.3	29.2	0.7	30	5.3		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/03 17:48:23.6 6.671S 101.917E 30.6 5.9  
 Southwest of Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	18:01:38.0	93.8	95.7					
BRG	e P	Z	18:01:38.0	93.9	95.8					
WET	e P	Z	18:01:40.2	94.4	95.1					
CLL	e P	Z	18:01:40.6	94.5	95.0					
ROTZ	e P	Z	18:01:43.3	94.9	94.5					
MOX	e P	Z	18:01:44.7	95.3	94.0					
	e pP	Z	18:01:53.7							
GRA1	e P	Z	18:01:45.8	95.5	93.8	1.6	81	5.9		
	e pP	Z	18:01:55.1							
NRDL	e P	Z	18:01:49.6	96.4	92.6					
TNS	e P	Z	18:01:54.4	97.3	91.6					
	e pP	Z	18:02:02.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/03	18:01:38.8	15.268N	58.791E	22.0	5.4			SZGRF

Owen Fracture Zone region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:10:41.9	51.5	114.6	1.5	74	5.4		
	e pP	Z 18:10:47.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/03	21:11:20.1	6.251S	100.764E	28.5	5.3			SZGRF

Southwest of Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 21:24:29.0	92.8	96.3					
BRG	e P	Z 21:24:29.1	92.8	96.4					
WET	e P	Z 21:24:31.3	93.3	95.7					
MOX	e P	Z 21:24:35.6	94.3	94.6					
GRA1	e P	Z 21:24:37.2	94.5	94.4	1.3	23	5.3		
	e pP	Z 21:24:45.5							
BSEG	e P	Z 21:24:40.4	95.3	93.3					
NRDL	e P	Z 21:24:40.5	95.4	93.3					
STU	e P	Z 21:24:41.9	95.7	93.0					
TNS	e P	Z 21:24:44.9	96.3	92.2					
IBBN	e P	Z 21:24:47.5	96.8	91.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/03	21:13:56.8	2.975N	92.816E	33.0N	5.3			SZGRF

Off west coast of northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 21:26:05.8	80.6	96.3	0.8	42	5.5		
BRG	e P	Z 21:26:06.5	80.7	96.8	0.9	23	5.2		
RJOB	e P	Z 21:26:08.2	81.1	95.4					
WET	e P	Z 21:26:09.0	81.2	95.7	0.9	21	5.1		
ROTZ	e P	Z 21:26:11.9	81.7	95.3					
MOX	e P	Z 21:26:13.9	82.1	94.9	0.8	12	5.1		
GRA1	e P	Z 21:26:15.4	82.3	94.5	0.8	24	5.4		
BSEG	e P	Z 21:26:19.2	83.2	94.3	1.4	46	5.5		
TNS	e P	Z 21:26:24.6	84.1	92.4	0.8	34	5.6		
BFO	e P	Z 21:26:23.9	84.1	92.1	0.7	12	5.2		
BUG	e P	Z 21:26:28.4	84.9	91.6					
WLF	e P	Z 21:26:32.2	85.6	90.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2008/03/03											
		Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
		GEC2	e (P)	Z 23:14:18.6							
		GRA1	e (P)	Z 23:14:19.0							
		TNS	e (P)	Z 23:14:22.4							
		WET	e (P)	Z 23:14:19.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2008/03/04	01:34:44.5	47.271N	154.512E	33.0N	5.4			SZGRF			
Kuril Islands, Russia											
		Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
		GRA1	e P	Z 01:46:39.9	78.0	24.5	0.9	27	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2008/03/04	17:31:51.4	23.357N	121.232E	33.0N	5.4			SZGRF			
Taiwan											
		Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
		GRA1	e P	Z 17:44:20.5	84.3	60.1	1.7	49	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2008/03/04	19:24:26.0	51.007N	169.559W	33.0N	5.3	5.0		SZGRF			
Fox Islands, Aleutian Islands, United States											
		Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
		GRA1	e P	Z 19:36:28.7	79.3	0.5	1.4	51	5.3		
			e S	R 19:46:28.3							
			e L	Z 20:22:55.8			18.4	600		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source			
2008/03/05	16:11:33.9	35.734N	27.535E	10.0G	4.5			SZGRF			
Dodecanese Islands, Greece											
		Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
		RJOB	e P	Z 16:15:20.6	16.2	132.3	1.3	24	4.2		
		GEC2	e P	Z 16:15:25.1	16.6	137.1	1.3	44	4.4		

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WET	e P	Z	16:15:31.9	17.2	135.9	1.1	33	4.4
FUR	e P	Z	16:15:33.8	17.3	130.0			
BRG	e P	Z	16:15:43.6	18.0	141.9	1.2	16	4.0
TANN	e P	Z	16:15:45.3	18.3	137.7	1.9	54	4.3
GRA1	e P	Z	16:15:46.0	18.3	133.5	1.0	44	4.5
CLL	e P	Z	16:15:50.3	18.7	140.6	1.5	39	4.4
MOX	e P	Z	16:15:52.5	18.8	136.3	1.2	29	4.4
BFO	e P	Z	16:15:52.9	18.9	124.6	1.5	37	4.4
TNS	e P	Z	16:16:07.2	20.0	129.1	1.1	198	5.3
WLF	e P	Z	16:16:15.8	20.9	123.8	1.1	29	4.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/05	16:14:45.3	36.199N	27.177E	10.0G	4.6	3.9		SZGRF
Dodecanese Islands, Greece								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z 16:18:25.3	15.7	132.1	1.2	31	4.3		
GEC2	e P	Z 16:18:29.9	16.0	137.1	1.5	86	4.7		
WET	e P	Z 16:18:36.8	16.6	135.8	1.3	65	4.6		
FUR	e P	Z 16:18:38.4	16.7	129.8	1.1	176	5.1		
GRC1	e P	Z 16:18:42.9	17.2	132.4					
ROTZ	e P	Z 16:18:45.7	17.4	135.7	1.3	32	4.3		
BRG	e P	Z 16:18:48.3	17.5	142.0	1.1	15	4.1		
MANZ	e P	Z 16:18:48.0	17.6	136.0	1.1	33	4.4		
WERN	e P	Z 16:18:49.1	17.7	137.2	1.1	19	4.1		
TANN	e P	Z 16:18:50.1	17.7	137.7	1.7	51	4.4		
FBE	e P	Z 16:18:50.2	17.7	140.8	1.1	37	4.4		
GRA1	e P	Z 16:18:50.7	17.8	133.4	0.9	54	4.7		
	e L	Z 16:24:37.3			18.6	582		3.9	
WERD	e P	Z 16:18:51.1	17.8	137.4	1.9	56	4.4		
PLN	e P	Z 16:18:54.3	17.9	137.2	1.1	72	4.7		
CLL	e P	Z 16:18:55.9	18.2	140.7	1.2	20	4.1		
STU	e P	Z 16:18:56.1	18.2	127.0	1.0	42	4.5		
MOX	e P	Z 16:18:57.2	18.3	136.3	1.3	33	4.3		
BFO	e P	Z 16:18:58.6	18.4	124.3	1.4	65	4.6		
RUE	e P	Z 16:19:03.3	18.8	144.6	1.4	149	5.0		
TNS	e P	Z 16:19:12.0	19.5	129.0	1.2	308	5.4		
WLF	e P	Z 16:19:20.3	20.3	123.5	1.3	55	4.6		
BUG	e P	Z 16:19:27.6	20.8	129.3	1.4	96	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/05	17:04: 6.5	5.407N	94.787E	33.0N	5.4			SZGRF
Northern Sumatera, Indonesia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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BRG	e P	Z	17:16:13.1	80.0	93.7	1.0	31	5.3
GEC2	e P	Z	17:16:13.3	80.1	93.2	0.9	74	5.7
RUE	e P	Z	17:16:14.3	80.2	93.8	0.8	79	5.8
FBE	e P	Z	17:16:15.2	80.4	93.2	1.0	47	5.5
RJOB	e P	Z	17:16:15.2	80.6	92.3	1.0	27	5.2
WET	e P	Z	17:16:16.3	80.6	92.6	1.0	36	5.3
CLL	e P	Z	17:16:15.9	80.6	93.0	1.0	21	5.2
TANN	e P	Z	17:16:17.9	80.9	92.5	1.1	20	5.1
WERN	e P	Z	17:16:18.4	81.0	92.4	1.0	16	5.1
WERD	e P	Z	17:16:18.6	81.0	92.3	1.0	21	5.2
ROTZ	e P	Z	17:16:19.1	81.1	92.2	1.0	33	5.4
PLN	e P	Z	17:16:19.0	81.1	92.2	1.1	40	5.5
MANZ	e P	Z	17:16:19.5	81.2	92.1	1.0	52	5.6
MOX	e P	Z	17:16:20.8	81.5	91.8	0.9	16	5.1
GRA1	e P	Z	17:16:22.1	81.7	91.4	1.1	70	5.8
CLZ	e P	Z	17:16:25.1	82.3	91.0	1.1	47	5.6
NRDL	e P	Z	17:16:26.1	82.5	90.9	1.5	70	5.7
STU	e P	Z	17:16:28.8	83.0	89.7	0.9	19	5.3
TNS	e P	Z	17:16:31.0	83.5	89.3	1.0	50	5.7
BFO	e P	Z	17:16:31.4	83.6	89.0	0.9	25	5.4
IBBN	e P	Z	17:16:33.6	83.9	89.0	1.0	47	5.7
BUG	e P	Z	17:16:35.1	84.2	88.6	1.0	34	5.5
WLF	e P	Z	17:16:38.6	85.0	87.5	1.0	21	5.2

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/05 19:41:25.7 45.669N 15.929E 10.0G 3.5 SZGRF  
 Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	19:42:19.5	3.5	153.7					3.2
	e Sn	E	19:42:59.3							
WET	e Pn	Z	19:42:26.3	4.0	148.1					3.2
	e Sn	N	19:43:11.8							
PRU	e Pn	Z	19:42:32.1	4.4	167.3					3.3
ROTZ	e Pn	Z	19:42:36.3	4.8	147.2					3.4
	e Sn	E	19:43:28.1							
GRA1	e Sn	E	19:43:36.6	5.1	140.0					
NKC	e Pn	Z	19:42:41.6	5.1	151.6					
	e Sn	N	19:43:36.2							
WERN	e Pn	Z	19:42:42.9	5.2	151.4					
TANN	e Pn	Z	19:42:43.7	5.3	152.7					
WERD	e Pn	Z	19:42:44.7	5.4	151.8					
BRG	e Pn	Z	19:42:44.3	5.4	165.0					
MOX	e Pn	Z	19:42:49.6	5.7	148.3					
	e Sn	E	19:43:51.8							
CLL	e Pn	Z	19:42:52.3	6.0	159.9					
	e Sn	E	19:43:56.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/06	01:21:58.5	2.600N	128.200E	119.0				NEIC

Halmahera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e Pdiff	Z	01:35:43.3	102.9	69.1					
	e PP	Z	01:40:01.5							
CLL	e Pdiff	Z	01:35:44.3	103.3	68.3					
GEC2	e Pdiff	Z	01:35:47.3	103.8	69.4					
TANN	e Pdiff	Z	01:35:48.0	104.0	68.0					
	e PP	Z	01:40:09.4							
WET	e PP	Z	01:40:10.3	104.2	68.7					
MANZ	e Pdiff	Z	01:35:49.7	104.3	67.8					
	e PP	Z	01:40:12.6							
ROTZ	e Pdiff	Z	01:35:50.0	104.4	68.0					
	e PP	Z	01:40:12.8							
MOX	e Pdiff	Z	01:35:49.1	104.4	67.3					
NRDL	e Pdiff	Z	01:35:50.7	104.5	65.5					
	e PP	Z	01:40:10.9							
CLZ	e Pdiff	Z	01:35:50.9	104.6	65.9					
GRA1	e Pdiff	Z	01:35:52.7	105.0	67.2					
	e pPdiff	Z	01:36:22.7							
	e PP	Z	01:40:16.7							
UBBA	e Pdiff	Z	01:35:54.3	105.3	65.9					
BUG	e PP	Z	01:40:25.5	106.5	63.4					
STU	e PP	Z	01:40:30.9	106.6	65.7					
WLF	e PP	Z	01:40:40.4	108.0	62.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/06	03:36:15.2	2.200S	99.800E	41.0	5.3	4.8		NEIC

Southern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	03:49:06.9	89.1	94.4	1.7	46	5.5		
BRG	e P	Z	03:49:07.1	89.1	94.6	1.8	35	5.4		
RUE	e P	Z	03:49:08.3	89.3	94.5	1.1	47	5.7		
FBE	e P	Z	03:49:08.1	89.5	94.1	2.0	70	5.7		
WET	e P	Z	03:49:09.4	89.7	93.8	1.9	46	5.4		
CLL	e P	Z	03:49:09.5	89.7	93.9	1.1	10	4.9		
WERN	e P	Z	03:49:11.0	90.0	93.4	2.3	57	5.4		
WERD	e P	Z	03:49:11.5	90.1	93.3	1.6	27	5.2		
ROTZ	e P	Z	03:49:12.4	90.1	93.3	1.8	34	5.3		
MANZ	e P	Z	03:49:11.7	90.2	93.2	1.3	16	5.1		
MOX	e P	Z	03:49:13.8	90.6	92.8	1.5	17	5.1		

GRA1	e P	Z	03:49:15.1	90.8	92.5					
	e S	T	04:00:13.0							
	e SS	T	04:06:13.5							
	e L	Z	04:39:00.9			20.1	338	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/06	04:27:12.2	23.820S	178.690E	33.0N				SZGRF

South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z 04:46:59.0	150.0	21.3					
CLL	e PKPbc	Z 04:46:59.9	150.4	27.2					
BRG	e PKPbc	Z 04:47:00.2	150.5	29.2					
CLZ	e PKPbc	Z 04:47:00.7	150.6	22.2					
FBE	e PKPbc	Z 04:47:00.8	150.6	28.2					
WERD	e PKPbc	Z 04:47:02.1	151.4	26.7					
MOX	e PKPbc	Z 04:47:02.1	151.4	25.3					
GUNZ	e PKPbc	Z 04:47:02.7	151.4	26.8					
WERN	e PKPbc	Z 04:47:02.9	151.5	27.0					
NKC	e PKPbc	Z 04:47:02.8	151.5	27.1					
GEC2	e PKPbc	Z 04:47:04.9	152.3	30.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/06	09:34:24.0	36.261N	20.431E	33.0N				SZGRF

Central Mediterranean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:37:59.1	15.0	150.1	1.4	41			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/06	09:38:38.8	52.700N	154.980E	27.0	5.3	4.6		SZGRF

Northwest of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z 09:49:55.0	70.8	21.7	1.0	15	5.1		
CLL	e P	Z 09:49:57.4	71.2	23.2					
CLZ	e P	Z 09:49:58.6	71.3	21.7	1.3	60	5.6		
BRG	e P	Z 09:49:58.6	71.4	23.7					
IBBN	e P	Z 09:49:59.3	71.5	20.2	0.9	20	5.2		
MOX	e P	Z 09:50:03.3	72.1	22.3	2.2	126	5.7		
TANN	e P	Z 09:50:03.2	72.1	22.8	2.0	64	5.4		
WERD	e P	Z 09:50:03.6	72.2	22.7					
GUNZ	e P	Z 09:50:04.2	72.2	22.7					



WERN	e P	Z	09:50:04.3	72.3	22.7						
UBBA	e P	Z	09:50:04.3	72.4	21.4	1.6	37	5.3			
BUG	e P	Z	09:50:04.8	72.4	19.9	1.6	82	5.6			
MANZ	e P	Z	09:50:06.2	72.6	22.5	1.1	12	4.9			
GRA1	e P	Z	09:50:09.2	73.1	22.0	1.1	60	5.5			
	e pP	Z	09:50:16.9								
	e S	T	09:59:37.7								
	e L	Z	10:17:22.1			19.1	320	4.6			
WET	e P	Z	09:50:10.1	73.2	22.9	1.3	36	5.2			
TNS	e P	Z	09:50:10.1	73.3	20.4	1.1	28	5.2			
GEC2	e P	Z	09:50:10.1	73.3	23.3	1.5	24	5.0			
WLF	e P	Z	09:50:16.9	74.3	19.0	1.1	30	5.2			
STU	e P	Z	09:50:16.9	74.5	20.7	1.2	38	5.3			
FUR	e P	Z	09:50:17.4	74.5	21.9	1.1	42	5.4			
RJOB	e P	Z	09:50:17.6	74.5	22.7	1.3	16	4.9			
BFO	e P	Z	09:50:19.8	75.1	20.2						

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/06 20:59:29.6 23.070S 178.870E 33.0N  
 South of Fiji Islands SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	21:19:15.9	149.7	26.5					
BRG	e PKPbc	Z	21:19:16.5	149.8	28.4					
FBE	e PKPbc	Z	21:19:17.0	150.0	27.4					
TANN	e PKPbc	Z	21:19:18.7	150.7	26.2					
WERD	e PKPbc	Z	21:19:18.6	150.7	25.9					
PLN	e PKPbc	Z	21:19:18.4	150.7	25.6					
MOX	e PKPbc	Z	21:19:18.6	150.7	24.5					
GUNZ	e PKPbc	Z	21:19:18.9	150.8	26.0					
WERN	e PKPbc	Z	21:19:19.2	150.8	26.1					
NKC	e PKPbc	Z	21:19:19.0	150.8	26.3					
MANZ	e PKPbc	Z	21:19:19.8	151.2	25.9					
GEC2	e PKPbc	Z	21:19:20.8	151.7	29.8					

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/07 08:44:42.3 36.450N 20.953E 10.0G  
 Central Mediterranean Sea SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	08:47:47.5	12.8	149.0	1.3	29			
WET	e P	Z	08:48:04.9	14.0	152.1	1.4	28			
MANZ	e P	Z	08:48:19.4	15.0	151.4	1.3	19			
GRA1	e P	Z	08:48:20.1	15.0	148.3	1.2	48			
	e pP	Z	08:48:27.1							

	e L	Z	08:55:42.2			20.6	733	3.8
BFO	e P	Z	08:48:19.0	15.1	137.4	1.6	36	
TANN	e P	Z	08:48:24.3	15.2	153.1	1.4	28	
BRG	e P	Z	08:48:25.7	15.3	158.1	1.0	21	
CLL	e P	Z	08:48:29.2	15.9	156.0	1.5	44	
TNS	e P	Z	08:48:36.9	16.5	142.1	1.4	101	
NRDL	e P	Z	08:48:57.1	17.8	150.3	1.4	52	
BUG	e P	Z	08:48:53.2	17.9	141.7	1.5	79	
IBBN	e P	Z	08:49:03.6	18.4	144.4	1.0	26	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/07	09:40:12.2	17.430S	177.620E	33.0N				SZGRF

Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TANN	e PKPbc	Z	09:59:45.3	144.9	25.2					
WERD	e PKPbc	Z	09:59:45.1	145.0	24.9					
GUNZ	e PKPbc	Z	09:59:44.1	145.0	25.0					
MANZ	e PKPbc	Z	09:59:46.9	145.4	24.9					
GRA1	e PKPbc	Z	09:59:47.8	145.9	23.6					
WET	e PKPbc	Z	09:59:48.6	146.0	26.7					
GEC2	e PKPbc	Z	09:59:48.4	146.0	28.2					
BFO	e PKPbc	Z	09:59:54.3	147.9	19.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/07	16:54:51.8	36.440N	141.930E	33.0N	5.7			SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	17:06:54.2	78.9	39.8	0.9	108	5.9		
RUE	e P	Z	17:07:01.7	80.3	39.9	1.2	106	5.7		
BRG	e P	Z	17:07:07.5	81.5	39.9	1.1	57	5.6		
CLL	e P	Z	17:07:07.5	81.5	39.3	0.9	106	6.0		
FBE	e P	Z	17:07:08.8	81.7	39.5	1.0	102	5.9		
NRDL	e P	Z	17:07:08.7	81.7	37.3	0.9	37	5.5		
CLZ	e P	Z	17:07:11.3	82.1	37.4	1.0	86	5.8		
TANN	e P	Z	17:07:12.5	82.4	38.8	0.9	19	5.3		
WERD	e P	Z	17:07:12.8	82.5	38.7	0.9	28	5.5		
GUNZ	e P	Z	17:07:13.2	82.5	38.7	1.1	54	5.7		
WERN	e P	Z	17:07:13.6	82.6	38.7	1.1	58	5.7		
MOX	e P	Z	17:07:13.4	82.6	38.2	1.3	54	5.6		
IBBN	e P	Z	17:07:14.1	82.7	35.6	0.9	104	6.1		
MANZ	e P	Z	17:07:15.1	82.9	38.5	0.7	37	5.7		
UBBA	e P	Z	17:07:15.6	83.1	37.1	0.8	16	5.3		
GEC2	e P	Z	17:07:16.1	83.1	39.5	0.7	27	5.6		

WET	e P	Z	17:07:17.0	83.2	39.0	0.9	29	5.5
GRA1	e P	Z	17:07:18.4	83.5	37.9	0.9	161	6.3
BUG	e P	Z	17:07:18.5	83.6	35.2	0.8	39	5.7
TNS	e P	Z	17:07:21.5	84.1	35.9	0.9	42	5.7
RJOB	e P	Z	17:07:22.7	84.4	38.8	1.0	51	5.7
FUR	e P	Z	17:07:24.4	84.7	37.8	0.8	104	6.1
STU	e P	Z	17:07:26.0	85.0	36.4	1.0	108	6.0
WLF	e P	Z	17:07:28.2	85.4	34.3	1.1	34	5.4
BFO	e P	Z	17:07:29.3	85.7	35.7	1.0	81	5.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/07								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:13:40.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/07	20:28:28.5	36.521N	21.139E	33.0N	4.2	4.3		SZGRF
Southern Greece								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 20:31:47.5	13.5	153.5	0.9	7			
MANZ	e P	Z 20:32:03.8	15.0	150.7					
GRA1	e P	Z 20:32:04.0	15.0	147.7					
	e L	Z 20:39:15.8			20.3	2156		4.3	
NKC	e P	Z 20:32:08.0	15.1	152.2					
WERN	e P	Z 20:32:11.8	15.1	152.1					
TANN	e P	Z 20:32:10.2	15.2	152.5					
BRG	e P	Z 20:32:08.3	15.2	157.5					
PLN	e P	Z 20:32:12.7	15.4	151.8					
MOX	e P	Z 20:32:16.8	15.7	150.5	1.5	19			
CLL	e P	Z 20:32:20.1	15.9	155.4	1.3	25	4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/08	00:03:38.6	19.490S	177.760W	33.0N				SZGRF
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z 00:23:15.5	146.4	13.5					
IBBN	e PKPbc	Z 00:23:17.4	146.9	9.6					
CLZ	e PKPbc	Z 00:23:17.8	147.0	14.2					
CLL	e PKPbc	Z 00:23:17.6	147.1	18.9					
BRG	e PKPbc	Z 00:23:18.3	147.3	20.7					

FBE	e	PKPbc	Z	00:23:18.9	147.4	19.7
MOX	e	PKPbc	Z	00:23:20.2	148.0	16.8
PLN	e	PKPbc	Z	00:23:20.2	148.0	17.9
WERD	e	PKPbc	Z	00:23:20.4	148.0	18.1
TANN	e	PKPbc	Z	00:23:20.3	148.0	18.4
GUNZ	e	PKPbc	Z	00:23:20.8	148.1	18.2
WERN	e	PKPbc	Z	00:23:21.3	148.2	18.3
NKC	e	PKPbc	Z	00:23:21.1	148.2	18.5
MANZ	e	PKPbc	Z	00:23:21.7	148.5	18.0
TNS	e	PKPbc	Z	00:23:22.7	148.9	11.4
GRA1	e	PKPbc	Z	00:23:24.7	149.0	16.6
GEC2	e	PKPbc	Z	00:23:23.5	149.2	21.5
WLF	e	PKPbc	Z	00:23:25.4	149.7	7.3
STU	e	PKPbc	Z	00:23:25.9	150.2	13.3
FUR	e	PKPbc	Z	00:23:26.7	150.4	17.4
BFO	e	PKPbc	Z	00:23:27.2	150.7	11.8

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/08 03:18:49.1 42.985N 146.806E 33.0N 4.2  
 Off southeast coast of Hokkaido, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:30:52.9	79.5	31.4	0.9	3	4.2		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/08 10:29: 0.1 46.236N 153.021E 33.0N 5.0  
 Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z 10:40:45.7	76.3	25.4	1.0	10	4.9		
CLL	e P	Z 10:40:46.5	76.6	27.2	1.0	12	5.0		
FBE	e P	Z 10:40:48.5	76.8	27.4					
CLZ	e P	Z 10:40:48.2	76.8	25.5	1.4	28	5.2		
IBBN	e P	Z 10:40:49.7	77.1	23.9					
TANN	e P	Z 10:40:52.4	77.5	26.7					
MOX	e P	Z 10:40:52.7	77.5	26.2	1.2	12	4.8		
WERN	e P	Z 10:40:53.2	77.7	26.7					
BUG	e P	Z 10:40:55.8	78.0	23.5	1.0	19	5.1		
MANZ	e P	Z 10:40:55.7	78.0	26.5	1.2	8	4.6		
GRA1	e P	Z 10:40:58.5	78.5	25.9	0.9	18	5.1		
GRFO	e P	Z 10:40:58.7	78.5	25.9					
WET	e P	Z 10:40:58.9	78.5	26.9	1.2	12	4.8		
GEC2	e P	Z 10:40:58.6	78.5	27.4	1.4	12	4.7		
TNS	e P	Z 10:40:59.9	78.8	24.1	0.8	23	5.2		
RJOB	e P	Z 10:41:06.1	79.8	26.7	1.0	6	4.7		

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FUR	e P	Z	10:41:07.4	79.9	25.8	1.3	57	5.5
WLF	e P	Z	10:41:07.8	79.9	22.6			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/08	11:06:47.5	46.074N	153.531E	33.0N	5.1	4.6		SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z 11:18:35.0	76.6	25.2	1.2	14	5.0		
CLL	e P	Z 11:18:35.9	76.9	26.9	1.0	17	5.1		
CLZ	e P	Z 11:18:38.2	77.1	25.3	1.1	30	5.3		
IBBN	e P	Z 11:18:39.1	77.3	23.6	0.9	26	5.4		
TANN	e P	Z 11:18:41.5	77.8	26.5	2.0	43	5.2		
MOX	e P	Z 11:18:41.7	77.8	26.0	1.4	19	5.0		
UBBA	e P	Z 11:18:43.7	78.1	24.9	1.2	13	4.9		
BUG	e P	Z 11:18:44.5	78.3	23.2	1.4	44	5.3		
MANZ	e P	Z 11:18:44.3	78.3	26.2	1.3	16	4.9		
GRA1	e P	Z 11:18:47.5	78.8	25.6	1.0	47	5.5		
	e L	Z 11:59:07.0			19.0	286		4.6	
WET	e P	Z 11:18:47.9	78.8	26.6	1.0	20	5.1		
TNS	e P	Z 11:18:49.0	79.1	23.9	0.9	37	5.4		
RJOB	e P	Z 11:18:54.8	80.1	26.5	1.2	16	4.8		
STU	e P	Z 11:18:55.0	80.2	24.2	1.3	37	5.2		
BFO	e P	Z 11:18:58.5	80.8	23.6	1.0	22	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/08	20:31:55.5	7.271S	67.947E	21.3	4.8			SZGRF

Mid-Indian Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:43:38.5	75.2	120.9	1.5	14	4.8		
	e pP	Z 20:43:44.6			1.5	14			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/09	03:51:12.1	33.297N	59.192E	33.0N	4.9	4.3		SZGRF

Northern and central Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 03:58:18.5	37.0	97.6	1.3	75	5.2		
BRG	e P	Z 03:58:20.4	37.1	100.5	1.4	59	5.1		
WET	e P	Z 03:58:22.5	37.5	97.3	1.4	21	4.7		
CLL	e P	Z 03:58:26.7	37.8	100.2	1.2	62	5.2		
MANZ	e P	Z 03:58:28.2	38.1	97.7	1.6	23	4.6		

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FUR	e P	Z	03:58:29.9	38.5	94.7	1.0	10	4.4		
MOX	e P	Z	03:58:32.2	38.6	98.1	1.3	41	4.9		
GRA1	e P	Z	03:58:33.1	38.7	96.6	2.0	95	5.1		
	e S	R	04:04:32.2							
	e L	Z	04:16:45.8			21.9	455		4.3	
CLZ	e P	Z	03:58:40.3	39.5	98.5	1.5	47	4.9		
UBBA	e P	Z	03:58:40.8	39.6	96.9	1.7	79	5.1		
STU	e P	Z	03:58:42.4	39.9	93.8	1.2	26	4.7		
TNS	e P	Z	03:58:48.7	40.5	94.9	1.6	84	5.2		
IBBN	e P	Z	03:58:53.7	41.1	96.7	1.6	88	5.2		
BUG	e P	Z	03:58:55.6	41.4	95.3	1.6	47	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/09	05:55:45.5	22.240S	178.710W	33.0N				SZGRF
South of Fiji Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 06:15:31.1	149.5	21.8					
CLZ	e PKPbc	Z 06:15:31.2	149.6	16.8					
BRG	e PKPbc	Z 06:15:31.9	149.7	23.7					
MOX	e PKPbc	Z 06:15:33.5	150.5	19.7					
TANN	e PKPbc	Z 06:15:33.5	150.5	21.4					
MANZ	e PKPbc	Z 06:15:35.0	151.0	21.0					
GRA1	e PKPbc	Z 06:15:35.9	151.5	19.5					
TNS	e PKPbc	Z 06:15:35.9	151.5	14.0					
WET	e PKPbc	Z 06:15:36.3	151.6	23.0					
GEC2	e PKPbc	Z 06:15:36.4	151.6	24.7					
WLF	e PKPbc	Z 06:15:38.3	152.3	9.7					
STU	e PKPbc	Z 06:15:38.9	152.7	16.1					
FUR	e PKPbc	Z 06:15:39.3	152.9	20.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/09								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:19:57.0							
	e pP	Z 11:20:06.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/09	13:27:30.2	43.639N	147.339E	33.0N	4.5			SZGRF
Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1	e P	Z	13:39:31.9	79.1	30.7	0.7	4	4.5
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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/09	17:17:15.7	0.910S	30.300W	24.9	5.0			SZGRF

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z	17:27:15.8	59.5	226.4	1.5	34	5.2		
FUR	e P	Z	17:27:25.5	60.9	229.4	1.5	58	5.4		
GRA1	e P	Z	17:27:31.9	61.8	228.8	1.4	31	4.9		
	e pP	Z	17:27:38.8							
IBBN	e P	Z	17:27:33.5	62.0	224.3	1.0	20	4.9		
WET	e P	Z	17:27:35.0	62.3	230.6	1.0	9	4.5		
GEC2	e P	Z	17:27:36.8	62.5	231.5	1.0	12	5.1		
MOX	e P	Z	17:27:37.3	62.6	228.8	1.1	10	5.0		
TANN	e P	Z	17:27:39.2	62.9	229.7	1.3	13	5.0		
NRDL	e P	Z	17:27:41.0	63.2	226.6	2.1	55	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/10	01:44:27.4	30.592N	130.991E	41.2	5.6	5.5		SZGRF

Kyushu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	01:56:42.1	81.7	50.2	1.2	39	5.4		
	e pP	Z	01:56:54.2							
CLZ	e P	Z	01:56:47.4	82.6	48.3	1.1	36	5.5		
	e pP	Z	01:56:59.3							
MOX	e pP	Z	01:57:00.0	82.8	49.1					
GRA1	e P	Z	01:56:52.8	83.6	48.8	1.3	98	5.9		
	e pP	Z	01:57:04.4							
	e L	Z	02:38:11.2			18.9	1839		5.5	
BUG	e pP	Z	01:57:07.9	84.3	46.0					
TNS	e P	Z	01:56:57.2	84.6	46.8	1.3	61	5.7		
	e pP	Z	01:57:09.4							
FUR	e P	Z	01:56:57.8	84.6	48.7	1.3	76	5.8		
	e pP	Z	01:57:09.9							
STU	e pP	Z	01:57:12.4	85.2	47.2					
BFO	e P	Z	01:57:03.6	85.9	46.6	1.2	40	5.4		
	e pP	Z	01:57:16.3							
WLF	e P	Z	01:57:06.2	86.0	45.1	1.1	42	5.5		
	e pP	Z	01:57:16.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2008/03/10 04:57:53.4  
Kuril Islands, Russia

48.500N 151.500E 33.0N 5.5

SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	05:09:22.0	72.8	27.8	0.6	32	5.6		
NRDL	e P	Z	05:09:27.6	73.8	25.5	1.1	30	5.2		
CLL	e P	Z	05:09:28.8	74.1	27.2	0.6	70	5.9		
FBE	e P	Z	05:09:30.6	74.3	27.3	0.8	34	5.4		
CLZ	e P	Z	05:09:31.1	74.3	25.6	1.2	86	5.7		
IBBN	e P	Z	05:09:32.5	74.6	24.0	1.2	72	5.6		
TANN	e P	Z	05:09:34.5	75.0	26.7	0.8	10	4.9		
WERD	e P	Z	05:09:34.6	75.0	26.6	1.5	45	5.3		
MOX	e P	Z	05:09:35.0	75.1	26.2	1.1	37	5.3		
GUNZ	e P	Z	05:09:35.3	75.1	26.6	1.1	30	5.2		
WERN	e P	Z	05:09:35.6	75.2	26.7	0.7	29	5.5		
UBBA	e P	Z	05:09:36.2	75.3	25.2	0.9	14	5.1		
BUG	e P	Z	05:09:37.4	75.5	23.6	1.1	52	5.6		
GRA1	e P	Z	05:09:40.7	76.0	25.9	0.7	72	5.9		
WET	e P	Z	05:09:40.7	76.0	26.8	1.3	64	5.6		
GEC2	e P	Z	05:09:40.6	76.1	27.3	1.0	16	5.1		
TNS	e P	Z	05:09:42.3	76.3	24.2	0.8	69	5.8		
FUR	e P	Z	05:09:48.7	77.4	25.7	1.0	67	5.7		
STU	e P	Z	05:09:48.0	77.4	24.5	1.0	44	5.5		
BFO	e P	Z	05:09:51.5	78.1	24.0	1.0	38	5.5		

Date Origin Time  
2008/03/10 08:26:13.1  
Kuril Islands, Russia

Lat Long Depth mb Ms ML  
48.325N 153.694E 33.0N 5.1

Source  
SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	08:37:50.2	74.8	25.9	0.7	18	5.2		
FBE	e P	Z	08:37:52.1	75.1	26.0	1.3	24	5.1		
GUNZ	e P	Z	08:37:56.4	75.9	25.3	0.7	9	5.0		
WERN	e P	Z	08:37:56.5	75.9	25.4	0.6	10	5.1		
MANZ	e P	Z	08:37:58.9	76.3	25.2	1.1	8	4.8		
GRA1	e P	Z	08:38:01.9	76.8	24.6	0.7	21	5.4		
WET	e P	Z	08:38:02.5	76.8	25.6	1.2	21	5.1		

Date Origin Time  
2008/03/10 09:43: 1.6  
Chile-Argentina border region

Lat Long Depth mb Ms ML  
28.300S 69.300W 88.0

Source  
NEIC

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z	09:57:02.2	105.5	244.3					



Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/11	14:37:19.4	53.300N	169.280W	39.9	5.6	5.3		SZGRF
Fox Islands, Aleutian Islands, United States								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	14:48:46.4	72.8	359.7	1.1	51	5.6		
RUE	e P	Z	14:48:55.0	74.2	1.9	0.8	60	5.7		
NRDL	e P	Z	14:48:54.4	74.2	359.6	1.2	48	5.4		
IBBN	e P	Z	14:48:55.6	74.4	358.2	1.3	119	5.8		
	e pP	Z	14:49:07.5							
CLZ	e P	Z	14:48:58.8	74.9	359.8	1.3	90	5.7		
BUG	e P	Z	14:49:00.1	75.2	357.9	1.4	88	5.7		
CLL	e P	Z	14:49:00.9	75.4	1.4	1.3	54	5.5		
FBE	e P	Z	14:49:03.6	75.8	1.6	1.4	93	5.7		
BRG	e P	Z	14:49:03.5	75.8	2.0	1.3	58	5.6		
MOX	e P	Z	14:49:05.1	76.1	0.6	1.3	70	5.6		
	e pP	Z	14:49:16.4							
TANN	e P	Z	14:49:06.6	76.3	1.1	1.7	78	5.6		
GUNZ	e P	Z	14:49:06.7	76.3	1.0	1.5	67	5.5		
TNS	e P	Z	14:49:07.5	76.5	358.6	1.3	93	5.8		
	e pP	Z	14:49:18.8							
MANZ	e P	Z	14:49:08.9	76.7	0.9	1.4	42	5.4		
WLF	e P	Z	14:49:10.6	77.0	357.2	1.5	98	5.7		
GRA1	e P	Z	14:49:10.9	77.0	0.3	1.0	94	5.9		
	e pP	Z	14:49:22.2							
	e S	R	14:59:16.9							
	e SS	R	15:04:27.5							
	e PKKPbc	Z	15:08:18.0							
	e L	Z	15:29:26.0			19.6	1291		5.3	
WET	e P	Z	14:49:13.8	77.5	1.3	1.7	98	5.7		
GEC2	e P	Z	14:49:15.1	77.8	1.8	1.3	50	5.5		
STU	e P	Z	14:49:15.5	77.9	359.1	1.1	58	5.6		
BFO	e P	Z	14:49:18.0	78.3	358.5	1.3	58	5.4		
FUR	e P	Z	14:49:19.1	78.5	0.3	0.8	41	5.5		
RJOB	e P	Z	14:49:21.3	78.9	1.3	1.2	36	5.3		
	e pP	Z	14:49:32.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/12	00:58: 6.2	3.700S	100.900E	36.0	5.1			NEIC
Southern Sumatera, Indonesia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	01:11:06.5	90.9	94.5	1.3	8	4.9		
FBE	e P	Z	01:11:08.4	91.3	94.2	1.0	12	5.2		
WET	e P	Z	01:11:09.0	91.5	93.9	0.8	5	4.8		

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MANZ	e P	Z	01:11:12.4	92.1	93.3	0.9	4	4.8
GRB3	e P	Z	01:11:12.8	92.2	93.1	1.0	8	5.0
GRB1	e P	Z	01:11:13.4	92.3	93.0	1.0	15	5.3
GRB4	e P	Z	01:11:13.6	92.4	92.9	1.0	16	5.3
GRA1	e P	Z	01:11:14.4	92.6	92.6	0.8	8	5.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/12	01:25:46.8	22.250S	174.120W	33.0N				SZGRF

Tonga Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 01:45:35.0	150.4	13.4					
BRG	e PKPbc	Z 01:45:35.4	150.7	15.4					
FBE	e PKPbc	Z 01:45:36.0	150.7	14.3					
WERD	e PKPbc	Z 01:45:37.8	151.4	12.5					
TANN	e PKPbc	Z 01:45:37.9	151.4	12.8					
GUNZ	e PKPbc	Z 01:45:37.8	151.4	12.6					
WERN	e PKPbc	Z 01:45:38.3	151.5	12.7					
MANZ	e PKPbc	Z 01:45:39.1	151.8	12.3					
GRA1	e PKPbc	Z 01:45:38.7	152.2	10.7					
GEC2	e PKPbc	Z 01:45:40.8	152.7	15.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/12	02:07: 7.5	16.600S	167.200E	36.0				NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e PKP	Z 02:26:27.9	140.3	36.1					
MOX	e PKP	Z 02:26:32.3	140.7	38.7					
MANZ	e PKP	Z 02:26:33.1	141.0	39.9					
GRA1	e PKP	Z 02:26:34.2	141.6	38.9					
RJOB	e PKP	Z 02:26:36.9	142.4	42.8					
BFO	e PKP	Z 02:26:37.8	143.9	35.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/12	11:23:34.1	16.600S	167.300E	10.0		6.4		NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e SKPbc	Z 11:46:40.0	138.6	34.5					
	e SS	T 12:04:01.2							
BRG	e SKPbc	Z 11:46:43.0	139.7	41.6					
	e SS	T 12:04:17.0							

CLL	e	PKPdf	Z	11:43:00.2	139.7	40.0					
	e	SKPbc	Z	11:46:43.0							
	e	SS	T	12:04:18.6							
NRDL	e	PKPdf	Z	11:43:00.7	139.9	35.2					
	e	SS	T	12:04:14.9							
CLZ	e	PKPdf	Z	11:43:01.8	140.3	36.0					
TANN	e	PKPdf	Z	11:43:02.2	140.6	40.0					
	e	SKPbc	Z	11:46:45.4							
	e	SS	T	12:04:28.0							
WERD	e	PKPdf	Z	11:43:02.3	140.7	39.7					
	e	SKPbc	Z	11:46:45.8							
GUNZ	e	PKPdf	Z	11:43:02.7	140.7	39.8					
	e	SKPbc	Z	11:46:46.0							
WERN	e	PKPdf	Z	11:43:02.8	140.7	39.9					
	e	SKPbc	Z	11:46:46.4							
MOX	e	PKPdf	Z	11:43:02.4	140.8	38.6					
	e	SS	T	12:04:32.7							
MANZ	e	SKPbc	Z	11:46:47.3	141.1	39.8					
	e	SS	T	12:04:33.8							
ROTZ	e	SKPbc	Z	11:46:47.8	141.2	40.1					
	e	SS	T	12:04:36.9							
GEC2	e	PKPdf	Z	11:43:03.4	141.3	42.9					
	e	SKPbc	Z	11:46:47.8							
	e	SS	T	12:04:36.9							
WET	e	PKPdf	Z	11:43:04.1	141.4	41.5					
	e	SS	T	12:04:38.0							
GRA1	e	PKPdf	Z	11:43:04.2	141.7	38.8					
	e	SS	T	12:04:41.6							
	e	L	Z	12:48:24.0							
BUG	e	SS	T	12:04:39.5	141.7	31.9	21.2	7443	6.4		
	TNS	e	SKPbc	Z			11:46:50.5	142.3	34.4		
		e	SS	T			12:04:46.3				
FUR	e	PKPdf	Z	11:43:05.2	142.8	40.1					
	e	SKPbc	Z	11:46:51.9							
	e	SS	T	12:04:54.7							
STU	e	PKPdf	Z	11:43:05.9	143.2	36.6					
	e	SKPbc	Z	11:46:53.1							
	e	SS	T	12:04:58.4							
WLF	e	SS	T	12:05:01.5	143.6	31.4					
BFO	e	PKPdf	Z	11:43:07.7	143.9	35.7					
	e	SS	T	12:05:07.8							

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/12 11:36:55.8 16.500S 167.000E 10.0 NEIC

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

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BRG	e PP	Z	11:59:19.2	139.4	41.9
TANN	e PP	Z	11:59:23.9	140.4	40.3
IBBN	e PP	Z	11:59:25.0	140.6	32.4
GRA1	e PKP	Z	11:56:26.9	141.5	39.2
BFO	e PP	Z	11:59:48.4	143.7	36.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/12	21:17:18.6	18.846S	175.053W	33.0N				SZGRF
Tonga Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	21:36:50.5	144.7	8.8					
NRDL	e PKPbc	Z	21:36:54.8	146.1	8.8					
CLZ	e PKPbc	Z	21:36:56.3	146.7	9.4					
CLL	e PKPbc	Z	21:36:56.6	146.9	14.1					
BRG	e PKPbc	Z	21:36:57.6	147.2	15.8					
FBE	e PKPbc	Z	21:36:57.9	147.2	14.8					
MOX	e PKPbc	Z	21:36:59.0	147.8	11.9					
WERD	e PKPbc	Z	21:36:59.6	147.9	13.2					
TANN	e PKPbc	Z	21:36:59.8	147.9	13.5					
GUNZ	e PKPbc	Z	21:37:00.0	147.9	13.2					
WERN	e PKPbc	Z	21:37:00.0	148.0	13.4					
NKC	e PKPbc	Z	21:37:00.2	148.0	13.5					
MANZ	e PKPbc	Z	21:37:00.6	148.3	13.0					
TNS	e PKPbc	Z	21:37:01.8	148.5	6.3					
ROTZ	e PKPbc	Z	21:37:01.4	148.5	13.2					
GRA1	e PKPbc	Z	21:37:02.3	148.7	11.5					
WLF	e PKPbc	Z	21:37:03.4	149.2	2.2					
GEC2	e PKPbc	Z	21:37:02.7	149.2	16.3					
FUR	e PKPbc	Z	21:37:05.7	150.2	12.1					
BFO	e PKPbc	Z	21:37:05.8	150.4	6.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/13	08:41:9.0	43.650N	147.370E	51.7	5.5	4.8		SZGRF
Kuril Islands, Russia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	08:52:50.6	75.7	30.6	1.0	101	5.9		
	e pP	Z	08:53:04.8							
RUE	e P	Z	08:52:51.1	75.9	32.7	1.1	102	5.9		
NRDL	e P	Z	08:52:57.6	77.1	30.3	1.1	36	5.4		
CLL	e P	Z	08:52:57.6	77.1	32.0	1.0	99	5.9		
BRG	e P	Z	08:52:58.2	77.2	32.6	1.4	44	5.4		
	e pP	Z	08:53:13.2							
FBE	e P	Z	08:52:59.2	77.4	32.2	1.0	55	5.7		

CLZ	e P	Z	08:53:00.5	77.5	30.4	1.3	119	5.9	
IBBN	e P	Z	08:53:02.5	77.9	28.7	1.0	88	5.8	
	e pP	Z	08:53:17.7						
TANN	e P	Z	08:53:03.2	78.1	31.6	1.1	14	5.0	
WERD	e P	Z	08:53:03.3	78.1	31.5	1.5	37	5.3	
MOX	e P	Z	08:53:03.7	78.2	31.1	1.3	43	5.3	
GUNZ	e P	Z	08:53:03.8	78.2	31.5	1.2	33	5.2	
WERN	e P	Z	08:53:04.1	78.2	31.5	1.4	53	5.4	
	e pP	Z	08:53:19.3						
MANZ	e P	Z	08:53:05.9	78.6	31.3	1.4	37	5.2	
ROTZ	e P	Z	08:53:07.2	78.7	31.3	1.3	45	5.4	
BUG	e P	Z	08:53:07.5	78.8	28.2	1.5	108	5.7	
	e pP	Z	08:53:22.0						
GEC2	e P	Z	08:53:08.3	79.0	32.2	1.4	26	5.1	
WET	e P	Z	08:53:08.8	79.0	31.7	1.1	48	5.4	
GRA1	e P	Z	08:53:09.3	79.1	30.7	1.1	99	5.8	
	e pP	Z	08:53:24.1						
	e L	Z	09:30:12.8			19.8	463		4.8
TNS	e P	Z	08:53:11.4	79.5	28.9	1.2	69	5.4	
RJOB	e P	Z	08:53:15.4	80.3	31.5	1.4	55	5.4	
	e pP	Z	08:53:29.5						
FUR	e P	Z	08:53:16.1	80.4	30.6	1.0	56	5.5	
STU	e P	Z	08:53:16.8	80.6	29.3	1.0	54	5.5	
	e pP	Z	08:53:32.1						
BFO	e P	Z	08:53:19.9	81.2	28.7	1.3	47	5.5	

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/13 13:28:49.9 46.040S 35.060E 10.0 5.8 SZGRF  
 Prince Edward Islands, South Africa, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e SKSac	R	13:52:53.6	96.5	163.6					
	e PS	R	13:54:54.8							
	e SS	R	14:00:00.8							
GEC2	e SKSac	R	13:52:53.8	96.7	165.3					
	e PS	R	13:54:58.2							
	e SS	R	13:59:59.5							
WET	e SKSac	R	13:52:55.9	97.1	164.7					
	e PS	R	13:55:03.3							
	e SS	R	14:00:05.9							
BFO	e SKSac	R	13:52:57.7	97.2	161.7					
	e PS	R	13:55:05.6							
	e SS	R	14:00:06.1							
STU	e SKSac	R	13:52:58.9	97.5	162.2					
	e PS	R	13:55:07.7							
	e SS	R	14:00:12.3							
ROTZ	e SKSac	R	13:53:01.8	97.8	164.2					

	e PS	R	13:55:13.5									
	e SS	R	14:00:16.4									
GRA1	e Pdiff	Z	13:42:23.3	97.9	163.5							
	e PP	Z	13:46:10.4									
	e SKSac	R	13:53:02.0									
	e PS	R	13:55:13.9									
	e SS	R	14:00:17.8									
	e L	Z	14:27:44.2			21.4	3719			5.8		
MANZ	e SKSac	R	13:53:03.1	98.1	164.1							
	e PS	R	13:55:16.4									
	e SS	R	14:00:19.5									
TANN	e SKSac	R	13:53:05.4	98.4	164.4							
	e PS	R	13:55:20.4									
	e SS	R	14:00:25.5									
BRG	e SKSac	R	13:53:05.7	98.6	165.3							
	e PS	R	13:55:22.8									
	e SS	R	14:00:30.5									
MOX	e SKSac	R	13:53:06.4	98.8	163.8							
	e PS	R	13:55:25.1									
	e SS	R	14:00:31.3									
WLF	e SKSac	R	13:53:09.2	98.9	160.1							
	e PS	R	13:55:25.7									
	e SS	R	14:00:35.2									
TNS	e SKSac	R	13:53:07.8	99.0	161.7							
	e PS	R	13:55:27.9									
	e SS	R	14:00:34.8									
CLL	e SKSac	R	13:53:07.1	99.2	164.7							
	e PS	R	13:55:28.7									
	e SS	R	14:00:37.2									
CLZ	e SKSac	R	13:53:13.1	100.2	162.9							
	e PS	R	13:55:37.4									
	e SS	R	14:00:51.8									
BUG	e SKSac	R	13:53:16.1	100.4	160.8							
	e PS	R	13:55:40.5									
	e SS	R	14:00:55.0									
NRDL	e SKSac	R	13:53:15.5	100.8	162.7							
	e PS	R	13:55:45.8									
	e SS	R	14:00:57.1									
BSEG	e SKSac	R	13:53:22.4	102.2	162.7							
	e PS	R	13:55:57.6									

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/13 23:01:28.8 15.183N 92.435W 33.0N 5.2 5.3  
 Mexico-Guatemala border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z	23:13:56.4	84.1	287.0	1.1	21	5.3		

IBBN	e P	Z	23:13:56.7	84.1	287.3	0.8	25	5.5		
BSEG	e P	Z	23:14:01.7	85.0	289.1	1.3	52	5.6		
TNS	e P	Z	23:14:02.1	85.1	288.0	1.0	76	5.9		
NRDL	e P	Z	23:14:03.0	85.4	289.1	1.2	32	5.3		
BFO	e P	Z	23:14:03.8	85.7	288.0	1.2	17	5.1		
CLZ	e P	Z	23:14:03.6	85.8	289.3	1.3	26	5.2		
STU	e P	Z	23:14:06.2	86.1	288.6	1.0	26	5.3		
MOX	e P	Z	23:14:10.0	86.9	290.4	1.3	9	4.7		
GRA1	e P	Z	23:14:11.1	87.0	290.1	1.4	41	5.4		
	e S	R	23:24:44.0							
	e L	Z	23:56:45.2			18.1	1200		5.3	
WERD	e P	Z	23:14:12.7	87.4	290.9	2.5	95	5.7		
GUNZ	e P	Z	23:14:13.0	87.4	290.9	0.9	6	4.9		
WERN	e P	Z	23:14:13.4	87.5	290.9	0.8	7	5.0		
CLL	e P	Z	23:14:12.7	87.5	291.4	0.9	8	5.0		
TANN	e P	Z	23:14:12.8	87.5	291.0	1.1	8	5.0		
ROTZ	e P	Z	23:14:13.9	87.6	290.8	1.9	27	5.2		
FBE	e P	Z	23:14:15.1	87.8	291.7	1.1	15	5.2		
BRG	e P	Z	23:14:16.2	88.2	292.1	1.4	24	5.3		
WET	e P	Z	23:14:16.8	88.2	291.4	1.5	19	5.2		
RJOB	e P	Z	23:14:18.7	88.7	291.3	1.2	10	4.9		
GEC2	e P	Z	23:14:19.4	88.8	292.0	1.4	16	5.1		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/13 23:14:52.7 15.016N 93.053W 33.0N 5.0  
 Near coast of Chiapas, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TNS	e P	Z 23:27:28.2	85.6	288.3	1.0	31	5.4		
STU	e P	Z 23:27:33.2	86.6	289.0	0.9	8	4.9		
GRA1	e P	Z 23:27:37.4	87.5	290.5	1.3	9	5.0		
BRG	e P	Z 23:27:43.0	88.7	292.5	1.3	10	4.9		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/14 05:09:38.5 38.694N 44.536E 33.0N 4.2  
 Turkey-Iran border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:15:08.9	26.0	102.2	1.4	8	4.2		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/14 07:10:29.3 36.782N 21.795E 33.0N 4.4  
 Southern Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	07:13:34.2	12.8	145.6	1.0	18			
GEC2	e P	Z	07:13:45.1	13.4	150.9	1.0	9			
MANZ	e P	Z	07:14:03.3	14.9	148.5	1.4	20			
GRA1	e P	Z	07:14:04.5	15.0	145.4	1.5	86			
	e L	Z	07:21:19.5			21.2	3304		4.4	
BRG	e P	Z	07:14:09.0	15.2	155.3	0.8	13			
MOX	e P	Z	07:14:14.5	15.7	148.4	1.6	34			
TNS	e P	Z	07:14:26.9	16.5	139.4	1.2	74			
WLF	e P	Z	07:14:33.9	17.1	132.9	1.1	48			
NRDL	e P	Z	07:14:40.8	17.7	147.8	1.3	43			
IBBN	e P	Z	07:14:49.4	18.4	142.0	1.5	46			
BSEG	e P	Z	07:14:57.7	18.9	150.5	1.5	63			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/14	09:38: 7.9	61.060N	152.380W	33.0N	5.4			SZGRF

Southern Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	09:48:42.4	64.2	350.8	0.9	30	5.5		
IBBN	e P	Z	09:48:50.5	65.5	349.6	1.0	48	5.7		
CLZ	e P	Z	09:48:56.1	66.3	351.0	0.6	42	5.8		
BUG	e P	Z	09:48:56.0	66.3	349.4	0.8	30	5.6		
CLL	e P	Z	09:49:00.3	67.0	352.4	1.2	26	5.3		
UBBA	e P	Z	09:49:01.6	67.2	350.9	0.5	8	5.2		
BRG	e P	Z	09:49:03.7	67.5	352.9	1.0	22	5.4		
MOX	e P	Z	09:49:04.1	67.6	351.7	0.9	38	5.6		
TNS	e P	Z	09:49:04.8	67.7	350.1	0.7	28	5.6		
TANN	e P	Z	09:49:06.0	67.9	352.1	0.9	13	5.2		
WLF	e P	Z	09:49:06.5	67.9	349.0	1.2	33	5.4		
MANZ	e P	Z	09:49:07.6	68.3	352.0	1.2	11	5.0		
GRA1	e P	Z	09:49:09.7	68.5	351.6	0.7	26	5.6		
ROTZ	e P	Z	09:49:10.1	68.5	352.1	0.9	20	5.4		
WET	e P	Z	09:49:13.7	69.2	352.4	1.1	13	5.0		
STU	e P	Z	09:49:14.3	69.2	350.6					
BFO	e P	Z	09:49:15.7	69.5	350.2	0.9	11	5.0		
GEC2	e P	Z	09:49:16.3	69.5	352.9	0.8	11	5.1		
FUR	e P	Z	09:49:19.1	70.0	351.7	0.7	37	5.6		
RJOB	e P	Z	09:49:22.3	70.5	352.5	0.7	25	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/14	10:45:37.2	48.112N	154.839E	33.0N	5.8	5.2		SZGRF

Kuril Islands, Russia



Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	10:57:07.8	73.6	23.8	1.4	96	5.7		
RUE	e P	Z	10:57:10.0	74.1	25.9	1.2	168	6.0		
NRDL	e P	Z	10:57:15.4	75.0	23.5	1.4	85	5.6		
CLL	e P	Z	10:57:16.8	75.4	25.2	1.2	158	5.9		
BRG	e P	Z	10:57:17.8	75.5	25.8	1.3	76	5.6		
CLZ	e P	Z	10:57:19.0	75.5	23.6	1.4	178	5.9		
FBE	e P	Z	10:57:18.6	75.6	25.4	1.4	141	5.8		
IBBN	e P	Z	10:57:19.7	75.7	22.0	1.0	72	5.7		
TANN	e P	Z	10:57:22.8	76.3	24.8	1.4	53	5.4		
WERD	e P	Z	10:57:22.9	76.3	24.7	1.4	95	5.6		
MOX	e P	Z	10:57:22.8	76.3	24.3	1.2	80	5.6		
GUNZ	e P	Z	10:57:23.3	76.4	24.7	0.9	60	5.6		
WERN	e P	Z	10:57:23.6	76.4	24.7	0.7	67	5.8		
UBBA	e P	Z	10:57:24.3	76.6	23.3	1.4	91	5.7		
BUG	e P	Z	10:57:24.8	76.7	21.6	1.3	106	5.8		
MANZ	e P	Z	10:57:25.5	76.8	24.5	1.1	56	5.6		
ROTZ	e P	Z	10:57:26.9	77.0	24.6	1.2	100	5.8		
GRA1	e P	Z	10:57:28.8	77.3	24.0	0.7	140	6.2		
	e L	Z	11:34:59.4			21.0	1341		5.2	
WET	e P	Z	10:57:29.0	77.3	24.9	1.1	114	5.9		
GEC2	e P	Z	10:57:28.6	77.4	25.4	1.0	46	5.5		
TNS	e P	Z	10:57:29.8	77.5	22.2	1.2	135	6.0		
WLF	e P	Z	10:57:36.5	78.6	20.7	2.0	188	5.9		
RJOB	e P	Z	10:57:36.2	78.6	24.8	1.0	54	5.6		
STU	e P	Z	10:57:36.0	78.7	22.6	1.4	139	5.9		
FUR	e P	Z	10:57:36.2	78.7	23.9	1.3	164	6.0		
BFO	e P	Z	10:57:39.4	79.3	22.0	1.2	106	5.8		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/14 15:48:33.6 22.510S 175.350W 33.0G  
 Tonga Islands region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	16:08:16.3	148.3	10.0					
NRDL	e PKPbc	Z	16:08:19.4	149.7	10.0					
IBBN	e PKPbc	Z	16:08:20.9	150.1	5.8					
CLZ	e PKPbc	Z	16:08:21.5	150.3	10.7					
CLL	e PKPbc	Z	16:08:21.8	150.5	15.8					
BRG	e PKPbc	Z	16:08:22.6	150.7	17.8					
BUG	e PKPbc	Z	16:08:22.8	151.0	5.0					
	e PKPab	Z	16:08:29.7							
MOX	e PKPbc	Z	16:08:24.0	151.3	13.5					
UBBA	e PKPbc	Z	16:08:24.3	151.4	10.4					
TANN	e PKPbc	Z	16:08:23.9	151.4	15.2					
MANZ	e PKPbc	Z	16:08:25.0	151.9	14.8					
ROTZ	e PKPbc	Z	16:08:25.7	152.1	15.0					

TNS	e PKPbc	Z	16:08:25.8	152.1	7.5
	e PKPab	Z	16:08:34.8		
GRA1	e PKPbc	Z	16:08:26.2	152.3	13.2
WET	e PKPbc	Z	16:08:26.8	152.6	16.7
GEC2	e PKPbc	Z	16:08:27.1	152.7	18.5
	e PKPab	Z	16:08:37.2		
WLF	e PKPbc	Z	16:08:27.8	152.8	3.0
STU	e PKPab	Z	16:08:38.4	153.5	9.4
FUR	e PKPab	Z	16:08:42.2	153.8	14.0
RJOB	e PKPbc	Z	16:08:30.0	153.9	17.3
BFO	e PKPab	Z	16:08:41.4	154.0	7.8

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/14 16:02:20.6 23.350S 174.010W 33.0G 5.8  
 Tonga Islands region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPdf	Z	16:22:04.8	150.7	7.7					
	e PKPbc	Z	16:22:09.6							
IBBN	e PKPbc	Z	16:22:10.5	151.0	3.4					
CLZ	e PKPbc	Z	16:22:09.3	151.3	8.4					
CLL	e PKPbc	Z	16:22:09.5	151.5	13.6					
BRG	e PKPdf	Z	16:22:06.3	151.8	15.6					
UBBA	e PKPdf	Z	16:22:06.9	152.4	8.0					
	e PKPbc	Z	16:22:13.2							
MOX	e PKPdf	Z	16:22:07.7	152.4	11.2					
TANN	e PKPdf	Z	16:22:07.5	152.5	12.9					
	e PKPbc	Z	16:22:13.9							
MANZ	e PKPdf	Z	16:22:08.1	152.9	12.4					
TNS	e PKPdf	Z	16:22:08.9	153.1	5.0					
ROTZ	e PKPdf	Z	16:22:09.1	153.1	12.7					
	e PKPbc	Z	16:22:15.5							
GRA1	e PKPdf	Z	16:22:09.0	153.3	10.8					
	e PKPbc	Z	16:22:16.0							
	e L	Z	17:35:34.7			19.8	1440		5.8	
WET	e PKPdf	Z	16:22:08.9	153.6	14.4					
	e PKPbc	Z	16:22:16.5							
WLF	e PKPdf	Z	16:22:09.9	153.7	0.3					
	e PKPbc	Z	16:22:16.5							
GEC2	e PKPdf	Z	16:22:09.2	153.8	16.2					
	e PKPbc	Z	16:22:16.6							
STU	e PKPbc	Z	16:22:17.2	154.5	6.8					
FUR	e PKPbc	Z	16:22:18.0	154.8	11.5					
BFO	e PKPdf	Z	16:22:11.3	155.0	5.1					
	e PKPbc	Z	16:22:19.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/14	22:32: 8.7	26.260N	142.620E	33.0N	5.4	6.2		SZGRF

Bonin Islands, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	22:45:05.9	89.9	41.5	1.1	34	5.4		
	e SKSac	R	22:55:34.6							
	e S	R	22:55:57.2							
BRG	e P	Z	22:45:09.1	90.6	44.4	1.3	26	5.2		
	e SKSac	R	22:55:39.3							
	e S	R	22:56:04.4							
CLL	e SP	Z	22:57:08.4	90.7	43.7	1.7	44	5.3		
	e P	Z	22:45:09.6							
	e SKSac	R	22:55:38.1							
FBE	e S	R	22:56:04.7	90.8	44.0	1.2	34	5.4		
	e SP	Z	22:57:08.6							
	e P	Z	22:45:09.9							
NRDL	e P	Z	22:45:12.2	91.0	41.4	1.3	23	5.3		
	e SKSac	R	22:55:41.5							
	e S	R	22:56:07.7							
CLZ	e SP	Z	22:57:13.4	91.4	41.6	1.2	29	5.5		
	e P	Z	22:45:13.3							
	e SKSac	R	22:55:44.0							
TANN	e S	R	22:56:11.3	91.6	43.3	2.8	100	5.7		
	e SP	Z	22:57:18.1							
	e P	Z	22:45:13.6							
WERD	e SKSac	R	22:55:44.5	91.6	43.2	1.2	14	5.1		
	e S	R	22:56:13.4							
	e SP	Z	22:57:18.8							
GUNZ	e P	Z	22:45:14.1	91.7	43.2	1.2	21	5.3		
	e P	Z	22:45:13.6							
	e P	Z	22:45:15.0							
WERN	e P	Z	22:45:15.0	91.7	43.2	1.5	37	5.5		
	e P	Z	22:45:14.1							
	e SKSac	R	22:55:45.8							
MOX	e S	R	22:56:14.7	91.8	42.6	1.7	38	5.5		
	e SP	Z	22:57:20.7							
	e P	Z	22:45:15.8							
MANZ	e P	Z	22:45:15.8	92.0	43.0	1.5	23	5.2		
	e SKSac	R	22:55:48.2							
	e SP	Z	22:57:25.1							
IBBN	e P	Z	22:45:15.6	92.1	39.5	1.1	30	5.4		
	e SKSac	R	22:55:47.3							
	e S	R	22:56:15.1							
GEC2	e SP	Z	22:57:25.7	92.2	44.3	1.8	40	5.4		
	e P	Z	22:45:16.6							
	e SKSac	R	22:55:48.5							
ROTZ	e SP	Z	22:57:26.1	92.2	43.1	1.5	50	5.5		
	e P	Z	22:45:17.0							
	e SKSac	R	22:55:48.2							

	e S	R	22:56:19.1							
	e SP	Z	22:57:26.4							
WET	e P	Z	22:45:18.3	92.3	43.6	1.3	16	5.1		
	e SKKSac	R	22:55:50.0							
	e S	R	22:56:19.5							
	e SP	Z	22:57:27.6							
UBBA	e P	Z	22:45:18.7	92.3	41.3	1.8	28	5.2		
	e SKKSac	R	22:55:49.0							
	e S	R	22:56:19.3							
	e SP	Z	22:57:26.4							
GRA1	e P	Z	22:45:19.1	92.7	42.3	1.6	98	5.8		
	e PP	Z	22:49:01.8							
	e SKSac	R	22:55:52.2							
	e S	R	22:56:22.5							
	e SP	Z	22:57:31.8							
	e SS	T	23:02:33.1							
	e L	Z	23:30:46.5			18.1	7148		6.2	
BUG	e SKSac	R	22:55:53.3	93.0	39.1					
	e S	R	22:56:24.9							
	e SP	Z	22:57:36.0							
TNS	e P	Z	22:45:23.2	93.4	40.1	1.1	16	5.2		
	e SKSac	R	22:55:56.5							
	e S	R	22:56:29.8							
	e SP	Z	22:57:40.4							
FUR	e P	Z	22:45:24.2	93.8	42.4	1.9	131	5.8		
	e SKSac	R	22:55:56.8							
	e S	R	22:56:31.5							
	e SP	Z	22:57:44.9							
STU	e P	Z	22:45:26.4	94.2	40.8	1.3	31	5.5		
	e SKSac	R	22:56:00.4							
	e S	R	22:56:35.0							
	e SP	Z	22:57:47.6							
BFO	e P	Z	22:45:28.9	94.9	40.1	1.6	41	5.5		
	e SKSac	R	22:56:02.7							
	e S	R	22:56:41.6							
	e SP	Z	22:57:52.5							

Date 2008/03/15  
 Origin Time 02:26:17.3  
 Botswana

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 02:37:28.3	70.7	166.3	1.4	12	4.9		
ROTZ	e P	Z 02:37:35.1	71.8	164.9	1.2	7	4.7		
GRA1	e P	Z 02:37:35.5	71.9	163.9	1.0	18	5.1		
MANZ	e P	Z 02:37:36.4	72.0	164.8	1.3	5	4.5		
NKC	e P	Z 02:37:37.9	72.2	165.2	1.1	6	4.6		

TANN	e P	Z	02:37:38.9	72.4	165.2	1.0	4	4.5
BRG	e P	Z	02:37:39.9	72.6	166.7	2.1	27	5.0
FBE	e P	Z	02:37:40.0	72.7	166.1	0.6	4	4.7
CLL	e P	Z	02:37:43.6	73.2	165.8	1.0	5	4.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/15	04:28:46.0	43.727N	15.635E	10.0G			3.7	SZGRF

Adriatic Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ARSA	e Pn	Z 04:29:40.2	3.5	178.7					3.3
KBA	e Pn	Z 04:29:41.9	3.7	153.5					3.6
MOA	e Pn	Z 04:29:50.0	4.2	166.5					3.5
WTTA	e Pn	Z 04:29:53.0	4.5	140.2					3.8
GEC2	e Pn	Z 04:30:04.0	5.3	164.7					
	e Sn	N 04:31:00.4							
DAVA	e Pn	N 04:30:05.2	5.4	129.3					
	e Sn	N 04:31:03.6							
WET	e Pn	Z 04:30:09.4	5.7	159.7					
	e Sn	Z 04:31:11.9							
ROTZ	e Pn	Z 04:30:18.6	6.5	157.5					
	e Sn	N 04:31:28.2							
GRA1	e Sn	N 04:31:36.7	6.7	151.5					
NKC	e Sn	E 04:31:39.2	6.9	160.3					
WERN	e Sn	E 04:31:41.2	6.9	160.1					
TANN	e Sn	N 04:31:43.7	7.0	160.9					
MOX	e Sn	N 04:31:50.7	7.4	157.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/15	10:15:39.6	39.574N	33.165E	10.0G	4.0	3.9		NEIC

Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:19:55.7	18.5	114.8	0.9	9	4.0		
	e L	Z 10:27:33.2			20.9	732		3.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/15	11:35:49.7	19.850S	177.170E	33.0N				SZGRF

South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 11:55:25.4	146.2	27.4					
BRG	e PKPbc	Z 11:55:26.0	146.3	29.3					

CLZ	e	PKPbc	Z	11:55:27.2	146.4	22.8
FBE	e	PKPbc	Z	11:55:26.7	146.4	28.3
IBBN	e	PKPbc	Z	11:55:26.8	146.5	18.3
TANN	e	PKPbc	Z	11:55:29.3	147.1	27.2
WERD	e	PKPbc	Z	11:55:28.5	147.1	26.9
PLN	e	PKPbc	Z	11:55:28.3	147.1	26.6
MOX	e	PKPbc	Z	11:55:29.8	147.2	25.6
GUNZ	e	PKPbc	Z	11:55:29.0	147.2	27.0
WERN	e	PKPbc	Z	11:55:29.4	147.3	27.1
NKC	e	PKPbc	Z	11:55:29.9	147.3	27.3
MANZ	e	PKPbc	Z	11:55:30.9	147.6	26.9
ROTZ	e	PKPbc	Z	11:55:31.9	147.8	27.2
GEC2	e	PKPbc	Z	11:55:31.3	148.1	30.4
WET	e	PKPbc	Z	11:55:32.9	148.1	28.8
GRA1	e	PKPbc	Z	11:55:32.4	148.1	25.6
TNS	e	PKPbc	Z	11:55:31.9	148.3	20.5
WLF	e	PKPbc	Z	11:55:35.8	149.3	16.7
RJOB	e	PKPbc	Z	11:55:34.8	149.4	29.8
BFO	e	PKPbc	Z	11:55:36.1	150.1	21.4

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/15 14:43:29.0 2.820N 94.330E 33.0N 5.7 5.7  
 Off west coast of northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 14:55:44.2	81.7	95.2	2.5	466	6.2		
	e S	T 15:05:57.4							
BRG	e P	Z 14:55:44.8	81.8	95.7	1.9	119	5.7		
	e S	T 15:05:58.3							
RJOB	e P	Z 14:55:47.0	82.2	94.4	1.3	34	5.3		
	e S	T 15:06:00.8							
WET	e P	Z 14:55:47.6	82.3	94.6	1.9	138	5.8		
	e S	T 15:06:04.1							
CLL	e P	Z 14:55:47.2	82.4	95.0	1.9	85	5.6		
	e S	T 15:06:03.4							
TANN	e P	Z 14:55:48.2	82.6	94.5	1.8	54	5.5		
	e S	T 15:06:08.7							
ROTZ	e P	Z 14:55:49.4	82.8	94.2	1.7	90	5.7		
	e S	T 15:06:10.5							
MANZ	e P	Z 14:55:49.7	82.8	94.2	2.4	304	6.1		
	e S	T 15:06:11.2							
MOX	e P	Z 14:55:51.2	83.2	93.9	1.9	92	5.7		
	e S	T 15:06:12.9							
FUR	e S	T 15:06:11.3	83.3	93.3					
GRA1	e P	Z 14:55:53.1	83.4	93.4	2.5	338	6.1		
	e S	T 15:06:16.0							
	e L	Z 15:41:37.7			19.6	3329		5.7	

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CLZ	e P	Z	14:55:56.2	84.1	93.0	1.5	41	5.4
	e S	T	15:06:19.8					
BSEG	e P	Z	14:55:57.2	84.2	93.2	1.6	46	5.5
	e S	T	15:06:21.6					
UBBA	e P	Z	14:55:57.7	84.2	92.6	2.0	79	5.6
	e S	T	15:06:22.5					
NRDL	e P	Z	14:55:56.3	84.2	92.9	2.3	263	6.1
	e S	T	15:06:21.8					
STU	e P	Z	14:55:59.6	84.7	91.8	1.6	66	5.6
	e S	T	15:06:28.0					
TNS	e P	Z	14:56:01.4	85.2	91.4	1.9	80	5.6
	e S	T	15:06:35.0					
BFO	e P	Z	14:56:01.7	85.2	91.1	2.5	101	5.6
	e S	T	15:06:33.6					
IBBN	e P	Z	14:56:05.2	85.7	91.0	2.2	244	6.0
	e S	T	15:06:37.4					
BUG	e P	Z	14:56:06.1	86.0	90.5	2.5	230	5.9
	e S	T	15:06:41.5					
WLF	e S	T	15:06:48.8	86.7	89.6			

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/16 01:40:32.1 1.180N 96.291E 33.0N 4.9  
 Off west coast of northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:53:09.1	85.9	93.0	0.7	6	4.9		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/16 04:17:12.0 30.672N 140.201E 33.0N 5.0  
 Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:29:58.0	87.8	42.0	0.7	6	5.0		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/16

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 05:32:18.7							

Date Origin Time Lat Long Depth mb Ms ML Source

2008/03/16

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 07:55:18.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/16	11:11:19.3	50.297N	150.291E	33.0N	5.0			SZGRF

Northwest of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 11:22:31.3	70.5	25.8					
NRDL	e P	Z 11:22:39.2	71.8	25.5					
CLL	e P	Z 11:22:40.5	72.1	27.1	0.7	15	5.2		
BRG	e P	Z 11:22:41.0	72.2	27.6	2.3	29	5.0		
CLZ	e P	Z 11:22:43.0	72.4	25.6	1.0	17	5.1		
IBBN	e P	Z 11:22:44.2	72.6	24.0					
MOX	e P	Z 11:22:46.8	73.1	26.2	1.0	9	4.9		
BUG	e P	Z 11:22:48.9	73.5	23.6					
ROTZ	e P	Z 11:22:50.5	73.7	26.4					
GRA1	e P	Z 11:22:52.5	74.1	25.8	0.9	22	5.2		
WET	e P	Z 11:22:52.8	74.1	26.7					
GEC2	e P	Z 11:22:52.6	74.1	27.2	0.8	4	4.5		
TNS	e P	Z 11:22:54.0	74.3	24.2					
RJOB	e P	Z 11:23:00.1	75.4	26.5					
FUR	e P	Z 11:23:00.6	75.4	25.7					
STU	e P	Z 11:23:00.2	75.5	24.5					
BFO	e P	Z 11:23:03.6	76.1	23.9	1.0	12	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/16	13:25:14.2	32.367N	141.354E	33.0N	5.0			SZGRF

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 13:37:41.6	83.9	39.8					
BRG	e P	Z 13:37:45.8	84.8	42.4					
CLL	e P	Z 13:37:46.1	84.8	41.7					
NRDL	e P	Z 13:37:47.6	85.1	39.6					
CLZ	e P	Z 13:37:50.0	85.5	39.8					
MOX	e P	Z 13:37:51.5	85.9	40.6					
IBBN	e P	Z 13:37:52.8	86.1	37.8					
GRA1	e P	Z 13:37:55.4	86.8	40.3	1.3	18	5.0		
RJOB	e P	Z 13:38:00.0	87.6	41.4					
BFO	e P	Z 13:38:06.5	89.0	38.1					



Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/16	23:05:11.9	4.941S	103.458E	33.0N	5.3			SZGRF

Southern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	23:18:24.2	93.5	93.5	1.2	19	5.4		
GEC2	e P	Z	23:18:24.3	93.6	93.4	1.6	38	5.5		
WET	e P	Z	23:18:26.9	94.1	92.8	1.0	16	5.3		
CLL	e P	Z	23:18:26.7	94.1	92.7	1.0	8	5.0		
TANN	e P	Z	23:18:28.5	94.4	92.4	1.3	8	4.9		
ROTZ	e P	Z	23:18:29.4	94.6	92.2	1.1	10	5.2		
MOX	e P	Z	23:18:30.8	95.0	91.7	1.3	15	5.2		
FUR	e P	Z	23:18:31.4	95.1	91.7	0.6	15	5.6		
GRA1	e P	Z	23:18:32.4	95.2	91.5	0.9	16	5.4		
CLZ	e P	Z	23:18:34.8	95.8	90.6	1.3	17	5.4		
BSEG	e P	Z	23:18:35.0	95.8	90.4	1.2	16	5.4		
NRDL	e P	Z	23:18:35.4	96.0	90.4	1.0	11	5.3		
STU	e P	Z	23:18:38.0	96.5	90.1	0.8	8	5.3		
TNS	e P	Z	23:18:40.2	97.0	89.3					
BUG	e P	Z	23:18:43.1	97.7	88.2	1.5	30	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/18	05:58: 9.2	48.802N	152.862E	33.0N	4.9			SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	06:09:41.2	73.9	24.5					
CLL	e P	Z	06:09:42.3	74.2	26.2	0.8	17	5.1		
BRG	e P	Z	06:09:43.2	74.3	26.7	1.2	9	4.7		
CLZ	e P	Z	06:09:44.6	74.4	24.6	1.0	13	4.9		
TANN	e P	Z	06:09:48.4	75.1	25.7					
MOX	e P	Z	06:09:48.4	75.2	25.2	0.8	9	4.9		
UBBA	e P	Z	06:09:50.0	75.4	24.3					
ROTZ	e P	Z	06:09:52.5	75.8	25.5					
GRA1	e P	Z	06:09:54.2	76.1	24.9	0.8	30	5.5		
WET	e P	Z	06:09:54.6	76.2	25.9					
GEC2	e P	Z	06:09:54.1	76.2	26.3	0.7	4	4.7		
TNS	e P	Z	06:09:55.7	76.4	23.2					
WLF	e P	Z	06:10:01.1	77.5	21.7					
STU	e P	Z	06:10:01.8	77.5	23.6					
BFO	e P	Z	06:10:05.4	78.1	23.0	0.7	6	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/18	08:22:41.3	28.977S	176.466W	33.0N		6.3		SZGRF

Kermadec Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	08:42:34.8	154.6	13.9					
	e PP	Z	08:46:29.2							
NRDL	e PP	Z	08:46:37.4	156.0	14.2					
IBBN	e PP	Z	08:46:40.3	156.5	9.3					
CLL	e PKPdf	Z	08:42:36.9	156.6	21.2					
	e PP	Z	08:46:39.5							
CLZ	e PKPdf	Z	08:42:37.6	156.6	15.2					
	e PP	Z	08:46:40.7							
BRG	e PKPdf	Z	08:42:37.1	156.7	23.6					
	e PP	Z	08:46:40.7							
BUG	e PKPdf	Z	08:42:39.0	157.4	8.5					
	e PP	Z	08:46:45.9							
MOX	e PKPdf	Z	08:42:39.7	157.5	18.7					
	e PP	Z	08:46:45.5							
TANN	e PP	Z	08:46:46.1	157.5	20.8					
UBBA	e PP	Z	08:46:46.0	157.6	15.0					
ROTZ	e PKPdf	Z	08:42:40.6	158.2	20.8					
	e PP	Z	08:46:49.3							
TNS	e PKPdf	Z	08:42:41.1	158.4	11.8					
	e PP	Z	08:46:50.9							
GRA1	e PKPdf	Z	08:42:39.7	158.5	18.6					
	e PKPab	Z	08:43:16.7							
	e PP	Z	08:46:50.7							
	e PPP	Z	08:50:38.3							
	e PSKS	N	08:57:20.7							
WET	e L	Z	09:58:25.1			20.3	5032		6.3	
	e PKPdf	Z	08:42:42.1	158.6	22.9					
GEC2	e PP	Z	08:46:51.7							
	e PKPdf	Z	08:42:40.6	158.7	25.1					
WLF	e PP	Z	08:46:51.8							
	e PKPdf	Z	08:42:43.8	159.2	6.5					
STU	e PP	Z	08:46:55.5							
	e PKPdf	Z	08:46:57.3	159.7	14.4					
FUR	e PKPdf	Z	08:42:42.2	159.9	20.1					
	e PP	Z	08:46:58.0							
BFO	e PKPdf	Z	08:42:42.2	160.3	12.5					
	e PP	Z	08:47:00.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/18	09:35:59.8	58.850N	156.660W	33.0N	5.1			SZGRF
Alaska Peninsula, United States								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	09:47:14.8	71.0	353.4	0.8	11	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/19	11:55:53.3	6.900S	155.300E	27.0		4.9		NEIC

Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	12:14:51.5	125.2	44.2					
BRG	e PKPdf	Z	12:14:52.9	125.6	49.7					
CLL	e PKPdf	Z	12:14:53.0	125.8	48.5					
FBE	e PKPdf	Z	12:14:53.7	125.9	49.0					
HLG	e PKPdf	Z	12:14:54.9	125.9	41.3					
NRDL	e PKPdf	Z	12:14:54.1	126.3	44.7					
CLZ	e PKPdf	Z	12:14:55.1	126.6	45.3					
TANN	e PKPdf	Z	12:14:54.6	126.6	48.4					
WERD	e PKPdf	Z	12:14:55.0	126.7	48.2					
WERN	e PKPdf	Z	12:14:55.2	126.8	48.3					
MOX	e PKPdf	Z	12:14:54.4	126.9	47.3					
GEC2	e PKPdf	Z	12:14:55.6	127.0	50.6					
MANZ	e PKPdf	Z	12:14:55.8	127.1	48.2					
WET	e PKPdf	Z	12:14:56.3	127.3	49.5					
IBBN	e PKPdf	Z	12:14:56.9	127.4	42.1					
GRA1	e PKPdf	Z	12:14:56.6	127.7	47.4					
	e L	Z	13:11:58.7			19.7	243		4.9	
STU	e PKPdf	Z	12:14:59.8	129.3	45.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/19	16:14:17.6	52.071N	169.068W	33.0N	4.6			SZGRF

Fox Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	16:26:14.4	78.2	0.2	1.0	7	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/19								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	19:38:37.0							
GRA1	e PKPbc	Z	19:38:38.2							
GUNZ	e PKPbc	Z	19:38:39.7							
MOX	e PKPbc	Z	19:38:38.0							
NKC	e PKPbc	Z	19:38:38.7							
ROTZ	e PKPbc	Z	19:38:40.5							
WERN	e PKPbc	Z	19:38:38.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source	
2008/03/20	09:32: 9.7	35.650N	44.018E	33.0N	4.4			SZGRF	
Iraq									
Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:37:54.3	27.6	108.1	1.1	6	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source	
2008/03/20	14:10:39.5	6.200N	126.900E	33.0N		6.1		SZGRF	
Banda Sea									
Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e Pdiff	Z 14:24:16.2	98.7	67.7					
BRG	e Pdiff	Z 14:24:18.4	99.3	68.0					
FBE	e Pdiff	Z 14:24:20.0	99.6	67.6					
CLL	e Pdiff	Z 14:24:19.8	99.6	67.2					
BSEG	e Pdiff	Z 14:24:21.9	100.1	64.5					
	e PP	Z 14:28:31.5							
GEC2	e Pdiff	Z 14:24:22.5	100.2	68.2					
	e PP	Z 14:28:29.8							
TANN	e Pdiff	Z 14:24:23.1	100.3	66.9					
WERD	e Pdiff	Z 14:24:23.4	100.4	66.8					
GUNZ	e Pdiff	Z 14:24:23.7	100.4	66.8					
WERN	e Pdiff	Z 14:24:23.7	100.4	66.9					
WET	e Pdiff	Z 14:24:24.5	100.5	67.5					
MANZ	e Pdiff	Z 14:24:25.1	100.7	66.7					
MOX	e Pdiff	Z 14:24:24.9	100.7	66.2					
ROTZ	e Pdiff	Z 14:24:25.4	100.7	66.8					
NRDL	e Pdiff	Z 14:24:25.5	100.8	64.6					
CLZ	e Pdiff	Z 14:24:26.3	100.9	64.9					
RJOB	e Pdiff	Z 14:24:26.6	101.1	67.6					
	e PP	Z 14:28:39.3							
GRA1	e Pdiff	Z 14:24:28.0	101.3	66.0					
	e L	Z 15:13:33.9			21.5	5976		6.1	
GRFO	e Pdiff	Z 14:24:28.1	101.3	66.0					
UBBA	e Pdiff	Z 14:24:28.8	101.6	64.8					
IBBN	e Pdiff	Z 14:24:31.5	102.2	62.7					
TNS	e Pdiff	Z 14:24:34.3	102.7	63.6					
BUG	e Pdiff	Z 14:24:34.4	102.8	62.4					
STU	e Pdiff	Z 14:24:34.9	102.9	64.6					
WLF	e Pdiff	Z 14:24:41.7	104.3	61.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/20	22:32:58.3	34.497N	81.428E	33.0N	6.5	8.0		SZGRF

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	22:41:49.6	50.2	82.8	1.4	910	6.5		
RGN	e P	Z	22:41:50.3	50.2	84.2	1.6	3420	7.0		
BRG	e P	Z	22:41:51.2	50.3	81.6	1.6	1110	6.6		
	e S	E	22:49:12.9							
FBE	e P	Z	22:41:54.0	50.7	81.2	1.7	1403	6.6		
GEC2	e P	Z	22:41:55.4	50.8	79.8	1.2	594	6.4		
	e S	E	22:49:19.8							
CLL	e P	Z	22:41:54.6	50.8	81.3	1.6	842	6.4		
	e S	E	22:49:14.0							
WET	e P	Z	22:41:58.9	51.3	79.5	1.9	1226	6.5		
	e S	E	22:49:27.8							
TANN	e P	Z	22:41:58.9	51.3	80.2	2.0	1141	6.5		
	e S	E	22:49:27.2							
WERN	e P	Z	22:41:59.6	51.4	80.0	1.7	637	6.3		
GUNZ	e P	Z	22:41:59.6	51.4	80.1	1.6	838	6.4		
WERD	e P	Z	22:41:59.5	51.4	80.1	1.3	290	6.1		
ROTZ	e P	Z	22:42:01.6	51.6	79.5	1.6	1079	6.5		
	e S	E	22:49:30.8							
RJOB	e P	Z	22:42:01.2	51.6	78.3	0.9	130	5.9		
	e S	E	22:49:29.4							
MANZ	e P	Z	22:42:01.5	51.6	79.6	1.7	652	6.3		
	e S	E	22:49:32.5							
MOX	e P	Z	22:42:02.5	51.8	79.8	1.9	1063	6.5		
	e S	E	22:49:33.3							
BSEG	e P	Z	22:42:04.2	52.1	81.4	1.4	1180	6.6		
	e S	E	22:49:35.0							
GRA1	e P	Z	22:42:06.4	52.2	78.8	1.5	1571	6.7		
	e S	E	22:49:39.4							
	e L	Z	23:06:26.8			19.6	1230716		8.0	
GRFO	e P	Z	22:42:06.5	52.2	78.8					
CLZ	e P	Z	22:42:06.6	52.4	79.9	1.4	709	6.4		
	e S	E	22:49:43.2							
NRDL	e P	Z	22:42:06.9	52.4	80.2	1.5	1604	6.7		
	e S	E	22:49:41.2							
FUR	e P	Z	22:42:08.4	52.5	77.7	1.5	1251	6.6		
	e S	E	22:49:43.1							
UBBA	e P	Z	22:42:09.4	52.8	78.8	1.6	774	6.4		
	e S	E	22:49:47.3							
HLG	e P	Z	22:42:14.3	53.4	79.8	1.4	2000	7.0		
STU	e P	Z	22:42:16.9	53.7	76.8	1.5	970	6.6		
	e S	E	22:49:59.7							
IBBN	e P	Z	22:42:17.3	53.9	78.4	1.6	1261	6.7		
	e S	E	22:49:59.4							
TNS	e P	Z	22:42:17.8	53.9	77.3	1.5	692	6.5		

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	e S	E	22:50:02.7							
BUG	e P	Z	22:42:21.0	54.3	77.4	1.6	1005	6.6		
	e S	E	22:50:07.7							
BFO	e P	Z	22:42:21.4	54.4	75.9	1.5	275	6.1		
	e S	E	22:50:08.5							
WLF	e P	Z	22:42:29.6	55.4	75.4	1.1	240	6.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/20	22:50:33.6	35.745N	82.460E	33.0N	5.2			SZGRF

Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:59:40.7	52.1	76.9	1.1	36	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/20	23:12: 2.6	35.290N	81.500E	33.0N	5.8			SZGRF

Southern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 23:20:54.5	49.8	80.8	1.4	185	5.8		
GEC2	e P	Z 23:20:58.6	50.4	78.9	1.6	201	5.8		
CLL	e P	Z 23:20:58.0	50.4	80.5	1.8	209	5.8		
TANN	e P	Z 23:21:02.1	50.9	79.4	1.6	120	5.6		
ROTZ	e P	Z 23:21:04.6	51.1	78.7	1.5	177	5.8		
RJOB	e P	Z 23:21:03.9	51.2	77.5	2.2	152	5.5		
MOX	e P	Z 23:21:05.5	51.3	79.0	1.6	148	5.7		
BSEG	e P	Z 23:21:07.4	51.5	80.6	1.3	182	5.9		
GRA1	e P	Z 23:21:09.5	51.8	78.0	1.5	240	5.9		
CLZ	e P	Z 23:21:09.9	51.9	79.1	1.4	149	5.7		
NRDL	e P	Z 23:21:10.1	51.9	79.4	1.5	296	6.0		
FUR	e P	Z 23:21:11.6	52.1	76.8	1.5	293	6.0		
STU	e P	Z 23:21:19.9	53.3	76.0	1.4	184	5.9		
IBBN	e P	Z 23:21:20.4	53.4	77.6	1.5	195	5.9		
TNS	e P	Z 23:21:21.0	53.4	76.5	1.5	136	5.8		
BUG	e P	Z 23:21:24.2	53.8	76.6	1.6	183	5.9		
WLF	e P	Z 23:21:32.7	55.0	74.7	1.1	65	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/20	23:50:18.0	35.980N	80.610E	33.0N	5.2			SZGRF

Kashmir-Xizang border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 23:59:02.1	48.9	80.7	1.1	38	5.2		

CLL	e P	Z	23:59:05.6	49.4	80.4	1.8	59	5.2
GEC2	e P	Z	23:59:06.0	49.4	78.8	1.2	33	5.1
WET	e P	Z	23:59:09.7	49.8	78.5	1.3	23	5.0
TANN	e P	Z	23:59:09.8	49.9	79.3	1.2	18	4.9
ROTZ	e P	Z	23:59:12.4	50.1	78.6	1.3	35	5.1
MANZ	e P	Z	23:59:12.1	50.2	78.7	1.3	29	5.1
MOX	e P	Z	23:59:13.4	50.3	78.9	1.3	30	5.0
BSEG	e P	Z	23:59:15.1	50.5	80.7	1.3	76	5.5
GRA1	e P	Z	23:59:17.2	50.8	77.9	1.2	61	5.4
CLZ	e P	Z	23:59:17.6	50.9	79.0	1.4	67	5.4
NRDL	e P	Z	23:59:18.0	50.9	79.4	1.4	74	5.4
UBBA	e P	Z	23:59:20.4	51.3	78.0	1.6	30	5.0
STU	e P	Z	23:59:28.0	52.3	75.9	1.1	42	5.3
IBBN	e P	Z	23:59:28.7	52.4	77.6	1.2	29	5.2
BUG	e P	Z	23:59:32.2	52.8	76.6	1.7	87	5.5
WLF	e P	Z	23:59:40.3	54.0	74.6	1.1	33	5.3

Date 2008/03/20  
 Origin Time 23:54:26.1  
 Xizang  
 Lat 32.475N  
 Long 87.187E  
 Depth 33.0N  
 mb 4.9  
 Ms  
 ML  
 Source SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 00:04:10.3	57.2	76.8	1.4	18	4.9		

Date 2008/03/21  
 Origin Time 00:10:40.2  
 Southern Xinjiang, China  
 Lat 36.060N  
 Long 82.410E  
 Depth 33.0N  
 mb 5.0  
 Ms  
 ML  
 Source SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 00:19:31.4	49.9	79.4	1.2	20	4.9		
CLL	e P	Z 00:19:35.4	50.4	79.1	1.5	20	4.8		
GEC2	e P	Z 00:19:36.2	50.5	77.5	1.3	18	4.9		
TANN	e P	Z 00:19:39.7	50.9	78.0	1.3	12	4.7		
WET	e P	Z 00:19:39.5	50.9	77.3	1.3	18	4.8		
ROTZ	e P	Z 00:19:42.0	51.2	77.3	1.5	23	4.9		
MANZ	e P	Z 00:19:42.4	51.2	77.4	0.9	7	4.6		
RJOB	e P	Z 00:19:43.5	51.3	76.1	1.3	16	4.8		
MOX	e P	Z 00:19:43.5	51.4	77.6	1.4	29	5.0		
BSEG	e P	Z 00:19:44.1	51.5	79.3	1.5	48	5.2		
GRA1	e P	Z 00:19:47.8	51.9	76.6	1.4	53	5.3		
CLZ	e P	Z 00:19:47.0	51.9	77.7	1.6	39	5.1		
NRDL	e P	Z 00:19:47.5	51.9	78.0	1.5	44	5.2		
FUR	e P	Z 00:19:49.1	52.2	75.5	1.0	34	5.2		
STU	e P	Z 00:19:59.1	53.4	74.7	0.8	13	5.0		
TNS	e P	Z 00:19:59.4	53.5	75.2	2.0	113	5.6		

BUG	e P	Z	00:20:01.8	53.9	75.3	1.4	48	5.3
BFO	e P	Z	00:20:01.8	54.0	73.8	2.8	137	5.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	00:26:15.9	35.610N	81.070E	22.5	5.2			SZGRF
Southern Xinjiang, China								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	00:35:06.4	49.4	80.7	1.3	45	5.2		
	e pP	Z	00:35:12.8							
CLL	e P	Z	00:35:09.6	49.9	80.4	1.4	36	5.1		
GEC2	e P	Z	00:35:10.2	49.9	78.9	1.4	40	5.1		
WET	e P	Z	00:35:14.0	50.4	78.6	1.5	45	5.2		
TANN	e P	Z	00:35:14.0	50.4	79.3	1.5	30	5.0		
	e pP	Z	00:35:20.8							
ROTZ	e P	Z	00:35:16.5	50.7	78.6	1.5	54	5.3		
MANZ	e P	Z	00:35:16.5	50.7	78.8	1.3	21	4.9		
RJOB	e P	Z	00:35:16.2	50.7	77.4	1.7	29	4.9		
MOX	e P	Z	00:35:17.7	50.9	79.0	1.5	38	5.1		
	e pP	Z	00:35:24.2							
BSEG	e P	Z	00:35:19.4	51.1	80.7	1.2	42	5.2		
GRA1	e P	Z	00:35:21.5	51.3	77.9	1.2	45	5.3		
	e pP	Z	00:35:25.9							
CLZ	e P	Z	00:35:21.8	51.4	79.1	1.4	53	5.3		
NRDL	e P	Z	00:35:22.3	51.4	79.4	1.5	95	5.5		
FUR	e P	Z	00:35:23.7	51.6	76.8	1.7	120	5.5		
	e pP	Z	00:35:29.9							
UBBA	e P	Z	00:35:25.2	51.8	78.0	1.7	53	5.2		
STU	e P	Z	00:35:32.4	52.8	75.9	1.5	46	5.2		
IBBN	e P	Z	00:35:32.9	52.9	77.6	1.5	42	5.2		
TNS	e P	Z	00:35:32.6	52.9	76.5	1.5	56	5.3		
BUG	e P	Z	00:35:36.2	53.4	76.6	1.7	95	5.5		
	e pP	Z	00:35:42.7							
WLF	e P	Z	00:35:44.6	54.5	74.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	00:48:53.3	35.278N	81.229E	33.0N	4.8			SZGRF
Southern Xinjiang, China								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	00:57:41.4	49.7	81.0	1.1	10	4.7		
ROTZ	e P	Z	00:57:51.4	51.0	78.9	1.5	29	5.0		
MOX	e P	Z	00:57:52.8	51.2	79.2	1.1	8	4.5		
BSEG	e P	Z	00:57:55.0	51.4	80.9	1.0	21	5.0		
GRA1	e P	Z	00:57:56.9	51.6	78.2	1.4	23	4.9		



NRDL	e P	Z	00:57:57.5	51.8	79.6	1.1	23	5.0
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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	01:08:58.9	35.522N	81.082E	33.0N	4.8			SZGRF
Southern Xinjiang, China								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	01:17:44.0	49.4	80.8	1.4	12	4.6		
GEC2	e P	Z	01:17:48.7	49.9	79.0	1.7	19	4.7		
CLL	e P	Z	01:17:49.5	50.0	80.5	1.3	18	4.8		
WET	e P	Z	01:17:54.5	50.4	78.7	1.4	13	4.7		
TANN	e P	Z	01:17:54.3	50.4	79.4	1.5	12	4.6		
ROTZ	e P	Z	01:17:56.4	50.7	78.7	1.4	13	4.7		
GRA1	e P	Z	01:18:00.6	51.4	78.0	1.0	18	4.9		
NRDL	e P	Z	01:18:01.4	51.5	79.5	1.7	38	5.0		
FUR	e P	Z	01:18:04.3	51.7	76.9	1.0	37	5.3		
BFO	e P	Z	01:18:17.4	53.5	75.2	1.0	5	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	01:46:52.9	34.089N	81.904E	33.0N	4.8			SZGRF
Xizang								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	01:55:50.4	50.9	81.7	1.0	14	4.8		
GEC2	e P	Z	01:55:54.0	51.4	79.9	1.3	10	4.6		
WET	e P	Z	01:55:57.9	51.8	79.6	1.8	24	4.8		
ROTZ	e P	Z	01:56:00.6	52.2	79.6	1.5	23	4.9		
GRA1	e P	Z	01:56:05.3	52.8	78.9	1.0	14	4.8		
NRDL	e P	Z	01:56:05.6	53.0	80.2	1.3	22	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	04:03:33.8	35.398N	81.124E	33.0N	5.0			SZGRF
Southern Xinjiang, China								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	04:12:20.2	49.5	80.9	1.1	32	5.2		
GEC2	e P	Z	04:12:25.2	50.1	79.1	1.9	65	5.2		
CLL	e P	Z	04:12:24.7	50.1	80.6	1.0	17	4.9		
WET	e P	Z	04:12:29.0	50.5	78.8	1.7	36	5.0		
TANN	e P	Z	04:12:28.7	50.5	79.5	1.4	18	4.8		
ROTZ	e P	Z	04:12:30.7	50.8	78.8	1.2	21	5.0		
MANZ	e P	Z	04:12:31.6	50.9	78.9	1.1	14	4.8		
RJOB	e P	Z	04:12:33.4	50.9	77.6	1.2	8	4.5		

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MOX	e P	Z	04:12:32.3	51.0	79.1	1.2	16	4.8
BSEG	e P	Z	04:12:34.2	51.2	80.8	1.1	30	5.1
GRA1	e P	Z	04:12:36.3	51.5	78.1	1.4	40	5.2
CLZ	e P	Z	04:12:36.9	51.6	79.2	1.1	22	5.0
NRDL	e P	Z	04:12:36.7	51.6	79.5	1.0	30	5.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	04:52:41.4	35.412N	81.192E	33.0N	4.6			SZGRF
Southern Xinjiang, China								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:01:44.2	51.5	78.1	1.2	9	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	06:16: 8.3	35.101N	81.484E	33.0N	5.1			SZGRF
Southern Xinjiang, China								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 06:24:58.7	50.0	81.0	1.1	34	5.3		
FBE	e P	Z 06:25:00.3	50.3	80.6	1.0	27	5.2		
GEC2	e P	Z 06:25:01.9	50.5	79.1	1.3	20	5.1		
CLL	e P	Z 06:25:02.5	50.5	80.7	1.1	13	5.0		
WET	e P	Z 06:25:06.2	50.9	78.8	1.1	12	4.9		
TANN	e P	Z 06:25:06.2	51.0	79.6	1.2	14	5.0		
WERN	e P	Z 06:25:07.0	51.0	79.4	1.3	18	5.1		
GUNZ	e P	Z 06:25:06.1	51.1	79.4	1.0	14	5.1		
WERD	e P	Z 06:25:06.9	51.1	79.5	1.4	22	5.1		
ROTZ	e P	Z 06:25:09.3	51.2	78.9	1.2	23	5.2		
MANZ	e P	Z 06:25:08.8	51.3	79.0	1.1	10	4.9		
MOX	e P	Z 06:25:10.4	51.5	79.2	1.2	19	5.1		
BSEG	e P	Z 06:25:12.3	51.7	80.8	1.0	27	5.3		
GRA1	e P	Z 06:25:13.9	51.9	78.2	1.1	29	5.3		
CLZ	e P	Z 06:25:13.8	52.0	79.2	1.1	20	5.1		
NRDL	e P	Z 06:25:14.1	52.0	79.6	1.1	36	5.4		
FUR	e P	Z 06:25:16.2	52.2	77.0	1.2	39	5.4		
STU	e P	Z 06:25:24.5	53.4	76.2	0.7	13	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	09:16:28.7	42.356N	144.653E	34.7	4.7			SZGRF
Hokkaido, Japan, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:28:31.5	79.3	33.1	1.1	11	4.7		

e pP Z 09:28:41.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	11:09:32.4	35.132N	81.415E	33.0N	4.6			SZGRF

Southern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:18:37.5	51.8	78.2	1.1	8	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	12:02:55.8	34.436N	81.367E	33.0N	5.0	4.9		SZGRF

Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 12:11:48.7	50.3	81.7	1.1	19	4.9		
GEC2	e P	Z 12:11:52.7	50.8	79.9	1.3	22	4.9		
CLL	e P	Z 12:11:52.2	50.8	81.4	1.3	20	4.9		
WET	e P	Z 12:11:56.1	51.3	79.6	1.2	14	4.8		
ROTZ	e P	Z 12:11:59.2	51.6	79.6	1.3	25	5.0		
MOX	e P	Z 12:12:00.0	51.8	79.9	1.4	17	4.8		
BSEG	e P	Z 12:12:02.0	52.1	81.5	1.1	37	5.2		
GRA1	e P	Z 12:12:04.0	52.2	78.9	1.5	58	5.3		
	e L	Z 12:35:16.4			19.5	978		4.9	
CLZ	e P	Z 12:12:04.3	52.4	80.0	1.4	27	5.0		
NRDL	e P	Z 12:12:04.8	52.4	80.3	1.3	47	5.3		
FUR	e P	Z 12:12:05.4	52.5	77.8	1.0	38	5.3		
STU	e P	Z 12:12:14.5	53.7	76.9	0.8	14	5.1		
IBBN	e P	Z 12:12:14.2	53.9	78.5	1.1	24	5.1		
TNS	e P	Z 12:12:15.4	53.9	77.4	1.0	18	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	12:37: 8.6	25.915N	97.715E	33.0N	4.7	4.9		SZGRF

Myanmar-China border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 12:48:07.1	68.4	75.0	0.9	5	4.7		
	e L	Z 13:20:55.3			18.5	630		4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	12:56: 5.0	32.968N	140.101E	33.0N	5.1			SZGRF

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:08:41.1	85.7	40.9	0.5	8	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	18:06:51.9	35.054N	81.449E	33.0N	4.6			SZGRF

Southern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:15:57.6	51.9	78.2	1.0	8	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	18:32:12.2	45.850N	11.117E	10.0G			2.7	SZGRF

Northern Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WTTA	e Pg	Z 18:32:37.3	1.5	194.4					2.8
	e Sg	N 18:32:57.6							
DAVA	e Pn	Z 18:32:41.0	1.7	148.9					2.4
	e Sg	N 18:33:05.7							
KBA	e Pn	Z 18:32:45.2	2.0	232.1					2.6
	e Sg	E 18:33:15.2							
MOA	e Pn	Z 18:32:57.5	2.9	228.3					2.8
	e Sg	N 18:33:44.5							
GEC2	e Pn	Z 18:33:03.7	3.5	211.3					2.8
	e Sn	N 18:33:46.1							
WET	e Pn	Z 18:33:04.9	3.5	200.5					3.0
	e Sn	Z 18:33:46.4							
GRA1	e Sn	N 18:34:11.8	3.8	181.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/21	20:20:10.0	35.612N	80.861E	33.0N	4.8			SZGRF

Kashmir-Xizang border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:29:10.2	51.2	78.1	1.6	21	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/22	00:01:7.6	29.793N	57.665E	33.0N	4.3			SZGRF

Southern Iran

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Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:08:39.8	40.0	102.1	1.1	9	4.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/22	00:42:30.5	21.800S	175.000W	9.0				NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	01:02:19.0	149.1	9.2					
IBBN	e PKPbc	Z	01:02:21.2	149.4	5.0					
CLZ	e PKPbc	Z	01:02:20.7	149.7	9.9					
CLL	e PKPbc	Z	01:02:20.7	149.8	14.9					
BRG	e PKPbc	Z	01:02:21.8	150.1	16.8					
BUG	e PKPbc	Z	01:02:22.5	150.3	4.3					
MOX	e PKPbc	Z	01:02:23.2	150.7	12.6					
UBBA	e PKPbc	Z	01:02:24.7	150.7	9.5					
TANN	e PKPbc	Z	01:02:23.5	150.8	14.3					
ROTZ	e PKPbc	Z	01:02:26.5	151.5	14.1					
GRA1	e PKPbc	Z	01:02:28.1	151.7	12.2					
WET	e PKPbc	Z	01:02:26.8	151.9	15.7					
GEC2	e PKPbc	Z	01:02:26.6	152.1	17.5					
RJOB	e PKPbc	Z	01:02:31.8	153.3	16.3					
BFO	e PKPbc	Z	01:02:30.9	153.3	6.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/22	05:47:24.1	1.800N	95.200E	32.0	5.0			NEIC

Off west coast of northern Sumatra, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	05:59:47.0	83.1	95.2	1.3	17	5.1		
FBE	e P	Z	05:59:49.1	83.5	95.2	1.0	8	4.9		
GUNZ	e P	Z	05:59:52.2	84.1	94.4	1.1	9	4.9		
WERD	e P	Z	05:59:52.0	84.1	94.3	1.1	6	4.7		
MANZ	e P	Z	05:59:53.0	84.2	94.1	1.1	10	5.0		
MOX	e P	Z	05:59:52.1	84.5	93.8	1.6	18	5.0		
GRA1	e P	Z	05:59:55.7	84.7	93.4	1.2	27	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/22	13:51:45.3	55.450N	162.390W	33.0N	5.2	5.2		SZGRF

Alaska Peninsula, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	14:02:59.9	70.5	355.6	1.2	24	5.2		

NRDL	e P	Z	14:03:07.4	71.9	355.5	1.3	29	5.3	
CLZ	e P	Z	14:03:11.2	72.5	355.7	1.4	41	5.4	
BUG	e P	Z	14:03:12.2	72.8	353.9	1.5	46	5.4	
CLL	e P	Z	14:03:14.8	73.2	357.3	1.6	35	5.1	
BRG	e P	Z	14:03:17.8	73.6	357.8	1.2	16	4.9	
MOX	e P	Z	14:03:18.7	73.8	356.5	1.4	30	5.1	
TANN	e P	Z	14:03:20.5	74.0	357.0	1.3	19	4.9	
TNS	e P	Z	14:03:20.5	74.1	354.6	1.2	36	5.3	
WLF	e P	Z	14:03:23.5	74.5	353.3	1.4	46	5.3	
ROTZ	e P	Z	14:03:24.3	74.7	356.8	1.6	34	5.1	
GRA1	e P	Z	14:03:24.9	74.7	356.2	1.6	49	5.3	
	e L	Z	14:35:30.3			18.3	1208		5.2
WET	e P	Z	14:03:28.1	75.3	357.2	1.3	20	5.1	
GEC2	e P	Z	14:03:30.0	75.7	357.7	1.6	31	5.2	
BFO	e P	Z	14:03:31.0	75.9	354.6	1.8	42	5.3	
RJOB	e P	Z	14:03:35.9	76.7	357.2	1.1	18	5.1	

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/22 21:24:13.7 52.319N 179.029E 121.0 5.8  
 Rat Islands, Aleutian Islands, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 21:35:31.5	73.3	7.2	1.3	152	5.9		
NRDL	e P	Z 21:35:40.2	74.8	7.0	1.1	61	5.5		
IBBN	e P	Z 21:35:42.5	75.1	5.5	1.0	130	5.9		
CLZ	e P	Z 21:35:44.1	75.4	7.1	1.4	131	5.9		
CLL	e P	Z 21:35:45.1	75.7	8.8	1.5	93	5.7		
	e pP	Z 21:36:15.2							
BUG	e P	Z 21:35:46.7	76.0	5.2	1.9	189	5.9		
BRG	e P	Z 21:35:46.7	76.0	9.3	3.4	760	6.3		
	e pP	Z 21:36:17.2							
UBBA	e P	Z 21:35:49.0	76.4	6.9	2.2	221	5.9		
MOX	e P	Z 21:35:49.9	76.5	7.9	1.5	90	5.7		
TANN	e P	Z 21:35:50.6	76.6	8.4	2.1	200	5.9		
MANZ	e P	Z 21:35:53.5	77.1	8.2	2.2	166	5.8		
TNS	e P	Z 21:35:53.7	77.1	5.9	0.9	66	5.8		
ROTZ	e P	Z 21:35:54.7	77.3	8.2	2.1	199	5.9		
GRA1	e P	Z 21:35:55.6	77.5	7.6	1.8	308	6.1		
	e pP	Z 21:36:26.2							
	e PP	Z 21:39:32.2							
	e S	T 21:45:39.9							
WLF	e P	Z 21:35:57.3	77.8	4.4	2.1	336	6.1		
	e pP	Z 21:36:27.4							
WET	e P	Z 21:35:57.8	77.9	8.6	2.2	196	5.9		
GEC2	e P	Z 21:35:58.4	78.1	9.1	1.8	98	5.6		
	e pP	Z 21:36:29.0							
STU	e P	Z 21:36:01.1	78.5	6.3	2.2	257	5.9		

FUR	e P	Z	21:36:04.0	79.0	7.6	1.4	105	5.7
BFO	e P	Z	21:36:03.6	79.0	5.8	2.1	205	5.8
RJOB	e P	Z	21:36:05.2	79.3	8.5	1.1	27	5.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/22	21:39: 5.4	20.660S	177.700W	507.4				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	21:57:47.9	146.2	13.6					
NRDL	e PKPbc	Z	21:57:51.8	147.6	13.7					
IBBN	e PKPbc	Z	21:57:53.2	148.1	9.7					
	e PKPab	Z	21:57:57.4							
	e pPKPbc	Z	21:59:52.4							
CLZ	e PKPdf	Z	21:57:50.4	148.2	14.4					
	e PKPbc	Z	21:57:53.9							
	e PKPab	Z	21:57:58.0							
CLL	e pPKPbc	Z	21:59:52.1							
	e PKPdf	Z	21:57:50.4	148.2	19.3					
	e PKPbc	Z	21:57:53.7							
BRG	e pPKPbc	Z	21:59:52.6							
	e PKPbc	Z	21:57:54.6	148.4	21.1					
BUG	e pPKPbc	Z	21:59:53.1							
	e PKPbc	Z	21:57:55.6	149.0	9.0					
MOX	e PKPbc	Z	21:57:55.6	149.0	9.0					
	e PKPdf	Z	21:57:51.8	149.1	17.2					
TANN	e PKPbc	Z	21:57:56.1							
	e PKPdf	Z	21:57:52.1	149.2	18.8					
UBBA	e PKPbc	Z	21:57:56.5							
	e PKPbc	Z	21:57:56.2	149.2	14.2					
MANZ	e PKPdf	Z	21:57:52.8	149.7	18.4					
	e PKPbc	Z	21:57:57.8							
ROTZ	e PKPbc	Z	21:57:58.1	149.8	18.7					
TNS	e PKPbc	Z	21:57:58.5	150.0	11.6					
	e PKPab	Z	21:58:05.4							
GRA1	e PKPbc	Z	21:57:58.5	150.1	16.9					
	e PKPab	Z	21:58:05.8							
WET	e PKPbc	Z	21:57:59.0	150.3	20.3					
	e PKPab	Z	21:58:07.2							
GEC2	e PKPbc	Z	21:57:58.9	150.4	22.0					
	e PKPab	Z	21:58:07.2							
WLF	e PKPbc	Z	21:58:00.9	150.8	7.4					
	e PKPab	Z	21:58:09.2							
STU	e PKPdf	Z	21:57:55.5	151.4	13.5					
	e PKPbc	Z	21:58:01.7							
	e PKPab	Z	21:58:11.1							
FUR	e PKPbc	Z	21:58:01.7	151.6	17.9					
	e PKPab	Z	21:58:12.3							

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RJOB	e PKPbc	Z	21:58:01.9	151.6	21.0
	e PKPab	Z	21:58:13.0		
BFO	e PKPbc	Z	21:58:02.5	151.9	12.0
	e PKPab	Z	21:58:13.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/23	00:21:20.2	20.500S	177.500W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	00:40:56.9	146.0	13.2					
NRDL	e PKPbc	Z	00:41:00.2	147.5	13.3					
IBBN	e PKPab	Z	00:41:04.0	147.9	9.3					
CLZ	e PKPbc	Z	00:41:02.1	148.1	14.0					
	e PKPab	Z	00:41:04.6							
CLL	e PKPbc	Z	00:41:02.3	148.1	18.9					
	e PKPab	Z	00:41:05.2							
BRG	e PKPbc	Z	00:41:03.1	148.3	20.7					
BUG	e PKPab	Z	00:41:08.0	148.8	8.7					
MOX	e PKPbc	Z	00:41:04.1	149.0	16.8					
	e PKPab	Z	00:41:08.9							
TANN	e PKPbc	Z	00:41:05.1	149.1	18.4					
GRA1	e PKPbc	Z	00:41:07.2	150.0	16.5					
	e PKPab	Z	00:41:13.1							
WET	e PKPbc	Z	00:41:07.5	150.2	19.8					
GEC2	e PKPbc	Z	00:41:08.2	150.3	21.5					
FUR	e PKPbc	Z	00:41:11.1	151.4	17.4					
BFO	e PKPbc	Z	00:41:11.8	151.8	11.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/23	04:15:42.5	52.361N	176.955W	45.5	5.3			SZGRF

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	04:27:36.3	77.7	5.1	1.0	27	5.3		
	e pP	Z	04:27:49.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/23								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	06:07:27.8							



Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/23	20:11:14.3	36.952N	22.196E	33.0N	4.3	4.4		SZGRF

Southern Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z 20:14:18.8	12.8	143.9					
GEC2	e P	Z 20:14:27.6	13.4	149.4					
FUR	e P	Z 20:14:30.1	13.8	140.5					
WET	e P	Z 20:14:33.2	13.9	147.5					
GRA1	e P	Z 20:14:49.5	15.0	144.0					
	e L	Z 20:22:00.2			20.5	3036		4.4	
TANN	e P	Z 20:14:51.4	15.2	148.9					
BFO	e P	Z 20:14:50.7	15.2	133.2					
MOX	e P	Z 20:14:57.6	15.6	147.0	0.8	7	3.9		
CLL	e P	Z 20:14:58.0	15.8	152.0	1.4	34	4.3		
UBBA	e P	Z 20:15:08.9	16.4	143.2					
TNS	e P	Z 20:15:08.6	16.5	138.1	1.0	62	4.7		
CLZ	e P	Z 20:15:16.7	17.1	146.1					
WLF	e P	Z 20:15:16.1	17.2	131.6	0.9	16	4.2		
NRDL	e P	Z 20:15:25.5	17.7	146.6					
BUG	e P	Z 20:15:26.7	17.9	138.1					
IBBN	e P	Z 20:15:32.9	18.4	140.9					
BSEG	e P	Z 20:15:36.1	18.9	149.4	0.8	12	4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/23	20:56: 7.6	33.960N	82.205E	33.0N	5.1	5.1		SZGRF

Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 21:05:06.6	51.2	81.6	1.1	26	5.1		
GEC2	e P	Z 21:05:10.9	51.6	79.8	1.3	27	5.0		
CLL	e P	Z 21:05:10.0	51.7	81.2	1.2	22	5.0		
WET	e P	Z 21:05:14.3	52.1	79.5					
TANN	e P	Z 21:05:14.3	52.2	80.2					
ROTZ	e P	Z 21:05:17.1	52.4	79.5					
RJOB	e P	Z 21:05:16.5	52.4	78.4					
MOX	e P	Z 21:05:17.9	52.6	79.8	1.1	13	4.8		
BSEG	e P	Z 21:05:19.6	52.9	81.3	1.0	29	5.2		
GRA1	e P	Z 21:05:21.9	53.1	78.8	1.2	43	5.3		
	e L	Z 21:29:26.5			19.1	1623		5.1	
CLZ	e P	Z 21:05:22.3	53.2	79.8	1.1	26	5.1		
NRDL	e P	Z 21:05:22.4	53.2	80.1					
FUR	e P	Z 21:05:23.9	53.3	77.7	1.3	72	5.4		
UBBA	e P	Z 21:05:24.9	53.6	78.8					
STU	e P	Z 21:05:32.4	54.6	76.8					

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IBBN	e P	Z	21:05:32.8	54.7	78.3				
TNS	e P	Z	21:05:33.2	54.7	77.3				
BUG	e P	Z	21:05:36.4	55.2	77.4	1.4	41	5.3	
BFO	e P	Z	21:05:36.8	55.2	76.0	1.7	28	5.0	
WLF	e P	Z	21:05:45.0	56.3	75.4				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/24	00:08: 1.1	45.907N	147.588E	33.0N	5.7			SZGRF

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 00:19:32.5	73.8	29.5	0.9	62	5.6		
NRDL	e P	Z 00:19:39.7	75.1	29.1					
CLL	e P	Z 00:19:40.2	75.2	30.8	0.8	103	6.0		
BRG	e P	Z 00:19:40.8	75.3	31.4	1.0	36	5.4		
CLZ	e P	Z 00:19:43.1	75.6	29.2	0.9	84	5.9		
IBBN	e P	Z 00:19:44.5	75.9	27.6					
TANN	e P	Z 00:19:45.9	76.2	30.4					
MOX	e P	Z 00:19:46.3	76.2	29.9	1.1	49	5.6		
UBBA	e P	Z 00:19:48.3	76.6	28.8					
ROTZ	e P	Z 00:19:50.0	76.8	30.1					
BUG	e P	Z 00:19:49.5	76.8	27.1	1.0	57	5.7		
GEC2	e P	Z 00:19:51.1	77.1	31.0	1.0	25	5.3		
WET	e P	Z 00:19:51.7	77.1	30.5	1.0	69	5.7		
GRA1	e P	Z 00:19:52.0	77.2	29.5	0.9	144	6.1		
TNS	e P	Z 00:19:53.8	77.6	27.8	0.9	66	5.7		
RJOB	e P	Z 00:19:58.5	78.4	30.3					
FUR	e P	Z 00:19:59.0	78.5	29.4	1.1	112	5.8		
STU	e P	Z 00:19:59.4	78.6	28.1					
WLF	e P	Z 00:20:01.0	78.7	26.3					
BFO	e P	Z 00:20:02.9	79.3	27.5	1.0	36	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/24	02:28: 4.9	34.674N	83.591E	33.0N	4.8			SZGRF

Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:37:22.4	53.5	77.2	1.6	15	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/24	03:40:14.8	37.855N	141.727E	43.9	5.8			SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 03:52:16.5	79.1	37.1	1.1	114	5.8		
BRG	e P	Z 03:52:21.7	80.2	39.3	1.1	69	5.5		
	e pP	Z 03:52:34.2							
CLL	e P	Z 03:52:21.6	80.2	38.7	1.0	111	5.8		
NRDL	e P	Z 03:52:22.7	80.4	36.8					
CLZ	e P	Z 03:52:25.4	80.8	36.9	1.1	118	5.8		
TANN	e P	Z 03:52:26.9	81.1	38.2					
MOX	e P	Z 03:52:27.6	81.3	37.7	1.3	56	5.5		
IBBN	e P	Z 03:52:28.0	81.3	35.1					
ROTZ	e P	Z 03:52:30.6	81.7	38.0					
UBBA	e P	Z 03:52:30.0	81.7	36.5					
GEC2	e P	Z 03:52:30.3	81.8	38.9	1.1	52	5.6		
WET	e P	Z 03:52:31.4	81.9	38.4	1.1	58	5.6		
GRA1	e P	Z 03:52:32.8	82.2	37.3	1.0	159	6.1		
	e pP	Z 03:52:45.1							
BUG	e P	Z 03:52:32.3	82.2	34.7	1.0	52	5.7		
TNS	e P	Z 03:52:35.7	82.8	35.4	1.0	51	5.7		
RJOB	e P	Z 03:52:37.2	83.1	38.2					
FUR	e P	Z 03:52:38.5	83.4	37.2	0.9	141	6.2		
	e pP	Z 03:52:51.5							
STU	e P	Z 03:52:40.2	83.7	35.8					
	e pP	Z 03:52:53.0							
WLF	e P	Z 03:52:42.9	84.1	33.8					
BFO	e P	Z 03:52:43.5	84.4	35.2	1.0	111	6.1		
	e pP	Z 03:52:56.5							

Date Origin Time Lat Long Depth mb Ms ML Source  
2008/03/24

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 07:22:06.7							

Date Origin Time Lat Long Depth mb Ms ML Source  
2008/03/24 07:58:39.7  
Southern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 08:07:40.7	51.3	76.5	1.4	45	5.2		

Date Origin Time Lat Long Depth mb Ms ML Source  
2008/03/24 08:16:26.3  
Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 08:25:48.8	54.2	77.7	1.1	7	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/24	11:43:49.5	55.151N	159.460W	33.0N	4.5			SZGRF

Alaska Peninsula, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:55:27.2	74.9	354.5	1.0	5	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/24	20:39:36.9	13.126S	63.416W	33.0N	5.5			SZGRF

Northern Bolivia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 20:52:21.0	87.3	246.0					
BFO	e P	Z 20:52:24.3	88.1	247.7					
BUG	e P	Z 20:52:26.8	88.7	246.8					
STU	e P	Z 20:52:27.6	88.8	248.4					
TNS	e P	Z 20:52:28.5	88.9	247.8					
IBBN	e P	Z 20:52:29.9	89.3	247.2					
FUR	e P	Z 20:52:32.3	89.9	249.9					
UBBA	e P	Z 20:52:33.4	90.0	249.0					
GRA1	e P	Z 20:52:35.1	90.4	249.9	1.6	48	5.5		
	e PP	Z 20:56:27.1							
	e S	N 21:03:03.1							
CLZ	e P	Z 20:52:36.7	90.6	249.3					
RJOB	e P	Z 20:52:36.3	90.7	251.1					
NRDL	e P	Z 20:52:35.9	90.7	249.1					
MOX	e P	Z 20:52:37.8	90.9	250.2					
ROTZ	e P	Z 20:52:38.3	91.0	250.7					
WET	e P	Z 20:52:39.2	91.2	251.1					
BSEG	e P	Z 20:52:39.1	91.3	249.2					
TANN	e P	Z 20:52:40.0	91.4	250.9					
GEC2	e P	Z 20:52:40.1	91.6	251.8					
CLL	e P	Z 20:52:42.4	92.0	251.3					
BRG	e P	Z 20:52:44.8	92.4	252.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/25	00:19:1.6	37.953N	146.953E	33.0N	4.7			SZGRF

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:31:29.3	84.0	33.6	0.9	4	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/25	00:57:53.7	53.524N	169.270W	33.0N	5.6			SZGRF

Fox Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:09:42.4	76.8	0.3	1.4	65	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/25	01:14:34.7	54.307N	168.613W	45.9	5.5			SZGRF

Fox Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	01:25:54.3	71.8	359.3	1.1	41	5.5		
NRDL	e P	Z	01:26:02.3	73.2	359.2					
IBBN	e P	Z	01:26:03.4	73.3	357.8	1.1	71	5.6		
CLZ	e P	Z	01:26:06.7	73.8	359.4	1.2	60	5.5		
BUG	e P	Z	01:26:07.9	74.2	357.5					
CLL	e P	Z	01:26:08.9	74.4	1.0	1.1	26	5.2		
BRG	e P	Z	01:26:11.6	74.8	1.5	1.2	36	5.3		
UBBA	e P	Z	01:26:11.9	74.9	359.2					
MOX	e P	Z	01:26:13.1	75.0	0.1	1.1	40	5.4		
TANN	e P	Z	01:26:14.7	75.3	0.6					
TNS	e P	Z	01:26:15.4	75.4	358.2	1.2	60	5.6		
ROTZ	e P	Z	01:26:18.6	75.9	0.5					
WLF	e P	Z	01:26:18.5	75.9	356.9					
GRA1	e P	Z	01:26:19.0	76.0	359.9	1.2	79	5.7		
	e pP	Z	01:26:32.2							
WET	e P	Z	01:26:21.9	76.5	0.9	1.3	42	5.4		
GEC2	e P	Z	01:26:23.3	76.8	1.4	1.1	31	5.3		
STU	e P	Z	01:26:23.4	76.9	358.7					
BFO	e P	Z	01:26:25.8	77.3	358.2	1.2	39	5.4		
FUR	e P	Z	01:26:27.2	77.5	359.9	1.3	85	5.7		
RJOB	e P	Z	01:26:29.4	77.9	0.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/25	01:26:37.7	54.307N	168.778W	33.0N	5.2			SZGRF

Fox Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	01:37:57.2	71.8	359.4	1.2	25	5.2		

NRDL	e P	Z	01:38:05.3	73.2	359.3						
IBBN	e P	Z	01:38:06.4	73.3	357.9						
CLZ	e P	Z	01:38:09.6	73.8	359.5	1.3		38	5.3		
BUG	e P	Z	01:38:11.2	74.2	357.6						
CLL	e P	Z	01:38:11.9	74.4	1.1	1.1		16	5.0		
BRG	e P	Z	01:38:14.5	74.8	1.6	1.1		16	5.0		
UBBA	e P	Z	01:38:15.0	74.9	359.3						
MOX	e P	Z	01:38:16.2	75.0	0.2	1.2		23	5.1		
TANN	e P	Z	01:38:17.6	75.3	0.7						
TNS	e P	Z	01:38:18.3	75.4	358.3	1.5		58	5.5		
ROTZ	e P	Z	01:38:21.5	75.9	0.6						
WLF	e P	Z	01:38:21.4	75.9	357.0						
GRA1	e P	Z	01:38:22.0	76.0	0.0	1.2		43	5.5		
WET	e P	Z	01:38:24.6	76.5	1.0	1.2		19	5.1		
GEC2	e P	Z	01:38:26.2	76.8	1.5	1.2		23	5.2		
STU	e P	Z	01:38:26.4	76.9	358.8						
BFO	e P	Z	01:38:28.8	77.3	358.3	1.1		17	5.1		
FUR	e P	Z	01:38:30.3	77.5	0.0	1.3		61	5.6		
RJOB	e P	Z	01:38:32.5	77.9	0.9						

Date Origin Time Lat Long Depth mb Ms ML Source  
2008/03/25

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z 01:54:45.0							
BSEG	e PKP	Z 01:54:37.8							
CLL	e PKP	Z 01:54:44.4							
CLZ	e PKP	Z 01:54:44.2							
GRA1	e PKP	Z 01:54:49.1							
NRDL	e PKP	Z 01:54:42.0							
RJOB	e PKP	Z 01:54:53.2							
ROTZ	e PKP	Z 01:54:48.6							
TANN	e PKP	Z 01:54:46.8							
TNS	e PKP	Z 01:54:48.8							
WLF	e PKP	Z 01:54:51.0							

Date Origin Time Lat Long Depth mb Ms ML Source  
2008/03/25 03:09:59.8  
South of Aleutian Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:21:56.6	78.2	357.6	1.2	27	5.2		

./2008/bul0803.txt

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/26	02:43:37.2	44.121N	11.183E	10.0G			3.7	SZGRF

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	02:44:37.7	3.8	197.8					3.3
BFO	e Pn	Z	02:44:46.7	4.6	153.8					4.0
	e Sn	Z	02:45:39.7							
STU	e Pn	Z	02:44:49.5	4.8	162.8					
GEC2	e Pn	Z	02:44:51.7	5.0	201.1					
WET	e Pn	Z	02:44:53.6	5.2	193.7					
	e Sn	N	02:45:50.8							
ROTZ	e Pn	Z	02:45:00.2	5.7	187.4					
TANN	e Pn	Z	02:45:09.9	6.4	188.3					
TNS	e Pn	Z	02:45:09.9	6.4	162.0					
	e Sn	N	02:46:21.8							
MOX	e Pn	Z	02:45:13.0	6.5	182.7					
BRG	e Pn	Z	02:45:19.5	7.0	196.5					
CLL	e Pn	Z	02:45:22.6	7.3	190.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/26	09:19:31.1	44.640N	9.856E	10.0G			4.4	SZGRF

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
DAVA	e Pn	Z	09:20:16.1	2.6	180.4					4.5
WTTA	e Pn	Z	09:20:18.8	2.9	205.9					4.3
	e Sn	N	09:20:54.4							
KBA	e Pn	Z	09:20:25.4	3.4	226.2					4.1
	e Sn	Z	09:21:04.8							
FUR	e Pn	Z	09:20:28.3	3.7	196.0					
RJOB	e Pn	Z	09:20:29.2	3.7	214.4					
BFO	e Pn	Z	09:20:29.8	3.8	163.5					4.6
	e Sn	N	09:21:13.0							
STU	e Sn	E	09:21:19.8	4.2	173.5					4.8
GRC1	e Pn	Z	09:20:38.2	4.5	195.3					4.1
GRB1	e Pn	Z	09:20:43.6	4.9	195.1					4.5
	e Sn	E	09:21:39.1							
WET	e Pn	Z	09:20:44.8	5.0	205.7					
	e Sn	E	09:21:40.7							
GEC2	e Pn	Z	09:20:44.9	5.0	213.5					
GRFO	e Pn	Z	09:20:46.2	5.1	190.9					
GRA1	e Pn	Z	09:20:46.3	5.1	190.9					
MANZ	e Pn	Z	09:20:52.0	5.6	196.8					
WLF	e Pn	Z	09:20:54.9	5.6	152.0					
TNS	e Pn	Z	09:20:55.0	5.7	169.8					
	e Sn	E	09:21:57.9							

MOX	e Pn	Z	09:20:59.4	6.1	191.8
UBBA	e Pn	Z	09:21:01.1	6.2	181.0
	e Sn	N	09:22:10.7		
BRG	e Pn	Z	09:21:09.9	6.8	205.3
CLL	e Pn	Z	09:21:12.4	7.0	198.7
BUG	e Pn	Z	09:21:15.0	7.0	164.8
	e Sn	N	09:22:31.9		
CLZ	e Pn	Z	09:21:15.2	7.2	182.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/26	10:40:4.2	38.173N	77.611E	33.0N	5.5			SZGRF
Southern Xinjiang, China								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:48:36.8	47.5	77.5	1.1	46	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/26	11:37:45.5	46.857N	155.084E	33.0N	5.4			SZGRF
East of Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:49:43.9	78.5	24.3	0.6	24	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/26	13:56:30.8	47.603N	153.667E	33.0N	4.8			SZGRF
Kuril Islands, Russia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:08:23.2	77.4	24.9	0.8	7	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/26	13:56:34.9	22.860S	178.240W	33.0N				SZGRF
South of Fiji Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 14:16:17.7	148.3	15.1					
	e PKPab	Z 14:16:20.7							
NRDL	e PKPbc	Z 14:16:21.2	149.7	15.4					
IBBN	e PKPbc	Z 14:16:22.7	150.2	11.2					
CLL	i PKPbc	Z 14:16:22.7	150.2	21.2					
	e PKPab	Z 14:16:28.1							



CLZ	e	PKPbc	Z	14:16:23.1	150.3	16.2
BRG	e	PKPbc	Z	14:16:23.3	150.4	23.2
BUG	e	PKPbc	Z	14:16:24.5	151.1	10.5
MOX	e	PKPbc	Z	14:16:24.9	151.2	19.1
TANN	e	PKPbc	Z	14:16:25.1	151.2	20.8
UBBA	e	PKPbc	Z	14:16:25.3	151.3	16.0
ROTZ	e	PKPbc	Z	14:16:26.8	151.9	20.8
TNS	e	PKPbc	Z	14:16:27.1	152.1	13.3
	e	PKPab	Z	14:16:36.5		
GRA1	e	PKPbc	Z	14:16:27.0	152.2	18.9
	e	PKPab	Z	14:16:36.9		
WET	e	PKPbc	Z	14:16:27.6	152.3	22.5
GEC2	e	PKPbc	Z	14:16:27.7	152.3	24.3
WLF	e	PKPbc	Z	14:16:29.5	153.0	8.9
STU	e	PKPbc	Z	14:16:30.0	153.4	15.5
FUR	e	PKPbc	Z	14:16:30.3	153.6	20.0
	e	PKPab	Z	14:16:42.9		
RJOB	e	PKPab	Z	14:16:43.4	153.6	23.4
BFO	e	PKPbc	Z	14:16:31.1	154.0	13.9
	e	PKPab	Z	14:16:44.3		

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/26 18:33:49.8 48.318N 151.745E 33.0N 5.6 5.5  
 Kuril Islands, Russia SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 18:45:14.9	72.7	25.7	0.9	38	5.5		
NRDL	e P	Z 18:45:22.4	74.0	25.4	0.9	35	5.4		
CLL	e P	Z 18:45:23.6	74.3	27.1	1.5	120	5.7		
BRG	e P	Z 18:45:24.5	74.4	27.6	1.6	48	5.3		
CLZ	e P	Z 18:45:26.0	74.6	25.5	1.4	110	5.7		
IBBN	e P	Z 18:45:27.0	74.8	23.9	0.8	46	5.6		
TANN	e P	Z 18:45:29.5	75.3	26.7	1.4	32	5.3		
MOX	e P	Z 18:45:29.7	75.3	26.2	0.9	31	5.5		
UBBA	e P	Z 18:45:31.6	75.6	25.2	1.8	63	5.5		
BUG	e P	Z 18:45:32.1	75.7	23.5	0.9	51	5.6		
ROTZ	e P	Z 18:45:33.7	75.9	26.4	1.0	29	5.4		
GRA1	e P	Z 18:45:35.6	76.3	25.8	0.8	70	5.9		
	e S	E 18:55:28.3							
	e L	Z 19:23:29.4			18.8	2135		5.5	
WET	e P	Z 18:45:35.7	76.3	26.8	0.9	34	5.5		
GEC2	e P	Z 18:45:35.3	76.3	27.2	1.8	69	5.5		
TNS	e P	Z 18:45:36.9	76.5	24.1	1.1	88	5.8		
RJOB	e P	Z 18:45:42.8	77.6	26.6	0.9	42	5.6		
FUR	e P	Z 18:45:43.0	77.6	25.7	1.4	89	5.7		
STU	e P	Z 18:45:43.0	77.7	24.5	1.6	102	5.7		
BFO	e P	Z 18:45:46.4	78.3	23.9	1.0	43	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source				
2008/03/27												
		Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
		GRA1	e P	Z 02:10:21.3			1.3	34				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source				
2008/03/27	19:53:53.6	20.510S	178.170W	166.1				SZGRF				
Fiji Islands region												

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z 20:13:12.1	146.0	14.3					
	e pPKPbc	Z 20:13:55.1							
NRDL	e pPKPbc	Z 20:13:59.6	147.4	14.5					
IBBN	e PKPbc	Z 20:13:19.5	147.9	10.5					
	e pPKPbc	Z 20:14:02.4							
CLZ	e PKPbc	Z 20:13:18.2	148.0	15.2					
	e pPKPbc	Z 20:14:01.8							
CLL	e PKPbc	Z 20:13:18.5	148.0	20.0					
	e pPKPbc	Z 20:14:01.6							
BRG	e PKPbc	Z 20:13:19.5	148.2	21.9					
	e pPKPbc	Z 20:14:02.5							
MOX	e pPKPbc	Z 20:14:04.5	148.9	17.9					
TANN	e PKPbc	Z 20:13:21.5	148.9	19.6					
	e pPKPbc	Z 20:14:04.6							
ROTZ	e PKPbc	Z 20:13:23.4	149.6	19.5					
	e pPKPbc	Z 20:14:06.7							
TNS	e PKPbc	Z 20:13:23.7	149.8	12.4					
	e pPKPbc	Z 20:14:07.1							
GRA1	e PKPbc	Z 20:13:23.8	149.9	17.7					
	e pPKPbc	Z 20:14:07.4							
GEC2	e PKPbc	Z 20:13:24.6	150.1	22.7					
WLF	e pPKPbc	Z 20:14:09.1	150.6	8.3					
FUR	e pPKPbc	Z 20:14:10.8	151.3	18.7					
BFO	e pPKPbc	Z 20:14:11.0	151.7	12.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source				
2008/03/27	21:09: 7.3	43.239N	149.162E	33.0N	5.2			SZGRF				
East of Kuril Islands, Russia												

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 21:20:54.5	76.7	29.5					

CLL	e P	Z	21:21:01.9	78.1	31.0			
WET	e P	Z	21:21:13.8	80.0	30.7			
GRA1	e P	Z	21:21:14.1	80.1	29.7	1.5	44	5.2
TNS	e P	Z	21:21:16.6	80.5	27.9			
RJOB	e P	Z	21:21:20.4	81.2	30.6			
FUR	e P	Z	21:21:20.7	81.4	29.6			
BFO	e P	Z	21:21:26.1	82.2	27.7			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/27	23:07:45.0	59.777N	152.785W	33.0N	5.4			SZGRF

Southern Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	23:18:25.5	65.5	350.7	0.9	29	5.5		
IBBN	e P	Z	23:18:34.0	66.8	349.5	0.9	28	5.5		
CLZ	e P	Z	23:18:38.9	67.6	350.9	1.0	54	5.7		
BUG	e P	Z	23:18:38.5	67.6	349.3	0.9	42	5.7		
CLL	e P	Z	23:18:42.9	68.3	352.4	1.1	18	5.2		
UBBA	e P	Z	23:18:44.5	68.5	350.8	1.4	22	5.2		
BRG	e P	Z	23:18:46.4	68.8	352.9	1.0	26	5.4		
MOX	e P	Z	23:18:46.5	68.9	351.7	1.1	43	5.6		
TNS	e P	Z	23:18:47.1	69.0	350.0	1.1	46	5.6		
TANN	e P	Z	23:18:48.6	69.2	352.1	1.2	20	5.1		
WLF	e P	Z	23:18:49.1	69.2	348.8					
GRA1	e P	Z	23:18:52.3	69.8	351.5	1.1	34	5.4		
ROTZ	e P	Z	23:18:52.6	69.8	352.0	1.0	25	5.3		
WET	e P	Z	23:18:56.8	70.5	352.4	1.3	23	5.1		
STU	e P	Z	23:18:56.3	70.5	350.5	1.1	28	5.3		
BFO	e P	Z	23:18:58.3	70.8	350.1	1.2	32	5.3		
GEC2	e P	Z	23:18:58.6	70.8	352.8	0.9	13	5.0		
RJOB	e P	Z	23:19:04.7	71.8	352.4	0.9	26	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/28	00:16: 5.9	34.190N	26.760E	33.0N	5.0	4.9		SZGRF

Crete, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	00:20:08.7	17.6	141.7	1.2	89	4.8		
FUR	e P	Z	00:20:15.2	18.1	134.8	1.1	215	5.2		
	e S	R	00:23:40.3							
WET	e P	Z	00:20:15.0	18.1	140.4	1.3	148	4.9		
ROTZ	e P	Z	00:20:24.2	18.9	140.1	1.4	69	4.7		
BRG	e P	Z	00:20:27.3	19.1	145.9	1.1	44	4.6		
	e S	R	00:24:03.8							
WERN	e P	Z	00:20:28.6	19.2	141.4	1.1	52	4.7		

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GRA1	e P	Z	00:20:27.6	19.3	137.8	1.1	264	5.4	
	e L	Z	00:29:11.2			18.5	6016		4.9
TANN	e P	Z	00:20:28.2	19.3	141.8	1.0	87	4.9	
	e S	R	00:24:06.1						
GUNZ	e P	Z	00:20:29.5	19.3	141.4	1.5	103	4.8	
FBE	e P	Z	00:20:29.5	19.4	144.7	1.0	91	5.0	
WERD	e P	Z	00:20:29.5	19.4	141.5	1.2	76	4.8	
STU	e P	Z	00:20:31.3	19.5	131.7	1.4	210	5.2	
BFO	e P	Z	00:20:32.4	19.7	129.1	0.9	62	4.8	
	e S	R	00:24:14.6						
CLL	e P	Z	00:20:34.2	19.8	144.5	0.8	54	4.8	
	e S	R	00:24:16.2						
MOX	e P	Z	00:20:35.3	19.8	140.4	1.0	39	4.6	
	e S	R	00:24:17.3						
RUE	e P	Z	00:20:42.3	20.5	148.0	0.9	67	5.0	
UBBA	e P	Z	00:20:43.2	20.6	137.4	1.8	194	5.1	
TNS	e P	Z	00:20:46.9	20.9	133.2	1.1	216	5.4	
	e S	R	00:24:38.7						
CLZ	e P	Z	00:20:49.5	21.2	139.9	1.4	72	4.9	
WLF	e P	Z	00:20:54.3	21.6	127.9	1.1	136	5.3	
	e S	R	00:24:56.9						
NRDL	e P	Z	00:20:55.7	21.8	140.4	1.3	88	5.0	
BUG	e P	Z	00:21:00.8	22.3	133.2	1.2	145	5.4	
IBBN	e P	Z	00:21:04.9	22.7	135.6	1.3	112	5.2	
	e S	R	00:25:11.8						
BSEG	e P	Z	00:21:06.3	22.9	143.0	0.9	71	5.2	

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/28 00:08:41.0 63.590S 144.630E 33.0N  
 South of Australia SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e PKPbc	Z	00:28:27.5	149.6	139.1					
GEC2	e PKPbc	Z	00:28:28.1	150.0	137.8					
FUR	e PKPbc	Z	00:28:29.0	150.6	138.8					
WET	e PKPbc	Z	00:28:29.5	150.6	137.5					
NKC	e PKPbc	Z	00:28:31.6	151.6	136.2					
WERN	e PKPbc	Z	00:28:32.2	151.7	136.1					
GUNZ	e PKPbc	Z	00:28:32.0	151.7	136.0					
GRA1	e PKPbc	Z	00:28:31.7	151.7	137.0					
WERD	e PKPbc	Z	00:28:32.1	151.8	135.9					
BFO	e PKPbc	Z	00:28:32.4	152.0	139.1					
CLL	e PKPbc	Z	00:28:32.9	152.1	134.7					
MOX	e PKPbc	Z	00:28:32.4	152.2	135.7					
UBBA	e PKPbc	Z	00:28:34.8	153.1	135.6					
CLZ	e PKPbc	Z	00:28:36.6	153.6	134.2					
BUG	e PKPbc	Z	00:28:39.0	154.7	135.1					

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BSEG e PKPbc Z 00:28:39.7 155.1 130.9

Date Origin Time Lat Long Depth mb Ms ML Source  
2008/03/28 06:39:41.0 33.370S 179.860E 33.0N  
South of Kermadec Islands SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPab	Z	06:59:32.8	158.1	24.0					
CLL	e PKPab	Z	06:59:39.1	159.7	33.1					
CLZ	e PKPab	Z	06:59:41.2	160.0	26.5					
IBBN	e PKPab	Z	06:59:41.8	160.2	19.8					
TANN	e PKPab	Z	06:59:43.4	160.6	33.3					
MOX	e PKPab	Z	06:59:43.9	160.7	31.0					
ROTZ	e PKPab	Z	06:59:46.7	161.2	33.7					
GEC2	e PKPab	Z	06:59:46.8	161.4	38.8					
GRA1	e PKPab	Z	06:59:48.6	161.6	31.5					
RJOB	e PKPab	Z	06:59:52.9	162.6	38.8					
WLF	e PKPab	Z	06:59:54.8	163.1	18.3					
BFO	e PKPab	Z	06:59:57.0	163.8	26.1					

Date Origin Time Lat Long Depth mb Ms ML Source  
2008/03/28 11:37:40.6 36.734N 72.861E 33.0N 4.7  
Afghanistan-Tajikistan border region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	11:45:41.3	43.5	85.3	1.3	19	4.7		
FBE	e P	Z	11:45:44.1	43.9	84.9	0.9	13	4.6		
CLL	e P	Z	11:45:44.4	44.1	85.1	1.1	7	4.3		
TANN	e P	Z	11:45:49.0	44.5	83.8	1.4	14	4.7		
NKC	e P	Z	11:45:49.5	44.5	83.6	0.5	8	4.9		
GUNZ	e P	Z	11:45:49.9	44.6	83.6	1.3	13	4.7		
WERD	e P	Z	11:45:50.0	44.6	83.7	1.1	8	4.5		
ROTZ	e P	Z	11:45:51.2	44.7	82.9	1.7	26	4.9		
GRA1	e P	Z	11:45:56.2	45.4	82.2	0.8	13	5.0		

Date Origin Time Lat Long Depth mb Ms ML Source  
2008/03/28 14:09:55.4 23.730S 179.530E 33.0N  
South of Fiji Islands SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	14:29:43.3	150.5	25.7					
BRG	e PKPbc	Z	14:29:44.4	150.7	27.7					
TANN	e PKPbc	Z	14:29:46.1	151.5	25.4					

WERD	e	PKPbc	Z	14:29:46.3	151.5	25.1
GUNZ	e	PKPbc	Z	14:29:46.1	151.6	25.2
NKC	e	PKPbc	Z	14:29:47.2	151.7	25.5
GEC2	e	PKPbc	Z	14:29:48.4	152.5	29.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/28	20:00:11.9	47.000N	155.800E	35.0	4.4			NEIC

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:12:20.0	78.6	23.8	0.9	3	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/28	22:41:40.4	20.529N	122.212E	33.0N	5.4	5.9		SZGRF

Philippine Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 22:54:09.7	85.0	63.2	1.2	29	5.4		
CLL	e P	Z 22:54:09.6	85.3	62.5	1.6	50	5.4		
BSEG	e P	Z 22:54:11.4	85.5	60.6	1.5	94	5.7		
TANN	e P	Z 22:54:12.4	86.1	62.1	1.6	21	5.0		
GEC2	e P	Z 22:54:13.6	86.1	62.9	1.1	28	5.3		
NRDL	e P	Z 22:54:14.0	86.4	60.4	1.4	47	5.4		
WET	e P	Z 22:54:14.0	86.4	62.3	1.9	31	5.1		
MOX	e P	Z 22:54:16.3	86.4	61.4	1.5	43	5.4		
CLZ	e P	Z 22:54:18.0	86.5	60.6	1.4	45	5.4		
GRA1	e P	Z 22:54:20.4	87.1	61.1	0.7	23	5.4		
	e S	T 23:05:00.7							
	e L	Z 23:36:28.2			20.2	5040		5.9	
RJOB	e P	Z 22:54:20.8	87.1	62.2	0.8	18	5.3		
IBBN	e P	Z 22:54:23.4	87.7	58.6	1.2	67	5.8		
FUR	e P	Z 22:54:23.7	87.8	61.1	1.0	44	5.7		
BUG	e P	Z 22:54:26.6	88.4	58.2	1.1	45	5.6		
WLF	e P	Z 22:54:34.0	89.9	57.3	1.4	76	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/28	23:04:49.1	19.720S	169.930E	33.0G				SZGRF

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ROTZ	e PKPbc	Z 23:24:06.3	145.1	38.6					
GEC2	e PKPbc	Z 23:24:08.0	145.2	41.7					
GRA1	e PKPbc	Z 23:24:07.9	145.6	37.2					

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TNS	e	PKPbc	Z	23:24:09.9	146.1	32.5
RJOB	e	PKPbc	Z	23:24:10.6	146.4	41.4
FUR	e	PKPbc	Z	23:24:11.9	146.7	38.7
STU	e	PKPbc	Z	23:24:13.1	147.1	34.9
WLF	e	PKPbc	Z	23:24:14.2	147.4	29.2
BFO	e	PKPbc	Z	23:24:14.5	147.8	33.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/29	03:01:31.1	13.300N	125.700E	10.0	5.8	5.4		NEIC

Philippine Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 03:14:41.6	92.2	64.6	1.1	89	6.0		
BRG	e P	Z 03:14:43.7	92.8	64.8	1.2	32	5.6		
FBE	e P	Z 03:14:45.8	93.1	64.3	1.4	68	5.9		
CLL	e P	Z 03:14:45.3	93.2	64.1	1.2	39	5.7		
BSEG	e P	Z 03:14:46.5	93.4	61.7	1.9	95	5.8		
GEC2	e P	Z 03:14:48.5	93.8	64.7	1.6	42	5.5		
TANN	e P	Z 03:14:48.9	93.9	63.7	1.6	41	5.5		
WERD	e P	Z 03:14:49.3	93.9	63.5	1.6	52	5.6		
GUNZ	e P	Z 03:14:49.5	94.0	63.6	1.4	49	5.7		
WERN	e P	Z 03:14:49.6	94.0	63.6	1.5	41	5.6		
WET	e P	Z 03:14:50.1	94.2	64.1	1.7	44	5.5		
NRDL	e P	Z 03:14:50.6	94.2	61.7	1.4	70	5.8		
MOX	e P	Z 03:14:50.7	94.2	63.0	1.5	39	5.5		
ROTZ	e P	Z 03:14:51.2	94.3	63.5	1.7	69	5.7		
CLZ	e P	Z 03:14:51.6	94.4	61.9	1.3	68	5.9		
RJOB	e P	Z 03:14:53.4	94.8	64.1	1.4	32	5.6		
GRA1	e P	Z 03:14:54.0	94.9	62.7	1.3	30	5.6		
	e pP	Z 03:14:58.0							
	e L	Z 04:05:35.1			18.1	1141		5.4	
UBBA	e P	Z 03:14:54.4	95.1	61.7	1.6	54	5.7		
IBBN	e P	Z 03:14:56.6	95.6	59.7	1.4	73	6.0		
FUR	e P	Z 03:14:57.1	95.6	62.9	1.7	131	6.2		
TNS	e P	Z 03:15:00.2	96.2	60.5	1.5	86	6.1		
BUG	e P	Z 03:14:59.8	96.3	59.4	1.3	35	5.7		
STU	e P	Z 03:15:01.3	96.5	61.2	1.4	29	5.7		
WLF	e P	Z 03:15:07.1	97.8	58.7	1.2	70	6.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/29	04:32:58.1	22.278S	165.642E	33.0G				SZGRF

New Caledonia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z 04:52:27.3	143.9	48.2					

CLL	e	PKPbc	Z	04:52:27.2	144.1	46.4
FBE	e	PKPbc	Z	04:52:28.2	144.2	47.3
TANN	e	PKPbc	Z	04:52:30.9	144.9	46.6
WERD	e	PKPbc	Z	04:52:30.8	145.0	46.3
PLN	e	PKPbc	Z	04:52:30.9	145.0	46.1
GUNZ	e	PKPbc	Z	04:52:31.1	145.0	46.5
WERN	e	PKPbc	Z	04:52:31.5	145.1	46.6
NKC	e	PKPbc	Z	04:52:31.4	145.1	46.8
MOX	e	PKPbc	Z	04:52:31.4	145.2	45.2
GEC2	e	PKPbc	Z	04:52:32.1	145.4	50.0
ROTZ	e	PKPbc	Z	04:52:32.9	145.5	46.9
GRA1	e	PKPbc	Z	04:52:33.9	146.0	45.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/29	08:09:53.2	20.171N	122.171E	33.0N	5.6	5.7		SZGRF
Philippine Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	08:22:22.0	85.3	63.5	1.8	80	5.7		
CLL	e P	Z	08:22:23.6	85.6	62.8	1.6	58	5.4		
BSEG	e P	Z	08:22:24.9	85.8	60.9	1.8	81	5.6		
TANN	e P	Z	08:22:27.2	86.3	62.3	1.7	48	5.3		
GEC2	e P	Z	08:22:27.4	86.3	63.1	2.3	117	5.6		
NRDL	e P	Z	08:22:28.7	86.6	60.6	1.7	69	5.5		
WET	e P	Z	08:22:29.1	86.7	62.6	1.7	34	5.2		
MOX	e P	Z	08:22:29.1	86.7	61.7	2.1	83	5.5		
ROTZ	e P	Z	08:22:30.0	86.8	62.1	1.9	59	5.4		
CLZ	e P	Z	08:22:29.9	86.8	60.8	2.5	212	5.8		
GRA1	e P	Z	08:22:37.4	87.4	61.3	2.4	232	6.1		
	e L	Z	09:05:31.7			19.5	2665		5.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/29	14:49:43.0	44.234N	12.407E	10.0G			3.8	SZGRF
Northern Italy								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	14:50:52.4	4.7	191.4					3.4
WET	e Pn	Z	14:50:55.1	4.9	183.9					3.5
	e Sn	E	14:51:49.5							
ROTZ	e Pn	Z	14:51:03.6	5.5	178.5					3.7
	e Sn	N	14:52:03.2							
NKC	e Pn	Z	14:51:11.6	6.0	180.3					3.9
WERN	e Pn	Z	14:51:11.9	6.1	179.8					3.9
GUNZ	e Pn	Z	14:51:12.8	6.1	179.5					3.7
WERD	e Pn	Z	14:51:13.7	6.2	179.3					4.2



MOX e Pn Z 14:51:16.1 6.4 174.9 4.0  
 e Sn N 14:52:25.1

Date Origin Time Lat Long Depth mb Ms ML Source  
 2008/03/29 17:30:46.1 2.720N 96.890E 33.0N 5.6 6.3  
 Northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 17:43:10.5	83.4	93.8	1.6	86	5.7		
	e S	T 17:53:30.1							
GEC2	e P	Z 17:43:10.8	83.5	93.3	1.2	89	5.9		
	e S	T 17:53:29.1							
FBE	e P	Z 17:43:12.9	83.8	93.3					
RJOB	e P	Z 17:43:12.8	84.0	92.5	1.2	33	5.5		
WET	e P	Z 17:43:13.8	84.0	92.8	1.4	63	5.7		
	e S	T 17:53:35.8							
CLL	e P	Z 17:43:13.3	84.1	93.1	1.4	36	5.4		
	e S	T 17:53:35.2							
TANN	e P	Z 17:43:15.2	84.4	92.6	1.5	48	5.5		
WERD	e P	Z 17:43:15.8	84.5	92.4					
ROTZ	e P	Z 17:43:15.8	84.5	92.3	1.4	53	5.6		
MOX	e P	Z 17:43:18.1	84.9	91.9	1.5	51	5.5		
	e S	T 17:53:45.8							
FUR	e S	T 17:53:43.7	85.0	91.5					
GRA1	e P	Z 17:43:19.4	85.1	91.5	1.1	79	5.9		
	e S	T 17:53:48.5							
	e L	Z 18:27:58.1			20.3	11846		6.3	
GRFO	e P	Z 17:43:20.5	85.1	91.5					
CLZ	e P	Z 17:43:22.3	85.7	91.1	1.3	60	5.6		
	e S	T 17:53:52.4							
BSEG	e P	Z 17:43:23.1	85.8	91.2	1.5	109	5.8		
	e S	T 17:53:53.8							
NRDL	e P	Z 17:43:23.3	85.9	90.9	1.5	102	5.7		
	e S	T 17:53:54.2							
UBBA	e P	Z 17:43:23.1	85.9	90.7					
	e S	T 17:53:55.8							
STU	e S	T 17:54:00.4	86.4	89.9					
TNS	e P	Z 17:43:28.2	86.9	89.5	0.9	57	5.7		
BFO	e P	Z 17:43:27.8	87.0	89.3	0.8	23	5.3		
	e S	T 17:54:05.8							
IBBN	e P	Z 17:43:30.5	87.3	89.0	1.5	128	5.8		
BUG	e P	Z 17:43:31.7	87.6	88.6	1.0	48	5.8		
	e S	T 17:54:12.8							

Date Origin Time Lat Long Depth mb Ms ML Source

2008/03/29

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 20:20:25.0							
	e Sn	E 20:21:19.9							
WET	e Pn	Z 20:20:25.5							
	e Sn	E 20:21:20.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/29	21:08:28.2	55.560N	163.460W	33.0N	5.4	4.3		SZGRF

Unimak Island, Alaska, United States, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 21:19:42.1	70.4	356.3	1.1	52	5.6		
NRDL	e P	Z 21:19:50.6	71.8	356.2	1.0	39	5.5		
IBBN	e P	Z 21:19:51.2	71.9	354.8	1.2	68	5.6		
CLZ	e P	Z 21:19:54.9	72.5	356.3	1.1	51	5.6		
BUG	e P	Z 21:19:55.2	72.7	354.5	1.0	41	5.5		
CLL	e P	Z 21:19:57.6	73.1	357.9	1.2	49	5.5		
UBBA	e P	Z 21:20:00.5	73.5	356.1	1.4	26	5.1		
BRG	e P	Z 21:20:00.5	73.5	358.5	1.1	36	5.3		
MOX	e P	Z 21:20:01.7	73.7	357.1	1.2	61	5.5		
TANN	e P	Z 21:20:03.2	74.0	357.6	2.1	98	5.5		
TNS	e P	Z 21:20:03.2	74.0	355.2	1.2	60	5.5		
WLF	e P	Z 21:20:06.2	74.4	353.9	1.2	45	5.4		
ROTZ	e P	Z 21:20:07.1	74.6	357.5	1.5	47	5.3		
GRA1	e P	Z 21:20:07.2	74.7	356.9	1.1	43	5.4		
	e L	Z 21:46:31.9			21.8	185		4.3	
WET	e P	Z 21:20:10.7	75.3	357.9	1.3	34	5.3		
STU	e P	Z 21:20:12.3	75.5	355.7	0.9	25	5.4		
GEC2	e P	Z 21:20:12.5	75.6	358.3	1.1	24	5.2		
BFO	e P	Z 21:20:13.7	75.9	355.2	1.2	27	5.2		
FUR	e P	Z 21:20:15.9	76.2	356.9	1.3	53	5.5		
RJOB	e P	Z 21:20:18.9	76.7	357.8	0.9	29	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/29	21:48:36.0	16.779S	174.080W	33.0N				SZGRF

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z 22:08:06.1	144.1	6.9					
IBBN	e PKPbc	Z 22:08:07.2	144.4	3.0					
CLZ	e PKPbc	Z 22:08:08.3	144.8	7.4					
CLL	e PKPbc	Z 22:08:08.5	145.0	11.9					
BRG	e PKPbc	Z 22:08:09.8	145.3	13.6					

BUG	e	PKPbc	Z	22:08:09.9	145.3	2.3
UBBA	e	PKPbc	Z	22:08:11.5	145.8	7.0
MOX	e	PKPbc	Z	22:08:11.5	145.8	9.7
TANN	e	PKPbc	Z	22:08:12.3	146.0	11.2
ROTZ	e	PKPbc	Z	22:08:14.1	146.6	11.0
GRA1	e	PKPbc	Z	22:08:14.3	146.8	9.3
WLF	e	PKPbc	Z	22:08:15.9	147.1	0.4
GEC2	e	PKPbc	Z	22:08:15.7	147.3	13.9
STU	e	PKPbc	Z	22:08:17.4	147.9	5.9
FUR	e	PKPbc	Z	22:08:18.5	148.3	9.8
BFO	e	PKPbc	Z	22:08:18.6	148.4	4.4
RJOB	e	PKPbc	Z	22:08:19.1	148.5	12.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/30	05:39:16.6	49.731N	154.951E	33.0N	4.9			SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	05:50:48.1	73.9	24.5	0.8	8	4.8		
BRG	e P	Z	05:50:49.2	74.0	25.0	0.9	3	4.3		
CLZ	e P	Z	05:50:49.9	74.1	22.9	1.2	22	5.0		
MOX	e P	Z	05:50:53.9	74.9	23.6	1.7	20	4.9		
ROTZ	e P	Z	05:50:58.3	75.5	23.8	1.1	8	4.8		
GRA1	e P	Z	05:50:59.9	75.8	23.2	0.7	12	5.1		
WET	e P	Z	05:51:00.3	75.9	24.2	1.0	11	5.0		
GEC2	e P	Z	05:51:00.1	76.0	24.6	1.2	8	4.7		
TNS	e P	Z	05:51:01.0	76.0	21.6	0.7	20	5.3		
RJOB	e P	Z	05:51:10.9	77.2	24.0	0.8	6	4.8		
BFO	e P	Z	05:51:10.5	77.8	21.3	1.1	15	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/30	08:32:28.3	37.610N	102.040E	33.0N	5.2	4.6		SZGRF

Gansu, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	08:42:37.5	60.7	65.3	1.0	14	4.7		
CLL	e P	Z	08:42:39.8	61.0	64.9	0.9	17	4.9		
BSEG	e P	Z	08:42:43.0	61.4	64.5	1.1	56	5.7		
GEC2	e P	Z	08:42:44.8	61.7	64.1	1.2	12	5.0		
TANN	e P	Z	08:42:44.9	61.7	64.1	1.1	10	5.0		
WET	e P	Z	08:42:47.2	62.0	63.8	1.4	16	5.1		
MOX	e P	Z	08:42:47.4	62.1	63.7	1.2	15	5.1		
NRDL	e P	Z	08:42:47.9	62.1	63.6	1.1	44	5.6		
ROTZ	e P	Z	08:42:48.0	62.1	63.6	1.1	19	5.2		
CLZ	e P	Z	08:42:48.9	62.2	63.5	1.1	41	5.6		

GRA1	e P	Z	08:42:52.3	62.7	63.0	1.1	35	5.4	
	e L	Z	09:08:49.3			20.7	470	4.6	
UBBA	e P	Z	08:42:53.0	62.9	62.8	1.7	35	5.2	
FUR	e P	Z	08:42:57.0	63.4	62.4	1.0	28	5.3	
BUG	e P	Z	08:43:01.0	64.1	61.3	1.3	41	5.5	
STU	e P	Z	08:43:02.2	64.3	61.4	1.1	16	5.2	
BFO	e P	Z	08:43:06.7	65.1	60.7	1.5	19	5.1	
WLF	e P	Z	08:43:11.1	65.6	59.9	1.2	50	5.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/30	10:34:11.4	3.700N	98.280E	33.0N	4.9			SZGRF

Northern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	10:46:34.9	83.6	92.1	1.3	10	4.9		
GEC2	e P	Z	10:46:35.8	83.6	91.6	1.1	5	4.6		
CLL	e P	Z	10:46:38.0	84.2	91.4	1.1	5	4.7		
WET	e P	Z	10:46:38.5	84.2	91.1	1.4	10	4.8		
RJOB	e P	Z	10:46:38.3	84.2	90.8	0.7	3	4.6		
ROTZ	e P	Z	10:46:41.3	84.6	90.6	0.9	6	4.8		
MOX	e P	Z	10:46:43.1	85.0	90.2	0.8	4	4.7		
GRA1	e P	Z	10:46:43.5	85.3	89.8	0.9	8	5.0		
CLZ	e P	Z	10:46:46.2	85.8	89.4	0.7	11	5.1		
BSEG	e P	Z	10:46:46.9	85.8	89.5	0.8	12	5.1		
NRDL	e P	Z	10:46:46.8	86.0	89.2	1.0	11	4.9		
IBBN	e P	Z	10:46:54.8	87.4	87.3	0.9	24	5.3		
BUG	e P	Z	10:46:55.7	87.7	86.9	0.7	7	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/30	17:10:13.1	25.104S	178.684W	179.0				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	17:29:43.6	150.4	16.7					
	e PP	Z	17:33:19.3							
NRDL	e PKPbc	Z	17:29:46.4	151.8	17.0					
	e pPKPbc	Z	17:30:31.7							
CLL	e PKPbc	Z	17:29:47.4	152.3	23.3					
	e		17:29:54.7							
	e PKPab	Z	17:30:00.0							
	e pPKPbc	Z	17:30:35.1							
IBBN	e PKPbc	Z	17:29:48.0	152.4	12.7					
	e PKPab	Z	17:30:00.1							
	e PP	Z	17:33:31.2							
CLZ	e PKPbc	Z	17:29:47.8	152.4	17.9					

	e		17:29:54.7		
BRG	e PKPbc	Z	17:29:48.0	152.5	25.4
	e		17:29:54.9		
	e PKPab	Z	17:30:00.9		
	e pPKPbc	Z	17:30:34.8		
MOX	e PKPab	Z	17:30:03.6	153.3	21.1
	e pPKPbc	Z	17:30:37.5		
TANN	e PKPab	Z	17:30:04.3	153.3	22.9
	e PP	Z	17:33:33.8		
UBBA	e PP	Z	17:33:36.6	153.4	17.8
ROTZ	e PKPab	Z	17:30:07.1	153.9	22.9
	e PP	Z	17:33:39.7		
GRA1	e PKPab	Z	17:30:08.5	154.2	21.0
	e PP	Z	17:33:41.6		
WET	e PKPab	Z	17:30:09.0	154.3	24.8
GEC2	e PKPab	Z	17:30:09.1	154.4	26.7
WLF	e PKPab	Z	17:30:12.2	155.2	10.5
RJOB	e PKPab	Z	17:30:14.8	155.6	25.9
FUR	e PKPab	Z	17:30:15.1	155.6	22.3
	e PP	Z	17:33:49.8		
BFO	e PKPab	Z	17:30:16.1	156.1	15.9
	e pPKPab	Z	17:31:00.7		
	e PP	Z	17:33:54.2		

Date 2008/03/30 Origin Time 20:34:37.8 Lat 23.400S Long 179.410W Depth 33.0N mb Ms ML Source SZGRF  
 South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	20:54:18.7	148.6	17.3					
NRDL	e PKPbc	Z	20:54:22.1	150.0	17.7					
CLL	e PKPbc	Z	20:54:23.5	150.5	23.6					
	e PKPab	Z	20:54:30.4							
CLZ	e PKPbc	Z	20:54:23.8	150.6	18.5					
	e PKPab	Z	20:54:30.4							
BRG	e PKPbc	Z	20:54:24.1	150.6	25.6					
	e PKPab	Z	20:54:31.4							
FBE	e PKPbc	Z	20:54:24.5	150.8	24.5					
MOX	e PKPbc	Z	20:54:25.7	151.4	21.5					
	e PKPab	Z	20:54:34.6							
TANN	e PKPbc	Z	20:54:25.7	151.4	23.3					
WERD	e PKPbc	Z	20:54:25.8	151.5	23.0					
PLN	e PKPbc	Z	20:54:25.9	151.5	22.7					
WERN	e PKPbc	Z	20:54:26.3	151.6	23.2					
NKC	e PKPbc	Z	20:54:26.5	151.6	23.4					
ROTZ	e PKPbc	Z	20:54:27.5	152.1	23.3					
	e PKPab	Z	20:54:38.2							

GRA1	e	PKPbc	Z	20:54:27.7	152.4	21.5
WET	e	PKPab	Z	20:54:38.9	152.5	25.0
GEC2	e	PKPbc	Z	20:54:28.2	152.5	26.8
RJOB	e	PKPab	Z	20:54:45.2	153.8	26.1
FUR	e	PKPab	Z	20:54:45.5	153.8	22.7
BFO	e	PKPbc	Z	20:54:34.6	154.3	16.6
	e	PKPab	Z	20:54:46.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/30	22:12:49.8	0.441S	97.271E	25.7	5.4	4.8		SZGRF
Southwest of Sumatera, Indonesia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	22:25:28.5	86.1	95.1	1.4	47	5.5		
	e pP	Z	22:25:35.7							
BRG	e P	Z	22:25:28.4	86.1	95.5	0.8	15	5.3		
RJOB	e P	Z	22:25:29.8	86.6	94.4	0.7	8	4.9		
WET	e P	Z	22:25:31.0	86.7	94.5	0.9	17	5.2		
	e pP	Z	22:25:38.6							
CLL	e P	Z	22:25:30.8	86.8	94.8	1.1	15	5.0		
TANN	e P	Z	22:25:32.4	87.0	94.3	1.0	9	4.8		
ROTZ	e P	Z	22:25:33.8	87.2	94.1	0.8	15	5.2		
MOX	e P	Z	22:25:35.0	87.6	93.6	1.3	18	5.0		
	e pP	Z	22:25:42.9							
GRA1	e P	Z	22:25:37.0	87.8	93.3	0.9	32	5.4		
	e S	T	22:36:23.8							
	e L	Z	23:11:52.5			18.2	383		4.8	
CLZ	e P	Z	22:25:39.7	88.4	92.7	0.8	35	5.7		
	e pP	Z	22:25:47.0							
BSEG	e P	Z	22:25:40.0	88.6	92.7	1.1	46	5.7		
NRDL	e P	Z	22:25:40.6	88.6	92.5	1.0	42	5.7		
	e pP	Z	22:25:47.8							
STU	e P	Z	22:25:42.4	89.1	91.7	0.8	13	5.3		
TNS	e P	Z	22:25:45.3	89.6	91.2	1.0	62	5.8		
	e pP	Z	22:25:52.7							
BFO	e P	Z	22:25:44.9	89.6	91.1	0.9	15	5.2		
IBBN	e P	Z	22:25:47.6	90.1	90.7	0.8	40	5.7		
	e pP	Z	22:25:54.8							
BUG	e P	Z	22:25:48.4	90.3	90.3	0.9	32	5.6		
WLF	e P	Z	22:25:51.6	91.1	89.4	1.3	49	5.6		
	e pP	Z	22:25:59.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/31	00:14:32.3	42.104N	17.850E	10.0G				SZGRF
Adriatic Sea								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	00:16:09.8	6.7	145.8					
	e Sn	E	00:17:20.8							
GEC2	e Pn	Z	00:16:18.0	7.3	155.2					
	e Sn	N	00:17:36.0							
FUR	e Pn	Z	00:16:22.2	7.6	140.2					
	e Sn	N	00:17:43.2							
WET	e Pn	Z	00:16:24.5	7.8	151.9					
	e Sn	E	00:17:48.8							
TANN	e Pn	Z	00:16:43.3	9.1	153.9					
	e Sn	N	00:18:17.4							
BFO	e Pn	Z	00:16:42.9	9.1	129.4					
	e Sn	N	00:18:18.9							
MOX	e Pn	Z	00:16:48.6	9.6	151.0					
	e Sn	N	00:18:28.2							
TNS	e Pn	Z	00:17:00.8	10.4	137.8					
	e Sn	N	00:18:48.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/31	00:56:43.9	4.422N	95.824E	55.5	4.7			SZGRF

Northern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:09:06.9	83.1	91.2	0.9	4	4.7		
	e pP	Z	01:09:22.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/31	08:44:44.8	21.910S	177.720W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	09:04:24.8	147.4	13.9					
NRDL	e PKPbc	Z	09:04:28.6	148.8	14.1					
CLZ	e PKPbc	Z	09:04:30.6	149.4	14.9					
	e PKPab	Z	09:04:35.6							
CLL	e PKPbc	Z	09:04:30.5	149.4	19.8					
	e PKPab	Z	09:04:35.2							
BRG	e PKPbc	Z	09:04:30.7	149.6	21.8					
	e PKPab	Z	09:04:36.1							
MOX	e PKPbc	Z	09:04:32.6	150.3	17.7					
TANN	e PKPbc	Z	09:04:33.0	150.4	19.4					
	e PKPab	Z	09:04:38.7							
UBBA	e PKPbc	Z	09:04:32.9	150.5	14.6					
ROTZ	e PKPbc	Z	09:04:34.9	151.1	19.3					

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TNS	e	PKPbc	Z	09:04:34.9	151.3	12.0
GRA1	e	PKPbc	Z	09:04:35.3	151.3	17.5
	e	PKPab	Z	09:04:43.5		
WET	e	PKPbc	Z	09:04:35.7	151.5	21.0
	e	PKPab	Z	09:04:44.1		
GEC2	e	PKPbc	Z	09:04:35.9	151.6	22.7
WLF	e	PKPbc	Z	09:04:37.5	152.1	7.7
RJOB	e	PKPbc	Z	09:04:38.6	152.8	21.8
	e	PKPab	Z	09:04:50.1		
BFO	e	PKPbc	Z	09:04:39.1	153.1	12.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/31	12:35:31.4	27.840N	55.590E	63.2	4.5			SZGRF
Southern Iran								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	12:42:35.0	38.3	107.7	1.8	23	4.6		
	e pP	Z	12:42:50.8							
RJOB	e P	Z	12:42:37.3	38.6	105.5	1.0	11	4.4		
NKC	e P	Z	12:42:45.7	39.5	108.1					
ROTZ	e P	Z	12:42:45.4	39.5	107.3	1.0	5	4.1		
	e pP	Z	12:43:01.5							
CLL	e P	Z	12:42:45.1	39.5	109.9	1.0	10	4.4		
GRA1	e P	Z	12:42:50.1	40.1	106.2	0.7	13	4.7		
CLZ	e P	Z	12:42:59.4	41.2	107.8	1.2	11	4.5		
	e pP	Z	12:43:14.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/31	13:31: 2.3	1.200S	100.790E	33.0N	5.0			SZGRF
Southern Sumatera, Indonesia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	13:43:53.8	88.9	93.2	1.1	10	5.0		
GEC2	e P	Z	13:43:53.9	89.0	93.0	1.5	20	5.1		
FBE	e P	Z	13:43:55.8	89.3	92.7					
RJOB	e P	Z	13:43:56.2	89.5	92.3	1.0	9	4.9		
WET	e P	Z	13:43:56.6	89.5	92.4	0.7	8	5.1		
CLL	e P	Z	13:43:56.2	89.6	92.5	0.9	7	4.9		
TANN	e P	Z	13:43:57.8	89.9	92.1	1.0	3	4.5		
NKC	e P	Z	13:43:57.7	89.9	92.0					
WERN	e P	Z	13:43:58.2	89.9	92.0					
GUNZ	e P	Z	13:43:58.2	89.9	92.0					
WERD	e P	Z	13:43:58.7	90.0	91.9					
ROTZ	e P	Z	13:43:59.0	90.0	91.9	1.0	6	4.8		
PLN	e P	Z	13:43:58.5	90.1	91.8					



MOX	e P	Z	13:44:00.1	90.4	91.4	1.3	6	4.7
GRA1	e P	Z	13:44:01.7	90.6	91.1	0.5	16	5.6
TNS	e P	Z	13:44:10.1	92.4	89.0	0.8	15	5.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/03/31	20:17:57.0	43.655N	45.262E	33.0N	4.2			SZGRF

Eastern Caucasus

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 20:22:53.3	22.2	96.7	1.5	10	4.0		
GEC2	e P	Z 20:22:54.0	22.3	91.5	0.7	3	3.9		
CLL	e P	Z 20:23:00.4	22.9	96.8	0.8	6	4.1		
NKC	e P	Z 20:23:02.1	23.1	93.8	1.2	18	4.5		
WERN	e P	Z 20:23:02.3	23.2	93.8	1.3	10	4.2		
MOX	e P	Z 20:23:07.1	23.7	94.0	1.0	10	4.3		
GRA1	e P	Z 20:23:08.5	23.9	91.5	2.2	53	4.7		

## Format description

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

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

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

## EPICENTER LINES:

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

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

BLANK - free  
 N - preset depth of 33 kilometer  
 G - geophysicist preset depth

mb, Ms, ML Magnitudes of the event and magnitude type  
 Source Abbreviations for the authority (e.g. SZGRF, NEIC, SED, MAD)

COMMENT LINE:

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

REGION LINE:

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

PHASE LINE:

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

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