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

(produced by SZGRF/BGR - ERLANGEN and partly by CLL - Observatory)

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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
2004/10/01	07:13:53.5	45.299N	147.565E	33.0N	4.7			SZGRF

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	07:25:47.4	77.7	29.8	1.0	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/01	08:00:52.4	10.080N	87.350W	96.2	5.2			SZGRF

Off coast of Costa Rica

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z	08:13:17.7	85.0	279.9					
IBBN	e P	Z	08:13:18.1	85.1	280.2	0.6	23	5.6		
BFO	e P	Z	08:13:23.7	86.2	280.9	2.9	94	5.4		
NRDL	e P	Z	08:13:25.5	86.5	282.0	1.0	14	5.1		
CLZ	e P	Z	08:13:26.0	86.8	282.3	0.9	20	5.2		
	e PP	Z	08:16:50.7							
	e pPP	Z	08:17:12.8							
GRA1	e P	Z	08:13:31.0	87.8	283.0	0.9	17	5.4		
	e pP	Z	08:13:56.3							
MOX	e P	Z	08:13:30.9	87.8	283.3	0.9	11	5.2		
WERD	e P	Z	08:13:33.3	88.3	283.8	1.0	16	5.3		
GUNZ	e P	Z	08:13:33.4	88.3	283.8					
CLL	e P	Z	08:13:34.2	88.5	284.3	0.8	12	5.2		
WET	e P	Z	08:13:37.0	89.0	284.3	1.0	15	5.2		
BRG	e P	Z	08:13:37.5	89.2	285.1	0.9	5	4.8		
	e pP	Z	08:14:03.0							
GEC2	e P	Z	08:13:39.7	89.6	284.9	1.1	7	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/01	09:49:36.6	38.779N	88.379E	33.0N	4.9	5.1		SZGRF

Southern Xinjiang, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	09:58:56.8	53.9	70.2	1.2	15	4.9		
	e L	Z	10:45:43.6			18.7	1451		5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/01	19:46: 4.9	22.500S	173.200E	10.0N		5.5		NEIC-M

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	20:05:53.3	149.3	34.1					
	e L	Z	21:13:32.7			21.6	774		5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/01	22:29:18.2	8.948N	79.154W	33.0N	4.5			SZGRF

Panama

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:41:42.7	83.4	276.1	1.1	4	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/02								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	10:39:09.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/02								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z	10:59:13.2							
CLL	e PKP	Z	10:59:12.0							
GEC2	e PKP	Z	10:59:18.4							
GRA1	e PKP	Z	10:59:17.7							
GRFO	e PKP	Z	10:59:18.5							

GUNZ	e PKP	Z	10:59:15.4	
MOX	e PKP	Z	10:59:14.5	
TANN	e PKP	Z	10:59:15.5	
WERD	e PKP	Z	10:59:15.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/02								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	11:53:38.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/02								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	15:25:05.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/02	23:00:47.4	35.149N	131.199E	33.0N	4.4			SZGRF

Sea of Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:12:53.6	79.9	46.0	1.2	6	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/03	01:22: 2.0	35.500N	27.200E	33.0N	3.8			NOA-A

Dodecanese Islands, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:26:13.1	18.4	134.6	1.0	9	3.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/03	04:28:45.0	15.900S	173.500E	33.0N				MIX-A

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e PKP	Z	04:48:17.0	144.6	30.4					
WLF	e PKP	Z	04:48:17.7	144.7	21.4					
STU	e PKP	Z	04:48:16.9	144.7	26.8					

	BFO	e	PKP	Z	04:48:18.8	145.4	25.7			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/03	08:06:57.0	34.500N	25.400E	33.0N	3.5			NOA-A

Crete, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	08:11:09.5	18.4	140.3	0.8	3	3.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/03	09:02:11.6	45.775N	28.862E	10.0G		3.2		SZGRF

Ukraine - Moldova - Southwestern Russia region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ARSA	e Pn	Z	09:04:22.8	9.3	94.2					
OBKA	e L	Z	09:09:12.1	9.9	89.0	20.0	282		3.1	
GEC2	e Pn	Z	09:04:43.7	10.7	100.9					
KBA	e Pn	Z	09:04:44.4	10.8	91.3					
BRG	e Pn	Z	09:04:47.9	11.1	111.5					
WET	e Pn	Z	09:04:51.8	11.3	101.3					
CLL	e Pn	Z	09:04:57.5	11.8	111.7					
RUE	e Pn	Z	09:04:58.7	11.9	118.3					
GUNZ	e Pn	Z	09:05:01.6	11.9	106.2					
FUR	e Pn	Z	09:05:03.3	12.2	94.7					
MOX	e Pn	Z	09:05:05.1	12.4	106.3					
GRA1	e Pn	Z	09:05:07.0	12.5	101.6					
DAVA	e Pn	Z	09:05:16.7	13.1	89.6					
CLZ	e Pn	Z	09:05:24.5	13.6	109.3					
NRDL	e Pn	Z	09:05:28.9	13.9	111.3					
BSEG	e P	Z	09:05:32.3	14.4	116.9					
IBBN	e P	Z	09:05:48.2	15.2	107.0					
BUG	e P	Z	09:05:49.6	15.3	103.3					
WLF	e P	Z	09:05:52.7	15.7	95.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/03	14:45:52.4	18.014N	119.321E	33.0N	4.9			SZGRF

Philippine Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:58:36.8	87.4	64.8	1.0	7	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/03								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	18:58:17.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/03								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z	22:53:53.4							
CLL	e PKP	Z	22:53:52.6							
CLZ	e PKP	Z	22:53:53.3							
RUE	e PKP	Z	22:53:49.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/03	23:41:19.1	41.621N	142.781E	33.0N	4.6			SZGRF

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:53:21.8	79.3	34.7	0.8	6	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/04	02:52:42.5	17.080S	175.250W	33.0N				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e PKPbc	Z	03:12:15.1	145.0	9.4					
CLL	e PKPbc	Z	03:12:15.7	145.1	13.9					
BRG	e PKPbc	Z	03:12:16.8	145.4	15.6					
BUG	e PKPbc	Z	03:12:17.1	145.6	4.3					
MOX	e PKPbc	Z	03:12:18.2	146.0	11.8					
WERD	e PKPbc	Z	03:12:18.9	146.1	13.0					
GUNZ	e PKPbc	Z	03:12:19.3	146.2	13.1					
GRA1	e PKPbc	Z	03:12:21.8	147.0	11.4					
WET	e PKPbc	Z	03:12:22.1	147.3	14.5					
WLF	e PKPbc	Z	03:12:23.0	147.4	2.5					
GEC2	e PKPbc	Z	03:12:22.8	147.4	16.0					
FUR	e PKPbc	Z	03:12:25.3	148.5	12.0					
BFO	e PKPbc	Z	03:12:25.8	148.6	6.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/04	05:30:32.8	34.620N	101.276E	33.0N	4.8			SZGRF

Qinghai, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	05:41:05.8	64.4	65.9	0.9	5	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/04	09:03:47.1	20.350S	174.820W	33.0N				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	09:23:23.8	146.2	8.7					
RUE	e PKPbc	Z	09:23:26.9	147.2	15.0					
NRDL	e PKPbc	Z	09:23:27.7	147.6	8.7					
IBBN	e PKPbc	Z	09:23:28.7	148.0	4.6					
	e PKPab	Z	09:23:31.8							
CLZ	e PKPbc	Z	09:23:29.7	148.2	9.3					
	e PKPab	Z	09:23:33.1							
	e PP	Z	09:26:57.7							
CLL	e PKPbc	Z	09:23:30.0	148.4	14.1					
	e PKPab	Z	09:23:33.2							
BRG	e PKPbc	Z	09:23:31.0	148.7	16.0					
	e PKPab	Z	09:23:35.0							
BUG	e PKPbc	Z	09:23:30.7	148.9	3.8					
MOX	e PKPbc	Z	09:23:32.1	149.3	11.9					
	e PKPab	Z	09:23:37.0							
UBBA	e PKPbc	Z	09:23:31.6	149.3	8.9					
WERD	e PKPbc	Z	09:23:32.6	149.4	13.2					
GUNZ	e PKPbc	Z	09:23:32.9	149.5	13.3					
	e PKPab	Z	09:23:38.1							
GRA1	e PKPbc	Z	09:23:34.7	150.3	11.5					
	e PKPab	Z	09:23:41.5							
WLF	e PKPbc	Z	09:23:36.0	150.7	1.9					
GEC2	e PKPbc	Z	09:23:35.7	150.7	16.5					
FUR	e PKPbc	Z	09:23:38.2	151.8	12.1					
BFO	e PKPbc	Z	09:23:38.0	151.9	6.3					
	e PKPab	Z	09:23:47.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/04	19:13:31.5	44.406N	12.525E	10.0G			2.4	SZGRF

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z	19:14:14.5	2.5	214.7					2.5

ARSA	e Pn	Z	19:14:24.2	3.5	217.4			2.3
MOA	e Pn	Z	19:14:30.0	3.6	199.9			
GEC2	e Pn	Z	19:14:40.2	4.5	190.7			
WET	e Pn	Z	19:14:43.8	4.7	183.1			
BFO	e Pn	Z	19:14:45.1	4.9	142.0			
GRA1	e Pn	Z	19:14:53.1	5.4	170.0			
TANN	e Pn	Z	19:15:00.6	6.0	179.6			
MOX	e Pn	Z	19:15:03.3	6.3	174.0			
BRG	e Pn	Z	19:15:05.1	6.5	188.9			
CLL	e Pn	Z	19:15:10.0	6.9	182.8			
CLZ	e Pn	Z	19:15:18.1	7.6	168.3			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/04	19:20:42.1	14.600N	146.900E	56.0N		5.9		NEIC-M

Mariana Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z	19:39:03.7	104.8	44.4					
	e PKKP	Z	19:50:27.1							
	e L	Z	20:33:24.3			19.5	3294		5.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/05								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	00:09:17.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/05								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	00:13:07.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/05	03:35:14.6	38.592N	71.742E	33.0N	4.2			SZGRF

Afghanistan-Tajikistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	03:43:15.7	43.6	80.8	0.9	4	4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/05	04:02:41.8	6.110N	81.380W	33.0N	5.3	4.9		SZGRF

South of Panama

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
STU	e P	Z	04:15:17.5	85.8	274.5	1.3	26	5.2		
NRDL	e P	Z	04:15:19.1	86.1	274.9	1.9	69	5.5		
BSEG	e P	Z	04:15:18.7	86.1	275.0	1.1	20	5.2		
CLZ	e P	Z	04:15:20.0	86.3	275.2	1.1	21	5.2		
GRA1	e P	Z	04:15:23.5	87.0	275.9	1.7	52	5.4		
	e S	E	04:25:50.7							
	e SS	E	04:32:11.4							
	e L	Z	04:48:29.0			21.8	507		4.9	
MOX	e P	Z	04:15:24.0	87.2	276.2	1.8	30	5.1		
WERD	e P	Z	04:15:26.2	87.6	276.7	2.0	35	5.3		
GUNZ	e P	Z	04:15:27.6	87.7	276.8	2.7	128	5.8		
CLL	e P	Z	04:15:27.7	88.0	277.2	1.4	16	5.2		
WET	e P	Z	04:15:29.2	88.2	277.2	1.2	13	5.1		
BRG	e P	Z	04:15:31.3	88.6	278.0	2.2	42	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/05	04:52: 6.9	21.530S	177.750W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	05:11:46.3	147.0	13.9					
RUE	e PKPbc	Z	05:11:48.4	147.8	20.4					
NRDL	e PKPbc	Z	05:11:49.7	148.4	14.1					
CLZ	e PKPbc	Z	05:11:51.7	149.0	14.8					
CLL	e PKPbc	Z	05:11:51.5	149.1	19.7					
	e PKPab	Z	05:11:55.7							
BRG	e PKPbc	Z	05:11:52.1	149.3	21.6					
	e PKPab	Z	05:11:56.9							
MOX	e PKPbc	Z	05:11:54.1	150.0	17.6					
	e PKPab	Z	05:11:59.5							
WERD	e PKPbc	Z	05:11:53.8	150.0	19.0					
	e PKPab	Z	05:11:59.1							
GUNZ	e PKPbc	Z	05:11:54.4	150.1	19.1					
	e PKPab	Z	05:12:00.4							
GRA1	e PKPbc	Z	05:11:56.5	151.0	17.4					
	e PKPab	Z	05:12:04.2							
WET	e PKPbc	Z	05:11:56.9	151.1	20.8					
	e PKPab	Z	05:12:04.9							
GEC2	e PKPbc	Z	05:11:56.8	151.2	22.5					
	e PKPab	Z	05:12:04.7							
WLF	e PKPbc	Z	05:11:58.8	151.7	7.7					

	e PKPab	Z	05:12:07.2			
BFO	e PKPab	Z	05:12:11.2	152.8	12.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/05	10:41:31.5	36.995N	20.639E	71.0G		4.1		the-m

Central Mediterranean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	10:44:29.3	12.9	154.4	1.7	30			
WET	e P	Z	10:44:36.1	13.4	152.2	1.4	36			
GRA1	e P	Z	10:44:46.6	14.4	148.3	1.0	44			
	e L	Z	10:51:18.8			15.0	1097		4.1	
BFO	e P	Z	10:44:54.2	14.5	137.0	1.2	34			
GUNZ	e P	Z	10:44:55.1	14.6	152.8	1.2	33			
BRG	e P	Z	10:44:54.8	14.7	158.4	0.9	10			
WERD	e P	Z	10:44:56.7	14.7	152.9	1.5	71			
MOX	e P	Z	10:45:00.1	15.1	151.3	1.1	37			
CLL	e P	Z	10:45:03.7	15.3	156.3	1.6	128			
UBBA	e P	Z	10:45:14.6	15.8	147.1	1.4	37			
RUE	e P	Z	10:45:20.1	16.2	160.0	1.1	173			
CLZ	e P	Z	10:45:24.1	16.5	150.0	2.0	167			
NRDL	e P	Z	10:45:27.6	17.2	150.4	1.6	35			
BSEG	e P	Z	10:45:42.9	18.4	153.0	1.1	55			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/05	15:34:28.7	36.763N	45.511E	120.0G	4.6			gsrc-m

Iran-Iraq border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	15:40:09.1	27.8	104.6	0.9	8	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/06								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	00:04:02.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/06	00:07:26.0	17.033S	179.515E	33.0N				SZGRF

Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	00:26:39.9	142.2	17.0					
	e PKPab	Z	00:26:46.1							
RUE	e PKPbc	Z	00:26:41.3	142.8	22.9					
NRDL	e PKPbc	Z	00:26:43.7	143.6	17.2					
CLL	e PKPbc	Z	00:26:44.5	144.1	22.3					
	e PKPab	Z	00:26:53.8							
CLZ	e PKPbc	Z	00:26:45.2	144.1	17.9					
	e PKPab	Z	00:26:54.6							
BRG	e PKPbc	Z	00:26:44.9	144.2	24.1					
MOX	e PKPbc	Z	00:26:46.6	145.0	20.5					
	e PKPab	Z	00:26:58.0							
GUNZ	e PKPab	Z	00:26:58.7	145.1	21.8					
GRA1	e PKPbc	Z	00:26:49.0	146.0	20.3					
	e PKPab	Z	00:27:02.6							
STU	e PKPab	Z	00:27:07.7	147.3	17.3					
FUR	e PKPab	Z	00:27:08.2	147.4	21.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/06								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z	02:01:55.3							
	e		02:02:11.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/06	05:24: 1.5	35.570N	72.040E	586.0	5.3			SZGRF

Pakistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	05:32:05.0	43.7	87.2	0.7	45	5.3		
GEC2	e P	Z	05:32:07.4	44.0	84.9	0.9	16	4.7		
RGN	e P	Z	05:32:07.3	44.0	90.5					
CLL	e P	Z	05:32:09.1	44.3	87.0	0.8	22	5.2		
GUNZ	e P	Z	05:32:13.6	44.8	85.5					
WERD	e P	Z	05:32:13.6	44.8	85.6					
MOX	e P	Z	05:32:17.0	45.2	85.3	0.7	25	5.2		
GRA1	e P	Z	05:32:20.4	45.6	84.1	0.7	39	5.6		
	e		05:34:06.8							
FUR	e P	Z	05:32:20.9	45.7	82.6	0.7	49	5.6		
BSEG	e P	Z	05:32:21.8	45.8	87.5	0.7	54	5.7		
CLZ	e P	Z	05:32:22.3	45.9	85.5	0.8	32	5.4		
NRDL	e P	Z	05:32:23.5	46.0	86.0					
UBBA	e P	Z	05:32:24.5	46.2	84.3					
STU	e P	Z	05:32:30.8	47.0	81.8					

IBBN	e P	Z	05:32:34.4	47.5	84.1				
BFO	e P	Z	05:32:35.1	47.6	80.8	0.8	14	5.2	
BUG	e P	Z	05:32:37.6	47.9	82.9				
WLF	e P	Z	05:32:45.4	48.8	80.6				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/06	11:14:32.2	28.699N	57.239E	33.0N	5.1			SZGRF

Southern Iran

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	11:22:08.4	40.5	103.7	0.9	34	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/06	14:40:36.6	36.520N	140.550E	33.0N	5.7	5.2		SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	14:52:43.4	79.7	40.9					
BSEG	e P	Z	14:52:44.6	79.9	38.5	1.3	99	5.6		
BRG	e P	Z	14:52:49.3	80.8	40.8	0.9	52	5.5		
CLL	e P	Z	14:52:49.3	80.9	40.2	0.9	94	5.8		
NRDL	e P	Z	14:52:50.7	81.1	38.2					
CLZ	e P	Z	14:52:53.2	81.5	38.4	1.0	76	5.8		
WERD	e P	Z	14:52:54.7	81.8	39.6					
GUNZ	e P	Z	14:52:55.0	81.9	39.6					
MOX	e P	Z	14:52:55.3	82.0	39.1	1.0	40	5.5		
IBBN	e P	Z	14:52:56.0	82.1	36.5					
UBBA	e P	Z	14:52:57.7	82.5	38.0					
GEC2	e P	Z	14:52:57.7	82.5	40.4	1.0	37	5.5		
WET	e P	Z	14:52:58.8	82.6	39.9	1.2	50	5.6		
GRA1	e P	Z	14:53:00.4	82.9	38.8	1.0	135	6.1		
	e S	N	15:03:27.4							
	e L	Z	15:38:18.3			18.0	1025		5.2	
BUG	e P	Z	14:53:00.4	83.0	36.1					
FUR	e P	Z	14:53:05.9	84.0	38.7	0.9	104	6.1		
STU	e P	Z	14:53:07.6	84.4	37.3					
WLF	e P	Z	14:53:10.4	84.9	35.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/06								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	22:13:44.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/06	22:31: 2.7	0.845S	134.199E	33.0N		6.2		SZGRF

Irian Jaya, Indonesia, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z	22:50:13.5	111.3	64.2					
	e SP	Z	22:59:42.9							
	e L	Z	23:38:58.8			21.4	6137		6.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/06								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	23:58:48.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/07	01:04:58.9	35.880N	27.960E	89.0G	5.7			SZGRF

Dodecanese Islands, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	01:08:47.4	16.6	135.8	1.1	802	5.8		
	e ScP	Z	01:17:00.2							
	e ScS	E	01:20:36.4							
WET	e P	Z	01:08:54.3	17.2	134.7	1.5	1459	5.9		
	e ScP	Z	01:17:01.3							
FUR	e P	Z	01:08:55.0	17.4	128.8	0.9	1546	6.1		
	e ScP	Z	01:17:01.8							
BRG	e P	Z	01:09:04.0	18.1	140.7	1.6	529	5.4		
	e ScP	Z	01:17:03.3							
	e ScS	E	01:20:41.4							
GUNZ	e P	Z	01:09:07.4	18.4	136.1					
	e ScP	Z	01:17:04.0							
GRFO	e ScP	Z	01:17:04.1	18.4	132.3					
GRA1	e P	Z	01:09:07.5	18.4	132.3	2.0	3904	6.2		
	e ScP	Z	01:17:04.2							
	e ScS	E	01:20:42.5							
WERD	e P	Z	01:09:08.3	18.4	136.2					
CLL	e P	Z	01:09:11.7	18.8	139.5	1.0	532	5.6		
	e S	N	01:12:41.0							
	e ScP	Z	01:17:04.4							
	e ScS	N	01:20:43.1							
STU	e P	Z	01:09:12.0	18.8	126.2					

	e ScP	Z	01:17:04.3						
	e ScS	N	01:20:42.6						
MOX	e P	Z	01:09:12.9	18.9	135.2	1.3	1409	5.9	
	e S	N	01:12:44.0						
	e ScP	Z	01:17:04.6						
BFO	e P	Z	01:09:14.2	19.1	123.5	1.6	2131	6.0	
	e ScP	Z	01:17:05.0						
	e ScS	N	01:20:43.6						
RUE	e P	Z	01:09:18.6	19.4	143.3				
	e ScP	Z	01:17:05.6						
UBBA	e P	Z	01:09:21.4	19.7	132.3				
	e ScP	Z	01:17:05.9						
CLZ	e P	Z	01:09:27.5	20.3	135.0	0.9	332	5.6	
	e ScP	Z	01:17:08.0						
	e ScS	N	01:20:48.4						
NRDL	e P	Z	01:09:33.6	20.9	135.7	1.8	518	5.4	
	e ScP	Z	01:17:09.2						
WLF	e P	Z	01:09:35.4	21.0	122.8	1.0	519	5.7	
	e ScS	E	01:20:50.6						
RGN	e P	Z	01:09:37.6	21.2	145.6	0.8	490	5.8	
BUG	e P	Z	01:09:39.8	21.4	128.5	1.0	438	5.6	
	e ScP	Z	01:17:10.5						
IBBN	e P	Z	01:09:43.0	21.8	131.0	1.2	239	5.4	
	e ScP	Z	01:17:11.3						
	e ScS	N	01:20:54.2						
BSEG	e P	Z	01:09:43.0	21.8	138.7	0.8	219	5.6	
	e ScP	Z	01:17:11.5						
	e ScS	E	01:20:54.3						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/07	07:16:51.0			N				SZGRF

Dodecanese Islands, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z	07:20:33.1							
CLL	e P	Z	07:20:39.6							
GRA1	e P	Z	07:20:34.9							
MOX	e P	Z	07:20:40.2							
WET	e P	Z	07:20:22.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/07	12:55:15.2	29.100N	54.940E	33.0N	5.1			SZGRF

Southern Iran

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

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	13:02:22.3	37.0	106.9	0.9	46	5.2		
BRG	e P	Z	13:02:25.9	37.5	109.7	0.8	26	5.0		
WET	e P	Z	13:02:26.7	37.6	106.4	1.6	66	5.1		
RUE	e P	Z	13:02:30.0	38.1	111.4	1.1	48	5.1		
CLL	e P	Z	13:02:31.9	38.2	109.2	0.9	54	5.2		
GUNZ	e P	Z	13:02:32.8	38.3	107.4					
FUR	e P	Z	13:02:32.3	38.4	103.7					
GRA1	e P	Z	13:02:37.6	38.8	105.5	0.8	78	5.4		
MOX	e P	Z	13:02:36.8	38.8	107.0					
UBBA	e P	Z	13:02:45.8	39.8	105.6					
CLZ	e P	Z	13:02:46.5	39.9	107.1	0.8	55	5.2		
NRDL	e P	Z	13:02:49.2	40.3	107.6					
BFO	e P	Z	13:02:48.8	40.3	101.1					
BSEG	e P	Z	13:02:51.5	40.6	109.4	0.9	19	4.9		
IBBN	e P	Z	13:02:59.9	41.6	105.1					
BUG	e P	Z	13:03:00.9	41.7	103.7					
WLF	e P	Z	13:03:03.5	42.0	100.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/07	16:14:17.3	40.370N	77.320E	33.0N	5.0			SZGRF

Kyrgyzstan-Xinjiang border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	16:22:24.1	44.1	78.1	1.6	28	4.8		
CLL	e P	Z	16:22:27.5	44.6	77.9	1.2	17	4.8		
GEC2	e P	Z	16:22:29.1	44.7	75.9	1.0	26	5.1		
WET	e P	Z	16:22:32.6	45.2	75.7	1.2	17	4.8		
WERD	e P	Z	16:22:32.6	45.2	76.6					
MOX	e P	Z	16:22:35.8	45.6	76.4	1.2	10	4.7		
BSEG	e P	Z	16:22:36.7	45.7	78.7	1.3	32	5.2		
GRA1	e P	Z	16:22:39.8	46.1	75.2	1.0	34	5.3		
CLZ	e P	Z	16:22:39.6	46.1	76.7	1.3	15	4.8		
NRDL	e P	Z	16:22:39.9	46.1	77.1					
FUR	e P	Z	16:22:42.9	46.5	73.9	1.2	43	5.5		
STU	e P	Z	16:22:51.7	47.6	73.2					
BFO	e P	Z	16:22:56.4	48.3	72.3	1.4	25	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/07	19:26:44.6	43.220N	143.420E	33.0N	5.1			SZGRF

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	19:38:24.5	74.9	33.4	0.9	22	5.2		
CLL	e P	Z	19:38:31.1	76.2	34.8	0.9	30	5.4		
BRG	e P	Z	19:38:31.5	76.2	35.4	0.8	6	4.8		

CLZ	e P	Z	19:38:34.4	76.6	33.2	0.8	21	5.3
IBBN	e P	Z	19:38:36.9	77.1	31.5			
GUNZ	e P	Z	19:38:37.4	77.2	34.3			
MOX	e P	Z	19:38:37.3	77.2	33.9	0.8	9	4.9
GEC2	e P	Z	19:38:41.3	77.9	35.0	0.8	6	4.8
WET	e P	Z	19:38:41.9	78.0	34.5	1.0	15	5.1
BUG	e P	Z	19:38:41.8	78.0	31.1			
GRA1	e P	Z	19:38:43.0	78.1	33.5	0.8	29	5.5
FUR	e P	Z	19:38:49.7	79.4	33.3	1.0	39	5.3
STU	e P	Z	19:38:50.7	79.6	32.1	0.9	24	5.1
BFO	e P	Z	19:38:54.0	80.3	31.5	1.1	13	4.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/07	21:46:21.3	37.160N	54.260E	33.0N	5.6			SZGRF

Iran-Turkmenistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	21:52:40.6	31.4	96.4	1.4	118	5.5		
	e PcP	Z	21:55:32.4							
BRG	e P	Z	21:52:42.0	31.6	99.9	1.4	85	5.5		
	e PcP	Z	21:55:32.6							
RUE	e P	Z	21:52:44.8	32.0	102.3	1.2	164	5.8		
	e PcP	Z	21:55:33.7							
CLL	e P	Z	21:52:47.2	32.2	99.7	1.8	139	5.6		
	e PcP	Z	21:55:34.5							
GUNZ	e P	Z	21:52:50.1	32.5	97.6					
	e PcP	Z	21:55:35.3							
WERD	e PcP	Z	21:55:35.3	32.5	97.7					
FUR	e P	Z	21:52:53.6	33.0	93.3	1.4	58	5.3		
MOX	e P	Z	21:52:54.6	33.0	97.4	1.0	38	5.3		
GRA1	e P	Z	21:52:55.6	33.1	95.6	1.2	46	5.3		
	e PcP	Z	21:55:37.7							
CLZ	e P	Z	21:53:02.7	33.9	98.1	1.4	106	5.6		
	e PcP	Z	21:55:39.9							
UBBA	e P	Z	21:53:03.8	34.0	96.2	1.5	133	5.7		
NRDL	e PcP	Z	21:54:53.3	34.2	98.8					
BSEG	e P	Z	21:53:05.9	34.3	101.1	1.1	169	5.9		
IBBN	e P	Z	21:53:16.8	35.6	96.4	1.2	120	5.7		
BUG	e P	Z	21:53:19.0	35.8	94.8	1.5	104	5.5		
WLF	e P	Z	21:53:23.9	36.4	91.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/08	00:47:55.1	41.379N	20.961E	10.0G				SZGRF

Albania

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z	00:49:35.0	6.9	135.7					
ARSA	e Pn	Z	00:49:36.0	7.0	144.5					
KBA	e Pn	Z	00:49:48.7	7.9	133.5					
MOA	e Pn	Z	00:49:51.2	8.0	141.2					
WTTA	e Pn	Z	00:50:02.5	8.9	128.1					
GEC2	e Pn	Z	00:50:04.4	9.0	142.9					
WET	e Pn	Z	00:50:12.7	9.6	140.8					
DAVA	e Pn	Z	00:50:16.5	9.9	122.7					
GRA1	e Pn	Z	00:50:28.9	10.7	137.0					
BFO	e Pn	Z	00:50:34.3	11.3	123.2					
	e Sn	N	00:52:36.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/08	06:28:15.5	23.096N	96.262E	33.0N	4.8			SZGRF

Myanmar

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	06:39:21.0	69.5	78.1	1.4	11	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/08	08:27:54.0	10.800S	162.420E	39.7		7.1		SZGRF

Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPdf	Z	08:47:02.5	131.3	42.8					
	e PP	Z	08:49:21.5							
	e SKPbc	Z	08:50:26.1							
BSEG	e PKPdf	Z	08:47:03.0	131.5	37.8					
	e PP	Z	08:49:22.2							
	e SKPbc	Z	08:50:26.9							
BRG	e PKPdf	Z	08:47:04.6	132.4	44.0					
	e PP	Z	08:49:27.9							
	e SKPbc	Z	08:50:30.0							
CLL	e PKPdf	Z	08:47:04.6	132.4	42.6					
	e PP	Z	08:49:28.3							
	e SKPbc	Z	08:50:30.0							
NRDL	e PKPdf	Z	08:47:05.6	132.7	38.4					
	e PP	Z	08:49:30.2							
	e SKPbc	Z	08:50:31.5							
CLZ	e PKPdf	Z	08:47:06.4	133.1	39.1					
	e PP	Z	08:49:32.4							
	e SKPbc	Z	08:50:33.0							
WERD	e PKPdf	Z	08:47:06.7	133.4	42.3					
	e PP	Z	08:49:34.8							

		e	SKPbc	Z	08:50:33.6					
	GUNZ	e	PKPdf	Z	08:47:07.0	133.4	42.4			
		e	PP	Z	08:49:35.2					
		e	SKPbc	Z	08:50:34.1					
	MOX	e	PKPdf	Z	08:47:06.7	133.5	41.4			
		e	PP	Z	08:49:35.2					
		e	SKPbc	Z	08:50:34.4					
	IBBN	e	PKPdf	Z	08:47:07.2	133.7	35.6			
		e	PP	Z	08:49:36.8					
		e	SKPbc	Z	08:50:35.1					
	GEC2	e	PKPdf	Z	08:47:07.5	133.9	45.1			
		e	PP	Z	08:49:38.3					
		e	SKPbc	Z	08:50:35.3					
	UBBA	e	PKPdf	Z	08:47:07.9	134.1	39.3			
		e	PP	Z	08:49:37.8					
		e	SKPbc	Z	08:50:36.2					
	WET	e	PKPdf	Z	08:47:08.0	134.1	43.9			
		e	PP	Z	08:49:40.2					
		e	SKPbc	Z	08:50:36.2					
	GRA1	e	Pdiff	Z	08:44:11.7	134.4	41.5			
		e	PKPdf	Z	08:47:08.7					
		e	pPKPdf	Z	08:47:20.8					
		e	PP	Z	08:49:41.7					
		e	pPP	Z	08:49:56.0					
		e	SKPbc	Z	08:50:37.8					
		e	sSKPbc	Z	08:50:58.1					
		e			09:01:41.4					
		e	SS	E	09:07:31.1					
		e	SSS	E	09:12:36.0					
		e	L	Z	09:49:49.7			20.6	38790	7.1
	BUG	e	PKPdf	Z	08:47:08.7	134.6	35.4			
		e	PP	Z	08:49:42.7					
		e	SKPbc	Z	08:50:37.6					
	FUR	e	PKPdf	Z	08:47:10.6	135.5	42.6			
		e	PP	Z	08:49:46.2					
		e	SKPbc	Z	08:50:41.2					
	STU	e	PKPdf	Z	08:47:11.3	136.0	39.5			
		e	PP	Z	08:49:51.4					
		e	SKPbc	Z	08:50:42.2					
	WLF	e	PKPdf	Z	08:47:13.4	136.5	35.0			
		e	PP	Z	08:49:54.9					
		e	SKPbc	Z	08:50:44.3					
	BFO	e	PKPdf	Z	08:47:12.2	136.7	38.7			
		e	PP	Z	08:49:54.8					
		e	SKPbc	Z	08:50:44.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/08	14:36:14.4	15.360N	119.870E	114.6	6.5			SZGRF

Luzon, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	14:48:47.4	86.8	67.8	1.4	535	6.5		
RUE	e P	Z	14:48:49.1	87.3	68.1	1.3	680	6.6		
BRG	e P	Z	14:48:51.3	87.8	68.1	1.4	400	6.6		
CLL	e P	Z	14:48:52.6	88.2	67.4	1.4	341	6.5		
BSEG	e P	Z	14:48:55.1	88.6	65.4	1.3	287	6.3		
GEC2	e P	Z	14:48:55.5	88.7	67.9	1.6	493	6.5		
WERD	e P	Z	14:48:56.4	88.9	66.9	1.4	322	6.4		
GUNZ	e P	Z	14:48:56.8	88.9	66.9	1.4	428	6.5		
WET	e P	Z	14:48:57.5	89.1	67.3	1.5	372	6.4		
MOX	e P	Z	14:48:57.9	89.2	66.3	1.5	366	6.4		
NRDL	e P	Z	14:48:58.5	89.3	65.2	1.5	391	6.4		
CLZ	e P	Z	14:48:59.1	89.5	65.4	1.5	534	6.6		
GRA1	e P	Z	14:49:01.4	89.9	66.0	1.9	640	6.5		
	e pP	Z	14:49:31.0							
	e sP	Z	14:49:43.5							
	e PP	Z	14:52:42.8							
	e S	E	14:59:16.8							
	e L	Z	15:28:22.7			32.2	6146			
UBBA	e P	Z	14:49:01.7	90.1	65.1	1.6	390	6.4		
FUR	e P	Z	14:49:04.0	90.4	66.1	1.9	1113	6.9		
IBBN	e P	Z	14:49:05.0	90.7	63.3	1.5	387	6.5		
BUG	e P	Z	14:49:08.3	91.4	62.9	1.4	248	6.4		
STU	e P	Z	14:49:08.3	91.4	64.5	1.8	594	6.6		
BFO	e P	Z	14:49:10.8	92.2	63.8	1.4	192	6.2		
WLF	e P	Z	14:49:15.1	92.8	62.1	1.4	367	6.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/08	21:48: 3.8	23.620N	93.890E	70.4	5.4			SZGRF

Myanmar-India border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	21:58:42.5	65.7	81.9					
	e pP	Z	21:59:00.9			1.0	21	5.3		
GEC2	e P	Z	21:58:45.5	66.1	80.8					
	e pP	Z	21:59:04.3			0.9	32	5.5		
CLL	e P	Z	21:58:44.6	66.2	81.4					
	e pP	Z	21:59:03.8			1.1	15	5.1		
WET	e P	Z	21:58:48.7	66.6	80.4					
	e pP	Z	21:59:07.3			1.0	19	5.3		
GUNZ	e P	Z	21:58:49.2	66.8	80.5					
	e pP	Z	21:59:08.0			0.9	23	5.4		
WERD	e P	Z	21:58:49.2	66.8	80.5					
	e pP	Z	21:59:08.0			0.9	18	5.3		

MOX	e P	Z	21:58:51.1	67.2	80.1			
	e pP	Z	21:59:10.3			1.1	23	5.3
BSEG	e P	Z	21:58:53.5	67.4	80.5			
	e pP	Z	21:59:11.8			1.0	37	5.6
GRA1	e pP	Z	21:59:13.8	67.6	79.4	1.4	44	5.5
CLZ	e P	Z	21:58:55.4	67.7	79.7			
	e pP	Z	21:59:13.7			0.9	25	5.4
NRDL	e P	Z	21:58:56.1	67.8	79.7			
	e pP	Z	21:59:14.4					
STU	e pP	Z	21:59:22.6	69.1	77.6	0.9	38	5.6
BUG	e pP	Z	21:59:26.2	69.7	77.2	1.0	24	5.4
BFO	e pP	Z	21:59:25.9	69.7	76.9	1.0	8	4.9
WLF	e pP	Z	21:59:33.7	70.8	75.8	1.0	59	5.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/09								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	15:29:09.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/09	15:44:31.7	15.215S	173.605W	64.0G		5.5		neic-m

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	16:03:59.6	143.5	10.8					
BRG	e PKPbc	Z	16:03:59.3	143.8	12.4					
MOX	e PKPbc	Z	16:04:00.5	144.3	8.7					
WERD	e PKPbc	Z	16:04:01.1	144.4	9.8					
GUNZ	e PKPbc	Z	16:04:00.8	144.5	9.9					
GRA1	e PKPbc	Z	16:04:03.4	145.3	8.2					
	e PP	Z	16:07:24.6							
	e L	Z	17:08:45.5			21.2	780		5.5	
GRB4	e PKPbc	Z	16:04:03.7	145.5	8.8					
WLF	e PKPbc	Z	16:04:04.2	145.5	359.6					
WET	e PKPbc	Z	16:04:03.7	145.7	11.1					
GRB5	e PKPbc	Z	16:04:04.8	145.8	9.1					
GEC2	e PKPbc	Z	16:04:04.8	145.8	12.6					
GRC4	e PKPbc	Z	16:04:04.8	145.9	8.8					
GRC1	e PKPbc	E	16:04:04.8	146.0	8.9					
	e PKPbc	Z	16:04:04.8							
	e PKPbc	N	16:04:05.0							
GRC3	e PKPbc	Z	16:04:05.2	146.1	9.0					
GRC2	e PKPbc	Z	16:04:05.0	146.1	8.6					
STU	e PKPbc	Z	16:04:07.2	146.4	4.9					

FUR	e PKPbc	Z	16:04:08.9	146.8	8.6
BFO	e PKPbc	Z	16:04:07.8	146.8	3.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/09	21:26:51.8	11.570N	87.070W	33.0G	6.1	7.7		SZGRF

Near coast of Nicaragua

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	21:39:16.6	83.3	280.0	1.9	394	6.3		
BUG	e P	Z	21:39:17.7	83.6	280.6	1.3	152	6.1		
IBBN	e P	Z	21:39:19.4	83.8	280.9	2.7	1136	6.6		
BFO	e P	Z	21:39:24.3	84.9	281.7	1.4	109	5.9		
BSEG	e P	Z	21:39:24.6	85.0	282.8	1.9	441	6.4		
NRDL	e P	Z	21:39:25.5	85.1	282.7	1.6	249	6.2		
STU	e P	Z	21:39:26.6	85.4	282.3	2.1	462	6.4		
CLZ	e P	Z	21:39:27.6	85.5	283.0	1.4	196	6.0		
UBBA	e P	Z	21:39:27.3	85.5	282.8	2.2	306	6.0		
GRA1	e P	Z	21:39:32.4	86.5	283.8	1.4	227	6.1		
	e		21:40:09.4							
	e PP	Z	21:43:07.5							
	e S	N	21:50:30.5							
	e SS	E	21:56:16.5							
	e L	Z	22:13:50.6			20.3	279260		7.7	
MOX	e P	Z	21:39:32.1	86.5	284.0	1.5	159	5.9		
FUR	e P	Z	21:39:34.0	86.9	283.9	1.3	115	5.8		
WERD	e P	Z	21:39:34.9	87.0	284.5	1.5	193	6.0		
GUNZ	e P	Z	21:39:34.8	87.0	284.6	1.5	245	6.1		
CLL	e P	Z	21:39:35.5	87.2	285.0	1.6	225	6.1		
RUE	e P	Z	21:39:36.1	87.3	285.6	1.4	182	6.0		
WET	e P	Z	21:39:38.3	87.7	285.0	1.5	284	6.4		
BRG	e P	Z	21:39:39.3	87.9	285.8	1.7	253	6.3		
GEC2	e P	Z	21:39:41.2	88.3	285.7	1.7	211	6.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/09	22:19:37.7	46.418N	10.526E	10.0G			2.4	SZGRF

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
DAVA	e Pg	Z	22:19:54.6	1.0	152.8					2.4
WTTA	e Pg	Z	22:19:57.3	1.1	222.3					
FUR	e Pg	Z	22:20:11.3	1.8	196.5					
	e Sg	N	22:20:35.5							
KBA	e Pg	Z	22:20:13.8	2.0	252.2					
BFO	e Pn	Z	22:20:18.1	2.4	141.3					
WET	e Pn	Z	22:20:27.7	3.2	211.0					

	e Sn	N	22:21:04.5			
GEC2	e Pn	Z	22:20:28.9	3.2	222.6	
	e Sn	N	22:21:08.0			
GRA1	e Sn	E	22:21:08.2	3.3	188.3	
TANN	e Sn	N	22:21:29.7	4.2	198.5	
MOX	e Sn	N	22:21:31.0	4.3	190.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/09	23:38:19.6	60.865S	52.261W	33.0N				gsrc-m

South Shetland Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	23:57:17.7	121.7	210.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/10								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	07:11:09.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/10								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	08:45:44.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/10								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	11:06:34.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/11								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:54:55.5			1.4	10			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/11	05:09:37.9	31.880N	136.000E	33.0G	5.6			SZGRF

Southeast of Shikoku, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	05:21:07.8	82.2	44.1	1.0	99	6.0		
BRG	e P	Z	05:21:10.6	82.8	46.5	0.9	43	5.7		
CLL	e P	Z	05:21:11.0	82.9	45.9	1.0	106	6.0		
NRDL	e P	Z	05:21:13.1	83.3	43.8	1.0	18	5.3		
CLZ	e P	Z	05:21:15.3	83.7	44.0	1.1	60	5.7		
WERD	e P	Z	05:21:15.5	83.8	45.3	1.0	30	5.5		
GUNZ	e P	Z	05:21:16.0	83.9	45.3	0.9	44	5.7		
MOX	e P	Z	05:21:16.4	84.0	44.8	1.0	28	5.5		
GEC2	e P	Z	05:21:17.6	84.3	46.2	1.1	24	5.3		
IBBN	e P	Z	05:21:18.6	84.5	42.1	0.6	39	5.8		
WET	e P	Z	05:21:19.1	84.5	45.6	1.0	14	5.2		
UBBA	e P	Z	05:21:19.6	84.6	43.6	1.6	31	5.3		
GRA1	e P	Z	05:21:20.9	84.9	44.4	1.0	43	5.6		
FUR	e P	Z	05:21:26.3	85.9	44.4	0.8	72	5.9		
STU	e P	Z	05:21:28.1	86.5	42.9	0.8	44	5.7		
BFO	e P	Z	05:21:31.1	87.2	42.3	0.9	38	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/11	06:37:11.0	5.400N	126.400E	20.0N		5.3		NEIR-M

Mindanao, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e Pdiff	Z	06:50:55.9	99.6	68.9					
CLL	e Pdiff	Z	06:50:56.5	100.0	68.1					
BSEG	e Pdiff	Z	06:50:58.4	100.5	65.4					
GEC2	e Pdiff	Z	06:50:58.2	100.5	69.1					
WERD	e Pdiff	Z	06:50:59.6	100.7	67.7					
GUNZ	e Pdiff	Z	06:51:01.1	100.8	67.7					
WET	e Pdiff	Z	06:51:00.6	100.9	68.4					
MOX	e Pdiff	Z	06:51:00.2	101.1	67.1					
NRDL	e Pdiff	Z	06:51:02.0	101.2	65.5					
CLZ	e Pdiff	Z	06:51:02.1	101.3	65.8					
GRA1	e Pdiff	Z	06:51:03.6	101.7	66.9					
	e L	Z	07:40:13.4			21.8	1093		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/11	08:59: 8.5	17.913N	117.534E	33.0N	4.8	4.8		SZGRF

Philippine Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	09:11:48.2	86.5	66.2	0.7	5	4.8		
	e L	Z	09:54:24.1			18.4	375		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/11	09:53:16.7	73.160N	9.020E	33.0N	4.0			SZGRF

Greenland Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	09:58:24.1	23.5	358.4	1.1	6	4.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/11	10:06:40.1	72.660N	8.205E	33.0N	4.4			SZGRF

Norwegian Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	10:11:42.7	23.0	357.7	1.2	16	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/11								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	12:25:55.1							
GUNZ	e P	Z	12:26:17.1							
WET	e P	Z	12:26:00.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/11	18:14:24.1	18.300S	167.100E	33.0N		5.5		GSRC-M

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	18:33:46.5	143.1	40.3					
	e L	Z	19:37:16.4			21.0	830		5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/11								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	22:23:23.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/11	22:42: 1.9	47.625N	93.756E	33.0N				SZGRF

Mongolia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	22:50:50.7	49.6	60.6	1.2	16			
CLL	e P	Z	22:50:52.0	49.9	60.4	0.9	14			
BSEG	e P	Z	22:50:53.8	50.0	60.9	0.9	13			
WERD	e P	Z	22:50:58.7	50.7	59.5	1.0	6			
GUNZ	e P	Z	22:50:58.5	50.7	59.4	1.0	13			
GEC2	e P	Z	22:50:58.7	50.7	59.0	1.2	10			
MOX	e P	Z	22:51:00.6	51.0	59.3	0.9	8			
CLZ	e P	Z	22:51:00.9	51.0	59.4	1.3	17			
WET	e P	Z	22:51:01.1	51.0	58.8	1.0	11			
GRA1	e P	Z	22:51:06.0	51.7	58.4	0.9	25			
UBBA	e P	Z	22:51:06.9	51.8	58.5	1.7	30			
BFO	e P	Z	22:51:23.5	54.0	56.1	0.9	6			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/12	07:19: 3.0	42.340N	72.060E	19.1	4.5			SZGRF

Kyrgyzstan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	07:26:35.8	39.7	79.0	1.1	9	4.3		
	e pP	Z	07:26:40.8							
CLL	e P	Z	07:26:39.4	40.2	78.9	0.8	8	4.4		
	e pP	Z	07:26:44.4							
GEC2	e P	Z	07:26:40.6	40.3	76.5	1.1	15	4.5		
	e pP	Z	07:26:45.6							
WET	e P	Z	07:26:44.2	40.8	76.3	0.7	6	4.5		
	e pP	Z	07:26:48.9							
WERD	e P	Z	07:26:44.6	40.9	77.5	1.1	5	4.2		
	e pP	Z	07:26:49.4							
GUNZ	e P	Z	07:26:44.8	40.9	77.4	0.8	5	4.3		
	e pP	Z	07:26:49.3							
MOX	e P	Z	07:26:47.8	41.2	77.3	1.3	13	4.5		
	e pP	Z	07:26:53.1							
GRA1	e P	Z	07:26:52.0	41.7	76.0	0.8	19	4.9		
	e pP	Z	07:26:57.3							
NRDL	e P	Z	07:26:52.4	41.8	78.4	0.8	8	4.5		
	e pP	Z	07:26:57.4							
FUR	e P	Z	07:26:54.5	42.1	74.4	0.7	19	4.9		
	e pP	Z	07:27:00.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/12	14:59:12.9	28.350S	14.701W	33.0N	5.1			SZGRF

Southern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	15:11:26.7	81.4	202.9	1.9	40	5.1		
	e PP	Z	15:14:30.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/12	15:29: 3.1	17.200S	174.300E	33.0N		5.0		GSRC-M

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	15:48:36.2	144.8	28.8					
	e L	Z	16:53:27.6			20.8	285		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/13	13:05: 4.3	45.612N	153.688E	33.0N	5.2			SZGRF

East of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	13:17:06.8	79.3	25.7	0.8	29	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/13	20:29: 4.1	18.540S	177.300W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	20:48:34.1	144.1	12.4					
RUE	e PKPbc	Z	20:48:36.8	145.0	18.5					
NRDL	e PKPbc	Z	20:48:38.8	145.6	12.5					
IBBN	e PKPbc	Z	20:48:40.5	146.0	8.6					
CLZ	e PKPbc	Z	20:48:40.8	146.2	13.1					
CLL	e PKPbc	Z	20:48:40.7	146.2	17.8					
BRG	e PKPbc	Z	20:48:41.4	146.5	19.5					
MOX	e PKPbc	Z	20:48:43.4	147.1	15.7					
WERD	e PKPbc	Z	20:48:43.8	147.2	17.0					
GUNZ	e PKPbc	Z	20:48:44.1	147.3	17.1					
GRA1	e PKPbc	Z	20:48:46.5	148.1	15.4					
	e PKPab	Z	20:48:49.3							
GEC2	e PKPbc	Z	20:48:47.0	148.4	20.2					

	e PKPab	Z	20:48:50.6			
WLF	e PKPbc	Z	20:48:49.0	148.8	6.3	
	e PKPab	Z	20:48:52.4			
STU	e PKPbc	Z	20:48:49.5	149.3	12.1	
	e PKPab	Z	20:48:54.3			
FUR	e PKPbc	Z	20:48:49.7	149.6	16.2	
	e PKPab	Z	20:48:55.6			
BFO	e PKPbc	Z	20:48:50.7	149.9	10.7	
	e PKPab	Z	20:48:56.4			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/13	20:35:24.8	12.585S	129.934E	33.0				SZGRF

Northern Territory, Australia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPdf	Z	20:54:04.2	115.8	76.6					
BRG	e PKPdf	Z	20:54:04.3	116.0	77.5					
CLL	e PKPdf	Z	20:54:05.1	116.5	76.5					
GEC2	e PKPdf	Z	20:54:05.7	116.6	78.3					
WET	e PKPdf	Z	20:54:06.6	117.1	77.5					
WERD	e PKPdf	Z	20:54:06.3	117.1	76.3					
GUNZ	e PKPdf	Z	20:54:06.6	117.1	76.4					
MOX	e PKPdf	Z	20:54:07.6	117.5	75.6					
NRDL	e PKPdf	Z	20:54:08.2	117.9	73.4					
CLZ	e PKPdf	Z	20:54:08.5	118.0	74.0					
GRA1	e PKPdf	Z	20:54:08.4	118.0	75.8					
FUR	e PKPdf	Z	20:54:09.1	118.3	76.6					
UBBA	e PKPdf	Z	20:54:09.0	118.5	74.2					
IBBN	e PKPdf	Z	20:54:10.9	119.4	71.4					
STU	e PKPdf	Z	20:54:11.8	119.5	74.6					
BUG	e PKPdf	Z	20:54:11.9	119.9	71.4					
WLF	e PKPdf	Z	20:54:14.7	121.2	71.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/14	17:02: 5.3	21.420S	173.854E	33.0N		4.9		SZGRF

Vanuatu Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	17:21:38.9	145.2	27.5					
RUE	e PKPbc	Z	17:21:39.0	145.4	33.9					
NRDL	e PKPbc	Z	17:21:42.5	146.5	28.2					
CLL	e PKPbc	Z	17:21:42.8	146.6	33.7					
BRG	e PKPbc	Z	17:21:42.6	146.6	35.5					
CLZ	e PKPbc	Z	17:21:43.9	147.0	29.1					
IBBN	e PKPbc	Z	17:21:45.4	147.3	24.5					

	WERD	e	PKPbc	Z	17:21:45.1	147.6	33.3			
	GUNZ	e	PKPbc	Z	17:21:45.8	147.6	33.4			
	MOX	e	PKPbc	Z	17:21:45.4	147.6	32.0			
	BUG	e	PKPbc	Z	17:21:47.5	148.2	24.2			
	GEC2	e	PKPbc	Z	17:21:47.2	148.3	37.0			
	WET	e	PKPbc	Z	17:21:47.6	148.4	35.4			
	GRA1	e	PKPbc	Z	17:21:48.5	148.6	32.2			
		e	L	Z	18:26:54.5			20.7	204	4.9
	STU	e	PKPbc	Z	17:21:51.9	150.0	29.5			
	BFO	e	PKPbc	Z	17:21:53.1	150.7	28.4			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/15	04:08:50.2	24.350N	122.330E	88.9	6.8	6.1		SZGRF

Taiwan region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	RGN	e P	Z	04:20:54.2	80.6	60.8	1.3	948	6.7		
	RUE	e P	Z	04:20:58.4	81.3	60.9	1.2	1021	6.8		
		e sP	Z	04:21:32.4							
	CLL	e P	Z	04:21:02.6	82.3	60.2	1.2	588	6.7		
		e pP	Z	04:21:26.6							
		e sP	Z	04:21:36.4							
	BSEG	e P	Z	04:21:03.4	82.4	58.4	1.2	600	6.7		
	WERD	e P	Z	04:21:07.2	83.1	59.6	1.4	427	6.5		
	GUNZ	e P	Z	04:21:07.3	83.2	59.6	1.5	822	6.7		
	MOX	e P	Z	04:21:08.8	83.4	59.1	1.1	302	6.4		
	HLG	e P	Z	04:21:09.6	83.5	56.6	1.1	754	6.8		
	WET	e P	Z	04:21:09.5	83.5	59.8	1.4	436	6.5		
	GRA1	e P	Z	04:21:12.7	84.1	58.7	1.6	1605	7.0		
		e sP	Z	04:21:44.8							
		e PP	Z	04:24:27.2							
		e S	R	04:31:26.9							
		e SS	T	04:36:58.1							
		e L	Z	04:58:33.6			22.0	9307		6.1	
	IBBN	e P	Z	04:21:14.5	84.6	56.3	1.4	1639	7.1		
	FUR	e P	Z	04:21:17.0	84.9	58.6	0.9	1671	7.2		
	STU	e P	Z	04:21:20.2	85.7	57.1	1.7	864	6.6		
		e pP	Z	04:21:43.1							
	BFO	e P	Z	04:21:23.6	86.5	56.5	1.2	565	6.6		
	WLF	e P	Z	04:21:26.3	86.9	55.0	1.0	1605	7.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/15								

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

	GRA1	e	PKP	Z	04:50:40.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/15								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	ABH	e	Pg	Z 09:02:10.9							
		e	Sg	Z 09:02:19.6							
	BFO	e	Pn	Z 09:02:24.1							2.7
		e	Pg	Z 09:02:25.4							
		e	Sg	N 09:02:43.7							
	CLZ	e	Pg	Z 09:03:00.8							
	ECH	e	Pg	Z 09:02:21.1							
		e	Sg	Z 09:02:36.2							
	FELD	e	Sg	Z 09:02:51.7							
	HGN	e	Pn	Z 09:02:25.9							
		e	Pg	Z 09:02:27.7							
		e	Sg	N 09:02:47.2							
	KTD	e	Pg	Z 09:02:13.1							
	LANF	e	Pg	Z 09:02:11.9							
	LIBD	e	Sg	Z 09:02:40.8							
	LOMF	e	Pn	Z 09:02:33.3							
	MOF	e	Pn	Z 09:02:26.6							
		e	Sg	Z 09:02:47.9							
	RUP	e	Pg	Z 09:02:05.6							
	SPAK	e	Pg	Z 09:02:32.2							
	TANN	e	Pg	Z 09:03:09.0							
		e	Sg	N 09:03:57.1							
	THEF	e	Pn	Z 09:02:22.8							
		e	Sg	Z 09:02:40.0							
	TOD	e	Pg	Z 09:02:21.4							
	UBBA	e	Sg	N 09:03:16.9							
	WERD	e	Sg	N 09:03:54.6							
	WLF	e	Pg	Z 09:02:10.0							2.5
		e	Sg	N 09:02:17.1							
	WLS	e	Pg	Z 09:02:17.4							
		e	Sg	Z 09:02:31.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/15	22:42:26.1	7.538N	57.723E	33.0N	4.7			SZGRF

Carlsberg Ridge

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e	P	Z 22:52:10.4	57.2	121.2	1.2	11	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/16	10:05: 2.6	35.320N	43.150E	33.0N	5.1			SZGRF

Iraq

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	10:10:28.6	25.5	111.1	0.8	10	4.5		
WET	e P	Z	10:10:33.7	26.1	110.6	0.9	11	4.5		
BRG	e P	Z	10:10:33.9	26.1	115.2	1.0	22	4.8		
FUR	e P	Z	10:10:40.4	26.8	106.9	1.0	196	5.8		
CLL	e P	Z	10:10:40.5	26.8	114.8	1.0	32	5.0		
GUNZ	e P	Z	10:10:41.0	26.8	112.2	1.5	30	4.8		
WERD	e P	Z	10:10:41.5	26.9	112.4	0.8	8	4.5		
GRA1	e P	Z	10:10:45.1	27.3	109.7	0.9	101	5.5		
MOX	e P	Z	10:10:45.7	27.4	111.9	1.0	13	4.6		
STU	e P	Z	10:10:53.0	28.3	105.7	1.2	28	5.0		
UBBA	e P	Z	10:10:54.7	28.4	110.2	1.6	22	4.7		
CLZ	e P	Z	10:10:56.2	28.5	112.4	0.7	75	5.6		
BFO	e P	Z	10:10:58.1	28.7	104.0	1.1	21	4.9		
NRDL	e P	Z	10:11:00.2	28.9	113.2	0.9	40	5.3		
BSEG	e P	Z	10:11:04.0	29.4	115.8	0.9	53	5.4		
IBBN	e P	Z	10:11:11.7	30.2	110.1	1.0	81	5.5		
BUG	e P	Z	10:11:11.1	30.2	108.1	0.8	27	5.1		
WLF	e P	Z	10:11:12.1	30.4	104.0	0.8	76	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/16								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	12:26:43.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/16	15:28:28.4	34.490N	32.800E	33.0N	4.7			SZGRF

Cyprus region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	15:33:00.3	20.1	128.4	0.6	68	5.0		
WET	e P	Z	15:33:07.4	20.7	127.5	1.2	72	4.9		
BRG	e P	Z	15:33:13.4	21.3	132.9	1.0	19	4.4		
GUNZ	e P	Z	15:33:18.5	21.8	129.0	0.9	16	4.5		
WERD	e P	Z	15:33:19.0	21.8	129.1	0.9	15	4.5		
GRA1	e P	Z	15:33:19.9	21.9	125.7	1.0	23	4.6		
CLL	e P	Z	15:33:20.7	22.1	132.0	1.2	23	4.5		
MOX	e P	Z	15:33:24.2	22.3	128.3	0.7	40	4.9		

RUE	e P	Z	15:33:25.8	22.5	135.5	0.6	28	5.0
STU	e P	Z	15:33:26.2	22.5	120.5	0.9	35	4.9
BFO	e P	Z	15:33:29.2	22.8	118.3	0.9	42	5.0
UBBA	e P	Z	15:33:33.1	23.2	125.9	1.9	63	4.8
CLZ	e P	Z	15:33:37.0	23.7	128.4	1.0	22	4.6
NRDL	e P	Z	15:33:43.3	24.2	129.1	1.3	23	4.5
BUG	e P	Z	15:33:49.8	25.0	122.8	0.8	11	4.7
BSEG	e P	Z	15:33:50.1	25.0	131.8	0.9	14	4.7
IBBN	e P	Z	15:33:51.8	25.2	125.0	0.7	9	4.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/16	17:19:18.3	36.600N	142.710E	33.0N	5.6	5.3		SZGRF

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	17:31:29.2	80.5	39.3	1.1	70	5.6		
BSEG	e P	Z	17:31:30.1	80.6	36.9	1.0	57	5.6		
BRG	e P	Z	17:31:35.1	81.6	39.2	1.0	39	5.5		
CLL	e P	Z	17:31:35.2	81.7	38.6	1.0	68	5.7		
NRDL	e P	Z	17:31:35.5	81.8	36.7	1.0	22	5.3		
CLZ	e P	Z	17:31:38.8	82.3	36.8	1.0	48	5.7		
WERD	e P	Z	17:31:39.9	82.6	38.1	1.1	25	5.3		
GUNZ	e P	Z	17:31:40.8	82.7	38.1	1.1	40	5.6		
MOX	e P	Z	17:31:40.8	82.7	37.6	1.1	29	5.4		
IBBN	e P	Z	17:31:41.4	82.8	34.9	0.8	59	5.9		
UBBA	e P	Z	17:31:43.1	83.2	36.4	1.8	49	5.4		
GEC2	e P	Z	17:31:43.7	83.3	38.9	0.9	23	5.4		
WET	e P	Z	17:31:44.5	83.4	38.4	1.1	35	5.5		
GRA1	e P	Z	17:31:46.1	83.6	37.2	1.1	98	6.0		
	e PP	Z	17:35:11.3							
	e S	E	17:42:09.7							
	e L	Z	18:12:06.0			18.9	1175		5.3	
BUG	e P	Z	17:31:45.8	83.7	34.5	1.1	32	5.5		
FUR	e P	Z	17:31:51.8	84.8	37.2	0.8	51	5.8		
STU	e P	Z	17:31:53.3	85.2	35.8	0.9	65	5.7		
BFO	e P	Z	17:31:56.6	85.9	35.1	0.9	45	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/16	18:13:38.8	37.010N	70.700E	33.0N	5.1			SZGRF

Afghanistan-Tajikistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	18:21:27.9	42.0	86.5	1.2	36	5.0		
RUE	e P	Z	18:21:27.9	42.0	88.2	0.9	34	5.1		
RGN	e P	Z	18:21:30.4	42.3	90.1	1.0	126	5.6		

GEC2	e P	Z	18:21:30.6	42.3	84.1	1.8	25	4.6
CLL	e P	Z	18:21:31.9	42.6	86.3	0.8	14	4.7
GUNZ	e P	Z	18:21:36.3	43.1	84.8	1.0	13	4.6
WERD	e P	Z	18:21:37.0	43.1	84.9	0.2	26	5.6
MOX	e P	Z	18:21:39.9	43.5	84.6	0.9	16	4.7
GRA1	e P	Z	18:21:43.8	43.8	83.4	1.7	94	5.3
FUR	e P	Z	18:21:44.2	44.0	81.8	1.5	58	5.1
BSEG	e P	Z	18:21:44.7	44.0	87.1	0.9	36	5.1
CLZ	e P	Z	18:21:45.3	44.1	85.0	1.6	44	4.9
NRDL	e P	Z	18:21:46.4	44.3	85.4	1.6	50	5.0
UBBA	e P	Z	18:21:48.5	44.5	83.7	0.8	8	4.7
STU	e P	Z	18:21:54.3	45.3	81.1	1.1	20	4.9
IBBN	e P	Z	18:21:57.5	45.7	83.5	0.9	40	5.4
BFO	e P	Z	18:21:58.9	45.9	80.1	1.8	41	5.1
BUG	e P	Z	18:22:00.8	46.1	82.4	1.1	28	5.2
WLF	e P	Z	18:22:09.0	47.1	79.9	1.0	35	5.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/16	18:54:40.9	36.320N	141.720E	33.0N	5.7	6.0		SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	19:06:43.6	78.9	40.0	1.3	151	5.9		
RUE	e P	Z	19:06:51.3	80.3	40.1	1.4	130	5.8		
BSEG	e P	Z	19:06:51.6	80.5	37.8	1.4	69	5.5		
BRG	e P	Z	19:06:57.0	81.5	40.1	1.4	50	5.4		
CLL	e P	Z	19:06:57.0	81.5	39.5	1.4	103	5.8		
NRDL	e P	Z	19:06:58.1	81.7	37.5	1.5	36	5.3		
CLZ	e P	Z	19:07:00.5	82.1	37.6	1.4	81	5.7		
WERD	e P	Z	19:07:02.1	82.5	38.9	1.4	37	5.4		
GUNZ	e P	Z	19:07:02.5	82.5	38.9	2.8	309	6.0		
MOX	e P	Z	19:07:02.8	82.6	38.4	1.2	31	5.4		
IBBN	e P	Z	19:07:03.6	82.7	35.8	1.5	98	5.8		
UBBA	e P	Z	19:07:05.6	83.1	37.3	1.7	52	5.5		
GEC2	e P	Z	19:07:05.5	83.1	39.7	1.4	42	5.5		
WET	e P	Z	19:07:06.5	83.3	39.2	1.4	56	5.6		
GRA1	e P	Z	19:07:08.1	83.5	38.1	1.4	178	6.1		
	e		19:07:21.4							
	e PP	Z	19:10:30.7							
	e S	N	19:17:32.2							
	e L	Z	19:48:16.5			18.1	5693		6.0	
BUG	e P	Z	19:07:08.3	83.6	35.4	1.5	44	5.5		
FUR	e P	Z	19:07:13.7	84.7	38.0	1.5	116	5.9		
STU	e P	Z	19:07:15.3	85.0	36.6	1.3	85	5.8		
WLF	e P	Z	19:07:17.6	85.5	34.5	1.8	153	5.8		
BFO	e P	Z	19:07:18.5	85.7	36.0	1.4	74	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/16	22:06: 1.9	33.488N	135.274E	33.0N	4.7			SZGRF

Near south coast of western Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:18:25.1	83.2	44.1	1.0	5	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/16	23:38:57.8	30.450N	141.370E	33.0N	5.2			SZGRF

Southeast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	23:51:35.0	85.6	40.7	1.1	16	5.1		
BRG	e P	Z	23:51:38.8	86.4	43.3	1.0	6	4.7		
CLL	e P	Z	23:51:38.9	86.5	42.6	0.8	8	4.9		
CLZ	e P	Z	23:51:42.4	87.2	40.6	1.0	16	5.1		
GUNZ	e P	Z	23:51:44.2	87.5	42.1	1.0	12	5.2		
MOX	e P	Z	23:51:43.8	87.6	41.6	1.1	8	5.0		
GEC2	e P	Z	23:51:46.2	88.0	43.1	1.8	21	5.2		
GRA1	e P	Z	23:51:48.7	88.5	41.2	0.9	13	5.2		
FUR	e P	Z	23:51:54.0	89.6	41.3	1.0	35	5.6		
STU	e P	Z	23:51:56.0	90.0	39.7	1.4	22	5.2		
WLF	e P	Z	23:51:58.3	90.6	37.4	1.7	35	5.4		
BFO	e P	Z	23:51:58.8	90.7	39.1	1.0	19	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/17	07:04: 3.4	26.940N	124.840E	33.0N	5.1			SZGRF

Northeast of Taiwan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	07:16:14.5	80.5	57.5	1.1	25	5.2		
BRG	e P	Z	07:16:18.0	81.3	57.4	1.0	10	4.9		
BSEG	e P	Z	07:16:19.2	81.5	55.1	1.1	28	5.3		
CLL	e P	Z	07:16:19.0	81.6	56.8	0.7	10	5.0		
NRDL	e P	Z	07:16:23.9	82.4	54.8	1.3	15	5.1		
WERD	e P	Z	07:16:23.9	82.4	56.2	1.5	10	4.8		
GUNZ	e P	Z	07:16:24.1	82.5	56.2	1.4	20	5.2		
GEC2	e P	Z	07:16:24.6	82.6	57.0	1.3	8	4.8		
CLZ	e P	Z	07:16:25.0	82.6	54.9	1.1	33	5.5		
MOX	e P	Z	07:16:24.7	82.7	55.7	1.4	10	4.9		
GRA1	e P	Z	07:16:29.2	83.4	55.3	0.9	15	5.2		
IBBN	e P	Z	07:16:30.3	83.7	53.0	1.1	28	5.4		
FUR	e P	Z	07:16:33.8	84.3	55.2	1.0	31	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/17	14:23:25.5	17.300S	173.000W	33.0N				GSRC-M

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	14:43:11.0	147.4	7.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/17								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	18:55:19.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/18	22:12: 7.7	27.685N	97.792E	33.0N	4.7	4.4		SZGRF

Myanmar-India border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:22:58.5	67.1	73.6	1.0	6	4.7		
	e L	Z	22:54:15.1			19.6	205		4.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/18								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	23:15:46.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/18								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PKP	Z	23:48:12.8							
FUR	e PKP	Z	23:48:13.8							
GEC2	e PKP	Z	23:48:10.9							
GRA1	e PKP	Z	23:48:09.9							
GUNZ	e PKP	Z	23:48:08.0							
STU	e PKP	Z	23:48:13.7							
WLF	e PKP	Z	23:48:09.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/19	00:45:51.7	29.300N	138.890E	33.0N	5.3			SZGRF

Southeast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	00:58:27.1	85.3	45.7	0.8	32	5.5		
BSEG	e P	Z	00:58:28.8	85.7	43.1	1.4	39	5.3		
BRG	e P	Z	00:58:31.9	86.3	45.8	1.0	18	5.2		
CLL	e P	Z	00:58:32.2	86.4	45.1	1.0	24	5.3		
CLZ	e P	Z	00:58:36.1	87.2	43.1	1.2	22	5.2		
WERD	e P	Z	00:58:36.7	87.3	44.5	1.1	10	5.0		
GUNZ	e P	Z	00:58:37.3	87.4	44.5	1.3	21	5.3		
MOX	e P	Z	00:58:37.5	87.5	44.0	1.7	20	5.2		
GEC2	e P	Z	00:58:39.0	87.8	45.5	0.9	9	5.1		
WET	e P	Z	00:58:39.9	88.0	44.9	1.3	12	5.0		
GRA1	e P	Z	00:58:42.2	88.4	43.7	1.3	29	5.3		
FUR	e P	Z	00:58:47.2	89.5	43.7	0.9	35	5.6		
STU	e P	Z	00:58:49.3	89.9	42.1	1.0	31	5.5		
BFO	e P	Z	00:58:52.3	90.7	41.5	1.0	22	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/19								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z	04:17:34.1							
CLL	e PKP	Z	04:17:33.4							
GEC2	e PKP	Z	04:17:39.4							
GRA1	e PKP	Z	04:17:39.1							
GUNZ	e PKP	Z	04:17:36.7							
TANN	e PKP	Z	04:17:36.9							
WERD	e PKP	Z	04:17:36.2							
WET	e PKP	Z	04:17:39.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/19								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	09:59:45.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

2004/10/19 20:29:40.0 13.000S 166.500E 33.0N MIX-A
Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA2	e PKP	Z	20:49:01.6	138.1	37.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/19								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	23:59:13.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/20								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	02:47:35.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/20	13:18: 5.2	3.157N	30.913W	33.0N	4.7			SZGRF

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	13:27:59.2	58.6	231.7	0.8	6	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/20								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	18:51:45.1							
	e PKPdf	Z	18:51:45.1							
	e PP	Z	18:54:39.0							
	e		18:55:19.0							
	e SKP	Z	18:55:26.9							
	e L	Z	19:55:22.1			21.3	2817			
	e L	Z	19:55:22.1			21.3	2817			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/20	18:55:50.9	14.822S	72.858W	77.2	5.5			SZGRF

Central Peru

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	19:09:21.7	97.5	255.9	1.3	16	5.5		
	e pP	Z	19:09:42.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/21	11:16:28.1	22.370S	176.840W	33.0N				SZGRF

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	11:36:09.8	148.0	12.5					
NRDL	e PKPbc	Z	11:36:13.7	149.4	12.7					
CLZ	e PKPbc	Z	11:36:15.5	150.0	13.4					
	e PKPab	Z	11:36:20.6							
CLL	e PKPbc	Z	11:36:15.1	150.1	18.5					
	e PKPab	Z	11:36:21.1							
BRG	e PKPbc	Z	11:36:15.8	150.3	20.4					
BUG	e PKPbc	Z	11:36:17.9	150.8	7.8					
	e PKPab	Z	11:36:24.6							
MOX	e PKPbc	Z	11:36:17.4	151.0	16.3					
WERD	e PKPbc	Z	11:36:17.6	151.0	17.7					
	e PKPab	Z	11:36:25.3							
UBBA	e PKPbc	Z	11:36:17.3	151.1	13.2					
GUNZ	e PKPbc	Z	11:36:18.0	151.1	17.8					
	e PKPab	Z	11:36:25.6							
GRA1	e PKPbc	Z	11:36:20.3	151.9	16.0					
	e PKPab	Z	11:36:29.2							
WET	e PKPbc	Z	11:36:20.2	152.1	19.5					
	e PKPab	Z	11:36:29.8							
GEC2	e PKPbc	Z	11:36:20.1	152.2	21.3					
	e PKPab	Z	11:36:30.1							
STU	e PKPdf	Z	11:36:16.4	153.2	12.4					
	e PKPbc	Z	11:36:22.8							
BFO	e PKPbc	Z	11:36:23.6	153.7	10.8					
	e PKPab	Z	11:36:36.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/21								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z	13:59:29.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/21	19:38:22.8	36.718N	140.538E	33.0N	5.1			SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	19:50:43.5	82.7	38.7	1.4	19	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/21	20:11:13.1	52.329N	168.620W	33.0N	4.8			SZGRF

Fox Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	20:23:08.5	78.0	359.9	1.1	10	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/22								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	11:41:53.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/22	12:00: 7.1	13.410N	40.920E	33.0N	5.4	4.4		SZGRF

Ethiopia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	12:07:55.3	41.9	138.3	1.3	123	5.5		
WET	e P	Z	12:07:59.3	42.5	137.4	1.3	62	5.2		
FUR	e P	Z	12:07:59.4	42.5	134.6	0.9	58	5.3		
BRG	e P	Z	12:08:06.1	43.4	140.0	1.2	66	5.2		
GUNZ	e P	Z	12:08:09.1	43.7	137.6	1.5	124	5.4		
GRA1	e P	Z	12:08:08.7	43.7	135.7	1.3	80	5.3		
	e L	Z	12:28:10.5			20.5	493		4.4	
WERD	e P	Z	12:08:09.5	43.7	137.6	1.1	96	5.4		
CLL	e P	Z	12:08:11.8	44.1	139.1	1.2	67	5.2		
BFO	e P	Z	12:08:12.4	44.1	131.2	1.3	58	5.2		
MOX	e P	Z	12:08:12.8	44.2	136.9	1.2	65	5.2		
RUE	e P	Z	12:08:16.7	44.7	140.9	1.0	66	5.5		
CLZ	e P	Z	12:08:23.5	45.6	136.2	1.3	35	5.3		
NRDL	e P	Z	12:08:28.5	46.2	136.3	1.3	51	5.4		
BUG	e P	Z	12:08:33.0	46.7	132.2	1.2	62	5.6		
BSEG	e P	Z	12:08:36.7	47.1	137.5	1.4	183	6.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/22	13:44:24.5	26.786N	129.238E	42.9	4.8	4.7		SZGRF

Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	13:56:59.7	85.8	52.2	1.0	7	4.8		
	e pP	Z	13:57:12.2							
	e L	Z	14:38:44.6			19.9	331		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/22								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	16:48:42.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/22								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	19:13:54.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	04:22:14.3			N				SZGRF

Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PKP	Z	04:22:19.7							
BRG	e PKP	Z	04:22:11.6							
BSEG	e PKP	Z	04:22:10.8							
CLL	e PKP	Z	04:22:11.2							
CLZ	e PKP	Z	04:22:13.6							
GEC2	e PKP	Z	04:22:14.0							
GRA1	e PKP	Z	04:22:15.4							
IBBN	e PKP	Z	04:22:15.2							
MOX	e PKP	Z	04:22:13.8							
NRDL	e PKP	Z	04:22:13.0							
STU	e PKP	Z	04:22:18.8							
WET	e PKP	Z	04:22:14.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	08:56: 0.4	37.520N	140.090E	33.0N	6.6	6.8		SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	09:07:53.6	77.2	40.6	2.3	3119	7.0		
RUE	e P	Z	09:08:01.2	78.6	40.7	2.2	2259	6.8		
BSEG	e P	Z	09:08:02.4	78.8	38.4	1.4	528	6.4		
BRG	e P	Z	09:08:07.3	79.8	40.6	1.7	791	6.4		
CLL	e P	Z	09:08:07.2	79.8	40.0	1.5	605	6.3		
NRDL	e P	Z	09:08:08.8	80.0	38.1	2.4	1466	6.5		
CLZ	e P	Z	09:08:11.2	80.5	38.2	1.5	786	6.5		
WERD	e P	Z	09:08:12.7	80.8	39.4	1.8	663	6.4		
GUNZ	e P	Z	09:08:13.1	80.8	39.4	1.8	916	6.5		
MOX	e P	Z	09:08:13.3	80.9	39.0	1.8	835	6.5		
IBBN	e P	Z	09:08:14.0	81.1	36.4	1.8	1439	6.7		
UBBA	e P	Z	09:08:15.8	81.4	37.9	1.9	786	6.5		
GEC2	e P	Z	09:08:15.9	81.4	40.2	2.5	1162	6.6		
WET	e P	Z	09:08:17.0	81.6	39.7	1.9	842	6.6		
GRA1	e P	Z	09:08:18.6	81.8	38.6	1.4	1366	6.9		
	e S	N	09:18:31.8							
	e SS	N	09:23:36.7							
	e L	Z	09:46:17.3			21.6	41885		6.8	
BUG	e P	Z	09:08:18.5	81.9	36.0	2.1	1028	6.6		
FUR	e P	Z	09:08:24.4	83.0	38.5	1.1	734	6.8		
STU	e P	Z	09:08:26.0	83.3	37.1	1.4	739	6.7		
WLF	e P	Z	09:08:28.8	83.8	35.1	2.0	1802	7.0		
BFO	e P	Z	09:08:29.5	84.0	36.5	1.1	513	6.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	09:03:14.6	37.780N	139.920E	33.0N	6.4			SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	09:15:14.1	78.3	40.7	1.3	532	6.4		
BSEG	e P	Z	09:15:15.2	78.5	38.4	1.2	440	6.4		
BRG	e P	Z	09:15:20.2	79.5	40.6	1.3	314	6.1		
CLL	e P	Z	09:15:20.1	79.5	40.0	1.4	628	6.3		
NRDL	e P	Z	09:15:21.6	79.8	38.1	1.2	237	6.0		
CLZ	e P	Z	09:15:24.1	80.2	38.2	1.3	676	6.4		
WERD	e P	Z	09:15:25.6	80.5	39.4	1.3	261	6.1		
GUNZ	e P	Z	09:15:26.0	80.5	39.4	1.3	347	6.2		
MOX	e P	Z	09:15:26.2	80.6	38.9	1.3	345	6.2		
IBBN	e P	Z	09:15:27.0	80.8	36.4	1.5	885	6.6		
UBBA	e P	Z	09:15:28.7	81.1	37.8	1.3	231	6.0		
GEC2	e P	Z	09:15:28.8	81.1	40.2	1.1	175	6.0		
WET	e P	Z	09:15:29.9	81.3	39.7	1.4	354	6.3		
GRA1	e P	Z	09:15:31.5	81.5	38.6	1.4	1385	6.9		

BUG	e P	Z	09:15:31.5	81.6	36.0	1.4	422	6.4
FUR	e P	Z	09:15:37.2	82.7	38.5	1.3	772	6.8
STU	e P	Z	09:15:38.9	83.1	37.1	1.3	685	6.7
WLF	e P	Z	09:15:41.8	83.5	35.1	1.5	559	6.6
BFO	e P	Z	09:15:42.4	83.8	36.5	1.4	855	6.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	09:07:34.1	37.424N	139.284E	33.0N	5.8			SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	09:19:48.9	81.6	39.2	1.3	105	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	09:12: 7.3	39.612N	140.566E	20.7	5.8			SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	09:23:57.4	77.0	39.3	1.3	146	6.0		
	e pP	Z	09:24:03.3							
BSEG	e P	Z	09:23:58.6	77.2	37.1	1.2	146	6.0		
	e pP	Z	09:24:04.8							
BRG	e P	Z	09:24:03.4	78.2	39.2	1.3	78	5.6		
CLL	e P	Z	09:24:03.7	78.2	38.6	1.2	149	5.9		
	e pP	Z	09:24:09.6							
NRDL	e P	Z	09:24:04.9	78.4	36.8	1.4	71	5.5		
CLZ	e P	Z	09:24:07.4	78.8	36.9	1.2	158	5.9		
	e pP	Z	09:24:13.3							
WERD	e P	Z	09:24:08.9	79.2	38.0	1.3	75	5.5		
GUNZ	e P	Z	09:24:09.3	79.2	38.0	1.2	79	5.5		
	e pP	Z	09:24:15.1							
MOX	e P	Z	09:24:09.8	79.3	37.6	1.4	92	5.5		
IBBN	e P	Z	09:24:10.3	79.4	35.1	1.5	221	5.9		
	e pP	Z	09:24:16.6							
UBBA	e P	Z	09:24:12.1	79.8	36.5	1.5	79	5.4		
GEC2	e P	Z	09:24:12.4	79.9	38.8	1.1	39	5.2		
	e pP	Z	09:24:17.9							
WET	e P	Z	09:24:13.2	80.0	38.3	1.5	103	5.5		
	e pP	Z	09:24:18.9							
GRA1	e P	Z	09:24:14.8	80.2	37.2	1.3	253	6.1		
	e pP	Z	09:24:20.8							
BUG	e P	Z	09:24:14.8	80.3	34.7	1.4	142	5.8		
FUR	e P	Z	09:24:20.8	81.4	37.1	1.1	167	6.1		
	e pP	Z	09:24:27.2							
STU	e P	Z	09:24:22.8	81.7	35.7	1.1	135	6.0		

WLF	e P	Z	09:24:24.8	82.1	33.7	1.4	125	5.8
BFO	e P	Z	09:24:25.9	82.4	35.1	1.4	211	6.2
	e pP	Z	09:24:31.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	09:34: 7.1	37.660N	139.880E	33.0N	6.2			SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	09:46:06.8	78.4	40.8	1.7	467	6.2		
BSEG	e P	Z	09:46:08.0	78.6	38.5	1.5	340	6.1		
BRG	e P	Z	09:46:12.9	79.6	40.7	1.9	385	6.0		
CLL	e P	Z	09:46:12.8	79.6	40.1	1.2	217	6.0		
NRDL	e P	Z	09:46:14.3	79.8	38.2	1.6	179	5.8		
CLZ	e P	Z	09:46:16.8	80.3	38.3	1.4	328	6.2		
WERD	e P	Z	09:46:18.3	80.6	39.5	1.4	171	5.9		
GUNZ	e P	Z	09:46:18.7	80.6	39.5	1.2	156	5.9		
MOX	e P	Z	09:46:19.0	80.7	39.0	1.6	268	6.0		
IBBN	e P	Z	09:46:19.7	80.9	36.5	1.3	358	6.2		
UBBA	e P	Z	09:46:21.5	81.2	37.9	1.6	237	6.1		
GEC2	e P	Z	09:46:21.5	81.2	40.3	2.1	304	6.1		
WET	e P	Z	09:46:22.6	81.3	39.8	1.7	293	6.1		
GRA1	e P	Z	09:46:24.2	81.6	38.7	1.5	755	6.6		
BUG	e P	Z	09:46:24.2	81.7	36.1	1.4	234	6.1		
FUR	e P	Z	09:46:29.9	82.8	38.6	1.2	368	6.5		
STU	e P	Z	09:46:31.6	83.1	37.2	1.2	311	6.4		
WLF	e P	Z	09:46:34.5	83.6	35.1	1.4	279	6.3		
BFO	e P	Z	09:46:35.1	83.8	36.6	1.2	321	6.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	10:06:54.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	09:57:28.0	36.995N	139.614E	14.2	5.5			SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	10:09:45.4	82.1	39.2	1.1	46	5.5		
	e pP	Z	10:09:49.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	10:36:47.1	37.670N	140.150E	33.0N	5.5			SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	10:48:47.4	78.5	40.6					
BSEG	e P	Z	10:48:48.5	78.7	38.3	1.4	59	5.4		
BRG	e P	Z	10:48:53.4	79.7	40.5	1.4	37	5.1		
CLL	e P	Z	10:48:53.4	79.7	39.9	1.4	72	5.4		
NRDL	e P	Z	10:48:54.8	79.9	38.0	1.6	41	5.1		
CLZ	e P	Z	10:48:57.4	80.4	38.1	1.4	85	5.6		
WERD	e P	Z	10:48:58.9	80.7	39.3	1.4	33	5.2		
GUNZ	e P	Z	10:48:59.3	80.7	39.3	1.1	34	5.3		
MOX	e P	Z	10:48:59.5	80.8	38.8	1.1	24	5.1		
IBBN	e P	Z	10:49:00.3	81.0	36.3	1.7	167	5.8		
UBBA	e P	Z	10:49:01.9	81.3	37.7					
GEC2	e P	Z	10:49:02.0	81.3	40.1	2.0	51	5.3		
WET	e P	Z	10:49:03.1	81.5	39.6	1.6	43	5.3		
GRA1	e P	Z	10:49:04.8	81.7	38.5	1.6	164	5.9		
BUG	e P	Z	10:49:04.8	81.8	35.9	1.2	42	5.5		
FUR	e P	Z	10:49:10.5	82.9	38.4	1.0	63	5.8		
STU	e P	Z	10:49:12.5	83.2	37.0	0.9	52	5.8		
BFO	e P	Z	10:49:15.7	83.9	36.4	0.9	42	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	10:45:58.9	37.700N	139.690E	33.0N	5.7			SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	10:57:58.2	78.3	40.9	1.3	125	5.8		
BSEG	e P	Z	10:57:59.4	78.5	38.6	1.2	106	5.7		
BRG	e P	Z	10:58:04.3	79.5	40.8	1.5	86	5.5		
CLL	e P	Z	10:58:04.2	79.5	40.2	1.2	116	5.7		
NRDL	e P	Z	10:58:05.7	79.7	38.3	1.6	80	5.4		
CLZ	e P	Z	10:58:08.2	80.1	38.4	1.4	154	5.7		
WERD	e P	Z	10:58:09.7	80.5	39.6	1.4	71	5.5		
GUNZ	e P	Z	10:58:10.1	80.5	39.6	1.5	87	5.6		
MOX	e P	Z	10:58:10.4	80.6	39.1	1.4	81	5.6		
IBBN	e P	Z	10:58:11.1	80.8	36.6	1.4	189	5.9		
UBBA	e P	Z	10:58:12.9	81.1	38.0	1.4	60	5.4		
GEC2	e P	Z	10:58:12.9	81.1	40.4	1.5	62	5.4		
WET	e P	Z	10:58:14.0	81.2	39.9	1.4	73	5.6		
GRA1	e P	Z	10:58:15.7	81.5	38.8	1.5	304	6.2		
BUG	e P	Z	10:58:15.6	81.6	36.2	1.3	104	5.8		
FUR	e P	Z	10:58:21.3	82.7	38.7	1.6	277	6.2		

STU	e P	Z	10:58:23.0	83.0	37.3	1.2	156	6.1
WLF	e P	Z	10:58:25.9	83.5	35.3	1.6	167	6.0
BFO	e P	Z	10:58:26.6	83.7	36.7	1.2	170	6.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	12:44:27.8	36.394N	139.087E	33.0N	5.5			SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	12:56:46.8	82.4	39.9	1.0	34	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/23	14:34:49.6	38.240N	139.950E	16.2	5.5			SZGRF

Near west coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	14:46:48.0	78.1	38.2	1.1	52	5.6		
	e pP	Z	14:46:52.5							
BRG	e P	Z	14:46:52.8	79.1	40.3	1.0	29	5.3		
CLL	e P	Z	14:46:52.9	79.2	39.7	0.9	55	5.6		
	e pP	Z	14:46:57.5							
NRDL	e P	Z	14:46:54.3	79.4	37.9	0.9	24	5.1		
CLZ	e P	Z	14:46:57.0	79.8	38.0	1.1	79	5.6		
WERD	e P	Z	14:46:58.3	80.1	39.1	1.1	26	5.1		
GUNZ	e P	Z	14:46:58.7	80.2	39.2	1.0	42	5.3		
MOX	e P	Z	14:46:58.9	80.2	38.7	1.1	36	5.3		
IBBN	e P	Z	14:46:59.7	80.4	36.2	0.9	88	5.8		
	e pP	Z	14:47:04.2							
UBBA	e P	Z	14:47:01.4	80.7	37.6	0.9	16	5.0		
GEC2	e P	Z	14:47:01.6	80.8	39.9	0.9	26	5.3		
WET	e P	Z	14:47:02.6	80.9	39.4	1.0	26	5.2		
GRA1	e P	Z	14:47:04.3	81.1	38.3	0.9	101	5.8		
	e pP	Z	14:47:08.8							
BUG	e P	Z	14:47:04.2	81.3	35.7	0.9	38	5.5		
FUR	e P	Z	14:47:10.2	82.3	38.2	0.8	121	6.2		
	e pP	Z	14:47:14.9							
STU	e P	Z	14:47:11.9	82.7	36.9	0.9	95	6.0		
	e pP	Z	14:47:17.0							
BFO	e P	Z	14:47:15.4	83.4	36.2	0.9	76	5.9		
	e pP	Z	14:47:19.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/24	00:28:10.4	38.340N	138.860E	33.0N	5.0			SZGRF

Near west coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	00:40:05.9	77.7	38.9	1.3	23	5.1		
BRG	e P	Z	00:40:11.0	78.6	41.0	1.8	23	4.9		
CLL	e P	Z	00:40:11.0	78.6	40.4	1.1	12	4.8		
CLZ	e P	Z	00:40:15.2	79.3	38.7	1.2	19	4.9		
GUNZ	e P	Z	00:40:16.8	79.6	39.8	1.2	11	4.7		
IBBN	e P	Z	00:40:18.2	79.9	36.9	1.1	24	5.0		
GEC2	e P	Z	00:40:19.8	80.2	40.6	1.2	8	4.7		
GRA1	e P	Z	00:40:22.5	80.6	39.0	1.3	24	5.1		
FUR	e P	Z	00:40:28.6	81.8	38.9	0.7	22	5.4		
STU	e P	Z	00:40:30.0	82.2	37.6	1.0	19	5.2		
BFO	e P	Z	00:40:33.4	82.8	36.9	1.0	12	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/24	05:21:41.7	38.130N	138.570E	33.0N	5.0			SZGRF

Near west coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	05:33:37.4	77.7	39.2	1.2	22	5.2		
BRG	e P	Z	05:33:42.2	78.6	41.3	1.1	11	4.8		
CLL	e P	Z	05:33:42.4	78.7	40.7	1.3	25	5.1		
NRDL	e P	Z	05:33:43.9	78.9	38.9	1.1	12	4.8		
CLZ	e P	Z	05:33:46.4	79.3	39.0	1.1	18	4.9		
WERD	e P	Z	05:33:47.9	79.6	40.1	1.1	7	4.5		
GUNZ	e P	Z	05:33:48.3	79.7	40.2	1.2	16	4.8		
MOX	e P	Z	05:33:48.5	79.8	39.7	1.4	20	4.8		
IBBN	e P	Z	05:33:49.8	80.0	37.2	1.6	68	5.3		
GEC2	e P	Z	05:33:51.2	80.3	40.9	1.2	7	4.6		
WET	e P	Z	05:33:51.8	80.4	40.4	1.2	13	4.8		
GRA1	e P	Z	05:33:53.9	80.7	39.3	1.1	31	5.3		
	e		05:33:57.2							
FUR	e P	Z	05:33:59.7	81.8	39.2	0.9	24	5.3		
STU	e P	Z	05:34:01.4	82.2	37.9	1.0	25	5.4		
BFO	e P	Z	05:34:04.8	82.9	37.2	1.3	31	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/24	07:06:25.1	36.015N	141.187E	33.0N	5.1			SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	07:18:50.3	83.6	38.6	1.0	13	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/24	13:31:13.3	6.595S	130.183E	68.0G				neic-m

Banda Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKiKP	Z	13:49:39.3	111.5	73.2					
CLL	e PKiKP	Z	13:49:40.1	111.9	72.3					
GEC2	e PKiKP	Z	13:49:40.8	112.2	73.8					
BSEG	e PKiKP	Z	13:49:41.9	112.6	68.9					
GUNZ	e PKiKP	Z	13:49:41.7	112.6	72.1					
WET	e PKiKP	Z	13:49:41.6	112.6	73.0					
NRDL	e PKiKP	Z	13:49:42.8	113.2	69.3					
CLZ	e PKiKP	Z	13:49:42.9	113.3	69.8					
GRA1	e PKiKP	Z	13:49:42.9	113.5	71.4					
UBBA	e PKiKP	Z	13:49:44.4	113.9	69.9					
FUR	e PKiKP	Z	13:49:44.1	113.9	72.1					
STU	e PKiKP	Z	13:49:46.2	115.1	70.1					
BUG	e PKiKP	Z	13:49:46.6	115.2	67.2					
BFO	e PKiKP	Z	13:49:47.2	115.7	69.5					
WLF	e PKiKP	Z	13:49:49.7	116.6	67.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/24	15:28: 9.3	37.350N	139.990E	33.0N	5.3	4.7		SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	15:40:10.9	78.7	40.8	1.2	40	5.3		
BSEG	e P	Z	15:40:11.9	79.0	38.6	1.2	45	5.4		
BRG	e P	Z	15:40:16.7	79.9	40.8	1.3	26	5.0		
CLL	e P	Z	15:40:16.7	79.9	40.2	1.3	41	5.2		
NRDL	e P	Z	15:40:18.2	80.2	38.3	1.1	14	4.8		
CLZ	e P	Z	15:40:20.9	80.6	38.4	1.2	45	5.4		
WERD	e P	Z	15:40:22.2	80.9	39.6	1.3	20	5.0		
GUNZ	e P	Z	15:40:22.5	80.9	39.6	1.1	22	5.1		
MOX	e P	Z	15:40:22.9	81.0	39.1	1.4	30	5.1		
IBBN	e P	Z	15:40:23.8	81.2	36.6	1.0	38	5.4		
UBBA	e P	Z	15:40:25.3	81.5	38.0	1.7	33	5.2		
GEC2	e P	Z	15:40:25.3	81.5	40.4	1.0	11	4.9		
WET	e P	Z	15:40:26.6	81.7	39.8	1.5	33	5.2		
GRA1	e P	Z	15:40:28.0	81.9	38.8	1.2	64	5.6		
	e		15:40:31.5							
	e L	Z	16:02:03.5			22.0	336		4.7	
BUG	e P	Z	15:40:28.2	82.1	36.1	1.3	30	5.3		
FUR	e P	Z	15:40:33.9	83.1	38.7	1.0	56	5.8		
STU	e P	Z	15:40:35.4	83.5	37.3	1.0	38	5.6		
BFO	e P	Z	15:40:39.1	84.2	36.7	1.2	41	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/24	16:15:54.5	35.746N	141.520E	42.2	4.8			SZGRF

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	16:28:21.5	83.9	38.5	0.9	6	4.8		
	e pP	Z	16:28:33.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/24	16:27:41.6	34.128N	139.413E	33.0N	4.9			SZGRF

Near south coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	16:40:11.3	84.4	40.8	0.9	7	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/24	21:05: 1.4	37.490N	138.630E	33.0N	6.1	5.2		SZGRF

Near west coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	21:16:51.9	76.7	41.7	1.1	291	6.3		
RUE	e P	Z	21:16:58.9	78.1	41.7	1.4	280	6.2		
BSEG	e P	Z	21:16:59.6	78.3	39.5	1.1	222	6.1		
BRG	e P	Z	21:17:04.4	79.2	41.6	1.2	142	5.8		
CLL	e P	Z	21:17:04.6	79.3	41.0	1.1	215	6.0		
NRDL	e P	Z	21:17:05.7	79.5	39.1	1.1	107	5.7		
CLZ	e P	Z	21:17:08.6	79.9	39.3	1.1	270	6.1		
WERD	e P	Z	21:17:09.9	80.2	40.4	1.2	136	5.9		
GUNZ	e P	Z	21:17:10.4	80.3	40.5	1.1	168	6.0		
MOX	e P	Z	21:17:10.1	80.3	40.0	1.2	151	5.9		
IBBN	e P	Z	21:17:11.5	80.6	37.5	1.0	277	6.3		
GEC2	e P	Z	21:17:12.5	80.8	41.2	1.0	83	5.7		
UBBA	e P	Z	21:17:13.0	80.9	38.9	1.7	112	5.6		
	e w-start	Z	21:17:14.3							
WET	e P	Z	21:17:14.0	81.0	40.7	1.2	130	5.8		
GRA1	e P	Z	21:17:15.9	81.2	39.6	1.1	431	6.5		
	e S	R	21:27:30.8							
	e SS	R	21:32:43.3							
	e L	Z	21:56:42.0			18.3	963		5.2	
BUG	e P	Z	21:17:16.0	81.4	37.0	1.1	161	6.0		
FUR	e P	Z	21:17:22.7	82.4	39.5	1.0	335	6.5		
STU	e P	Z	21:17:23.6	82.8	38.1	1.0	282	6.5		

WLF	e P	Z	21:17:27.0	83.3	36.1	1.8	428	6.4
BFO	e P	Z	21:17:26.8	83.5	37.5	1.0	277	6.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/24	21:39:47.3	35.366N	23.770E	10.0G				gsrc-m

Crete, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:43:43.7	17.0	142.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/25	16:40:30.1	30.322N	42.166W	33.0N	5.3	4.8		SZGRF

Northern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	16:48:35.6	44.1	264.6	1.5	87	5.3		
	e S	E	16:55:06.5							
	e L	Z	17:03:30.5			19.5	1197		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/25	20:59:48.8	0.724N	29.632W	33.0N	5.1	4.6		SZGRF

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:09:53.0	60.1	229.0	1.4	25	5.1		
	e S	E	21:18:09.8							
	e L	Z	21:32:35.0			21.0	523		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/26	02:11:35.8	30.740N	81.220E	33.0N	6.2	5.6		SZGRF

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	02:20:47.2	52.7	86.4	1.5	418	6.1		
BRG	e P	Z	02:20:47.7	52.7	85.3	1.4	328	6.1		
RGN	e P	Z	02:20:49.1	52.8	87.6	2.0	1572	6.6		
GEC2	e P	Z	02:20:50.4	53.0	83.6	1.5	220	5.9		
CLL	e P	Z	02:20:51.2	53.2	84.9	1.6	255	5.9		
WET	e P	Z	02:20:54.1	53.6	83.3	1.7	385	6.2		
GUNZ	e P	Z	02:20:55.7	53.8	83.8	1.4	308	6.1		
WERD	e P	Z	02:20:55.5	53.8	83.8	1.4	245	6.0		

MOX	e P	Z	02:20:58.6	54.2	83.4	1.5	313	6.1	
GRA1	e P	Z	02:21:02.1	54.6	82.5	1.5	702	6.5	
	e PP	Z	02:23:05.1						
	e S	N	02:28:41.1						
	e L	Z	02:46:29.8			19.6	4631		5.6
BSEG	e P	Z	02:21:02.1	54.6	84.8	1.5	413	6.2	
FUR	e P	Z	02:21:02.9	54.7	81.5	1.6	943	6.6	
CLZ	e P	Z	02:21:03.3	54.8	83.4	1.4	465	6.3	
NRDL	e P	Z	02:21:04.1	54.9	83.7	1.5	643	6.4	
UBBA	e P	Z	02:21:05.3	55.2	82.4	1.6	244	6.0	
STU	e P	Z	02:21:11.7	56.0	80.5	1.3	363	6.2	
IBBN	e P	Z	02:21:14.3	56.4	81.8	1.6	630	6.4	
BFO	e P	Z	02:21:15.6	56.6	79.6	1.6	120	5.7	
WLF	e P	Z	02:21:24.9	57.8	79.0	1.4	343	6.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/26	07:24:19.4	9.600S	160.600E	115.0N				NEIC-M

Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z	07:43:16.8	130.5	45.4					
CLL	e PKP	Z	07:43:17.1	130.6	44.1					
TANN	e PKP	Z	07:43:18.2	131.5	44.0					
GUNZ	e PKP	Z	07:43:19.3	131.6	43.9					
GEC2	e PKP	Z	07:43:19.9	132.0	46.4					
WET	e PKP	Z	07:43:19.5	132.2	45.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/26	11:13:10.2	32.206N	92.803E	33.0N	4.4			SZGRF

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	11:23:20.0	60.9	73.4	0.9	5	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/26	15:33:44.8	19.994S	174.508W	33.0N				SZGRF

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	15:53:20.6	145.9	8.1					
NRDL	e PKPbc	Z	15:53:25.1	147.3	8.0					
CLZ	e PKPbc	Z	15:53:26.8	147.9	8.7					
CLL	e PKPbc	Z	15:53:27.0	148.1	13.5					

BRG	e PKPbc	Z	15:53:27.5	148.4	15.3	
MOX	e PKPbc	Z	15:53:29.0	149.0	11.2	
WERD	e PKPbc	Z	15:53:29.3	149.1	12.5	
GUNZ	e PKPbc	Z	15:53:29.7	149.2	12.6	
GRA1	e PKPbc	Z	15:53:31.7	150.0	10.8	
WET	e PKPbc	Z	15:53:32.5	150.3	14.1	
WLF	e PKPbc	Z	15:53:33.2	150.3	1.3	
GEC2	e PKPbc	Z	15:53:32.6	150.4	15.8	
STU	e PKPbc	Z	15:53:34.5	151.1	7.2	
FUR	e PKPbc	Z	15:53:35.3	151.4	11.4	
BFO	e PKPbc	Z	15:53:35.4	151.6	5.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/26	17:54:25.1	21.533S	168.671E	33.0N				SZGRF

Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	18:13:56.1	144.7	41.6					
CLZ	e PKPbc	Z	18:13:58.6	145.3	37.2					
WERD	e PKPbc	Z	18:13:59.3	145.7	41.4					
GUNZ	e PKPbc	Z	18:13:59.7	145.7	41.5					
MOX	e PKPbc	Z	18:13:59.7	145.8	40.2					
IBBN	e PKPbc	Z	18:14:00.3	145.9	32.8					
GEC2	e PKPbc	Z	18:14:01.1	146.2	45.0					
UBBA	e PKPbc	Z	18:14:02.2	146.3	37.6					
WET	e PKPbc	Z	18:14:01.7	146.4	43.5					
GRA1	e PKPbc	Z	18:14:03.0	146.7	40.5					
STU	e PKPbc	Z	18:14:07.6	148.2	38.3					
WLF	e PKPbc	Z	18:14:08.8	148.7	32.5					
BFO	e PKPbc	Z	18:14:08.5	148.9	37.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/26	20:48:14.6	56.821S	24.780W	38.0G		5.6		neic-m

South Sandwich Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PP	Z	21:07:27.1	110.6	200.1					
	e SKSac	R	21:13:23.6							
	e PS	R	21:16:48.3							
	e SS	R	21:23:01.2							
	e L	Z	21:49:29.3			18.6	1420		5.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/27	01:40:49.6	37.270N	140.080E	15.3	5.9	5.6		SZGRF

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	01:52:43.8	77.5	40.8	1.2	186	6.1		
RUE	e P	Z	01:52:51.3	78.9	40.8	1.5	191	5.9		
BSEG	e P	Z	01:52:52.5	79.1	38.5	1.1	137	5.9		
BRG	e P	Z	01:52:57.2	80.0	40.7	1.1	61	5.4		
CLL	e P	Z	01:52:57.3	80.1	40.1	1.1	128	5.8		
	e pP	Z	01:53:01.9							
NRDL	e P	Z	01:52:58.7	80.3	38.2					
CLZ	e P	Z	01:53:01.2	80.7	38.3	1.2	158	5.9		
WERD	e P	Z	01:53:02.8	81.0	39.6	1.3	64	5.5		
GUNZ	e P	Z	01:53:03.2	81.1	39.6	1.1	74	5.6		
MOX	e P	Z	01:53:03.3	81.1	39.1	1.3	82	5.6		
IBBN	e P	Z	01:53:04.1	81.3	36.5	1.1	162	6.1		
	e pP	Z	01:53:08.8							
UBBA	e P	Z	01:53:05.6	81.6	38.0	2.0	175	5.8		
GEC2	e P	Z	01:53:05.8	81.6	40.4	1.1	45	5.5		
WET	e P	Z	01:53:06.9	81.8	39.8	1.2	55	5.6		
GRA1	e P	Z	01:53:08.6	82.0	38.7	1.2	233	6.2		
	e pP	Z	01:53:12.6							
	e PP	Z	01:56:17.3							
	e S	E	02:03:22.0							
	e L	Z	02:31:14.4			19.9	2663		5.6	
BUG	e P	Z	01:53:08.5	82.2	36.1	1.4	121	5.8		
FUR	e P	Z	01:53:14.4	83.2	38.6	0.9	163	6.2		
STU	e P	Z	01:53:16.1	83.6	37.3	1.0	140	6.2		
WLF	e P	Z	01:53:18.8	84.0	35.2	1.6	188	6.1		
BFO	e P	Z	01:53:19.6	84.3	36.6	1.2	173	6.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/27	09:23:43.3	45.110N	79.370E	22.3	5.5	5.0		SZGRF

Eastern Kazakhstan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	09:31:34.7	42.0	74.6	1.0	241	5.9		
	e pP	Z	09:31:40.8							
RUE	e P	Z	09:31:36.8	42.3	72.7	1.0	72	5.4		
BRG	e P	Z	09:31:40.2	42.7	71.1	0.9	32	5.1		
CLL	e P	Z	09:31:43.4	43.1	71.0	0.8	97	5.6		
	e pP	Z	09:31:49.8							
GEC2	e P	Z	09:31:46.7	43.5	69.0	1.0	25	4.9		
WERD	e P	Z	09:31:49.6	43.8	69.8	0.9	42	5.2		
	e PP	Z	09:33:32.2							
GUNZ	e P	Z	09:31:49.2	43.8	69.7	0.9	68	5.4		
	e PP	Z	09:33:32.5							

BSEG	e P	Z	09:31:49.8	43.8	72.1	1.0	80	5.4	
	e pP	Z	09:31:55.3						
WET	e P	Z	09:31:50.2	43.9	68.8	1.0	39	5.1	
MOX	e P	Z	09:31:52.0	44.2	69.6	1.1	70	5.3	
NRDL	e P	Z	09:31:54.4	44.4	70.5	1.0	103	5.7	
CLZ	e P	Z	09:31:54.5	44.5	70.1	0.9	24	5.1	
GRA1	e P	Z	09:31:57.2	44.7	68.5	1.2	127	5.7	
	e pP	Z	09:32:03.0						
	e PP	Z	09:33:37.6						
	e L	Z	09:51:36.5			18.0	1693		5.0
FUR	e P	Z	09:32:01.9	45.3	67.1	1.1	139	5.8	
	e pP	Z	09:32:07.8						
IBBN	e P	Z	09:32:05.1	45.8	69.0	0.7	73	5.8	
	e PP	Z	09:33:53.2						
STU	e P	Z	09:32:09.3	46.3	66.6	0.9	52	5.7	
BUG	e P	Z	09:32:10.1	46.4	68.0	1.2	53	5.6	
BFO	e P	Z	09:32:14.0	47.0	65.8	0.9	32	5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/27	20:34:35.2	46.063N	27.169E	114.0				SZGRF

Romania

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	20:36:48.3	9.5	101.9					
	e S	N	20:38:37.0							
BRG	e P	Z	20:36:54.6	10.0	113.7					
	e S	N	20:38:45.3							
WET	e P	Z	20:36:56.3	10.1	102.4					
	e S	N	20:38:51.0							
CLL	e P	Z	20:37:04.0	10.7	113.8					
GUNZ	e P	Z	20:37:05.2	10.8	107.8					
WERD	e P	Z	20:37:05.7	10.8	108.2					
RUE	e P	Z	20:37:06.0	10.8	121.1					
	e S	Z	20:39:09.4							
FUR	e P	Z	20:37:08.3	11.0	95.1					
	e S	Z	20:39:12.2							
GRA1	e P	Z	20:37:12.1	11.3	102.7	1.1	1496			
	e S	Z	20:39:19.7							
MOX	e P	Z	20:37:12.0	11.3	107.9					
RGN	e P	Z	20:37:24.3	12.2	128.3					
UBBA	e P	Z	20:37:25.7	12.3	106.1					
CLZ	e P	Z	20:37:26.2	12.4	111.1					
STU	e P	Z	20:37:26.6	12.4	95.8					
	e S	Z	20:39:47.3							
NRDL	e P	Z	20:37:32.0	12.8	113.3					
BFO	e P	Z	20:37:33.5	13.0	93.0					
	e S	Z	20:39:58.8							

BSEG	e P	Z	20:37:37.4	13.3	119.3	3.2	9534
IBBN	e P	Z	20:37:48.6	14.1	108.6	1.5	943
BUG	e P	Z	20:37:49.6	14.1	104.6	1.3	1304
WLF	e P	Z	20:37:53.9	14.5	96.3	1.3	976

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/28	04:23:28.0	15.245S	177.674W	373.5G				neic

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	04:42:21.6	144.8	15.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/28	08:32: 5.0	5.310S	104.240E	58.6	5.4			SZGRF

Southern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	08:45:17.8	94.3	93.1	0.8	9	5.1		
GEC2	e P	Z	08:45:18.2	94.3	93.1	1.8	51	5.6		
WET	e P	Z	08:45:20.8	94.9	92.5	1.0	10	5.2		
GUNZ	e P	Z	08:45:22.8	95.3	91.9	1.2	16	5.3		
WERD	e P	Z	08:45:22.6	95.3	91.9	1.0	10	5.2		
MOX	e P	Z	08:45:24.7	95.8	91.3	1.5	17	5.4		
GRA1	e P	Z	08:45:26.0	96.0	91.1	0.9	22	5.7		
	e pP	Z	08:45:42.7							
STU	e P	Z	08:45:31.5	97.3	89.7	0.6	11	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/28								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	19:18:33.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/28								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLZ	e P	Z	20:42:42.1							
GRA1	e P	Z	20:42:49.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/29	01:05:35.6	1.465N	19.822W	33.0N	4.9			SZGRF

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:15:04.1	55.0	219.0	2.2	25	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/29								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	02:14:21.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/29	08:13:25.7	19.470S	178.000W	33.0				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	08:32:57.8	144.9	13.7					
RUE	e PKPbc	Z	08:33:00.5	145.7	20.0					
NRDL	e PKPbc	Z	08:33:02.3	146.4	13.9					
IBBN	e PKPbc	Z	08:33:04.1	146.9	10.0					
CLZ	e PKPbc	Z	08:33:04.8	147.0	14.6					
CLL	e PKPbc	Z	08:33:04.6	147.0	19.3					
BRG	e PKPbc	Z	08:33:05.3	147.2	21.1					
BUG	e PKPbc	Z	08:33:06.6	147.8	9.3					
MOX	e PKPbc	Z	08:33:07.2	147.9	17.2					
WERD	e PKPbc	Z	08:33:07.5	148.0	18.5					
GUNZ	e PKPbc	Z	08:33:07.9	148.0	18.6					
GRA1	e PKPbc	Z	08:33:10.3	148.9	17.0					
WET	e PKPbc	Z	08:33:10.3	149.1	20.3					
GEC2	e PKPbc	Z	08:33:10.7	149.2	21.9					
WLF	e PKPbc	Z	08:33:12.7	149.6	7.8					
STU	e PKPbc	Z	08:33:13.3	150.1	13.7					
FUR	e PKPbc	Z	08:33:13.8	150.3	17.9					
BFO	e PKPbc	Z	08:33:14.5	150.7	12.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/29	19:29: 8.7	17.000N	118.000E	33.0N	5.4	5.0		SZGRF

Philippine Islands region

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

RUE	e	P	Z	19:41:43.3	84.9	68.5	1.1	92	5.9
BRG	e	P	Z	19:41:45.6	85.4	68.5	1.2	48	5.5
CLL	e	P	Z	19:41:46.9	85.8	67.9	1.4	38	5.3
BSEG	e	P	Z	19:41:49.4	86.3	65.9	1.0	22	5.3
GEC2	e	P	Z	19:41:49.8	86.3	68.2	1.3	21	5.1
WERD	e	P	Z	19:41:50.4	86.5	67.3	1.4	22	5.1
GUNZ	e	P	Z	19:41:51.2	86.5	67.3	1.6	51	5.4
WET	e	P	Z	19:41:51.8	86.7	67.6	1.6	31	5.2
MOX	e	P	Z	19:41:52.4	86.8	66.8	1.1	14	5.0
NRDL	e	P	Z	19:41:53.3	87.0	65.7	1.1	20	5.1
CLZ	e	P	Z	19:41:53.8	87.1	65.9	1.0	19	5.2
GRA1	e	P	Z	19:41:55.7	87.5	66.4	1.4	52	5.7
	e	L	Z	20:22:37.2			21.9	677	5.0
UBBA	e	P	Z	19:41:57.4	87.7	65.5	2.1	59	5.6
FUR	e	P	Z	19:41:58.4	88.0	66.4	1.3	42	5.6
IBBN	e	P	Z	19:41:59.8	88.3	63.8			
STU	e	P	Z	19:42:02.7	89.0	64.9	0.5	14	5.4
BFO	e	P	Z	19:42:05.5	89.7	64.2	1.0	15	5.2
WLF	e	P	Z	19:42:09.7	90.4	62.6	1.2	36	5.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/30	13:26:56.8	15.600S	168.000E	80.0N				GSRC-M

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	13:46:17.9	141.0	37.2					
	e PP	Z	13:49:21.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/31	00:18:31.3	33.750N	75.620E	33.0N	5.2			SZGRF

Eastern Kashmir

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	00:27:02.5	47.2	86.5	1.1	22	5.2		
CLL	e P	Z	00:27:06.6	47.7	86.2	1.2	15	5.0		
WERD	e P	Z	00:27:09.6	48.2	84.9	1.2	17	5.1		
MOX	e P	Z	00:27:13.1	48.6	84.6	1.2	18	5.0		
GRA1	e P	Z	00:27:16.2	49.0	83.5	2.1	96	5.5		
FUR	e P	Z	00:27:16.8	49.2	82.2	1.5	87	5.6		
UBBA	e P	Z	00:27:20.6	49.6	83.6	1.8	29	4.9		
STU	e P	Z	00:27:28.0	50.4	81.3	1.0	22	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/31	02:35:47.1	19.170S	178.530W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	02:55:18.3	144.6	14.5					
RUE	e PKPbc	Z	02:55:20.8	145.3	20.7					
NRDL	e PKPbc	Z	02:55:22.7	146.0	14.7					
CLZ	e PKPbc	Z	02:55:25.0	146.6	15.4					
CLL	e PKPbc	Z	02:55:24.8	146.6	20.1					
BRG	e PKPbc	Z	02:55:25.4	146.8	21.9					
	e PKPab	Z	02:55:27.1							
MOX	e PKPbc	Z	02:55:27.4	147.5	18.0					
WERD	e PKPbc	Z	02:55:27.7	147.6	19.3					
GUNZ	e PKPbc	Z	02:55:28.1	147.6	19.4					
	e PKPab	Z	02:55:30.6							
GRA1	e PKPbc	Z	02:55:30.4	148.5	17.8					
	e PKPab	Z	02:55:33.6							
GRFO	e PKPbc	Z	02:55:30.4	148.5	17.8					
GEC2	e PKPbc	Z	02:55:30.9	148.7	22.7					
WLF	e PKPbc	Z	02:55:32.2	149.3	8.7					
STU	e PKPbc	Z	02:55:33.2	149.8	14.6					
	e PKPab	Z	02:55:39.2							
FUR	e PKPab	Z	02:55:40.3	149.9	18.7					
BFO	e PKPbc	Z	02:55:34.4	150.3	13.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/31	04:00:11.4	35.313N	71.963E	33.0N	4.6			SZGRF

Pakistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	04:08:29.2	45.7	84.4	1.3	8	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/31	06:03: 2.7	35.510N	74.290E	33.0N	5.8	4.6		SZGRF

Northwestern Kashmir

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	06:11:17.2	45.2	87.1	1.2	118	5.7		
	e PP	Z	06:13:03.9							
BRG	e P	Z	06:11:17.6	45.2	85.6	1.1	104	5.7		
	e PP	Z	06:13:03.9							
GEC2	e P	Z	06:11:20.4	45.5	83.5	2.1	149	5.7		
	e PP	Z	06:13:08.6							
CLL	e P	Z	06:11:21.6	45.7	85.4	1.1	74	5.6		
WET	e P	Z	06:11:24.5	46.0	83.2	2.1	166	5.7		

GUNZ	e P	Z	06:11:26.2	46.3	84.0	1.3	95	5.7
WERD	e P	Z	06:11:26.2	46.3	84.0	2.1	246	5.9
	e PP	Z	06:13:14.2					
MOX	e P	Z	06:11:29.4	46.7	83.7	2.2	319	6.1
	e PP	Z	06:13:18.6					
GRA1	e P	Z	06:11:32.9	47.0	82.6	1.5	252	6.1
	e PP	Z	06:13:21.7					
	e L	Z	06:41:44.5			18.3	680	4.6
BSEG	e P	Z	06:11:33.4	47.2	85.8	1.2	73	5.7
	e PP	Z	06:13:25.5					
FUR	e P	Z	06:11:33.7	47.2	81.2	1.3	212	6.1
CLZ	e P	Z	06:11:34.5	47.3	84.0	1.5	150	5.9
	e PP	Z	06:13:27.3					
NRDL	e P	Z	06:11:35.4	47.4	84.4	2.0	381	6.2
	e PP	Z	06:13:28.9					
UBBA	e P	Z	06:11:36.9	47.7	82.8	1.7	116	5.7
STU	e P	Z	06:11:43.2	48.5	80.4	1.0	82	5.7
	e PcP	Z	06:13:08.2					
	e PP	Z	06:13:38.6					
IBBN	e P	Z	06:11:46.3	48.9	82.5	1.4	153	5.8
BFO	e P	Z	06:11:47.6	49.1	79.4	1.9	88	5.5
BUG	e P	Z	06:11:49.4	49.3	81.4	1.3	102	5.7
WLF	e P	Z	06:11:57.3	50.3	79.1	1.1	104	5.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/31	06:10:37.2	34.980N	75.140E	33.0N	5.6			SZGRF

Eastern Kashmir

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	06:18:58.5	46.1	87.0	2.0	135	5.6		
	e PP	Z	06:20:48.8							
BRG	e P	Z	06:18:58.9	46.1	85.6	1.7	79	5.5		
RGN	e P	Z	06:19:00.6	46.3	88.6	1.6	336	6.1		
GEC2	e P	Z	06:19:01.7	46.4	83.5	1.8	57	5.4		
CLL	e P	Z	06:19:02.8	46.6	85.3	1.7	77	5.6		
	e PP	Z	06:20:52.0							
WET	e P	Z	06:19:05.6	46.9	83.2	2.0	82	5.5		
GUNZ	e P	Z	06:19:07.5	47.1	83.9	1.8	100	5.6		
WERD	e P	Z	06:19:07.4	47.1	84.0	1.9	86	5.6		
MOX	e P	Z	06:19:10.7	47.6	83.7	2.0	153	5.8		
GRA1	e P	Z	06:19:14.3	47.9	82.6	1.7	159	5.9		
	e PP	Z	06:21:05.0							
BSEG	e P	Z	06:19:14.8	48.0	85.7	1.6	77	5.6		
FUR	e P	Z	06:19:15.0	48.1	81.2	1.6	152	5.9		
CLZ	e P	Z	06:19:15.7	48.2	83.9	2.0	143	5.8		
NRDL	e P	Z	06:19:16.7	48.3	84.3	1.8	128	5.8		
	e PP	Z	06:21:10.9							

UBBA	e P	Z	06:19:18.1	48.5	82.7	1.8	66	5.4
STU	e P	Z	06:19:24.6	49.4	80.4	1.4	55	5.3
IBBN	e P	Z	06:19:27.5	49.7	82.4	1.8	174	5.7
BUG	e P	Z	06:19:30.7	50.2	81.3	1.8	104	5.5
WLF	e P	Z	06:19:38.5	51.2	79.1	1.5	47	5.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/31	09:08: 4.9	42.917N	17.399E	10.0G			4.5	SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
OBKA	e Pn	Z	09:09:08.2	4.1	149.6					4.5
ARSA	e Pn	Z	09:09:11.8	4.5	162.3					
	e Sn	N	09:10:03.1							
KBA	e Pn	Z	09:09:20.8	5.1	144.0					
MOA	e Pn	Z	09:09:25.2	5.4	154.8					4.5
	e Sn	N	09:10:26.6							
WTTA	e Pn	Z	09:09:33.1	6.0	134.8					
GEC2	e Pn	Z	09:09:39.0	6.5	155.2					
	e Sn	N	09:10:50.9							
DAVA	e Pn	Z	09:09:46.1	6.9	126.8					
WET	e Pn	Z	09:09:46.2	7.0	151.6					
	e Sn	N	09:11:03.8							
GRA1	e Pn	Z	09:09:59.7	8.0	145.5					
TANN	e Pn	Z	09:10:02.8	8.2	153.9					
	e Sn	N	09:11:32.6							
BRG	e Pn	Z	09:10:05.2	8.3	162.2					
BFO	e Pn	Z	09:10:04.7	8.3	127.2					
	e Sn	N	09:11:33.7							
MOX	e Pn	Z	09:10:08.4	8.7	150.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/31	19:36: 7.4	39.690N	136.380E	33.0N	5.1			SZGRF

Eastern Sea of Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	19:47:50.8	75.3	42.1	1.6	49	5.4		
BSEG	e P	Z	19:47:52.2	75.5	40.0	1.3	31	5.3		
BRG	e P	Z	19:47:56.9	76.4	41.9	1.0	11	4.9		
CLL	e P	Z	19:47:57.1	76.5	41.4	1.2	20	5.1		
NRDL	e P	Z	19:47:58.7	76.7	39.6	1.1	11	4.9		
CLZ	e P	Z	19:48:01.0	77.1	39.7	1.2	30	5.3		
WERD	e P	Z	19:48:02.7	77.4	40.8	1.1	9	4.8		
GUNZ	e P	Z	19:48:03.1	77.5	40.8	1.0	13	5.0		
MOX	e P	Z	19:48:03.5	77.6	40.3	1.3	15	5.0		

IBBN	e P	Z	19:48:04.0	77.8	38.0	1.0	22	5.3
GEC2	e P	Z	19:48:05.9	78.0	41.5	0.7	5	4.7
UBBA	e P	Z	19:48:05.7	78.1	39.3	0.9	6	4.7
WET	e P	Z	19:48:06.7	78.2	41.0	0.9	6	4.7
GRA1	e P	Z	19:48:08.5	78.4	40.0	1.0	35	5.3
BUG	e P	Z	19:48:08.9	78.6	37.5			
FUR	e P	Z	19:48:14.2	79.6	39.8	0.9	30	5.2
STU	e P	Z	19:48:15.8	80.0	38.5	0.9	27	5.2
WLF	e P	Z	19:48:21.7	80.5	36.6	2.0	44	5.1
BFO	e P	Z	19:48:19.7	80.7	37.9	1.3	31	5.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/31	19:57:32.5	20.990S	178.140W	33.0N				SZGRF

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	20:17:09.7	146.4	14.4					
CLL	e PKPbc	Z	20:17:15.5	148.5	20.2					
BRG	e PKPbc	Z	20:17:16.3	148.6	22.1					
MOX	e PKPbc	Z	20:17:17.8	149.4	18.1					
GRA1	e PKPbc	Z	20:17:20.6	150.4	17.9					
GEC2	e PKPbc	Z	20:17:21.1	150.6	23.0					
WLF	e PKPbc	Z	20:17:22.8	151.1	8.3					
STU	e PKPbc	Z	20:17:23.1	151.6	14.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2004/10/31	21:24:42.7	32.232N	78.922E	33.0N	4.9			SZGRF

Kashmir-Xizang border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:33:49.9	52.1	82.7	1.3	20	4.9		

Format description
==========
(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-analysi

s).
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, PIDC, SED)

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 Flag for the direction of the first motion '+' - compression '-' - dilatation 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