

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

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(produced by SZGRF/BGR - ERLANGEN)

September 2008 UPDATED 04.DECEMBER.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
2008/09/01	04:00:26.4	23.560S	176.410W	33.0G				EMSC
South of Fiji Islands								
Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb MS ML
BSEG	e PKPdf	Z	04:20:06.1	149.2	12.1			
	e PKPbc	Z	04:20:12.2					
HLG	e PKPbc	Z	04:20:12.7	149.2	7.7			
RUE	e PKPbc	Z	04:20:14.2	150.1	19.0			
CLZ	e PKPdf	Z	04:20:09.2	151.2	13.0			
	e PKPbc	Z	04:20:16.9					
CLL	e PKPdf	Z	04:20:08.8	151.3	18.2			
	e PKPbc	Z	04:20:16.5					
BRG	e PKPdf	Z	04:20:09.4	151.5	20.2			
	e PKPbc	Z	04:20:17.1					
	e PP	Z	04:23:58.6					
NEUB	e PKPbc	Z	04:20:17.5	151.6	15.9			
	e PKPab	Z	04:20:29.2					
BUG	e PKPbc	Z	04:20:18.3	152.0	7.2			
	e PKPab	Z	04:20:31.0					
MOX	e PKPdf	Z	04:20:10.3	152.2	15.9			
	e PKPbc	Z	04:20:18.6					
	e PKPab	Z	04:20:31.7					
	e PP	Z	04:24:02.7					
WERD	e PKPdf	Z	04:20:10.3	152.3	17.4			
	e PKPbc	Z	04:20:18.9					
	e PKPab	Z	04:20:32.2					
	e PP	Z	04:24:03.4					
TANN	e PKPdf	Z	04:20:10.4	152.3	17.7			
	e PKPbc	Z	04:20:18.9					
	e PKPab	Z	04:20:32.2					

	e PP	Z	04:24:03.4		
GUNZ	e PKPdf	Z	04:20:10.6	152.3	17.5
	e PKPbc	Z	04:20:19.1		
	e PKPab	Z	04:20:32.5		
	e PP	Z	04:24:03.8		
WERN	e PKPdf	Z	04:20:10.7	152.4	17.6
	e PKPbc	Z	04:20:19.3		
	e PKPab	Z	04:20:32.9		
	e PP	Z	04:24:04.2		
TNS	e PKPdf	Z	04:20:11.8	153.1	9.9
	e PKPab	Z	04:20:35.7		
	e PP	Z	04:24:08.2		
GRA1	e PKPab	Z	04:20:36.5	153.2	15.7
	e PP	Z	04:24:08.2		
WET	e PKPdf	Z	04:20:11.8	153.4	19.3
	e PKPbc	Z	04:20:21.0		
	e PKPab	Z	04:20:37.1		
	e PP	Z	04:24:09.4		
GEC2	e PKPdf	Z	04:20:11.7	153.5	21.1
	e PKPbc	Z	04:20:21.1		
	e PKPab	Z	04:20:37.1		
WLF	e PKPdf	Z	04:20:13.2	153.8	5.3
	e PKPbc	Z	04:20:22.9		
	e PKPab	Z	04:20:39.7		
STU	e PKPab	Z	04:20:41.4	154.4	12.0
FUR	e PKPab	Z	04:20:42.7	154.7	16.6
RJOB	e PKPab	Z	04:20:43.2	154.7	20.1
BFO	e PKPbc	Z	04:20:24.4	154.9	10.3
	e PKPab	Z	04:20:43.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/01	04:24:35.6	36.828N	68.776E	33.0G	5.1			SZGRF

Hindu Kush, Afghanistan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 04:32:13.8	40.9	88.2	0.8	29	5.0		
GEC2	e P	Z 04:32:15.9	41.2	85.7	1.2	22	4.8		
CLL	e P	Z 04:32:18.0	41.5	88.0	1.7	73	5.1		
WET	e P	Z 04:32:20.1	41.7	85.5	1.9	42	4.8		
TANN	e P	Z 04:32:21.5	41.9	86.6	1.4	45	5.0		
RJOB	e P	Z 04:32:21.6	41.9	83.8	1.5	47	5.0		
WERN	e P	Z 04:32:22.4	41.9	86.4	1.5	42	5.0		
GUNZ	e P	Z 04:32:22.5	41.9	86.4	1.5	54	5.0		
WERD	e P	Z 04:32:22.6	42.0	86.5	1.4	44	5.0		
MOX	e P	Z 04:32:26.1	42.4	86.2	1.6	72	5.1		
GRA1	e P	Z 04:32:29.7	42.7	84.9	1.9	214	5.6		
	e PP	Z 04:34:11.7							

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FUR	e P	Z	04:32:29.9	42.8	83.3	2.1	256	5.6
BSEG	e P	Z	04:32:30.9	43.0	88.8	1.3	59	5.2
CLZ	e P	Z	04:32:31.3	43.1	86.6	1.6	44	4.9
NRDL	e P	Z	04:32:31.5	43.2	87.1	2.0	88	5.1
STU	e P	Z	04:32:40.4	44.1	82.5	1.2	39	5.0
TNS	e P	Z	04:32:42.5	44.4	83.5	1.4	43	5.2
IBBN	e P	Z	04:32:44.1	44.6	85.1	1.2	56	5.4
BFO	e P	Z	04:32:44.8	44.7	81.5	1.4	44	5.2
BUG	e P	Z	04:32:47.0	45.0	83.9	1.3	40	5.2
WLF	e P	Z	04:32:55.3	46.0	81.4	1.3	64	5.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/01	05:31:27.4	15.690S	177.200W	33.0G				SZGRF
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	05:50:57.6	143.5	16.6					
BUG	e PKPdf	Z	05:50:59.4	144.1	7.3					
MOX	e PKPdf	Z	05:51:00.0	144.3	14.7					
TANN	e PKPdf	Z	05:51:00.0	144.4	16.1					
GUNZ	e PKPdf	Z	05:51:00.5	144.5	15.9					
WERN	e PKPdf	Z	05:51:00.7	144.5	16.0					
GRA3	e PKPbc	Z	05:51:01.0	145.2	14.5					
GRA1	e PKPbc	Z	05:51:01.4	145.3	14.3					
GRA2	e PKPbc	Z	05:51:01.4	145.3	14.6					
GRA4	e PKPbc	Z	05:51:01.7	145.4	14.8					
GRB4	e PKPbc	Z	05:51:01.8	145.5	15.0					
GRB1	e PKPbc	Z	05:51:02.0	145.5	15.2					
WET	e PKPbc	Z	05:51:02.2	145.5	17.3					
GRB3	e PKPbc	Z	05:51:02.0	145.6	15.5					
GEC2	e PKPbc	Z	05:51:02.4	145.7	18.8					
GRB5	e PKPbc	Z	05:51:02.8	145.8	15.3					
WLF	e PKPbc	Z	05:51:03.3	145.9	5.8					
GRC1	e PKPbc	Z	05:51:03.1	145.9	15.1					
GRC3	e PKPbc	Z	05:51:03.4	146.0	15.3					
STU	e PKPbc	Z	05:51:05.2	146.5	11.2					
FUR	e PKPbc	Z	05:51:05.8	146.8	15.0					
RJOB	e PKPbc	Z	05:51:06.3	146.9	17.8					
BFO	e PKPbc	Z	05:51:06.4	147.0	9.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/01	05:41:16.7	42.600N	141.700E	127.0	4.7			NEIC
Hokkaido, Japan, region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1 e P Z 05:53:03.0 78.1 34.9 1.2 8 4.7

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/01 07:06:17.5 16.146S 175.616W 33.0G 5.7 SZGRF
 Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 07:25:53.4	146.0	11.8					
	e L	Z 08:35:37.9			20.1	1419		5.7	
WET	e PKPbc	Z 07:25:54.2	146.3	14.8					
GEC2	e PKPbc	Z 07:25:54.5	146.4	16.3					
WLF	e PKPbc	Z 07:25:55.3	146.5	3.1					
STU	e PKPbc	Z 07:25:57.1	147.1	8.5					
BFO	e PKPbc	Z 07:25:59.4	147.7	7.1					
RJOB	e PKPbc	Z 07:25:59.5	147.7	15.2					

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/01 11:01:19.9 21.749S 173.442W 33.0G SZGRF
 Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z 11:21:04.0	149.1	6.4					
CLZ	e PKPbc	Z 11:21:07.0	149.8	7.0					
CLL	e PKPbc	Z 11:21:07.0	150.0	12.0					
NEUB	e PKPbc	Z 11:21:07.9	150.3	9.8					
BUG	e PKPbc	Z 11:21:08.0	150.3	1.3					
BRG	e PKPbc	Z 11:21:07.6	150.3	13.9					
MOX	e PKPbc	Z 11:21:09.2	150.8	9.7					
TANN	e PKPbc	Z 11:21:09.4	151.0	11.4					
GUNZ	e PKPbc	Z 11:21:10.1	151.0	11.1					
TNS	e PKPbc	Z 11:21:10.9	151.5	3.7					
GRA1	e PKPbc	Z 11:21:11.4	151.8	9.2					
WLF	e PKPbc	Z 11:21:12.5	152.1	359.2					
WET	e PKPbc	Z 11:21:12.1	152.1	12.6					
GEC2	e PKPbc	Z 11:21:12.2	152.3	14.4					
BFO	e PKPbc	Z 11:21:14.7	153.4	3.7					

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/01

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 15:31:31.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/01	17:19:12.6	4.600N	126.100E	114.0				INFO-M
Talaud Islands, Indonesia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e Pdiff	Z	17:32:46.5	100.1	69.7					
CLL	e Pdiff	Z	17:32:48.0	100.5	68.8					
GEC2	e Pdiff	Z	17:32:50.1	100.9	69.8					
TANN	e Pdiff	Z	17:32:51.1	101.1	68.5					
GUNZ	e Pdiff	Z	17:32:51.7	101.2	68.4					
WERN	e Pdiff	Z	17:32:51.8	101.2	68.5					
WET	e Pdiff	Z	17:32:52.5	101.3	69.1					
MOX	e Pdiff	Z	17:32:52.9	101.5	67.8					
CLZ	e Pdiff	Z	17:32:54.4	101.8	66.5					
GRA1	e Pdiff	Z	17:32:56.2	102.1	67.7					
TNS	e Pdiff	Z	17:33:02.4	103.6	65.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/01	20:52:49.9	30.037N	140.227E	33.0G	5.4			SZGRF
Southeast of Honshu, Japan								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	21:05:23.6	85.2	44.3	1.5	57	5.6		
BRG	e P	Z	21:05:28.4	86.3	44.4	1.3	32	5.3		
CLL	e P	Z	21:05:28.6	86.4	43.7	1.3	38	5.4		
NEUB	e P	Z	21:05:31.8	87.0	42.8	1.0	27	5.3		
CLZ	e P	Z	21:05:32.7	87.1	41.7	1.2	21	5.2		
TANN	e P	Z	21:05:33.2	87.3	43.2	2.2	49	5.4		
WERD	e P	Z	21:05:33.4	87.3	43.1	1.2	13	5.1		
GUNZ	e P	Z	21:05:33.8	87.3	43.1	0.8	12	5.2		
WERN	e P	Z	21:05:34.1	87.4	43.2	1.5	35	5.5		
IBBN	e P	Z	21:05:35.9	87.8	39.7	0.8	49	5.9		
GEC2	e P	Z	21:05:35.7	87.8	44.1	0.8	15	5.4		
WET	e P	Z	21:05:36.6	88.0	43.5	1.0	8	5.0		
GRA1	e P	Z	21:05:38.6	88.3	42.3	1.1	47	5.6		
BUG	e P	Z	21:05:39.5	88.6	39.3	1.1	31	5.5		
RJOB	e P	Z	21:05:41.7	89.1	43.4	0.9	37	5.6		
TNS	e P	Z	21:05:42.0	89.1	40.2	0.8	12	5.2		
FUR	e P	Z	21:05:43.7	89.4	42.3	1.1	75	5.8		
STU	e P	Z	21:05:45.7	89.9	40.8	1.0	38	5.6		
WLF	e P	Z	21:05:48.7	90.5	38.5	1.3	56	5.7		
BFO	e P	Z	21:05:48.8	90.6	40.1	1.1	43	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/02	02:16:58.2	49.100N	28.300W	10.0	4.7			NEIC

Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:22:27.0	25.4	284.0	1.4	29	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/02	09:00:4.3	0.600N	98.000E	35.0	5.0			NEIC

Northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:13:05.1	87.5	92.1	1.1	9	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/02	17:21:13.0	3.376N	73.552W	33.0G	5.3	4.1		SZGRF

Colombia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z 17:33:23.8	80.8	264.3	1.1	39	5.4		
BFO	e P	Z 17:33:29.9	82.1	266.2	1.3	14	4.9		
TNS	e P	Z 17:33:31.5	82.3	266.0	1.2	43	5.5		
STU	e P	Z 17:33:33.4	82.7	266.8	1.4	36	5.4		
CLZ	e P	Z 17:33:38.1	83.6	267.3	1.2	26	5.3		
GRA1	e P	Z 17:33:40.7	84.0	268.2	1.5	30	5.3		
	e L	Z 18:06:31.6			21.9	87		4.1	
MOX	e P	Z 17:33:41.7	84.3	268.4	1.3	16	5.1		
NEUB	e P	Z 17:33:42.3	84.4	268.5	1.1	25	5.4		
WERD	e P	Z 17:33:44.1	84.8	269.0	1.1	16	5.1		
WERN	e P	Z 17:33:44.4	84.8	269.0	1.3	24	5.3		
TANN	e P	Z 17:33:44.7	84.9	269.1	1.2	24	5.3		
RJOB	e P	Z 17:33:45.7	85.0	269.6	1.1	17	5.2		
WET	e P	Z 17:33:46.1	85.1	269.5	1.2	34	5.5		
CLL	e P	Z 17:33:46.0	85.2	269.4	1.1	18	5.2		
FBE	e P	Z 17:33:47.5	85.4	269.7	1.1	23	5.3		
GEC2	e P	Z 17:33:48.4	85.7	270.2	1.1	16	5.0		
BRG	e P	Z 17:33:49.1	85.8	270.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/02	18:41:41.1	19.705S	171.155E	45.5		5.3		SZGRF

Vanuatu Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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BRG	e	PKPbc	Z	19:01:08.4	144.0	38.4				
CLL	e	PKPbc	Z	19:01:08.2	144.0	36.6				
CLZ	e	PKPbc	Z	19:01:10.5	144.5	32.3				
NEUB	e	PKPbc	Z	19:01:10.5	144.6	34.9				
IBBN	e	PKPbc	Z	19:01:12.0	144.9	27.9				
TANN	e	PKPbc	Z	19:01:11.8	145.0	36.6				
WERD	e	PKPbc	Z	19:01:11.9	145.0	36.3				
GUNZ	e	PKPbc	Z	19:01:12.3	145.1	36.4				
	e	pPKPbc	Z	19:01:25.8						
MOX	e	PKPbc	Z	19:01:12.1	145.1	35.1				
	e	pPKPbc	Z	19:01:25.8						
WERN	e	PKPbc	Z	19:01:12.5	145.1	36.6				
	e	pPKPbc	Z	19:01:25.9						
UBBA	e	PKPbc	Z	19:01:13.4	145.5	32.5				
GEC2	e	PKPbc	Z	19:01:13.8	145.7	39.8				
	e	pPKPbc	Z	19:01:27.5						
WET	e	PKPbc	Z	19:01:14.4	145.8	38.3				
	e	pPKPbc	Z	19:01:28.1						
GRA1	e	PKPbc	Z	19:01:15.2	146.0	35.3				
	e	L	Z	20:22:44.8			20.3	481		5.3
TNS	e	PKPbc	Z	19:01:16.8	146.5	30.5				

Date 2008/09/02
 Origin Time 20:01:13.7
 Lat 39.310N
 Long 43.273E
 Depth 33.0G
 mb 4.9
 Ms 3.9
 ML
 Source SZGRF
 Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 20:06:17.8	23.1	103.2	1.3	72	5.1		
RJOB	e P	Z 20:06:21.1	23.5	99.8	1.0	51	5.0		
BRG	e P	Z 20:06:20.5	23.5	108.0	1.2	25	4.6		
WET	e P	Z 20:06:22.6	23.7	103.0	1.0	37	4.9		
RUE	e P	Z 20:06:25.7	24.1	111.3	1.1	56	5.0		
CLL	e P	Z 20:06:27.1	24.2	107.8	1.1	36	4.8		
TANN	e P	Z 20:06:27.3	24.3	105.3	1.8	28	4.5		
WERN	e P	Z 20:06:28.0	24.3	104.9	1.7	48	4.7		
FUR	e P	Z 20:06:30.5	24.5	99.2	1.4	53	5.1		
GRA1	e P	Z 20:06:33.7	24.9	102.4	1.6	81	5.2		
	e L	Z 20:19:23.2			19.2	385		3.9	
CLZ	e P	Z 20:06:42.9	25.9	105.9	1.5	70	5.1		
TNS	e P	Z 20:06:50.4	26.7	100.6	1.2	26	4.8		
IBBN	e P	Z 20:06:58.2	27.6	103.9	1.3	59	5.3		

Date 2008/09/02
 Origin Time 20:01: 7.2
 Lat 15.896S
 Long 173.362W
 Depth 33.0G
 mb
 Ms
 ML
 Source SZGRF
 Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WERD	e PKPbc	Z 20:20:39.8	145.1	9.6					
TANN	e PKPbc	Z 20:20:40.0	145.2	9.8					
GUNZ	e PKPbc	Z 20:20:40.4	145.2	9.6					
WERN	e PKPbc	Z 20:20:40.6	145.3	9.7					
TNS	e PKPbc	Z 20:20:41.5	145.6	3.1					
GRA1	e PKPbc	Z 20:20:43.1	146.0	7.9					
WLF	e PKPbc	Z 20:20:44.0	146.2	359.2					
WET	e PKPbc	Z 20:20:44.0	146.4	10.9					
GEC2	e PKPbc	Z 20:20:44.4	146.5	12.4					
FUR	e PKPbc	Z 20:20:47.4	147.5	8.3					
BFO	e PKPbc	Z 20:20:47.3	147.5	3.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/02	20:49:57.5	44.700N	78.900E	33.0	4.8			GSRC

Eastern Kazakhstan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:58:09.0	44.7	69.2	1.0	12	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/03	02:22:49.2	37.500N	38.600E	10.0	4.4	4.3		NEIC

Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:27:58.3	23.1	111.5	1.7	21	4.4		
	e L	Z 02:36:37.2			18.8	1116		4.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/03	06:27:25.7	24.566N	98.410E	33.0G	4.8			SZGRF

Myanmar-China border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:38:33.0	69.8	75.5	1.0	8	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/03	09:52:57.2	59.893N	27.963W	33.0G	4.8	4.7		SZGRF

North Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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WLF	e P	Z	09:57:51.9	21.8	310.9	1.4	44	4.8	
CLZ	e P	Z	09:57:59.4	22.6	305.9	1.4	68	5.0	
TNS	e P	Z	09:58:00.2	22.6	309.2	2.0	143	5.1	
STU	e P	Z	09:58:12.5	23.9	311.7	0.8	22	4.9	
MOX	e P	Z	09:58:12.4	23.9	308.0	1.3	28	4.8	
CLL	e P	Z	09:58:14.9	24.2	306.7	1.2	17	4.7	
GRA1	e P	Z	09:58:16.4	24.3	309.7	1.0	22	4.8	
	e L	Z	10:07:14.5			20.5	2435		4.7
WERD	e P	Z	09:58:16.8	24.4	308.3	1.3	15	4.6	
TANN	e P	Z	09:58:17.6	24.5	308.3	1.3	12	4.5	
BRG	e P	Z	09:58:21.9	24.9	307.4				
WET	e P	Z	09:58:26.8	25.5	310.4	1.4	13	4.4	

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/03 11:24:58.5 28.071S 64.375W 575.9
 Santiago del Estero Province, Argentina SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e Pdiff	Z	11:37:49.5	99.7	237.6					
	e pPdiff	Z	11:39:55.3							
	e		11:54:53.0							
BFO	e Pdiff	Z	11:37:51.4	100.2	238.9					
	e pPdiff	Z	11:39:57.3							
	e PP	Z	11:41:57.8							
STU	e Pdiff	Z	11:37:54.9	100.9	239.5					
	e PP	Z	11:42:02.9							
BUG	e Pdiff	Z	11:37:55.9	101.2	238.6					
	e PP	Z	11:42:05.7							
TNS	e Pdiff	Z	11:37:56.4	101.2	239.3					
	e PP	Z	11:42:05.4							
FUR	e Pdiff	Z	11:37:59.1	101.8	240.8					
	e PP	Z	11:42:10.2							
	e		11:54:43.8							
IBBN	e Pdiff	Z	11:37:59.3	101.9	239.1					
	e pPdiff	Z	11:40:05.9							
	e PP	Z	11:42:11.1							
	e		11:54:42.6							
UBBA	e PP	Z	11:42:14.3	102.4	240.5					
	e		11:54:40.2							
RJOB	e Pdiff	Z	11:38:01.8	102.5	241.8					
	e PP	Z	11:42:14.9							
GRFO	e PP	Z	11:42:15.2	102.5	241.1					
GRA1	e Pdiff	Z	11:38:02.6	102.5	241.1					
	e pPdiff	Z	11:40:07.8							
	e PP	Z	11:42:15.5							
CLZ	e Pdiff	Z	11:38:04.7	103.1	240.9					
	e PP	Z	11:42:19.4							

MOX	e Pdiff	Z	11:38:05.3	103.2	241.6
	e PP	Z	11:42:20.3		
	e		11:54:37.1		
WET	e Pdiff	Z	11:38:05.1	103.2	242.1
	e PP	Z	11:42:20.2		
	e		11:54:37.3		
PLN	e Pdiff	Z	11:38:06.4	103.4	241.9
	e PP	Z	11:42:22.0		
WERN	e Pdiff	Z	11:38:06.7	103.5	242.0
	e PP	Z	11:42:22.4		
	e		11:54:36.4		
GUNZ	e Pdiff	Z	11:38:06.6	103.5	242.0
	e PP	Z	11:42:22.3		
	e		11:54:36.3		
WERD	e Pdiff	Z	11:38:06.7	103.5	242.0
	e PP	Z	11:42:22.4		
	e		11:54:36.0		
GEC2	e Pdiff	Z	11:38:06.5	103.6	242.6
	e		11:54:35.9		
NEUB	e Pdiff	Z	11:38:07.1	103.6	241.8
	e PP	Z	11:42:22.5		
	e		11:54:35.3		
TANN	e Pdiff	Z	11:38:07.2	103.6	242.1
	e PP	Z	11:42:23.1		
	e		11:54:35.7		
CLL	e Pdiff	Z	11:38:10.1	104.3	242.7
	e PP	Z	11:42:27.8		
	e		11:54:32.2		
BRG	e Pdiff	Z	11:38:11.6	104.6	243.2
	e PP	Z	11:42:30.4		
	e		11:54:31.0		
RUE	e PP	Z	11:42:34.7	105.2	243.5

Date 2008/09/03 Origin Time 21:52:27.6 Lat 17.677S Long 175.905W Depth 33.0G mb Ms ML Source SZGRF
Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	22:12:00.3	144.9	10.0					
CLZ	e PKPbc	Z	22:12:03.4	145.5	10.6					
CLL	e PKPbc	Z	22:12:03.3	145.6	15.2					
BRG	e PKPbc	Z	22:12:04.1	145.9	16.9					
NEUB	e PKPbc	Z	22:12:04.1	145.9	13.1					
PLN	e PKPbc	Z	22:12:06.2	146.6	14.0					
WERD	e PKPbc	Z	22:12:06.2	146.6	14.3					
TANN	e PKPbc	Z	22:12:06.2	146.6	14.6					
GUNZ	e PKPbc	Z	22:12:06.5	146.7	14.4					

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GEC2	e	PKPbc	Z	22:12:09.3	147.9	17.4					
GRB5	e	PKPbc	Z	22:12:09.9	148.0	13.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/03	22:43:25.8	33.010N	46.120E	33.0G	5.3	4.1		SZGRF

Iran-Iraq border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 22:49:22.0	28.8	111.2	0.9	19	4.9		
RJOB	e P	Z 22:49:24.0	29.0	108.3	1.1	29	5.0		
WET	e P	Z 22:49:26.8	29.4	110.7	1.0	16	4.8		
BRG	e P	Z 22:49:27.5	29.5	114.9	1.1	29	5.0		
ROTZ	e P	Z 22:49:33.5	30.1	111.0	1.6	147	5.6		
FUR	e P	Z 22:49:33.8	30.1	107.3	0.7	269	6.2		
TANN	e P	Z 22:49:33.6	30.2	112.3	1.8	31	4.8		
WERN	e P	Z 22:49:34.1	30.2	112.0	1.4	38	5.1		
CLL	e P	Z 22:49:33.9	30.2	114.4	1.1	37	5.1		
GUNZ	e P	Z 22:49:34.3	30.2	112.1					
RUE	e P	Z 22:49:34.5	30.3	117.2					
PLN	e P	Z 22:49:35.4	30.4	112.1					
GRA1	e P	Z 22:49:38.4	30.6	109.7	1.4	194	5.8		
	e L	Z 23:05:35.2			21.5	421		4.1	
MOX	e P	Z 22:49:38.8	30.7	111.7	1.1	15	4.8		
NEUB	e P	Z 22:49:39.9	30.9	112.7	0.6	30	5.4		
STU	e P	Z 22:49:45.7	31.6	106.1	1.7	59	5.2		
UBBA	e P	Z 22:49:47.8	31.8	110.1	1.8	58	5.2		
CLZ	e P	Z 22:49:49.6	31.9	112.1	0.7	61	5.7		
NRDL	e P	Z 22:49:52.3	32.3	112.7	0.9	50	5.4		
TNS	e P	Z 22:49:54.3	32.5	107.5	1.3	60	5.4		
IBBN	e P	Z 22:50:04.6	33.6	109.8	0.9	62	5.6		
BUG	e P	Z 22:50:04.2	33.6	108.0	1.3	55	5.3		
WLF	e P	Z 22:50:05.1	33.8	104.3	1.2	62	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/04	05:13:21.6	38.500N	30.000W	10.0	4.6			GFZ

Azores Islands, Portugal

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:19:41.7	31.2	264.9	0.9	8	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/04	09:37: 4.8	12.100S	167.100E	278.0				NEIC

Santa Cruz Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z	09:55:52.5	135.5	39.0					
CLL	e PKPdf	Z	09:55:52.1	135.5	37.6					
FBE	e PKPdf	Z	09:55:53.1	135.7	38.3					
CLZ	e PKPdf	Z	09:55:53.6	136.0	33.8					
TANN	e PKPdf	Z	09:55:54.4	136.4	37.4					
WERD	e PKPdf	Z	09:55:54.3	136.5	37.2					
IBBN	e PKPdf	Z	09:55:54.3	136.5	30.1					
WERN	e PKPdf	Z	09:55:54.8	136.6	37.4					
MOX	e PKPdf	Z	09:55:54.4	136.6	36.2					
GEC2	e PKPdf	Z	09:55:55.6	137.2	40.1					
WET	e PKPdf	Z	09:55:55.9	137.3	38.8					
BUG	e PKPdf	Z	09:55:55.8	137.4	29.9					
GRA1	e PKPdf	Z	09:55:56.3	137.5	36.3					
TNS	e PKPdf	Z	09:55:57.4	138.1	32.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/04	12:53:12.2	30.400N	80.300E	10.0	5.1	4.2		NEIC

Western Xizang-India border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	13:02:39.4	54.2	83.5	1.1	20	5.1		
	e L	Z	13:26:38.4			20.6	213		4.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/04	16:09:55.4	32.030S	176.770W	75.9				SZGRF

South of Kermadec Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	16:29:45.6	159.4	24.2					
	e PKPab	Z	16:30:22.5							
BRG	e PKPab	Z	16:30:23.2	159.6	26.8					
FBE	e PKPdf	Z	16:29:46.0	159.7	25.4					
	e PKPab	Z	16:30:24.0							
NEUB	e PKPab	Z	16:30:24.4	159.8	21.4					
MOX	e PKPdf	Z	16:29:48.4	160.4	21.6					
TANN	e PKPab	Z	16:30:26.7	160.4	23.9					
WERD	e PKPab	Z	16:30:26.9	160.4	23.5					
PLN	e PKPab	Z	16:30:27.2	160.4	23.1					
GUNZ	e PKPab	Z	16:30:27.5	160.5	23.6					
WERN	e PKPab	Z	16:30:27.7	160.5	23.8					
UBBA	e PKPab	Z	16:30:27.4	160.6	17.5					
GRA1	e PKPab	Z	16:30:31.3	161.4	21.6					
	e pPKPab	Z	16:30:52.3							

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WET	e	PKPdf	Z	16:29:49.6	161.4	26.5
	e	PKPab	Z	16:30:31.6		
GEC2	e	PKPab	Z	16:30:31.3	161.4	28.9
WLF	e	PKPab	Z	16:30:35.4	162.2	8.1
RJOB	e	PKPab	Z	16:30:37.2	162.7	28.3
FUR	e	PKPab	Z	16:30:38.0	162.8	23.6
BFO	e	PKPab	Z	16:30:39.3	163.3	15.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/04	18:48:0.2	31.000N	42.600W	10.0	4.6			GSRC
Northern Mid-Atlantic Ridge								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:56:08.2	43.9	265.6	1.3	15	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/05	04:57:44.8	35.910N	72.270E	227.6	5.9			SZGRF
Pakistan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 05:05:27.7	43.7	86.7	1.0	214	5.8		
RUE	e P	Z 05:05:27.4	43.7	88.2	1.0	262	5.9		
RGN	e P	Z 05:05:30.1	43.9	90.0	1.2	1003	6.4		
GEC2	e P	Z 05:05:30.1	44.0	84.4	1.4	82	5.3		
FBE	e P	Z 05:05:30.9	44.0	86.3	1.0	262	5.9		
CLL	e P	Z 05:05:31.7	44.2	86.4	1.0	130	5.6		
WET	e P	Z 05:05:34.2	44.5	84.1	1.3	54	5.3		
TANN	e P	Z 05:05:35.6	44.6	85.1					
WERN	e P	Z 05:05:36.3	44.7	84.9					
RJOB	e P	Z 05:05:35.5	44.7	82.7					
GUNZ	e P	Z 05:05:36.3	44.7	85.0					
WERD	e P	Z 05:05:36.2	44.7	85.0					
PLN	e P	Z 05:05:37.0	44.8	85.0					
ROTZ	e P	Z 05:05:37.9	44.9	84.3					
NEUB	e P	Z 05:05:38.1	45.0	85.4					
MOX	e P	Z 05:05:39.6	45.2	84.7	1.1	162	5.8		
GRA1	e P	Z 05:05:43.1	45.5	83.5	1.5	505	6.3		
	e pP	Z 05:06:31.5							
FUR	e P	Z 05:05:43.6	45.7	82.1	1.5	424	6.3		
CLZ	e P	Z 05:05:44.9	45.8	85.0	1.1	236	6.1		
NRDL	e P	Z 05:05:45.8	45.9	85.4					
	e pP	Z 05:06:35.1							
UBBA	e P	Z 05:05:47.2	46.2	83.8					
STU	e P	Z 05:05:53.4	46.9	81.3	0.9	140	6.1		
TNS	e P	Z 05:05:55.6	47.2	82.1	1.2	199	6.1		

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IBBN	e P	Z	05:05:56.9	47.4	83.5						
	e pP	Z	05:06:45.9								
BFO	e P	Z	05:05:57.8	47.6	80.3	1.2	73	5.7			
BUG	e P	Z	05:06:00.0	47.8	82.4	1.0	218	6.2			
	e pP	Z	05:06:49.0								
WLF	e P	Z	05:06:07.9	48.8	80.1						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/05								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 12:54:52.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/05	15:11:54.9	31.920N	138.930E	400.0G	5.8			SZGRF
Southeast of Honshu, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 15:23:38.4	83.0	44.4	0.9	136	6.2		
BRG	e P	Z 15:23:43.5	84.1	44.4	0.8	78	5.9		
CLL	e P	Z 15:23:43.8	84.2	43.7	1.0	140	6.1		
FBE	e P	Z 15:23:45.0	84.3	43.9	0.8	136	6.2		
NRDL	e P	Z 15:23:45.7	84.5	41.6	0.9	33	5.4		
NEUB	e P	Z 15:23:47.0	84.8	42.8	1.0	130	6.0		
CLZ	e P	Z 15:23:48.0	84.9	41.8	1.0	87	5.8		
TANN	e P	Z 15:23:48.4	85.1	43.2	0.9	27	5.4		
WERD	e P	Z 15:23:48.6	85.1	43.1					
PLN	e P	Z 15:23:48.8	85.1	43.0					
GUNZ	e P	Z 15:23:49.0	85.2	43.1					
WERN	e P	Z 15:23:49.2	85.2	43.2					
MOX	e P	Z 15:23:49.3	85.3	42.6	0.9	32	5.4		
GEC2	e P	Z 15:23:50.9	85.6	44.1	1.1	42	5.5		
ROTZ	e P	Z 15:23:51.8	85.7	43.0					
WET	e P	Z 15:23:52.0	85.8	43.5	0.9	20	5.4		
GRA1	e P	Z 15:23:53.5	86.1	42.3	1.1	91	6.0		
RJOB	e P	Z 15:23:57.1	86.9	43.4	1.0	36	5.6		
FUR	e P	Z 15:23:59.0	87.2	42.3	0.9	72	5.9		
STU	e P	Z 15:24:01.0	87.7	40.8	1.6	90	5.8		
BFO	e P	Z 15:24:04.1	88.4	40.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/05	19:07:43.7	0.651S	13.453W	33.0G	5.4	5.5		SZGRF
North of Ascension Island								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z	19:16:54.4	52.5	207.9	1.2	53	5.4		
STU	e P	Z	19:16:59.0	53.2	208.8	1.0	26	5.1		
FUR	e P	Z	19:17:00.6	53.3	211.4	1.5	139	5.7		
RJOB	e P	Z	19:17:01.7	53.5	213.4	0.8	45	5.5		
TNS	e P	Z	19:17:07.0	54.2	207.4	1.0	60	5.6		
GRA1	e P	Z	19:17:10.1	54.6	210.8	1.1	48	5.4		
	e pP	Z	19:17:17.6							
	e PP	Z	19:19:09.2							
	e S	N	19:24:51.6							
	e L	Z	19:40:18.0			21.0	4400		5.5	
WET	e P	Z	19:17:10.8	54.7	212.9	1.1	50	5.4		
GEC2	e P	Z	19:17:11.3	54.8	214.0	1.2	76	5.6		
	e PP	Z	19:19:12.3							
BUG	e P	Z	19:17:11.8	55.0	205.6	1.5	63	5.4		
ROTZ	e P	Z	19:17:12.9	55.0	211.9					
	e pP	Z	19:17:20.2							
UBBA	e P	Z	19:17:14.3	55.2	209.0					
WERN	e P	Z	19:17:16.2	55.5	211.9					
GUNZ	e P	Z	19:17:16.7	55.6	211.8					
MOX	e P	Z	19:17:16.7	55.6	210.9	1.1	42	5.4		
PLN	e P	Z	19:17:17.2	55.6	211.6					
WERD	e P	Z	19:17:17.0	55.6	211.8					
	e pP	Z	19:17:25.1							
TANN	e P	Z	19:17:17.6	55.6	212.0					
NEUB	e P	Z	19:17:20.4	56.1	210.9					
CLZ	e P	Z	19:17:21.5	56.2	209.1	1.7	70	5.4		
FBE	e P	Z	19:17:22.8	56.4	212.8	2.0	150	5.7		
BRG	e P	Z	19:17:23.7	56.5	213.5	1.8	94	5.5		
	e PP	Z	19:19:27.0							
CLL	e P	Z	19:17:24.0	56.6	212.3	1.4	29	5.1		
	e pP	Z	19:17:31.8							

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/05 22:13:54.6 20.930S 177.850W 33.0G
 Fiji Islands region SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	22:33:37.5	148.5	19.6					
	e PKPab	Z	22:33:41.0							
BRG	e PKPbc	Z	22:33:38.2	148.7	21.5					
	e PKPab	Z	22:33:42.1							
FBE	e PKPbc	Z	22:33:38.9	148.7	20.5					
	e PKPab	Z	22:33:42.7							
NEUB	e PKPab	Z	22:33:42.5	148.8	17.5					
BUG	e PKPbc	Z	22:33:39.9	149.2	9.4					

	e	PKPab	Z	22:33:44.5					
MOX	e	PKPbc	Z	22:33:39.8	149.4	17.5			
PLN	e	PKPbc	Z	22:33:40.1	149.4	18.6			
TANN	e	PKPbc	Z	22:33:40.2	149.4	19.2			
	e	PKPab	Z	22:33:45.2					
WERD	e	PKPbc	Z	22:33:40.1	149.4	18.9			
	e	PKPab	Z	22:33:45.0					
GUNZ	e	PKPbc	Z	22:33:40.5	149.5	19.0			
	e	PKPab	Z	22:33:45.7					
WERN	e	PKPab	Z	22:33:46.0	149.6	19.1			
GRA1	e	PKPbc	Z	22:33:42.3	150.4	17.3			
	e	PKPab	Z	22:33:48.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/06	05:47:39.2	36.480N	71.100E	191.2	5.9			SZGRF
Afghanistan-Tajikistan border region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	05:55:17.4	42.6	86.9	1.0	317	6.0		
	e pP	Z	05:55:58.2							
RUE	e P	Z	05:55:17.1	42.6	88.5	0.9	269	6.0		
	e pP	Z	05:55:58.9							
RGN	e P	Z	05:55:19.9	42.9	90.4	1.0	1100	6.6		
	e pP	Z	05:56:01.2							
GEC2	e P	Z	05:55:19.7	42.9	84.5	1.1	77	5.3		
	e pP	Z	05:56:02.6							
	e sP	Z	05:56:21.9							
FBE	e P	Z	05:55:20.6	42.9	86.5	0.9	338	6.1		
	e pP	Z	05:56:02.3							
CLL	e P	Z	05:55:21.4	43.1	86.6	0.9	140	5.7		
	e pP	Z	05:56:03.0							
WET	e P	Z	05:55:23.8	43.4	84.3	1.4	54	5.1		
	e pP	Z	05:56:04.7							
TANN	e P	Z	05:55:25.3	43.5	85.3	1.0	108	5.5		
	e pP	Z	05:56:07.3							
RJOB	e P	Z	05:55:25.1	43.6	82.7	1.0	50	5.2		
	e pP	Z	05:56:06.6							
WERN	e P	Z	05:55:25.8	43.6	85.1	1.6	165	5.5		
	e pP	Z	05:56:07.6							
GUNZ	e P	Z	05:55:26.0	43.6	85.2	1.0	140	5.6		
	e pP	Z	05:56:07.9							
	e sP	Z	05:56:30.7							
	e PcP	Z	05:57:07.5							
WERD	e P	Z	05:55:25.9	43.6	85.2	1.0	130	5.6		
PLN	e P	Z	05:55:26.7	43.7	85.2	1.0	130	5.6		
	e pP	Z	05:56:07.2							
ROTZ	e P	Z	05:55:27.3	43.8	84.5	1.2	175	5.7		

	e pP	Z	05:56:08.3							
NEUB	e P	Z	05:55:27.9	43.9	85.6	0.9	375	6.1		
MOX	e P	Z	05:55:29.3	44.1	84.9	1.0	142	5.7		
	e pP	Z	05:56:10.5							
GRA1	e P	Z	05:55:32.9	44.4	83.7	1.4	465	6.2		
	e pP	Z	05:56:13.6							
	e sP	Z	05:56:33.7							
	e PP	Z	05:57:19.7							
GRFO	e P	Z	05:55:33.0	44.4	83.7	1.4	350	6.1		
	e PP	Z	05:57:19.7							
FUR	e P	Z	05:55:33.4	44.6	82.2	1.1	211	6.0		
	e pP	Z	05:56:14.3							
CLZ	e P	Z	05:55:34.7	44.7	85.3	1.3	409	6.2		
NRDL	e P	Z	05:55:35.6	44.8	85.7	0.9	180	6.0		
UBBA	e P	Z	05:55:37.0	45.1	84.0	0.8	74	5.7		
STU	e P	Z	05:55:43.2	45.8	81.4	0.9	105	5.8		
	e pP	Z	05:56:25.0							
	e sP	Z	05:56:45.4							
HLG	e P	Z	05:55:45.0	46.0	85.7	1.2	540	6.4		
	e pP	Z	05:56:27.3							
	e PcP	Z	05:57:16.5							
	e PP	Z	05:57:34.7							
TNS	e P	Z	05:55:45.5	46.1	82.3	1.1	161	6.0		
IBBN	e P	Z	05:55:46.8	46.3	83.8	0.9	332	6.4		
	e pP	Z	05:56:29.1							
	e PP	Z	05:57:38.6							
BFO	e P	Z	05:55:47.6	46.5	80.4	1.2	103	5.8		
	e pP	Z	05:56:30.0							
BUG	e P	Z	05:55:49.9	46.7	82.6	1.0	235	6.3		
	e pP	Z	05:56:31.3							
WLF	e P	Z	05:55:57.8	47.7	80.2	1.0	246	6.3		
	e pP	Z	05:56:40.1							

Date 2008/09/06 Origin Time 07:29:17.6 Lat 35.387N Long 142.052E Depth 33.0G mb 5.3 Ms 4.3 ML Source SZGRF
Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 07:41:47.3	84.4	38.3	1.3	23	5.3		
	e L	Z 08:22:55.6			18.8	129		4.3	

Date 2008/09/06 Origin Time Lat Long Depth mb Ms ML Source

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRFO e P Z 23:59:55.3

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/07	02:05:54.7	20.951S	65.978E	22.4	5.6			SZGRF

Mauritius - Reunion region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z 02:18:20.1	83.6	131.2	2.4	73	5.5		
GEC2	e P	Z 02:18:21.2	83.9	132.0	2.6	72	5.4		
WET	e P	Z 02:18:24.2	84.5	131.4	2.3	67	5.5		
FUR	e P	Z 02:18:26.0	84.6	130.0	1.3	87	5.8		
BRG	e P	Z 02:18:28.1	85.1	132.4	2.2	87	5.6		
ROTZ	e P	Z 02:18:28.3	85.2	130.9	2.0	47	5.4		
FBE	e P	Z 02:18:29.8	85.4	131.9	1.9	74	5.6		
WERN	e P	Z 02:18:30.1	85.5	131.1	2.3	141	5.8		
TANN	e P	Z 02:18:30.2	85.5	131.1	2.1	80	5.6		
GUNZ	e P	Z 02:18:30.4	85.5	131.0	2.5	208	5.9		
WERD	e P	Z 02:18:30.6	85.6	131.0	2.3	95	5.6		
GRA1	e P	Z 02:18:30.4	85.6	130.1	1.0	34	5.5		
	e pP	Z 02:18:36.9							
GRFO	e P	Z 02:18:30.4	85.6	130.1					
PLN	e P	Z 02:18:31.2	85.7	130.9					
CLL	e P	Z 02:18:31.5	85.8	131.6					
MOX	e P	Z 02:18:32.6	86.1	130.5	2.4	108	5.5		
STU	e P	Z 02:18:32.7	86.1	128.5					
BFO	e P	Z 02:18:33.7	86.3	127.8	2.0	56	5.3		
RUE	e P	Z 02:18:33.2	86.3	132.3					
NEUB	e P	Z 02:18:34.0	86.4	130.6					
UBBA	e P	Z 02:18:36.8	87.0	129.2					
CLZ	e P	Z 02:18:39.1	87.4	129.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/07	09:00:36.1	14.118N	92.067E	44.1	5.1			SZGRF

Andaman Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 09:11:53.1	71.6	90.1	0.8	13	5.1		
RUE	e P	Z 09:11:53.7	71.7	90.5	0.7	46	5.7		
GEC2	e P	Z 09:11:54.0	71.8	89.2	0.8	16	5.2		
	e pP	Z 09:12:06.4							
FBE	e P	Z 09:11:55.6	72.0	89.6	1.5	56	5.5		
CLL	e P	Z 09:11:56.2	72.2	89.5	1.0	12	5.0		
WET	e P	Z 09:11:57.1	72.3	88.7	0.9	13	5.1		
	e pP	Z 09:12:09.6							
TANN	e P	Z 09:11:58.1	72.6	88.8	1.0	6	4.7		

WERN	e P	Z	09:11:59.0	72.6	88.7	0.9	8	4.8
	e pP	Z	09:12:11.6					
GUNZ	e P	Z	09:11:58.9	72.7	88.6	1.3	23	5.1
	e pP	Z	09:12:11.4					
WERD	e P	Z	09:11:59.0	72.7	88.7	0.8	11	5.0
ROTZ	e P	Z	09:12:00.0	72.8	88.4	1.0	12	5.0
	e pP	Z	09:12:12.8					
PLN	e P	Z	09:11:59.6	72.8	88.6	0.8	10	5.0
MOX	e P	Z	09:12:01.5	73.1	88.2	0.8	10	5.0
	e pP	Z	09:12:14.1					
GRA1	e P	Z	09:12:03.6	73.4	87.6	1.3	25	5.2
	e pP	Z	09:12:16.2					
CLZ	e P	Z	09:12:06.1	73.8	87.6	0.8		
	e pP	Z	09:12:18.6					
BFO	e pP	Z	09:12:26.8	75.4	85.1			

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/08 03:03:17.2 19.871S 170.714E 42.7 6.0 SZGRF
 Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z	03:22:43.5	144.0	39.1					
CLL	e PKPbc	Z	03:22:43.7	144.0	37.4					
NRDL	e PKPbc	Z	03:22:43.8	144.1	32.2					
FBE	e PKPbc	Z	03:22:44.3	144.2	38.2					
CLZ	e PKPbc	Z	03:22:45.7	144.5	33.0					
NEUB	e PKPbc	Z	03:22:45.6	144.6	35.7					
TANN	e PKPbc	Z	03:22:46.8	144.9	37.3					
IBBN	e PKPbc	Z	03:22:47.6	145.0	28.7					
WERD	e PKPbc	Z	03:22:46.9	145.0	37.1					
PLN	e PKPbc	Z	03:22:47.4	145.0	36.8					
GUNZ	e PKPbc	Z	03:22:47.6	145.0	37.2					
WERN	e PKPbc	Z	03:22:48.0	145.1	37.3					
MOX	e PKPbc	Z	03:22:47.7	145.1	35.9					
	e pPKPbc	Z	03:23:00.9							
UBBA	e PKPbc	Z	03:22:49.0	145.5	33.3					
ROTZ	e PKPbc	Z	03:22:49.2	145.6	37.5					
GEC2	e PKPbc	Z	03:22:49.5	145.7	40.6					
WET	e PKPbc	Z	03:22:49.8	145.8	39.1					
BUG	e PKPbc	Z	03:22:50.9	145.9	28.5					
GRA1	e PKPbc	Z	03:22:51.8	146.0	36.1					
	e pPKPbc	Z	03:23:04.1							
	e PP	Z	03:26:09.0							
	e L	Z	04:28:46.6			21.6	2520		6.0	
GRFO	e PKPbc	Z	03:22:51.9	146.0	36.1					
TNS	e PKPdf	Z	03:22:51.0	146.5	31.3					
	e PKPbc	Z	03:22:53.6							

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RJOB	e PKPdf	Z	03:22:50.7	146.9	40.3
	e PKPbc	Z	03:22:53.9		
FUR	e PKPdf	Z	03:22:52.1	147.2	37.6
	e PKPbc	Z	03:22:55.3		
STU	e PKPdf	Z	03:22:52.5	147.5	33.7
	e PKPbc	Z	03:22:56.1		
WLF	e PKPdf	Z	03:22:53.5	147.8	28.0
	e PKPbc	Z	03:22:57.5		
BFO	e PKPdf	Z	03:22:53.6	148.2	32.7
	e PKPbc	Z	03:22:57.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/08	03:53:18.3	39.210N	28.331W	33.0G	5.0	4.8		SZGRF
Azores Islands, Portugal								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	03:59:21.7	29.7	264.6	1.6	37	5.0		
	e L	Z	04:28:46.6			21.6	2520		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/08	18:52: 3.9	11.864S	168.159E	33.0		6.7		SZGRF
Santa Cruz Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPdf	Z	19:10:53.9	132.9	34.6					
	e PP	Z	19:13:42.1							
RUE	e PKPdf	Z	19:10:56.6	134.5	36.4					
	e PP	Z	19:13:51.1							
HLG	e PKPdf	Z	19:10:57.9	134.9	27.8					
	e PP	Z	19:13:54.7							
BRG	e PKPdf	Z	19:10:59.1	135.7	37.5					
	e PP	Z	19:13:59.2							
CLL	e PKPdf	Z	19:10:59.0	135.7	36.1					
	e PP	Z	19:13:59.0							
NRDL	e PKPdf	Z	19:10:59.3	135.7	31.6					
	e PP	Z	19:13:59.6							
CLZ	e PKPdf	Z	19:11:00.4	136.2	32.3					
	e PP	Z	19:14:02.9							
NEUB	e PKPdf	Z	19:11:00.1	136.2	34.5					
	e PP	Z	19:14:02.4							
IBBN	e PKPdf	Z	19:11:00.8	136.6	28.5					
	e PP	Z	19:14:04.9							
TANN	e PKPdf	Z	19:11:01.1	136.6	35.9					
	e PP	Z	19:14:05.3							
MOX	e PKPdf	Z	19:11:01.2	136.7	34.6					

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	e PP	Z	19:14:06.0								
UBBA	e PKPpdf	Z	19:11:01.9	137.2	32.4						
	e PP	Z	19:14:08.5								
	e pPP	Z	19:14:41.9								
ROTZ	e PKPpdf	Z	19:11:02.4	137.2	36.0						
	e PP	Z	19:14:09.4								
GEC2	e PKPpdf	Z	19:11:02.3	137.4	38.6						
	e PP	Z	19:14:09.4								
WET	e PKPpdf	Z	19:11:02.6	137.5	37.3						
	e PP	Z	19:14:10.4								
BUG	e PKPpdf	Z	19:11:02.6	137.5	28.3						
	e PP	Z	19:14:10.7								
GRA1	e PKPpdf	Z	19:11:03.0	137.7	34.7						
	e PP	Z	19:14:11.6								
	e L	Z	20:10:24.9			21.6	13651			6.7	
TNS	e PKPpdf	Z	19:11:04.2	138.2	30.6						
	e PP	Z	19:14:15.2								
RJOB	e PKPpdf	Z	19:11:04.6	138.6	38.1						
	e PP	Z	19:14:17.4								
FUR	e PKPpdf	Z	19:11:04.9	138.9	35.8						
	e PP	Z	19:14:18.8								
STU	e PKPpdf	Z	19:11:05.6	139.2	32.5						
	e PP	Z	19:14:20.7								
WLF	e PKPpdf	Z	19:11:07.0	139.4	27.7						
	e PP	Z	19:14:22.8								
BFO	e PKPpdf	Z	19:11:06.9	139.8	31.6						
	e PP	Z	19:14:24.9								

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/08 19:50:35.7 19.530S 179.470W 33.0 SZGRF
 Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	20:10:09.9	145.5	22.4					
NRDL	e PKPbc	Z	20:10:12.0	146.2	16.4					
IBBN	e PKPbc	Z	20:10:13.8	146.7	12.5					
CLZ	e PKPbc	Z	20:10:14.2	146.8	17.1					
FBE	e PKPbc	Z	20:10:15.1	147.0	22.6					
NEUB	e PKPbc	Z	20:10:14.9	147.1	19.8					
MOX	e PKPbc	Z	20:10:16.5	147.7	19.8					
TANN	e PKPbc	Z	20:10:16.9	147.7	21.4					
	e PKPab	Z	20:10:19.6							
WERD	e PKPbc	Z	20:10:16.6	147.7	21.1					
GUNZ	e PKPbc	Z	20:10:17.0	147.8	21.2					
	e PKPab	Z	20:10:20.0							
ROTZ	e PKPbc	Z	20:10:18.7	148.4	21.3					
GRA1	e PKPab	Z	20:10:23.2	148.7	19.6					

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GRFO	e	PKPab	Z	20:10:23.3	148.7	19.6			
TNS	e	PKPbc	Z	20:10:19.5	148.7	14.5			
	e	PKPab	Z	20:10:23.1					
WET	e	PKPab	Z	20:10:24.1	148.8	22.9			
GEC2	e	PKPbc	Z	20:10:19.7	148.8	24.5			
WLF	e	PKPbc	Z	20:10:22.2	149.5	10.5			
	e	PKPab	Z	20:10:27.3					
STU	e	PKPbc	Z	20:10:22.6	149.9	16.5			
FUR	e	PKPbc	Z	20:10:22.9	150.1	20.6			
	e	PKPab	Z	20:10:28.9					
RJOB	e	PKPab	Z	20:10:29.4	150.1	23.7			
BFO	e	PKPbc	Z	20:10:24.0	150.5	15.1			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/08	21:17:33.9	71.552N	5.292E	33.0G	4.8			SZGRF
Norwegian Sea								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	21:21:54.9	19.2	355.4	1.8	124	4.8		
RUE	e P	Z	21:21:58.5	19.4	351.9	1.1	91	4.9		
CLZ	e P	Z	21:22:01.8	19.8	355.3	1.2	90	4.9		
BUG	e P	Z	21:22:03.4	20.1	358.2	1.1	65	4.8		
CLL	e P	Z	21:22:08.4	20.5	353.0	1.0	26	4.5		
NEUB	e P	Z	21:22:08.8	20.6	354.2	1.2	185	5.3		
UBBA	e P	Z	21:22:12.5	20.8	355.8	1.5	59	4.7		
FBE	e P	Z	21:22:13.5	20.9	352.9	1.3	80	4.9		
BRG	e P	Z	21:22:14.2	21.0	352.4	1.4	45	4.6		
MOX	e P	Z	21:22:15.4	21.1	354.4	1.3	70	4.8		
WERD	e P	Z	21:22:18.4	21.3	353.9	1.5	52	4.6		
TNS	e P	Z	21:22:17.9	21.4	357.3	1.6	124	5.0		
TANN	e P	Z	21:22:18.8	21.4	353.8	1.3	47	4.6		
GUNZ	e P	Z	21:22:18.1	21.4	353.9					
WERN	e P	Z	21:22:19.9	21.5	353.9					
WLF	e P	Z	21:22:22.6	21.9	359.3					
ROTZ	e P	Z	21:22:26.1	22.0	354.2					
GRA1	e P	Z	21:22:26.3	22.0	355.0	1.2	60	4.9		
WET	e P	Z	21:22:32.3	22.7	353.8	1.4	38	4.7		
GEC2	e P	Z	21:22:36.1	23.0	353.2	1.2	32	4.7		
BFO	e P	Z	21:22:37.7	23.3	357.6	1.0	21	4.6		
FUR	e P	Z	21:22:40.9	23.6	355.3	1.1	53	5.0		
RJOB	e P	Z	21:22:46.6	24.1	354.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/09	03:07:37.5	3.630S	100.368E	33.0G	5.2	5.0		SZGRF
Southern Sumatera, Indonesia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	03:20:35.8	90.5	94.9	1.5	31	5.4		
BRG	e P	Z	03:20:36.3	90.6	95.1	0.9	11	5.2		
RJOB	e P	Z	03:20:38.3	91.1	94.2	1.2	11	5.1		
WET	e P	Z	03:20:39.0	91.1	94.3					
CLL	e P	Z	03:20:38.6	91.2	94.3	1.1	7	4.9		
TANN	e P	Z	03:20:40.4	91.5	93.9					
ROTZ	e P	Z	03:20:41.5	91.6	93.7					
NEUB	e P	Z	03:20:42.3	91.9	93.4					
MOX	e P	Z	03:20:43.0	92.0	93.3	1.3	13	5.1		
GRA1	e P	Z	03:20:44.3	92.2	93.0	1.0	26	5.5		
	e L	Z	04:11:58.0			18.5	472		5.0	
CLZ	e P	Z	03:20:46.3	92.9	92.2	1.1	11	5.2		
NRDL	e P	Z	03:20:48.3	93.0	92.0					
UBBA	e P	Z	03:20:48.5	93.0	92.0					
TNS	e P	Z	03:20:52.2	94.0	90.9					
BFO	e P	Z	03:20:52.0	94.1	90.9	1.0	8	5.0		
WLF	e P	Z	03:20:59.0	95.5	89.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/09	07:43:50.7	27.377N	121.678E	33.0G	5.2			SZGRF

Near coast of southeastern China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	07:55:53.2	79.3	59.4	2.5	72	5.3		
CLL	e P	Z	07:55:54.3	79.6	58.8	1.2	18	4.9		
FBE	e P	Z	07:55:54.5	79.6	59.0	1.2	26	5.0		
TANN	e P	Z	07:55:57.7	80.3	58.3	1.3	9	4.6		
GEC2	e P	Z	07:55:59.2	80.5	58.9	1.1	12	4.8		
MOX	e P	Z	07:56:00.3	80.7	57.7	1.2	8	4.6		
CLZ	e P	Z	07:56:00.9	80.7	57.0	1.2	26	5.2		
WET	e P	Z	07:56:01.7	80.8	58.4	1.7	22	4.9		
GRA1	e P	Z	07:56:04.5	81.4	57.3	1.0	17	5.1		
UBBA	e P	Z	07:56:04.1	81.4	56.6	1.9	42	5.3		
IBBN	e P	Z	07:56:06.5	81.7	55.1	1.3	36	5.3		
FUR	e P	Z	07:56:08.9	82.2	57.2	1.0	50	5.6		
BUG	e P	Z	07:56:09.9	82.5	54.7	1.6	54	5.5		
TNS	e P	Z	07:56:10.5	82.6	55.4	1.9	78	5.6		
STU	e P	Z	07:56:12.9	83.0	55.8	0.6	14	5.3		
BFO	e P	Z	07:56:16.0	83.7	55.1	1.6	26	5.2		
WLF	e P	Z	07:56:18.8	84.1	53.7	1.2	42	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/09	11:03:14.0	18.378S	178.981W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	11:22:47.8	145.1	15.2					
IBBN	e PKPbc	Z	11:22:49.9	145.7	11.4					
CLL	e PKPbc	Z	11:22:49.7	145.7	20.5					
CLZ	e PKPbc	Z	11:22:50.0	145.7	15.9					
BRG	e PKPbc	Z	11:22:50.6	145.9	22.3					
MOX	e PKPbc	Z	11:22:52.1	146.6	18.5					
TANN	e PKPbc	Z	11:22:52.8	146.7	20.0					
ROTZ	e PKPbc	Z	11:22:54.8	147.4	20.0					
TNS	e PKPbc	Z	11:22:55.3	147.6	13.2					
GRA1	e PKPbc	Z	11:22:55.5	147.6	18.3					
GEC2	e PKPbc	Z	11:22:56.0	147.9	23.1					
WLF	e PKPbc	Z	11:22:58.4	148.4	9.3					
BFO	e PKPbc	Z	11:22:59.9	149.5	13.7					

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/09 12:22:49.2 9.300S 158.300E 10.0 5.8 ML NEIC
 Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z	12:41:56.3	129.2	47.9					
CLL	e PKPdf	Z	12:41:56.3	129.3	46.6					
	e PP	Z	12:44:03.9							
FBE	e PKPdf	Z	12:41:57.1	129.4	47.2					
CLZ	e PKPdf	Z	12:41:58.9	130.1	43.2					
	e PP	Z	12:44:11.1							
TANN	e PKPdf	Z	12:41:58.3	130.2	46.5					
MOX	e PKPdf	Z	12:41:58.8	130.4	45.4					
	e PP	Z	12:44:10.8							
GEC2	e PKPdf	Z	12:41:59.1	130.6	48.9					
ROTZ	e PKPdf	Z	12:41:59.5	130.7	46.6					
IBBN	e PKPdf	Z	12:42:00.0	130.8	39.9					
WET	e PKPdf	Z	12:41:59.7	130.8	47.7					
UBBA	e PKPdf	Z	12:41:59.8	131.0	43.4					
GRA1	e PKPdf	Z	12:42:00.8	131.2	45.5					
	e pPKPdf	Z	12:42:11.3							
	e PP	Z	12:44:17.7							
	e L	Z	13:45:04.0			20.0	2075		5.8	
BUG	e PKPdf	Z	12:42:02.1	131.6	39.8					
RJOB	e PKPdf	Z	12:42:01.9	131.8	48.6					
TNS	e PKPdf	Z	12:42:02.3	132.1	41.9					
FUR	e PKPdf	Z	12:42:02.4	132.3	46.5					
STU	e PKPdf	Z	12:42:03.8	132.8	43.7					
WLF	e PKPdf	Z	12:42:05.9	133.5	39.4					
BFO	e PKPdf	Z	12:42:04.5	133.5	42.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/09	13:52:57.8	21.485S	177.076W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	14:12:41.5	148.5	12.9					
CLZ	e PKPbc	Z	14:12:42.8	149.1	13.6					
CLL	e PKPbc	Z	14:12:43.0	149.2	18.5					
BRG	e PKPbc	Z	14:12:43.8	149.4	20.4					
MOX	e PKPbc	Z	14:12:44.9	150.1	16.4					
TANN	e PKPbc	Z	14:12:45.4	150.1	18.0					
UBBA	e PKPbc	Z	14:12:45.2	150.1	13.3					
ROTZ	e PKPbc	Z	14:12:47.3	150.8	17.9					
TNS	e PKPbc	Z	14:12:47.5	150.9	10.6					
GRA1	e PKPbc	Z	14:12:47.6	151.0	16.1					
WET	e PKPbc	Z	14:12:48.3	151.2	19.5					
GEC2	e PKPbc	Z	14:12:48.3	151.3	21.3					
WLF	e PKPbc	Z	14:12:49.9	151.7	6.3					
STU	e PKPbc	Z	14:12:50.9	152.3	12.6					
FUR	e PKPbc	Z	14:12:51.0	152.5	17.0					
BFO	e PKPbc	Z	14:12:51.8	152.8	11.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/09	15:00: 7.9	53.406N	160.145E	33.0G	5.1			SZGRF

Near east coast of Kamchatka Peninsula, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	15:11:38.4	73.6	18.7	1.4	29	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/09	23:18:27.8	11.800S	166.500E	109.0				NEIC

Santa Cruz Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z	23:37:33.7	135.0	39.6					
	e PKSbc	Z	23:41:00.5							
CLL	e PKPdf	Z	23:37:34.0	135.0	38.2					
	e PKSbc	Z	23:41:00.5							
NRDL	e PKSbc	Z	23:41:00.7	135.1	33.7					
CLZ	e PKPdf	Z	23:37:34.9	135.5	34.4					
	e PKSbc	Z	23:41:02.7							
TANN	e PKPdf	Z	23:37:35.1	135.9	38.0					

	e	PKSbc	Z	23:41:03.7					
MOX	e	PKPdf	Z	23:37:35.2	136.1	36.8			
UBBA	e	PKPdf	Z	23:37:35.7	136.5	34.6			
ROTZ	e	PKPdf	Z	23:37:36.3	136.5	38.1			
	e	PKSbc	Z	23:41:05.9					
GEC2	e	PKPdf	Z	23:37:36.8	136.6	40.7			
	e	PKSbc	Z	23:41:06.1					
WET	e	PKPdf	Z	23:37:36.5	136.7	39.4			
GRA1	e	PKPdf	Z	23:37:37.8	137.0	36.9			
TNS	e	PKPdf	Z	23:37:38.6	137.6	32.8			
	e	PKSbc	Z	23:41:09.0					
RJOB	e	PKPdf	Z	23:37:39.3	137.9	40.3			
	e	PKSbc	Z	23:41:09.2					
FUR	e	PKPdf	Z	23:37:40.3	138.2	38.0			
	e	PKSbc	Z	23:41:10.0					
STU	e	PKPdf	Z	23:37:40.0	138.5	34.7			
	e	PKSbc	Z	23:41:11.6					
WLF	e	PKPdf	Z	23:37:41.0	138.8	30.0			
	e	PKSbc	Z	23:41:12.6					
BFO	e	PKPdf	Z	23:37:42.4	139.2	33.8			
	e	PKSbc	Z	23:41:12.6					

Date 2008/09/10 Origin Time Lat Long Depth mb Ms ML Source

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e PKP	Z 00:31:15.9							
GRA1	e PKP	Z 00:31:22.9							
MOX	e PKP	Z 00:31:23.7							
ROTZ	e PKP	Z 00:31:21.7							
WET	e PKP	Z 00:31:19.8							

Date 2008/09/10 Origin Time 01:28: 7.4 Lat 30.127N Long 83.423E Depth 33.0G mb 5.0 Ms 5.4 ML Source SZGRF
Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 01:37:32.0	54.5	84.3	0.9	10	4.8		
GEC2	e P	Z 01:37:34.9	54.9	82.7	2.2	39	5.0		
WET	e P	Z 01:37:38.6	55.4	82.3	0.9	7	4.6		
TANN	e P	Z 01:37:39.3	55.5	82.9	1.7	16	4.8		
RJOB	e P	Z 01:37:40.2	55.6	81.3	0.9	6	4.6		
ROTZ	e P	Z 01:37:41.8	55.7	82.2	2.2	44	5.1		
MOX	e P	Z 01:37:42.6	56.0	82.4	2.4	43	5.0		
GRA1	e P	Z 01:37:45.8	56.4	81.5	1.2	23	5.1		

	e L	Z	02:04:27.3			18.3	2559		5.4
FUR	e P	Z	01:37:47.1	56.6	80.5	1.1	17	5.0	
CLZ	e P	Z	01:37:47.5	56.6	82.3	1.0	17	5.0	
NRDL	e P	Z	01:37:47.6	56.7	82.5	1.1	27	5.2	
TNS	e P	Z	01:37:57.7	58.0	79.9	2.3	60	5.2	
BFO	e P	Z	01:38:00.8	58.5	78.7	2.2	44	5.1	
BUG	e P	Z	01:38:01.0	58.6	79.8	0.9	13	5.0	
WLF	e P	Z	01:38:08.8	59.6	78.0	1.3	16	4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/10	03:00:20.9	2.385N	99.065E	79.9	5.0	5.1		SZGRF

Northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 03:12:52.9	85.1	92.3	0.8	5	4.8		
	e pP	Z 03:13:14.6							
GEC2	e P	Z 03:12:53.6	85.2	91.9	0.9	10	5.1		
CLL	e pP	Z 03:13:17.1	85.7	91.6					
WET	e P	Z 03:12:56.2	85.7	91.3	0.8	8	4.9		
	e pP	Z 03:13:17.6							
RJOB	e P	Z 03:12:57.2	85.7	91.2	0.8	8	4.9		
	e pP	Z 03:13:18.7							
TANN	e P	Z 03:12:58.3	86.0	91.1	1.0	3	4.4		
ROTZ	e P	Z 03:12:58.7	86.2	90.9	0.8	8	4.9		
MOX	e P	Z 03:13:00.5	86.5	90.5	0.8	4	4.7		
FUR	e P	Z 03:13:01.4	86.7	90.1	1.0	21	5.2		
GRA1	e P	Z 03:13:02.2	86.8	90.1	0.9	18	5.2		
	e S	N 03:23:29.8							
	e L	Z 03:56:07.2			21.6	745		5.1	
CLZ	e P	Z 03:13:04.9	87.3	89.6	0.8	8	4.9		
UBBA	e P	Z 03:13:05.5	87.6	89.2	1.0	6	4.8		
STU	e P	Z 03:13:08.7	88.1	88.5	0.7	12	5.3		
TNS	e P	Z 03:13:10.6	88.6	88.0	0.8	15	5.3		
BFO	e P	Z 03:13:10.5	88.7	87.9	0.8	10	5.1		
IBBN	e P	Z 03:13:12.0	88.9	87.5	1.2	22	5.3		
BUG	e P	Z 03:13:13.8	89.3	87.1	0.6	13	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/10	11:00:57.4	28.040N	53.200E	33.0G	5.8	5.7		SZGRF

Southern Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 11:08:02.3	36.7	109.9	1.6	233	5.7		
BRG	e P	Z 11:08:06.6	37.3	112.7	1.0	152	5.7		
WET	e P	Z 11:08:06.7	37.3	109.4	1.2	165	5.6		

FBE	e P	Z	11:08:09.8	37.6	112.1	1.0	114	5.6		
ROTZ	e P	Z	11:08:12.6	37.9	109.5	1.1	242	5.8		
TANN	e P	Z	11:08:12.4	38.0	110.5	1.6	168	5.5		
WERN	e P	Z	11:08:13.0	38.0	110.3	1.8	331	5.8		
CLL	e P	Z	11:08:12.8	38.0	112.2	1.1	238	5.8		
FUR	e P	Z	11:08:13.0	38.0	106.6	1.1	439	6.1		
RUE	e P	Z	11:08:12.5	38.0	114.4	1.1	399	6.1		
GUNZ	e P	Z	11:08:13.1	38.0	110.3	1.9	270	5.6		
WERD	e P	Z	11:08:13.3	38.1	110.4	1.3	98	5.4		
PLN	e P	Z	11:08:14.4	38.2	110.3	1.6	162	5.5		
GRA1	e P	Z	11:08:17.4	38.5	108.4	1.0	461	6.0		
	e PP	Z	11:09:56.3							
	e S	N	11:14:14.7							
	e L	Z	11:27:02.6			20.1	11755		5.7	
MOX	e P	Z	11:08:17.5	38.5	109.9	1.3	103	5.3		
NEUB	e P	Z	11:08:18.4	38.6	110.8	1.1	268	5.8		
RGN	e P	Z	11:08:22.0	39.1	116.3	1.0	544	6.1		
STU	e P	Z	11:08:24.3	39.5	105.3	1.1	120	5.5		
UBBA	e P	Z	11:08:26.2	39.6	108.5	1.8	404	5.7		
CLZ	e P	Z	11:08:27.6	39.7	110.0	1.0	422	6.0		
NRDL	e P	Z	11:08:30.9	40.1	110.5	1.0	449	6.0		
TNS	e P	Z	11:08:32.8	40.3	106.2	1.6	695	6.0		
IBBN	e P	Z	11:08:41.2	41.4	107.9	1.2	444	6.1		
BUG	e P	Z	11:08:41.6	41.4	106.4	1.2	463	6.1		
WLF	e P	Z	11:08:42.9	41.6	103.4	1.0	277	5.9		

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/10 11:33:43.6 28.820N 52.460E 33.0G 4.6
 Southern Iran SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	11:40:39.0	35.7	109.8	0.7	4	4.4		
RJOB	e P	Z	11:40:40.8	35.9	107.4	0.7	6	4.6		
BRG	e P	Z	11:40:43.5	36.2	112.6	0.8	11	4.7		
WET	e P	Z	11:40:43.8	36.3	109.3	0.9	7	4.5		
ROTZ	e P	Z	11:40:49.6	36.9	109.4	0.7	8	4.6		
CLL	e P	Z	11:40:49.8	37.0	112.1	0.7	9	4.6		
FUR	e P	Z	11:40:50.2	37.0	106.4	0.4	26	5.3		
GRA1	e P	Z	11:40:54.4	37.5	108.3	0.8	22	4.9		
UBBA	e P	Z	11:41:03.1	38.6	108.4	1.8	24	4.5		
CLZ	e P	Z	11:41:04.6	38.7	110.0	0.8	25	4.9		
BFO	e P	Z	11:41:06.4	38.9	103.7	0.8	5	4.2		
NRDL	e P	Z	11:41:07.9	39.0	110.5	1.0	24	4.8		
TNS	e P	Z	11:41:09.7	39.3	106.1	0.9	15	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/10	13:08:11.4	7.572N	38.268W	33.0G	6.6	6.5		SZGRF

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	13:17:51.4	56.0	236.8	17.8	5679	6.3		
BFO	e P	Z	13:17:55.6	56.5	239.7	5.6	5922	6.8		
STU	e P	Z	13:18:00.6	57.3	240.3	17.0	5464	6.3		
TNS	e P	Z	13:18:02.7	57.6	238.7	4.3	9039	7.1		
BUG	e P	Z	13:18:02.7	57.6	236.9	4.0	4804	6.9		
FUR	e P	Z	13:18:07.3	58.2	242.6	8.3	7696	6.8		
IBBN	e P	Z	13:18:07.7	58.3	237.0	4.9	5202	6.8		
UBBA	e P	Z	13:18:10.3	58.7	239.9	5.3	4447	6.7		
GRA1	e P	Z	13:18:11.8	58.9	241.7	7.4	6281	6.7		
	e PP	Z	13:20:26.4							
	e S	E	13:26:16.4							
	e L	Z	13:41:22.1			19.4	38680		6.5	
RJOB	e P	Z	13:18:11.9	58.9	244.2	7.4	5823	6.7		
CLZ	e P	Z	13:18:15.6	59.4	239.8	17.6	5378	6.3		
ROTZ	e P	Z	13:18:16.1	59.5	242.6	8.1	4643	6.6		
MOX	e P	Z	13:18:16.7	59.5	241.6	6.9	4795	6.6		
WET	e P	Z	13:18:16.3	59.6	243.5	5.9	4296	6.7		
	e PP	Z	13:20:31.7							
NRDL	e P	Z	13:18:17.0	59.6	239.2	18.4	5773	6.3		
TANN	e P	Z	13:18:19.0	59.9	242.5	7.8	5200	6.6		
GEC2	e P	Z	13:18:18.9	59.9	244.5	7.7	4260	6.5		
	e PP	Z	13:20:35.2							
CLL	e P	Z	13:18:23.6	60.6	242.6	6.9	4369	6.4		
FBE	e P	Z	13:18:24.2	60.6	243.1	2.1	1490	6.4		
BRG	e P	Z	13:18:26.3	61.0	243.6	7.3	5074	6.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/10								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PKP	Z	14:07:13.5							
BRG	e PKP	Z	14:06:58.6							
BUG	e PKP	Z	14:07:05.6							
CLZ	e PKP	Z	14:07:00.5							
GEC2	e PKP	Z	14:07:03.5							
GRA1	e PKP	Z	14:07:04.5							
IBBN	e PKP	Z	14:07:02.2							
MOX	e PKP	Z	14:07:01.6							
ROTZ	e PKP	Z	14:07:03.8							
TANN	e PKP	Z	14:07:01.6							
TNS	e PKP	Z	14:07:07.3							
UBBA	e PKP	Z	14:07:03.5							

WET e PKP Z 14:07:04.1
WLF e PKP Z 14:07:11.9

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/10 23:59:30.4 0.532N 128.379E 100.0
Halmahera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e Pdiff	Z 00:13:50.1	104.7	70.3					
	e PP	Z 00:18:04.1							
CLL	e Pdiff	Z 00:13:51.6	105.1	69.4					
	e PP	Z 00:18:06.7							
GEC2	e Pdiff	Z 00:13:53.6	105.5	70.6					
	e PP	Z 00:18:10.0							
TANN	e Pdiff	Z 00:13:55.0	105.7	69.1					
	e PP	Z 00:18:11.8							
WET	e Pdiff	Z 00:13:55.9	105.9	69.8					
	e PP	Z 00:18:13.2							
ROTZ	e Pdiff	Z 00:13:56.9	106.1	69.1					
	e PP	Z 00:18:14.9							
MOX	e Pdiff	Z 00:13:56.7	106.2	68.4					
	e PP	Z 00:18:14.8							
NRDL	e Pdiff	Z 00:13:57.2	106.3	66.6					
	e PP	Z 00:18:16.3							
CLZ	e Pdiff	Z 00:13:58.0	106.4	67.0					
	e PP	Z 00:18:17.1							
RJOB	e Pdiff	Z 00:13:58.0	106.5	70.1					
	e PP	Z 00:18:17.3							
GRA1	e Pdiff	Z 00:13:59.5	106.7	68.3					
	e PP	Z 00:18:19.3							
UBBA	e Pdiff	Z 00:14:00.6	107.0	67.0					
	e PP	Z 00:18:20.9							
FUR	e Pdiff	Z 00:14:01.5	107.3	68.8					
	e PP	Z 00:18:22.9							
IBBN	e Pdiff	Z 00:14:03.5	107.7	64.6					
	e PP	Z 00:18:26.4							
TNS	e Pdiff	Z 00:14:06.1	108.2	65.8					
	e PP	Z 00:18:29.7							
STU	e Pdiff	Z 00:14:06.2	108.3	66.9					
	e PP	Z 00:18:30.5							
BUG	e Pdiff	Z 00:14:06.5	108.3	64.4					
	e PP	Z 00:18:30.7							
BFO	e Pdiff	Z 00:14:09.4	109.0	66.3					
	e PP	Z 00:18:35.5							
WLF	e Pdiff	Z 00:14:13.4	109.8	64.0					
	e PP	Z 00:18:41.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11	00:20:54.5	42.865N	144.730E	33.0G	6.5	7.8		SZGRF

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	00:32:44.0	76.9	32.4	3.0	3073	6.9		
CLL	e P	Z	00:32:43.5	76.9	34.2	1.5	454	6.4		
BRG	e P	Z	00:32:43.9	77.0	34.7	3.2	3342	6.9		
CLZ	e P	Z	00:32:46.8	77.4	32.5	1.7	819	6.6		
IBBN	e P	Z	00:32:48.9	77.8	30.8	1.5	539	6.5		
TANN	e P	Z	00:32:49.3	77.9	33.7	3.5	3402	6.9		
MOX	e P	Z	00:32:49.8	78.0	33.2	3.0	2716	6.9		
UBBA	e P	Z	00:32:51.8	78.4	32.1	2.4	887	6.4		
ROTZ	e P	Z	00:32:52.9	78.5	33.5	3.1	3598	6.9		
GEC2	e P	Z	00:32:53.8	78.7	34.3	3.1	2035	6.6		
BUG	e P	Z	00:32:53.8	78.7	30.4	1.7	529	6.3		
WET	e P	Z	00:32:54.4	78.8	33.8	1.5	353	6.2		
GRA1	e P	Z	00:32:55.0	78.9	32.8	1.5	840	6.6		
	e PP	Z	00:35:56.0							
	e S	E	00:42:59.4							
	e L	Z	01:11:51.1			19.8	418650		7.8	
TNS	e P	Z	00:32:57.7	79.4	31.0	1.6	534	6.2		
RJOB	e P	Z	00:33:01.0	80.0	33.6	1.9	582	6.2		
FUR	e P	Z	00:33:01.6	80.2	32.7	1.5	613	6.4		
STU	e P	Z	00:33:02.8	80.4	31.4	1.4	308	6.2		
WLF	e P	Z	00:33:04.5	80.6	29.4	2.1	681	6.3		
BFO	e P	Z	00:33:06.3	81.1	30.8	1.6	460	6.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11	00:32:56.1	43.190N	144.027E	33.0G	5.5			SZGRF

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	00:44:42.2	76.4	32.7	0.9	36	5.5		
CLL	e P	Z	00:44:41.9	76.4	34.5	0.9	65	5.8		
BRG	e P	Z	00:44:42.3	76.4	35.0	1.1	29	5.3		
CLZ	e P	Z	00:44:45.3	76.9	32.8	1.1	73	5.7		
IBBN	e P	Z	00:44:47.4	77.3	31.1	1.1	98	5.8		
TANN	e P	Z	00:44:47.2	77.3	34.0	2.2	135	5.7		
MOX	e P	Z	00:44:48.0	77.4	33.5	0.9	24	5.3		
ROTZ	e P	Z	00:44:51.4	78.0	33.7	1.0	39	5.5		
GEC2	e P	Z	00:44:52.1	78.2	34.6	1.2	38	5.3		
BUG	e P	Z	00:44:52.1	78.2	30.7	1.1	66	5.6		
WET	e P	Z	00:44:52.8	78.2	34.1	1.1	63	5.6		
GRA1	e P	Z	00:44:53.7	78.4	33.1	1.1	121	5.8		

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TNS	e P	Z	00:44:56.1	78.9	31.3	1.2	54	5.5
RJOB	e P	Z	00:44:59.3	79.4	33.9	1.0	53	5.4
FUR	e P	Z	00:45:00.2	79.6	33.0	0.9	76	5.6
STU	e P	Z	00:45:01.2	79.9	31.7	1.0	56	5.5
WLF	e P	Z	00:45:03.4	80.1	29.8	1.2	42	5.2
BFO	e P	Z	00:45:04.5	80.5	31.1	1.2	34	5.3

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11	01:12:16.9	28.973N	51.766E	33.0G	4.9			SZGRF
Southern Iran								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	01:19:07.4	35.1	110.3					
BRG	e P	Z	01:19:11.8	35.7	113.2	1.0	14	4.7		
ROTZ	e P	Z	01:19:17.9	36.3	109.9	0.9	16	4.9		
TANN	e P	Z	01:19:18.0	36.4	111.0					
CLL	e P	Z	01:19:18.7	36.4	112.7	0.9	11	4.7		
GRA1	e P	Z	01:19:23.0	36.9	108.8	0.8	34	5.1		
UBBA	e P	Z	01:19:32.2	38.0	108.9					
CLZ	e P	Z	01:19:33.4	38.2	110.5	0.9	37	5.1		
BFO	e P	Z	01:19:35.4	38.4	104.2					
NRDL	e P	Z	01:19:36.4	38.5	111.0					
TNS	e P	Z	01:19:38.7	38.8	106.6	1.7	65	5.0		
IBBN	e P	Z	01:19:47.3	39.8	108.4					
BUG	e P	Z	01:19:47.3	39.8	106.9					
WLF	e P	Z	01:19:49.0	40.1	103.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11	01:08:29.1	44.597N	142.614E	33.0G	5.2			SZGRF
Hokkaido, Japan, region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	01:20:05.3	74.7	34.7	0.9	15	5.0		
BRG	e P	Z	01:20:05.6	74.7	35.2					
CLZ	e P	Z	01:20:08.6	75.1	33.1	0.8	19	5.2		
IBBN	e P	Z	01:20:10.8	75.6	31.4					
UBBA	e P	Z	01:20:13.7	76.1	32.7					
ROTZ	e P	Z	01:20:14.3	76.2	33.9					
GEC2	e P	Z	01:20:15.3	76.4	34.7	0.7	7	4.9		
BUG	e P	Z	01:20:15.8	76.5	31.0					
WET	e P	Z	01:20:16.1	76.5	34.3					
GRA1	e P	Z	01:20:16.9	76.7	33.3	0.8	25	5.4		
TNS	e P	Z	01:20:18.9	77.2	31.6					
RJOB	e P	Z	01:20:23.0	77.7	34.0	0.9	16	5.1		
FUR	e P	Z	01:20:23.8	77.9	33.1					

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STU e P Z 01:20:25.1 78.1 31.9 0.8 22 5.3

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/11 01:08:38.9 43.029N 144.761E 33.0G 5.3
Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 01:20:27.3	76.8	34.1	0.9	48	5.6		
BRG	e P	Z 01:20:27.6	76.8	34.6	1.0	14	5.0		
CLZ	e P	Z 01:20:30.4	77.3	32.4	1.0	52	5.6		
IBBN	e P	Z 01:20:32.6	77.7	30.7	0.8	41	5.6		
MOX	e P	Z 01:20:33.2	77.8	33.1	1.3	36	5.3		
UBBA	e P	Z 01:20:35.1	78.2	32.0	1.1	14	4.9		
ROTZ	e P	Z 01:20:36.5	78.4	33.4	1.0	26	5.2		
GEC2	e P	Z 01:20:37.1	78.6	34.2	0.9	10	4.9		
BUG	e P	Z 01:20:37.2	78.6	30.3	1.0	40	5.4		
WET	e P	Z 01:20:37.8	78.6	33.7	1.0	32	5.3		
GRA1	e P	Z 01:20:38.8	78.8	32.7	1.0	71	5.7		
TNS	e P	Z 01:20:41.0	79.3	30.9	1.4	50	5.3		
RJOB	e P	Z 01:20:44.5	79.8	33.5	0.9	28	5.2		
FUR	e P	Z 01:20:45.5	80.0	32.6	0.8	70	5.7		
STU	e P	Z 01:20:46.3	80.3	31.3	0.9	36	5.4		

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/11 02:16:23.8 27.180N 53.880E 33.0G 5.0
Southern Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 02:23:36.9	37.7	110.2	1.1	13	4.6		
RJOB	e P	Z 02:23:38.9	37.9	107.9	1.7	58	5.0		
BRG	e P	Z 02:23:41.5	38.3	112.9	1.2	36	5.0		
WET	e P	Z 02:23:41.5	38.3	109.7	1.0	16	4.7		
ROTZ	e P	Z 02:23:47.4	38.9	109.7	1.1	37	4.9		
TANN	e P	Z 02:23:47.4	39.0	110.8	2.2	41	4.7		
FUR	e P	Z 02:23:47.7	39.0	106.9	1.3	80	5.2		
CLL	e P	Z 02:23:47.6	39.0	112.4	1.2	52	5.0		
GRA1	e P	Z 02:23:52.1	39.5	108.6	1.2	84	5.3		
MOX	e P	Z 02:23:52.5	39.6	110.1	1.3	21	4.6		
UBBA	e P	Z 02:24:00.9	40.6	108.7	1.8	53	5.0		
CLZ	e P	Z 02:24:02.3	40.7	110.2	1.2	88	5.4		
NRDL	e P	Z 02:24:05.5	41.1	110.6	1.2	80	5.3		
TNS	e P	Z 02:24:07.2	41.4	106.5	1.3	83	5.3		
BUG	e P	Z 02:24:16.0	42.4	106.6	1.3	83	5.3		
WLF	e P	Z 02:24:17.7	42.7	103.7	1.2	57	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11	02:53:51.0	31.800N	104.181E	33.0G	5.1			SZGRF

Sichuan, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	03:04:34.0	66.0	68.5	0.9	10	5.1		
CLL	e P	Z	03:04:36.2	66.4	68.0	1.2	9	4.9		
GEC2	e P	Z	03:04:40.4	66.9	67.5	1.0	10	5.0		
TANN	e P	Z	03:04:40.9	67.1	67.3	1.5	16	5.0		
WET	e P	Z	03:04:42.9	67.3	67.1	1.6	13	4.9		
ROTZ	e P	Z	03:04:44.1	67.5	66.9	0.9	12	5.1		
MOX	e P	Z	03:04:43.4	67.5	66.8	1.2	11	4.9		
NRDL	e P	Z	03:04:45.5	67.6	66.5	1.0	15	5.2		
CLZ	e P	Z	03:04:45.0	67.7	66.4	0.9	21	5.4		
GRA1	e P	Z	03:04:47.8	68.1	66.2	0.9	18	5.3		
FUR	e P	Z	03:04:51.9	68.7	65.7	1.1	40	5.6		
BFO	e P	Z	03:05:01.3	70.4	63.9	1.0	8	4.8		
WLF	e P	Z	03:05:06.1	71.0	62.9	1.0	26	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11	03:13:58.6	36.800N	141.339E	43.8	4.9			SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	03:26:14.1	80.9	40.1	0.9	9	4.8		
	e pP	Z	03:26:26.4							
CLL	e P	Z	03:26:14.3	81.0	39.5	1.0	16	5.0		
	e pP	Z	03:26:26.8							
NRDL	e P	Z	03:26:15.3	81.1	37.5	1.0	10	4.8		
CLZ	e P	Z	03:26:17.9	81.6	37.7	1.0	11	4.9		
	e pP	Z	03:26:30.7							
TANN	e P	Z	03:26:19.3	81.9	39.0	0.9	4	4.5		
	e pP	Z	03:26:32.2							
MOX	e P	Z	03:26:20.1	82.0	38.5	1.2	8	4.7		
	e pP	Z	03:26:33.2							
ROTZ	e P	Z	03:26:22.9	82.5	38.8	0.8	7	4.9		
	e pP	Z	03:26:36.0							
UBBA	e P	Z	03:26:23.7	82.5	37.3	0.6	3	4.6		
GEC2	e P	Z	03:26:22.7	82.6	39.8	1.0	7	4.8		
	e pP	Z	03:26:35.6							
WET	e P	Z	03:26:23.7	82.7	39.2	1.0	7	4.9		
	e pP	Z	03:26:36.4							
GRA1	e P	Z	03:26:25.3	82.9	38.1	0.9	23	5.4		
	e pP	Z	03:26:37.8							
RJOB	e P	Z	03:26:29.6	83.8	39.0	1.0	8	4.9		

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	e pP	Z	03:26:42.2						
FUR	e P	Z	03:26:31.1	84.1	38.0	1.0	19	5.3	
	e pP	Z	03:26:44.0						
STU	e P	Z	03:26:32.7	84.5	36.6	0.8	20	5.4	
	e pP	Z	03:26:45.6						
BFO	e P	Z	03:26:36.0	85.2	36.0	1.0	17	5.2	
	e pP	Z	03:26:48.5						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11	04:01:4.0	43.211N	144.319E	33.0G	5.0			SZGRF
Hokkaido, Japan, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 04:12:55.0	76.5	34.3	1.0	25	5.3		
BRG	e P	Z 04:12:55.4	76.5	34.8	0.9	9	4.9		
CLZ	e P	Z 04:12:58.3	76.9	32.6	1.1	20	5.2		
IBBN	e P	Z 04:13:00.5	77.4	30.9	1.0	24	5.3		
MOX	e P	Z 04:13:01.1	77.5	33.3	0.8	6	4.8		
ROTZ	e P	Z 04:13:04.5	78.1	33.5	0.9	12	5.0		
GEC2	e P	Z 04:13:05.1	78.3	34.4	0.9	5	4.6		
WET	e P	Z 04:13:05.9	78.3	33.9	1.1	15	4.9		
GRA1	e P	Z 04:13:06.7	78.5	32.9	1.0	35	5.4		
TNS	e P	Z 04:13:09.2	79.0	31.1	1.2	18	4.9		
RJOB	e P	Z 04:13:12.5	79.5	33.7	1.0	14	4.9		
FUR	e P	Z 04:13:13.3	79.7	32.8	0.9	26	5.2		
STU	e P	Z 04:13:14.6	79.9	31.5	1.0	19	5.0		
BFO	e P	Z 04:13:17.8	80.6	30.9	1.1	11	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11	04:57:16.6	43.648N	142.900E	33.0G	5.1			SZGRF
Hokkaido, Japan, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 05:08:58.4	75.6	35.0	0.8	26	5.4		
BRG	e P	Z 05:08:58.5	75.6	35.5	0.9	8	4.8		
CLZ	e P	Z 05:09:01.6	76.1	33.3	0.9	20	5.3		
IBBN	e P	Z 05:09:03.9	76.6	31.7	0.5	22	5.6		
MOX	e P	Z 05:09:04.2	76.6	34.0	0.9	10	4.9		
ROTZ	e P	Z 05:09:07.6	77.2	34.2	1.0	8	4.8		
GEC2	e P	Z 05:09:08.3	77.4	35.1	1.0	6	4.7		
WET	e P	Z 05:09:09.0	77.4	34.6	0.9	14	5.1		
BUG	e P	Z 05:09:08.7	77.4	31.2	1.0	18	5.1		
GRA1	e P	Z 05:09:09.8	77.6	33.6	0.8	27	5.4		
RJOB	e P	Z 05:09:15.5	78.6	34.4	0.8	14	5.0		
FUR	e P	Z 05:09:16.7	78.8	33.5	0.9	29	5.3		

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STU e P Z 05:09:17.7 79.1 32.2 0.8 18 5.2

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/11 17:39: 5.4 32.733N 105.558E 33.0G 5.6 4.7
Sichuan, China SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 17:49:49.3	66.1	66.8	1.2	38	5.5		
CLL	e P	Z 17:49:51.4	66.5	66.4	1.1	41	5.6		
GEC2	e P	Z 17:49:55.8	67.1	65.9	1.1	37	5.5		
TANN	e P	Z 17:49:56.2	67.2	65.7	1.2	37	5.5		
WET	e P	Z 17:49:58.0	67.5	65.5	1.0	21	5.3		
MOX	e P	Z 17:49:58.6	67.6	65.2	1.0	26	5.4		
ROTZ	e P	Z 17:49:59.3	67.6	65.3	1.1	54	5.7		
NRDL	e P	Z 17:49:59.5	67.6	64.9	1.1	78	5.9		
CLZ	e P	Z 17:50:00.2	67.8	64.8	1.1	88	5.9		
RJOB	e P	Z 17:50:02.3	68.1	64.9	0.9	12	5.1		
GRA1	e P	Z 17:50:03.1	68.2	64.6	1.0	76	5.9		
	e L	Z 18:22:04.9			18.7	390		4.7	
UBBA	e P	Z 17:50:03.6	68.4	64.2	0.8	11	5.2		
FUR	e P	Z 17:50:07.2	68.8	64.1	1.2	121	6.0		
IBBN	e P	Z 17:50:07.7	69.0	63.2	1.1	64	5.7		
TNS	e P	Z 17:50:11.2	69.6	63.0	1.2	52	5.5		
BUG	e P	Z 17:50:11.9	69.7	62.6	1.0	66	5.7		
STU	e P	Z 17:50:12.5	69.8	63.0	0.8	32	5.5		
BFO	e P	Z 17:50:16.5	70.5	62.3	1.1	30	5.3		
WLF	e P	Z 17:50:21.4	71.1	61.3	1.0	113	5.9		

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/11 19:12: 7.2 50.858N 91.166E 33.0G 4.7
Tuva-Buryatia-Mongolia border region SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 19:20:30.0	46.4	58.2	1.0	3	4.4		
CLL	e P	Z 19:20:33.2	46.7	58.2	1.0	13	5.0		
TANN	e P	Z 19:20:38.3	47.4	57.2	0.8	3	4.4		
NRDL	e P	Z 19:20:39.4	47.5	57.7	1.2	7	4.7		
GEC2	e P	Z 19:20:39.9	47.6	56.5	1.1	2	4.2		
MOX	e P	Z 19:20:40.8	47.8	57.0	0.8	5	4.7		
WET	e P	Z 19:20:42.2	47.9	56.4	0.9	4	4.5		
ROTZ	e P	Z 19:20:42.6	47.9	56.6	1.2	5	4.5		
GRA1	e P	Z 19:20:47.0	48.5	56.1	0.7	9	4.9		
IBBN	e P	Z 19:20:48.7	48.9	56.4	0.6	14	5.2		
TNS	e P	Z 19:20:55.6	49.7	55.2	0.8	9	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11	21:03:38.6	22.960S	178.010W	33.0G				SZGRF
South of Fiji Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	21:23:23.5	149.1	21.5					
NRDL	e PKPbc	Z	21:23:25.2	149.8	15.0					
IBBN	e PKPbc	Z	21:23:26.6	150.3	10.8					
CLL	e PKPbc	Z	21:23:26.6	150.4	20.9					
CLZ	e PKPbc	Z	21:23:27.1	150.4	15.8					
BRG	e PKPbc	Z	21:23:27.2	150.6	22.8					
FBE	e PKPbc	Z	21:23:27.8	150.7	21.7					
NEUB	e PKPbc	Z	21:23:27.6	150.8	18.7					
BUG	e PKPbc	Z	21:23:28.5	151.2	10.1					
MOX	e PKPbc	Z	21:23:28.9	151.3	18.7					
TANN	e PKPbc	Z	21:23:29.1	151.4	20.4					
PLN	e PKPbc	Z	21:23:29.0	151.4	19.8					
WERD	e PKPbc	Z	21:23:29.0	151.4	20.1					
GUNZ	e PKPbc	Z	21:23:29.4	151.4	20.2					
	e PKPab	Z	21:23:37.5							
UBBA	e PKPbc	Z	21:23:29.2	151.5	15.6					
WERN	e PKPbc	Z	21:23:29.6	151.5	20.4					
	e PKPab	Z	21:23:38.0							
ROTZ	e PKPbc	Z	21:23:30.6	152.0	20.4					
TNS	e PKPbc	Z	21:23:31.1	152.3	12.9					
	e PKPab	Z	21:23:41.0							
GRA1	e PKPab	Z	21:23:41.4	152.3	18.5					
WET	e PKPab	Z	21:23:41.9	152.4	22.1					
GEC2	e PKPbc	Z	21:23:31.6	152.5	23.9					
WLF	e PKPbc	Z	21:23:33.6	153.1	8.5					
	e PKPab	Z	21:23:44.7							
STU	e PKPbc	Z	21:23:34.0	153.6	15.0					
FUR	e PKPab	Z	21:23:47.6	153.7	19.6					
RJOB	e PKPab	Z	21:23:48.0	153.8	23.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11	22:35: 6.3	45.400N	141.270E	42.0	5.1			SZGRF
Hokkaido, Japan, region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	22:46:36.6	73.5	35.1	0.9	16	5.0		
	e pP	Z	22:46:48.6							
BRG	e P	Z	22:46:37.0	73.5	35.6					
NRDL	e P	Z	22:46:37.1	73.5	33.5					
CLZ	e P	Z	22:46:39.8	74.0	33.5	1.3	27	5.1		

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TANN	e P	Z	22:46:41.9	74.4	34.6	1.9	23	4.9
	e pP	Z	22:46:54.0					
IBBN	e P	Z	22:46:42.2	74.5	31.9			
MOX	e P	Z	22:46:42.7	74.5	34.1			
	e pP	Z	22:46:54.6					
ROTZ	e P	Z	22:46:46.0	75.1	34.4	1.4	20	5.0
GEC2	e P	Z	22:46:46.7	75.3	35.1	1.3	9	4.7
WET	e P	Z	22:46:47.6	75.3	34.7	1.1	18	5.1
GRA1	e P	Z	22:46:48.3	75.5	33.7	1.6	56	5.5
	e pP	Z	22:47:00.2					
TNS	e P	Z	22:46:51.2	76.0	32.1			
RJOB	e P	Z	22:46:54.1	76.5	34.4	0.9	13	5.1
FUR	e P	Z	22:46:55.0	76.7	33.6	0.8	15	5.2
	e pP	Z	22:47:07.2					
BFO	e P	Z	22:47:00.7	77.7	31.7	1.1	17	5.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/11								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e P	Z 23:29:46.0							
GEC2	e P	Z 23:29:06.8							
GRA1	e P	Z 23:29:23.6							
GTTG	e P	Z 23:29:44.8							
MOX	e P	Z 23:29:30.6							
WET	e P	Z 23:29:12.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/12	16:44:21.3	21.088S	171.671E	33.0G				SZGRF
Southeast of Loyalty Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z 17:03:55.8	145.5	38.6					
CLL	e PKPbc	Z 17:03:55.6	145.5	36.8					
NRDL	e PKPbc	Z 17:03:55.9	145.5	31.4					
FBE	e PKPbc	Z 17:03:56.6	145.7	37.7					
CLZ	e PKPbc	Z 17:03:57.7	146.0	32.3					
NEUB	e PKPbc	Z 17:03:57.5	146.0	35.0					
IBBN	e PKPbc	Z 17:03:58.7	146.4	27.8					
TANN	e PKPbc	Z 17:03:58.6	146.4	36.8					
WERD	e PKPbc	Z 17:03:58.7	146.5	36.5					
GUNZ	e PKPbc	Z 17:03:59.0	146.5	36.6					
MOX	e PKPbc	Z 17:03:58.8	146.6	35.3					
WERN	e PKPbc	Z 17:03:59.2	146.6	36.8					
GEC2	e PKPbc	Z 17:04:00.4	147.2	40.2					

WET	e	PKPbc	Z	17:04:00.9	147.3	38.6
GRA1	e	PKPbc	Z	17:04:01.5	147.5	35.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/12	23:07:59.7	57.338N	165.963E	33.0G	5.3	5.9		SZGRF

Bering Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e P	Z 23:19:02.5	69.0	13.8	1.3	40	5.5		
CLL	e P	Z 23:19:02.0	69.1	15.2	1.5	46	5.5		
NEUB	e P	Z 23:19:04.3	69.4	14.5	1.3	35	5.3		
FBE	e P	Z 23:19:04.3	69.4	15.4	1.5	42	5.4		
PLN	e P	Z 23:19:08.2	70.0	14.7					
WERD	e P	Z 23:19:08.5	70.1	14.8	1.3	27	5.2		
TANN	e P	Z 23:19:08.6	70.1	14.8	1.4	31	5.3		
WERN	e P	Z 23:19:09.6	70.2	14.8	1.3	30	5.3		
ROTZ	e P	Z 23:19:13.0	70.7	14.6	1.3	24	5.2		
GRA1	e P	Z 23:19:14.3	71.0	14.1	1.4	70	5.6		
	e L	Z 23:52:51.2			20.3	6130		5.9	
WET	e P	Z 23:19:15.7	71.2	15.0	1.4	38	5.3		
GEC2	e P	Z 23:19:16.0	71.4	15.4	1.4	22	5.1		
RJOB	e P	Z 23:19:24.0	72.6	14.8	1.3	30	5.3		
BFO	e P	Z 23:19:24.0	72.7	12.4	1.6	33	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/12	23:50: 6.9	57.820N	164.759E	33.0G	5.2			SZGRF

Bering Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e P	Z 00:01:05.8	68.4	14.3	1.2	33	5.5		
CLL	e P	Z 00:01:05.5	68.5	15.7	1.3	26	5.3		
BRG	e P	Z 00:01:07.1	68.7	16.2					
FBE	e P	Z 00:01:07.8	68.8	15.9	1.9	65	5.5		
MOX	e P	Z 00:01:11.3	69.3	14.9	1.2	15	5.0		
WERD	e P	Z 00:01:12.0	69.4	15.3	1.3	28	5.2		
TANN	e P	Z 00:01:11.9	69.4	15.3	1.2	15	5.0		
GUNZ	e P	Z 00:01:12.4	69.5	15.3	1.2	17	5.1		
WERN	e P	Z 00:01:12.7	69.5	15.3	1.3	24	5.2		
GRA1	e P	Z 00:01:17.6	70.3	14.6	1.1	33	5.4		
WET	e P	Z 00:01:19.2	70.6	15.4	1.2	25	5.2		
GEC2	e P	Z 00:01:19.6	70.7	15.8	1.3	19	5.1		
RJOB	e P	Z 00:01:27.5	71.9	15.3	1.2	19	5.1		
BFO	e P	Z 00:01:27.7	72.1	12.9	1.1	15	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/13	07:32:12.1	21.950S	168.610E	33.0G				SZGRF

Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z	07:51:44.2	145.0	43.8					
CLL	e PKPbc	Z	07:51:44.4	145.1	42.0					
FBE	e PKPbc	Z	07:51:45.4	145.2	42.9					
NRDL	e PKPbc	Z	07:51:45.2	145.3	36.6					
NEUB	e PKPbc	Z	07:51:46.9	145.6	40.3					
CLZ	e PKPbc	Z	07:51:47.2	145.7	37.6					
TANN	e PKPbc	Z	07:51:47.8	146.0	42.1					
WERD	e PKPbc	Z	07:51:48.0	146.0	41.8					
PLN	e PKPbc	Z	07:51:48.1	146.0	41.5					
GUNZ	e PKPbc	Z	07:51:48.4	146.1	41.9					
WERN	e PKPbc	Z	07:51:48.5	146.1	42.1					
MOX	e PKPbc	Z	07:51:48.3	146.1	40.6					
IBBN	e PKPbc	Z	07:51:48.8	146.3	33.2					
GEC2	e PKPbc	Z	07:51:49.7	146.5	45.5					
ROTZ	e PKPbc	Z	07:51:50.0	146.5	42.3					
UBBA	e PKPbc	Z	07:51:49.9	146.7	38.0					
WET	e PKPbc	Z	07:51:50.2	146.7	44.0					
GRA1	e PKPbc	Z	07:51:51.4	147.0	40.9					
TNS	e PKPbc	Z	07:51:53.4	147.7	36.1					
RJOB	e PKPbc	Z	07:51:52.9	147.7	45.4					
STU	e PKPbc	Z	07:51:55.7	148.6	38.7					
WLF	e PKPbc	Z	07:51:57.4	149.0	32.9					
BFO	e PKPbc	Z	07:51:57.2	149.3	37.8					
	e PKPab	Z	07:52:01.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/13	09:32: 9.5	5.410N	74.110W	135.7	5.9			SZGRF

Colombia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	09:44:02.0	79.6	266.1	0.8	198	6.1		
	e sP	Z	09:44:50.6							
BUG	e P	Z	09:44:05.9	80.4	266.6	1.0	112	5.7		
	e sP	Z	09:44:54.7							
IBBN	e P	Z	09:44:07.8	80.8	266.9	1.2	161	5.9		
	e sP	Z	09:44:56.6							
HLG	e P	Z	09:44:08.7	80.9	266.7	1.1	350	6.3		
BFO	e P	Z	09:44:08.3	80.9	268.0	0.9	39	5.4		
	e sP	Z	09:44:57.0							
TNS	e P	Z	09:44:09.7	81.1	267.7	1.2	184	6.0		
	e sP	Z	09:44:58.4							

STU	e P	Z	09:44:11.7	81.5	268.5	0.9	97	5.9
	e sP	Z	09:45:00.3					
UBBA	e P	Z	09:44:14.5	82.1	268.9	1.9	120	5.7
	e sP	Z	09:45:03.4					
NRDL	e P	Z	09:44:15.4	82.2	268.7	1.0	78	5.8
	e sP	Z	09:45:04.2					
CLZ	e P	Z	09:44:16.3	82.3	269.0	0.9	89	5.9
	e sP	Z	09:45:05.2					
GRA1	e P	Z	09:44:19.0	82.9	270.0	1.0	81	5.9
	e sP	Z	09:45:07.5					
FUR	e P	Z	09:44:19.2	82.9	270.2	1.8	213	6.1
	e sP	Z	09:45:07.8					
MOX	e P	Z	09:44:20.0	83.1	270.1	1.5	73	5.7
	e sP	Z	09:45:08.8					
NEUB	e P	Z	09:44:20.7	83.2	270.2	1.3	106	5.9
	e sP	Z	09:45:09.6					
PLN	e P	Z	09:44:21.9	83.5	270.6			
	e sP	Z	09:45:10.8					
ROTZ	e P	Z	09:44:22.4	83.5	270.7	1.9	157	5.9
	e sP	Z	09:45:11.2					
WERD	e P	Z	09:44:22.4	83.6	270.7	1.1	73	5.8
	e sP	Z	09:45:11.3					
GUNZ	e P	Z	09:44:22.5	83.6	270.7	1.1	60	5.7
	e sP	Z	09:45:11.5					
WERN	e P	Z	09:44:22.9	83.6	270.8	1.1	75	5.8
	e sP	Z	09:45:11.7					
TANN	e P	Z	09:44:23.1	83.7	270.8	1.1	92	5.9
	e sP	Z	09:45:11.9					
RJOB	e P	Z	09:44:24.3	83.9	271.4	1.0	48	5.7
	e sP	Z	09:45:12.9					
WET	e P	Z	09:44:24.6	83.9	271.3	1.2	124	6.0
	e sP	Z	09:45:13.3					
CLL	e P	Z	09:44:24.5	84.0	271.1	1.1	92	5.9
	e sP	Z	09:45:13.4					
FBE	e P	Z	09:44:26.0	84.2	271.5	1.0	99	6.0
	e sP	Z	09:45:14.9					
RUE	e P	Z	09:44:26.7	84.4	271.6	1.0	114	6.1
	e pP	Z	09:45:00.4					
GEC2	e sP	Z	09:45:15.8					
	e P	Z	09:44:27.2	84.5	271.9	1.0	75	5.9
BRG	e sP	Z	09:45:16.0					
	e P	Z	09:44:27.7	84.6	271.9	1.0	94	6.0
	e sP	Z	09:45:16.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/13	10:06:50.2	48.123N	152.042E	33.0G	5.1			SZGRF
Kuril Islands, Russia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	10:18:18.7	73.3	27.6	0.9	24	5.2		
CLL	e P	Z	10:18:25.6	74.6	27.0	0.7	22	5.3		
CLZ	e P	Z	10:18:27.8	74.8	25.4	0.8	17	5.1		
FBE	e P	Z	10:18:27.4	74.8	27.2	0.9	13	5.0		
NEUB	e P	Z	10:18:28.2	75.0	26.2	1.2	28	5.2		
IBBN	e P	Z	10:18:28.8	75.1	23.8	0.9	15	5.0		
TANN	e P	Z	10:18:31.4	75.5	26.6	0.8	4	4.6		
WERD	e P	Z	10:18:31.5	75.5	26.5	0.8	6	4.7		
PLN	e P	Z	10:18:31.5	75.5	26.4					
MOX	e P	Z	10:18:31.6	75.6	26.0	1.0	12	5.0		
GUNZ	e P	Z	10:18:31.9	75.6	26.5	0.8	10	5.0		
WERN	e P	Z	10:18:32.4	75.7	26.5	0.8	12	5.1		
UBBA	e P	Z	10:18:33.0	75.8	25.1	1.6	16	4.9		
BUG	e P	Z	10:18:34.0	76.0	23.4	1.2	26	5.2		
ROTZ	e P	Z	10:18:35.4	76.2	26.3	1.0	11	4.9		
GRA1	e P	Z	10:18:37.5	76.5	25.7	0.8	38	5.6		
WET	e P	Z	10:18:37.5	76.5	26.7	0.9	14	5.1		
GEC2	e P	Z	10:18:37.1	76.6	27.1	0.8	6	4.8		
TNS	e P	Z	10:18:38.8	76.8	24.0	0.7	25	5.5		
RJOB	e P	Z	10:18:44.6	77.8	26.5	0.9	9	4.9		
STU	e P	Z	10:18:44.8	77.9	24.3	0.9	18	5.2		
BFO	e P	Z	10:18:48.1	78.6	23.8	1.0	19	5.1		

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/13 11:36:23.5 36.000N 27.800E 22.0 3.7 KAN
 Dodecanese Islands, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	11:40:34.5	18.4	132.2	0.9	12	4.1		

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/13 15:45:24.7 50.306S 114.677W 33.0G SZGRF
 Southern East Pacific Rise

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	16:05:00.6	146.0	247.7					
CLZ	e PKPbc	Z	16:05:01.3	146.3	250.3					
MOX	e PKPbc	Z	16:05:02.5	146.6	249.2					
ROTZ	e PKPbc	Z	16:05:02.2	146.6	248.2					
WET	e PKPbc	Z	16:05:03.0	146.8	247.6					
WERN	e PKPbc	Z	16:05:03.6	146.9	249.0					
GUNZ	e PKPbc	Z	16:05:03.6	146.9	249.1					
WERD	e PKPbc	Z	16:05:03.4	146.9	249.2					

TANN	e	PKPbc	Z	16:05:03.8	147.0	249.2
GEC2	e	PKPbc	Z	16:05:03.9	147.2	247.5
CLL	e	PKPbc	Z	16:05:05.5	147.6	250.8
FBE	e	PKPbc	Z	16:05:06.2	147.7	250.4
BRG	e	PKPbc	Z	16:05:06.7	148.0	250.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/13	19:18:29.8	21.080S	177.070W	33.0G				SZGRF
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e	PKPbc	Z	19:38:10.0	147.5	19.1				
NRDL	e	PKPbc	Z	19:38:11.8	148.1	12.7				
CLZ	e	PKPbc	Z	19:38:13.5	148.7	13.5				
	e	PKPab	Z	19:38:17.4						
CLL	e	PKPbc	Z	19:38:13.6	148.8	18.3				
BRG	e	PKPbc	Z	19:38:14.4	149.0	20.2				
	e	PKPab	Z	19:38:18.4						
FBE	e	PKPbc	Z	19:38:14.9	149.1	19.2				
	e	PKPab	Z	19:38:19.0						
BUG	e	PKPbc	Z	19:38:15.4	149.5	8.0				
MOX	e	PKPbc	Z	19:38:16.1	149.7	16.2				
	e	PKPab	Z	19:38:21.0						
PLN	e	PKPbc	Z	19:38:16.2	149.7	17.3				
	e	PKPab	Z	19:38:21.3						
WERD	e	PKPbc	Z	19:38:16.2	149.7	17.5				
	e	PKPab	Z	19:38:21.5						
TANN	e	PKPbc	Z	19:38:16.2	149.7	17.8				
	e	PKPab	Z	19:38:21.3						
GUNZ	e	PKPbc	Z	19:38:16.5	149.8	17.6				
	e	PKPab	Z	19:38:22.0						
WERN	e	PKPbc	Z	19:38:16.7	149.9	17.8				
	e	PKPab	Z	19:38:22.2						
ROTZ	e	PKPbc	Z	19:38:18.0	150.4	17.7				
	e	PKPab	Z	19:38:24.5						
TNS	e	PKPbc	Z	19:38:18.2	150.5	10.5				
	e	PKPab	Z	19:38:25.0						
GRA1	e	PKPbc	Z	19:38:18.6	150.6	15.9				
	e	PKPab	Z	19:38:25.5						
WET	e	PKPbc	Z	19:38:18.8	150.8	19.3				
GEC2	e	PKPbc	Z	19:38:19.1	150.9	21.0				
	e	PKPab	Z	19:38:26.6						
WLF	e	PKPbc	Z	19:38:20.7	151.3	6.3				
FUR	e	PKPbc	Z	19:38:21.6	152.1	16.8				
	e	PKPab	Z	19:38:31.6						
RJOB	e	PKPbc	Z	19:38:22.5	152.2	20.0				
	e	PKPab	Z	19:38:32.4						

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BFO	e PKPbc	Z	19:38:22.4	152.4	10.9
	e PKPab	Z	19:38:32.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/13	20:21:33.3	28.971N	130.820E	33.0G	5.3	5.5		SZGRF

Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	20:33:53.6	82.8	51.9	2.0	34	5.2		
CLL	e P	Z	20:33:54.5	82.9	51.2	2.1	41	5.3		
FBE	e P	Z	20:33:55.7	83.0	51.4	1.9	76	5.6		
NRDL	e P	Z	20:33:57.8	83.6	49.2	2.2	46	5.3		
NEUB	e P	Z	20:33:58.5	83.6	50.3	1.5	50	5.5		
TANN	e P	Z	20:33:59.4	83.8	50.8	2.0	34	5.2		
WERD	e P	Z	20:33:59.7	83.8	50.6	1.9	37	5.3		
CLZ	e P	Z	20:34:00.2	83.9	49.3	1.8	57	5.5		
GUNZ	e P	Z	20:34:00.0	83.9	50.7	2.0	39	5.3		
PLN	e P	Z	20:34:00.0	83.9	50.5					
WERN	e P	Z	20:34:00.1	83.9	50.7	1.7	36	5.3		
MOX	e P	Z	20:34:00.7	84.0	50.2	1.9	41	5.3		
GEC2	e P	Z	20:34:01.0	84.1	51.5	1.6	17	5.0		
ROTZ	e P	Z	20:34:02.6	84.3	50.5	1.9	35	5.3		
WET	e P	Z	20:34:02.3	84.4	51.0	2.2	42	5.3		
GRA1	e P	Z	20:34:05.1	84.8	49.8	1.4	39	5.4		
	e L	Z	21:15:39.0			19.2	1759		5.5	
RJOB	e P	Z	20:34:07.2	85.3	50.8	2.0	34	5.1		
TNS	e P	Z	20:34:09.8	85.8	47.8	2.2	95	5.5		
BFO	e P	Z	20:34:15.8	87.2	47.6	2.5	56	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/13	21:44:45.4	17.134S	177.910W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	22:04:15.1	144.1	13.1					
IBBN	e PKPbc	Z	22:04:16.6	144.5	9.4					
CLZ	e PKPbc	Z	22:04:17.0	144.7	13.8					
CLL	e PKPbc	Z	22:04:16.8	144.7	18.3					
BRG	e PKPbc	Z	22:04:17.7	145.0	20.0					
FBE	e PKPbc	Z	22:04:18.2	145.0	19.0					
NEUB	e PKPbc	Z	22:04:18.1	145.1	16.3					
MOX	e PKPbc	Z	22:04:19.8	145.6	16.3					
PLN	e PKPbc	Z	22:04:20.1	145.7	17.2					
WERD	e PKPbc	Z	22:04:20.1	145.7	17.5					
TANN	e PKPbc	Z	22:04:20.2	145.7	17.8					

GUNZ	e	PKPbc	Z	22:04:20.5	145.8	17.6
WERN	e	PKPbc	Z	22:04:20.8	145.8	17.7
ROTZ	e	PKPbc	Z	22:04:22.2	146.4	17.6
GRA1	e	PKPbc	Z	22:04:23.0	146.6	16.0
WET	e	PKPbc	Z	22:04:23.1	146.8	19.1
GEC2	e	PKPbc	Z	22:04:23.5	146.9	20.6
WLF	e	PKPbc	Z	22:04:25.6	147.3	7.2
FUR	e	PKPbc	Z	22:04:26.9	148.1	16.8
BFO	e	PKPbc	Z	22:04:27.7	148.4	11.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/13	23:08:12.3	44.300N	11.300E	10.0G				EMSC
Northern Italy								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z	23:09:09.3	3.6	197.4					
	e Sn	N	23:09:50.6							
BFO	e Pn	Z	23:09:20.1	4.5	151.9					
	e Sn	N	23:10:10.1							
GEC2	e Pn	Z	23:09:24.7	4.8	200.8					
	e Sn	E	23:10:17.9							
WET	e Sn	E	23:10:18.7	5.0	193.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/14	00:00:11.2	8.700S	126.800E	35.0G		5.4		NEIC
New South Wales, Australia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKiKP	Z	00:18:41.0	110.8	76.7					
BRG	e PKiKP	Z	00:18:41.5	111.1	77.5					
FBE	e PKiKP	Z	00:18:42.3	111.4	77.0					
TANN	e PKiKP	Z	00:18:43.3	112.1	76.4					
WET	e PKiKP	Z	00:18:43.7	112.1	77.3					
WERD	e PKiKP	Z	00:18:43.6	112.2	76.3					
GUNZ	e PKiKP	Z	00:18:43.7	112.2	76.3					
PLN	e PKiKP	Z	00:18:43.7	112.3	76.1					
NEUB	e PKiKP	Z	00:18:43.9	112.3	75.5					
NRDL	e PKiKP	Z	00:18:45.3	113.0	73.6					
CLZ	e PKiKP	Z	00:18:45.4	113.0	74.1					
GRA1	e PKiKP	Z	00:18:45.0	113.0	75.7					
	e PP	Z	00:19:31.0							
	e L	N	01:17:16.1			21.4	985		5.4	
IBBN	e PKiKP	Z	00:18:47.7	114.4	71.6					
STU	e PKiKP	Z	00:18:48.0	114.6	74.4					
TNS	e PKiKP	Z	00:18:48.2	114.6	73.1					

BUG e PKiKP Z 00:18:48.8 115.0 71.6

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/14 04:09:47.8 28.500N 139.700E 440.0 4.7
 Bonin Islands, Japan, region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 04:21:57.9 89.4 43.5 0.9 4 4.7

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/14 18:54:31.8 21.450S 177.360W 33.0G
 Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z 19:14:14.7	148.4	13.4					
IBBN	e PKPbc	Z 19:14:16.1	148.9	9.2					
	e PKPab	Z 19:14:20.3							
CLZ	e PKPbc	Z 19:14:16.7	149.0	14.1					
CLL	e PKPbc	Z 19:14:16.5	149.1	19.0					
	e PKPab	Z 19:14:20.7							
BRG	e PKPbc	Z 19:14:17.1	149.3	20.9					
	e PKPab	Z 19:14:21.9							
FBE	e PKPbc	Z 19:14:17.7	149.4	19.8					
	e PKPab	Z 19:14:22.6							
NEUB	e PKPbc	Z 19:14:17.6	149.4	16.9					
	e PKPab	Z 19:14:22.3							
MOX	e PKPbc	Z 19:14:18.8	150.0	16.9					
	e PKPab	Z 19:14:24.4							
PLN	e PKPbc	Z 19:14:19.0	150.0	17.9					
TANN	e PKPbc	Z 19:14:19.1	150.0	18.5					
	e PKPab	Z 19:14:25.0							
WERD	e PKPbc	Z 19:14:19.1	150.0	18.2					
GUNZ	e PKPbc	Z 19:14:19.4	150.1	18.3					
WERN	e PKPbc	Z 19:14:19.6	150.2	18.4					
	e PKPab	Z 19:14:25.9							
ROTZ	e PKPbc	Z 19:14:20.7	150.7	18.4					
TNS	e PKPbc	Z 19:14:21.2	150.9	11.2					
	e PKPab	Z 19:14:28.5							
GRA1	e PKPbc	Z 19:14:21.5	151.0	16.6					
WET	e PKPab	Z 19:14:29.9	151.1	20.0					
GEC2	e PKPbc	Z 19:14:21.7	151.2	21.8					
WLF	e PKPab	Z 19:14:32.3	151.6	6.9					
STU	e PKPbc	Z 19:14:24.0	152.2	13.2					
FUR	e PKPab	Z 19:14:35.3	152.4	17.6					
RJOB	e PKPab	Z 19:14:35.9	152.5	20.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/14	20:18:52.7	23.260S	173.850W	188.1				SZGRF
Tonga Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	20:38:21.0	150.2	14.2					
NRDL	e PKPdf	Z	20:38:16.3	150.6	7.4					
	e PKPbc	Z	20:38:22.3							
	e pPKPbc	Z	20:39:10.9							
IBBN	e PKPbc	Z	20:38:23.4	150.9	3.0					
	e		20:38:30.7							
	e pPKPbc	Z	20:39:12.1							
CLZ	e PKPdf	Z	20:38:17.6	151.2	8.1					
	e PKPbc	Z	20:38:24.1							
	e		20:38:31.0							
	e pPKPbc	Z	20:39:12.8							
CLL	e PKPdf	Z	20:38:17.2	151.5	13.3					
	e PKPbc	Z	20:38:23.9							
	e pPKPbc	Z	20:39:12.7							
NEUB	e PKPdf	Z	20:38:17.9	151.7	11.0					
	e PKPbc	Z	20:38:24.7							
	e		20:38:31.6							
	e PKPab	Z	20:38:33.7							
	e pPKPbc	Z	20:39:13.6							
BRG	e PKPdf	Z	20:38:17.7	151.7	15.3					
	e PKPbc	Z	20:38:24.5							
	e		20:38:31.1							
	e pPKPbc	Z	20:39:13.3							
FBE	e PKPdf	Z	20:38:18.2	151.8	14.1					
	e PKPbc	Z	20:38:25.0							
	e		20:38:31.7							
	e pPKPbc	Z	20:39:13.9							
BUG	e PKPdf	Z	20:38:18.4	151.8	2.2					
	e PKPbc	Z	20:38:25.3							
	e		20:38:32.5							
UBBA	e PKPbc	Z	20:38:25.8	152.3	7.6					
	e		20:38:32.8							
MOX	e PKPdf	Z	20:38:18.5	152.3	10.8					
	e PKPbc	Z	20:38:25.9							
	e		20:38:32.9							
	e PKPab	Z	20:38:35.9							
PLN	e PKPdf	Z	20:38:18.9	152.4	12.0					
	e PKPbc	Z	20:38:26.1							
	e		20:38:33.0							
	e PKPab	Z	20:38:36.3							
WERD	e PKPdf	Z	20:38:18.8	152.4	12.3					

	e	PKPbc	Z	20:38:26.1		
	e			20:38:33.0		
	e	PKPab	Z	20:38:36.4		
TANN	e	PKPdf	Z	20:38:18.9	152.4	12.6
	e	PKPbc	Z	20:38:26.2		
	e			20:38:33.1		
	e	PKPab	Z	20:38:36.4		
GUNZ	e	PKPdf	Z	20:38:19.0	152.5	12.4
	e	PKPbc	Z	20:38:26.5		
	e			20:38:33.3		
	e	PKPab	Z	20:38:36.7		
WERN	e	PKPdf	Z	20:38:19.3	152.5	12.5
	e	PKPbc	Z	20:38:26.7		
	e			20:38:33.5		
	e	PKPab	Z	20:38:37.0		
TNS	e	PKPbc	Z	20:38:28.0	153.0	4.6
	e			20:38:35.1		
	e	PKPab	Z	20:38:39.7		
ROTZ	e	PKPdf	Z	20:38:19.7	153.1	12.4
	e	PKPbc	Z	20:38:27.7		
	e			20:38:34.5		
	e	PKPab	Z	20:38:39.5		
GRA1	e	PKPdf	Z	20:38:20.3	153.3	10.4
	e	PKPbc	Z	20:38:28.3		
	e			20:38:35.1		
	e	PKPab	Z	20:38:40.6		
WET	e	PKPdf	Z	20:38:20.2	153.6	14.0
	e	PKPbc	Z	20:38:28.5		
	e			20:38:35.3		
	e	PKPab	Z	20:38:41.4		
WLF	e	PKPbc	Z	20:38:30.2	153.6	0.0
	e			20:38:37.4		
	e	PKPab	Z	20:38:43.3		
GEC2	e	PKPdf	Z	20:38:20.2	153.7	15.8
	e	PKPbc	Z	20:38:28.6		
	e			20:38:35.4		
	e	PKPab	Z	20:38:41.5		
STU	e	PKPdf	Z	20:38:22.1	154.4	6.5
	e	PKPbc	Z	20:38:30.7		
	e			20:38:37.9		
	e	PKPab	Z	20:38:45.5		
FUR	e	PKPdf	Z	20:38:22.0	154.8	11.1
	e			20:38:38.1		
	e	PKPab	Z	20:38:46.8		
BFO	e	PKPbc	Z	20:38:31.7	154.9	4.7
	e			20:38:38.9		
	e	PKPab	Z	20:38:47.7		
RJOB	e	PKPdf	Z	20:38:21.6	155.0	14.5
	e	PKPbc	Z	20:38:31.0		

e PKPab Z 20:38:47.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/15	02:30:39.7	21.100S	176.480W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	02:50:22.0	148.2	11.7					
IBBN	e PKPbc	Z	02:50:23.4	148.6	7.6					
	e PKPab	Z	02:50:27.0							
CLZ	e PKPbc	Z	02:50:24.0	148.8	12.4					
	e PKPab	Z	02:50:27.8							
CLL	e PKPbc	Z	02:50:23.9	148.9	17.3					
BRG	e PKPbc	Z	02:50:24.6	149.1	19.2					
FBE	e PKPbc	Z	02:50:25.2	149.2	18.1					
NEUB	e PKPbc	Z	02:50:24.9	149.2	15.2					
BUG	e PKPbc	Z	02:50:25.5	149.5	6.9					
MOX	e PKPbc	Z	02:50:26.2	149.8	15.1					
PLN	e PKPbc	Z	02:50:26.5	149.8	16.2					
WERD	e PKPbc	Z	02:50:26.6	149.8	16.5					
UBBA	e PKPbc	Z	02:50:26.2	149.8	12.1					
TANN	e PKPbc	Z	02:50:26.6	149.9	16.8					
	e PKPab	Z	02:50:31.8							
GUNZ	e PKPbc	Z	02:50:26.9	149.9	16.6					
	e PKPab	Z	02:50:32.2							
WERN	e PKPbc	Z	02:50:27.0	150.0	16.7					
	e PKPab	Z	02:50:32.6							
ROTZ	e PKPbc	Z	02:50:28.3	150.5	16.6					
TNS	e PKPbc	Z	02:50:28.5	150.6	9.4					
GRA1	e PKPbc	Z	02:50:28.9	150.8	14.8					
	e PKPab	Z	02:50:35.7							
WET	e PKPbc	Z	02:50:29.0	151.0	18.2					
GEC2	e PKPbc	Z	02:50:29.3	151.1	19.9					
	e PKPab	Z	02:50:37.0							
STU	e PKPbc	Z	02:50:31.6	152.0	11.3					
	e PKPab	Z	02:50:40.6							
FUR	e PKPbc	Z	02:50:31.9	152.2	15.7					
	e PKPab	Z	02:50:42.0							
RJOB	e PKPbc	Z	02:50:31.8	152.3	18.9					
	e PKPab	Z	02:50:42.6							
BFO	e PKPbc	Z	02:50:32.6	152.5	9.8					
	e PKPab	Z	02:50:42.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/15	05:41:49.6	51.762N	177.977W	33.0G	5.1	4.6		SZGRF

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e P	Z	05:53:22.2	73.9	3.8	1.5	219	6.0		
NRDL	e P	Z	05:53:30.7	75.5	5.2	1.3	15	5.0		
CLZ	e P	Z	05:53:34.7	76.2	5.3	1.7	51	5.4		
CLL	e P	Z	05:53:36.2	76.5	7.0	1.2	13	4.9		
NEUB	e P	Z	05:53:37.4	76.7	6.2	1.8	68	5.5		
BUG	e P	Z	05:53:37.3	76.7	3.3	1.1	16	5.1		
FBE	e P	Z	05:53:38.5	76.9	7.2	1.8	64	5.5		
BRG	e P	Z	05:53:38.2	76.9	7.5	1.0	8	4.8		
MOX	e P	Z	05:53:40.5	77.3	6.1	1.7	26	5.1		
WERD	e P	Z	05:53:41.5	77.4	6.5	1.4	13	4.9		
TANN	e P	Z	05:53:41.5	77.4	6.6	1.8	27	5.1		
GUNZ	e P	Z	05:53:42.0	77.5	6.5	1.3	19	5.1		
WERN	e P	Z	05:53:42.5	77.6	6.5	1.2	18	5.1		
TNS	e P	Z	05:53:44.0	77.9	4.1	0.9	19	5.2		
ROTZ	e P	Z	05:53:45.5	78.1	6.4	1.3	13	4.9		
GRA1	e P	Z	05:53:46.4	78.2	5.8	1.1	34	5.3		
	e L	N	06:32:42.0			21.9	322		4.6	
WET	e P	Z	05:53:48.4	78.7	6.8	1.8	28	5.0		
GEC2	e P	Z	05:53:49.4	78.9	7.3	1.2	14	4.8		
STU	e P	Z	05:53:51.6	79.3	4.5	1.2	23	5.0		
BFO	e P	Z	05:53:54.2	79.8	4.0	1.4	20	4.9		
RJOB	e P	Z	05:53:56.1	80.1	6.7	3.0	105	5.3		

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/15 07:53: 6.5 42.637N 144.899E 33.0G 5.3 4.7 ML SZGRF
Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	08:04:57.0	77.2	32.4	0.8	13	5.1		
CLL	e P	Z	08:04:56.8	77.2	34.2	0.8	44	5.6		
BRG	e P	Z	08:04:57.0	77.2	34.7	1.0	16	5.1		
FBE	e P	Z	08:04:58.2	77.4	34.3	0.8	28	5.5		
CLZ	e P	Z	08:05:00.0	77.7	32.5	0.8	35	5.6		
NEUB	e P	Z	08:05:00.0	77.7	33.3	0.8	41	5.6		
IBBN	e P	Z	08:05:02.2	78.1	30.8	1.0	42	5.5		
TANN	e P	Z	08:05:02.0	78.1	33.7	1.0	9	4.8		
WERD	e P	Z	08:05:02.4	78.2	33.6	0.8	11	5.0		
PLN	e P	Z	08:05:02.4	78.2	33.5	0.9	17	5.1		
GUNZ	e P	Z	08:05:02.7	78.2	33.6	0.8	13	5.0		
MOX	e P	Z	08:05:02.8	78.2	33.2	0.9	17	5.1		
WERN	e P	Z	08:05:03.2	78.3	33.6	0.8	17	5.2		
ROTZ	e P	Z	08:05:06.0	78.8	33.5	1.0	21	5.1		
GEC2	e P	Z	08:05:06.7	79.0	34.3	1.1	13	4.9		
BUG	e P	Z	08:05:06.9	79.0	30.3	1.1	32	5.3		

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WET	e P	Z	08:05:07.5	79.0	33.8	0.9	24	5.2	
GRA1	e P	Z	08:05:08.4	79.2	32.8	0.9	67	5.6	
	e L	N	08:43:15.8			21.3	364		4.7
TNS	e P	Z	08:05:10.6	79.7	31.0	0.9	28	5.2	
RJOB	e P	Z	08:05:14.1	80.2	33.6	0.8	27	5.3	
FUR	e P	Z	08:05:15.0	80.4	32.7	0.8	44	5.6	
BFO	e P	Z	08:05:19.2	81.3	30.8	1.0	16	5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/15	09:25:23.8	21.740S	177.233W	33.0G				SZGRF

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e PKPbc	Z 09:45:09.2	149.3	13.9					
CLL	e PKPbc	Z 09:45:09.0	149.4	18.9					
BRG	e PKPbc	Z 09:45:09.6	149.6	20.8					
FBE	e PKPbc	Z 09:45:10.2	149.7	19.8					
MOX	e PKPbc	Z 09:45:11.4	150.3	16.7					
PLN	e PKPbc	Z 09:45:11.6	150.3	17.8					
WERD	e PKPbc	Z 09:45:11.6	150.3	18.1					
TANN	e PKPbc	Z 09:45:11.6	150.3	18.4					
GUNZ	e PKPbc	Z 09:45:12.0	150.4	18.2					
WERN	e PKPbc	Z 09:45:12.2	150.5	18.3					
ROTZ	e PKPbc	Z 09:45:13.4	151.0	18.3					
TNS	e PKPbc	Z 09:45:13.7	151.2	11.0					
GRA1	e PKPbc	Z 09:45:13.9	151.3	16.5					
GEC2	e PKPbc	Z 09:45:14.4	151.5	21.7					
WLF	e PKPbc	Z 09:45:15.9	151.9	6.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/15	15:51:15.0	2.070S	30.370E	38.3	4.8	4.3		SZGRF

Lake Tanganyika region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 16:00:26.7	52.9	158.9	1.6	18	4.8		
WET	e P	Z 16:00:29.7	53.4	158.0	1.5	10	4.6		
	e pP	Z 16:00:40.2							
BFO	e P	Z 16:00:33.5	53.9	152.4	1.5	14	4.8		
ROTZ	e P	Z 16:00:35.2	54.1	157.4	1.1	5	4.5		
	e pP	Z 16:00:45.6							
GRA1	e P	Z 16:00:36.4	54.3	156.2	1.5	29	5.1		
	e pP	Z 16:00:47.0							
	e L	Z 16:24:25.4			22.0	266			4.3
GUNZ	e P	Z 16:00:39.0	54.7	157.7	1.7	18	4.8		
	e pP	Z 16:00:49.8							

TANN	e P	Z	16:00:39.1	54.7	157.9	1.3	8	4.6
WERD	e pP	Z	16:00:50.2	54.7	157.7			
BRG	e P	Z	16:00:39.3	54.8	159.8	1.3	6	4.4
MOX	e P	Z	16:00:42.1	55.1	156.9	1.3	8	4.6
	e pP	Z	16:00:52.4					
CLL	e P	Z	16:00:43.7	55.4	158.7	1.5	12	4.7
TNS	e P	Z	16:00:45.4	55.6	153.1	0.9	17	5.1
	e pP	Z	16:00:55.9					
UBBA	e P	Z	16:00:46.1	55.7	155.1	1.4	13	4.8
CLZ	e P	Z	16:00:52.1	56.5	155.8	1.6	14	4.8
BUG	e P	Z	16:00:55.7	57.0	152.1	1.3	26	5.1
	e pP	Z	16:01:06.3			1.1	28	
NRDL	e P	Z	16:00:57.3	57.2	155.7	1.6	38	5.2
	e pP	Z	16:01:07.8			1.1	43	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/16	02:58:40.1	37.360N	23.380E	33.0G	4.1			SZGRF
Southern Greece								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:02:15.9	15.1	140.1	1.0	55			
TANN	e P	Z 03:02:17.3	15.2	145.0	1.2	9			
FBE	e P	Z 03:02:18.3	15.3	148.4	1.4	27			
BFO	e P	Z 03:02:21.3	15.5	129.5	1.0	16	4.1		
CLL	e P	Z 03:02:24.1	15.8	148.2	0.9	10	4.0		
NEUB	e P	Z 03:02:29.2	16.1	144.8	1.2	30			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/16	07:28:33.0	1.029N	27.403W	33.0G	5.2	5.0		SZGRF
Central Mid-Atlantic Ridge								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 07:38:11.7	56.4	224.5	1.6	50	5.3		
FUR	e P	Z 07:38:21.1	57.7	227.7	1.3	57	5.4		
TNS	e P	Z 07:38:21.3	57.8	223.8	1.2	49	5.4		
RJOB	e P	Z 07:38:24.3	58.2	229.4	0.8	17	5.1		
BUG	e P	Z 07:38:24.3	58.2	222.0	1.1	24	5.1		
GRA1	e P	Z 07:38:27.9	58.7	226.9	1.5	72	5.5		
	e S	E 07:46:40.3							
	e L	Z 08:01:05.8			21.3	1135		5.0	
UBBA	e P	Z 07:38:29.1	59.0	225.1	1.8	37	5.1		
IBBN	e P	Z 07:38:29.8	59.1	222.2	1.3	37	5.3		
WET	e P	Z 07:38:30.8	59.2	228.8	1.3	26	5.1		
ROTZ	e P	Z 07:38:31.4	59.3	227.9	1.2	44	5.3		
GEC2	e P	Z 07:38:32.4	59.4	229.8	1.2	27	5.2		

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MOX	e P	Z	07:38:33.8	59.6	226.9	1.3	27	5.1
WERN	e P	Z	07:38:34.3	59.7	227.8	1.2	28	5.2
PLN	e P	Z	07:38:34.7	59.7	227.5			
WERD	e P	Z	07:38:35.0	59.8	227.7	1.4	24	5.0
TANN	e P	Z	07:38:35.5	59.8	227.9	1.2	26	5.1
CLZ	e P	Z	07:38:35.2	59.8	225.1	1.6	26	5.0
NRDL	e P	Z	07:38:38.0	60.2	224.6	1.6	35	5.1
FBE	e P	Z	07:38:41.1	60.6	228.5	1.2	37	5.3
CLL	e P	Z	07:38:41.2	60.7	228.0	1.8	36	4.9
BRG	e P	Z	07:38:42.1	60.8	229.2	1.5	22	4.8
RUE	e P	Z	07:38:49.4	61.8	228.3	1.3	47	5.6

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/16 09:46:57.4 17.011S 172.798W 33.0G
 Tonga Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	10:06:29.1	144.4	4.8					
BRG	e PKPbc	Z	10:06:31.6	145.7	11.5					
FBE	e PKPbc	Z	10:06:32.1	145.7	10.5					
UBBA	e PKPbc	Z	10:06:32.6	146.1	4.8					
MOX	e PKPbc	Z	10:06:33.2	146.2	7.6					
PLN	e PKPbc	Z	10:06:33.9	146.3	8.6					
WERD	e PKPbc	Z	10:06:33.9	146.3	8.8					
TANN	e PKPbc	Z	10:06:34.1	146.3	9.1					
GUNZ	e PKPbc	Z	10:06:34.4	146.4	8.9					
WERN	e PKPbc	Z	10:06:34.7	146.5	9.0					
TNS	e PKPbc	Z	10:06:35.2	146.8	2.2					
ROTZ	e PKPbc	Z	10:06:36.4	147.0	8.8					
GRA1	e PKPbc	Z	10:06:36.7	147.2	7.1					
GEC2	e PKPbc	Z	10:06:38.3	147.7	11.7					
BFO	e PKPbc	Z	10:06:40.8	148.7	2.1					
RJOB	e PKPbc	Z	10:06:41.5	148.9	10.4					

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/16 11:15:41.3 8.700S 126.900E 35.0F 5.7 5.4
 East Timor region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ASSE	e PKiKP	Z	11:34:15.0							
BRG	e PKiKP	Z	11:34:11.9							
CLL	e PKiKP	Z	11:34:12.5							
CLZ	e PKiKP	Z	11:34:15.9							
GEC2	e PKiKP	Z	11:34:12.9							
GRA1	e L	Z	12:25:52.9			21.6	1060		5.4	

GTTG	e	PKiKP	Z	11:34:16.3
IBBN	e	PKiKP	Z	11:34:18.4
MOX	e	PKiKP	Z	11:34:14.5
	e	PP	Z	11:35:05.2
NRDL	e	PKiKP	Z	11:34:15.7
RJOB	e	PKiKP	Z	11:34:14.2
TNS	e	PKiKP	Z	11:34:18.8
WERD	e	PKiKP	Z	11:34:14.0
WET	e	PKiKP	Z	11:34:14.0
WLF	e	PKiKP	Z	11:34:22.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/16	21:47:16.0	16.104N	72.834E	33.0G	4.8	3.6		SZGRF
Arabian Sea								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 21:57:03.7	57.8	102.9	0.7	5	4.7		
BRG	e P	Z 21:57:06.5	58.1	104.3	0.7	12	5.0		
FBE	e P	Z 21:57:09.4	58.5	103.8	0.8	12	5.0		
CLL	e P	Z 21:57:10.6	58.8	103.8	1.1	12	4.8		
ROTZ	e P	Z 21:57:12.4	58.9	102.2	0.8	6	4.7		
MOX	e P	Z 21:57:16.1	59.5	102.2	0.7	8	4.9		
GRA1	e P	Z 21:57:16.5	59.5	101.3	1.1	16	4.9		
	e L	Z 22:23:52.1			18.6	46		3.6	
CLZ	e P	Z 21:57:22.9	60.5	101.8	1.4	13	4.6		
NRDL	e P	Z 21:57:24.6	60.8	101.9	1.6	17	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/17	01:08:49.4	33.403N	32.819E	33.0G	4.2			SZGRF
Eastern Mediterranean Sea								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WET	e P	Z 01:13:37.0	21.6	129.3	1.0	12	4.3		
BRG	e P	Z 01:13:43.0	22.2	134.5	0.8	9	4.3		
ROTZ	e P	Z 01:13:44.6	22.3	129.3	1.3	10	4.1		
WERN	e P	Z 01:13:47.1	22.6	130.6	0.6	4	4.1		
TANN	e P	Z 01:13:47.3	22.6	131.0	1.0	7	4.2		
GUNZ	e P	Z 01:13:48.0	22.7	130.7	0.7	9	4.5		
WERD	e P	Z 01:13:48.5	22.7	130.8	0.9	6	4.1		
GRA1	e P	Z 01:13:49.6	22.8	127.5	0.8	6	4.2		
CLL	e P	Z 01:13:50.3	23.0	133.5	1.5	10	4.1		
MOX	e P	Z 01:13:53.8	23.2	129.9	1.2	11	4.3		
CLZ	e P	Z 01:14:06.9	24.6	129.9	0.8	4	4.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/17	12:08:16.0	39.561N	39.789E	33.0G	4.6			SZGRF

Turkey

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	12:12:54.1	20.7	106.8	1.0	20	4.4		
BRG	e P	Z	12:12:58.9	21.3	112.1	1.1	12	4.2		
WET	e P	Z	12:13:00.0	21.3	106.5	1.2	32	4.5		
FBE	e P	Z	12:13:03.2	21.6	111.4	1.2	40	4.7		
ROTZ	e P	Z	12:13:06.9	21.9	107.2	1.3	33	4.6		
CLL	e P	Z	12:13:06.4	22.0	111.8	1.3	36	4.7		
TANN	e P	Z	12:13:07.0	22.0	109.0	1.5	41	4.6		
WERN	e P	Z	12:13:07.5	22.0	108.6	1.4	71	4.9		
GUNZ	e P	Z	12:13:07.8	22.0	108.7	1.5	49	4.7		
WERD	e P	Z	12:13:07.7	22.1	108.9	1.3	17	4.3		
PLN	e P	Z	12:13:09.0	22.2	108.8					
GRA1	e P	Z	12:13:13.4	22.5	105.8	1.2	137	5.3		
UBBA	e P	Z	12:13:24.1	23.6	106.9	1.6	19	4.4		
CLZ	e P	Z	12:13:24.7	23.7	109.6	1.3	25	4.6		
BFO	e P	Z	12:13:28.3	24.1	99.6	2.0	39	4.6		
TNS	e P	Z	12:13:32.0	24.4	103.8	1.4	98	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/17	17:44: 2.6	27.135N	53.972E	33.0G	4.9	4.6		SZGRF

Southern Iran

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	17:51:16.0	37.8	110.2	1.1	14	4.6		
RJOB	e P	Z	17:51:18.1	38.0	107.9	1.0	18	4.8		
BRG	e P	Z	17:51:20.5	38.4	112.8	1.1	29	4.9		
WET	e P	Z	17:51:20.7	38.4	109.7	1.2	22	4.7		
FBE	e P	Z	17:51:23.8	38.7	112.2	1.2	24	4.7		
ROTZ	e P	Z	17:51:26.5	39.0	109.7	1.2	40	4.9		
TANN	e P	Z	17:51:26.5	39.1	110.7	2.3	42	4.7		
WERN	e P	Z	17:51:26.9	39.1	110.5	1.2	23	4.7		
FUR	e P	Z	17:51:26.9	39.1	106.9	1.2	52	5.1		
CLL	e P	Z	17:51:26.6	39.1	112.3	1.2	42	5.0		
GUNZ	e P	Z	17:51:27.1	39.1	110.5	2.0	36	4.7		
WERD	e P	Z	17:51:27.2	39.2	110.6	1.3	12	4.4		
PLN	e P	Z	17:51:28.1	39.3	110.5					
GRA1	e P	Z	17:51:31.2	39.6	108.6	1.2	89	5.3		
	e L	Z	18:12:48.0			18.9	836		4.6	
MOX	e P	Z	17:51:31.4	39.7	110.1	1.1	14	4.5		
NEUB	e P	Z	17:51:32.3	39.8	110.9	1.1	40	5.0		
UBBA	e P	Z	17:51:40.3	40.7	108.6	1.0	13	4.6		
CLZ	e P	Z	17:51:41.3	40.8	110.1	1.2	76	5.3		

NRDL	e P	Z	17:51:44.4	41.2	110.6	1.0	54	5.2
TNS	e P	Z	17:51:46.7	41.5	106.4	1.3	83	5.3
BUG	e P	Z	17:51:55.4	42.5	106.6	1.3	71	5.3
WLF	e P	Z	17:51:56.8	42.7	103.7	1.2	42	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/17	21:03:35.1	29.486S	13.151W	33.0G	5.0	4.5		SZGRF

Southern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:15:52.7	82.1	201.3	1.7	20	5.0		
	e L	Z 21:51:18.2			18.6	213		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/18	01:41: 3.0	4.500S	106.000W	10.0G		5.7		NEIC

Central East Pacific Rise

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z 02:00:10.0	110.9	288.5					
	e L	Z 02:46:18.6			18.8	1711		5.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/18	02:10:21.4	27.100N	55.900E	1.0	4.6			NEIC

Southern Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:18:05.1	40.9	106.5	2.3	84	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/18	09:30: 0.4	46.650N	145.180E	339.6	5.2			SZGRF

Sea of Okhotsk

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e pP	Z 09:42:16.2	73.7	30.3					
CLL	e P	Z 09:40:59.7	73.8	32.0	0.8	44	5.6		
BRG	e P	Z 09:40:59.8	73.8	32.5	0.9	13	4.9		
FBE	e P	Z 09:41:01.2	74.0	32.2	0.8	24	5.3		
CLZ	e P	Z 09:41:02.6	74.2	30.4	0.8	20	5.2		
PLN	e pP	Z 09:42:22.7	74.8	31.3					
MOX	e P	Z 09:41:05.7	74.8	31.0	1.0	14	4.9		
	e pP	Z 09:42:22.8							

GUNZ	e P	Z	09:41:05.8	74.8	31.4	0.8	15	5.1
WERN	e P	Z	09:41:06.1	74.8	31.5	0.8	16	5.1
	e pP	Z	09:42:23.2					
ROTZ	e P	Z	09:41:09.3	75.4	31.3	1.0	14	5.1
	e pP	Z	09:42:26.4					
BUG	e pP	Z	09:42:26.7	75.5	28.4			
GEC2	e P	Z	09:41:10.4	75.6	32.1	0.9	14	5.1
	e pP	Z	09:42:27.4					
WET	e P	Z	09:41:11.1	75.7	31.6	0.9	30	5.4
GRA1	e P	Z	09:41:11.6	75.7	30.7	0.8	52	5.7
TNS	e P	Z	09:41:13.8	76.2	29.0	0.8	26	5.4
RJOB	e P	Z	09:41:18.0	76.9	31.4	0.7	26	5.5
BFO	e P	Z	09:41:23.0	77.9	28.7	0.8	16	5.2
	e pP	Z	09:42:40.5					

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/18 11:58:57.4 52.945N 156.162E 33.0G 5.9 5.6
 Kamchatka Peninsula, Russia SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	12:10:02.7	69.4	21.2	1.0	149	6.1		
HLG	e P	Z	12:10:04.4	69.7	19.7	0.8	204	6.3		
RUE	e P	Z	12:10:06.0	70.0	23.0	0.9	131	6.1		
NRDL	e P	Z	12:10:10.7	70.8	20.9	1.0	80	5.8		
CLL	e P	Z	12:10:13.1	71.3	22.4	0.8	129	6.1		
CLZ	e P	Z	12:10:14.7	71.4	20.9	1.0	220	6.2		
BRG	e P	Z	12:10:14.2	71.4	22.9	1.1	65	5.7		
IBBN	e P	Z	12:10:15.0	71.5	19.4	0.8	159	6.2		
FBE	e P	Z	12:10:15.3	71.5	22.6	0.9	110	6.0		
NEUB	e P	Z	12:10:15.6	71.6	21.7	1.0	96	5.9		
MOX	e P	Z	12:10:19.1	72.2	21.5	1.2	108	5.8		
TANN	e P	Z	12:10:19.3	72.2	22.0	1.4	72	5.6		
WERD	e P	Z	12:10:19.4	72.2	21.9	1.1	88	5.8		
PLN	e P	Z	12:10:19.5	72.2	21.8					
GUNZ	e P	Z	12:10:19.9	72.3	21.9	1.0	71	5.8		
WERN	e P	Z	12:10:20.2	72.3	21.9	0.9	89	5.9		
BUG	e P	Z	12:10:20.2	72.4	19.1	1.0	203	6.2		
UBBA	e P	Z	12:10:20.1	72.4	20.6	1.3	78	5.7		
ROTZ	e P	Z	12:10:23.5	72.9	21.8	1.1	101	5.9		
GRA1	e P	Z	12:10:25.3	73.2	21.2	1.0	266	6.2		
	e L	Z	12:47:05.8			21.8	3464		5.6	
WET	e P	Z	12:10:26.0	73.3	22.1	0.9	146	6.0		
TNS	e P	Z	12:10:25.6	73.3	19.6	1.0	160	6.0		
GEC2	e P	Z	12:10:26.0	73.4	22.5	0.8	74	5.8		
WLF	e P	Z	12:10:31.7	74.3	18.2	1.1	109	5.8		
RJOB	e P	Z	12:10:33.7	74.6	21.9	0.9	87	5.8		
BFO	e P	Z	12:10:35.9	75.1	19.4	0.9	107	5.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/18	12:02:55.0	18.659S	175.358W	33.0G				SZGRF
Tonga Islands								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	12:22:32.0	144.5	9.3					
CLZ	e PKPbc	Z	12:22:38.6	146.5	9.9					
BRG	e PKPbc	Z	12:22:39.3	147.0	16.3					
NEUB	e PKPbc	Z	12:22:39.6	147.0	12.5					
FBE	e PKPbc	Z	12:22:39.9	147.0	15.3					
MOX	e PKPbc	Z	12:22:40.9	147.5	12.4					
PLN	e PKPbc	Z	12:22:41.2	147.6	13.4					
WERD	e PKPbc	Z	12:22:41.2	147.6	13.7					
TANN	e PKPbc	Z	12:22:41.3	147.6	13.9					
GUNZ	e PKPbc	Z	12:22:41.7	147.7	13.7					
WERN	e PKPbc	Z	12:22:41.9	147.8	13.8					
TNS	e PKPbc	Z	12:22:43.5	148.3	6.9					
ROTZ	e PKPbc	Z	12:22:43.3	148.3	13.7					
GEC2	e PKPbc	Z	12:22:44.5	148.9	16.8					
BFO	e PKPbc	Z	12:22:47.9	150.2	7.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/18	13:28:45.3	33.501N	140.023E	33.0G	5.0			SZGRF
Southeast of Honshu, Japan								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e P	Z	13:41:12.5	84.0	40.2	1.5	17	5.0		
GUNZ	e P	Z	13:41:13.7	84.3	41.5	0.8	6	4.8		
WERN	e P	Z	13:41:13.9	84.3	41.6	0.7	5	4.8		
ROTZ	e P	Z	13:41:16.6	84.8	41.4	1.3	12	5.0		
GEC2	e P	Z	13:41:16.1	84.8	42.4	1.2	7	4.8		
GRA1	e P	Z	13:41:19.0	85.2	40.7	0.9	23	5.3		
BUG	e P	Z	13:41:19.8	85.5	37.9	0.7	9	5.0		
RJOB	e P	Z	13:41:22.6	86.0	41.7	1.0	13	5.0		
BFO	e P	Z	13:41:29.7	87.5	38.6	0.9	9	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/18								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	18:22:59.8	28.5	290.5	1.0	5			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/18	18:46:45.3	4.700S	153.300E	84.0				NEIC

New Ireland, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	19:05:32.3	122.3	45.2					
BRG	e PKPdf	Z	19:05:32.8	122.7	50.5					
FBE	e PKPdf	Z	19:05:33.6	123.0	49.9					
NRDL	e PKPdf	Z	19:05:34.3	123.4	45.7					
NEUB	e PKPdf	Z	19:05:34.3	123.6	48.1					
TANN	e PKPdf	Z	19:05:34.8	123.7	49.2					
CLZ	e PKPdf	Z	19:05:35.2	123.8	46.3					
WERD	e PKPdf	Z	19:05:34.8	123.8	49.0					
GUNZ	e PKPdf	Z	19:05:35.1	123.8	49.1					
WERN	e PKPdf	Z	19:05:35.3	123.9	49.2					
GEC2	e PKPdf	Z	19:05:35.5	124.1	51.3					
ROTZ	e PKPdf	Z	19:05:35.8	124.3	49.3					
WET	e PKPdf	Z	19:05:36.1	124.4	50.3					
GRA1	e PKPdf	Z	19:05:36.8	124.8	48.3					
RJOB	e PKPdf	Z	19:05:37.2	125.3	51.0					
TNS	e PKPdf	Z	19:05:38.8	125.8	45.0					
FUR	e PKPdf	Z	19:05:38.7	125.8	49.1					
BFO	e PKPdf	Z	19:05:41.0	127.1	45.9					
WLF	e PKPdf	Z	19:05:42.2	127.2	42.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/18	19:44:0.2	60.509N	152.691W	93.8	4.9			SZGRF

Southern Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	19:54:28.8	64.8	350.8	0.9	15	5.2		
	e pP	Z	19:54:52.5							
NRDL	e P	Z	19:54:37.5	66.2	350.8	1.0	7	4.8		
CLZ	e P	Z	19:54:42.3	66.8	351.0	1.0	10	5.0		
	e pP	Z	19:55:06.0							
BUG	e P	Z	19:54:42.0	66.9	349.4	0.9	15	5.3		
BRG	e P	Z	19:54:49.6	68.1	353.0	1.4	8	4.8		
	e pP	Z	19:55:13.4							
MOX	e P	Z	19:54:49.9	68.1	351.8	1.1	11	5.0		
	e pP	Z	19:55:13.9							
TNS	e P	Z	19:54:50.5	68.2	350.1	1.3	17	5.1		
WERD	e P	Z	19:54:51.5	68.4	352.1	0.9	4	4.6		
TANN	e P	Z	19:54:51.8	68.4	352.2	0.9	4	4.6		
GUNZ	e P	Z	19:54:52.1	68.5	352.1	0.9	3	4.5		
WLF	e P	Z	19:54:52.4	68.5	349.0	1.1	16	5.2		
	e pP	Z	19:55:16.4							

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WERN	e P	Z	19:54:52.8	68.6	352.2	1.2	7	4.8
GRA1	e P	Z	19:54:55.7	69.0	351.6	0.8	4	4.8
	e pP	Z	19:55:19.7					
ROTZ	e P	Z	19:54:55.9	69.1	352.1	1.0	6	4.8
	e pP	Z	19:55:19.9					
WET	e P	Z	19:54:59.9	69.7	352.5	1.5	10	4.7
BFO	e P	Z	19:55:01.6	70.1	350.2	1.4	12	4.9
GEC2	e P	Z	19:55:01.9	70.1	352.9			
RJOB	e P	Z	19:55:08.0	71.1	352.5	0.8	8	4.9
	e pP	Z	19:55:32.0					

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/18 20:32:38.3 9.396N 91.582E 33.0G 5.2
 Nicobar Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	20:44:20.5	74.9	93.6	1.1	25	5.1		
GEC2	e P	Z	20:44:20.9	75.0	92.9	1.2	26	5.2		
RUE	e P	Z	20:44:21.4	75.1	93.9	1.0	60	5.6		
FBE	e P	Z	20:44:23.1	75.3	93.2	1.0	44	5.4		
WET	e P	Z	20:44:24.0	75.5	92.3	1.2	23	5.2		
RJOB	e P	Z	20:44:23.5	75.5	91.9	1.2	18	5.1		
TANN	e P	Z	20:44:25.7	75.8	92.3	1.2	12	4.9		
WERN	e P	Z	20:44:26.3	75.9	92.2	0.9	12	5.0		
GUNZ	e P	Z	20:44:26.4	75.9	92.2	1.3	25	5.2		
WERD	e P	Z	20:44:26.4	75.9	92.2	1.2	21	5.1		
ROTZ	e P	Z	20:44:27.0	76.0	92.0	1.1	27	5.3		
NEUB	e P	Z	20:44:28.1	76.3	92.0	1.0	24	5.3		
MOX	e P	Z	20:44:28.9	76.4	91.7	0.8	12	5.1		
GRA1	e P	Z	20:44:30.6	76.6	91.2	1.1	37	5.4		
CLZ	e P	Z	20:44:33.4	77.2	91.0	1.0	27	5.3		
BSEG	e P	Z	20:44:33.9	77.3	91.5	1.1	74	5.7		
NRDL	e P	Z	20:44:34.3	77.4	91.0	1.2	25	5.2		
TNS	e P	Z	20:44:40.5	78.4	89.2	1.0	25	5.3		
BFO	e P	Z	20:44:40.7	78.5	88.7	1.0	14	4.9		
IBBN	e P	Z	20:44:42.6	78.8	89.1	1.4	38	5.2		
BUG	e P	Z	20:44:44.2	79.1	88.5	1.3	26	5.1		
WLF	e P	Z	20:44:49.0	79.9	87.3	1.4	31	5.0		

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/19 03:23:42.1 17.869S 177.131W 33.0
 Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	03:43:12.6	144.3	18.0					

NRDL	e	PKPbc	Z	03:43:14.3	144.9	12.0
IBBN	e	PKPbc	Z	03:43:16.1	145.3	8.2
BRG	e	PKPbc	Z	03:43:17.3	145.8	19.0
FBE	e	PKPbc	Z	03:43:17.9	145.9	18.0
NEUB	e	PKPbc	Z	03:43:17.6	145.9	15.2
WERD	e	PKPbc	Z	03:43:19.5	146.6	16.5
TANN	e	PKPbc	Z	03:43:19.5	146.6	16.7
GUNZ	e	PKPbc	Z	03:43:19.7	146.6	16.5
ROTZ	e	PKPbc	Z	03:43:21.5	147.2	16.6
TNS	e	PKPbc	Z	03:43:21.7	147.3	9.9
GRA1	e	PKPbc	Z	03:43:22.3	147.5	14.9
GEC2	e	PKPbc	Z	03:43:22.7	147.8	19.6
WLF	e	PKPbc	Z	03:43:24.4	148.1	5.9
BFO	e	PKPbc	Z	03:43:26.3	149.2	10.2
	e	PKPab	Z	03:43:32.3		

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/19 18:34:21.4 24.100S 175.500W 33.0G
 South of Tonga Islands SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e	PKPbc	Z	18:54:08.6	149.8	6.1				
RUE	e	PKPbc	Z	18:54:10.5	150.8	17.5				
NRDL	e	PKPbc	Z	18:54:11.8	151.3	10.7				
IBBN	e	PKPbc	Z	18:54:12.6	151.7	6.3				
CLZ	e	PKPbc	Z	18:54:13.5	151.9	11.4				
CLL	e	PKPbc	Z	18:54:13.4	152.0	16.7				
BRG	e	PKPdf	Z	18:54:07.6	152.3	18.8				
	e	PKPbc	Z	18:54:14.1						
NEUB	e	PKPbc	Z	18:54:14.2	152.3	14.4				
MOX	e	PKPbc	Z	18:54:15.3	152.9	14.4				
WERD	e	PKPdf	Z	18:54:08.4	153.0	15.8				
	e	PKPbc	Z	18:54:15.6						
	e	PKPab	Z	18:54:26.4						
TANN	e	PKPdf	Z	18:54:08.6	153.0	16.2				
	e	PKPbc	Z	18:54:15.6						
	e	PKPab	Z	18:54:26.3						
GUNZ	e	PKPdf	Z	18:54:08.7	153.0	15.9				
	e	PKPbc	Z	18:54:15.7						
	e	PKPab	Z	18:54:26.8						
WERN	e	PKPdf	Z	18:54:08.9	153.1	16.1				
	e	PKPbc	Z	18:54:16.2						
	e	PKPab	Z	18:54:27.2						
ROTZ	e	PKPbc	Z	18:54:17.1	153.6	16.0				
TNS	e	PKPab	Z	18:54:29.7	153.7	8.2				
GRA1	e	PKPdf	Z	18:54:10.2	153.9	14.0				
WET	e	PKPdf	Z	18:54:10.0	154.1	17.7				

GEC2 e PKPdf Z 18:54:10.1 154.2 19.6

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/20 02:54:39.7 37.294N 73.111E 180.0G 5.8
 Tajikistan SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 03:02:21.7	43.3	86.1	1.3	177	5.6		
BRG	e P	Z 03:02:22.9	43.3	84.5	1.2	185	5.7		
RGN	e P	Z 03:02:23.3	43.5	87.9	1.1	585	6.2		
GEC2	e P	Z 03:02:26.3	43.7	82.2	1.3	109	5.4		
CLL	e P	Z 03:02:26.6	43.9	84.3	1.2	136	5.5		
WET	e P	Z 03:02:30.2	44.2	82.0	1.2	88	5.4		
TANN	e P	Z 03:02:30.8	44.3	83.0	1.3	83	5.3		
WERN	e P	Z 03:02:31.4	44.4	82.8	1.5	70	5.4		
GUNZ	e P	Z 03:02:31.6	44.4	82.8	1.0	72	5.6		
WERD	e P	Z 03:02:31.4	44.4	82.9	0.9	64	5.5		
ROTZ	e P	Z 03:02:33.2	44.6	82.1	1.2	110	5.7		
NEUB	e P	Z 03:02:32.9	44.7	83.3	1.1	170	5.9		
MOX	e P	Z 03:02:34.7	44.8	82.6	1.1	92	5.6		
GRA1	e P	Z 03:02:38.6	45.2	81.4	1.2	285	6.1		
FUR	e P	Z 03:02:40.2	45.4	79.9	1.1	219	6.1		
CLZ	e P	Z 03:02:39.3	45.4	82.9	1.3	168	5.9		
NRDL	e P	Z 03:02:40.1	45.5	83.4	1.2	244	6.1		
UBBA	e P	Z 03:02:42.1	45.8	81.7	1.3	72	5.6		
HLG	e P	Z 03:02:48.7	46.7	83.3	1.2	311	6.3		
TNS	e P	Z 03:02:50.8	46.9	80.1	1.2	104	5.8		
IBBN	e P	Z 03:02:51.1	47.0	81.5	1.4	282	6.2		
BFO	e P	Z 03:02:54.2	47.3	78.3	1.2	75	5.7		
BUG	e P	Z 03:02:54.7	47.4	80.4	1.2	171	6.1		
WLF	e P	Z 03:03:03.4	48.4	78.1	1.0	167	6.0		

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/20 05:16:25.3 64.972N 128.717W 8.6 4.7
 Northwest Territories, Canada SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z 05:26:17.1	58.3	340.9	1.1	11	4.8		
	e pP	Z 05:26:19.9							
CLZ	e P	Z 05:26:22.1	59.0	341.1	0.9	12	4.9		
NEUB	e P	Z 05:26:27.7	59.9	341.9	1.2	14	4.9		
CLL	e P	Z 05:26:28.4	60.0	342.4	0.9	7	4.7		
TNS	e P	Z 05:26:29.4	60.1	340.6	1.4	18	4.9		
MOX	e P	Z 05:26:31.1	60.4	341.9	1.1	11	4.6		
BRG	e P	Z 05:26:32.5	60.6	342.9	1.2	10	4.5		

	e pP	Z	05:26:34.9							
WERD	e P	Z	05:26:33.4	60.7	342.2	1.1	9	4.5		
	e pP	Z	05:26:35.7							
TANN	e P	Z	05:26:34.0	60.8	342.3	1.0	6	4.4		
GUNZ	e P	Z	05:26:34.0	60.8	342.3	1.1	6	4.3		
	e pP	Z	05:26:36.5							
WERN	e P	Z	05:26:34.7	60.9	342.3	0.9	6	4.5		
	e pP	Z	05:26:36.9							
GRA1	e P	Z	05:26:37.3	61.2	341.9	0.9	5	4.7		
	e pP	Z	05:26:39.6							
ROTZ	e P	Z	05:26:37.8	61.3	342.3	1.0	5	4.7		
BFO	e P	Z	05:26:41.0	61.9	340.9	1.4	13	5.0		
WET	e P	Z	05:26:42.7	62.1	342.7	1.0	9	4.9		
	e pP	Z	05:26:45.0							
GEC2	e P	Z	05:26:45.5	62.5	343.1	1.0	8	4.8		

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/20 22:17:11.3 35.855N 141.018E 51.0 4.9
 Near east coast of eastern Honshu, Japan SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	22:29:23.2	81.6	40.8	1.0	8	4.8		
CLL	e P	Z	22:29:23.3	81.7	40.2	1.0	11	5.0		
NRDL	e P	Z	22:29:24.6	81.9	38.2	0.8	4	4.6		
NEUB	e P	Z	22:29:26.6	82.2	39.3	0.9	9	5.0		
CLZ	e P	Z	22:29:27.2	82.3	38.4	0.9	8	4.9		
WERD	e P	Z	22:29:28.6	82.6	39.6	0.9	2	4.5		
WERN	e P	Z	22:29:29.1	82.7	39.7	0.9	3	4.5		
IBBN	e P	Z	22:29:30.1	82.9	36.5	0.6	11	5.2		
ROTZ	e P	Z	22:29:31.8	83.2	39.5					
GRA3	e P	Z	22:29:33.7	83.5	38.9					
GRA1	e P	Z	22:29:34.2	83.6	38.8	0.9	14	5.2		
FUR	e P	Z	22:29:39.8	84.8	38.7	0.7	9	5.1		
BFO	e P	Z	22:29:44.8	85.9	36.7	1.3	13	4.9		

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/21 06:36:20.8 15.957S 173.998W 33.0G
 Tonga Islands SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e PKPbc	Z	06:55:51.6	144.5	2.1					
BRG	e PKPbc	Z	06:55:51.7	144.5	13.2					
MOX	e PKPbc	Z	06:55:53.5	145.0	9.4					
WERD	e PKPbc	Z	06:55:54.0	145.1	10.6					
TANN	e PKPbc	Z	06:55:54.2	145.2	10.9					

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GUNZ	e	PKPbc	Z	06:55:54.5	145.2	10.7
WERN	e	PKPbc	Z	06:55:54.8	145.3	10.8
TNS	e	PKPbc	Z	06:55:55.8	145.7	4.2
WLF	e	PKPbc	Z	06:55:58.2	146.3	0.3
BFO	e	PKPbc	Z	06:56:01.3	147.6	4.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/21	07:11:6.6	21.944S	177.874W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e	PKPbc	Z 07:29:51.1	149.3	10.3					
	e	PKPab	Z 07:29:58.7							
CLZ	e	PKPbc	Z 07:29:51.4	149.4	15.2					
CLL	e	PKPbc	Z 07:29:50.9	149.4	20.1					
BRG	e	PKPbc	Z 07:29:51.4	149.6	22.1					
NEUB	e	PKPbc	Z 07:29:51.9	149.8	18.0					
	e	PKPab	Z 07:29:59.5							
BUG	e	PKPbc	Z 07:29:53.0	150.2	9.6					
MOX	e	PKPbc	Z 07:29:53.1	150.4	18.0					
	e	PKPab	Z 07:30:02.1							
TANN	e	PKPbc	Z 07:29:53.3	150.4	19.7					
	e	PKPab	Z 07:30:02.2							
WERD	e	PKPbc	Z 07:29:53.3	150.4	19.4					
	e	PKPab	Z 07:30:02.2							
GUNZ	e	PKPbc	Z 07:29:53.6	150.5	19.5					
	e	PKPab	Z 07:30:02.7							
WERN	e	PKPbc	Z 07:29:53.7	150.5	19.6					
	e	PKPab	Z 07:30:03.1							
ROTZ	e	PKPbc	Z 07:29:54.8	151.1	19.6					
	e	PKPab	Z 07:30:05.4							
GRA1	e	PKPab	Z 07:30:06.6	151.3	17.8					
WET	e	PKPab	Z 07:30:07.0	151.5	21.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/21	07:45:21.3	20.607S	177.097W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e	PKPbc	Z 08:04:04.1	147.6	12.7	1.2	17			
IBBN	e	PKPab	Z 08:04:09.7	148.1	8.6					
CLZ	e	PKPbc	Z 08:04:06.0	148.2	13.4	1.2	19			
CLL	e	PKPbc	Z 08:04:05.8	148.3	18.2	0.9	26			
BRG	e	PKPbc	Z 08:04:06.4	148.5	20.1	1.1	16			
	e	PKPab	Z 08:04:11.3							

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MOX	e	PKPbc	Z	08:04:08.0	149.2	16.1	1.2	13
WERD	e	PKPbc	Z	08:04:08.3	149.2	17.4	0.8	11
TANN	e	PKPbc	Z	08:04:08.4	149.3	17.7	1.0	10
GUNZ	e	PKPbc	Z	08:04:08.6	149.3	17.5	1.5	28
	e	PKPab	Z	08:04:15.0				
WERN	e	PKPbc	Z	08:04:08.6	149.4	17.6	1.6	34
	e	PKPab	Z	08:04:15.5				
ROTZ	e	PKPbc	Z	08:04:10.0	149.9	17.6	1.3	14
TNS	e	PKPbc	Z	08:04:10.2	150.1	10.4	0.8	18
WET	e	PKPab	Z	08:04:19.6	150.4	19.1		
GEC2	e	PKPbc	Z	08:04:11.0	150.5	20.8	1.1	10
FUR	e	PKPab	Z	08:04:24.9	151.6	16.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/21	18:50:20.8	31.400S	180.000W	372	5.2			NEIC
Kermadec Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e	PKPab	Z 19:10:03.2	157.9	28.3					
NRDL	e	PKPab	Z 19:10:07.0	158.8	20.2					
BRG	e	PKPab	Z 19:10:09.0	159.2	30.6					
CLZ	e	PKPab	Z 19:10:10.0	159.3	21.4					
IBBN	e	PKPab	Z 19:10:10.3	159.4	14.9					
NEUB	e	PKPab	Z 19:10:10.7	159.6	25.3					
TANN	e	PKPab	Z 19:10:13.0	160.1	27.9					
WERD	e	PKPab	Z 19:10:13.3	160.1	27.5					
MOX	e	PKPab	Z 19:10:13.1	160.1	25.6					
GUNZ	e	PKPab	Z 19:10:13.6	160.2	27.7					
WERN	e	PKPab	Z 19:10:13.7	160.2	27.9					
BUG	e	PKPdf	Z 19:09:35.2	160.3	14.4					
	e	PKPab	Z 19:10:13.8							
UBBA	e	PKPab	Z 19:10:13.9	160.4	21.6					
ROTZ	e	PKPab	Z 19:10:16.3	160.7	28.2					
GEC2	e	PKPdf	Z 19:09:35.1	161.0	33.1					
	e	PKPab	Z 19:10:16.6							
WET	e	PKPdf	Z 19:09:35.3	161.0	30.6					
	e	PKPab	Z 19:10:17.3							
GRA1	e	PKPab	Z 19:10:17.6	161.1	25.9					
	e	PP	Z 19:13:57.5							
TNS	e	PKPab	Z 19:10:18.3	161.3	18.3					
WLF	e	PKPab	Z 19:10:22.9	162.2	12.7					
FUR	e	PKPab	Z 19:10:23.5	162.4	28.1					
BFO	e	PKPab	Z 19:10:26.1	163.1	19.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2008/09/21 19:18:46.5
Tonga Islands

16.086S 174.627W 267.0G

SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e PKPbc	Z	19:38:23.2	144.6	3.1					
MOX	e PKPbc	Z	19:38:24.6	145.1	10.5					
WERD	e PKPbc	Z	19:38:24.9	145.2	11.7					
TANN	e PKPbc	Z	19:38:24.8	145.2	12.0					
GUNZ	e PKPbc	Z	19:38:25.2	145.3	11.8					
WERN	e PKPbc	Z	19:38:25.3	145.3	11.9					
ROTZ	e PKPbc	Z	19:38:27.3	145.9	11.8					
WLF	e PKPbc	Z	19:38:29.4	146.4	1.4					
GEC2	e PKPbc	Z	19:38:29.0	146.5	14.6					
BFO	e PKPbc	Z	19:38:32.4	147.7	5.3					

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/22 07:31:46.4 41.615N 141.726E 33.0G 5.3 4.8
Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	07:43:36.0	76.9	37.3	0.8	18	5.2		
NRDL	e P	Z	07:43:36.7	77.0	35.0	0.8	19	5.3		
NEUB	e P	Z	07:43:39.2	77.5	36.0	0.9	50	5.6		
WERD	e P	Z	07:43:41.6	77.9	36.2	0.9	11	5.0		
IBBN	e P	Z	07:43:42.1	78.0	33.4	0.9	41	5.6		
MOX	e P	Z	07:43:42.1	78.0	35.8	1.1	19	5.2		
WERN	e P	Z	07:43:42.3	78.0	36.2	1.0	22	5.2		
UBBA	e P	Z	07:43:44.2	78.4	34.7	0.8	12	5.0		
GEC2	e P	Z	07:43:45.4	78.6	36.9	0.7	10	4.9		
WET	e P	Z	07:43:46.4	78.7	36.4	1.0	15	5.0		
GRA1	e L	Z	08:22:45.9	78.9	35.4	20.2	463		4.8	
TNS	e P	Z	07:43:50.4	79.5	33.6	1.0	36	5.2		
FUR	e P	Z	07:43:54.1	80.1	35.3	0.7	54	5.6		
BFO	e P	Z	07:43:58.9	81.1	33.4	1.1	43	5.4		

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/22 13:30:31.3 14.781N 95.990E 33.0G 5.5 4.9
Andaman Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	13:42:05.9	73.6	86.6	1.3	58	5.4		
GEC2	e P	Z	13:42:07.7	73.9	85.8	1.4	51	5.4		
CLL	e P	Z	13:42:08.8	74.2	86.0	1.6	65	5.4		
WET	e P	Z	13:42:10.7	74.4	85.3	1.4	47	5.3		
TANN	e P	Z	13:42:11.5	74.6	85.3	1.5	53	5.4		

WERN	e P	Z	13:42:12.0	74.6	85.2	1.4	38	5.2	
GUNZ	e P	Z	13:42:12.2	74.7	85.2	1.4	61	5.5	
WERD	e P	Z	13:42:12.1	74.7	85.2	1.3	40	5.3	
ROTZ	e P	Z	13:42:13.4	74.8	85.0	1.4	84	5.6	
NEUB	e P	Z	13:42:13.6	74.9	85.0	1.3	66	5.5	
GRB3	e P	Z	13:42:15.1	75.1	84.5				
MOX	e P	Z	13:42:14.7	75.1	84.7	1.6	65	5.4	
GRA1	e P	Z	13:42:17.0	75.4	84.2	1.4	115	5.8	
	e L	Z	14:21:47.5			20.2	594		4.9
CLZ	e P	Z	13:42:18.5	75.7	84.1	1.3	72	5.6	
NRDL	e P	Z	13:42:19.1	75.8	84.1	1.4	97	5.7	
UBBA	e P	Z	13:42:20.1	76.1	83.6	1.6	51	5.4	
TNS	e P	Z	13:42:26.5	77.1	82.3	1.2	64	5.6	
IBBN	e P	Z	13:42:27.3	77.3	82.2	1.5	126	5.8	
BFO	e P	Z	13:42:27.8	77.5	81.7	1.6	42	5.3	
BUG	e P	Z	13:42:29.7	77.7	81.6	1.2	67	5.6	
WLF	e P	Z	13:42:35.6	78.7	80.4	1.3	77	5.6	

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/22 20:20:53.9 23.731S 178.720W 33.0G
 South of Fiji Islands SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	20:39:49.3	150.5	16.6					
CLL	e PKPbc	Z	20:39:50.5	151.0	22.5					
BRG	e PKPbc	Z	20:39:51.0	151.1	24.6					
NEUB	e PKPab	Z	20:40:01.2	151.4	20.4					
MOX	e PKPbc	Z	20:39:52.6	151.9	20.4					
	e PKPab	Z	20:40:03.5							
TANN	e PKPbc	Z	20:39:52.7	151.9	22.2					
WERD	e PKPbc	Z	20:39:52.8	151.9	21.9					
	e PKPab	Z	20:40:03.7							
GUNZ	e PKPbc	Z	20:39:53.1	152.0	22.0					
	e PKPab	Z	20:40:04.3							
WERN	e PKPbc	Z	20:39:53.4	152.1	22.1					
	e PKPab	Z	20:40:04.7							
ROTZ	e PKPab	Z	20:40:07.0	152.6	22.2					
GRA1	e PKPab	Z	20:40:08.4	152.9	20.3					
TNS	e PKPab	Z	20:40:08.0	152.9	14.5					
WET	e PKPab	Z	20:40:08.4	153.0	23.9					
GEC2	e PKPbc	Z	20:39:54.9	153.0	25.7					
FUR	e PKPab	Z	20:40:14.2	154.3	21.5					
BFO	e PKPab	Z	20:40:15.9	154.8	15.3					

Date Origin Time Lat Long Depth mb Ms ML Source

2008/09/24 02:33:05.4 17.600N 105.500W 10.0G 6.5 NEIC
Off the coast of Colima, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 02:46:20.3	77.8	76.8					
GEC2	e P	Z 02:46:27.4	77.9	76.8	3.1	237			
TANN	e P	Z 02:46:22.1	78.3	76.3	2.1	53			
WET	e P	Z 02:46:24.3	78.4	76.3	3.0	222			
	e PP	Z 02:50:09.9							
WERN	e P	Z 02:46:21.9	78.4	76.2	2.5	156			
WERD	e P	Z 02:46:19.7	78.4	76.1	2.8	149			
GUNZ	e P	Z 02:46:21.7	78.4	76.2	2.6	131			
ROTZ	e P	Z 02:46:21.8	78.7	75.9	2.4	128			
	e PP	Z 02:50:06.3							
MOX	e P	Z 02:46:17.7	78.8	75.7	2.1	80			
NRDL	e P	Z 02:46:12.2	79.2	74.9	1.6	35	5.4		
	e PP	Z 02:49:44.6							
CLZ	e P	Z 02:46:14.7	79.3	75.0	2.0	84	5.3		
	e PP	Z 02:49:48.2							
GRA1	e P	Z 02:46:18.6	79.3	75.2					
	e L	Z 03:27:08.1			21.7	23609		6.5	
UBBA	e P	Z 02:46:13.3	79.7	74.5	2.3	111			
IBBN	e P	Z 02:46:07.6	80.7	73.1	2.0	104	5.7		
WLF	e PP	Z 02:49:39.7	82.4	71.5					

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/24 17:59:33.5 35.851N 71.393E 136.4 5.3 SZGRF
Pakistan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z 18:07:25.2	43.2	87.4	1.3	80	5.3		
RUE	e P	Z 18:07:24.8	43.2	89.0	1.0	64	5.3		
GEC2	e P	Z 18:07:27.4	43.4	85.1	1.6	43	4.9		
RGN	e pP	Z 18:07:58.5	43.5	90.8					
CLL	e P	Z 18:07:29.2	43.7	87.1	1.1	40	5.1		
TANN	e P	Z 18:07:33.1	44.1	85.8	1.5	47	5.0		
WERN	e P	Z 18:07:33.7	44.2	85.6	1.8	65	5.1		
GUNZ	e P	Z 18:07:33.8	44.2	85.7					
WERD	e P	Z 18:07:33.7	44.2	85.7					
ROTZ	e P	Z 18:07:35.4	44.3	85.0					
NEUB	e P	Z 18:07:35.8	44.5	86.1					
MOX	e P	Z 18:07:37.1	44.6	85.4	1.6	75	5.4		
GRA1	e P	Z 18:07:40.5	45.0	84.2	1.5	137	5.7		
	e pP	Z 18:08:11.4							
FUR	e P	Z 18:07:41.0	45.1	82.7					
CLZ	e P	Z 18:07:42.4	45.3	85.7	1.4	97	5.6		
	e pP	Z 18:08:13.2							

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NRDL	e P	Z	18:07:43.4	45.4	86.2				
TNS	e P	Z	18:07:53.3	46.7	82.8				
IBBN	e P	Z	18:07:54.8	46.9	84.2				
BFO	e P	Z	18:07:55.5	47.0	80.9	1.4	27	5.2	
	e pP	Z	18:08:26.5						
BUG	e P	Z	18:07:57.7	47.3	83.1	1.1	64	5.7	
WLF	e P	Z	18:08:05.7	48.2	80.7	1.0	58	5.7	
	e pP	Z	18:08:36.1						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/25	01:47:25.2	31.785N	83.435E	33.0	5.5	6.2		SZGRF

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	01:56:41.3	53.3	83.8	1.6	125	5.6		
BRG	e P	Z	01:56:42.1	53.4	82.7	1.7	99	5.6		
GEC2	e P	Z	01:56:45.2	53.8	81.1	1.5	51	5.3		
	e PP	Z	01:58:48.7							
CLL	e P	Z	01:56:45.4	53.9	82.4	2.0	99	5.5		
WET	e P	Z	01:56:48.7	54.3	80.7	1.9	103	5.5		
TANN	e P	Z	01:56:49.2	54.4	81.4	1.8	67	5.4		
WERN	e P	Z	01:56:49.8	54.4	81.2	1.9	76	5.4		
GUNZ	e P	Z	01:56:49.9	54.5	81.2	1.8	78	5.4		
WERD	e P	Z	01:56:49.8	54.5	81.3	1.8	70	5.4		
ROTZ	e P	Z	01:56:51.6	54.6	80.7	1.9	116	5.6		
NEUB	e P	Z	01:56:51.4	54.7	81.4	1.7	108	5.6		
MOX	e P	Z	01:56:52.8	54.9	80.9	1.9	102	5.5		
GRA1	e P	Z	01:56:55.7	55.3	80.0	2.0	199	5.8		
	e PP	Z	01:59:03.0							
	e L	Z	02:23:26.2			18.3	17372		6.2	
FUR	e P	Z	01:56:57.6	55.5	79.0	1.7	152	5.7		
TNS	e P	Z	01:57:07.5	56.9	78.4	2.0	126	5.6		
	e PP	Z	01:59:17.3							
IBBN	e P	Z	01:57:07.8	56.9	79.3	1.6	108	5.6		
BUG	e P	Z	01:57:11.0	57.4	78.4	1.6	93	5.6		
	e PP	Z	01:59:19.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/25	12:30:17.7	21.173S	177.731W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e PKPbc	Z	12:49:12.9	148.7	14.7					
CLL	e PKPbc	Z	12:49:12.8	148.7	19.5					
BRG	e PKPbc	Z	12:49:13.5	148.9	21.4					

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TANN	e	PKPbc	Z	12:49:15.5	149.7	19.1
WERD	e	PKPbc	Z	12:49:15.3	149.7	18.8
GUNZ	e	PKPbc	Z	12:49:15.6	149.8	18.9
TNS	e	PKPbc	Z	12:49:17.5	150.5	11.8
WET	e	PKPbc	Z	12:49:18.0	150.8	20.6
GEC2	e	PKPbc	Z	12:49:18.2	150.9	22.3

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/26	05:48:53.2	18.460S	178.510W	595.6				SZGRF
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e	PKPbc	Z 06:07:19.6	143.9	10.3					
RUE	e	PKPbc	Z 06:07:22.2	144.7	20.4					
NRDL	e	PKPbc	Z 06:07:24.1	145.3	14.5					
IBBN	e	PKPbc	Z 06:07:25.8	145.8	10.6					
CLZ	e	PKPbc	Z 06:07:26.4	145.9	15.1					
CLL	e	PKPbc	Z 06:07:26.2	145.9	19.7					
BRG	e	PKPbc	Z 06:07:27.0	146.1	21.5					
FBE	e	PKPbc	Z 06:07:27.6	146.2	20.5					
NEUB	e	PKPbc	Z 06:07:27.3	146.3	17.8					
MOX	e	PKPbc	Z 06:07:28.8	146.8	17.7					
TANN	e	PKPbc	Z 06:07:29.2	146.9	19.3					
WERD	e	PKPbc	Z 06:07:29.2	146.9	19.0					
GUNZ	e	PKPbc	Z 06:07:29.5	146.9	19.1					
WERN	e	PKPbc	Z 06:07:29.7	147.0	19.2					
ROTZ	e	PKPbc	Z 06:07:31.2	147.5	19.2					
TNS	e	PKPbc	Z 06:07:31.5	147.8	12.4					
GRA1	e	PKPbc	Z 06:07:31.8	147.8	17.5					
	e	PKPab	Z 06:07:35.3							
	e	pPKPbc	Z 06:09:47.8							
WET	e	PKPbc	Z 06:07:32.2	148.0	20.7					
GEC2	e	PKPbc	Z 06:07:32.4	148.1	22.3					
WLF	e	PKPbc	Z 06:07:34.1	148.6	8.5					
FUR	e	PKPbc	Z 06:07:35.4	149.2	18.4					
	e	PKPab	Z 06:07:41.3							
RJOB	e	PKPbc	Z 06:07:35.3	149.3	21.4					
	e	PKPab	Z 06:07:42.1							
BFO	e	PKPbc	Z 06:07:36.0	149.6	12.9					
	e	PKPab	Z 06:07:42.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/26	07:23: 3.3	42.200S	173.800E	24.0				NEIC
South Island, New Zealand								

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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TANN	e PKPab	Z 07:44:00.5	164.8	64.5					
WERD	e PKPab	Z 07:44:00.9	164.9	64.2					
GUNZ	e PKPab	Z 07:44:01.0	164.9	64.5					
WERN	e PKPab	Z 07:44:01.2	164.9	64.8					
ROTZ	e PKPab	Z 07:44:02.9	165.2	66.3					
GRA1	e PKPab	Z 07:44:05.3	165.8	64.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/26	15:52:42.3	28.545N	54.315E	33.0G	4.7	4.0		SZGRF

Southern Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 15:59:48.9	37.0	108.2	0.9	12	4.6		
RJOB	e P	Z 15:59:51.2	37.3	105.9	0.6	25	5.1		
BRG	e P	Z 15:59:52.8	37.5	110.9	1.1	5	4.2		
WET	e P	Z 15:59:53.6	37.6	107.7	0.8	8	4.5		
ROTZ	e P	Z 15:59:59.2	38.2	107.8	1.4	15	4.5		
GRA1	e P	Z 16:00:04.2	38.8	106.7	0.7	22	4.9		
	e L	Z 16:20:10.6			18.1	209		4.0	
CLZ	e P	Z 16:00:13.7	40.0	108.3	0.9	20	4.8		
NRDL	e P	Z 16:00:16.7	40.3	108.8	0.9	18	4.7		
TNS	e P	Z 16:00:19.5	40.7	104.6	1.1	28	4.9		
IBBN	e P	Z 16:00:27.3	41.6	106.2	0.9	24	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/26	16:53:33.2	41.813N	143.239E	33.0G	5.2	4.7		SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z 17:05:09.6	74.6	36.4	0.9	59	5.6		
RUE	e P	Z 17:05:17.9	76.1	36.4	1.1	45	5.5		
CLL	e P	Z 17:05:24.2	77.3	35.7	1.0	37	5.4		
BRG	e P	Z 17:05:24.5	77.3	36.2	1.1	16	5.1		
NRDL	e P	Z 17:05:24.9	77.4	33.9	1.1	17	5.1		
FBE	e P	Z 17:05:25.9	77.5	35.9	0.9	26	5.4		
CLZ	e P	Z 17:05:27.8	77.8	34.0	1.3	55	5.5		
NEUB	e P	Z 17:05:27.5	77.9	34.8	1.0	43	5.5		
TANN	e P	Z 17:05:29.6	78.3	35.2	1.9	31	5.0		
WERD	e P	Z 17:05:29.9	78.3	35.1	1.0	10	4.8		
IBBN	e P	Z 17:05:30.2	78.3	32.3	1.0	41	5.4		
GUNZ	e P	Z 17:05:30.3	78.3	35.1	1.0	16	5.0		
MOX	e P	Z 17:05:30.3	78.4	34.7	1.0	17	5.0		
WERN	e P	Z 17:05:30.7	78.4	35.1	0.9	18	5.1		
UBBA	e P	Z 17:05:32.3	78.8	33.6	1.5	16	4.8		

ROTZ	e P	Z	17:05:33.5	78.9	35.0	1.1	23	5.1	
GEC2	e P	Z	17:05:33.9	79.1	35.8	1.0	14	4.9	
WET	e P	Z	17:05:34.8	79.1	35.3	1.0	31	5.3	
BUG	e P	Z	17:05:34.9	79.2	31.8	1.3	46	5.2	
GRA1	e P	Z	17:05:35.9	79.3	34.3	1.1	75	5.5	
	e L	Z	17:43:40.6			19.2	333		4.7
TNS	e P	Z	17:05:38.4	79.8	32.5	1.1	37	5.2	
RJOB	e P	Z	17:05:41.1	80.3	35.1	0.9	28	5.3	
FUR	e P	Z	17:05:42.3	80.5	34.2	1.1	69	5.6	
BFO	e P	Z	17:05:46.9	81.5	32.3	1.0	23	5.3	

Date Origin Time Lat Long Depth mb Ms ML Source
 2008/09/26 18:46:16.5 2.210N 65.490E 33.0G 5.7 4.9
 Carlsberg Ridge SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	18:56:47.0	64.2	118.0	1.4	26	5.3		
	e PP	Z	18:59:09.8							
GEC2	e P	Z	18:56:46.1	64.2	119.3	2.1	44	5.3		
BRG	e P	Z	18:56:53.0	65.0	120.3	1.9	60	5.5		
FUR	e P	Z	18:56:54.4	65.3	116.8	1.6	99	5.8		
	e PP	Z	18:59:19.8							
FBE	e P	Z	18:56:55.6	65.4	119.8	2.0	111	5.8		
ROTZ	e P	Z	18:56:55.7	65.5	118.3	2.3	68	5.5		
	e PP	Z	18:59:20.7							
WERN	e P	Z	18:56:57.3	65.6	118.7	2.0	161	5.9		
TANN	e P	Z	18:56:56.9	65.6	118.8	2.7	152	5.7		
	e PP	Z	18:59:22.0							
GUNZ	e P	Z	18:56:57.8	65.7	118.6	1.8	80	5.7		
	e PP	Z	18:59:22.6							
WERD	e P	Z	18:56:57.7	65.7	118.7	3.1	244	5.9		
CLL	e P	Z	18:56:58.0	65.8	119.6	1.7	95	5.7		
RUE	e P	Z	18:56:59.3	65.9	120.8	1.3	52	5.6		
GRA1	e P	Z	18:56:59.1	66.0	117.4	1.2	46	5.6		
	e PP	Z	18:59:24.4							
	e L	Z	19:26:09.4			21.7	836		4.9	
MOX	e P	Z	18:57:01.0	66.2	118.1	1.7	45	5.4		
	e PP	Z	18:59:27.7							
NEUB	e P	Z	18:57:02.4	66.4	118.5	1.5	84	5.7		
BFO	e P	Z	18:57:06.9	67.1	114.3	1.6	111	5.8		
UBBA	e P	Z	18:57:07.5	67.2	116.7	1.8	79	5.6		
	e PP	Z	18:59:35.8							
CLZ	e P	Z	18:57:09.4	67.5	117.4	2.0	141	5.8		
	e PP	Z	18:59:35.8							
TNS	e P	Z	18:57:11.6	67.8	115.1	1.9	202	6.0		
	e PP	Z	18:59:41.2							
NRDL	e P	Z	18:57:12.1	67.9	117.4	2.0	154	5.9		

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WLF	e P	Z	18:57:18.8	68.9	112.9	1.5	47	5.5
	e PP	Z	18:59:48.0					
BUG	e P	Z	18:57:19.2	69.0	114.5	1.5	39	5.4
IBBN	e P	Z	18:57:19.9	69.1	115.3	2.3	140	5.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/27	03:04:50.3	12.506N	121.506E	33.0G	5.9			SZGRF

Mindoro, Philippine Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 03:17:49.0	90.5	68.4	0.9	103	6.2		
BRG	e P	Z 03:17:51.1	91.0	68.6					
FBE	e P	Z 03:17:52.9	91.4	68.1	1.0	69	5.9		
CLL	e P	Z 03:17:52.6	91.4	67.8	1.1	45	5.7		
GEC2	e P	Z 03:17:55.3	91.9	68.4	1.1	46	5.7		
TANN	e P	Z 03:17:56.0	92.1	67.4	1.1	33	5.6		
WERD	e P	Z 03:17:56.4	92.1	67.3	1.1	41	5.7		
NEUB	e P	Z 03:17:56.4	92.2	66.9	1.0	58	5.8		
GUNZ	e P	Z 03:17:56.6	92.2	67.3	1.0	56	5.8		
WET	e P	Z 03:17:57.2	92.3	67.8	1.7	84	5.8		
ROTZ	e P	Z 03:17:58.3	92.5	67.3	1.0	48	5.9		
MOX	e P	Z 03:17:57.8	92.5	66.8	2.1	149	6.0		
NRDL	e P	Z 03:17:58.7	92.6	65.5	1.8	100	6.0		
CLZ	e P	Z 03:17:59.1	92.7	65.7	1.8	122	6.0		
RJOB	e P	Z 03:17:59.6	92.9	67.8	1.0	45	5.9		
GRA1	e P	Z 03:18:01.1	93.1	66.5	1.1	52	5.9		
FUR	e P	Z 03:18:03.6	93.7	66.6	1.0	79	6.0		
IBBN	e P	Z 03:18:04.7	94.0	63.6	1.1	39	5.7		
TNS	e P	Z 03:18:07.3	94.5	64.3	1.2	68	5.9		
BUG	e P	Z 03:18:07.8	94.6	63.3	1.2	36	5.7		
BFO	e P	Z 03:18:10.9	95.4	64.3	1.7	60	5.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/27	03:09: 0.6	12.109N	121.816E	33.0G	5.8	6.0		SZGRF

Mindoro, Philippine Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 03:22:01.6	91.0	68.4	1.2	145	6.2		
BRG	e P	Z 03:22:03.7	91.5	68.6	1.3	86	5.9		
FBE	e P	Z 03:22:05.6	91.9	68.1	1.2	102	6.0		
CLL	e P	Z 03:22:05.3	91.9	67.8	1.1	53	5.8		
GEC2	e P	Z 03:22:08.0	92.4	68.5	1.2	48	5.8		
TANN	e P	Z 03:22:08.7	92.6	67.4	1.2	35	5.7		
WERD	e P	Z 03:22:08.9	92.6	67.3	1.2	38	5.7		
NEUB	e P	Z 03:22:09.0	92.7	66.9	1.2	54	5.9		

GUNZ	e P	Z	03:22:09.2	92.7	67.3	1.3	67	5.9		
WERN	e P	Z	03:22:09.3	92.7	67.4	1.3	49	5.8		
WET	e P	Z	03:22:09.9	92.8	67.8	1.3	54	5.8		
ROTZ	e P	Z	03:22:10.9	93.0	67.3	1.2	52	5.9		
MOX	e P	Z	03:22:10.5	93.0	66.8	1.3	42	5.7		
NRDL	e P	Z	03:22:10.9	93.1	65.5	1.5	72	5.9		
CLZ	e P	Z	03:22:11.9	93.2	65.7	1.5	63	5.8		
RJOB	e P	Z	03:22:12.1	93.4	67.8	1.0	75	6.0		
GRA1	e P	Z	03:22:13.7	93.6	66.5	1.5	77	5.8		
	e L	Z	04:05:38.6			18.5	5239		6.0	
UBBA	e P	Z	03:22:14.7	93.8	65.5	1.8	80	5.7		
FUR	e P	Z	03:22:16.1	94.2	66.6	1.1	82	6.0		
IBBN	e P	Z	03:22:17.4	94.5	63.6	1.5	62	5.8		
TNS	e P	Z	03:22:19.8	95.0	64.3	1.3	43	5.7		
	e PP	Z	03:26:07.9							
BUG	e P	Z	03:22:20.3	95.1	63.2	1.2	42	5.7		
BFO	e P	Z	03:22:23.6	95.9	64.4	1.3	29	5.6		
WLF	e PP	Z	03:26:18.5	96.6	62.5					

Date 2008/09/27 Origin Time 03:29:33.3 Lat 15.300S Long 167.500E Depth 200.0 mb Ms ML Source GSRC
 Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e PKP	Z 03:48:41.0	142.4	30.4					
BFO	e PKP	Z 03:48:41.3	142.8	34.6					

Date 2008/09/27 Origin Time 06:40:33.9 Lat 12.308N Long 123.582E Depth 33.0G mb 5.2 Ms ML Source SZGRF
 Luzon, Philippine Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 06:53:38.9	91.9	66.9	0.9	22	5.5		
BRG	e P	Z 06:53:41.2	92.4	67.1	1.0	11	5.2		
FBE	e P	Z 06:53:43.2	92.7	66.6	1.2	16	5.4		
GEC2	e P	Z 06:53:45.6	93.3	67.0	1.3	12	5.2		
NEUB	e P	Z 06:53:46.8	93.5	65.3	1.1	14	5.2		
WERD	e P	Z 06:53:46.7	93.5	65.8	1.1	6	4.8		
GUNZ	e P	Z 06:53:46.7	93.5	65.8	1.2	15	5.2		
WERN	e P	Z 06:53:47.0	93.5	65.9	1.2	10	5.0		
WET	e P	Z 06:53:47.6	93.7	66.3	1.3	10	5.0		
MOX	e P	Z 06:53:47.8	93.8	65.2	1.2	9	5.0		
ROTZ	e P	Z 06:53:48.7	93.9	65.8	1.0	10	5.1		
CLZ	e P	Z 06:53:48.6	94.0	64.2	2.0	37	5.4		
RJOB	e P	Z 06:53:49.9	94.3	66.4	1.0	9	5.1		

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GRA1 e P Z 06:53:51.0 94.5 65.0 1.3 21 5.4

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/27

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e PKP Z 20:24:44.6

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/28 19:52:33.0 71.164N 3.148W 33.0G 5.0 3.4
Jan Mayen Island region SZGRF

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
RUE e P Z 19:57:05.7 20.2 344.2 1.6 132 4.9
CLZ e P Z 19:57:06.3 20.3 347.4 1.2 51 4.6
BUG e P Z 19:57:06.4 20.3 350.3 1.0 36 4.5
NEUB e P Z 19:57:15.2 21.1 346.6 1.2 84 5.0
CLL e P Z 19:57:15.9 21.2 345.6 1.3 58 4.8
FBE e P Z 19:57:20.7 21.6 345.6 1.2 98 5.1
MOX e P Z 19:57:20.8 21.6 347.1 1.4 101 5.1
BRG e P Z 19:57:21.6 21.7 345.1 1.2 50 4.8
WERD e P Z 19:57:24.0 21.9 346.7 1.2 54 4.8
TANN e P Z 19:57:24.5 21.9 346.6 1.2 53 4.8
GUNZ e P Z 19:57:24.7 22.0 346.7 1.9 138 5.1
WERN e P Z 19:57:25.8 22.1 346.7 1.4 118 5.1
GRA1 e P Z 19:57:29.9 22.5 347.9 1.1 83 5.2
e L Z 20:08:00.9 18.0 141 3.4
ROTZ e P Z 19:57:30.8 22.5 347.1 1.1 32 4.8
WET e P Z 19:57:38.4 23.2 346.9 1.4 68 5.0
BFO e P Z 19:57:40.5 23.5 350.7 1.2 83 5.1
GEC2 e P Z 19:57:42.8 23.7 346.5 1.4 62 5.0
FUR e P Z 19:57:45.4 24.0 348.6 2.0 293 5.5
RJOB e P Z 19:57:51.5 24.6 347.7 1.1 35 5.0

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/28 21:43:53.0 36.900N 22.600E 3.7 THE
Southern Greece

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 21:47:31.8 15.4 142.7 1.4 25

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/28	22:20:29.7	70.820N	2.900W	33.0G	5.2	4.4		SZGRF

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z 22:24:51.7	19.1	349.3	1.3	108	4.9		
NRDL	e P	Z 22:24:53.2	19.2	347.0	1.3	107	4.9		
CLZ	e P	Z 22:25:00.5	19.9	347.2	1.2	91	4.9		
NEUB	e P	Z 22:25:09.1	20.7	346.4	1.2	216	5.4		
CLL	e P	Z 22:25:09.7	20.8	345.3	1.1	116	5.1		
UBBA	e P	Z 22:25:10.7	20.9	348.1	1.6	176	5.1		
FBE	e P	Z 22:25:14.4	21.2	345.3	1.2	243	5.4		
MOX	e P	Z 22:25:14.7	21.3	346.9	1.4	217	5.3		
BRG	e P	Z 22:25:15.6	21.4	344.9	1.8	214	5.2		
WERD	e P	Z 22:25:17.6	21.5	346.4	1.4	143	5.2		
TANN	e P	Z 22:25:18.4	21.6	346.3	1.2	108	5.2		
GUNZ	e P	Z 22:25:18.6	21.6	346.5	1.9	319	5.4		
WERN	e P	Z 22:25:19.7	21.7	346.5	1.4	270	5.5		
GRA1	e P	Z 22:25:24.1	22.1	347.7	1.3	182	5.4		
	e L	Z 22:33:46.1			21.2	1732		4.4	
ROTZ	e P	Z 22:25:24.6	22.2	346.9	1.1	61	4.9		
WET	e P	Z 22:25:32.6	22.9	346.7	1.4	153	5.3		
BFO	e P	Z 22:25:34.0	23.1	350.6	1.2	178	5.5		
GEC2	e P	Z 22:25:36.6	23.3	346.3	1.2	102	5.2		
FUR	e P	Z 22:25:39.6	23.6	348.4	2.3	992	5.9		
RJOB	e P	Z 22:25:45.0	24.3	347.5	1.5	114	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/28	22:36:27.2	18.678S	175.300W	33.0G				SZGRF

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 22:56:03.2	146.7	14.4					
BRG	e PKPbc	Z 22:56:03.9	147.0	16.2					
FBE	e PKPbc	Z 22:56:04.4	147.0	15.2					
MOX	e PKPbc	Z 22:56:05.5	147.6	12.3					
WERD	e PKPbc	Z 22:56:05.8	147.7	13.6					
TANN	e PKPbc	Z 22:56:05.8	147.7	13.8					
GUNZ	e PKPbc	Z 22:56:06.1	147.7	13.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/28	22:57:37.9	71.400N	3.900W	10.0F	4.3			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1 e P Z 23:02:43.8 23.0 348.1 1.1 10 4.2

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/28 23:13:13.0 71.398N 3.220W 33.0G 4.7
Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 23:17:48.2	20.4	344.5	0.8	38	4.7		
NEUB	e P	Z 23:17:57.1	21.3	346.9	1.1	44	4.7		
CLL	e P	Z 23:17:57.8	21.4	345.8	1.1	20	4.4		
FBE	e P	Z 23:18:02.5	21.8	345.8	1.1	47	4.8		
MOX	e P	Z 23:18:02.8	21.8	347.3	1.4	39	4.7		
TNS	e P	Z 23:18:02.6	21.8	350.0	1.5	59	4.8		
BRG	e P	Z 23:18:03.5	21.9	345.4	1.0	25	4.6		
WERD	e P	Z 23:18:05.8	22.1	346.9	0.9	21	4.6		
TANN	e P	Z 23:18:06.5	22.2	346.8	1.0	20	4.5		
GUNZ	e P	Z 23:18:06.9	22.2	346.9	1.0	23	4.6		
GRA1	e P	Z 23:18:12.2	22.7	348.1	1.1	39	4.9		
ROTZ	e P	Z 23:18:12.7	22.8	347.3	1.1	16	4.5		
WET	e P	Z 23:18:20.8	23.5	347.2	1.4	26	4.6		
BFO	e P	Z 23:18:22.4	23.7	350.9	1.1	33	4.8		
GEC2	e P	Z 23:18:24.8	23.9	346.7	1.1	20	4.6		
RJOB	e P	Z 23:18:33.1	24.8	347.9	1.0	20	4.8		

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/28 23:34:51.6 71.400N 3.800W 10.0F 4.1
Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:39:55.1	22.8	347.7	0.9	4	4.0		

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/29 03:05:35.7 38.400N 20.500E
Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e Pn	Z 03:08:11.2	10.9	146.2					
GEC2	e Pn	Z 03:08:17.6	11.5	152.4					

Date Origin Time Lat Long Depth mb Ms ML Source
2008/09/29 03:13:12.5 21.000S 178.390W 631.1
SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	03:31:45.9	147.1	21.3					
NRDL	e PKPbc	Z	03:31:47.6	147.8	15.0					
IBBN	e PKPbc	Z	03:31:49.2	148.3	11.0					
CLL	e PKPbc	Z	03:31:49.0	148.4	20.6					
	e PKPab	Z	03:31:54.6							
	e pPKPbc	Z	03:34:12.6							
CLZ	e PKPbc	Z	03:31:49.5	148.4	15.8					
	e PKPab	Z	03:31:55.1							
BRG	e PKPbc	Z	03:31:49.7	148.6	22.5					
	e PKPab	Z	03:31:55.6							
FBE	e PKPbc	Z	03:31:50.2	148.7	21.4					
NEUB	e PKPbc	Z	03:31:50.0	148.8	18.5					
	e PKPab	Z	03:31:56.2							
BUG	e PKPbc	Z	03:31:51.1	149.2	10.4					
MOX	e PKPbc	Z	03:31:51.4	149.3	18.5					
	e PKPab	Z	03:31:58.5							
TANN	e PKPbc	Z	03:31:51.6	149.4	20.2					
WERD	e PKPbc	Z	03:31:51.7	149.4	19.9					
	e PKPab	Z	03:31:59.0							
GUNZ	e PKPbc	Z	03:31:51.9	149.4	20.0					
	e PKPab	Z	03:31:59.5							
UBBA	e PKPbc	Z	03:31:51.4	149.5	15.6					
WERN	e PKPbc	Z	03:31:52.1	149.5	20.1					
	e PKPab	Z	03:31:59.7							
ROTZ	e PKPbc	Z	03:31:53.2	150.0	20.1					
TNS	e PKPbc	Z	03:31:53.9	150.3	13.0					
	e PKPab	Z	03:32:02.8							
GRA1	e PKPbc	Z	03:31:53.9	150.3	18.3					
	e PKPab	Z	03:32:03.3							
WET	e PKPbc	Z	03:31:54.0	150.5	21.7					
GEC2	e PKPbc	Z	03:31:54.0	150.5	23.4					
WLF	e PKPbc	Z	03:31:56.2	151.1	8.8					
FUR	e PKPbc	Z	03:31:56.9	151.7	19.3					
	e PKPab	Z	03:32:09.3							
RJOB	e PKPbc	Z	03:31:56.5	151.8	22.5					
	e PKPab	Z	03:32:09.8							
BFO	e PKPbc	Z	03:31:57.6	152.1	13.5					
	e PKPab	Z	03:32:10.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/29	03:27:53.9	18.888S	178.123W	33.0G				SZGRF
Fiji Islands region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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CLZ	e	PKPbc	Z	03:47:31.1	146.4	14.6
CLL	e	PKPbc	Z	03:47:30.9	146.4	19.3
BRG	e	PKPbc	Z	03:47:31.5	146.6	21.1
FBE	e	PKPbc	Z	03:47:32.2	146.7	20.1
MOX	e	PKPbc	Z	03:47:33.4	147.3	17.2
TANN	e	PKPbc	Z	03:47:33.8	147.4	18.8
WERD	e	PKPbc	Z	03:47:33.6	147.4	18.5
GUNZ	e	PKPbc	Z	03:47:34.1	147.4	18.6
TNS	e	PKPbc	Z	03:47:36.2	148.2	11.9
WLF	e	PKPbc	Z	03:47:38.7	149.0	7.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/29	11:04:6.2	70.780N	3.170W	33.0G	4.8			SZGRF
Jan Mayen Island region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z 11:08:29.0	19.2	346.7	0.9	24	4.4		
RUE	e P	Z 11:08:35.3	19.8	343.6	0.9	62	4.9		
CLZ	e P	Z 11:08:36.3	19.9	346.9	1.0	25	4.4		
BUG	e P	Z 11:08:36.2	19.9	349.9	1.3	59	4.7		
NEUB	e P	Z 11:08:44.9	20.7	346.1	1.3	100	5.0		
CLL	e P	Z 11:08:45.6	20.8	345.1	2.0	125	4.9		
UBBA	e P	Z 11:08:46.3	20.9	347.8	1.8	71	4.7		
TNS	e P	Z 11:08:50.5	21.3	349.5	1.4	98	5.0		
MOX	e P	Z 11:08:50.6	21.3	346.6	1.3	54	4.7		
FBE	e P	Z 11:08:50.3	21.3	345.0	1.2	73	4.9		
BRG	e P	Z 11:08:51.6	21.4	344.6	1.3	48	4.7		
WERD	e P	Z 11:08:53.6	21.6	346.2	1.5	48	4.7		
WLF	e P	Z 11:08:53.6	21.6	351.7	1.8	89	4.9		
TANN	e P	Z 11:08:54.3	21.6	346.1	1.1	40	4.8		
GUNZ	e P	Z 11:08:54.6	21.6	346.2	1.9	82	4.8		
WERN	e P	Z 11:08:55.6	21.7	346.2	1.4	68	4.9		
GRA1	e P	Z 11:08:59.8	22.1	347.5	1.4	60	4.8		
WET	e P	Z 11:09:08.3	22.9	346.5	1.4	46	4.8		
BFO	e P	Z 11:09:10.0	23.1	350.4	1.2	44	4.9		
GEC2	e P	Z 11:09:12.5	23.3	346.0	1.4	37	4.7		
FUR	e P	Z 11:09:15.3	23.6	348.2					
RJOB	e P	Z 11:09:21.1	24.3	347.3	0.9	20	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/29	15:19:26.8	30.530S	175.940W	33.0G		7.2		SZGRF
Kermadec Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PP	Z 15:43:27.0	156.9	21.8					

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NRDL	e	PKPdf	Z	15:39:21.6	157.6	13.8			
IBBN	e	PKPdf	Z	15:39:22.1	158.1	8.6			
CLZ	e	PKPdf	Z	15:39:22.1	158.2	14.8			
	e	PKPab	Z	15:39:54.5					
CLL	e	PKPdf	Z	15:39:21.8	158.2	21.1			
BRG	e	PKPdf	Z	15:39:21.6	158.4	23.6			
	e	PKPab	Z	15:39:54.8					
FBE	e	PKPdf	Z	15:39:22.6	158.5	22.3			
	e	PKPab	Z	15:39:55.5					
NEUB	e	PKPdf	Z	15:39:22.4	158.5	18.4			
BUG	e	PKPdf	Z	15:39:22.9	159.0	7.7			
MOX	e	PKPdf	Z	15:39:22.9	159.1	18.5			
	e	PKPab	Z	15:39:58.0					
TANN	e	PKPdf	Z	15:39:23.0	159.1	20.7			
	e	PKPab	Z	15:39:58.3					
WERD	e	PKPdf	Z	15:39:22.5	159.1	20.3			
	e	PKPab	Z	15:39:58.2					
GUNZ	e	PKPdf	Z	15:39:23.0	159.2	20.4			
	e	PKPab	Z	15:39:58.7					
UBBA	e	PKPdf	Z	15:39:23.0	159.2	14.6			
	e	PKPab	Z	15:39:58.5					
WERN	e	PKPdf	Z	15:39:23.2	159.3	20.6			
	e	PKPab	Z	15:39:59.1					
ROTZ	e	PKPdf	Z	15:39:23.7	159.8	20.7			
	e	PKPab	Z	15:40:01.4					
GRA3	e	PP	Z	15:43:44.0	160.0	18.6			
TNS	e	PKPdf	Z	15:39:24.4	160.0	11.1			
	e	PKPab	Z	15:40:02.4					
GRA1	e	PKPdf	Z	15:39:24.1	160.1	18.4			
	e	PKPab	Z	15:40:02.7					
	e	PPP	Z	15:47:25.0					
	e	L	Z	17:01:50.3			21.3	38212	7.2
WET	e	PKPdf	Z	15:39:24.4	160.2	23.0			
	e	PKPab	Z	15:40:03.0					
GEC2	e	PKPdf	Z	15:39:24.0	160.3	25.3			
WLF	e	PKPdf	Z	15:39:26.0	160.8	5.5			
	e	PKPab	Z	15:40:06.5					
FUR	e	PKPdf	Z	15:39:25.3	161.5	20.0			
	e	PKPab	Z	15:40:08.9					
RJOB	e	PKPdf	Z	15:39:24.8	161.5	24.4			
	e	PKPab	Z	15:40:09.0					
BFO	e	PKPdf	Z	15:39:26.1	161.9	11.9			
	e	PKPab	Z	15:40:10.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/29	16:10:37.1	29.800S	177.600W	33.0				GSRC
Kermadec Islands, New Zealand								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPab	Z	16:30:58.1	156.6	17.0					
CLL	e PKPab	Z	16:31:00.3	157.1	24.2					
IBBN	e PKPab	Z	16:31:01.0	157.1	12.0					
CLZ	e PKPab	Z	16:31:01.2	157.2	18.1					
BRG	e PKPab	Z	16:31:01.4	157.2	26.7					
FBE	e PKPab	Z	16:31:02.2	157.3	25.3					
NEUB	e PKPab	Z	16:31:02.3	157.5	21.7					
MOX	e PKPab	Z	16:31:04.7	158.0	21.8					
TANN	e PKPab	Z	16:31:05.0	158.0	23.9					
WERD	e PKPab	Z	16:31:05.0	158.1	23.5					
GUNZ	e PKPab	Z	16:31:05.4	158.1	23.7					
WERN	e PKPab	Z	16:31:05.9	158.2	23.9					
ROTZ	e PKPab	Z	16:31:08.2	158.7	24.0					
GRA1	e PKPab	Z	16:31:09.5	159.0	21.8					
TNS	e PKPab	Z	16:31:09.2	159.1	14.8					
WET	e PKPab	Z	16:31:09.9	159.1	26.2					
GEC2	e PKPab	Z	16:31:09.6	159.1	28.5					
WLF	e PKPab	Z	16:31:13.3	159.9	9.5					
RJOB	e PKPab	Z	16:31:15.7	160.4	27.8					
FUR	e PKPab	Z	16:31:15.7	160.4	23.5					
BFO	e PKPab	Z	16:31:17.2	160.9	15.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/29	19:16:55.2	70.866N	3.619W	33.0G	4.8			SZGRF
Jan Mayen Island region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z	19:21:17.1	19.3	348.7	0.9	29	4.5		
NRDL	e P	Z	19:21:18.4	19.4	346.4	1.8	77	4.6		
RUE	e P	Z	19:21:25.4	20.0	343.3	0.8	51	4.8		
BUG	e P	Z	19:21:26.2	20.0	349.6	1.2	36	4.5		
CLZ	e P	Z	19:21:26.2	20.1	346.6	1.1	28	4.4		
NEUB	e P	Z	19:21:35.1	20.9	345.9	1.1	64	4.9		
CLL	e P	Z	19:21:35.8	21.0	344.8	1.2	35	4.6		
UBBA	e P	Z	19:21:36.4	21.0	347.6	1.7	87	4.8		
MOX	e P	Z	19:21:40.6	21.4	346.3	1.2	50	4.7		
FBE	e P	Z	19:21:40.3	21.4	344.8	1.5	102	4.9		
BRG	e P	Z	19:21:41.5	21.6	344.4	1.5	44	4.7		
WERD	e P	Z	19:21:43.7	21.7	345.9	1.8	89	4.9		
TANN	e P	Z	19:21:44.3	21.8	345.8	1.8	76	4.8		
GUNZ	e P	Z	19:21:44.6	21.8	346.0	1.7	82	4.9		
WERN	e P	Z	19:21:45.7	21.9	346.0	1.5	81	4.9		
GRA1	e P	Z	19:21:50.0	22.3	347.2	1.2	37	4.7		
ROTZ	e P	Z	19:21:50.3	22.3	346.4	1.4	19	4.3		
WET	e P	Z	19:21:57.9	23.1	346.2	1.8	80	5.0		

BFO	e P	Z	19:21:59.8	23.2	350.1	1.5	57	4.9
GEC2	e P	Z	19:22:02.5	23.5	345.8			
FUR	e P	Z	19:22:05.0	23.8	347.9	1.9	151	5.2
RJOB	e P	Z	19:22:11.2	24.4	347.0	0.8	18	4.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/29	19:20:21.0	72.160N	1.340W	33.0G	4.9			SZGRF

Jan Mayen Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	19:24:54.9	20.3	349.9	1.3	46	4.6		
CLZ	e P	Z	19:25:02.4	21.0	350.0	1.3	52	4.7		
BUG	e P	Z	19:25:03.9	21.1	352.7	1.3	58	4.7		
NEUB	e P	Z	19:25:11.1	21.7	349.2	1.0	77	5.1		
CLL	e P	Z	19:25:11.7	21.8	348.2	1.2	51	4.8		
UBBA	e P	Z	19:25:12.6	21.9	350.7	1.7	74	4.8		
FBE	e P	Z	19:25:16.3	22.2	348.1	1.2	83	5.0		
MOX	e P	Z	19:25:16.7	22.3	349.6	1.5	88	5.0		
BRG	e P	Z	19:25:17.5	22.3	347.7	1.3	52	4.8		
TNS	e P	Z	19:25:18.4	22.4	352.1	1.1	66	5.0		
WERD	e P	Z	19:25:19.8	22.5	349.1	1.2	49	4.9		
TANN	e P	Z	19:25:20.2	22.6	349.0	1.4	52	4.9		
GUNZ	e P	Z	19:25:20.7	22.6	349.2	2.0	177	5.2		
WERN	e P	Z	19:25:21.7	22.7	349.2	1.6	128	5.2		
WLF	e P	Z	19:25:21.7	22.7	354.1	1.4	48	4.8		
GRA1	e P	Z	19:25:25.8	23.2	350.2	1.3	73	5.0		
ROTZ	e P	Z	19:25:26.6	23.2	349.5	1.1	24	4.6		
BFO	e P	Z	19:25:36.0	24.2	352.8	1.4	60	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/29	19:49: 6.5	30.200S	177.500W	36	5.0			NEIC

Kermadec Islands, New Zealand

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPab	Z	20:09:29.8	157.5	26.0					
BRG	e PKPab	Z	20:09:30.7	157.6	28.5					
CLZ	e PKPab	Z	20:09:30.6	157.6	19.8					
IBBN	e PKPab	Z	20:09:30.4	157.7	13.6					
FBE	e PKPab	Z	20:09:31.6	157.7	27.1					
NEUB	e PKPab	Z	20:09:31.7	157.9	23.4					
TANN	e PKPab	Z	20:09:34.3	158.5	25.8					
WERD	e PKPab	Z	20:09:34.4	158.5	25.4					
MOX	e PKPab	Z	20:09:34.2	158.5	23.6					
GUNZ	e PKPab	Z	20:09:34.8	158.5	25.5					
WERN	e PKPab	Z	20:09:35.3	158.6	25.7					

ROTZ	e	PKPab	Z	20:09:37.5	159.1	25.9
GRA1	e	PKPab	Z	20:09:38.8	159.4	23.7
WET	e	PKPab	Z	20:09:39.2	159.5	28.2
TNS	e	PKPab	Z	20:09:38.7	159.6	16.6
RJOB	e	PKPab	Z	20:09:45.0	160.7	29.9
FUR	e	PKPab	Z	20:09:45.2	160.8	25.6
BFO	e	PKPab	Z	20:09:46.5	161.4	17.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/09/30								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 07:34:02.8							
	e L	Z 07:42:17.4							

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