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

(produced by SZGRF/BGR - ERLANGEN)

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

(Format desciption at the end of the bulletin)

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/01								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:05:50.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/01	06:18:46.8	18.217S	177.294W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z	06:38:52.4	142.8	16.8					
HLG	e PKPbc	Z	06:39:00.2	143.8	8.3					
RUE	e PKPbc	Z	06:38:18.2	144.7	18.4					
NRDL	e PKPbc	Z	06:38:20.3	145.2	12.4					
IBBN	e PKPbc	Z	06:38:21.9	145.7	8.5					
CLZ	e PKPbc	Z	06:38:22.5	145.8	13.0					
CLL	e PKPbc	Z	06:38:22.2	145.9	17.6					
BRG	e PKPbc	Z	06:38:23.0	146.1	19.4					
FBE	e PKPbc	Z	06:38:25.4	146.2	18.4					
NEUB	e PKPbc	Z	06:38:23.3	146.2	15.6					
BUG	e PKPbc	Z	06:39:04.2	146.6	7.9					
MOX	e PKPbc	Z	06:38:26.6	146.8	15.6					
WERD	e PKPbc	Z	06:38:25.2	146.9	16.8					
TANN	e PKPbc	Z	06:38:25.2	146.9	17.1					
UBBA	e PKPbc	Z	06:38:26.7	146.9	12.8					
GUNZ	e PKPbc	Z	06:38:25.5	146.9	16.9					
WERN	e PKPbc	Z	06:38:25.8	147.0	17.0					
ROTZ	e PKPbc	Z	06:38:27.3	147.5	17.0					

TNS	e PKPbc	Z	06:38:27.6	147.7	10.2
GRA1	e PKPbc	Z	06:38:27.9	147.8	15.3
WET	e PKPbc	Z	06:38:32.0	148.0	18.5
GEC2	e PKPbc	Z	06:38:28.4	148.1	20.1
WLF	e PKPbc	Z	06:38:30.2	148.4	6.3
STU	e PKPbc	Z	06:38:31.0	149.0	12.0
FUR	e PKPbc	Z	06:38:45.1	149.3	16.1
RJOB	e PKPbc	Z	06:38:31.3	149.4	19.1
BFO	e PKPbc	Z	06:38:32.2	149.5	10.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/01	09:37:25.2	30.350N	138.941E	33.0G	5.7			SZGRF

Southeast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	09:50:16.1	87.5	43.1	1.3	53	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
1970/07/20	23:47:13.5	17.055N	118.778E	33.0G	5.4			SZGRF

Philippine Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	18:17:32.4	87.9	65.8	1.0	22	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/01	18:07: 3.6	15.714N	120.000E	33.0G	5.3			SZGRF

Luzon, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	18:19:58.5	89.7	65.7	1.8	35	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/02	01:03:42.0	21.110S	168.050E	33.0G				SZGRF

Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TANN	e PKPbc	Z	01:23:14.4	145.0	42.2					
WERD	e PKPbc	Z	01:23:14.7	145.0	41.9					
GUNZ	e PKPbc	Z	01:23:14.9	145.1	42.1					
WERN	e PKPbc	Z	01:23:15.3	145.1	42.2					
MOX	e PKPbc	Z	01:23:15.1	145.2	40.8					

GEC2	e PKPbc	Z	01:23:16.0	145.5	45.6
ROTZ	e PKPbc	Z	01:23:16.7	145.6	42.5
GRA1	e PKPbc	Z	01:23:17.9	146.0	41.1
TNS	e PKPbc	Z	01:23:20.4	146.7	36.4
RJOB	e PKPbc	Z	01:23:20.7	146.8	45.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/02	04:02:54.2	36.349N	4.729W	33.0G	4.3			SZGRF

Strait of Gibraltar

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e P	Z	04:06:48.9	16.7	230.7	1.0	27	4.3		
TNS	e P	Z	04:06:49.3	16.8	219.4	1.1	38	4.4		
BUG	e P	Z	04:06:54.6	17.3	214.2	1.2	32	4.3		
GRA1	e P	Z	04:06:58.6	17.6	226.9	1.5	68	4.6		
UBBA	e P	Z	04:07:01.3	17.9	221.8	2.1	65	4.4		
WET	e P	Z	04:07:04.0	18.1	231.6	1.1	11	3.9		
ROTZ	e P	Z	04:07:05.4	18.2	228.8	1.5	30	4.2		
GEC2	e P	Z	04:07:07.5	18.4	234.0	1.3	21	4.1		
WERN	e P	Z	04:07:10.0	18.6	228.0	2.0	71	4.5		
GUNZ	e P	Z	04:07:10.8	18.6	227.7	2.1	48	4.4		
TANN	e P	Z	04:07:12.5	18.7	227.9	2.5	94	4.6		
FBE	e P	Z	04:07:20.2	19.5	228.6	1.2	16	4.1		
CLL	e P	Z	04:07:20.8	19.6	227.1	1.0	9	3.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/02	04:16: 3.9	20.150S	173.510W	33.0G				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	04:35:43.4	147.2	12.7					
NRDL	e PKPbc	Z	04:35:44.4	147.5	6.3					
CLZ	e PKPbc	Z	04:35:46.5	148.2	6.9					
	e PKPab	Z	04:35:49.5							
CLL	e PKPbc	Z	04:35:46.8	148.4	11.7					
NEUB	e PKPbc	Z	04:35:47.7	148.7	9.6					
BUG	e PKPbc	Z	04:35:47.6	148.7	1.4					
BRG	e PKPbc	Z	04:35:47.7	148.7	13.6					
FBE	e PKPbc	Z	04:35:48.1	148.8	12.5					
	e PKPab	Z	04:35:51.8							
MOX	e PKPbc	Z	04:35:48.8	149.2	9.4					
WERD	e PKPbc	Z	04:35:49.3	149.4	10.8					
TANN	e PKPbc	Z	04:35:49.0	149.4	11.1					
GUNZ	e PKPbc	Z	04:35:49.6	149.4	10.8					
WERN	e PKPbc	Z	04:35:49.6	149.5	10.9					

	e PKPab	Z	04:35:54.7			
TNS	e PKPbc	Z	04:35:50.7	149.9	3.7	
	e PKPab	Z	04:35:56.4			
ROTZ	e PKPbc	Z	04:35:51.3	150.0	10.8	
GRA1	e PKPbc	Z	04:35:51.6	150.2	9.0	
WLF	e PKPab	Z	04:35:59.4	150.5	359.4	
WET	e PKPbc	Z	04:35:52.2	150.6	12.3	
GEC2	e PKPbc	Z	04:35:52.5	150.7	13.9	
STU	e PKPbc	Z	04:35:54.3	151.3	5.3	
FUR	e PKPbc	Z	04:35:55.2	151.7	9.5	
BFO	e PKPbc	Z	04:35:54.9	151.8	3.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/02	13:03: 3.9	31.000S	178.000W	60.0		4.9		GSRC

Kermadec Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPab	Z	13:23:27.2	158.1	26.0					
BRG	e PKPab	Z	13:23:28.1	158.2	28.6					
CLZ	e PKPab	Z	13:23:28.4	158.3	19.7					
IBBN	e PKPab	Z	13:23:28.4	158.3	13.4					
FBE	e PKPab	Z	13:23:29.1	158.4	27.2					
NEUB	e PKPab	Z	13:23:29.3	158.5	23.4					
TANN	e PKPab	Z	13:23:32.0	159.1	25.8					
WERD	e PKPab	Z	13:23:32.0	159.1	25.4					
MOX	e PKPab	Z	13:23:31.7	159.1	23.7					
GUNZ	e PKPab	Z	13:23:32.3	159.2	25.6					
WERN	e PKPab	Z	13:23:32.7	159.2	25.8					
ROTZ	e PKPab	Z	13:23:35.2	159.7	26.0					
GRA1	e PKPab	Z	13:23:36.4	160.1	23.8					
	e L	Z	14:26:21.5			19.1	177		4.9	
GEC2	e PKPab	Z	13:23:36.3	160.1	30.7					
WET	e PKPab	Z	13:23:36.8	160.1	28.4					
TNS	e PKPab	Z	13:23:36.5	160.2	16.5					
RJOB	e PKPab	Z	13:23:42.1	161.3	30.1					
STU	e PKPab	Z	13:23:42.1	161.4	19.7					
FUR	e PKPab	Z	13:23:42.6	161.4	25.7					
BFO	e PKPab	Z	13:23:44.3	162.0	17.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/02	23:28:10.3	23.913S	170.985E	33.0G		5.5		SZGRF

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	23:47:47.7	146.6	40.0					

BRG	e PKPbc	Z	23:47:51.2	147.7	41.9				
CLL	e PKPbc	Z	23:47:51.1	147.8	40.0				
NRDL	e PKPbc	Z	23:47:51.8	147.9	34.3				
FBE	e PKPbc	Z	23:47:51.9	147.9	41.0				
NEUB	e PKPbc	Z	23:47:53.1	148.4	38.2				
CLZ	e PKPbc	Z	23:47:53.3	148.4	35.4				
TANN	e PKPbc	Z	23:47:53.9	148.7	40.1				
WERD	e PKPbc	Z	23:47:54.0	148.7	39.8				
GUNZ	e PKPdf	Z	23:47:51.3	148.8	40.0				
	e PKPbc	Z	23:47:54.3						
WERN	e PKPbc	Z	23:47:54.5	148.8	40.1				
IBBN	e PKPbc	Z	23:47:54.4	148.9	30.7				
MOX	e PKPbc	Z	23:47:54.1	148.9	38.5				
ROTZ	e PKPbc	Z	23:47:55.5	149.3	40.4				
GEC2	e PKPdf	Z	23:47:51.7	149.3	43.8				
	e PKPbc	Z	23:47:55.6						
WET	e PKPbc	Z	23:47:56.1	149.5	42.2				
GRA1	e PKPbc	Z	23:47:56.7	149.8	38.9				
TNS	e PKPdf	Z	23:47:53.8	150.4	33.7				
	e PKPbc	Z	23:47:58.3						
RJOB	e PKPbc	Z	23:47:58.2	150.5	43.7				
FUR	e PKPbc	Z	23:47:59.5	150.9	40.7				
STU	e PKPbc	Z	23:48:00.5	151.3	36.5				
WLF	e PKPdf	Z	23:47:55.9	151.7	30.2				
	e PKPbc	Z	23:48:02.0						
BFO	e PKPbc	Z	23:48:01.7	152.0	35.5				
GRA1	e L	Z	00:52:49.4	149.8	38.9	21.9	870	5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/03	00:25:26.7	23.900S	170.460E	26.9				SZGRF

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	00:45:04.4	146.4	40.8					
BRG	e PKPbc	Z	00:45:08.0	147.5	42.7					
CLL	e PKPbc	Z	00:45:08.2	147.6	40.8					
FBE	e PKPbc	Z	00:45:09.2	147.7	41.8					
NRDL	e PKPbc	Z	00:45:08.8	147.7	35.2					
NEUB	e PKPbc	Z	00:45:09.9	148.1	39.0					
CLZ	e PKPbc	Z	00:45:10.1	148.2	36.2					
	e pPKPbc	Z	00:45:18.4							
TANN	e PKPbc	Z	00:45:11.1	148.5	40.9					
	e pPKPbc	Z	00:45:18.9							
WERD	e PKPbc	Z	00:45:11.1	148.5	40.6					
GUNZ	e PKPbc	Z	00:45:11.4	148.6	40.8					
	e pPKPbc	Z	00:45:19.1							
WERN	e PKPbc	Z	00:45:11.7	148.6	40.9					

MOX	e PKPbc	Z	00:45:11.3	148.6	39.4	
IBBN	e PKPbc	Z	00:45:11.5	148.7	31.5	
ROTZ	e PKPbc	Z	00:45:12.7	149.1	41.2	
GEC2	e PKPbc	Z	00:45:12.7	149.1	44.6	
	e pPKPbc	Z	00:45:21.0			
UBBA	e PKPbc	Z	00:45:12.7	149.1	36.6	
WET	e PKPbc	Z	00:45:13.2	149.2	43.0	
GRA1	e PKPbc	Z	00:45:13.7	149.5	39.7	
TNS	e PKPbc	Z	00:45:15.6	150.2	34.6	
RJOB	e PKPbc	Z	00:45:15.3	150.3	44.5	
FUR	e PKPbc	Z	00:45:16.6	150.7	41.6	
STU	e PKPbc	Z	00:45:17.5	151.1	37.4	
	e pPKPbc	Z	00:45:25.9			
WLF	e PKPbc	Z	00:45:19.0	151.5	31.2	
BFO	e PKPbc	Z	00:45:18.8	151.8	36.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/03	00:32: 5.3	23.480S	169.748E	33.0G				SZGRF

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	00:51:45.1	145.7	41.5					
BRG	e PKPbc	Z	00:51:48.6	146.8	43.4					
CLL	e PKPbc	Z	00:51:48.5	146.9	41.5					
FBE	e PKPbc	Z	00:51:49.5	147.0	42.5					
NRDL	e PKPbc	Z	00:51:49.0	147.1	36.0					
CLZ	e PKPbc	Z	00:51:50.7	147.5	37.0					
TANN	e PKPbc	Z	00:51:51.4	147.8	41.7					
WERD	e PKPbc	Z	00:51:51.4	147.8	41.4					
GUNZ	e PKPbc	Z	00:51:51.8	147.9	41.5					
WERN	e PKPbc	Z	00:51:52.0	147.9	41.7					
MOX	e PKPbc	Z	00:51:51.7	148.0	40.1					
GEC2	e PKPbc	Z	00:51:53.1	148.4	45.3					
ROTZ	e PKPbc	Z	00:51:53.3	148.4	42.0					
UBBA	e PKPbc	Z	00:51:53.0	148.5	37.4					
WET	e PKPbc	Z	00:51:53.6	148.6	43.7					
GRA1	e PKPbc	Z	00:51:54.1	148.9	40.5					
TNS	e PKPbc	Z	00:51:56.2	149.5	35.5					
RJOB	e PKPbc	Z	00:51:55.7	149.6	45.2					
FUR	e PKPbc	Z	00:51:56.9	150.0	42.3					
STU	e PKPbc	Z	00:51:57.9	150.4	38.2					
WLF	e PKPbc	Z	00:51:59.3	150.8	32.1					
BFO	e PKPbc	Z	00:51:59.1	151.1	37.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/03	00:36:31.2	21.733S	171.164E	33.0G				SZGRF

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z	00:56:06.9	145.9	39.9					
CLL	e PKPbc	Z	00:56:06.7	145.9	38.0					
NRDL	e PKPbc	Z	00:56:07.5	146.0	32.6					
TANN	e PKPbc	Z	00:56:09.8	146.8	38.1					
WERD	e PKPbc	Z	00:56:10.0	146.8	37.8					
IBBN	e PKPbc	Z	00:56:10.1	146.9	29.0					
GUNZ	e PKPbc	Z	00:56:10.1	146.9	37.9					
WERN	e PKPbc	Z	00:56:10.3	146.9	38.0					
ROTZ	e PKPbc	Z	00:56:11.6	147.4	38.3					
GEC2	e PKPbc	Z	00:56:11.6	147.5	41.5					
GRA1	e PKPbc	Z	00:56:12.0	147.9	36.8					
STU	e PKPbc	Z	00:56:16.7	149.4	34.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/03	03:40:26.2	23.580S	173.360E	33.0G		5.2		SZGRF

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	04:00:05.2	147.2	36.2					
NRDL	e PKPbc	Z	04:00:08.9	148.4	30.3					
BRG	e PKPbc	Z	04:00:08.7	148.4	37.9					
CLL	e PKPbc	Z	04:00:08.9	148.4	36.0					
FBE	e PKPbc	Z	04:00:09.5	148.6	37.0					
CLZ	e PKPbc	Z	04:00:10.5	148.9	31.2					
NEUB	e PKPbc	Z	04:00:10.5	148.9	34.1					
TANN	e PKPbc	Z	04:00:11.6	149.3	36.0					
WERD	e PKPbc	Z	04:00:11.7	149.4	35.7					
GUNZ	e PKPbc	Z	04:00:12.1	149.4	35.9					
MOX	e PKPbc	Z	04:00:11.7	149.5	34.4					
WERN	e PKPbc	Z	04:00:12.2	149.5	36.0					
UBBA	e PKPbc	Z	04:00:13.1	149.9	31.5					
ROTZ	e PKPbc	Z	04:00:13.5	150.0	36.2					
GEC2	e PKPbc	Z	04:00:13.5	150.1	39.7					
BUG	e PKPbc	Z	04:00:13.4	150.2	26.3					
WET	e PKPbc	Z	04:00:13.9	150.2	38.0					
GRA1	e PKPbc	Z	04:00:14.3	150.4	34.7					
	e L	Z	05:06:08.1			21.9	399		5.2	
TNS	e PKPbc	Z	04:00:15.8	150.9	29.4					
RJOB	e PKPbc	Z	04:00:16.1	151.3	39.5					
FUR	e PKPbc	Z	04:00:17.1	151.6	36.4					
STU	e PKPbc	Z	04:00:17.9	151.9	32.0					
BFO	e PKPbc	Z	04:00:19.3	152.6	30.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/03	05:26:22.3	7.638N	37.316W	33.0G	5.2	5.0		SZGRF

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	05:36:14.1	58.3	240.8	1.3	31	5.2		
	e S	R	05:44:21.1							
	e L	Z	05:57:09.2			21.3	1327		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/03	05:30:23.6	7.800N	37.896W	33.0G	5.3			SZGRF

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	05:40:16.7	58.5	241.5	2.1	70	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/03	08:34: 7.9	15.900S	174.140W	33.0G				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e PKPbc	Z	08:53:40.8	144.9	9.7					
WERD	e PKPbc	Z	08:53:41.2	145.1	10.9					
TANN	e PKPbc	Z	08:53:41.3	145.1	11.1					
WERN	e PKPbc	Z	08:53:41.4	145.2	11.0					
TNS	e PKPbc	Z	08:53:42.4	145.6	4.4					
ROTZ	e PKPbc	Z	08:53:43.3	145.7	10.9					
GRA1	e PKPbc	Z	08:53:43.7	145.9	9.2					
WLF	e PKPbc	Z	08:53:45.0	146.2	0.5					
WET	e PKPbc	Z	08:53:44.8	146.3	12.2					
GEC2	e PKPbc	Z	08:53:45.2	146.4	13.7					
STU	e PKPbc	Z	08:53:47.2	147.0	5.9					
FUR	e PKPbc	Z	08:53:48.3	147.4	9.7					
BFO	e PKPbc	Z	08:53:48.3	147.5	4.4					
RJOB	e PKPbc	Z	08:53:48.9	147.7	12.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/03	21:20:21.8	10.380N	92.110E	33.0G	5.4	4.8		SZGRF

Andaman Islands, India, region

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

BRG	e	P	Z	21:31:57.9	74.5	92.5	1.0	32	5.3
GEC2	e	P	Z	21:31:58.5	74.6	91.8	1.7	59	5.4
RUE	e	P	Z	21:31:59.0	74.7	92.9	0.9	65	5.7
FBE	e	P	Z	21:32:00.4	74.9	92.1	1.0	60	5.6
CLL	e	P	Z	21:32:01.1	75.1	91.9	1.1	28	5.3
WET	e	P	Z	21:32:01.6	75.1	91.3	1.2	26	5.3
RJOB	e	P	Z	21:32:01.5	75.2	90.8	1.6	25	5.1
WERN	e	P	Z	21:32:03.5	75.5	91.2	1.2	25	5.2
GUNZ	e	P	Z	21:32:03.8	75.5	91.2	1.2	43	5.4
WERD	e	P	Z	21:32:03.5	75.5	91.2	1.0	21	5.2
ROTZ	e	P	Z	21:32:04.7	75.6	90.9	1.2	44	5.5
NEUB	e	P	Z	21:32:05.8	75.9	90.9	1.1	36	5.4
MOX	e	P	Z	21:32:06.3	76.0	90.7	1.5	48	5.4
FUR	e	P	Z	21:32:07.8	76.2	89.8	1.6	82	5.6
GRA1	e	P	Z	21:32:08.0	76.2	90.1	1.1	49	5.6
	e	L	Z	22:09:00.4			21.1	530	4.8
CLZ	e	P	Z	21:32:10.9	76.8	90.0	0.9	31	5.4
NRDL	e	P	Z	21:32:12.1	76.9	89.9	1.4	67	5.6
TNS	e	P	Z	21:32:17.8	78.0	88.1	1.1	44	5.4
BFO	e	P	Z	21:32:18.2	78.1	87.6	1.2	26	5.2
IBBN	e	P	Z	21:32:19.8	78.4	88.0	1.2	66	5.5
BUG	e	P	Z	21:32:21.6	78.7	87.5	1.5	63	5.4
WLF	e	P	Z	21:32:26.4	79.5	86.3	1.8	87	5.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/04	05:42: 2.2	23.012N	46.638W	33.0G	4.7			SZGRF

Northern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	05:51:09.1	52.1	261.2	1.4	13	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/04	07:56:52.4	59.300S	26.000W	35.0		5.3		NEIC

South Sandwich Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z	08:16:10.6	113.1	199.6					
	e SP	R	08:25:48.6							
	e L	Z	08:59:02.6			21.1	758	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/04	10:04:49.6	49.500N	154.300E	134.0	4.8			NEIC

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	10:16:11.8	73.9	25.0	2.3	39	5.0		
MOX	e P	Z	10:16:17.3	74.9	24.1	1.4	10	4.6		
GRA1	e P	Z	10:16:23.9	75.9	23.7	1.1	16	5.1		
WET	e P	Z	10:16:24.0	75.9	24.7	1.0	6	4.7		
GEC2	e P	Z	10:16:24.2	76.0	25.1	1.4	6	4.5		
TNS	e P	Z	10:16:24.4	76.1	22.1	0.7	8	4.9		
BFO	e P	Z	10:16:33.8	77.9	21.8	1.2	8	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/04	12:11:46.6	31.800N	104.300E	10.0	4.6			NEIC

Sichuan, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	12:22:34.0	66.1	68.4	0.8	3	4.6		
GEC2	e P	Z	12:22:40.4	67.0	67.4	0.9	2	4.4		
TANN	e P	Z	12:22:41.3	67.1	67.2	0.8	2	4.3		
NEUB	e P	Z	12:22:41.5	67.2	67.1	0.7	5	4.8		
WET	e P	Z	12:22:42.7	67.4	67.0	0.8	1	4.2		
ROTZ	e P	Z	12:22:44.0	67.5	66.8	0.9	5	4.7		
MOX	e P	Z	12:22:43.3	67.5	66.7	1.0	2	4.4		
NRDL	e P	Z	12:22:44.7	67.7	66.4	0.8	5	4.8		
CLZ	e P	Z	12:22:45.5	67.8	66.3	0.7	4	4.7		
GRA1	e P	Z	12:22:48.0	68.1	66.1	0.8	5	4.8		
UBBA	e P	Z	12:22:49.3	68.4	65.7	0.8	2	4.3		
FUR	e P	Z	12:22:52.3	68.7	65.6	0.9	20	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/04	12:11:46.6	38.721S	90.963W	10.0G		5.1		NEIC

West Chile Rise

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e L	Z	12:54:21.3	125.7	249.9	20.4	389		5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/04	14:17:39.0	6.800N	73.200W	151.0	4.5			NEIC

Northern Colombia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z	14:29:25.3	79.3	268.2	0.9	3	4.3		
STU	e P	Z	14:29:26.3	79.9	268.8	0.6	8	4.8		
CLZ	e P	Z	14:29:33.6	80.7	269.2	0.8	5	4.6		

GRA1	e P	Z	14:29:34.9	81.2	270.2	0.7	4	4.5
TANN	e P	Z	14:29:40.4	82.0	271.0	0.8	3	4.5
RJOB	e P	Z	14:29:42.1	82.3	271.6	0.8	2	4.3
WET	e P	Z	14:29:42.9	82.3	271.5	0.9	3	4.4
CLL	e P	Z	14:29:41.6	82.3	271.3	0.7	3	4.5
GEC2	e P	Z	14:29:44.5	82.8	272.2	0.7	3	4.6
BRG	e P	Z	14:29:45.1	82.9	272.1	0.8	3	4.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/04	14:50:33.0	30.000S	177.300W	35.0				NEIC

Kermadec Islands, New Zealand

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPab	Z	15:10:53.0	156.9	16.5					
CLL	e PKPab	Z	15:10:55.2	157.4	23.7					
IBBN	e PKPab	Z	15:10:55.5	157.4	11.5					
BRG	e PKPab	Z	15:10:56.3	157.5	26.2					
WERD	e PKPab	Z	15:10:59.8	158.3	23.0					
GUNZ	e PKPab	Z	15:11:00.1	158.4	23.2					
WERN	e PKPab	Z	15:11:00.5	158.4	23.3					
GRA1	e PKPab	Z	15:11:04.2	159.3	21.3					
TNS	e PKPab	Z	15:11:03.7	159.3	14.2					
WET	e PKPab	Z	15:11:05.3	159.4	25.7					
GEC2	e PKPab	Z	15:11:05.4	159.4	28.0					
RJOB	e PKPab	Z	15:11:10.9	160.6	27.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/04	18:17:31.3	60.800N	142.600E	20.0	4.7	4.3		GSRC

Eastern Siberia, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	18:27:38.0	59.6	26.1	0.8	9	4.9		
NRDL	e P	Z	18:27:44.3	60.5	24.4	0.8	3	4.2		
CLL	e P	Z	18:27:45.9	60.9	25.5	0.8	11	4.7		
BRG	e P	Z	18:27:46.5	61.0	25.8	0.8	3	4.1		
CLZ	e P	Z	18:27:48.6	61.1	24.4	0.8	6	4.5		
NEUB	e P	Z	18:27:48.9	61.3	24.9	0.8	8	5.0		
TANN	e P	Z	18:27:52.9	61.8	25.0	0.8	4	4.6		
WERD	e P	Z	18:27:53.0	61.8	25.0					
MOX	e P	Z	18:27:52.9	61.8	24.7	0.8	6	4.9		
UBBA	e P	Z	18:27:54.8	62.1	24.0	0.7	2	4.4		
ROTZ	e P	Z	18:27:57.8	62.5	24.8	0.9	4	4.5		
GRA1	e P	Z	18:28:00.1	62.8	24.3	1.0	15	5.1		
	e L	Z	18:57:19.9			20.5	218		4.3	
WET	e P	Z	18:28:00.3	62.9	24.9	1.0	7	4.7		

GEC2	e P	Z	18:28:00.1	62.9	25.2	0.9	6	4.7
RJOB	e P	Z	18:28:08.9	64.2	24.6	0.9	10	5.1
STU	e P	Z	18:28:08.8	64.2	23.2	1.0	8	4.9
FUR	e P	Z	18:28:08.6	64.2	24.0	0.8	8	5.0
BFO	e P	Z	18:28:12.7	64.8	22.7	0.9	5	4.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/05	00:02:28.1	0.330N	29.730E	33.0G	5.2	4.7		SZGRF

Zaire

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	00:11:15.0	49.6	157.5	1.7	38	5.1		
FUR	e P	Z	00:11:20.8	50.4	155.8	1.7	114	5.5		
GEC2	e P	Z	00:11:21.6	50.4	159.0	1.3	28	5.0		
WET	e P	Z	00:11:24.3	50.9	158.1	1.8	59	5.2		
BFO	e P	Z	00:11:28.5	51.4	152.2	1.2	25	5.0		
STU	e P	Z	00:11:29.7	51.6	153.4	1.5	33	5.0		
ROTZ	e P	Z	00:11:30.1	51.7	157.4	0.9	14	4.9		
GRA1	e P	Z	00:11:31.8	51.8	156.2	1.5	85	5.5		
	e L	Z	00:36:17.0			19.0	733		4.7	
WERN	e P	Z	00:11:34.9	52.1	157.8	1.2	28	5.1		
GUNZ	e P	Z	00:11:34.3	52.2	157.8	1.5	36	5.1		
TANN	e P	Z	00:11:34.4	52.2	157.9	1.5	32	5.0		
WERD	e P	Z	00:11:34.7	52.3	157.8	1.5	39	5.1		
BRG	e P	Z	00:11:34.5	52.3	159.9	1.3	17	4.8		
MOX	e P	Z	00:11:37.3	52.6	157.0	1.2	18	4.9		
CLL	e P	Z	00:11:39.2	52.9	158.8	1.3	23	4.9		
TNS	e P	Z	00:11:40.9	53.1	153.0	1.1	38	5.2		
NEUB	e P	Z	00:11:40.9	53.1	157.3	1.9	68	5.3		
UBBA	e P	Z	00:11:41.7	53.2	155.1	1.7	72	5.3		
WLF	e P	Z	00:11:42.2	53.3	150.1	1.4	49	5.2		
RUE	e P	Z	00:11:46.1	53.8	160.1	1.2	56	5.5		
CLZ	e P	Z	00:11:47.7	54.0	155.8	2.2	106	5.5		
BUG	e P	Z	00:11:51.5	54.5	152.0	1.1	33	5.3		
NRDL	e P	Z	00:11:53.0	54.7	155.7	1.6	103	5.6		
IBBN	e P	Z	00:11:56.5	55.1	152.9	1.4	59	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/05	01:05:56.1	45.325N	16.017E	10.0G			2.9	SZGRF

Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	E	01:06:22.7	1.6	138.7					
	e Sn	N	01:06:42.1							3.5
ARSA	e Pn	Z	01:06:27.4	2.0	169.8					2.3

MOA	e Pn	Z	01:06:39.7	2.8	153.9		2.8
	e Sn	N	01:07:12.0				
RJOB	e Pn	Z	01:06:47.2	3.3	136.2		
GEC2	e Pn	Z	01:06:54.0	3.9	155.0		3.1
	e Sn	N	01:07:36.4				
WET	e Pn	Z	01:07:00.9	4.4	149.7		
	e Sn	E	01:07:48.0				
ROTZ	e Pn	Z	01:07:10.8	5.1	148.5		
	e Sn	N	01:08:05.2				
GRA1	e Sn	N	01:08:12.6	5.4	141.6		
WERN	e Pn	Z	01:07:16.3	5.5	152.4		
GUNZ	e Pn	Z	01:07:17.6	5.6	152.5		
TANN	e Pn	Z	01:07:18.8	5.6	153.6		
WERD	e Pn	Z	01:07:20.0	5.7	152.7		
MOX	e Pn	Z	01:07:24.0	6.1	149.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/05	09:12:40.2	29.700S	176.430W	33.0G		6.3		SZGRF

Kermadec Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e SS	T	09:56:06.0	154.2	19.7					
HLG	e SS	T	09:56:17.7	155.3	9.0					
RUE	e SS	T	09:56:23.4	156.0	22.3					
NRDL	e SS	T	09:56:32.4	156.7	14.5					
IBBN	e PKPab	Z	09:33:04.0	157.2	9.4					
	e SS	T	09:56:38.0							
CLL	e SS	T	09:56:36.4	157.3	21.6					
CLZ	e SS	T	09:56:38.7	157.3	15.5					
BRG	e PKPdf	Z	09:32:33.1	157.4	24.1					
	e SS	T	09:56:38.8							
NEUB	e PKPab	Z	09:33:05.5	157.6	19.0					
	e SS	T	09:56:41.4							
BUG	e SS	T	09:56:48.5	158.1	8.6					
MOX	e PKPdf	Z	09:32:34.4	158.2	19.1					
	e PKPab	Z	09:33:06.0							
	e SS	T	09:56:47.1							
TANN	e SS	T	09:56:47.1	158.2	21.2					
WERD	e PKPab	Z	09:33:07.0	158.2	20.8					
GUNZ	e PKPab	Z	09:33:07.9	158.3	21.0					
UBBA	e SS	T	09:56:48.5	158.3	15.3					
ROTZ	e SS	T	09:56:55.8	158.9	21.2					
TNS	e SS	T	09:56:58.7	159.2	12.0					
GRA1	e PKPdf	Z	09:32:36.0	159.2	19.0					
	e PKPab	Z	09:33:12.6							
	e SS	T	09:56:57.0							
	e L	Z	10:44:31.6			21.3	4674		6.3	

WET	e SS	T	09:57:01.1	159.3	23.4
GEC2	e PKPab	Z	09:33:13.6	159.4	25.7
	e SS	T	09:57:01.5		
WLF	e SS	T	09:57:10.1	159.9	6.6
STU	e SS	T	09:57:11.2	160.5	14.7
FUR	e PKPab	Z	09:33:19.5	160.6	20.5
	e SS	T	09:57:14.3		
RJOB	e PKPab	Z	09:33:18.2	160.6	24.8
	e SS	T	09:57:15.6		
BFO	e PKPab	Z	09:33:20.1	161.0	12.8
	e SS	T	09:57:18.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/05	15:52:48.6	39.640N	74.240E	22.1	6.4	7.4		SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	16:00:41.5	42.5	82.6	1.3	709	6.2		
	e S	R	16:07:13.8							
	e SS	R	16:10:28.0							
RGN	e P	Z	16:00:42.9	42.5	84.5	1.3	3279	6.9		
	e S	R	16:07:14.8							
	e SS	R	16:10:24.9							
BRG	e P	Z	16:00:43.2	42.6	80.9	1.2	606	6.2		
	e pP	Z	16:00:49.0							
	e S	R	16:07:16.9							
	e SS	R	16:10:35.9							
FBE	e P	Z	16:00:46.4	43.0	80.6	1.4	1142	6.4		
	e pP	Z	16:00:52.1							
GEC2	e P	Z	16:00:47.6	43.1	78.6	1.2	569	6.2		
	e S	R	16:07:24.9							
	e SS	R	16:10:46.6							
CLL	e P	Z	16:00:46.9	43.1	80.8	1.0	486	6.2		
	e S	R	16:07:23.6							
	e SS	R	16:10:42.6							
WET	e P	Z	16:00:51.3	43.6	78.4	1.2	478	6.1		
	e pP	Z	16:00:57.1							
	e S	R	16:07:32.5							
	e SS	R	16:10:54.1							
TANN	e P	Z	16:00:51.3	43.6	79.5	1.5	436	6.0		
	e S	R	16:07:32.6							
	e SS	R	16:10:53.2							
WERN	e P	Z	16:00:52.1	43.7	79.3	1.8	481	5.9		
GUNZ	e P	Z	16:00:52.1	43.7	79.4	1.2	423	6.0		
WERD	e P	Z	16:00:52.1	43.7	79.4	1.3	468	6.1		
ROTZ	e P	Z	16:00:54.1	43.9	78.7	1.6	586	6.1		
	e S	R	16:07:37.4							

	e	SS	R	16:10:59.3					
NEUB	e	P	Z	16:00:53.4	43.9	79.9	1.1	718	6.3
	e	S	R	16:07:35.3					
	e	SS	R	16:10:56.0					
RJOB	e	P	Z	16:00:53.7	44.0	77.0	1.3	288	5.8
	e	S	R	16:07:38.5					
MOX	e	P	Z	16:00:55.2	44.1	79.2	1.4	471	6.0
	e	pP	Z	16:01:01.3					
	e	S	R	16:07:38.9					
	e	SS	R	16:11:00.3					
GRA1	e	P	Z	16:00:59.4	44.6	78.0	1.0	773	6.6
	e	pP	Z	16:01:05.2					
	e	S	R	16:07:46.6					
	e	SS	R	16:11:10.4					
	e	L	Z	16:21:44.4			19.2	409608	7.4
CLZ	e	P	Z	16:00:59.6	44.7	79.6	1.1	477	6.3
	e	S	R	16:07:46.7					
	e	SS	R	16:11:07.8					
NRDL	e	P	Z	16:01:00.3	44.7	80.0	1.3	1209	6.7
	e	pP	Z	16:01:06.3					
	e	S	R	16:07:47.5					
	e	SS	R	16:11:09.6					
FUR	e	P	Z	16:01:01.4	44.9	76.5	1.0	810	6.6
	e	S	R	16:07:49.7					
UBBA	e	P	Z	16:01:02.4	45.1	78.3	2.2	1408	6.5
	e	S	R	16:07:52.9					
	e	SS	R	16:11:16.8					
HLG	e	P	Z	16:01:08.4	45.7	80.1	1.2	1481	6.9
	e	S	R	16:08:02.4					
	e	SS	R	16:11:25.0					
STU	e	P	Z	16:01:10.7	46.1	75.8	1.1	530	6.5
	e	pP	Z	16:01:16.6					
	e	S	R	16:08:06.9					
	e	SS	R	16:11:32.6					
IBBN	e	P	Z	16:01:11.4	46.2	78.2	1.1	858	6.7
	e	S	R	16:08:06.9					
TNS	e	P	Z	16:01:11.7	46.2	76.7	1.0	416	6.4
	e	S	R	16:08:06.9					
BUG	e	P	Z	16:01:15.3	46.6	77.1	1.4	1092	6.8
	e	S	R	16:08:15.6					
BFO	e	P	Z	16:01:15.4	46.7	74.9	1.2	421	6.4
	e	pP	Z	16:01:21.6					
	e	S	R	16:08:16.7					
	e	SS	R	16:11:47.5					
WLF	e	P	Z	16:01:24.2	47.8	74.8	1.1	948	6.8
	e	S	R	16:08:32.9					
	e	SS	R	16:12:07.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/05	16:11:10.8	39.054N	73.690E	33.0G	5.4			SZGRF

Tajikistan-Xinjiang border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	16:19:02.6	42.5	83.6					
BRG	e P	Z	16:19:03.6	42.6	82.0	0.7	38	5.2		
GEC2	e P	Z	16:19:07.8	43.1	79.7	0.8	38	5.2		
CLL	e P	Z	16:19:07.7	43.2	81.8	0.8	50	5.3		
WET	e P	Z	16:19:11.6	43.6	79.5	0.9	37	5.1		
TANN	e P	Z	16:19:12.1	43.6	80.5	0.9	26	5.0		
GUNZ	e P	Z	16:19:12.7	43.7	80.4	1.6	196	5.6		
WERD	e P	Z	16:19:12.5	43.7	80.5	1.7	183	5.5		
ROTZ	e P	Z	16:19:14.3	43.9	79.7	0.8	10	4.6		
RJOB	e P	Z	16:19:14.2	43.9	78.0	0.8	12	4.7		
NEUB	e P	Z	16:19:14.3	43.9	80.9	0.8	63	5.4		
MOX	e P	Z	16:19:15.9	44.1	80.2	0.9	35	5.1		
GRA1	e P	Z	16:19:19.7	44.5	79.0	0.8	107	5.8		
CLZ	e P	Z	16:19:20.4	44.7	80.6	1.1	79	5.6		
NRDL	e P	Z	16:19:20.8	44.8	81.1	0.9	108	5.8		
FUR	e P	Z	16:19:22.2	44.8	77.5	0.9	101	5.8		
UBBA	e P	Z	16:19:23.4	45.1	79.3	0.8	10	4.8		
STU	e P	Z	16:19:31.1	46.0	76.8	0.9	62	5.6		
TNS	e P	Z	16:19:32.2	46.2	77.7	0.9	25	5.3		
IBBN	e P	Z	16:19:32.2	46.2	79.2	0.9	70	5.7		
BUG	e P	Z	16:19:36.2	46.7	78.1	1.1	74	5.7		
BFO	e P	Z	16:19:35.9	46.7	75.9	0.9	32	5.5		
WLF	e P	Z	16:19:44.6	47.8	75.8	0.9	70	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/05	16:52:59.3	40.062N	73.982E	33.0G	4.4			SZGRF

Kyrgyzstan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	17:01:05.2	44.2	77.6	1.0	9	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/05	17:33:56.2	40.084N	74.065E	33.0G	3.9			SZGRF

Kyrgyzstan-Xinjiang border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	17:42:02.3	44.2	77.6	0.7	2	3.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/05	18:08:59.4	40.176N	73.761E	33.0G	4.3			SZGRF

Kyrgyzstan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	18:17:03.6	44.0	77.6	0.8	6	4.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/05	18:27:34.9	39.282N	74.376E	33.0G	5.1			SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	18:35:32.4	42.8	82.9	1.8	96	5.2		
BRG	e P	Z	18:35:34.0	42.9	81.3	1.7	54	5.0		
FBE	e P	Z	18:35:37.3	43.3	80.9	0.9	33	5.1		
GEC2	e P	Z	18:35:38.3	43.4	79.0	1.3	39	5.0		
CLL	e P	Z	18:35:38.1	43.4	81.1	1.7	64	5.1		
WET	e P	Z	18:35:42.3	43.9	78.8	1.1	19	4.7		
TANN	e P	Z	18:35:42.2	43.9	79.8	1.5	32	4.8		
GUNZ	e P	Z	18:35:43.1	44.0	79.7	1.2	24	4.8		
WERD	e P	Z	18:35:42.5	44.0	79.8	1.6	31	4.8		
ROTZ	e P	Z	18:35:44.8	44.2	79.0	1.9	48	4.9		
NEUB	e P	Z	18:35:44.5	44.2	80.2	1.0	33	5.0		
MOX	e P	Z	18:35:46.2	44.4	79.5	1.1	18	4.9		
GRA1	e P	Z	18:35:50.6	44.9	78.3	2.4	339	5.8		
CLZ	e P	Z	18:35:50.5	45.0	79.9	1.6	53	5.2		
NRDL	e P	Z	18:35:51.2	45.0	80.3	1.0	42	5.3		
FUR	e P	Z	18:35:52.4	45.1	76.8	1.0	42	5.3		
UBBA	e P	Z	18:35:53.5	45.4	78.6	1.7	39	5.2		
STU	e P	Z	18:36:01.5	46.3	76.2	1.0	32	5.3		
IBBN	e P	Z	18:36:02.2	46.5	78.5	1.2	46	5.5		
BFO	e P	Z	18:36:06.4	47.0	75.3	1.1	14	5.0		
WLF	e P	Z	18:36:15.0	48.0	75.1	1.0	34	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/05	21:46: 5.9	39.835N	74.251E	33.0G	4.5			SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:54:14.1	44.5	77.7	1.0	7	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

2008/10/05 22:56:25.8 32.970N 70.270E 48.9 5.7 5.9 SZGRF
Pakistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	23:04:31.5	44.3	91.4	1.7	138	5.4		
	e S	T	23:11:04.4							
GEC2	e P	Z	23:04:32.3	44.4	89.2	1.5	74	5.2		
	e S	T	23:11:05.9							
RUE	e P	Z	23:04:32.1	44.5	92.9	1.6	138	5.4		
	e S	T	23:11:02.2							
FBE	e P	Z	23:04:34.8	44.7	91.0	1.7	196	5.8		
RGN	e S	T	23:11:08.9	44.9	94.6					
CLL	e P	Z	23:04:35.8	44.9	91.1	1.5	83	5.4		
	e pP	Z	23:04:49.3							
	e S	T	23:11:11.4							
WET	e P	Z	23:04:37.1	45.0	88.9	2.5	131	5.4		
	e S	T	23:11:14.3							
RJOB	e P	Z	23:04:37.6	45.1	87.4	1.6	69	5.3		
	e S	T	23:11:14.1							
TANN	e P	Z	23:04:39.2	45.2	89.8	1.6	95	5.5		
	e pP	Z	23:04:52.2							
	e S	T	23:11:18.7							
WERN	e P	Z	23:04:39.8	45.3	89.6	1.4	75	5.4		
GUNZ	e P	Z	23:04:39.9	45.3	89.7	1.5	121	5.6		
WERD	e P	Z	23:04:39.8	45.3	89.7	1.6	125	5.6		
	e pP	Z	23:04:53.2							
ROTZ	e P	Z	23:04:40.9	45.4	89.0	1.5	168	5.7		
	e S	T	23:11:21.5							
NEUB	e P	Z	23:04:42.2	45.7	90.1	1.6	216	5.9		
	e S	T	23:11:22.8							
MOX	e P	Z	23:04:43.4	45.8	89.4	1.5	155	5.8		
	e S	T	23:11:26.0							
GRA1	e P	Z	23:04:46.0	46.0	88.2	1.7	289	6.0		
	e S	T	23:11:31.1							
	e L	Z	23:28:06.9			19.0	13966		5.9	
FUR	e P	Z	23:04:45.1	46.1	86.7	1.3	72	5.5		
	e S	T	23:11:27.9							
CLZ	e P	Z	23:04:49.4	46.5	89.6	1.5	185	6.0		
	e S	T	23:11:34.6							
NRDL	e P	Z	23:04:50.6	46.7	90.0	1.7	140	5.8		
	e S	T	23:11:36.8							
UBBA	e P	Z	23:04:51.2	46.8	88.3	1.3	56	5.5		
	e S	T	23:11:39.5							
STU	e P	Z	23:04:56.1	47.4	85.8	1.7	288	6.1		
	e S	T	23:11:48.6							
TNS	e P	Z	23:04:59.4	47.8	86.6	1.6	87	5.6		
	e S	T	23:11:55.7							
BFO	e P	Z	23:04:59.9	48.0	84.8	1.5	51	5.4		
	e S	T	23:11:57.2							

HLG	e P	Z	23:05:00.8	48.0	89.8	1.4	330	6.3
	e S	T	23:11:55.2					
IBBN	e P	Z	23:05:01.8	48.1	88.0	1.6	270	6.1
	e S	T	23:11:57.0					
BUG	e P	Z	23:05:04.4	48.5	86.8	1.6	215	6.0
	e S	T	23:12:03.2					
WLF	e P	Z	23:05:11.5	49.3	84.5	1.5	192	5.9
	e S	T	23:12:17.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/06	00:46:23.1	39.599N	74.448E	33.0G	4.4			SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:54:33.4	44.7	77.9	0.9	4	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/06	00:50:52.8	39.602N	74.535E	33.0G	4.6			SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:59:03.5	44.8	77.8	0.8	6	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/06	07:50:32.6	39.887N	74.201E	33.0G	5.0			SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	07:58:40.3	44.4	77.7	1.0	14	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/06	08:30:44.8	29.420N	90.962E	33.0G	6.3	6.2		SZGRF

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	08:40:44.5	59.5	81.1	1.3	720	6.6		
	e S	R	08:48:52.2							
	e SS	R	08:52:44.1							
RUE	e P	Z	08:40:44.4	59.5	80.3	1.1	265	6.2		
	e S	R	08:48:51.4							
	e SS	R	08:52:47.8							

BRG	e	P	Z	08:40:45.8	59.7	79.4	1.4	291	6.1
	e	S	R	08:48:55.3					
	e	SS	R	08:52:43.6					
FBE	e	P	Z	08:40:48.6	60.1	79.1	1.6	526	6.3
	e	PP	Z	08:43:02.8					
CLL	e	P	Z	08:40:48.8	60.2	79.0	1.3	206	6.0
	e	S	R	08:49:00.5					
	e	SS	R	08:52:54.1					
GEC2	e	P	Z	08:40:49.7	60.2	78.1	2.0	607	6.3
	e	S	R	08:49:01.6					
	e	SS	R	08:52:56.9					
TANN	e	P	Z	08:40:52.8	60.7	78.1	1.4	234	5.8
	e	S	R	08:49:09.4					
	e	SS	R	08:53:03.6					
WET	e	P	Z	08:40:52.9	60.7	77.7	1.5	269	5.8
	e	S	R	08:49:08.5					
	e	SS	R	08:53:02.4					
WERN	e	P	Z	08:40:53.5	60.8	78.0	1.5	239	5.8
WERD	e	P	Z	08:40:53.4	60.8	78.1	1.2	158	5.7
GUNZ	e	P	Z	08:40:53.5	60.8	78.0	1.4	313	6.0
	e	PP	Z	08:43:09.5					
NEUB	e	P	Z	08:40:54.4	61.0	78.1	1.4	451	6.1
	e	S	R	08:49:10.8					
	e	SS	R	08:53:07.4					
ROTZ	e	P	Z	08:40:55.3	61.0	77.6	1.4	498	6.1
	e	S	R	08:49:13.6					
	e	SS	R	08:53:09.6					
RJOB	e	P	Z	08:40:56.1	61.1	76.9	2.2	462	5.9
	e	S	R	08:49:09.3					
	e	SS	R	08:53:13.1					
MOX	e	P	Z	08:40:56.1	61.2	77.7	1.5	271	5.9
	e	S	R	08:49:14.5					
	e	SS	R	08:53:10.7					
GRA1	e	P	Z	08:40:59.7	61.6	76.9	1.4	611	6.6
	e	S	R	08:49:21.2					
	e	SS	R	08:53:19.5					
	e	L	Z	09:08:48.2			21.7	16999	6.2
CLZ	e	P	Z	08:40:59.7	61.7	77.4	1.2	571	6.7
	e	S	R	08:49:20.4					
	e	SS	R	08:53:19.5					
NRDL	e	P	Z	08:41:00.0	61.7	77.6	1.2	762	6.8
	e	S	R	08:49:20.5					
	e	SS	R	08:53:23.7					
FUR	e	P	Z	08:41:01.5	62.0	76.1	2.0	1009	6.7
	e	S	R	08:49:21.6					
	e	SS	R	08:53:25.3					
UBBA	e	P	Z	08:41:02.4	62.1	76.6	1.5	236	6.2
	e	S	R	08:49:26.0					
	e	SS	R	08:53:25.6					

HLG	e P	Z	08:41:04.7	62.6	76.8	1.4	364	6.3
	e S	R	08:49:32.8					
IBBN	e P	Z	08:41:09.4	63.1	75.8	1.4	529	6.5
	e S	R	08:49:39.8					
STU	e P	Z	08:41:09.2	63.2	75.1	1.7	645	6.5
	e S	R	08:49:37.9					
	e SS	R	08:53:43.6					
TNS	e P	Z	08:41:11.1	63.2	75.3	1.2	311	6.3
	e S	R	08:49:41.0					
	e SS	R	08:53:44.6					
BUG	e P	Z	08:41:12.7	63.7	75.0	1.3	381	6.5
	e S	R	08:49:44.9					
	e SS	R	08:53:50.7					
BFO	e P	Z	08:41:13.2	63.8	74.3	1.6	204	6.1
	e S	R	08:49:46.2					
	e SS	R	08:53:54.4					
WLF	e P	Z	08:41:20.9	64.8	73.4	1.3	875	6.8
	e S	R	08:49:59.3					
	e SS	R	08:54:09.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/06	08:45:10.1	28.804N	89.408E	33.0G	4.8			SZGRF

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	08:55:21.2	61.1	78.5	1.2	19	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/06	10:17:12.3	28.819N	90.079E	33.0G	5.1			SZGRF

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	10:27:12.6	59.6	80.6	1.2	13	4.9		
FBE	e P	Z	10:27:15.6	59.9	80.2	1.2	25	5.1		
GEC2	e P	Z	10:27:16.4	60.1	79.2	0.9	10	4.8		
WET	e P	Z	10:27:19.5	60.6	78.8	1.2	9	4.5		
TANN	e P	Z	10:27:19.8	60.6	79.3	1.9	26	4.7		
WERN	e P	Z	10:27:20.3	60.7	79.1	1.5	28	4.9		
WERD	e P	Z	10:27:20.3	60.7	79.2	1.2	12	4.6		
GUNZ	e P	Z	10:27:20.6	60.7	79.1	1.3	24	4.9		
NEUB	e P	Z	10:27:21.6	60.9	79.2	1.1	26	5.0		
ROTZ	e P	Z	10:27:22.4	60.9	78.7	1.2	23	4.9		
MOX	e P	Z	10:27:22.9	61.1	78.8	1.0	7	4.5		
GRA1	e P	Z	10:27:26.3	61.5	78.0	1.5	45	5.5		
CLZ	e P	Z	10:27:26.7	61.6	78.5	1.1	36	5.5		

NRDL	e P	Z	10:27:27.2	61.6	78.7	1.1	41	5.6	
UBBA	e P	Z	10:27:29.4	62.0	77.7				
STU	e P	Z	10:27:36.2	63.0	76.1	1.4	33	5.3	
TNS	e P	Z	10:27:37.1	63.1	76.4	1.1	22	5.2	
BUG	e P	Z	10:27:39.3	63.6	76.1	1.2	20	5.2	
WLF	e P	Z	10:27:48.0	64.7	74.5	1.1	32	5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/06	12:10:23.3	28.761N	91.747E	33.0G	5.6	4.8		SZGRF

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	12:20:33.8	60.4	81.0	1.1	83	5.5		
RUE	e P	Z	12:20:33.7	60.5	80.2	0.9	38	5.2		
BRG	e P	Z	12:20:35.2	60.7	79.4	1.4	51	5.2		
FBE	e P	Z	12:20:38.0	61.0	79.0	1.8	127	5.4		
GEC2	e P	Z	12:20:38.9	61.2	78.2	1.3	45	5.1		
TANN	e P	Z	12:20:42.1	61.7	78.1	1.6	49	5.5		
WET	e P	Z	12:20:42.3	61.7	77.8	1.9	70	5.6		
WERN	e P	Z	12:20:42.8	61.7	78.0	1.3	30	5.4		
WERD	e P	Z	12:20:42.7	61.8	78.0	1.1	24	5.4		
GUNZ	e P	Z	12:20:42.8	61.8	78.0	1.6	59	5.6		
NEUB	e P	Z	12:20:43.7	61.9	78.1	1.5	75	5.7		
ROTZ	e P	Z	12:20:44.7	62.0	77.6	1.4	68	5.7		
RJOB	e P	Z	12:20:46.0	62.0	77.0					
MOX	e P	Z	12:20:45.4	62.1	77.7	1.3	34	5.4		
GRA1	e P	Z	12:20:49.0	62.6	76.9	1.4	94	5.7		
	e L	Z	12:48:46.3			20.9	614		4.8	
CLZ	e P	Z	12:20:49.0	62.6	77.4	1.4	118	5.8		
NRDL	e P	Z	12:20:49.4	62.7	77.5	1.2	126	5.9		
FUR	e P	Z	12:20:50.7	62.9	76.2	1.1	63	5.7		
UBBA	e P	Z	12:20:51.8	63.1	76.6	1.6	45	5.3		
HLG	e P	Z	12:20:54.2	63.6	76.7					
IBBN	e P	Z	12:20:58.7	64.1	75.7	1.6	131	5.9		
STU	e P	Z	12:20:58.5	64.1	75.1	1.4	79	5.8		
TNS	e P	Z	12:20:59.3	64.2	75.2	1.3	56	5.6		
BUG	e P	Z	12:21:02.1	64.6	75.0	1.2	60	5.7		
BFO	e P	Z	12:21:02.6	64.8	74.3	2.0	68	5.5		
WLF	e P	Z	12:21:10.3	65.8	73.4	1.3	114	5.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/06	12:43:59.6	4.500N	93.500E	52.4	4.9			SZGRF

Off west coast of northern Sumatera, Indonesia

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

GEC2	e P	Z	12:56:02.3	79.9	94.7	0.9	21	5.1
	e pP	Z	12:56:17.4					
BRG	e P	Z	12:56:02.0	79.9	95.3	1.2	14	4.8
	e pP	Z	12:56:17.4					
FBE	e P	Z	12:56:04.4	80.3	94.8	1.2	21	4.9
	e pP	Z	12:56:19.3					
RJOB	e P	Z	12:56:04.8	80.4	93.9	1.4	23	4.9
WET	e P	Z	12:56:05.2	80.5	94.2	1.0	12	4.8
	e pP	Z	12:56:20.7					
TANN	e P	Z	12:56:07.0	80.8	94.0	1.5	12	4.7
WERN	e P	Z	12:56:07.4	80.9	94.0	1.2	8	4.6
GUNZ	e P	Z	12:56:07.7	80.9	93.9	1.1	9	4.7
WERD	e P	Z	12:56:08.0	80.9	93.9	1.4	14	4.8
	e pP	Z	12:56:22.6					
ROTZ	e P	Z	12:56:08.1	80.9	93.7	1.0	10	4.8
MOX	e P	Z	12:56:10.2	81.4	93.4	1.3	9	4.6
GRA1	e P	Z	12:56:11.8	81.6	93.0	0.9	17	5.2
CLZ	e P	Z	12:56:14.5	82.2	92.6	1.2	13	4.9
	e pP	Z	12:56:29.0					
TNS	e P	Z	12:56:20.6	83.4	90.9	1.2	13	5.1
BFO	e P	Z	12:56:20.7	83.4	90.6	0.8	8	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/06	20:55:45.1	16.253S	176.365W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	21:15:12.5	143.4	10.5					
IBBN	e PKPbc	Z	21:15:13.6	143.8	6.7					
CLZ	e PKPbc	Z	21:15:14.0	144.0	11.0					
BRG	e PKPbc	Z	21:15:15.0	144.4	17.2					
NEUB	e PKPbc	Z	21:15:16.0	144.4	13.5					
FBE	e PKPbc	Z	21:15:15.3	144.5	16.2					
BUG	e PKPbc	Z	21:15:16.0	144.7	6.0					
MOX	e PKPbc	Z	21:15:17.0	145.0	13.4					
UBBA	e PKPbc	Z	21:15:16.8	145.1	10.7					
WERD	e PKPbc	Z	21:15:17.4	145.1	14.7					
GUNZ	e PKPbc	Z	21:15:17.7	145.2	14.7					
WERN	e PKPbc	Z	21:15:18.1	145.2	14.8					
ROTZ	e PKPbc	Z	21:15:20.1	145.8	14.7					
TNS	e PKPbc	Z	21:15:20.1	145.8	8.2					
GRA1	e PKPbc	Z	21:15:20.9	146.0	13.1					
WET	e PKPbc	Z	21:15:21.7	146.3	16.1					
GEC2	e PKPbc	Z	21:15:21.1	146.4	17.6					
WLF	e PKPbc	Z	21:15:22.8	146.5	4.4					
STU	e PKPbc	Z	21:15:23.9	147.2	9.9					
FUR	e PKPbc	Z	21:15:25.0	147.5	13.7					

BFO	e PKPbc	Z	21:15:25.6	147.7	8.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/07	02:52:19.0	36.660N	71.870E	33.0G	4.8			SZGRF

Afghanistan-Tajikistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	03:00:16.4	42.9	86.1	0.9	16	4.8		
RUE	e P	Z	03:00:16.2	43.0	87.7	0.6	20	5.0		
GEC2	e P	Z	03:00:19.0	43.3	83.8	0.8	3	4.1		
FBE	e P	Z	03:00:19.4	43.3	85.7	0.8	18	4.8		
GUNZ	e P	Z	03:00:25.0	44.0	84.4	1.0	10	4.5		
WERD	e P	Z	03:00:24.8	44.0	84.5	2.5	76	5.0		
RJOB	e P	Z	03:00:24.4	44.0	82.0	0.7	10	4.7		
ROTZ	e P	Z	03:00:26.0	44.2	83.7	1.1	7	4.3		
NEUB	e P	Z	03:00:26.4	44.3	84.9	0.9	17	4.8		
MOX	e P	Z	03:00:27.9	44.4	84.2	0.7	6	4.6		
GRA1	e P	Z	03:00:31.4	44.8	83.0	1.0	14	4.8		
FUR	e P	Z	03:00:32.5	45.0	81.5	1.0	16	4.9		
CLZ	e P	Z	03:00:33.5	45.1	84.5	0.8	10	4.8		
NRDL	e P	Z	03:00:34.1	45.2	85.0	0.9	9	4.7		
UBBA	e P	Z	03:00:35.9	45.4	83.2	0.6	5	4.7		
IBBN	e P	Z	03:00:45.6	46.6	83.1	0.7	23	5.4		
BUG	e P	Z	03:00:49.0	47.1	81.9	1.4	27	5.2		
WLF	e P	Z	03:00:56.6	48.0	79.5	0.9	19	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/07	03:34:35.3	11.300N	125.400E	45.0	5.3	4.7		NEIC

Samar, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	03:47:59.3	96.3	64.2	1.2	13	5.3		
	e L	Z	04:34:58.9			21.8	266		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/07	10:00:51.4	79.820N	115.580W	33.0G	5.7	5.2		SZGRF

Arctic Ocean

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
HLG	e P	Z	10:08:42.9	42.2	347.3	1.6	374	5.9		
RGN	e P	Z	10:08:45.7	42.5	348.3	2.0	561	5.9		
IBBN	e P	Z	10:08:57.7	44.0	347.7	1.8	194	5.5		
	e PcP	Z	10:10:41.6							

	e	S	R	10:15:25.7					
NRDL	e	P	Z	10:08:58.5	44.1	348.1	1.6	146	5.4
	e	PcP	Z	10:10:41.3					
	e	S	R	10:15:26.9					
RUE	e	P	Z	10:09:02.3	44.6	348.8	1.6	187	5.8
	e	PcP	Z	10:10:43.4					
	e	S	R	10:15:34.4					
BUG	e	P	Z	10:09:03.6	44.8	347.8	1.8	105	5.5
	e	S	R	10:15:37.8					
CLZ	e	P	Z	10:09:04.2	44.8	348.3	1.9	194	5.7
	e	PcP	Z	10:10:44.1					
	e	S	R	10:15:37.7					
NEUB	e	P	Z	10:09:10.0	45.6	348.7	1.7	184	5.8
	e	PcP	Z	10:10:47.0					
	e	S	R	10:15:48.7					
CLL	e	P	Z	10:09:10.1	45.6	348.9	1.2	81	5.6
	e	PcP	Z	10:10:47.0					
	e	S	R	10:15:49.7					
UBBA	e	P	Z	10:09:11.4	45.7	348.4	1.7	97	5.6
	e			10:09:19.8					
	e	S	R	10:15:51.8					
FBE	e	P	Z	10:09:13.9	46.0	349.0	1.6	122	5.7
	e	PcP	Z	10:10:49.0					
MOX	e	P	Z	10:09:14.3	46.1	348.7	1.5	65	5.5
	e	S	R	10:15:56.7					
TNS	e	P	Z	10:09:14.7	46.1	348.3	1.1	58	5.5
	e	S	R	10:15:58.9					
BRG	e	P	Z	10:09:14.6	46.2	349.1	1.6	112	5.6
	e	S	R	10:15:57.4					
WLF	e	P	Z	10:09:16.8	46.4	348.0	1.9	161	5.8
	e	S	R	10:16:02.4					
WERD	e	P	Z	10:09:16.7	46.4	348.9	1.7	122	5.7
GUNZ	e	P	Z	10:09:17.5	46.5	348.9	1.6	118	5.8
	e	PcP	Z	10:10:50.4					
WERN	e	P	Z	10:09:18.2	46.6	348.9	1.9	169	5.9
	e	PcP	Z	10:10:50.8					
GRA1	e	P	Z	10:09:21.8	47.0	348.8	1.9	377	6.2
	e			10:09:30.0					
	e	PcP	Z	10:10:53.0					
	e	S	R	10:16:11.1					
	e	L	Z	10:29:35.9			19.5	2802	5.2
ROTZ	e	P	Z	10:09:22.1	47.0	349.0	1.8	111	5.7
	e	PcP	Z	10:10:52.5					
	e	S	R	10:16:11.4					
STU	e	P	Z	10:09:26.6	47.6	348.7	2.2	282	6.0
	e	S	R	10:16:21.0					
WET	e	P	Z	10:09:27.6	47.7	349.2	1.8	160	5.8
	e	PcP	Z	10:10:55.4					
	e	S	R	10:16:21.9					

BFO	e P	Z	10:09:29.0	48.0	348.6	1.8	131	5.8
	e S	R	10:16:25.3					
GEC2	e P	Z	10:09:30.7	48.1	349.4	1.6	123	5.8
	e PcP	Z	10:10:56.3					
	e S	R	10:16:26.9					
FUR	e P	Z	10:09:33.1	48.5	349.1	1.3	56	5.4
	e S	R	10:16:33.4					
RJOB	e P	Z	10:09:38.0	49.1	349.4	1.4	40	5.2
	e PcP	Z	10:11:00.1					
	e S	R	10:16:41.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/07	15:53:16.7	21.730S	166.694E	33.0G				SZGRF

New Caledonia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPbc	Z	16:12:45.4	143.9	46.3					
CLL	e PKPbc	Z	16:12:45.8	144.1	44.5					
CLZ	e PKPbc	Z	16:12:48.8	144.8	40.3					
WERD	e PKPbc	Z	16:12:49.0	145.0	44.4					
GUNZ	e PKPbc	Z	16:12:49.7	145.0	44.5					
WERN	e PKPbc	Z	16:12:49.6	145.1	44.7					
MOX	e PKPbc	Z	16:12:49.8	145.1	43.2					
GEC2	e PKPbc	Z	16:12:50.8	145.4	48.0					
ROTZ	e PKPbc	Z	16:12:51.0	145.5	44.9					
GRA1	e PKPbc	Z	16:12:52.6	146.0	43.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/07	18:57:23.5	20.200S	177.400E	33.0G				NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	19:17:18.7	148.5	25.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/07	23:13:20.5	39.610N	74.402E	33.0G	4.6			SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:21:30.5	44.7	77.9	0.8	7	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/08	06:07:43.2	34.862N	141.042E	33.0G	5.2			SZGRF

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	06:20:13.1	84.5	39.3	1.4	24	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/08	07:57:38.9	80.180N	116.500W	33.0G	5.4	4.6		SZGRF

Arctic Ocean

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	08:05:44.8	44.0	348.6	1.6	77	5.2		
RUE	e P	Z	08:05:48.8	44.4	349.3	1.0	53	5.4		
CLZ	e P	Z	08:05:50.5	44.6	348.8	1.0	34	5.2		
CLL	e P	Z	08:05:56.5	45.5	349.4	1.2	40	5.3		
	e PcP	Z	08:07:33.8							
UBBA	e P	Z	08:05:57.6	45.6	348.9	2.0	88	5.5		
FBE	e P	Z	08:06:00.2	45.9	349.5	2.0	94	5.5		
MOX	e P	Z	08:06:00.7	46.0	349.2	2.6	141	5.5		
	e PcP	Z	08:07:35.7							
TNS	e P	Z	08:06:01.0	46.0	348.8	2.3	166	5.7		
BRG	e P	Z	08:06:00.9	46.0	349.6	1.8	65	5.4		
	e PcP	Z	08:07:35.7							
WERD	e P	Z	08:06:02.7	46.2	349.4	2.5	160	5.6		
	e PcP	Z	08:07:36.7							
GUNZ	e P	Z	08:06:03.5	46.3	349.4	2.3	107	5.6		
	e PcP	Z	08:07:37.1							
WERN	e P	Z	08:06:04.4	46.4	349.4	2.3	159	5.7		
GRA1	e P	Z	08:06:08.0	46.9	349.3	1.2	79	5.7		
	e L	Z	08:24:01.1			21.3	670		4.6	
ROTZ	e P	Z	08:06:08.2	46.9	349.5	1.6	40	5.3		
	e PcP	Z	08:07:39.8							
STU	e P	Z	08:06:13.5	47.5	349.2	1.3	45	5.4		
WET	e P	Z	08:06:13.9	47.6	349.7	1.2	36	5.4		
BFO	e P	Z	08:06:15.2	47.8	349.1	1.2	28	5.3		
GEC2	e P	Z	08:06:16.8	48.0	349.9	2.4	128	5.6		
FUR	e P	Z	08:06:19.9	48.4	349.6	1.6	83	5.5		
RJOB	e P	Z	08:06:25.0	49.0	349.9	2.0	52	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/08	09:53:13.0	61.632N	143.596W	13.5	5.9	4.4		SZGRF

Southern Alaska, United States

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

IBBN	e P	Z	10:03:42.5	63.8	345.3	1.0	119	6.1	
NRDL	e P	Z	10:03:43.3	64.0	346.5	1.1	123	6.1	
RUE	e P	Z	10:03:46.7	64.5	348.3	1.1	198	6.3	
BUG	e P	Z	10:03:46.9	64.6	345.2	1.0	123	6.1	
CLZ	e P	Z	10:03:48.1	64.7	346.7	1.0	160	6.2	
NEUB	e P	Z	10:03:52.9	65.5	347.4	1.1	169	6.2	
CLL	e P	Z	10:03:53.0	65.5	348.0	1.0	80	5.9	
UBBA	e P	Z	10:03:53.7	65.6	346.6	1.6	76	5.7	
TNS	e P	Z	10:03:56.0	65.9	345.9	1.1	63	5.8	
FBE	e P	Z	10:03:56.3	66.0	348.2	1.1	109	6.0	
MOX	e P	Z	10:03:56.3	66.0	347.4	1.0	115	6.1	
BRG	e P	Z	10:03:56.8	66.1	348.5	1.1	104	6.0	
WLF	e P	Z	10:03:57.3	66.1	344.8	1.1	85	5.9	
WERD	e P	Z	10:03:58.1	66.3	347.8	1.1	60	5.8	
TANN	e P	Z	10:03:58.6	66.3	347.8	1.1	76	5.8	
GUNZ	e P	Z	10:03:58.7	66.4	347.8	1.0	68	5.8	
WERN	e P	Z	10:03:59.4	66.4	347.8	1.1	98	5.9	
GRA1	e P	Z	10:04:02.1	66.9	347.3	1.1	81	5.9	
	e pP	Z	10:04:05.9						
	e L	Z	10:34:19.8			22.0	287		4.4
ROTZ	e P	Z	10:04:02.5	66.9	347.8	1.1	69	5.8	
STU	e P	Z	10:04:05.5	67.5	346.4	1.0	35	5.6	
WET	e P	Z	10:04:07.1	67.6	348.2	1.2	116	6.0	
BFO	e P	Z	10:04:07.3	67.8	346.0	1.2	62	5.7	
GEC2	e P	Z	10:04:09.4	68.0	348.6	1.5	87	5.8	
FUR	e P	Z	10:04:11.2	68.4	347.5	1.1	141	6.1	
RJOB	e P	Z	10:04:15.3	69.0	348.2	1.1	52	5.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/08	14:07:16.7	29.165N	90.683E	33.0G	5.5	4.9		SZGRF

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	14:17:16.2	59.5	80.7	0.8	58	5.7		
BRG	e P	Z	14:17:17.7	59.7	79.9	1.2	47	5.4		
FBE	e P	Z	14:17:20.5	60.1	79.5	1.3	60	5.5		
CLL	e P	Z	14:17:20.7	60.2	79.4	1.3	36	5.2		
GEC2	e P	Z	14:17:21.5	60.2	78.5	1.7	96	5.6		
WET	e P	Z	14:17:24.8	60.7	78.1	1.6	66	5.4		
TANN	e P	Z	14:17:24.7	60.7	78.5	1.2	37	5.3		
WERN	e P	Z	14:17:25.4	60.8	78.4	1.1	26	5.2		
WERD	e P	Z	14:17:25.2	60.8	78.5	1.2	41	5.3		
GUNZ	e P	Z	14:17:25.4	60.8	78.4	1.2	54	5.5		
NEUB	e P	Z	14:17:26.2	61.0	78.5	1.1	65	5.4		
ROTZ	e P	Z	14:17:27.2	61.0	78.0	1.3	87	5.4		
RJOB	e P	Z	14:17:26.8	61.1	77.3	1.7	66	5.2		
MOX	e P	Z	14:17:27.9	61.2	78.1	1.7	87	5.3		

GRA1	e P	Z	14:17:31.6	61.6	77.3	1.5	134	5.6	
	e P	Z	14:17:31.7			1.1	112		
	e L	Z	14:43:50.0			21.4	880		4.9
NRDL	e P	Z	14:17:31.9	61.7	78.0	1.1	129	5.7	
FUR	e P	Z	14:17:33.3	62.0	76.5	1.1	87	5.9	
UBBA	e P	Z	14:17:34.3	62.2	77.0	1.6	58	5.6	
STU	e P	Z	14:17:41.1	63.1	75.5	1.1	70	5.7	
IBBN	e P	Z	14:17:41.2	63.2	76.2	1.6	104	5.7	
TNS	e P	Z	14:17:41.8	63.3	75.7	1.0	61	5.7	
BUG	e P	Z	14:17:44.6	63.7	75.4	1.4	107	5.8	
BFO	e P	Z	14:17:45.1	63.8	74.7	1.5	33	5.2	
WLF	e P	Z	14:17:52.8	64.8	73.8	1.2	137	6.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/08	16:46:59.2	55.050N	168.030W	33.0G	5.0	4.2		SZGRF

Fox Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e P	Z	16:58:25.0	72.4	358.9	1.1	17	5.1		
RUE	e P	Z	16:58:25.5	72.5	1.1	1.2	27	5.3		
IBBN	e P	Z	16:58:26.0	72.6	357.5	0.8	25	5.4		
CLZ	e P	Z	16:58:29.3	73.1	359.0	1.2	32	5.3		
BUG	e P	Z	16:58:30.6	73.4	357.2	1.2	24	5.1		
CLL	e P	Z	16:58:31.8	73.6	0.6	1.2	12	4.8		
NEUB	e P	Z	16:58:32.5	73.7	359.9	1.3	30	5.2		
FBE	e P	Z	16:58:33.5	74.0	0.8	1.2	20	5.0		
BRG	e P	Z	16:58:34.6	74.1	1.2	1.2	11	4.8		
UBBA	e P	Z	16:58:34.7	74.1	358.8	1.3	7	4.5		
MOX	e P	Z	16:58:36.0	74.3	359.8	1.1	15	4.9		
WERD	e P	Z	16:58:36.6	74.5	0.2	1.3	8	4.6		
TANN	e P	Z	16:58:37.1	74.5	0.3	1.7	14	4.7		
GUNZ	e P	Z	16:58:38.2	74.6	0.2	1.3	11	4.7		
WERN	e P	Z	16:58:38.3	74.7	0.2	3.6	292	5.7		
TNS	e P	Z	16:58:38.0	74.7	357.9	1.0	11	4.8		
WLF	e P	Z	16:58:41.0	75.2	356.6	1.0	9	4.9		
ROTZ	e P	Z	16:58:41.4	75.2	0.1	1.3	13	4.9		
GRA1	e P	Z	16:58:41.5	75.3	359.6	0.9	20	5.2		
	e L	Z	17:34:16.1			19.0	125		4.2	
WET	e P	Z	16:58:44.1	75.8	0.5	1.3	10	4.8		
GEC2	e P	Z	16:58:46.2	76.1	1.0	1.0	5	4.6		
STU	e P	Z	16:58:46.2	76.2	358.4					
BFO	e P	Z	16:58:49.0	76.6	357.9	1.5	22	5.1		
RJOB	e P	Z	16:58:53.1	77.2	0.5	0.8	8	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/08	17:18:56.5	52.548N	168.001W	33.0G	5.3			SZGRF

Fox Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	17:30:50.7	77.8	359.5	1.4	32	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/08	17:52:44.0	40.882N	143.133E	57.6	4.6			SZGRF

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	18:04:47.5	80.1	34.8	1.1	9	4.6		
	e pP	Z	18:05:03.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/08	23:31:17.8	39.242N	74.291E	33.0G	4.7			SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	23:39:12.2	42.9	81.4	0.8	6	4.4		
FBE	e P	Z	23:39:15.5	43.3	81.0	0.8	15	4.8		
GEC2	e P	Z	23:39:16.5	43.4	79.1	0.9	6	4.3		
CLL	e P	Z	23:39:16.1	43.4	81.2	0.7	8	4.6		
WET	e P	Z	23:39:20.4	43.9	78.9	0.9	6	4.3		
TANN	e P	Z	23:39:20.7	43.9	79.9	0.9	5	4.2		
GUNZ	e P	Z	23:39:21.6	44.0	79.8	1.0	9	4.5		
WERD	e P	Z	23:39:20.9	44.0	79.9	0.8	4	4.2		
NEUB	e P	Z	23:39:22.7	44.2	80.3	0.9	14	4.7		
MOX	e P	Z	23:39:24.7	44.4	79.6	0.8	4	4.4		
GRA1	e P	Z	23:39:28.9	44.8	78.4	0.9	20	5.1		
NRDL	e P	Z	23:39:29.3	45.0	80.4	0.9	17	5.0		
FUR	e P	Z	23:39:30.8	45.1	76.9	0.8	14	5.0		
BUG	e P	Z	23:39:44.4	46.9	77.5	1.0	12	5.0		
BFO	e P	Z	23:39:44.5	47.0	75.3	0.7	4	4.6		
WLF	e P	Z	23:39:53.4	48.0	75.2	1.3	16	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/09	14:43:24.6	39.800N	74.000E	33.0	4.8			GSRC

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:51:32.1	44.3	77.9	1.5	28	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/09	17:50: 1.9	21.480S	174.060W	33.0G		5.8		SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z	18:09:39.5	146.5	12.5					
HLG	e PKPbc	Z	18:09:42.5	147.3	3.3					
RUE	e PKPdf	Z	18:09:42.4	148.4	14.0					
	e PKPbc	Z	18:09:44.8							
NRDL	e PKPbc	Z	18:09:45.9	148.8	7.5					
IBBN	e PKPdf	Z	18:09:43.7	149.1	3.3					
	e PKPbc	Z	18:09:46.9							
CLZ	e PKPdf	Z	18:09:44.2	149.4	8.1					
	e PKPbc	Z	18:09:47.9							
CLL	e PKPdf	Z	18:09:44.3	149.7	13.1					
	e PKPbc	Z	18:09:48.0							
NEUB	e PKPdf	Z	18:09:44.7	149.9	10.9					
	e PKPbc	Z	18:09:49.0							
BRG	e PKPdf	Z	18:09:44.9	149.9	15.0					
	e PKPbc	Z	18:09:49.0							
FBE	e PKPdf	Z	18:09:45.3	150.0	13.9					
	e PKPbc	Z	18:09:49.6							
BUG	e PKPdf	Z	18:09:44.7	150.0	2.5					
	e PKPbc	Z	18:09:48.8							
UBBA	e PKPdf	Z	18:09:45.4	150.5	7.7					
	e PKPbc	Z	18:09:49.8							
MOX	e PKPdf	Z	18:09:45.7	150.5	10.8					
	e PKPbc	Z	18:09:50.3							
WERD	e PKPdf	Z	18:09:45.8	150.6	12.1					
	e PKPbc	Z	18:09:50.6							
TANN	e PKPdf	Z	18:09:46.0	150.6	12.4					
	e PKPbc	Z	18:09:50.7							
GUNZ	e PKPdf	Z	18:09:46.1	150.7	12.2					
	e PKPbc	Z	18:09:51.0							
WERN	e PKPdf	Z	18:09:46.4	150.8	12.3					
	e PKPbc	Z	18:09:51.1							
TNS	e PKPdf	Z	18:09:47.2	151.2	4.8					
	e PKPbc	Z	18:09:51.9							
	e PKPab	Z	18:09:59.1							
ROTZ	e PKPdf	Z	18:09:46.9	151.3	12.2					
	e PKPbc	Z	18:09:52.1							
GRA1	e PKPdf	Z	18:09:47.4	151.5	10.3					
	e PKPbc	Z	18:09:52.5							
	e L	Z	19:29:13.3			18.9	1510		5.8	
WET	e PKPdf	Z	18:09:47.8	151.8	13.8					
	e PKPbc	Z	18:09:53.0							
WLF	e PKPdf	Z	18:09:48.5	151.8	0.4					

	e PKPbc	Z	18:09:53.9			
GEC2	e PKPdf	Z	18:09:48.0	151.9	15.5	
	e PKPbc	Z	18:09:53.6			
STU	e PKPdf	Z	18:09:49.1	152.6	6.6	
	e PKPbc	Z	18:09:55.1			
FUR	e PKPdf	Z	18:09:49.5	153.0	11.0	
	e PKPbc	Z	18:09:55.9			
BFO	e PKPdf	Z	18:09:49.5	153.1	4.9	
	e PKPbc	Z	18:09:56.2			
	e PKPab	Z	18:10:07.2			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/09	23:08:46.3	16.448S	173.308W	33.0G				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GUNZ	e PKPbc	Z	23:28:21.3	145.8	9.6					
ROTZ	e PKPbc	Z	23:28:23.2	146.4	9.6					
GRA1	e PKPbc	Z	23:28:23.8	146.6	7.9					
WLF	e PKPbc	Z	23:28:24.8	146.8	359.1					
WET	e PKPbc	Z	23:28:24.8	146.9	10.9					
GEC2	e PKPbc	Z	23:28:25.3	147.1	12.4					
FUR	e PKPbc	Z	23:28:28.3	148.1	8.3					
BFO	e PKPbc	Z	23:28:28.3	148.1	3.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/11	04:31:14.2	23.022S	164.289E	33.0G				SZGRF

New Caledonia region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	04:50:55.0	146.0	48.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/11	08:34:31.4	36.050N	28.230E	33.0G	4.3			SZGRF

Dodecanese Islands, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	08:38:21.2	16.3	130.1	0.8	12	4.1		
GEC2	e P	Z	08:38:25.4	16.6	134.9	0.9	20	4.3		
WET	e P	Z	08:38:32.8	17.2	133.7	1.3	36	4.4		
FUR	e P	Z	08:38:32.9	17.4	127.9	1.3	74	4.7		
ROTZ	e P	Z	08:38:41.1	18.0	133.7	1.0	22	4.2		
BRG	e P	Z	08:38:41.1	18.0	139.8	1.4	18	4.0		

WERN	e P	Z	08:38:43.9	18.3	135.2	0.7	14	4.2
FBE	e P	Z	08:38:44.3	18.3	138.6	0.8	16	4.2
TANN	e P	Z	08:38:43.4	18.3	135.6	1.2	20	4.1
GUNZ	e P	Z	08:38:44.2	18.3	135.2	1.0	23	4.2
GRA1	e P	Z	08:38:44.5	18.4	131.5	1.5	63	4.5
WERD	e P	Z	08:38:43.9	18.4	135.4	0.9	18	4.2
CLL	e P	Z	08:38:48.3	18.7	138.6	0.6	16	4.4
MOX	e P	Z	08:38:52.1	18.9	134.3	1.0	29	4.4
STU	e P	Z	08:38:49.7	18.9	125.3	0.9	44	4.7
BFO	e P	Z	08:38:54.0	19.1	122.7	0.7	11	4.2
NEUB	e P	Z	08:38:53.8	19.2	135.8	0.9	20	4.3
RUE	e P	Z	08:38:55.2	19.3	142.5	1.3	77	4.8
TNS	e P	Z	08:39:03.3	20.1	127.3	0.9	40	4.7
CLZ	e P	Z	08:39:04.4	20.2	134.2	1.1	10	4.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/11	09:06:10.7	43.310N	46.650E	33.0G	5.8	5.4		SZGRF

Eastern Caucasus

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	09:11:16.3	23.3	96.1	1.4	304	5.7		
	e S	R	09:15:23.1							
GEC2	e P	Z	09:11:16.4	23.3	91.2	1.5	207	5.4		
	e S	R	09:15:23.7							
RUE	e P	Z	09:11:23.7	23.6	99.6	1.7	1717	6.3		
FBE	e P	Z	09:11:20.8	23.7	95.7	1.4	770	6.0		
WET	e P	Z	09:11:21.4	23.9	91.2	2.4	425	5.6		
	e S	R	09:15:40.8							
CLL	e P	Z	09:11:22.0	23.9	96.2	1.0	241	5.7		
	e S	R	09:15:43.7							
RJOB	e P	Z	09:11:21.9	23.9	88.0	1.6	265	5.5		
	e S	R	09:15:40.5							
TANN	e P	Z	09:11:25.0	24.2	93.7	2.5	1855	6.2		
	e S	R	09:15:42.0							
WERN	e P	Z	09:11:25.6	24.2	93.4	1.8	973	6.0		
GUNZ	e P	Z	09:11:25.8	24.3	93.5	1.8	844	6.0		
WERD	e P	Z	09:11:25.9	24.3	93.7	1.8	618	5.8		
RGN	e P	Z	09:11:27.7	24.3	103.7	1.6	1178	6.4		
	e S	R	09:15:42.0							
ROTZ	e P	Z	09:11:26.0	24.3	92.1	1.7	234	5.4		
NEUB	e P	Z	09:11:29.8	24.7	94.9	1.4	473	6.0		
	e S	R	09:15:49.6							
MOX	e P	Z	09:11:30.3	24.7	93.5	1.5	492	6.0		
	e S	R	09:15:48.9							
FUR	e P	Z	09:11:31.6	24.9	87.9	1.5	1198	6.4		
	e S	R	09:15:56.8							
GRA1	e P	Z	09:11:33.2	25.0	91.1	1.4	326	5.9		

	e S	T	09:16:01.1						
	e L	Z	09:21:35.6			18.8	11042		5.4
CLZ	e P	Z	09:11:39.0	25.6	95.0	1.1	273	5.8	
UBBA	e P	Z	09:11:40.5	25.8	92.5	1.6	432	5.8	
	e S	R	09:16:12.3						
NRDL	e P	Z	09:11:41.4	25.8	96.1	1.3	277	5.7	
STU	e P	Z	09:11:42.6	26.3	87.7	1.3	172	5.5	
TNS	e P	Z	09:11:48.3	26.7	90.1	1.9	182	5.5	
	e S	R	09:16:19.8						
BFO	e P	Z	09:11:48.1	26.9	86.2	1.4	140	5.5	
IBBN	e P	Z	09:11:53.1	27.2	93.6	2.3	787	6.1	
WLF	e P	Z	09:12:01.7	28.2	87.3	1.8	202	5.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/11	09:22:11.2	43.806N	45.553E	26.6	5.2			SZGRF

Eastern Caucasus

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	09:27:23.5	24.0	90.9	1.1	86	5.2		
	e pP	Z	09:27:30.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/11	10:40:14.9	19.010N	64.540W	26.7	5.9	5.6		SZGRF

Virgin Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	10:50:40.9	63.2	268.2	1.3	149	6.0		
BUG	e P	Z	10:50:45.9	64.0	268.2	1.4	150	6.0		
IBBN	e P	Z	10:50:47.9	64.3	268.2	1.4	270	6.3		
BFO	e P	Z	10:50:49.7	64.6	270.5	1.3	47	5.5		
TNS	e P	Z	10:50:51.0	64.7	269.7	1.3	137	6.0		
STU	e P	Z	10:50:53.6	65.2	271.0	1.5	134	6.0		
UBBA	e P	Z	10:50:57.1	65.7	270.7	1.6	86	5.7		
NRDL	e P	Z	10:50:57.5	65.7	270.0	1.3	171	6.1		
CLZ	e P	Z	10:50:58.6	65.9	270.5	1.3	109	5.9		
GRA1	e pP	Z	10:51:09.7	66.5	272.1					
	e P	Z	10:52:45.7			1.5	135	6.0		
	e S	R	10:59:51.8							
	e L	Z	11:15:32.4			20.9	3862		5.6	
	e PKPPKPbc	Z	11:19:33.3							
FUR	e P	Z	10:51:03.0	66.6	272.8	1.3	144	6.0		
MOX	e P	Z	10:51:03.8	66.7	272.0	2.6	174	5.8		
NEUB	e P	Z	10:51:04.3	66.8	271.9	1.1	132	6.1		
ROTZ	e P	Z	10:51:06.4	67.1	272.8	1.4	86	5.8		
WERD	e P	Z	10:51:06.7	67.2	272.6	1.2	56	5.7		

GUNZ	e P	Z	10:51:06.4	67.2	272.6	1.3	40	5.5
WERN	e P	Z	10:51:07.0	67.2	272.7	1.4	67	5.7
TANN	e P	Z	10:51:06.9	67.3	272.7	1.3	65	5.7
CLL	e P	Z	10:51:08.8	67.6	272.8	1.2	73	5.8
WET	e P	Z	10:51:09.1	67.6	273.6	1.7	89	5.7
RJOB	e P	Z	10:51:09.8	67.6	274.1	1.4	42	5.5
FBE	e P	Z	10:51:10.7	67.8	273.2	1.3	96	5.9
RUE	e P	Z	10:51:11.5	68.0	272.9	1.5	120	5.9
GEC2	e P	Z	10:51:13.0	68.2	274.3	1.7	78	5.7
BRG	e P	Z	10:51:12.8	68.2	273.7	1.1	64	5.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/11	12:28:23.9	43.490N	45.840E	20.6	4.7			SZGRF

Eastern Caucasus

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	12:33:43.4	24.3	91.4	0.9	22	4.7		
	e pP	Z	12:33:48.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/11	12:23:30.3	29.700S	177.000W	35.0				NEIC

Kermadec Islands, New Zealand

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPab	Z	12:43:49.6	156.6	15.7					
IBBN	e PKPab	Z	12:43:52.2	157.1	10.7					
CLL	e PKPab	Z	12:43:52.1	157.1	22.9					
CLZ	e PKPab	Z	12:43:52.6	157.2	16.7					
BRG	e PKPab	Z	12:43:53.2	157.3	25.3					
FBE	e PKPab	Z	12:43:53.7	157.4	24.0					
NEUB	e PKPab	Z	12:43:53.9	157.5	20.3					
MOX	e PKPab	Z	12:43:56.3	158.1	20.4					
TANN	e PKPab	Z	12:43:56.8	158.1	22.5					
WERD	e PKPab	Z	12:43:56.8	158.1	22.1					
PLN	e PKPab	Z	12:43:56.7	158.1	21.8					
GUNZ	e PKPab	Z	12:43:57.3	158.2	22.3					
WERN	e PKPab	Z	12:43:57.4	158.2	22.4					
UBBA	e PKPab	Z	12:43:56.9	158.2	16.6					
ROTZ	e PKPab	Z	12:44:00.1	158.8	22.6					
GRA1	e PKPab	Z	12:44:01.2	159.1	20.3					
TNS	e PKPab	Z	12:44:00.5	159.1	13.3					
WET	e PKPab	Z	12:44:01.9	159.2	24.8					
GEC2	e PKPab	Z	12:44:01.9	159.2	27.0					
WLF	e PKPab	Z	12:44:04.7	159.9	8.0					
RJOB	e PKPab	Z	12:44:07.5	160.4	26.2					

FUR	e PKPab	Z	12:44:07.7	160.5	22.0	
BFO	e PKPab	Z	12:44:09.0	160.9	14.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/11	23:51:15.3	43.775N	45.059E	24.4	3.9			SZGRF

Eastern Caucasus

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:56:24.9	23.7	91.4	0.9	4	3.9		
	e pP	Z	23:56:30.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/12	00:39:56.5	20.060S	177.750W	611.6				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	00:58:29.5	146.4	19.8					
NRDL	e PKPbc	Z	00:58:31.2	147.0	13.6					
IBBN	e PKPbc	Z	00:58:32.5	147.5	9.7					
CLZ	e PKPbc	Z	00:58:33.0	147.6	14.3					
	e PKPab	Z	00:58:37.2							
CLL	e PKPbc	Z	00:58:32.8	147.6	19.1					
	e PKPab	Z	00:58:37.0							
BRG	e PKPbc	Z	00:58:33.5	147.8	21.0					
	e PKPab	Z	00:58:38.1							
FBE	e PKPbc	Z	00:58:34.0	147.9	19.9					
	e PKPab	Z	00:58:38.8							
NEUB	e PKPbc	Z	00:58:33.7	148.0	17.0					
BUG	e PKPbc	Z	00:58:34.6	148.4	9.0					
MOX	e PKPbc	Z	00:58:35.1	148.5	17.0					
TANN	e PKPbc	Z	00:58:35.4	148.6	18.6					
	e PKPab	Z	00:58:41.4							
WERD	e PKPbc	Z	00:58:35.4	148.6	18.3					
	e PKPab	Z	00:58:41.4							
	e pPKPab	Z	01:00:55.2							
UBBA	e PKPbc	Z	00:58:35.3	148.6	14.1					
GUNZ	e PKPbc	Z	00:58:35.7	148.7	18.4					
	e PKPab	Z	00:58:41.7							
WERN	e PKPbc	Z	00:58:35.9	148.7	18.5					
	e PKPab	Z	00:58:42.1							
ROTZ	e PKPbc	Z	00:58:37.1	149.3	18.5					
TNS	e PKPbc	Z	00:58:37.6	149.4	11.5					
GRA1	e PKPbc	Z	00:58:37.6	149.5	16.8					
	e PKPab	Z	00:58:45.5							
	e pPKPab	Z	01:01:00.8							

WET	e PKPbc	Z	00:58:37.8	149.7	20.1	
	e PKPab	Z	00:58:46.3			
GEC2	e PKPbc	Z	00:58:38.1	149.8	21.8	
WLF	e PKPbc	Z	00:58:39.9	150.2	7.4	
STU	e PKPbc	Z	00:58:40.4	150.8	13.4	
FUR	e PKPbc	Z	00:58:40.7	151.0	17.7	
	e PKPab	Z	00:58:51.5			
RJOB	e PKPbc	Z	00:58:40.6	151.0	20.8	
	e PKPab	Z	00:58:52.2			
BFO	e PKPab	Z	00:58:52.6	151.3	12.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/12	00:47:23.1	22.795S	178.505W	33.0G				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	01:07:10.3	150.1	21.7					
BRG	e PKPbc	Z	01:07:10.8	150.3	23.6					
FBE	e PKPbc	Z	01:07:11.6	150.4	22.6					
NEUB	e PKPbc	Z	01:07:11.6	150.5	19.5					
MOX	e PKPbc	Z	01:07:12.7	151.1	19.6					
TANN	e PKPbc	Z	01:07:12.7	151.1	21.3					
PLN	e PKPbc	Z	01:07:13.0	151.1	20.7					
WERD	e PKPbc	Z	01:07:13.0	151.1	21.0					
GUNZ	e PKPbc	Z	01:07:13.1	151.2	21.1					
ROTZ	e PKPbc	Z	01:07:14.9	151.7	21.2					
GRA1	e PKPbc	Z	01:07:15.1	152.0	19.4					
TNS	e PKPbc	Z	01:07:15.2	152.0	13.8					
GEC2	e PKPbc	Z	01:07:15.5	152.2	24.7					
WLF	e PKPbc	Z	01:07:17.5	152.9	9.5					
STU	e PKPbc	Z	01:07:18.1	153.3	16.0					
FUR	e PKPbc	Z	01:07:18.5	153.5	20.5					
BFO	e PKPbc	Z	01:07:19.1	153.9	14.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/12	08:30:46.4	13.759N	120.176E	33.0G	5.0			SZGRF

Mindoro, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	08:43:48.9	91.3	66.8	1.0	8	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/12	17:02:48.9	39.989N	72.091E	33.0G	4.4			SZGRF

Kyrgyzstan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	17:10:29.0	41.1	82.0	0.9	7	4.4		
FBE	e P	Z	17:10:32.3	41.5	81.6	0.7	9	4.6		
GEC2	e P	Z	17:10:33.4	41.6	79.5	0.7	4	4.3		
CLL	e P	Z	17:10:32.8	41.6	81.8	0.7	6	4.4		
WET	e P	Z	17:10:36.9	42.0	79.3	0.8	3	4.1		
GUNZ	e P	Z	17:10:38.0	42.2	80.3	0.6	3	4.1		
WERD	e P	Z	17:10:38.0	42.2	80.4					
ROTZ	e P	Z	17:10:40.2	42.4	79.6	1.2	4	4.0		
NEUB	e P	Z	17:10:39.6	42.4	80.9	0.7	6	4.4		
MOX	e P	Z	17:10:41.2	42.6	80.2	0.9	3	4.0		
GRA1	e P	Z	17:10:45.4	43.0	78.9	0.8	11	4.6		
NRDL	e P	Z	17:10:46.5	43.2	81.1	1.1	13	4.6		
BFO	e P	Z	17:11:01.8	45.2	75.8	1.2	7	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/12	17:27:33.5	3.406S	78.319E	33.0G	5.0			SZGRF

South Indian Ocean

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	17:39:18.9	76.3	111.8	1.1	5	4.5		
RJOB	e P	Z	17:39:19.8	76.5	110.9	2.8	106	5.5		
BRG	e P	Z	17:39:23.1	76.9	112.5	0.9	4	4.6		
ROTZ	e P	Z	17:39:26.9	77.5	110.8	1.1	6	4.6		
CLL	e P	Z	17:39:26.7	77.6	111.8	1.2	12	4.9		
GRA1	e P	Z	17:39:29.7	78.1	110.0	1.2	20	5.1		
MOX	e P	Z	17:39:29.7	78.2	110.5	3.7	145	5.5		
CLZ	e P	Z	17:39:36.2	79.3	109.7	1.3	16	4.9		
BFO	e P	Z	17:39:37.2	79.5	107.4	1.2	10	4.7		
TNS	e P	Z	17:39:40.2	80.0	107.9	1.4	14	4.8		
IBBN	e P	Z	17:39:45.3	81.0	107.6	1.2	20	5.1		
BUG	e P	Z	17:39:45.7	81.0	107.1	1.2	19	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/12	19:06: 2.1	35.440N	25.040E	10.0G	4.2	3.5		SZGRF

Crete, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	19:09:39.6	15.3	139.1	0.9	5			
GEC2	e P	Z	19:09:46.2	15.8	143.9					
FUR	e P	Z	19:09:51.6	16.3	136.3	1.0	21	4.2		
WET	e P	Z	19:09:52.2	16.3	142.4	0.9	7			
ROTZ	e P	Z	19:10:00.9	17.1	142.0	1.0	8			

BRG	e P	Z	19:10:02.2	17.4	148.3	2.2	22	3.9	
GRA1	e P	Z	19:10:04.6	17.5	139.5	1.0	18	4.1	
	e L	Z	19:18:36.5			18.5	230		3.5
TANN	e P	Z	19:10:05.5	17.5	143.9	1.0	12		
STU	e P	Z	19:10:08.0	17.7	133.0	0.9	9		
BFO	e P	Z	19:10:08.6	17.8	130.1	1.0	8	3.8	
MOX	e P	Z	19:10:11.7	18.0	142.3	1.7	19	3.9	
CLL	e P	Z	19:10:11.2	18.1	146.8	1.6	18	3.9	
UBBA	e P	Z	19:10:20.4	18.8	139.0	1.3	8		
TNS	e P	Z	19:10:22.3	19.1	134.6	0.9	18		
CLZ	e P	Z	19:10:27.0	19.5	141.7	0.9	8	3.9	
WLF	e P	Z	19:10:30.0	19.8	128.8	1.2	34		
NRDL	e P	Z	19:10:34.3	20.1	142.3	1.5	23	4.2	
BUG	e P	Z	19:10:37.1	20.4	134.6	1.1	27	4.4	
IBBN	e P	Z	19:10:41.0	20.9	137.2	0.9	15	4.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/12	20:55:47.2	19.050S	64.850W	361.6				SZGRF

Southern Bolivia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e Pdiff	Z	21:08:18.1	92.8	243.5					
	e pP	Z	21:09:42.4							
	e sP	Z	21:10:19.2							
	e SKSac	R	21:18:15.7							
BFO	e Pdiff	Z	21:08:20.8	93.6	245.0					
	e SKSac	R	21:18:19.8							
STU	e Pdiff	Z	21:08:24.1	94.3	245.7					
	e PP	Z	21:12:16.1							
	e SKSac	R	21:18:23.7							
BUG	e Pdiff	Z	21:08:24.3	94.3	244.4					
	e pP	Z	21:09:48.8							
	e SKSac	R	21:18:23.4							
TNS	e Pdiff	Z	21:08:25.3	94.4	245.2					
	e pP	Z	21:09:50.0							
	e sP	Z	21:10:26.5							
	e SKSac	R	21:18:24.4							
IBBN	e Pdiff	Z	21:08:27.3	94.9	244.9					
	e pP	Z	21:09:51.8							
	e sP	Z	21:10:28.2							
	e SKSac	R	21:18:26.8							
FUR	e Pdiff	Z	21:08:29.1	95.3	247.2					
	e SKSac	R	21:18:29.3							
UBBA	e Pdiff	Z	21:08:30.5	95.6	246.4					
	e PP	Z	21:12:25.8							
	e SKSac	R	21:18:30.5							
GRA1	e Pdiff	Z	21:08:31.8	95.8	247.3					

	e pP	Z	21:09:56.9			
	e sP	Z	21:10:33.0			
	e SKSac	R	21:18:32.1			
	e PKKPdf	Z	21:25:13.2			
RJOB	e Pdiff	Z	21:08:32.5	96.1	248.2	
	e PP	Z	21:12:31.1			
	e SKSac	R	21:18:33.5			
CLZ	e Pdiff	Z	21:08:33.5	96.2	246.8	
	e SKSac	R	21:18:33.7			
NRDL	e Pdiff	Z	21:08:34.1	96.3	246.7	
	e sP	Z	21:10:35.3			
	e PP	Z	21:12:32.9			
	e SKSac	R	21:18:34.2			
MOX	e Pdiff	Z	21:08:34.5	96.4	247.6	
	e pP	Z	21:09:59.3			
	e PP	Z	21:12:33.7			
	e SKSac	R	21:18:35.2			
ROTZ	e Pdiff	Z	21:08:34.8	96.5	248.0	
	e pP	Z	21:09:59.5			
	e SKSac	R	21:18:40.3			
WET	e Pdiff	Z	21:08:35.1	96.6	248.4	
	e SKSac	R	21:18:36.4			
TANN	e Pdiff	Z	21:08:36.7	96.8	248.2	
	e pP	Z	21:10:01.2			
	e PP	Z	21:12:36.9			
	e SKSac	R	21:18:37.4			
GEC2	e Pdiff	Z	21:08:36.8	97.0	249.0	
	e pP	Z	21:10:02.0			
	e SKSac	R	21:18:38.5			
CLL	e Pdiff	Z	21:08:39.3	97.5	248.8	
	e PP	Z	21:12:40.4			
	e SKSac	R	21:18:44.3			
BRG	e Pdiff	Z	21:08:41.1	97.9	249.4	
	e pP	Z	21:10:05.3			
	e sP	Z	21:10:42.4			
	e SKSac	R	21:18:42.7			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/12	22:42:36.8	16.155S	172.873W	33.0G				SZGRF

Samoa Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
MOX	e PKPbc	Z	23:02:10.2	145.3	7.6					
PLN	e PKPbc	Z	23:02:10.8	145.4	8.5					
WERD	e PKPbc	Z	23:02:11.0	145.5	8.8					
TANN	e PKPbc	Z	23:02:10.8	145.5	9.1					
GUNZ	e PKPbc	Z	23:02:11.3	145.5	8.9					

WERN	e PKPbc	Z	23:02:11.4	145.6	8.9	
ROTZ	e PKPbc	Z	23:02:12.9	146.1	8.8	
GRA1	e PKPbc	Z	23:02:13.5	146.3	7.1	
WLF	e PKPbc	Z	23:02:14.5	146.5	358.3	
BFO	e PKPbc	Z	23:02:18.0	147.8	2.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/13	08:07:29.5	36.299N	72.548E	31.2	5.1			SZGRF

Afghanistan-Tajikistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	08:15:45.6	45.4	82.9	0.9	17	5.1		
	e pP	Z	08:15:54.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/13	09:23: 1.7	38.406N	79.755E	33.0G	5.1			SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	09:31:46.7	48.8	75.9	0.9	17	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/13	09:25:12.1	38.107N	78.197E	33.0G	5.2			SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	09:33:47.8	48.0	77.2	0.9	17	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/13	12:07:48.7	21.200S	174.700W	46.0	5.1			NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	12:27:44.8	151.2	11.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/13	16:05:21.6	39.560N	74.530E	33.0G	5.3	4.9		SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	16:13:17.8	42.8	84.3	0.6	163	6.0		
BRG	e P	Z	16:13:18.1	42.9	80.8	0.6	45	5.4		
FBE	e P	Z	16:13:21.2	43.2	80.5	0.6	88	5.7		
CLL	e P	Z	16:13:21.8	43.4	80.7	0.5	53	5.5		
GEC2	e P	Z	16:13:22.5	43.4	78.6	0.8	25	5.0		
WET	e P	Z	16:13:26.1	43.8	78.4	0.8	23	5.0		
TANN	e P	Z	16:13:26.2	43.9	79.4	0.7	18	4.9		
WERN	e P	Z	16:13:26.8	43.9	79.2	0.7	6	4.4		
GUNZ	e P	Z	16:13:26.9	44.0	79.3	0.6	22	5.1		
WERD	e P	Z	16:13:26.8	44.0	79.3	0.6	23	5.1		
PLN	e P	Z	16:13:27.5	44.0	79.3	0.7	77	5.5		
NEUB	e P	Z	16:13:28.2	44.1	79.8	0.6	45	5.3		
ROTZ	e P	Z	16:13:28.8	44.2	78.6	1.4	37	4.9		
RJOB	e P	Z	16:13:28.7	44.2	76.9	0.7	9	4.6		
MOX	e P	Z	16:13:30.1	44.4	79.1	0.7	20	4.9		
GRA1	e P	Z	16:13:34.3	44.8	77.9	0.6	74	5.8		
	e L	Z	16:33:05.5			21.8	1484		4.9	
CLZ	e P	Z	16:13:34.6	44.9	79.4	0.7	22	5.2		
NRDL	e P	Z	16:13:35.1	44.9	79.9	0.7	51	5.6		
FUR	e P	Z	16:13:36.4	45.1	76.4	1.0	57	5.4		
UBBA	e P	Z	16:13:37.4	45.3	78.2	0.6	14	5.0		
IBBN	e P	Z	16:13:46.3	46.4	78.1	0.6	55	5.8		
TNS	e P	Z	16:13:46.4	46.4	76.6	0.7	14	5.2		
BFO	e P	Z	16:13:50.3	47.0	74.8	0.7	17	5.3		
WLF	e P	Z	16:13:59.1	48.0	74.7	0.7	35	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/13	17:16:37.6	41.283N	68.357E	33.0G	4.9			SZGRF

Central Kazakhstan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	17:24:08.9	39.9	79.6	1.3	38	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/13	21:37:28.0	43.578N	45.728E	33.0G	4.5			SZGRF

Eastern Caucasus

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:42:45.8	24.2	91.3	0.9	15	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/14	02:06:22.3	37.256N	22.875E	33.0G	4.5	4.0		SZGRF

Southern Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RJOB	e P	Z	02:09:24.9	12.8	141.1					
GEC2	e P	Z	02:09:31.3	13.4	146.7					
ROTZ	e P	Z	02:09:49.0	14.7	144.4					
GRA1	e L	Z	02:15:18.9	15.0	141.6	24.6	1541		4.0	
WERN	e P	Z	02:09:53.3	15.0	146.0					
TANN	e P	Z	02:09:54.1	15.1	146.5					
GUNZ	e P	Z	02:09:53.5	15.1	146.1					
WERD	e P	Z	02:09:57.4	15.2	146.2	1.2	31			
FBE	e P	Z	02:09:57.3	15.3	150.0	1.5	54			
MOX	e P	Z	02:10:02.5	15.6	144.7	1.1	26	4.3		
CLL	e P	Z	02:10:02.9	15.7	149.7	1.2	45	4.5		
NEUB	e P	Z	02:10:09.0	16.0	146.3	1.0	59	4.7		
UBBA	e P	Z	02:10:14.1	16.4	141.0	1.9	36	4.2		
RUE	e P	Z	02:10:18.2	16.5	153.7	1.3	106	4.8		
TNS	e P	Z	02:10:18.6	16.6	136.0	0.9	23	4.3		
CLZ	e P	Z	02:10:26.1	17.0	144.0	1.4	65	4.6		
WLF	e P	Z	02:10:28.6	17.3	129.6	1.3	61			
BUG	e P	Z	02:10:38.0	18.0	136.0	1.5	72	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/14	15:07: 5.9	43.590N	44.400E	33.0G	4.6	3.4		SZGRF

Western Caucasus

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	15:11:56.2	21.7	92.3	0.6	8	4.2		
BRG	e P	Z	15:11:55.9	21.7	97.6	1.1	14	4.2		
FBE	e P	Z	15:11:59.9	22.1	97.2	1.1	22	4.5		
RJOB	e P	Z	15:12:01.4	22.3	88.9	1.0	13	4.3		
CLL	e P	Z	15:12:02.1	22.4	97.8	1.4	22	4.4		
TANN	e P	Z	15:12:05.3	22.6	95.1	1.0	20	4.5		
WERN	e P	Z	15:12:05.9	22.7	94.7	1.5	54	4.7		
GUNZ	e P	Z	15:12:06.1	22.7	94.9	1.1	12	4.3		
WERD	e P	Z	15:12:06.2	22.7	95.1	0.9	15	4.4		
ROTZ	e P	Z	15:12:06.5	22.7	93.4	1.0	10	4.2		
PLN	e P	Z	15:12:07.1	22.8	95.0	1.3	103	5.1		
NEUB	e P	Z	15:12:10.0	23.1	96.4	0.9	22	4.7		
MOX	e P	Z	15:12:11.0	23.2	94.9	1.2	32	4.7		
FUR	e P	Z	15:12:12.3	23.3	88.8	1.2	73	5.1		
GRA1	e P	Z	15:12:13.1	23.4	92.3	1.1	20	4.6		
	e L	Z	15:23:59.1			20.7	133		3.4	
CLZ	e P	Z	15:12:19.6	24.1	96.5	1.2	28	4.7		
UBBA	e P	Z	15:12:21.0	24.2	93.9	0.9	13	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/14	16:52:51.7	22.230S	177.530W	413.6				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z	17:11:47.1	146.7	18.5					
HLG	e PKPbc	Z	17:11:48.4	147.8	9.4					
RUE	e PKPbc	Z	17:11:50.2	148.5	20.3					
NRDL	e PKPbc	Z	17:11:51.7	149.2	13.9					
	e PKPab	Z	17:11:57.4							
IBBN	e PKPbc	Z	17:11:53.1	149.6	9.7					
	e PKPab	Z	17:11:59.9							
CLZ	e PKPdf	Z	17:11:49.1	149.8	14.6					
	e PKPbc	Z	17:11:53.7							
	e PKPab	Z	17:12:00.3							
CLL	e PKPdf	Z	17:11:48.8	149.8	19.7					
	e PKPbc	Z	17:11:53.3							
	e PKPab	Z	17:12:00.0							
BRG	e PKPdf	Z	17:11:49.1	150.0	21.6					
	e PKPbc	Z	17:11:54.0							
	e PKPab	Z	17:12:01.2							
FBE	e PKPbc	Z	17:11:54.4	150.1	20.5					
	e PKPab	Z	17:12:01.6							
NEUB	e PKPbc	Z	17:11:54.2	150.1	17.5					
	e PKPab	Z	17:12:01.6							
BUG	e PKPbc	Z	17:11:55.0	150.6	9.1					
	e PKPab	Z	17:12:03.4							
MOX	e PKPbc	Z	17:11:55.5	150.7	17.5					
	e PKPab	Z	17:12:03.9							
PLN	e PKPbc	Z	17:11:55.7	150.7	18.6					
	e PKPab	Z	17:12:04.2							
TANN	e PKPdf	Z	17:11:50.4	150.7	19.2					
	e PKPbc	Z	17:11:55.7							
	e PKPab	Z	17:12:04.5							
WERD	e PKPbc	Z	17:11:55.9	150.7	18.9					
	e PKPab	Z	17:12:04.3							
UBBA	e PKPbc	Z	17:11:55.5	150.8	14.4					
GUNZ	e PKPbc	Z	17:11:56.1	150.8	19.0					
	e PKPab	Z	17:12:04.7							
WERN	e PKPbc	Z	17:11:56.2	150.9	19.1					
	e PKPab	Z	17:12:05.1							
ROTZ	e PKPbc	Z	17:11:57.4	151.4	19.1					
	e PKPab	Z	17:12:07.4							
	e pPKPbc	Z	17:13:37.4							
TNS	e PKPbc	Z	17:11:57.9	151.6	11.7					
	e PKPab	Z	17:12:07.9							
GRA1	e PKPbc	Z	17:11:57.9	151.7	17.3					
	e PKPab	Z	17:12:08.5							

WET	e PKPdf	Z	17:11:52.2	151.9	20.8
	e PKPbc	Z	17:11:58.1		
	e PKPab	Z	17:12:09.2		
GEC2	e PKPbc	Z	17:11:58.3	151.9	22.5
	e PKPab	Z	17:12:09.2		
WLF	e PKPbc	Z	17:12:00.1	152.4	7.4
	e PKPab	Z	17:12:11.8		
STU	e PKPbc	Z	17:12:00.8	152.9	13.8
	e PKPab	Z	17:12:13.3		
FUR	e PKPbc	Z	17:12:01.0	153.1	18.3
	e PKPab	Z	17:12:14.5		
RJOB	e PKPbc	Z	17:12:00.6	153.2	21.6
	e PKPab	Z	17:12:15.2		
BFO	e PKPbc	Z	17:12:01.7	153.5	12.2
	e PKPab	Z	17:12:15.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/17								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	01:51:15.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/17	18:53:33.8	43.450N	45.081E	33.0G	4.0			SZGRF

Eastern Caucasus

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	18:58:44.9	23.9	92.1	1.0	6	4.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/18	00:54:41.1	7.000S	147.200E	87.0				NEIC

Eastern New Guinea, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	01:13:28.6	123.7	56.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/18	08:09: 9.3	47.511N	147.009E	33.0G	5.0			SZGRF

Northwest of Kuril Islands, Russia

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

CLL	e P	Z	08:20:39.1	73.6	30.4	1.0	23	5.1
IBBN	e P	Z	08:20:43.7	74.3	27.3	0.9	19	5.1
PLN	e P	Z	08:20:45.0	74.6	29.8	1.2	43	5.4
GUNZ	e P	Z	08:20:45.4	74.6	29.9	0.8	6	4.6
WERN	e P	Z	08:20:45.9	74.7	29.9	0.7	5	4.6
UBBA	e P	Z	08:20:47.1	75.0	28.5	0.5	5	4.8
GEC2	e P	Z	08:20:50.2	75.5	30.5	0.6	5	4.8
WET	e P	Z	08:20:50.9	75.5	30.0	1.0	14	5.0
GRA1	e P	Z	08:20:51.2	75.6	29.1	0.9	30	5.4
RJOB	e P	Z	08:20:57.7	76.8	29.8	1.0	9	4.8
FUR	e P	Z	08:20:58.4	76.9	29.0	0.7	20	5.3
STU	e P	Z	08:20:59.0	77.0	27.7	0.8	16	5.2
BFO	e P	Z	08:21:02.4	77.7	27.2	0.8	8	4.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/18	09:29:11.1	39.497N	72.554E	33.0G	4.8			SZGRF

Kyrgyzstan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	09:36:56.0	41.7	82.3	0.9	18	4.8		
FBE	e P	Z	09:36:59.3	42.0	81.9	0.8	27	5.0		
GEC2	e P	Z	09:37:00.5	42.1	79.9	0.9	15	4.7		
CLL	e P	Z	09:36:59.8	42.2	82.1	0.8	16	4.8		
WET	e P	Z	09:37:04.1	42.6	79.7	0.9	12	4.6		
TANN	e P	Z	09:37:04.0	42.7	80.8	0.9	10	4.5		
GUNZ	e P	Z	09:37:04.8	42.8	80.6	1.0	13	4.6		
WERD	e P	Z	09:37:05.1	42.8	80.7	1.0	13	4.6		
PLN	e P	Z	09:37:05.6	42.8	80.6	1.0	50	5.2		
NEUB	e P	Z	09:37:06.6	43.0	81.2	0.8	25	5.0		
MOX	e P	Z	09:37:08.2	43.2	80.4	1.0	16	4.7		
GRA1	e P	Z	09:37:12.2	43.6	79.2	0.8	33	5.1		
NRDL	e P	Z	09:37:13.2	43.8	81.3	0.9	34	5.1		
IBBN	e P	Z	09:37:24.7	45.2	79.5	1.2	43	5.2		
BFO	e P	Z	09:37:28.5	45.7	76.1	1.0	10	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/18	10:25:41.0	21.890S	177.350W	33.0G				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
NRDL	e PKPbc	Z	10:45:25.2	148.9	13.5					
IBBN	e PKPbc	Z	10:45:26.6	149.3	9.3					
	e PKPab	Z	10:45:30.7							
CLZ	e PKPbc	Z	10:45:27.2	149.5	14.2					
CLL	e PKPbc	Z	10:45:27.0	149.5	19.2					

BRG	e PKPbc	Z	10:45:27.5	149.7	21.1
	e PKPab	Z	10:45:32.4		
BUG	e PKPbc	Z	10:45:28.6	150.2	8.7
TANN	e PKPbc	Z	10:45:29.4	150.5	18.7
UBBA	e PKPab	Z	10:45:35.8	150.5	14.0
ROTZ	e PKPbc	Z	10:45:31.1	151.1	18.6
TNS	e PKPbc	Z	10:45:31.6	151.3	11.3
GRA1	e PKPbc	Z	10:45:31.6	151.4	16.8
WET	e PKPbc	Z	10:45:31.9	151.6	20.2
	e PKPab	Z	10:45:40.5		
GEC2	e PKPbc	Z	10:45:32.2	151.6	22.0
WLF	e PKPbc	Z	10:45:34.0	152.1	7.0
FUR	e PKPab	Z	10:45:45.7	152.8	17.7
RJOB	e PKPbc	Z	10:45:34.8	152.9	21.0
	e PKPab	Z	10:45:46.5		
BFO	e PKPbc	Z	10:45:35.4	153.2	11.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/19	05:10:32.2	22.860S	173.420W	33.0G		7.4		SZGRF

Tonga Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPdf	Z	05:30:13.3	148.8	6.7					
	e PKPbc	Z	05:30:16.8							
NRDL	e PKPdf	Z	05:30:15.6	150.2	6.6					
	e PKPbc	Z	05:30:20.2							
IBBN	e PKPdf	Z	05:30:16.3	150.5	2.2					
	e PKPbc	Z	05:30:21.1							
	e PP	Z	05:33:58.1							
CLZ	e PKPdf	Z	05:30:16.7	150.9	7.2					
	e PKPbc	Z	05:30:22.0							
	e PKPab	Z	05:30:29.8							
	e PP	Z	05:33:59.9							
CLL	e PKPdf	Z	05:30:17.1	151.1	12.3					
	e PKPbc	Z	05:30:22.6							
BRG	e PKPdf	Z	05:30:17.6	151.4	14.3					
	e PKPbc	Z	05:30:23.0							
	e PP	Z	05:34:02.8							
BUG	e PKPdf	Z	05:30:17.7	151.4	1.3					
	e PKPbc	Z	05:30:23.4							
	e PP	Z	05:34:03.1							
UBBA	e PKPdf	Z	05:30:18.2	151.9	6.7					
	e PKPab	Z	05:30:34.0							
MOX	e PKPdf	Z	05:30:18.4	151.9	9.9					
	e PKPbc	Z	05:30:24.2							
	e PKPab	Z	05:30:32.5							
	e PP	Z	05:34:05.9							

	TANN	e	PKPdf	Z	05:30:18.6	152.1	11.6			
		e	PKPbc	Z	05:30:24.6					
		e	PP	Z	05:34:06.6					
	TNS	e	PKPdf	Z	05:30:19.6	152.6	3.7			
		e	PKPbc	Z	05:30:26.4					
		e	PP	Z	05:34:09.8					
	ROTZ	e	PKPdf	Z	05:30:19.6	152.7	11.4			
		e	PKPbc	Z	05:30:26.1					
		e	PP	Z	05:34:10.4					
	GRA1	e	PKPdf	Z	05:30:20.2	152.9	9.4			
		e	PKPab	Z	05:30:36.6					
		e	PP	Z	05:34:11.5					
		e			05:43:48.2					
		e	L	Z	06:38:56.3			21.9	72786	7.4
	WLF	e	PKPdf	Z	05:30:21.1	153.2	359.1			
		e	PKPbc	Z	05:30:27.9					
		e	PKPab	Z	05:30:37.7					
		e	PP	Z	05:34:13.3					
	WET	e	PKPdf	Z	05:30:20.3	153.2	13.0			
		e	PKPbc	Z	05:30:27.3					
		e	PP	Z	05:34:13.3					
	GEC2	e	PKPdf	Z	05:30:20.6	153.4	14.8			
		e	PKPbc	Z	05:30:27.9					
		e	PP	Z	05:34:14.1					
	STU	e	PKPdf	Z	05:30:21.5	154.0	5.5			
		e	PP	Z	05:34:17.7					
	FUR	e	PKPdf	Z	05:30:22.2	154.4	10.1			
	BFO	e	PKPdf	Z	05:30:21.7	154.5	3.7			
		e	PKPbc	Z	05:30:30.5					
	RJOB	e	PKPdf	Z	05:30:21.6	154.6	13.5			
		e	PKPbc	Z	05:30:30.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/19	05:54:56.7	43.637N	148.285E	33.0G	4.7			SZGRF

East of Kuril Islands, Russia

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	06:07:00.1	79.4	30.1	2.1	23	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/19								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	08:28:30.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/19	12:55: 4.0	22.570S	173.670W	33.0G		5.4		SZGRF

Tonga Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	13:14:47.2	148.5	7.1					
	e PKPab	Z	13:14:53.6							
RUE	e PKPdf	Z	13:14:46.2	149.6	13.7					
	e PKPbc	Z	13:14:49.7							
NRDL	e PKPdf	Z	13:14:46.2	149.9	7.0					
	e PKPbc	Z	13:14:50.9							
	e PKPab	Z	13:14:55.9							
IBBN	e PKPdf	Z	13:14:47.0	150.2	2.7					
	e PKPbc	Z	13:14:52.0							
CLZ	e PKPdf	Z	13:14:47.2	150.6	7.6					
	e PKPbc	Z	13:14:53.0							
CLL	e PKPdf	Z	13:14:47.4	150.8	12.7					
	e PKPbc	Z	13:14:53.3							
	e PKPab	Z	13:14:58.9							
NEUB	e PKPdf	Z	13:14:48.1	151.1	10.4					
	e PKPbc	Z	13:14:53.9							
	e PKPab	Z	13:15:00.4							
BRG	e PKPdf	Z	13:14:48.3	151.1	14.7					
	e PKPbc	Z	13:14:54.1							
BUG	e PKPdf	Z	13:14:48.2	151.1	1.8					
	e PKPbc	Z	13:14:53.8							
FBE	e PKPdf	Z	13:14:48.4	151.1	13.5					
	e PKPbc	Z	13:14:54.3							
UBBA	e PKPdf	Z	13:14:48.4	151.6	7.1					
	e PKPbc	Z	13:14:55.0							
MOX	e PKPdf	Z	13:14:48.5	151.6	10.3					
	e PKPbc	Z	13:14:55.1							
	e PKPab	Z	13:15:01.0							
PLN	e PKPdf	Z	13:14:49.1	151.7	11.4					
	e PKPbc	Z	13:14:55.5							
	e PKPab	Z	13:15:01.8							
WERD	e PKPdf	Z	13:14:49.3	151.7	11.7					
	e PKPbc	Z	13:14:55.5							
	e PKPab	Z	13:15:02.0							
TANN	e PKPdf	Z	13:14:49.3	151.7	12.0					
	e PKPbc	Z	13:14:55.5							
GUNZ	e PKPdf	Z	13:14:48.9	151.8	11.8					
	e PKPbc	Z	13:14:55.6							
WERN	e PKPdf	Z	13:14:48.8	151.9	11.9					
	e PKPbc	Z	13:14:55.7							
TNS	e PKPdf	Z	13:14:50.1	152.3	4.2					
	e PKPbc	Z	13:14:56.7							

ROTZ	e PKPdf	Z	13:14:49.7	152.4	11.8				
	e PKPbc	Z	13:14:56.9						
GRA1	e PKPdf	Z	13:14:50.8	152.6	9.9				
	e PKPbc	Z	13:14:57.4						
	e PKPab	Z	13:15:07.1						
	e PP	Z	13:18:40.7						
	e L	Z	14:25:15.9			21.5	706	5.4	
WLF	e PKPdf	Z	13:14:51.5	152.9	359.6				
	e PKPbc	Z	13:14:58.3						
WET	e PKPdf	Z	13:14:50.7	152.9	13.4				
	e PKPbc	Z	13:14:57.9						
GEC2	e PKPdf	Z	13:14:50.3	153.1	15.2				
	e PKPbc	Z	13:14:58.4						
STU	e PKPdf	Z	13:14:52.2	153.7	6.0				
	e PKPbc	Z	13:14:58.9						
	e PKPab	Z	13:15:10.5						
FUR	e PKPdf	Z	13:14:52.4	154.1	10.5				
	e PKPbc	Z	13:15:00.4						
RJOB	e PKPdf	Z	13:14:52.3	154.3	13.9				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/19	14:08: 0.1	34.613N	33.977E	33.0G	4.2			SZGRF

Cyprus region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:12:54.0	22.5	123.6	1.4	14	4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/19	14:14:34.3	21.900S	173.900W	33.0				GSRC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	14:34:27.4	151.9	10.1					
	e PKPab	Z	14:34:36.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/19	17:24:27.7	5.331N	98.914E	33.0G	4.7			SZGRF

Northern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	17:36:57.4	84.4	88.3	0.8	4	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/19	21:47: 0.2	43.525N	45.746E	25.4	4.3			SZGRF

Eastern Caucasus

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:52:15.9	24.3	91.4	1.0	9	4.3		
	e pP	Z	21:52:22.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/19	22:20:55.4	37.100N	30.400E	130.0	4.0			GSRC

Turkey

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:25:04.4	18.7	125.1	0.8	8	4.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/19	23:34: 0.5	36.535N	16.668W	33.0G	4.0			SZGRF

Azores-Cape St. Vincent Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:39:12.8	24.0	247.4	1.0	4	4.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/20	01:34:15.6	39.729N	143.580E	33.0G	4.6			SZGRF

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:46:28.8	81.2	35.1	0.9	4	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/20	02:52:54.4	42.800N	147.955E	33.0G	4.5			SZGRF

Off southeast coast of Hokkaido, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	03:05:01.2	80.1	30.7	1.1	7	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/20	04:54:21.7	0.100N	120.600E	117.0				NEIC

Minahassa Peninsula, Sulawesi, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WERN	e pPP	Z	05:12:39.0	101.4	75.7					
GUNZ	e pPP	Z	05:12:39.7	101.5	75.7					
GRA1	e Pdiff	Z	05:08:03.9	102.3	74.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/20	05:21:45.8	36.200N	71.200E	95.0	4.7			NEIC

Afghanistan-Tajikistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	05:29:50.8	44.6	83.9	1.4	14	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/20	12:29:23.0	22.060S	178.340W	33.0				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	12:49:03.6	147.5	15.0					
NRDL	e PKPbc	Z	12:49:06.9	148.9	15.3					
CLL	e PKPbc	Z	12:49:08.8	149.5	21.0					
	e PKPab	Z	12:49:13.8							
FBE	e PKPbc	Z	12:49:09.9	149.7	21.9					
	e PKPab	Z	12:49:15.3							
NEUB	e PKPbc	Z	12:49:09.5	149.8	18.9					
MOX	e PKPbc	Z	12:49:11.2	150.4	18.9					
TANN	e PKPbc	Z	12:49:11.4	150.4	20.6					
	e PKPab	Z	12:49:17.9							
PLN	e PKPbc	Z	12:49:11.2	150.4	20.0					
GUNZ	e PKPab	Z	12:49:18.6	150.5	20.4					
WERN	e PKPab	Z	12:49:19.0	150.5	20.5					
ROTZ	e PKPbc	Z	12:49:12.7	151.1	20.5					
TNS	e PKPbc	Z	12:49:13.6	151.3	13.2					
	e PKPab	Z	12:49:21.7							
GRA1	e PKPbc	Z	12:49:13.4	151.4	18.7					
WET	e PKPab	Z	12:49:22.8	151.5	22.2					
GEC2	e PKPbc	Z	12:49:14.0	151.6	23.9					
WLF	e PKPbc	Z	12:49:15.7	152.2	8.9					
	e PKPab	Z	12:49:25.0							
FUR	e PKPbc	Z	12:49:17.0	152.8	19.8					
RJOB	e PKPab	Z	12:49:28.6	152.8	23.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/20	14:26:50.0	36.358N	90.193E	33.0G	4.8			SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:36:29.3	56.5	71.4	1.7	15	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/20	15:51:29.1	35.098N	140.147E	33.0G	5.0			SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	16:03:56.1	83.9	39.8	0.8	9	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/21								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	00:07:14.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/21	08:12:43.6	45.818N	14.232E	10.0G			3.0	SZGRF

Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pg	Z	08:12:55.7	0.7	197.7					3.3
	e Sg	N	08:13:07.5							
KBA	e Pn	Z	08:13:07.9	1.4	153.8					3.2
	e Sg	N	08:13:27.9							
ARSA	e Pn	Z	08:13:13.7	1.7	212.3					2.7
	e Sg	N	08:13:36.3							
MOA	e Pn	Z	08:13:16.9	2.0	180.7					2.9
WTTA	e Pn	Z	08:13:21.0	2.3	128.1					
GEC2	e Sg	E	08:14:21.1	3.0	173.0					
DAVA	e Pn	Z	08:13:34.1	3.3	114.5					
KHC	e Pn	Z	08:13:34.8	3.3	172.2					
GRA1	e Sg	E	08:15:02.3	4.4	151.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/21	21:22: 1.8	9.129S	13.907W	33.0N	4.7			SZGRF

Ascension Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:32:24.4	62.8	208.1	0.9	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/21	23:04:23.2	0.012N	20.652W	33.0G	4.6			SZGRF

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:14:08.2	56.7	219.2	1.5	10	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/22	00:39:22.4	29.360N	131.160E	33.0G	5.3	4.5		SZGRF

Southeast of Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	00:51:47.3	82.3	49.0	0.9	21	5.4		
CLL	e P	Z	00:51:49.2	82.8	50.8	0.8	18	5.4		
FBE	e P	Z	00:51:50.2	82.9	51.0	1.5	45	5.5		
NRDL	e P	Z	00:51:52.7	83.4	48.7	1.2	23	5.3		
NEUB	e P	Z	00:51:52.9	83.4	49.9	1.1	60	5.7		
TANN	e P	Z	00:51:53.7	83.6	50.3	1.1	12	5.0		
WERD	e P	Z	00:51:54.0	83.7	50.2	1.0	13	5.1		
CLZ	e P	Z	00:51:54.6	83.7	48.9	0.9	52	5.7		
GUNZ	e P	Z	00:51:54.3	83.7	50.2	0.9	21	5.4		
PLN	e P	Z	00:51:54.3	83.7	50.1	0.9	61	5.8		
WERN	e P	Z	00:51:54.5	83.7	50.2	1.0	24	5.4		
MOX	e P	Z	00:51:55.1	83.9	49.7	1.7	32	5.3		
GEC2	e P	Z	00:51:55.3	84.0	51.0	0.9	11	5.1		
ROTZ	e P	Z	00:51:56.9	84.2	50.1	1.0	21	5.3		
WET	e P	Z	00:51:56.8	84.2	50.5	1.0	8	4.9		
UBBA	e P	Z	00:51:58.4	84.5	48.5	1.7	52	5.4		
IBBN	e P	Z	00:51:58.5	84.6	47.0	0.9	41	5.6		
GRA1	e P	Z	00:51:59.5	84.7	49.3	1.1	31	5.3		
	e L	Z	01:35:03.9			18.2	185		4.5	
RJOB	e P	Z	00:52:01.6	85.2	50.3	1.0	12	5.0		
BUG	e P	Z	00:52:02.5	85.4	46.5	1.2	23	5.2		
FUR	e P	Z	00:52:04.2	85.7	49.3	1.9	67	5.4		
TNS	e P	Z	00:52:04.2	85.7	47.3	1.6	22	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/22	12:55:58.1	18.730S	175.160W	238.3				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e PKPbc	Z	13:15:11.0	146.6	9.5					
CLL	e PKPdf	Z	13:15:09.6	146.8	14.2					
	e pPKPbc	Z	13:16:12.6							
BRG	e PKPdf	Z	13:15:10.0	147.1	16.0					
	e pPKPbc	Z	13:16:13.7							
NEUB	e PKPdf	Z	13:15:10.0	147.1	12.1					
BUG	e PKPbc	Z	13:15:12.4	147.2	4.3					
UBBA	e PKPdf	Z	13:15:11.0	147.7	9.2					
	e PKPbc	Z	13:15:13.8							
PLN	e pPKPbc	Z	13:16:14.9	147.7	13.1					
TANN	e PKPbc	Z	13:15:14.2	147.7	13.6					
GUNZ	e PKPbc	Z	13:15:14.3	147.8	13.4					
WERN	e PKPdf	Z	13:15:11.4	147.9	13.5					
	e PKPbc	Z	13:15:14.7							
TNS	e PKPdf	Z	13:15:12.5	148.4	6.5					
	e PKPbc	Z	13:15:16.0							
	e PKPab	Z	13:15:19.1							
ROTZ	e PKPdf	Z	13:15:12.2	148.4	13.4					
	e PKPbc	Z	13:15:16.2							
	e pPKPbc	Z	13:16:16.0							
GRA1	e PKPdf	Z	13:15:12.4	148.6	11.7					
	e PKPbc	Z	13:15:16.7							
	e PKPab	Z	13:15:19.7							
	e pPKPbc	Z	13:16:16.5							
	e		13:26:09.0							
GEC2	e PKPdf	Z	13:15:12.9	149.0	16.5					
	e PKPbc	Z	13:15:17.4							
	e PKPab	Z	13:15:21.8							
WLF	e PKPdf	Z	13:15:13.6	149.0	2.4					
	e PKPbc	Z	13:15:18.1							
STU	e PKPdf	Z	13:15:14.3	149.8	8.2					
	e PKPbc	Z	13:15:19.3							
FUR	e PKPdf	Z	13:15:14.3	150.1	12.3					
	e PKPbc	Z	13:15:20.2							
	e PKPab	Z	13:15:25.3							
BFO	e PKPdf	Z	13:15:14.8	150.3	6.7					
	e PKPbc	Z	13:15:20.4							
	e PKPab	Z	13:15:26.0							
RJOB	e PKPdf	Z	13:15:14.5	150.3	15.3					
	e PKPbc	Z	13:15:20.5							
	e PKPab	Z	13:15:26.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/22	16:17:28.5	40.390N	133.920E	33.0N	5.3			SZGRF

Sea of Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	16:29:03.5	74.0	41.3	0.9	71	5.7		
BRG	e P	Z	16:29:07.1	74.8	43.1	0.9	15	5.1		
CLL	e P	Z	16:29:07.7	74.9	42.6	0.7	30	5.4		
FBE	e P	Z	16:29:09.0	75.0	42.8	0.8	28	5.3		
NRDL	e P	Z	16:29:09.5	75.2	40.9	1.1	17	5.0		
NEUB	e P	Z	16:29:11.2	75.5	41.8	0.9	49	5.7		
CLZ	e P	Z	16:29:12.4	75.6	41.0	0.7	28	5.5		
TANN	e P	Z	16:29:13.0	75.8	42.1	0.9	10	4.9		
WERD	e P	Z	16:29:13.3	75.8	42.0	0.9	11	5.0		
PLN	e P	Z	16:29:13.6	75.8	41.9	0.8	69	5.8		
GUNZ	e P	Z	16:29:13.9	75.8	42.0	1.1	22	5.2		
MOX	e P	Z	16:29:14.3	75.9	41.6	1.1	19	5.1		
ROTZ	e P	Z	16:29:16.7	76.3	41.8	1.4	36	5.3		
GEC2	e P	Z	16:29:16.3	76.4	42.6	1.0	10	4.9		
UBBA	e P	Z	16:29:16.9	76.5	40.5	0.7	11	5.1		
WET	e P	Z	16:29:17.5	76.5	42.2	1.0	14	5.0		
GRA1	e P	Z	16:29:19.6	76.8	41.2	0.9	84	5.9		
BUG	e P	Z	16:29:20.7	77.1	38.8	1.3	30	5.3		
TNS	e P	Z	16:29:23.5	77.6	39.4	0.9	17	5.2		
RJOB	e P	Z	16:29:23.8	77.6	41.9	0.8	15	5.2		
BFO	e P	Z	16:29:31.6	79.1	39.1	0.7	29	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/22	17:03:47.9	24.700S	178.800W	374.0				NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	17:23:17.7	153.8	21.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/22								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	19:55:40.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/23	05:32:52.0	44.894N	147.822E	33.0G	5.0			SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	05:44:42.9	78.2	29.8	0.9	11	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/23	09:21:14.6	6.000N	125.900E	124.0				NEIC

Mindanao, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z	09:34:49.3	100.9	67.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/23	10:04:36.3	2.600S	145.600E	10.0		6.3		NEIC

Admiralty Islands, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	10:23:25.6	119.1	54.8					
	e PP	Z	10:24:45.4							
	e L	Z	11:15:19.9			21.4	8102		6.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/23								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	15:03:41.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/23	21:56: 5.1	32.400N	105.300E	10.0	5.0			NEIC

Sichuan, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:07:06.9	68.3	65.0	1.2	11	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/23	23:36:11.6	18.000S	176.800W	49.0		5.0		NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	23:55:51.5	147.7	14.4					
	e L	Z	00:58:18.8			19.3	237		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/24	00:26: 9.3	26.600S	177.400W	126.0				NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA3	e PKP	Z	00:46:14.2	155.9	19.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/24	00:58:28.2	18.300S	176.600W	68.0				NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	01:18:11.0	148.0	14.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/25	06:01:48.0	36.624N	141.036E	33.0G	5.2			SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	06:14:06.6	83.0	38.4	1.2	18	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/25	07:21:23.9	22.300S	170.700E	35.0				NEIC

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPab	Z	07:40:56.6	145.0	39.2					
BSEG	e PKPbc	Z	07:40:56.5	145.1	32.8					
BRG	e PKPbc	Z	07:41:00.0	146.2	41.0					
CLL	e PKPbc	Z	07:41:00.1	146.2	39.2					
NRDL	e PKPbc	Z	07:41:00.4	146.3	33.7					
FBE	e PKPbc	Z	07:41:00.7	146.4	40.1					
NEUB	e PKPbc	Z	07:41:02.0	146.8	37.4					
CLZ	e PKPbc	Z	07:41:02.2	146.8	34.7					
TANN	e PKPbc	Z	07:41:03.0	147.1	39.2					
WERD	e PKPbc	Z	07:41:03.1	147.2	38.9					
PLN	e PKPbc	Z	07:41:03.2	147.2	38.7					
GUNZ	e PKPbc	Z	07:41:03.2	147.2	39.1					
IBBN	e PKPbc	Z	07:41:03.1	147.3	30.1					
WERN	e PKPbc	Z	07:41:03.3	147.3	39.2					
MOX	e PKPbc	Z	07:41:03.2	147.3	37.7					
ROTZ	e PKPbc	Z	07:41:04.6	147.7	39.5					

UBBA	e PKPbc	Z	07:41:04.4	147.8	35.0
GEC2	e PKPbc	Z	07:41:04.8	147.8	42.7
WET	e PKPbc	Z	07:41:05.2	147.9	41.1
BUG	e PKPbc	Z	07:41:05.3	148.2	30.0
TNS	e PKPbc	Z	07:41:07.4	148.8	33.0
STU	e PKPbc	Z	07:41:09.6	149.7	35.6
WLF	e PKPbc	Z	07:41:10.9	150.0	29.6
BFO	e PKPbc	Z	07:41:10.9	150.4	34.6
	e PKPab	Z	07:41:17.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/26	01:28:24.7	34.538N	71.891E	33.0G	6.1	4.5		SZGRF

Pakistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	01:36:30.4	44.3	88.5	1.4	224	5.7		
RUE	e P	Z	01:36:30.7	44.4	90.0	1.2	279	6.1		
GEC2	e P	Z	01:36:32.9	44.6	86.2	1.4	71	5.4		
	e PP	Z	01:38:17.4							
FBE	e P	Z	01:36:33.3	44.7	88.1	1.4	272	6.0		
RGN	e P	Z	01:36:32.8	44.7	91.7	1.5	1274	6.6		
CLL	e P	Z	01:36:34.9	44.9	88.2	1.7	234	5.9		
WET	e P	Z	01:36:37.4	45.1	85.9	2.4	342	5.8		
RJOB	e P	Z	01:36:11.0	45.2	84.5					
TANN	e P	Z	01:36:38.5	45.3	86.9	1.9	263	5.8		
WERN	e P	Z	01:36:38.8	45.3	86.7	1.8	193	5.7		
GUNZ	e P	Z	01:36:38.7	45.3	86.8	1.8	273	5.9		
WERD	e P	Z	01:36:39.1	45.4	86.8	1.8	195	5.7		
PLN	e P	Z	01:36:39.3	45.4	86.7	1.5	768	6.5		
ROTZ	e P	Z	01:36:40.6	45.5	86.1	1.8	356	6.1		
NEUB	e P	Z	01:36:40.9	45.7	87.2	1.3	264	6.1		
MOX	e P	Z	01:36:42.4	45.8	86.5	1.7	262	6.0		
GRA1	e P	Z	01:36:45.9	46.1	85.3	1.8	591	6.3		
	e PP	Z	01:38:33.4							
	e L	Z	01:54:41.6			20.8	510		4.5	
FUR	e P	Z	01:36:46.3	46.2	83.9	2.0	617	6.3		
BSEG	e P	Z	01:36:47.6	46.4	88.7	1.2	421	6.4		
CLZ	e P	Z	01:36:47.7	46.5	86.7	1.4	298	6.2		
NRDL	e P	Z	01:36:49.1	46.6	87.1	1.9	578	6.4		
UBBA	e P	Z	01:36:50.4	46.8	85.5	1.9	268	6.0		
STU	e P	Z	01:36:56.5	47.5	83.0	2.5	756	6.4		
TNS	e P	Z	01:36:55.8	47.8	83.8					
HLG	e P	Z	01:36:58.5	47.9	87.0					
IBBN	e P	Z	01:36:59.8	48.1	85.2	1.6	640	6.5		
	e PP	Z	01:38:53.0							
BFO	e P	Z	01:37:00.9	48.1	82.1	1.3	62	5.6		
BUG	e P	Z	01:37:02.8	48.4	84.1	2.0	421	6.1		

	e PP	Z	01:38:55.8			
WLF	e P	Z	01:36:34.0	49.4	81.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/26	04:56: 3.3	7.015S	13.929W	33.0N	4.6			SZGRF

Ascension Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	05:06:12.4	60.8	208.9	1.1	11	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/26	09:43:18.7	20.700S	179.000W	616.0				NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	10:02:00.4	149.9	19.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/27	05:43:50.1	14.600S	167.200E	127.0				NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z	06:02:59.8	137.8	40.4					
FBE	e PKPdf	Z	06:03:00.4	138.0	39.6					
CLZ	e PKPdf	Z	06:03:01.0	138.4	35.0					
TANN	e PKPdf	Z	06:03:01.7	138.8	38.8					
PLN	e PKPdf	Z	06:03:01.7	138.8	38.3					
GUNZ	e PKPdf	Z	06:03:02.0	138.9	38.7					
WERN	e PKPdf	Z	06:03:02.0	138.9	38.8					
GEC2	e PKPdf	Z	06:03:02.8	139.4	41.6					
GRA1	e PKPdf	Z	06:03:03.4	139.8	37.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/27	15:38: 0.3	13.666N	120.598E	131.6N	5.1			SZGRF

Mindoro, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	15:50:52.3	91.6	66.5	1.2	11	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/27								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	20:15:57.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/27	21:26:14.1	55.160N	169.450E	33.0G	5.1	4.9		SZGRF

Komandorsky Islands, Russia, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e P	Z	21:37:35.1	71.6	12.4	1.5	32	5.2		
CLL	e P	Z	21:37:35.0	71.7	13.9	2.8	184	5.7		
NEUB	e P	Z	21:37:37.1	72.0	13.2	1.6	44	5.3		
BRG	e P	Z	21:37:36.6	72.0	14.4	1.3	11	4.8		
FBE	e P	Z	21:37:37.5	72.1	14.1	1.4	23	5.1		
MOX	e P	Z	21:37:39.9	72.6	13.1	1.3	14	4.9		
WERD	e P	Z	21:37:41.2	72.7	13.4	1.5	25	5.1		
TANN	e P	Z	21:37:41.3	72.7	13.5	1.7	25	5.1		
GUNZ	e P	Z	21:37:41.9	72.8	13.4	1.5	32	5.2		
WERN	e P	Z	21:37:41.9	72.8	13.5	1.5	27	5.1		
ROTZ	e P	Z	21:37:45.5	73.4	13.3	1.5	27	5.0		
GRA1	e P	Z	21:37:46.6	73.6	12.8	1.7	69	5.4		
	e L	Z	22:15:14.1			19.3	585		4.9	
WET	e P	Z	21:37:48.0	73.9	13.7	1.2	18	5.0		
GEC2	e P	Z	21:37:48.8	74.0	14.1	1.5	29	5.1		
RJOB	e P	Z	21:37:56.1	75.2	13.5	1.1	8	4.8		
BFO	e P	Z	21:37:55.8	75.3	11.0	1.6	22	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/27	23:23:38.2	16.600S	176.700E	22.0				NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
TANN	e PKPbc	Z	23:43:11.5	143.9	26.2					
	e PKP	Z	23:43:17.6							
WERD	e PKP	Z	23:43:18.0	143.9	26.0					
PLN	e PKPbc	Z	23:43:11.4	143.9	25.7					
GUNZ	e PKPbc	Z	23:43:12.0	144.0	26.0					
	e PKP	Z	23:43:18.6							
WERN	e PKPbc	Z	23:43:12.2	144.0	26.2					
NKC	e PKPbc	Z	23:43:12.6	144.1	26.3					
ROTZ	e PKPbc	Z	23:43:14.0	144.5	26.2					
	e PKP	Z	23:43:18.1							
GRA1	e PKP	Z	23:43:19.9	144.9	24.7					

WET	e PKPbc	Z	23:43:14.0	144.9	27.7	
GEC2	e PKPbc	Z	23:43:14.5	144.9	29.2	
	e PKP	Z	23:43:19.8			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/28	15:56: 8.2	23.800S	180.000W	518.0				NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z	16:15:19.2	152.7	22.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/28	22:33:48.8	32.732N	63.712E	33.0N	5.0			SZGRF

Southwestern Afghanistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:41:36.9	42.0	93.5	1.9	65	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/28	23:09:30.6	28.360N	69.800E	33.0G	6.3	6.5		SZGRF

Pakistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	23:18:05.4	47.1	94.5	1.7	555	6.4		
BRG	e P	Z	23:18:06.3	47.1	96.5					
RUE	e P	Z	23:18:07.8	47.4	97.9	1.5	503	6.4		
FBE	e P	Z	23:18:12.4	47.5	96.1	1.5	799	6.6		
RJOB	e P	Z	23:18:09.5	47.6	92.7					
WET	e P	Z	23:18:09.9	47.7	94.1	2.1	291	6.0		
CLL	e P	Z	23:18:11.0	47.8	96.1					
RGN	e P	Z	23:18:12.6	48.0	99.3					
TANN	e P	Z	23:18:13.3	48.0	94.9	1.6	444	6.3		
WERN	e P	Z	23:18:17.0	48.1	94.7	1.8	573	6.4		
GUNZ	e P	Z	23:18:13.4	48.1	94.7	1.4	352	6.3		
WERD	e P	Z	23:18:17.0	48.1	94.8	1.7	433	6.3		
ROTZ	e P	Z	23:18:14.4	48.1	94.1	2.0	621	6.4		
PLN	e P	Z	23:18:14.8	48.2	94.7					
NEUB	e P	Z	23:18:17.0	48.5	95.0	1.6	727	6.5		
MOX	e P	Z	23:18:17.7	48.6	94.4	1.5	666	6.5		
FUR	e P	Z	23:18:17.5	48.7	91.9	1.9	750	6.4		
GRA1	e P	Z	23:18:19.4	48.8	93.2	1.4	672	6.5		
	e L	Z	23:40:34.1			20.8	47168		6.5	
CLZ	e P	Z	23:18:24.3	49.5	94.4	1.2	308	6.1		

UBBA	e P	Z	23:18:25.7	49.6	93.2	2.1	707	6.2
BSEG	e P	Z	23:18:26.0	49.7	96.1	1.1	571	6.4
STU	e P	Z	23:18:28.5	50.1	90.9	1.4	598	6.3
TNS	e P	Z	23:18:33.6	50.6	91.5	1.5	250	5.9
BFO	e P	Z	23:18:32.4	50.6	89.9	1.3	167	5.8
IBBN	e P	Z	23:18:36.8	51.1	92.7	1.3	362	6.2
HLG	e P	Z	23:18:37.2	51.1	94.3			
BUG	e P	Z	23:18:39.0	51.4	91.6			
WLF	e P	Z	23:18:45.0	52.1	89.3	1.7	805	6.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/29	03:25:18.5	23.708S	171.800W	33.0N				SZGRF

Tonga Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e PKPbc	Z	03:45:10.2	151.8	4.2					
CLL	e PKPbc	Z	03:45:10.6	152.2	9.4					
BUG	e PKPbc	Z	03:45:11.2	152.3	358.2					
NEUB	e PKPbc	Z	03:45:11.3	152.4	7.1					
BRG	e PKPbc	Z	03:45:11.5	152.5	11.4					
FBE	e PKPbc	Z	03:45:12.0	152.5	10.3					
MOX	e PKPbc	Z	03:45:12.6	152.9	6.9					
PLN	e PKPbc	Z	03:45:13.0	153.0	8.0					
WERD	e PKPbc	Z	03:45:13.1	153.1	8.3					
TANN	e PKPbc	Z	03:45:13.1	153.1	8.6					
GUNZ	e PKPbc	Z	03:45:13.4	153.2	8.4					
NKC	e PKPbc	Z	03:45:13.7	153.3	8.7					
ROHR	e PKPbc	Z	03:45:13.6	153.3	8.4					
TNS	e PKPbc	Z	03:45:14.1	153.5	0.5					
ROTZ	e PKPbc	Z	03:45:14.5	153.8	8.3					
GEC2	e PKPbc	Z	03:45:16.1	154.5	11.8					
BFO	e PKPbc	Z	03:45:18.3	155.4	0.3					
FUR	e PKPbc	Z	03:45:18.3	155.4	6.8					
RJOB	e PKPbc	Z	03:45:18.4	155.7	10.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/29	11:32:39.3	29.840N	67.820E	33.0G	6.3	6.5		SZGRF

Pakistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	11:40:55.5	44.8	94.5	1.6	418	6.1		
BRG	e P	Z	11:40:56.3	44.9	96.7	1.7	661	6.3		
RUE	e P	Z	11:40:57.9	45.2	98.2	1.4	527	6.3		
FBE	e P	Z	11:40:59.6	45.2	96.3	1.5	847	6.5		
RJOB	e P	Z	11:40:59.6	45.4	92.7	1.2	329	6.1		

WET	e P	Z	11:40:59.5	45.4	94.1	1.8	205	5.8	
CLL	e P	Z	11:41:00.8	45.5	96.4	3.3	1956	6.6	
TANN	e P	Z	11:41:03.3	45.8	95.0	1.5	259	6.0	
RGN	e P	Z	11:41:02.8	45.8	99.8	1.3	568	6.4	
WERN	e P	Z	11:41:03.8	45.8	94.8	1.6	493	6.3	
GUNZ	e P	Z	11:41:04.1	45.8	94.9	1.5	433	6.3	
WERD	e P	Z	11:41:04.1	45.9	94.9	1.5	414	6.2	
ROTZ	e P	Z	11:41:04.4	45.9	94.2	1.7	414	6.2	
PLN	e P	Z	11:41:04.9	46.0	94.9	1.8	2910	7.0	
NEUB	e P	Z	11:41:07.1	46.3	95.2	1.3	556	6.4	
MOX	e P	Z	11:41:07.9	46.3	94.6	1.5	706	6.5	
FUR	e P	Z	11:41:07.7	46.4	91.9	1.1	310	6.2	
GRA1	e P	Z	11:41:09.5	46.5	93.3	1.3	833	6.7	
	e L	Z	12:03:23.5			20.5	60296		6.5
CLZ	e P	Z	11:41:14.4	47.2	94.7	1.4	539	6.5	
UBBA	e P	Z	11:41:15.5	47.3	93.4	1.6	502	6.4	
NRDL	e P	Z	11:41:16.0	47.4	95.0	1.3	223	6.1	
STU	e P	Z	11:41:18.7	47.8	90.9	1.5	846	6.7	
TNS	e P	Z	11:41:23.4	48.3	91.6	1.5	396	6.3	
BFO	e P	Z	11:41:22.6	48.4	89.9	1.1	153	6.0	
IBBN	e P	Z	11:41:26.9	48.8	92.9	1.3	458	6.4	
BUG	e P	Z	11:41:29.1	49.1	91.8	1.2	332	6.2	
WLF	e P	Z	11:41:35.0	49.8	89.4	1.5	868	6.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/29	15:48:40.6	38.450N	142.280E	83.5	5.0			SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e pP	Z	16:00:58.0	78.7	38.7					
BSEG	e P	Z	16:00:36.7	78.8	36.4	1.0	43	5.4		
	e pP	Z	16:00:58.7							
BRG	e P	Z	16:00:42.2	79.9	38.6	0.9	9	4.7		
	e pP	Z	16:01:04.2							
CLL	e P	Z	16:00:42.0	79.9	38.0	0.9	17	5.0		
	e pP	Z	16:01:04.1							
NRDL	e P	Z	16:00:42.9	80.0	36.1	0.8	6	4.6		
FBE	e P	Z	16:00:43.5	80.1	38.2	0.9	18	5.0		
	e pP	Z	16:01:05.5							
NEUB	e P	Z	16:00:45.2	80.4	37.1	1.0	30	5.3		
	e pP	Z	16:01:07.3							
CLZ	e P	Z	16:00:45.8	80.5	36.2	0.9	20	5.2		
	e pP	Z	16:01:07.8							
TANN	e P	Z	16:00:47.2	80.8	37.5	1.2	7	4.6		
	e pP	Z	16:01:09.4							
WERD	e P	Z	16:00:47.4	80.8	37.4	1.1	7	4.6		
	e pP	Z	16:01:09.5							

PLN	e P	Z	16:00:47.6	80.9	37.3	1.3	52	5.4
	e pP	Z	16:01:09.7					
GUNZ	e P	Z	16:00:47.8	80.9	37.4	1.0	8	4.7
	e pP	Z	16:01:09.9					
WERN	e P	Z	16:00:48.1	80.9	37.5	0.9	7	4.7
	e pP	Z	16:01:10.2					
MOX	e P	Z	16:00:47.9	81.0	37.0	1.2	11	4.7
	e pP	Z	16:01:10.0					
IBBN	e P	Z	16:00:48.2	81.0	34.4	0.9	22	5.2
	e pP	Z	16:01:10.5					
ROTZ	e P	Z	16:00:50.9	81.4	37.3	1.0	10	4.9
	e pP	Z	16:01:13.1					
GEC2	e P	Z	16:00:50.9	81.6	38.2	1.1	9	4.8
	e pP	Z	16:01:13.1					
WET	e pP	Z	16:01:14.0	81.7	37.7			
GRA1	e P	Z	16:00:53.2	81.9	36.6	0.9	32	5.4
	e pP	Z	16:01:15.6					
BUG	e pP	Z	16:01:14.8	81.9	34.0			
TNS	e P	Z	16:00:56.1	82.5	34.7	0.7	6	4.9
	e pP	Z	16:01:18.2					
RJOB	e P	Z	16:00:57.9	82.8	37.5	0.9	20	5.3
	e pP	Z	16:01:20.2					
FUR	e P	Z	16:00:59.2	83.1	36.5	1.2	35	5.5
	e pP	Z	16:01:21.4					
STU	e P	Z	16:01:00.5	83.4	35.2	1.3	26	5.3
	e pP	Z	16:01:22.9					
WLF	e pP	Z	16:01:25.1	83.8	33.1			
BFO	e P	Z	16:01:04.1	84.1	34.5	0.9	17	5.3
	e pP	Z	16:01:26.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/29	22:10:13.0	46.700N	152.800E	59.0	4.8			NEIC

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:22:07.9	78.4	25.7	0.8	8	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/30	01:55:19.1	47.813N	152.734E	33.0G	5.7	5.5		SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	02:06:45.4	72.1	27.3	0.9	152	6.1		
BSEG	e P	Z	02:06:53.0	73.4	25.3	0.9	93	5.8		
RUE	e P	Z	02:06:55.1	73.8	27.3	1.0	104	5.8		

NRDL	e P	Z	02:07:00.5	74.8	25.0	1.0	52	5.5	
CLL	e P	Z	02:07:02.0	75.0	26.7	0.9	115	5.9	
BRG	e P	Z	02:07:02.7	75.2	27.2	1.0	30	5.4	
CLZ	e P	Z	02:07:04.1	75.3	25.1	1.0	103	5.9	
FBE	e P	Z	02:07:03.8	75.3	26.9	1.0	81	5.8	
NEUB	e P	Z	02:07:04.6	75.5	25.9	1.1	88	5.8	
IBBN	e P	Z	02:07:05.1	75.5	23.5	2.5	599	6.3	
TANN	e P	Z	02:07:07.6	76.0	26.3	1.2	31	5.3	
WERD	e P	Z	02:07:07.8	76.0	26.2	1.1	48	5.5	
PLN	e P	Z	02:07:07.9	76.0	26.1	0.9	171	6.2	
MOX	e P	Z	02:07:07.8	76.0	25.7	1.1	74	5.7	
GUNZ	e P	Z	02:07:08.4	76.1	26.2	1.0	53	5.6	
WERN	e P	Z	02:07:08.7	76.1	26.2	1.0	68	5.7	
UBBA	e P	Z	02:07:09.3	76.3	24.7	1.8	115	5.7	
BUG	e P	Z	02:07:09.9	76.4	23.1	1.0	53	5.6	
ROTZ	e P	Z	02:07:11.6	76.7	26.0	1.0	50	5.6	
GRA1	e P	Z	02:07:13.6	77.0	25.4	1.0	149	6.1	
	e L	Z	02:45:37.0			19.0	2048		5.5
WET	e P	Z	02:07:13.7	77.0	26.4	1.0	72	5.7	
GEC2	e P	Z	02:07:13.4	77.0	26.9	1.1	32	5.4	
TNS	e P	Z	02:07:15.0	77.3	23.7	0.9	46	5.6	
RJOB	e P	Z	02:07:20.9	78.3	26.2	0.9	42	5.5	
FUR	e P	Z	02:07:20.8	78.4	25.3	1.0	81	5.7	
STU	e P	Z	02:07:21.0	78.4	24.0	0.9	42	5.5	
BFO	e P	Z	02:07:24.2	79.0	23.5	0.9	41	5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/30	07:19: 4.4	16.500S	173.600W	96.0	4.8			NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	07:38:35.4	146.4	8.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/30	15:49:29.8	38.900N	15.400E	243.0G				EMSC

Central Mediterranean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	15:52:03.3	11.2	163.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/30	22:44:17.0	21.977S	177.286W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	23:03:58.2	147.5	13.2					
RUE	e PKPbc	Z	23:04:00.3	148.3	19.8					
CLZ	e PKPbc	Z	23:04:03.8	149.6	14.1					
CLL	e PKPbc	Z	23:04:03.4	149.6	19.1					
BRG	e PKPbc	Z	23:04:04.1	149.8	21.0					
FBE	e PKPbc	Z	23:04:04.7	149.9	20.0					
NEUB	e PKPbc	Z	23:04:04.4	149.9	16.9					
BUG	e PKPbc	Z	23:04:05.2	150.3	8.6					
MOX	e PKPbc	Z	23:04:05.8	150.5	16.9					
PLN	e PKPbc	Z	23:04:06.1	150.5	18.0					
TANN	e PKPbc	Z	23:04:06.0	150.6	18.6					
WERD	e PKPbc	Z	23:04:06.0	150.6	18.3					
GUNZ	e PKPbc	Z	23:04:06.3	150.6	18.4					
WERN	e PKPbc	Z	23:04:06.6	150.7	18.5					
ROTZ	e PKPbc	Z	23:04:07.7	151.2	18.5					
TNS	e PKPbc	Z	23:04:08.2	151.4	11.2					
GRA4	e PKPbc	Z	23:04:08.2	151.6	17.2					
GRB4	e PKPbc	Z	23:04:08.4	151.6	17.5					
GRB3	e PKPbc	Z	23:04:08.6	151.7	18.0					
GEC2	e PKPbc	Z	23:04:08.6	151.7	21.9					
GRB2	e PKPbc	Z	23:04:08.7	151.8	17.8					
GRB5	e PKPbc	Z	23:04:09.2	151.9	17.9					
WLF	e PKPbc	Z	23:04:10.6	152.2	6.8					
STU	e PKPbc	Z	23:04:11.1	152.7	13.2					
FUR	e PKPbc	Z	23:04:11.3	152.9	17.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/31	16:19:36.9	51.527N	174.931W	33.0N	4.8			SZGRF

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	16:31:12.1	74.4	3.4	0.9	21	5.2		
IBBN	e P	Z	16:31:21.8	76.1	1.7	1.2	24	5.2		
CLZ	e P	Z	16:31:24.1	76.5	3.4	0.9	13	5.1		
CLL	e P	Z	16:31:25.7	76.9	5.1	1.1	9	4.8		
BRG	e P	Z	16:31:27.9	77.3	5.6	0.9	7	4.8		
MOX	e P	Z	16:31:30.3	77.7	4.2	1.0	8	4.8		
TNS	e P	Z	16:31:33.3	78.2	2.1	1.0	12	4.9		
ROTZ	e P	Z	16:31:35.1	78.5	4.5	0.8	2	4.2		
GRA1	e P	Z	16:31:36.0	78.6	3.9	0.8	15	5.1		
	e P	N	18:19:23.5							
GEC2	e P	Z	16:31:39.3	79.4	5.5	1.0	5	4.4		
BFO	e P	Z	16:31:43.1	80.1	2.1	1.0	9	4.7		
RJOB	e P	Z	16:31:45.8	80.5	4.9	0.8	5	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/31	22:10:41.9	52.300N	176.660W	54.8	5.3	4.8		SZGRF

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	22:22:11.6	73.6	4.4	1.0	65	5.6		
NRDL	e P	Z	22:22:19.6	75.1	4.3	1.2	26	5.3		
	e pP	Z	22:22:35.1							
IBBN	e P	Z	22:22:21.4	75.3	2.8	1.2	68	5.7		
CLZ	e P	Z	22:22:23.9	75.7	4.4	0.9	42	5.6		
CLL	e P	Z	22:22:25.3	76.1	6.1	1.1	21	5.2		
	e pP	Z	22:22:40.8							
NEUB	e P	Z	22:22:26.7	76.2	5.3	1.1	67	5.7		
BRG	e P	Z	22:22:27.5	76.4	6.6	0.9	24	5.3		
	e pP	Z	22:22:43.0							
UBBA	e P	Z	22:22:29.1	76.7	4.2	1.7	42	5.3		
MOX	e P	Z	22:22:29.8	76.8	5.2	1.2	35	5.3		
TNS	e P	Z	22:22:32.9	77.4	3.2	0.9	31	5.4		
ROTZ	e P	Z	22:22:34.6	77.7	5.5	1.1	16	5.1		
GRA1	e P	Z	22:22:35.5	77.8	4.9	0.9	55	5.7		
	e L	Z	23:08:12.6			19.6	432		4.8	
WLF	e P	Z	22:22:36.5	78.0	1.8	1.4	51	5.4		
WET	e P	Z	22:22:37.5	78.2	5.9	1.0	10	4.8		
GEC2	e P	Z	22:22:39.0	78.5	6.4	1.1	14	4.9		
BFO	e P	Z	22:22:43.5	79.3	3.1	1.1	22	5.0		
FUR	e P	Z	22:22:43.4	79.3	4.9	1.0	30	5.1		
RJOB	e P	Z	22:22:45.5	79.6	5.9	0.8	9	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/31	23:05:12.9	52.136N	175.161W	24.2	5.2	5.0		SZGRF

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	23:16:46.0	73.8	3.5	1.0	66	5.6		
	e pP	Z	23:16:52.8							
RUE	e pP	Z	23:17:00.1	75.1	5.7					
NRDL	e pP	Z	23:17:00.6	75.3	3.3					
IBBN	e pP	Z	23:17:02.5	75.5	1.9					
CLZ	e pP	Z	23:17:04.9	75.9	3.5					
CLL	e pP	Z	23:17:06.3	76.3	5.1					
BUG	e pP	Z	23:17:07.0	76.4	1.5					
NEUB	e pP	Z	23:17:07.8	76.5	4.4					
FBE	e pP	Z	23:17:08.8	76.7	5.4					
BRG	e pP	Z	23:17:08.6	76.7	5.7					
MOX	e P	Z	23:17:04.0	77.1	4.3	1.0	22	5.2		

	e pP	Z	23:17:10.9						
PLN	e pP	Z	23:17:11.7	77.2	4.6				
WERD	e P	Z	23:17:04.9	77.2	4.7	1.1	11	4.9	
	e pP	Z	23:17:11.9						
TANN	e P	Z	23:17:05.0	77.2	4.8	1.4	19	5.0	
	e pP	Z	23:17:12.0						
GUNZ	e pP	Z	23:17:12.4	77.3	4.7				
WERN	e P	Z	23:17:06.1	77.4	4.7	1.1	29	5.3	
	e pP	Z	23:17:12.9						
TNS	e P	Z	23:17:07.1	77.6	2.3	0.9	27	5.4	
	e pP	Z	23:17:14.0						
ROTZ	e pP	Z	23:17:15.8	77.9	4.6				
GRA1	e P	Z	23:17:09.7	78.0	4.0	1.0	50	5.6	
	e pP	Z	23:17:16.7						
WET	e P	Z	23:17:11.9	78.5	5.0	1.3	15	4.9	
	e pP	Z	23:17:18.8						
GEC2	e P	Z	23:17:13.2	78.7	5.5	1.0	11	4.9	
	e pP	Z	23:17:20.1						
STU	e P	Z	23:17:14.8	79.0	2.7	0.8	19	5.2	
	e pP	Z	23:17:21.7						
BFO	e pP	Z	23:17:24.0	79.5	2.2				
RJOB	e pP	Z	23:17:26.5	79.9	5.0				
GRA1	e L	Z	00:29:46.4	78.0	4.0	18.1	720	5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2008/10/31	23:26:39.9	51.710N	175.220W	25.2	5.3	5.0		SZGRF

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	23:38:16.9	74.3	3.6	1.0	74	5.7		
NRDL	e P	Z	23:38:24.8	75.7	3.4	1.0	19	5.2		
IBBN	e P	Z	23:38:26.6	76.0	1.9	1.0	70	5.7		
CLZ	e P	Z	23:38:28.9	76.3	3.6	1.0	50	5.6		
CLL	e P	Z	23:38:30.4	76.7	5.2	1.1	24	5.2		
BUG	e P	Z	23:38:30.9	76.8	1.6	1.1	31	5.4		
BRG	e P	Z	23:38:32.6	77.1	5.8	1.1	28	5.3		
UBBA	e P	Z	23:38:34.0	77.4	3.3	1.6	34	5.2		
MOX	e P	Z	23:38:34.8	77.5	4.3	1.1	27	5.3		
TANN	e P	Z	23:38:35.9	77.7	4.9	1.5	33	5.2		
	e pP	Z	23:38:43.2							
TNS	e P	Z	23:38:37.9	78.0	2.3	1.0	40	5.5		
ROTZ	e P	Z	23:38:39.8	78.3	4.7	1.2	20	5.0		
GRA1	e P	Z	23:38:40.6	78.5	4.1	1.0	60	5.6		
WLF	e P	Z	23:38:41.5	78.6	0.9	1.3	27	5.1		
WET	e P	Z	23:38:42.8	78.9	5.1	1.4	22	5.0		
GEC2	e P	Z	23:38:44.1	79.2	5.6	1.1	16	4.9		
STU	e P	Z	23:38:45.7	79.4	2.8	1.0	28	5.2		

BFO	e	P	Z	23:38:48.2	79.9	2.2	1.7	47	5.1
FUR	e	P	Z	23:38:48.7	80.0	4.1	1.0	26	5.1
RJOB	e	P	Z	23:38:50.5	80.3	5.0	1.0	10	4.8
GRA1	e	L	Z	00:29:46.4	78.5	4.1	18.1	720	5.0

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-analysis).
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