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
2003/04/01								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	03:40:42.9							
	e Sn	N	03:41:47.9							
WET	e Pn	Z	03:40:48.3							
	e Sn	N	03:41:56.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/01	04:13:47.5	17.901S	178.647W	600G	4.5			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	04:32:14.2	143.3	14.4					
RUE	e PKPbc	Z	04:32:16.8	144.1	20.4					
IBBN	e PKPbc	Z	04:32:20.7	145.2	10.7					
CLZ	e PKPbc	Z	04:32:20.8	145.3	15.2					
CLL	e PKPbc	Z	04:32:20.7	145.3	19.7					
BRG	e PKPbc	Z	04:32:21.4	145.5	21.5					
BUG	e PKPbc	Z	04:32:22.8	146.1	10.1					
MOX	e PKPbc	Z	04:32:23.7	146.2	17.8					
TANN	e PKPbc	Z	04:32:23.4	146.3	19.3					
WERD	e PKPbc	Z	04:32:23.6	146.3	19.0					
GUNZ	e PKPbc	Z	04:32:24.0	146.4	19.1					
TNS	e PKPbc	Z	04:32:25.5	147.2	12.5					
GRA1	e PKPbc	Z	04:32:25.8	147.2	17.5					
WET	e PKPbc	Z	04:32:26.2	147.4	20.7					

GEC2	e PKPbc	Z	04:32:26.6	147.5	22.2	
WLF	e PKPbc	Z	04:32:28.1	148.0	8.6	
STU	e PKPbc	Z	04:32:29.5	148.5	14.4	
FUR	e PKPbc	Z	04:32:29.8	148.7	18.4	
BFO	e PKPbc	Z	04:32:30.4	149.0	13.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/01	04:24:34.0	15.371S	173.243W	33N	4.7			NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	04:44:11.7	145.5	7.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/01								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	05:30:50.1							
	e Sn	N	05:31:55.4							
WET	e Pn	Z	05:30:54.8							
	e Sn	E	05:32:04.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/01	08:31:20.3	49.789N	152.001E	33.0N	5.4			SZGRF
2003/04/01	08:31:02.4	47.047N	153.230E	50*	5.1	4.3		NEIC

Northwest of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	08:42:30.2	72.9	27.3	0.9	96	5.9		
BSEG	e P	Z	08:42:37.9	74.2	25.3	1.1	34	5.4		
RUE	e P	Z	08:42:40.0	74.6	27.3	1.0	64	5.7		
CLL	i P	- Z	08:42:46.9	75.9	26.7	1.0	66	5.7		
	e pP	Z	08:42:59.7							
BRG	e P	Z	08:42:47.6	76.0	27.3	1.1	22	5.1		
CLZ	e P	Z	08:42:49.0	76.1	25.1	1.2	58	5.5		
IBBN	e P	Z	08:42:49.9	76.4	23.4	1.0	42	5.4		
TANN	e P	Z	08:42:52.8	76.8	26.3	0.9	10	4.9		
WERD	e P	Z	08:42:52.8	76.8	26.2	1.5	40	5.2		
MOX	e P	Z	08:42:52.8	76.9	25.8	1.2	31	5.2		
GUNZ	e P	Z	08:42:53.3	76.9	26.2	0.9	20	5.1		
BUG	e P	Z	08:42:55.0	77.3	23.0	1.0	32	5.3		
GRA1	e P	Z	08:42:58.9	77.8	25.4	1.3	79	5.6		
WET	e P	Z	08:42:58.8	77.9	26.4	1.3	42	5.3		

GEC2	e P	Z	08:42:58.5	77.9	26.9	1.4	20	5.0
TNS	e P	Z	08:42:59.8	78.1	23.7	0.9	19	5.2
WLF	e P	Z	08:43:06.6	79.2	22.2	1.8	53	5.4
FUR	e P	Z	08:43:06.6	79.2	25.3	0.7	40	5.7
STU	e P	Z	08:43:05.9	79.2	24.0	1.4	47	5.4
BFO	e P	Z	08:43:09.4	79.9	23.5	1.2	21	5.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/01	10:55:24.7	43.109N	15.087E	10.0G				SZGRF
2003/04/01	10:55:22.4	43.195N	15.183E	10G	3.7			NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	10:56:50.4	5.7	169.1					
	e Sn	E	10:57:55.8							
WET	e Pn	Z	10:56:55.8	6.2	164.1					
	e Sn	N	10:58:04.5							
BFO	e Pn	Z	10:57:07.2	7.0	134.5					
GRA1	e Sn	N	10:58:25.9	7.0	155.8					
GUNZ	e Pn	Z	10:57:13.4	7.4	163.7					
TANN	e Pn	Z	10:57:13.2	7.5	164.5					
WERD	e Pn	Z	10:57:14.7	7.5	163.8					
BRG	e Pn	Z	10:57:16.6	7.7	173.3					
MOX	e Pn	Z	10:57:18.0	7.8	160.6					
	e Sn	N	10:58:43.7							
CLL	e Pn	Z	10:57:25.2	8.2	168.8					
TNS	e Pn	Z	10:57:28.6	8.4	144.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/01	11:26:01.5	16.622S	174.503W	150G	4.6			NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	11:45:27.0	146.6	10.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/01								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	12:40:58.8							
	e Sn	N	12:42:05.1							
WET	e Pn	Z	12:41:05.3							
	e Sn	E	12:42:14.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/01	13:53:05.9	43.472N	14.766E	10G				NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	13:54:27.9	5.4	171.8					
	e Sn	E	13:55:33.2							
WET	e Pn	Z	13:54:33.4	5.8	166.4					
	e Sn	E	13:55:42.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/02								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	03:24:03.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/02	03:19:48.8	35.770N	71.953E	33.0N	5.2			SZGRF
2003/04/02	03:19:58.8	36.012N	70.564E	87*	4.8			NEIC

Pakistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	03:27:48.9	42.5	87.8	0.7	36	5.2		
RUE	e P	Z	03:27:49.1	42.6	89.4	1.0	40	5.1		
GEC2	e P	Z	03:27:51.1	42.8	85.4	1.4	26	4.8		
RGN	e P	Z	03:27:51.9	42.9	91.3	0.8	93	5.5		
CLL	e P	Z	03:27:53.1	43.1	87.6	0.8	19	4.9		
WET	e P	Z	03:27:55.6	43.3	85.2	0.9	4	4.2		
TANN	e P	Z	03:27:56.5	43.5	86.2	0.9	12	4.8		
GUNZ	e P	Z	03:27:57.6	43.6	86.1	1.1	20	5.0		
WERD	e P	Z	03:27:57.6	43.6	86.2	1.2	24	5.0		
MOX	e P	Z	03:28:00.9	44.0	85.9	0.8	17	5.0		
GRA1	e P	Z	03:28:04.4	44.3	84.6	0.9	25	5.2		
FUR	e P	Z	03:28:04.6	44.5	83.1	0.8	39	5.5		
BSEG	e P	Z	03:28:06.0	44.6	88.2	1.0	36	5.4		
CLZ	e P	Z	03:28:06.4	44.7	86.2	1.5	55	5.4		
STU	e P	Z	03:28:14.9	45.8	82.3	0.8	24	5.4		
TNS	e P	Z	03:28:17.2	46.1	83.2	1.3	25	5.2		
IBBN	e P	Z	03:28:18.7	46.3	84.7	1.2	75	5.7		
BFO	e P	Z	03:28:18.9	46.4	81.3	1.1	16	5.1		
BUG	e P	Z	03:28:21.7	46.7	83.5	1.3	53	5.5		
WLF	e P	Z	03:28:29.1	47.6	81.1	1.1	48	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/02	03:43:23.0	35.010N	35.690W	33.0G	5.4	5.7		SZGRF
2003/04/02	03:43:11.3	35.317N	35.654W	10G	5.4	5.6		NEIC

Northern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	03:49:54.5	33.5	260.7	1.0	65	5.5		
BUG	e P	Z	03:50:03.6	34.5	259.1	1.7	137	5.6		
BFO	e P	Z	03:50:05.4	34.7	264.5	1.8	319	6.0		
IBBN	e P	Z	03:50:07.6	34.9	258.4	1.4	209	5.9		
TNS	e P	Z	03:50:08.6	35.0	261.9	2.0	198	5.7		
STU	e P	Z	03:50:10.2	35.3	264.6	1.8	160	5.6		
CLZ	e P	Z	03:50:20.8	36.4	261.4	1.4	170	5.6		
FUR	e P	Z	03:50:22.3	36.6	267.2	1.2	82	5.3		
GRFO	e P	Z	03:50:22.9	36.7	265.1	1.0	50	5.2		
GRA1	e P	Z	03:50:22.9	36.7	265.1	1.0	60	5.3		
	e PP	Z	03:51:52.1							
	e S	R	03:56:13.7							
	e L	Z	04:02:07.8			21.9	14720		5.7	
BSEG	e P	Z	03:50:23.4	36.8	258.6	1.1	302	5.9		
MOX	e P	Z	03:50:25.9	37.1	264.1	1.0	47	5.2		
WERD	e P	Z	03:50:29.3	37.5	265.0	1.1	40	5.1		
GUNZ	e P	Z	03:50:29.5	37.5	265.1	1.1	43	5.1		
TANN	e P	Z	03:50:30.1	37.6	265.2	1.1	35	5.0		
WET	e P	Z	03:50:31.3	37.7	267.1	1.6	58	5.1		
CLL	i P	Z	03:50:32.2	38.0	264.5	1.0	54	5.2		
	e PP	Z	03:51:54.6							
	e S	R	03:56:28.3							
	e SS	T	03:59:19.5							
	e LR	Z	04:01:27.1							
	e L	Z	04:03:52.1			18.0	16965		5.9	
GEC2	e P	Z	03:50:35.7	38.3	268.2	2.5	248	5.4		
BRG	e P	Z	03:50:38.3	38.5	265.8	1.1	44	5.0		
RUE	e P	Z	03:50:38.7	38.6	263.7	1.6	361	5.7		
RGN	e P	Z	03:50:38.4	38.6	260.7	1.3	168	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/02								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	05:22:49.6							
	e Sn	N	05:23:54.2							
WET	e Pn	Z	05:22:55.2							
	e Sn	N	05:24:03.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/02	08:04:14.7	25.438N	44.600W	33.0N	4.8			SZGRF
2003/04/02	08:04:02.3	24.978N	45.407W	10G	5.0	4.6		NEIC

Northern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	08:12:58.7	49.9	262.0	0.9	9	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/02	15:55:26.1	43.135N	15.002E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	15:56:50.8	5.8	170.5					
	e Sn	N	15:57:55.6							
WET	e Pn	Z	15:56:56.0	6.2	165.5					
	e Sn	N	15:58:05.4							
GUNZ	e Pn	Z	15:57:14.4	7.5	164.8					
TANN	e Pn	Z	15:57:15.0	7.5	165.6					
WERD	e Pn	Z	15:57:15.3	7.5	164.8					
MOX	e Sn	N	15:58:44.5	7.9	161.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/02	16:11: 8.9	43.195N	15.433E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	16:12:33.6	5.8	167.4					
	e Sn	N	16:13:38.6							
WET	e Pn	Z	16:12:39.3	6.2	162.5					
	e Sn	N	16:13:48.2							
GUNZ	e Pn	Z	16:12:57.4	7.5	162.4					
TANN	e Pn	Z	16:12:58.2	7.5	163.2					
WERD	e Pn	Z	16:12:58.4	7.6	162.4					
MOX	e Sn	N	16:14:28.2	7.9	159.3					
CLL	e Pn	Z	16:13:07.2	8.3	167.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/02	19:08:44.2	23.797N	122.096E	33.0N	4.8			SZGRF
2003/04/02	19:08:43.7	24.200N	122.543E	53*	4.6			NEIC

Taiwan region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	19:21:13.9	84.4	58.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/02	21:31:38.2	25.085S	179.795E	500D	5.3			NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	21:50:33.0	150.1	19.4					
	e pPKP	Z	21:52:31.9							
RUE	e PKPbc	Z	21:50:33.8	150.6	26.5					
	e pPKP	Z	21:52:33.1							
CLL	e PKPbc	Z	21:50:37.1	151.9	26.1					
	e pPKP	Z	21:52:36.7							
BRG	e PKPdf	Z	21:50:31.5	152.0	28.1					
	e PKPbc	Z	21:50:37.4							
	e pPKP	Z	21:52:36.4							
CLZ	e PKPdf	Z	21:50:31.6	152.1	20.8					
	e PKPbc	Z	21:50:37.9							
	e pPKP	Z	21:52:37.6							
WERD	e PKPbc	Z	21:50:40.5	152.9	25.5					
	e pPKP	Z	21:52:39.8							
GUNZ	e PKPbc	Z	21:50:40.6	152.9	25.6					
	e pPKP	Z	21:52:39.0							
TNS	e PKPbc	Z	21:50:42.6	154.0	18.1					
	e pPKP	Z	21:52:43.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/02	22:27:39.3	43.165N	14.873E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	22:29:03.4	5.7	171.4					
	e Sn	N	22:30:08.2							
WET	e Pn	Z	22:29:08.6	6.1	166.3					
	e Sn	N	22:30:16.7							
GUNZ	e Pn	Z	22:29:27.0	7.4	165.5					
TANN	e Pn	Z	22:29:27.2	7.4	166.3					
WERD	e Pn	Z	22:29:28.5	7.5	165.5					
MOX	e Pn	Z	22:29:31.7	7.8	162.2					
	e Sn	N	22:30:57.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03	01:28: 1.6	50.897N	150.840E	33.0N	5.2			SZGRF
2003/04/03	01:27:55.6	49.118N	153.615E	138*	4.8			NEIC

Northwest of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	01:39:20.2	74.1	25.6	1.2	24	5.2		
CLZ	e P	Z	01:39:22.1	74.3	24.0	1.2	24	5.2		
WERD	e P	Z	01:39:26.1	75.1	25.1	0.8	8	4.9		
MOX	e P	Z	01:39:26.2	75.1	24.6	1.1	18	5.1		
GUNZ	e P	Z	01:39:26.7	75.1	25.1	1.0	11	5.0		
GRA1	e P	Z	01:39:32.5	76.0	24.3	0.9	40	5.4		
WET	e P	Z	01:39:32.6	76.1	25.3	1.3	38	5.3		
GEC2	e P	Z	01:39:31.9	76.1	25.7	0.7	7	4.8		
TNS	e P	Z	01:39:33.3	76.3	22.6	0.7	19	5.2		
WLF	e P	Z	01:39:40.7	77.3	21.1	1.2	29	5.2		
FUR	e P	Z	01:39:40.0	77.4	24.2	1.0	41	5.4		
BFO	e P	Z	01:39:43.0	78.0	22.4	1.0	30	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03	05:09:54.7	42.971N	14.527E	10.0G				SZGRF

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	05:11:21.4	5.9	174.1					
	e Sn	N	05:12:26.9							
WET	e Pn	Z	05:11:26.7	6.3	168.9					
	e Sn	N	05:12:36.0							
GUNZ	e Pn	Z	05:11:44.1	7.5	167.7					
TANN	e Pn	Z	05:11:44.2	7.6	168.5					
WERD	e Pn	Z	05:11:45.2	7.6	167.7					
MOX	e Pn	Z	05:11:48.3	7.9	164.4					
	e Sn	N	05:13:15.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	07:24:42.9							
	e Sn	N	07:25:47.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

2003/04/03

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	12:20:10.5							
	e Sn	N	12:21:17.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03	14:39:54.3	36.449N	71.313E	80*	4.7			NEIC

Northwestern Uzbekistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:48:02.6	44.6	83.6	1.9	59	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03	21:11: 5.4	43.103N	15.412E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	21:12:31.4	5.9	167.7					
	e Sn	E	21:13:36.9							
WET	e Pn	Z	21:12:37.1	6.3	162.9					
	e Sn	E	21:13:46.7							
BFO	e Pn	Z	21:12:49.3	7.2	134.0					
GRA1	e Pn	Z	21:12:51.0	7.2	154.8					
GUNZ	e Pn	Z	21:12:55.3	7.6	162.6					
TANN	e Pn	Z	21:12:55.0	7.6	163.5					
WERD	e Pn	Z	21:12:56.5	7.6	162.7					
MOX	e Pn	Z	21:12:59.4	8.0	159.6					
CLL	e Pn	Z	21:13:04.9	8.4	167.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03	21:11:29.5	43.147N	15.113E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	21:12:54.2	5.8	169.7					
	e Sn	N	21:13:59.3							
WET	e Pn	Z	21:12:59.6	6.2	164.7					
	e Sn	E	21:14:08.4							
WERD	e Pn	Z	21:13:19.7	7.5	164.2					
MOX	e Pn	Z	21:13:23.3	7.9	161.0					
CLL	e Pn	Z	21:13:28.7	8.3	169.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	21:33:08.3							
	e Sn	E	21:34:15.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	21:59:34.7							
	e Sn	E	22:00:39.9							
WET	e Pn	Z	21:59:40.0							
	e Sn	N	22:00:50.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03	22:30:11.2	43.060N	15.354E	10.0G				SZGRF
Adriatic Sea								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e Pn	Z	22:31:37.3	5.8	149.3					
GEC2	e Pn	Z	22:31:38.1	5.9	168.2					
	e Sn	E	22:32:44.2							
WET	e Pn	Z	22:31:43.5	6.3	163.3					
	e Sn	N	22:32:52.9							
BFO	e Pn	Z	22:31:55.5	7.2	134.5					
	e Sn	N	22:33:14.6							
GRA1	e Pn	Z	22:31:57.1	7.2	155.2					
GUNZ	e Pn	Z	22:32:01.0	7.6	163.0					
TANN	e Pn	Z	22:32:00.9	7.6	163.8					
	e Sn	E	22:33:24.7							
WERD	e Pn	Z	22:32:02.3	7.7	163.1					
	e Sn	N	22:33:26.2							
BRG	e Pn	Z	22:32:04.5	7.9	172.5					
MOX	e Pn	Z	22:32:05.8	8.0	160.0					
	e Sn	N	22:33:32.4							
CLL	e Pn	Z	22:32:12.0	8.4	168.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	22:36:56.8							
	e Sn	N	22:38:01.0							
WET	e Pn	Z	22:37:02.1							
	e Sn	E	22:38:10.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	22:41:53.3							
	e Sn	N	22:42:56.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/03								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	22:51:06.6							
	e Sn	N	22:52:11.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/04								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	05:14:33.1							
	e Sn	E	05:15:37.7							
WET	e Pn	Z	05:14:38.5							
	e Sn	N	05:15:46.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/04	17:40:20.5	16.195S	173.541W	33N	4.4			NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	18:00:00.8	146.3		8.3				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/04	18:19:51.1	13.095N	145.093E	59*	5.3			NEIC

Mariana Islands

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	CLL	e Pdiff	Z	18:33:46.4	103.6	48.1	1.7	27			
		e PP	Z	18:38:06.1							
		e PPP	Z	18:40:19.8							
		e Sdiff	T	18:45:31.6							
		e PS	Z	18:47:26.6							
		e PPS	Z	18:48:03.6							
		e (SS)	R	18:53:11.6							
		e SSS	R	18:56:48.4							
		e LR	Z	19:09:43.5							
		e L	Z	19:28:17.7			18.0	1382		5.5	
	GRA1	e PP	Z	18:38:21.3	105.3	46.7					
		e SP	Z	18:47:31.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/04	22:07:41.0	7.354S	155.471E	33N	5.1			NEIC

Bougainville - Solomon Islands region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	22:26:46.8	128.2	47.5					
		e L	Z	23:11:31.1			19.5	174		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/04	22:38: 1.4	1.005N	32.692W	33.0N	4.9			SZGRF
2003/04/04	22:38:27.0	7.072N	34.117W	10G	4.6	4.7		NEIC

Central Mid-Atlantic Ridge

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	22:48:14.4	57.0	237.3	1.0	22	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/04	23:16:18.7	7.649S	150.880E	33N	5.2	4.5		NEIC

New Britain, Papua New Guinea, region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	23:35:20.3	126.2	52.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	02:19:52.5							
	e Sn	N	02:20:56.9							
WET	e Pn	Z	02:19:58.5							
	e Sn	E	02:21:06.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05	03:48: 8.1	16.921S	68.998E	33.0N	4.8			SZGRF
2003/04/05	03:47:39.8	22.869S	69.335E	10G	4.9			NEIC

Mid-Indian Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	04:00:34.5	88.9	128.5	1.2	8	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05	07:49:36.5	29.250N	131.016E	33.0N	4.8			SZGRF
2003/04/05	07:49:36.4	29.634N	130.488E	33N	4.6			NEIC

Southeast of Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	08:02:07.6	84.1	49.7	1.1	7	4.8		
	e		08:02:17.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05	10:17:46.3	43.133N	14.928E	10.0G				SZGRF
2003/04/05	10:17:42.4	43.143N	15.258E	10G				NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	10:19:11.0	5.8	168.7					
	e Sn	N	10:20:15.6							
WET	e Pn	Z	10:19:16.4	6.2	163.8					
GUNZ	e Pn	Z	10:19:34.3	7.5	163.4					
TANN	e Pn	Z	10:19:35.2	7.5	164.2					
MOX	e Pn	Z	10:19:39.0	7.9	160.3					
	e Sn	N	10:21:04.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05	10:28:36.0	20.872S	174.042E	33.0N	5.0	4.9		NEIC

Vanuatu Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	10:48:20.4	148.2	31.6					
	e L	Z	11:51:42.8			21.9	386		5.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05	15:10:17.5	45.045N	30.263W	33.0N	4.8	4.0		SZGRF
2003/04/05	15:10:23.7	44.874N	28.083W	10G	4.7			NEIC

Northern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	15:16:06.8	26.8	274.9	1.3	19	4.8		
	e L	Z	15:25:00.2			19.3	400		4.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	15:42:42.0							
	e Sn	N	15:43:47.2							
WET	e Pn	Z	15:42:47.2							
	e Sn	N	15:43:55.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05	18:21:24.5	15.087S	178.673W	395D	4.6			NEIC

Fiji Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	18:40:15.9	144.5	16.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05	22:03:32.4	16.169S	167.871E	178D	5.2			NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPpre	Z	22:22:31.3	139.6	39.0					
	e PKPdf	Z	22:22:39.7			0.8	36			
	e pPKPdf	Z	22:23:25.9							
	e SKPbc	Z	22:25:57.4			1.2	38			
	e pPP	Z	22:26:24.6							
	e SKSP	Z	22:35:32.2							

		e PPS	Z	22:38:22.1					
		e LR	Z	23:09:54.7					
		e L	Z	23:24:51.9			20.0	341	5.1
	GRA1	e PKP	Z	22:22:38.7	141.5	37.7			
		e PP	Z	22:25:50.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05	22:52:20.1	43.121N	14.857E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	22:53:44.6	5.8	171.6					
	e Sn	N	22:54:49.7							
WET	e Pn	Z	22:53:50.0	6.2	166.5					
	e Sn	N	22:54:59.2							
GUNZ	e Pn	Z	22:54:09.1	7.4	165.6					
MOX	e Sn	N	22:55:38.1	7.8	162.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/05	22:48:34.4	2.330S	30.090E	33.0N	4.9			SZGRF
2003/04/05	22:48:19.8	3.634S	29.769E	10G	4.8			NEIC

Lake Tanganyika region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e P	Z	22:57:47.5	54.3	157.0	1.1	25	5.0		
WET	e P	Z	22:57:50.8	54.8	159.2	1.3	12	4.7		
BFO	e P	Z	22:57:54.7	55.2	153.6	1.4	19	4.9		
GRA1	e P	Z	22:57:57.6	55.7	157.4	1.3	29	5.1		
TANN	e P	Z	22:58:00.3	56.1	159.0	1.4	22	5.0		
WERD	e P	Z	22:58:00.7	56.1	158.9	1.7	35	5.1		
BRG	e P	Z	22:58:01.1	56.2	160.9	1.3	10	4.7		
MOX	e P	Z	22:58:03.4	56.5	158.1	1.2	12	4.8		
CLL	e P	Z	22:58:05.6	56.8	159.9	1.3	15	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	00:42:48.9	28.564N	123.977E	33.0N	5.3	5.3		SZGRF
2003/04/06	00:42:38.0	28.877N	126.874E	33N	4.7	5.3		NEIC

Off east coast of southeastern China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:55:04.3	82.9	52.7	1.5	40	5.3		
	e L	Z	01:36:02.2			18.3	1270		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	01:19:21.2	42.993N	14.447E	10.0G				SZGRF

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	01:20:47.1	5.9	174.7					
	e Sn	N	01:21:53.0							
WET	e Pn	Z	01:20:52.4	6.2	169.4					
	e Sn	N	01:22:02.0							
GUNZ	e Pn	Z	01:21:10.7	7.5	168.1					
MOX	e Sn	N	01:22:40.4	7.9	164.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	02:38:28.2	43.073N	14.756E	10.0G				SZGRF
2003/04/06	02:38:31.8	43.526N	14.694E	10G				NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	02:39:53.5	5.4	172.3					
	e Sn	N	02:40:58.8							
WET	e Pn	Z	02:39:59.0	5.8	166.8					
	e Sn	E	02:41:07.8							
MOX	e Pn	Z	02:40:22.3	7.4	162.4					
	e Sn	E	02:41:47.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	02:39:55.5	43.552N	14.648E	10G	3.4			NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	02:41:17.9	5.3	172.6					
	e Sn	N	02:42:22.0							
WET	e Pn	Z	02:41:23.6	5.7	167.0					
	e Sn	E	02:42:31.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	02:55: 8.4	28.752N	126.688E	33.0N	5.4			SZGRF
2003/04/06	02:55:05.1	29.000N	126.915E	33N	4.2			NEIC

Northwest of Ryukyu Islands, Japan

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

	GRA1	e P	Z	03:07:30.4	82.9	52.6	1.6	46	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	03:50:01.6							
		e Sn	N	03:51:06.6							
	WET	e Pn	Z	03:50:07.1							
		e Sn	E	03:51:16.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	05:01:11.0	43.576N	14.476E	10G				NEIC

Adriatic Sea

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	05:02:32.3	5.3	173.9					
		e Sn	N	05:03:36.5							
	WET	e Pn	Z	05:02:37.6	5.7	168.2					
		e Sn	E	05:03:45.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	05:14:52.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	WET	e Pn	Z	05:51:02.2							
		e Sn	E	05:52:11.0							
	GEC2	e Pn	Z	05:50:56.8							
		e Sn	E	05:52:02.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	07:18:26.8	17.574S	179.499E	602D	4.9			NEIC

Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	07:37:04.5	146.6	20.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	07:32:05.8	4.880S	153.280E	33N	5.2	4.2		NEIC

New Ireland, Papua New Guinea, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	07:51:05.5	125.0	48.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	08:21:00.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	12:10:22.7							
	e Sn	E	12:11:28.0							
WET	e Pn	Z	12:10:28.3							
	e Sn	E	12:11:37.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	13:05: 1.8	43.131N	15.170E	10.0G				SZGRF
2003/04/06	13:04:58.8	43.186N	15.396E	10G	4.4			NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	13:06:27.2	5.8	167.6					
	e Sn	N	13:07:31.8							
WET	e Pn	Z	13:06:32.7	6.2	162.8					
	e Sn	E	13:07:41.7							
GUNZ	e Pn	Z	13:06:50.7	7.5	162.6					
TANN	e Pn	Z	13:06:50.4	7.5	163.4					
WERD	e Pn	Z	13:06:52.0	7.6	162.6					
BRG	e Pn	Z	13:06:53.7	7.8	172.1					
MOX	e Pn	Z	13:06:54.7	7.9	159.5					

	CLL	e Pn	Z	13:07:01.8	8.3	167.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	14:24:11.4							
		e Sn	N	14:25:17.5							
	WET	e Pn	Z	14:24:17.1							
		e Sn	E	14:25:27.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	16:09:58.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	16:45:06.8							
		e Sn	N	16:46:11.0							
	WET	e Pn	Z	16:45:11.6							
		e Sn	N	16:46:21.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	17:39:29.0	43.022N	14.745E	10.0G				SZGRF
2003/04/06	17:39:26.1	43.126N	15.282E	10G				NEIC

Adriatic Sea

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	17:40:55.1	5.8	168.6					
		e Sn	N	17:42:00.5							
	WET	e Pn	Z	17:41:00.2	6.2	163.7					
		e Sn	N	17:42:09.7							
	GUNZ	e Pn	Z	17:41:18.4	7.5	163.3					
	TANN	e Pn	Z	17:41:18.7	7.5	164.1					
	WERD	e Pn	Z	17:41:19.5	7.6	163.4					
	MOX	e Pn	Z	17:41:22.4	7.9	160.2					

		e Sn	N	17:42:49.2				
	CLL	e Pn	Z	17:41:28.9	8.3	168.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	18:17:40.1	16.369S	67.262E	33.0N	5.4			SZGRF

Mid-Indian Ridge

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	18:29:59.4	82.4	126.6	1.3	40	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/06	20:39:00.1	43.474N	14.715E	10G				NEIC

Adriatic Sea

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	20:40:22.7	5.4	172.2					
		e Sn	E	20:41:28.0							
	WET	e Pn	Z	20:40:28.2	5.8	166.7					
		e Sn	E	20:41:36.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	01:02:40.1							
		e Sn	N	01:03:44.7							
	WET	e Pn	Z	01:02:45.8							
		e Sn	E	01:03:54.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07	02:12:15.3	21.075S	173.994E	33N	5.1	5.6		NEIC

Vanuatu Islands region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	CLL	e PKPpre	Z	02:31:53.1	146.4	33.3	1.2	8			
		e PKPdf	Z	02:31:56.5			1.1	16			
		e SS	T	02:54:11.0							
		e SSS	R	02:59:51.1							
		e LR	Z	03:20:57.4							
		e L	Z	03:34:27.8			22.0	1673		5.8	
	GRA1	e PKP	Z	02:31:58.4	148.3	31.7					

	e L	Z	03:36:32.1			21.7	1543	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	02:54:40.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07	03:28:48.2	46.574N	152.301E	400.4				SZGRF
2003/04/07	03:28:59.4	48.089N	147.955E	401D	4.2			NEIC

Kuril Islands, Russia

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	03:40:04.1	75.4	28.2	0.9	8			
		e pP	Z	03:41:33.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07	03:38:10.4	35.796N	72.200E	33.0N	4.9			SZGRF
2003/04/07	03:38:34.5	36.436N	70.682E	204D	4.4			NEIC

Pakistan

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	03:46:27.1	44.2	84.0	0.8	10	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07	05:59:31.6	20.851S	174.035E	33N	4.9	4.8		NEIC

Vanuatu Islands region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	CLL	e PKPpre	Z	06:19:13.0	146.2	33.1					
		e PKPdf	Z	06:19:15.8			1.4	26			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07	14:01:48.7	14.585N	90.312E	33.0N	5.0			SZGRF
2003/04/07	14:01:28.9	12.540N	92.690E	41D	4.9			NEIC

Andaman Islands, India, region

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

	GRA1	e P	Z	14:13:09.1	75.0	88.2	1.0	12	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07	17:17:37.5	39.423N	79.439E	33.0N	5.0			SZGRF
2003/04/07	17:17:45.1	39.661N	77.312E	33N	4.5			NEIC

Southern Xinjiang, China

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	17:26:13.2	46.5	76.0	0.9	11	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07	17:43:29.1	18.770N	119.610E	33.0N	5.3	5.3		SZGRF
2003/04/07	17:43:23.7	18.926N	121.229E	33N	5.3	5.3		NEIC

Philippine Islands region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	RUE	e P	Z	17:55:59.4	85.2	64.9	1.0	71	5.9		
	BRG	e P	Z	17:56:02.0	85.7	64.9	1.1	15	5.1		
	CLL	i P	Z	17:56:03.7	86.1	64.2	1.3	28	5.2		
		e PP	Z	17:59:28.8							
		e SKSac	R	18:06:24.9							
		e PS	Z	18:07:37.1							
		e PPS	T	18:08:13.1							
		e SS	R	18:12:18.6							
		e LR	Z	18:25:14.3							
		e L	Z	18:41:06.6			20.0	1743		5.5	
	BSEG	e P	Z	17:56:05.8	86.4	62.3	0.9	23	5.3		
	GUNZ	e P	Z	17:56:08.0	86.9	63.7					
	MOX	e P	Z	17:56:08.5	87.2	63.1					
	CLZ	e P	Z	17:56:10.3	87.3	62.2	1.0	13	5.0		
	GRA1	e P	Z	17:56:12.4	87.8	62.8					
		e L	Z	18:40:00.4			20.0	1330		5.3	
	BUG	e P	Z	17:56:18.7	89.2	59.8	0.9	13	5.2		
	WLF	e P	Z	17:56:26.5	90.7	59.0	0.8	23	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07	18:28:37.5	36.600N	142.630E	33.0N		5.7		SZGRF
2003/04/07	18:28:40.6	36.525N	141.581E	56*	5.5	5.4		NEIC

Off east coast of Honshu, Japan

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	RUE	e P	Z	18:40:47.9	80.1	40.1	1.8	220			
	BSEG	e P	Z	18:40:48.8	80.3	37.8	2.3	274			

	BRG	e	P		Z	18:40:54.0	81.3	40.1	1.4	59	
	CLL	i	P	+	Z	18:40:54.2	81.3	39.5	1.1	56	5.6
		e	pP		Z	18:41:08.0					
		e	PP		Z	18:44:03.7					
		e	S		E	18:51:09.9					
		e	SKSac		R	18:51:14.9					
		e	(SS)		R	18:56:45.6					
		e	LQ		T	19:05:53.2					
		e	LR		Z	19:12:17.7					
		e	L		Z	19:20:24.6			18.0	8952	6.2
	CLZ	e	P		Z	18:40:57.5	81.9	37.6	2.8	464	
	TANN	e	P		Z	18:40:59.2	82.2	39.0	2.2	153	
	WERD	e	P		Z	18:40:59.3	82.2	38.9	2.1	160	
	GUNZ	e	P		Z	18:40:59.7	82.3	38.9	1.8	128	
	MOX	e	P		Z	18:40:59.8	82.4	38.4	2.0	162	
	IBBN	e	P		Z	18:41:00.2	82.5	35.8	1.6	124	
	GEC2	e	P		Z	18:41:02.5	82.9	39.7	2.5	194	
	WET	e	P		Z	18:41:03.5	83.0	39.2	1.8	111	
	GRA1	e	P		Z	18:41:05.0	83.3	38.1	2.0	245	
		e	L		Z	19:25:45.4			21.9	3773	5.7
	GRFO	e	P		Z	18:41:04.9	83.3	38.1	2.1	364	
	BUG	e	P		Z	18:41:04.6	83.4	35.4	1.9	159	
	TNS	e	P		Z	18:41:07.8	83.9	36.1	1.7	75	
	FUR	e	P		Z	18:41:10.5	84.5	38.0	0.8	64	
	STU	e	P		Z	18:41:12.0	84.8	36.6	1.0	58	
	WLF	e	P		Z	18:41:14.5	85.2	34.5	2.0	219	
	BFO	e	P		Z	18:41:15.6	85.5	36.0	1.1	41	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	22:01:21.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07	23:20:34.5	36.470N	23.080E	13	4.0			NEIC

Southern Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pn	Z	23:24:21.6	15.8	142.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/07	23:24:56.9	43.083N	15.028E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	23:26:22.7	5.8	170.4					
	e Sn	N	23:27:27.6							
WET	e Pn	Z	23:26:28.1	6.2	165.4					
	e Sn	N	23:27:37.1							
GUNZ	e Pn	Z	23:26:46.3	7.5	164.8					
MOX	e Pn	Z	23:26:50.4	7.9	161.6					
	e Sn	N	23:28:17.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/08								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	00:37:00.8							
	e Sn	N	00:38:05.6							
WET	e Pn	Z	00:37:06.1							
	e Sn	N	00:38:15.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/08								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	03:16:49.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/08	04:08:60.0	54.300N	160.340E	33.0N	5.1			SZGRF
2003/04/08	04:08:59.7	53.940N	160.396E	67*	4.9			NEIC

Near east coast of Kamchatka Peninsula, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	04:20:16.3	71.3	19.6	1.0	26	5.3		
CLZ	e P	Z	04:20:17.2	71.3	18.1	1.1	36	5.4		
BRG	e P	Z	04:20:17.6	71.5	20.1	0.9	6	4.8		
MOX	e P	Z	04:20:22.1	72.2	18.7	1.0	13	5.0		
WERD	e P	Z	04:20:22.6	72.2	19.1	1.2	17	5.1		
GRA1	e P	Z	04:20:28.6	73.2	18.4	0.8	22	5.4		
TNS	e P	Z	04:20:28.2	73.2	16.8	0.7	12	5.1		
WET	e P	Z	04:20:29.4	73.3	19.3	0.7	10	5.0		
GEC2	e P	Z	04:20:29.6	73.4	19.7	0.9	10	4.9		
BFO	e P	Z	04:20:38.6	75.0	16.6	0.8	7	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/08	14:40:42.5	43.116N	15.717E	10.0G				SZGRF
2003/04/08	14:40:40.1	43.085N	15.347E	10G				NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	14:42:09.5	5.9	168.2					
	e Sn	N	14:43:14.8							
WET	e Pn	Z	14:42:15.1	6.3	163.3					
	e Sn	E	14:43:24.7							
TANN	e Pn	Z	14:42:32.7	7.6	163.8					
	e Sn	E	14:43:55.6							
WERD	e Pn	Z	14:42:34.0	7.7	163.1					
BRG	e Pn	Z	14:42:35.0	7.8	172.5					
MOX	e Pn	Z	14:42:37.4	8.0	160.0					
	e Sn	N	14:44:06.1							
CLL	e Pn	Z	14:42:44.0	8.4	168.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/08	16:09:32.1	14.658N	40.580E	33.0N	4.6			SZGRF
2003/04/08	16:10:04.2	18.830N	39.293E	10G	4.7			NEIC

Ethiopia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	16:17:23.8	38.2	133.9	1.6	19	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/08	16:54:13.4	20.142N	101.156E	33.0N	4.6			SZGRF
2003/04/08	16:55:09.2	26.021N	93.311E	57*	4.6			NEIC

Northeastern India

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	17:05:50.4	65.5	78.0	0.9	6	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/09	00:39: 1.2	43.088N	15.149E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	00:40:26.8	5.8	169.6					
	e Sn	N	00:41:32.2							

WET	e Pn	Z	00:40:32.4	6.3	164.6	
	e Sn	E	00:41:42.0			
GUNZ	e Pn	Z	00:40:50.9	7.5	164.1	
WERD	e Pn	Z	00:40:51.8	7.6	164.1	
MOX	e Pn	Z	00:40:55.0	7.9	161.0	
	e Sn	N	00:42:21.6			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/09	04:46:05.8	20.566S	176.870W	300G	4.3			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z	05:04:36.1	146.2	12.1					
IBBN	e PKP	Z	05:06:07.2	148.1	8.2					
CLZ	e PKP	Z	05:06:05.5	148.2	13.0					
BRG	e PKP	Z	05:04:42.8	148.5	19.7					
MOX	e PKP	Z	05:06:12.5	149.2	15.6					
WERD	e PKP	Z	05:04:36.5	149.3	17.0					
GRA1	e PKP	Z	05:05:23.2	150.2	15.4					
STU	e PKP	Z	05:04:34.9	151.4	11.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/09	12:39:57.9	71.421N	7.871W	33.0N	4.1			SZGRF

Jan Mayen Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	12:45:04.6	23.4	344.8	0.9	6	4.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/09	14:09:50.6	44.373N	7.964E	10.0G			3.4	SZGRF
2003/04/09	14:09:52.3	44.508N	8.344E	10G				NEIC

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
DAVA	e Pn	Z	14:10:41.9	3.0	201.6					3.4
	e Sn	N	14:11:20.3							
WTTA	e Pn	Z	14:10:51.5	3.6	220.9					
	e Sn	N	14:11:36.1							
BFO	e Pn	Z	14:10:51.1	3.8	179.8					
	e Sn	N	14:11:34.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/09	17:19: 7.0	35.280N	33.900E	10.0G	4.7			SZGRF
2003/04/09	17:19:41.3	36.599N	30.993E	103	4.5			NEIC

Cyprus region

Sta	Phase			Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P		Z	17:23:41.6	17.6	127.8					
WET	e P		Z	17:23:47.5	18.2	126.9	1.0	41	4.7		
BRG	e P		Z	17:23:53.8	18.8	133.0	1.0	28	4.6		
	e S		T	17:27:48.7							
TANN	e P		Z	17:23:58.7	19.2	129.0	1.2	35	4.7		
GUNZ	e P		Z	17:23:59.6	19.2	128.6					
WERD	e P		Z	17:23:59.7	19.3	128.8					
GRA1	e P		Z	17:24:00.6	19.4	125.0	1.3	54	4.8		
	e SCP		Z	17:31:46.1							
CLL	i P	-	Z	17:24:01.6	19.5	132.0	1.3	56	4.6		
	e S		E	17:27:35.5							
	e sS		N	17:28:10.7							
	e ScP		Z	17:31:45.6							
MOX	e P		Z	17:24:04.9	19.7	127.9	1.4	81	5.0		
	e S		T	17:28:13.4							
STU	e P		Z	17:24:08.3	20.0	119.4	0.7	34	5.0		
BFO	e P		Z	17:24:12.0	20.3	116.9	1.0	21	4.6		
CLZ	e P		Z	17:24:18.2	21.1	128.2	0.8	14	4.5		
	e S		T	17:28:37.1							
WLF	e P		Z	17:24:30.1	22.2	116.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/10	00:40:28.5	39.262N	26.897E	10.0G	5.2			SZGRF
2003/04/10	00:40:14.9	38.210N	26.868E	10G	5.4	5.6		NEIC

Turkey

Sta	Phase			Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P		Z	00:43:38.8	14.3	133.4					
WET	e P		Z	00:43:46.0	14.8	132.2					
BRG	e P		Z	00:43:54.5	15.6	139.2					
TANN	e P		Z	00:44:00.1	15.9	134.5					
WERD	e P		Z	00:44:01.4	16.0	134.3					
GRA1	e P		Z	00:44:00.7	16.0	129.8					
CLL	e P		Z	00:44:05.7	16.3	137.9					
MOX	e P		Z	00:44:07.6	16.5	133.2					
BFO	e P		Z	00:44:14.1	16.8	120.2	0.8	74	4.9		
TNS	e P		Z	00:44:25.9	17.8	125.5	1.4	454	5.4		
CLZ	e P		Z	00:44:25.8	17.9	133.3	1.4	153	4.9		
WLF	e P		Z	00:44:37.2	18.7	119.9	1.6	208	5.0		
BUG	e P		Z	00:44:39.1	19.1	126.3	1.8	622	5.4		
BSEG	e P		Z	00:44:42.8	19.4	137.6	1.3	335	5.4		

IBBN	e P	Z	00:44:44.6	19.4	129.1	1.2	157	5.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/10								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	10:28:57.0							
	e Sn	N	10:30:01.7							
WET	e Pn	Z	10:29:02.6							
	e Sn	E	10:30:10.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/10	14:03: 5.4	43.141N	15.195E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	14:04:30.1	5.8	169.1					
	e Sn	N	14:05:35.5							
WET	e Pn	Z	14:04:35.7	6.2	164.2					
	e Sn	E	14:05:44.8							
GUNZ	e Pn	Z	14:04:54.2	7.5	163.7					
TANN	e Pn	Z	14:04:55.2	7.5	164.6					
WERD	e Pn	Z	14:04:54.7	7.6	163.8					
MOX	e Pn	Z	14:04:58.9	7.9	160.6					
CLL	e Pn	Z	14:05:04.4	8.3	168.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/10	15:11:48.2	20.122S	173.872W	33N	5.2	4.9		NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	15:31:39.0	150.2	9.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/10	16:04: 1.9	5.320S	29.890E	33.0N	5.1			SZGRF
2003/04/10	16:03:55.7	5.606S	29.602E	10G	5.0			NEIC

Lake Tanganyika region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	16:13:36.7	56.2	160.8	1.2	17	4.9		
WET	e P	Z	16:13:39.5	56.7	160.0	1.6	21	4.9		

GRA1	e P	Z	16:13:46.1	57.6	158.2	1.0	51	5.5
GUNZ	e P	Z	16:13:48.9	57.9	159.6	1.4	15	4.9
TANN	e P	Z	16:13:49.2	57.9	159.8	1.2	16	4.9
WERD	e P	Z	16:13:48.2	58.0	159.6	1.4	19	5.0
MOX	e P	Z	16:13:51.7	58.4	158.8	1.5	24	5.0
CLL	e P	Z	16:13:53.6	58.7	160.6	1.2	13	4.8
TNS	e P	Z	16:13:54.6	58.8	155.2	0.9	39	5.4
WLF	e P	Z	16:13:55.6	58.9	152.5	1.3	25	5.1
CLZ	e P	Z	16:14:01.7	59.8	157.7	1.1	14	4.9
BUG	e P	Z	16:14:04.7	60.2	154.2	1.0	35	5.4
BSEG	e P	Z	16:14:14.8	61.7	158.1	1.1	29	5.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/11	05:01:34.7	14.952S	67.535E	21.1	5.4			SZGRF
2003/04/11	05:01:29.9	15.368S	67.231E	10G	5.3	5.1		NEIC

Mid-Indian Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	05:13:38.4	79.8	128.0	2.6	126	5.5		
WET	e P	Z	05:13:41.4	80.4	127.4	2.8	169	5.5		
FUR	e P	Z	05:13:44.0	80.6	125.9					
BRG	e P	Z	05:13:45.6	80.9	128.5	2.2	97	5.3		
TANN	e P	Z	05:13:47.9	81.4	127.2					
GUNZ	e P	Z	05:13:48.3	81.4	127.1					
WERD	e P	Z	05:13:48.5	81.5	127.1					
GRA1	e P	Z	05:13:48.5	81.6	126.1	1.6	110	5.6		
	e pP	Z	05:13:54.6							
CLL	e P	Z	05:13:49.4	81.6	127.7	1.8	92	5.5		
MOX	e P	Z	05:13:50.8	81.9	126.5	1.7	57	5.4		
RUE	e P	Z	05:13:51.1	82.0	128.5					
BFO	e P	Z	05:13:52.7	82.3	123.6	1.5	42	5.3		
CLZ	e P	Z	05:13:58.0	83.3	125.6	1.3	51	5.6		
TNS	e P	Z	05:13:58.2	83.3	123.9	1.1	22	5.3		
WLF	e P	Z	05:14:02.7	84.3	122.0					
BSEG	e P	Z	05:14:04.0	84.5	125.7	1.3	26	5.3		
BUG	e P	Z	05:14:04.9	84.6	123.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/11	06:13: 6.8	8.370N	81.230W	28.2	5.4	6.0		SZGRF
2003/04/11	06:12:54.3	7.025N	82.339W	10G	5.8	5.6		NEIC

Panama

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	06:25:25.2	83.7	273.4					
BUG	e P	Z	06:25:27.8	84.3	274.1					

IBBN	e P	Z	06:25:29.1	84.5	274.4				
TNS	e P	Z	06:25:32.3	85.1	275.1	1.4	36	5.4	
BFO	e P	Z	06:25:32.1	85.2	275.2	1.2	26	5.4	
BSEG	e P	Z	06:25:36.0	85.9	276.3	1.0	21	5.3	
CLZ	e P	Z	06:25:37.7	86.1	276.5	1.0	40	5.6	
GRA1	e P	Z	06:25:41.6	86.9	277.3	1.1	50	5.7	
	e pP	Z	06:25:49.8						
	e S	E	06:36:12.7						
	e SS	E	06:41:47.1						
	e L	Z	06:58:29.9			23.2	7468		6.0
MOX	e P	Z	06:25:41.9	87.1	277.5	1.2	21	5.3	
WERD	e P	Z	06:25:44.3	87.5	278.0				
GUNZ	e P	Z	06:25:44.6	87.6	278.1				
TANN	e P	Z	06:25:45.0	87.6	278.2				
CLL	i P	Z	06:25:46.0	87.8	278.6	0.9	28	5.6	
	e PP	Z	06:29:09.9						
	e SKSac	R	06:36:12.5						
	e S	T	06:36:27.6						
	e PS	R	06:37:31.8						
	e		06:39:13.6						
	e SS	R	06:42:26.6						
	e LQ	T	06:49:42.2						
	e LR	Z	06:53:58.0						
	e L	Z	06:58:35.5			22.0	3384		5.7
WET	e P	Z	06:25:47.3	88.1	278.5	1.1	35	5.4	
	e S	E	06:36:19.8						
BRG	e P	Z	06:25:49.0	88.5	279.3	1.0	18	5.2	
GEC2	e P	Z	06:25:49.7	88.7	279.2	1.0	12	5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/11	07:16:10.1	17.406S	179.148W	554D	4.7			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	07:34:38.5	142.7	15.0					
RUE	e PKPbc	Z	07:34:41.2	143.5	21.0					
IBBN	e PKPbc	Z	07:34:45.3	144.7	11.4					
CLL	e PKPbc	Z	07:34:45.5	144.7	20.4					
CLZ	e PKPbc	Z	07:34:45.9	144.8	15.9					
BRG	e PKPbc	Z	07:34:46.6	144.9	22.1					
BUG	e PKPbc	Z	07:34:47.8	145.6	10.9					
MOX	e PKPbc	Z	07:34:48.4	145.7	18.4					
WERD	e PKPbc	Z	07:34:48.6	145.7	19.7					
TNS	e PKPbc	Z	07:34:50.8	146.6	13.3					
GRA1	e PKPbc	Z	07:34:51.4	146.6	18.2					
WET	e PKPbc	Z	07:34:51.9	146.8	21.3					
GEC2	e PKPbc	Z	07:34:51.9	146.9	22.8					

WLF	e PKPbc	Z	07:34:53.8	147.5	9.4	
FUR	e PKPbc	Z	07:34:54.9	148.1	19.1	
BFO	e PKPbc	Z	07:34:55.8	148.5	13.7	
	e PKPab	Z	07:35:01.2			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/11	09:26:57.6	44.732N	8.680E	10.0G			5.2	SZGRF
2003/04/11	09:26:56.1	44.824N	8.832E	10G	4.8			NEIC

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
DAVA	e Pn	Z	09:27:41.7	2.6	196.8					5.3
WTTA	e Pn	Z	09:27:50.4	3.1	219.6					
	e Sn	N	09:28:29.3							
FUR	e Pn	Z	09:27:57.2	3.7	207.6					5.2
	e Sn	N	09:28:40.4							
KBA	e Pn	Z	09:27:59.9	3.9	235.9					5.1
MOA	e Pn	Z	09:28:11.8	4.8	233.1					
WET	e Pn	Z	09:28:15.4	5.1	214.1					
GRFO	e Pn	Z	09:28:15.2	5.1	199.3					
WLF	e Pn	Z	09:28:17.3	5.2	158.4					5.4
TNS	e Pn	Z	09:28:18.6	5.4	177.1					
MOX	e Pn	Z	09:28:27.2	6.1	198.9					
PRU	e Pn	Z	09:28:33.5	6.4	218.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/11	16:30:56.3	19.073S	169.111E	300G	4.6			NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e PKP	Z	16:49:57.1	144.3	42.3					
GRA1	e PKP	Z	16:49:57.8	144.6	37.9					
TNS	e PKP	Z	16:50:00.3	145.3	33.3					
BFO	e PKP	Z	16:50:05.2	146.9	34.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/11								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PKP	Z	18:16:59.6							
BUG	e PKP	Z	18:16:52.6							
GRA1	e PKP	Z	18:16:53.4							
IBBN	e PKP	Z	18:16:50.2							

	WET	e PKP	Z	18:16:52.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/11	20:41:54.4	29.860N	131.229E	33.0N	4.9			SZGRF
2003/04/11	20:41:53.6	27.844N	140.127E	297*	4.5			NEIC

Southeast of Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	20:54:23.4	90.2	43.5	1.0	8	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/11	23:53:47.6	37.619N	22.645E	74*	4.1			NEIC

Southern Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pn	Z	23:57:25.9	15.3	149.7					
GEC2	e Pn	Z	23:57:00.4	13.0	146.6					
GRA1	e Pn	Z	23:57:18.3	14.6	141.4					
MOX	e Pn	Z	23:57:25.0	15.2	144.6					
WET	e Pn	Z	23:57:06.1	13.5	144.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/12	00:13:11.5	44.874N	8.771E	10.0G				SZGRF
2003/04/12	00:13:10.6	44.589N	9.109E	10G				NEIC

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e Pn	Z	00:14:05.3	3.8	171.5					
	e Sn	N	00:14:46.1							
FUR	e Pn	Z	00:14:09.5	3.9	203.5					
	e Sn	N	00:14:53.2							
WET	e Pn	Z	00:14:28.0	5.2	210.9					
	e Sn	N	00:15:24.2							
GEC2	e Pn	Z	00:14:29.1	5.3	218.2					
	e Sn	N	00:15:27.2							
GRA1	e Sn	N	00:15:24.1	5.3	196.5					
	e Sg	E	00:15:54.2							
TNS	e Pn	Z	00:14:30.8	5.7	175.2					
GUNZ	e Sn	N	00:15:44.8	6.2	201.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/12	00:26:56.0	18.024S	177.980W	600G	4.2			NEIC

Fiji Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z	00:45:22.6	143.5	13.3					
CLL	e PKP	Z	00:45:29.2	145.6	18.7					
BRG	e PKP	Z	00:45:29.9	145.8	20.5					
GRA1	e PKP	Z	00:45:34.5	147.5	16.4					
BFO	e PKP	Z	00:45:38.6	149.3	11.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/12	08:09:06.9	19.152S	168.696E	100G	4.6			NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	08:28:33.1	144.6	38.6					
BUG	e PKP	Z	08:28:32.1	144.6	31.3					
TNS	e PKP	Z	08:28:34.9	145.2	34.0					
WLF	e PKP	Z	08:28:39.1	146.4	30.8					
BFO	e PKP	Z	08:28:39.6	146.8	35.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/12	13:42: 5.7	15.396N	121.563E	10.0G	5.3			SZGRF
2003/04/12	13:42:15.0	13.814N	120.712E	133D	5.1			NEIC

Luzon, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z	13:55:00.7	89.3	66.1	1.4	21	5.2		
	e pP	Z	13:55:33.2							
	e sP	Z	13:55:45.3							
	e PP	Z	13:58:16.2							
GRA1	e P	Z	13:55:09.4	91.6	66.3	1.6	28	5.3		
	e		13:55:52.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/13	09:44:35.3	18.434S	178.016W	600G	4.4			NEIC

Fiji Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PKP	Z	10:03:20.1	149.7	12.0					
BSEG	e PKP	Z	10:03:04.6	144.0	13.5					
CLL	e PKPdf	Z	10:03:08.8	146.1	19.0					
	i PKPbc	Z	10:03:10.7			1.1	28			

	e PKPab	Z	10:03:12.9			1.3	22	
	i		10:03:30.3					
GRA1	e PKP	Z	10:03:16.2	147.9	16.7			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/13								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pn	Z	12:25:50.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/13	22:54:13.6	44.176N	12.253E	10.0G			3.9	SZGRF

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e Pn	Z	22:55:16.0	4.0	170.0					
	e Sn	E	22:56:03.1							
GEC2	e Pn	Z	22:55:24.7	4.8	192.6					3.9
	e Sn	E	22:56:20.6							
BFO	e Pn	Z	22:55:27.7	5.0	145.4					3.6
	e Sn	N	22:56:23.0							
WET	e Pn	Z	22:55:27.4	5.0	185.2					4.3
	e Sn	E	22:56:23.7							
GRA1	e Sn	N	22:56:36.7	5.6	172.3					
MOX	e Pn	Z	22:55:47.2	6.5	175.9					
	e Sn	N	22:56:59.3							
TNS	e Pn	Z	22:55:50.0	6.6	155.4					
WLF	e Pn	Z	22:55:55.0	6.9	140.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/14	22:31:41.8	43.204N	15.291E	10.0G			3.8	SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ARSA	e Pn	Z	22:32:42.8	4.0	182.4					
KBA	e Pn	Z	22:32:44.1	4.1	159.8					3.7
MOA	e Pn	Z	22:32:52.7	4.7	170.8					3.7
	e Sn	N	22:33:47.9							
WTTA	e Pn	Z	22:32:54.6	4.8	146.3					
DAVA	e Pn	Z	22:33:05.8	5.6	135.0					
	e Sn	N	22:34:07.6							
GEC2	e Pn	Z	22:33:06.0	5.7	168.4					3.7

	e Sn	N	22:34:10.4					
WET	e Pn	Z	22:33:11.4	6.2	163.4			3.8
	e Sn	N	22:34:20.6					
BFO	e Pn	Z	22:33:25.2	7.1	134.0			
	e Sn	N	22:34:39.6					
GRA1	e Sn	N	22:34:40.7	7.1	155.1			
MOX	e Pn	Z	22:33:34.2	7.9	160.0			
	e Sn	N	22:35:00.0					
TNS	e Sn	N	22:35:14.8	8.4	143.7			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/15	03:13:40.4	51.984N	154.103E	33.0N	5.5			SZGRF
2003/04/15	03:13:23.8	49.576N	156.214E	63D	4.7			NEIC

Northwest of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	03:24:48.4	72.6	22.4	2.3	120	5.6		
CLL	e P	Z	03:24:58.4	74.4	23.8	0.9	24	5.3		
CLZ	e P	Z	03:25:00.1	74.5	22.2	1.6	105	5.7		
BRG	e P	Z	03:24:59.5	74.5	24.3	1.7	47	5.3		
IBBN	e P	Z	03:25:00.8	74.7	20.6	1.3	32	5.3		
MOX	e P	Z	03:25:04.4	75.3	22.9	1.5	54	5.5		
TANN	e P	Z	03:25:04.6	75.3	23.3	1.2	18	5.1		
WERD	e P	Z	03:25:04.6	75.3	23.3	1.5	49	5.4		
GUNZ	e P	Z	03:25:05.1	75.4	23.3	1.7	75	5.6		
BUG	e P	Z	03:25:05.8	75.6	20.2	1.3	66	5.6		
GRA1	e P	Z	03:25:10.5	76.3	22.5	1.3	142	5.8		
WET	e P	Z	03:25:11.0	76.4	23.5	1.3	58	5.5		
GEC2	e P	Z	03:25:10.9	76.4	24.0	2.0	87	5.4		
TNS	e P	Z	03:25:11.0	76.5	20.8	0.8	41	5.5		
WLF	e P	Z	03:25:19.0	77.5	19.4	1.2	39	5.3		
STU	e P	Z	03:25:17.5	77.6	21.2	0.9	48	5.5		
FUR	e P	Z	03:25:18.1	77.7	22.4	1.0	75	5.7		
BFO	e P	Z	03:25:20.9	78.3	20.6	0.9	44	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/15	03:54:24.0	43.157N	15.255E	10.0G			3.8	SZGRF
2003/04/15	03:54:22.6	43.181N	14.971E	10G	3.6			NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	03:55:49.5	5.7	170.7					3.8
	e Sn	E	03:56:54.3							
WET	e Pn	Z	03:55:55.0	6.1	165.6					3.8
	e Sn	N	03:57:03.1							

BFO	e Pn	Z	03:56:07.1	6.9	135.6	
	e Sn	N	03:57:24.4			
MOX	e Pn	Z	03:56:17.3	7.8	161.7	
	e Sn	N	03:57:43.4			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/15	04:05:13.1	19.727S	176.321W	33N	4.6			NEIC

Fiji Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z	04:24:53.1	147.6	16.5					
BRG	e PKPbc	Z	04:24:53.8	147.8	18.4					
GRA1	e PKPbc	Z	04:24:58.2	149.4	14.1					
GEC2	e PKPbc	Z	04:24:58.9	149.8	19.0					
GRB5	e PKPbc	Z	04:24:59.1	149.9	15.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/15	11:11:47.9	17.505S	178.937W	500G	4.3			NEIC

Fiji Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	+ Z	11:30:29.3	145.0	20.1	0.6	21			
GRA1	e PKP	Z	11:30:35.0	146.8	17.9					
GRB5	e PKP	Z	11:30:36.2	147.2	18.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/16	03:56:29.3	51.680N	163.083W	33.0N	5.1			SZGRF
2003/04/16	03:56:31.7	53.719N	164.419W	33N	4.5			NEIC

South of Alaska

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	04:08:27.6	76.5	357.3	1.7	34	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/16	18:00: 5.9	43.141N	142.988E	53.8	6.0	5.0		SZGRF

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	18:11:32.5	73.3	35.9	1.3	393	6.3		
BSEG	e P	Z	18:11:41.1	74.8	33.8	1.0	218	6.1		
RUE	e P	Z	18:11:40.8	74.8	35.9	1.4	317	6.2		

HLG	e	P		Z	18:11:44.3	75.4	32.2	0.8	148	6.2
CLL	i	P	+	Z	18:11:47.2	76.1	35.2	1.0	212	6.2
	e	pP		Z	18:12:02.4					
	e	PP		Z	18:14:45.2					
	e	PPP		Z	18:16:34.6					
	e	S		R	18:21:36.9					
	e	PS		Z	18:22:16.7					
	e	SS		Z	18:26:36.9					
	e	LR		Z	18:37:30.6					
	e	L		Z	18:48:24.5			22.0	918	5.1
BRG	e	P		Z	18:11:47.3	76.1	35.7	0.9	70	5.8
CLZ	e	P		Z	18:11:50.6	76.6	33.5	1.0	197	6.2
TANN	e	P		Z	18:11:52.2	77.0	34.7			
WERD	e	P		Z	18:11:52.7	77.0	34.6	0.9	56	5.7
IBBN	e	P		Z	18:11:53.0	77.0	31.8	1.0	230	6.3
GUNZ	e	P		Z	18:11:53.1	77.1	34.6	0.8	80	5.9
MOX	e	P		Z	18:11:53.2	77.1	34.2	0.8	75	5.9
GEC2	e	P		Z	18:11:56.8	77.8	35.3	0.8	62	5.8
WET	i	P	+	Z	18:11:57.7	77.9	34.8	1.0	147	6.1
BUG	e	P		Z	18:11:57.8	77.9	31.4	0.9	134	6.1
GRA1	e	P		Z	18:11:58.8	78.1	33.8	0.8	318	6.5
	e	pP		Z	18:12:14.1					
	e	L		Z	18:50:26.4			21.4	700	5.0
TNS	e	P		Z	18:12:01.3	78.6	32.0	0.8	73	5.7
FUR	e	P		Z	18:12:05.1	79.3	33.7	0.9	309	6.3
STU	e	P		Z	18:12:06.3	79.5	32.4	0.9	209	6.1
WLF	e	P		Z	18:12:08.2	79.8	30.5	1.0	44	5.4
BFO	e	P		Z	18:12:09.9	80.2	31.8	1.3	172	5.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17	00:48:45.1	37.064N	95.953E	33.0N	6.5	6.8		SZGRF
2003/04/17	00:48:38.5	37.519N	96.490E	14G	6.2	6.3		NEIC

Qinghai, China

Sta	Phase			Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e	P	Z	00:58:24.6	56.6	70.7	1.2	758	6.6		
RUE	e	P	Z	00:58:27.2	57.0	69.7	0.9	495	6.6		
CLL	i	P	+ Z	00:58:33.0	58.1	69.3	1.2	447	6.4		
	e	PcP	Z	00:59:27.1							
	e	PP	Z	01:00:45.2							
	e	PPPP	R	01:02:44.9							
	e	S	T	01:06:35.3							
	e	ScS	T	01:08:28.8							
	e	SS	R	01:10:39.0							
	e	LQ	T	01:16:50.2							
	e	LR	Z	01:19:59.9							
	e	L	Z	01:24:48.6			20.0	39023		6.5	

		e	PKPPKPbc	Z	01:28:24.7						
	TANN	e	P	Z	00:58:38.1	58.5	67.6	1.6	531	6.3	
	WERD	e	P	Z	00:58:38.6	58.6	67.6	1.5	418	6.3	
	GUNZ	e	P	Z	00:58:38.8	58.6	67.5	1.9	1367	6.7	
	WET	e	P	Z	00:58:40.0	58.8	67.2	1.5	608	6.4	
	MOX	e	P	Z	00:58:40.8	58.9	67.2	1.8	826	6.5	
	GRA1	i	P	+ Z	00:58:45.6	59.6	66.5	1.8	1556	6.7	
		e	PP	Z	01:01:02.1						
		e	S	N	01:07:04.0						
		e	SS	E	01:10:57.6						
		e	L	Z	01:25:18.8			18.6	68470	6.8	
		e	PKPPKPbc	Z	01:28:19.8						
	HLG	e	P	Z	00:58:46.0	59.7	66.7	1.7	1051	6.6	
	FUR	e	P	Z	00:58:49.6	60.1	65.7	1.9	3332	7.0	
	TNS	e	P	Z	00:58:54.8	61.0	65.0	1.5	403	6.0	
	STU	e	P	Z	00:58:55.8	61.1	64.8	1.9	1098	6.4	
	WLF	e	P	Z	00:59:05.9	62.5	63.4	1.9	1866	6.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e	PKP	Z 04:06:38.0							
		e		04:06:44.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17	05:58:12.0	43.079N	14.638E	10.0G				SZGRF

Adriatic Sea

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e	Pn	Z 05:59:37.4	5.8	173.2					
		e	Sn	N 06:00:41.8							
	WET	e	Pn	Z 05:59:42.6	6.2	168.0					
		e	Sn	N 06:00:51.7							
	MOX	e	Pn	Z 06:00:05.3	7.8	163.6					
		e	Sn	N 06:01:29.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17	06:53:44.5	18.321S	172.638W	200G	4.1			NEIC

Tonga Islands region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e	PKP	Z 07:13:11.5	148.5	7.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	09:59:30.1							
	e Sn	N	10:00:34.9							
WET	e Pn	Z	09:59:35.3							
	e Sn	N	10:00:44.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17	14:50:49.0	54.682S	1.366E	10G	5.6	6.0		NEIC

Bouvet Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z	15:05:06.2	106.1	187.0					
	e PP	Z	15:09:39.2							
	e PPP	Z	15:11:41.8							
	e SKSac	R	15:15:44.8							
	e Sdiff	T	15:17:06.8							
	e PS	R	15:18:44.5							
	e PPS	R	15:19:44.3							
	e SS	T	15:24:33.4							
	e SSS	N	15:28:11.2							
	e LQ	T	15:36:10.3							
	e LR	Z	15:40:41.1							
	e L	Z	15:50:21.3			22.0	5560		6.1	
GRA1	e PP	Z	15:09:10.0	104.7	185.9					
	e SKSac	R	15:15:39.2							
	e PS	R	15:18:29.0							
	e SS	R	15:24:15.8							
	e L	Z	15:51:36.4			19.8	11124		6.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17	17:12:17.5	40.552N	94.922E	33.0N	5.0			SZGRF
2003/04/17	17:11:53.7	37.561N	96.462E	33N	4.8			NEIC

Gansu, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	17:21:42.8	57.5	68.8	1.9	34	5.1		
CLL	e P	Z	17:21:45.4	57.8	68.5	2.0	36	5.1		
GEC2	e P	Z	17:21:50.1	58.3	67.5	1.9	28	5.0		
BSEG	e P	Z	17:21:49.3	58.4	68.2	1.1	17	5.0		

TANN	e P	Z	17:21:50.2	58.5	67.6	2.2	34	5.0	
WERD	e P	Z	17:21:50.7	58.6	67.5	1.9	28	5.0	
GUNZ	e P	Z	17:21:51.0	58.6	67.5	1.0	11	4.8	
WET	e P	Z	17:21:51.9	58.7	67.2	1.7	24	4.9	
MOX	e P	Z	17:21:53.1	58.9	67.2	1.7	19	4.9	
CLZ	e P	Z	17:21:55.1	59.2	67.1	1.0	12	4.9	
GRA1	e P	Z	17:21:57.8	59.5	66.5	1.1	20	5.1	
GRFO	e P	Z	17:21:57.7	59.5	66.5				
FUR	e P	Z	17:22:02.4	60.1	65.7	1.5	64	5.4	
IBBN	e P	Z	17:22:04.3	60.4	65.7	1.5	35	5.2	
TNS	e P	Z	17:22:07.2	60.9	65.0	1.4	14	4.8	
STU	e P	Z	17:22:08.6	61.1	64.8	1.0	14	4.9	
BFO	e P	Z	17:22:13.0	61.8	64.0	1.7	26	5.0	
WLF	e P	Z	17:22:18.8	62.5	63.3	1.6	38	5.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	17:40:19.0							
	e Sn	N	17:41:22.6							
WET	e Pn	Z	17:40:25.8							
	e Sn	E	17:41:23.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17	22:34:18.5	39.174N	26.303E	33.0N	4.8	4.1		SZGRF
2003/04/17	22:34:24.8	38.228N	26.858E	10G	4.9			NEIC

Turkey

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	22:37:50.0	14.2	133.3					
WET	e P	Z	22:37:57.7	14.8	132.1					
FUR	e P	Z	22:38:01.1	15.0	125.6					
BRG	e P	Z	22:38:05.5	15.6	139.2					
TANN	e P	Z	22:38:11.0	15.9	134.5					
GUNZ	e P	Z	22:38:11.8	15.9	134.1					
WERD	e P	Z	22:38:12.2	16.0	134.2	1.7	134			
GRA1	e P	Z	22:38:13.1	16.0	129.8					
	e L	Z	22:46:21.9			19.3	1311		4.1	
CLL	e P	Z	22:38:15.9	16.3	137.9					
MOX	e P	Z	22:38:17.9	16.4	133.2	1.5	192			
BFO	e P	Z	22:38:24.4	16.8	120.1					
RUE	e P	Z	22:38:23.5	16.9	142.3					
TNS	e P	Z	22:38:36.4	17.7	125.5	1.5	128	4.8		
CLZ	e P	Z	22:38:35.7	17.8	133.3	1.4	41	4.4		

	WLF	e P	Z	22:38:47.4	18.7	119.9	1.6	120	
	BUG	e P	Z	22:38:51.5	19.1	126.2	1.7	178	4.9
	BSEG	e P	Z	22:38:52.0	19.3	137.5	1.5	110	4.8
	IBBN	e P	Z	22:38:54.7	19.3	129.1	1.9	152	4.8
	HLG	e P	Z	22:39:05.8	20.5	133.2	1.5	395	5.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17	22:50:37.6	42.973N	14.657E	10.0G				SZGRF

Central Italy

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	22:52:04.3	5.9	173.2					
		e Sn	N	22:53:10.0							
	WET	e Pn	Z	22:52:10.0	6.3	168.0					
		e Sn	E	22:53:19.3							
	MOX	e Pn	Z	22:52:32.0	7.9	163.7					
		e Sn	N	22:53:58.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/17	23:17: 9.8	43.116N	14.761E	10.0G				SZGRF
2003/04/17	23:17:09.0	43.375N	15.429E	10G				NEIC

Adriatic Sea

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	23:18:34.3	5.6	167.0					
		e Sn	E	23:19:39.2							
	WET	e Pn	Z	23:18:39.7	6.0	162.1					
		e Sn	E	23:19:48.9							
	GUNZ	e Pn	Z	23:18:57.9	7.3	162.0					
	WERD	e Pn	Z	23:18:59.4	7.4	162.1					
	MOX	e Pn	Z	23:19:02.6	7.7	158.9					
		e Sn	N	23:20:27.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18	01:17:43.8	46.398N	12.973E	10.0G			3.4	SZGRF
2003/04/18	01:17:43.5	46.495N	13.004E	10G				NEIC

Northern Italy

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	KBA	e Pg	Z	01:17:56.5	0.6	201.9					2.9
		e Sg	N	01:18:07.2							
	WTTA	e Pg	Z	01:18:05.8	1.2	128.9					
		e Sg	N	01:18:23.2							

MOA	e Pn	Z	01:18:14.4	1.6	212.8		2.9
	e Sg	N	01:18:39.2				
ARSA	e Pn	Z	01:18:16.6	1.9	247.2		
FUR	e Pn	Z	01:18:19.7	2.0	144.3		3.7
	e Sg	N	01:18:51.5				
DAVA	e Pn	Z	01:18:22.9	2.3	109.2		3.6
	e Sg	N	01:18:56.7				
GEC2	e Pn	Z	01:18:24.2	2.4	191.6		3.3
	e Sg	E	01:19:02.8				
WET	e Pn	Z	01:18:27.6	2.7	178.1		3.5
	e Sn	N	01:19:02.1				
GRA1	e Pn	Z	01:18:37.2	3.4	158.9		4.0
	e Sn	N	01:19:19.6				
STU	e Pn	Z	01:18:37.9	3.4	130.1		
BFO	e Pn	Z	01:18:40.5	3.7	118.4		
	e Sn	N	01:19:24.1				
GUNZ	e Pn	Z	01:18:45.1	3.9	173.2		
TANN	e Pn	Z	01:18:45.3	3.9	174.5		
WERD	e Pn	Z	01:18:45.7	4.0	173.1		
MOX	e Pn	Z	01:18:49.0	4.2	167.0		
	e Sn	N	01:19:38.2				
BRG	e Pn	Z	01:18:51.5	4.4	188.4		
TNS	e Pn	Z	01:18:57.0	4.8	139.2		
CLL	e Pn	Z	01:18:57.0	4.8	180.0		
WLF	e Pn	Z	01:19:08.6	5.6	122.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	01:36:08.1							
	e Sn	E	01:37:13.0							
WET	e Pn	Z	01:36:13.3							
	e Sn	N	01:37:22.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	05:24:32.5							
	e Sn	N	05:25:36.6							
WET	e Pn	Z	05:24:37.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	06:02:32.2							
	e Sn	N	06:03:37.1							
WET	e Pn	Z	06:02:37.8							
	e Sn	E	06:03:46.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	08:32:11.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18	08:35:53.2	54.958S	128.707W	10G	5.0	5.0		NEIC

Pacific-Antarctic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	08:55:48.5	155.2	242.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	09:09:18.1							
	e Sn	N	09:10:23.5							
WET	e Pn	Z	09:09:21.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18	16:07:22.4	20.372S	178.490W	600G	4.2			NEIC

Fiji Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	Z	16:26:01.9	147.8	20.6	0.6	31			
	e PKPab	Z	16:26:06.5			0.6	12			
	e pPKPbc	Z	16:28:18.8							
GRA1	e PKP	Z	16:26:06.6	149.7	18.3					
	e		16:26:14.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18	17:21:44.5	38.821N	148.100E	33.0N	4.8			SZGRF

North Pacific Ocean

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	17:34:10.3	83.7	32.4	0.9	5	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	19:15:52.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/18	23:32:04.4	17.713S	173.904W	33N	5.1	5.1		NEIC

North of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKP	Z	23:51:39.5	144.7	12.7					
	e		23:51:55.0							
IBBN	e PKP	Z	23:51:42.0	145.4	2.8					
CLZ	e PKP	Z	23:51:43.3	145.7	7.2					
CLL	e PKPdf	Z	23:51:41.7	146.0	11.8					
	i PKPbc	Z	23:51:43.8			1.1	100			
	e		23:51:59.3							
	e PP	Z	23:55:04.1							
	e PPS	Z	00:07:46.8							
	e (SS)	Z	00:14:44.1							
	e LR	Z	00:43:06.4							
	e L	Z	00:53:55.2			22.0	250		4.9	
BRG	e PKP	Z	23:51:44.6	146.3	13.5					
BUG	e PKP	Z	23:51:44.6	146.3	2.0					
MOX	e PKP	Z	23:51:46.2	146.8	9.6					
WERD	e PKP	Z	23:51:46.8	146.9	10.9					
TANN	e PKP	Z	23:51:46.8	146.9	11.2					
GUNZ	e PKP	Z	23:51:47.2	147.0	10.9					
TNS	e PKP	Z	23:51:48.3	147.4	4.2					
GRA1	e PKP	Z	23:51:49.6	147.8	9.2					
GRFO	e PKP	Z	23:51:50.2	147.8	9.2					
WLF	e PKP	Z	23:51:50.6	148.0	0.1					
WET	e PKP	Z	23:51:50.2	148.1	12.3					
GEC2	e PKP	Z	23:51:50.7	148.3	13.9					
STU	e PKP	Z	23:51:52.0	148.8	5.7					

FUR	e PKP	Z	23:51:53.2	149.3	9.7	
BFO	e PKP	Z	23:51:53.2	149.3	4.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/19								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	04:23:47.4							
	e Sn	N	04:24:53.6							
WET	e Pn	Z	04:23:53.0							
	e Sn	N	04:25:02.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/19	05:19:27.7	21.121S	176.683W	189D	4.7			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z	05:38:48.8	146.8	12.0					
HLG	e PKP	Z	05:38:48.2	146.8	7.8					
RUE	e PKPbc	Z	05:38:51.3	147.6	18.4					
IBBN	e PKPbc	Z	05:38:54.2	148.6	8.0					
	e PKPab	Z	05:38:57.6							
CLZ	e PKPbc	Z	05:38:54.6	148.8	12.8					
	e PKPab	Z	05:38:58.3							
CLL	e PKPbc	Z	05:38:54.5	148.9	17.7					
	e PKPab	Z	05:38:58.7							
BRG	e PKPbc	Z	05:38:55.2	149.1	19.6					
	e PKPab	Z	05:39:00.2							
BUG	e PKPbc	Z	05:38:55.8	149.5	7.3					
MOX	e PKPbc	Z	05:38:56.8	149.8	15.5					
	e PKPab	Z	05:39:02.4							
WERD	e PKPbc	Z	05:38:57.0	149.8	16.9					
	e PKPab	Z	05:39:02.8							
TANN	e PKPbc	Z	05:38:57.1	149.8	17.2					
	e PKPab	Z	05:39:03.1							
GUNZ	e PKPbc	Z	05:38:57.5	149.9	16.9					
	e PKPab	Z	05:39:03.4							
TNS	e PKPbc	Z	05:38:59.1	150.6	9.8					
	e PKPab	Z	05:39:06.3							
GRA1	e PKPbc	Z	05:38:59.6	150.7	15.2					
	e PKPab	Z	05:39:07.2							
WET	e PKPbc	Z	05:38:59.8	151.0	18.6					
	e PKPab	Z	05:39:08.0							
GEC2	e PKPbc	Z	05:39:00.3	151.1	20.3					
	e PKPab	Z	05:39:09.0							

WLF	e PKPbc	Z	05:39:00.9	151.4	5.5	
	e PKPab	Z	05:39:09.7			
STU	e PKPbc	Z	05:39:02.0	152.0	11.7	
	e PKPab	Z	05:39:11.5			
FUR	e PKPbc	Z	05:39:02.4	152.2	16.1	
	e PKPab	Z	05:39:13.2			
BFO	e PKPbc	Z	05:39:02.8	152.5	10.2	
	e PKPab	Z	05:39:13.7			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/19	11:37:41.6	43.068N	14.579E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	11:39:07.1	5.8	173.7					
	e Sn	N	11:40:11.8							
WET	e Pn	Z	11:39:12.1	6.2	168.4					
	e Sn	E	11:40:20.6							
MOX	e Pn	Z	11:39:34.8	7.8	163.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/19	19:41:46.7	39.233N	98.599E	33.0N	5.1			SZGRF
2003/04/19	19:41:41.0	37.571N	96.477E	10G	4.8			NEIC

Gansu, China

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	19:51:48.1	59.5	66.4	0.9	17	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/19	20:55:49.4	35.121N	28.042E	10.0G				SZGRF
2003/04/19	20:55:53.1	35.351N	27.865E	33N	4.6			NEIC

Eastern Mediterranean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	20:59:50.1	17.0	137.1					
WET	e P	Z	20:59:57.0	17.6	135.9					
BRG	e P	Z	21:00:07.3	18.5	141.8					
TANN	e P	Z	21:00:09.8	18.7	137.6					
GUNZ	e P	Z	21:00:10.8	18.8	137.2					
GRA1	e P	Z	21:00:10.3	18.8	133.5					
WERD	e P	Z	21:00:10.2	18.8	137.3					
CLL	e P	Z	21:00:14.0	19.2	140.5					
MOX	e P	Z	21:00:17.0	19.3	136.3					

BFO	e P	Z	21:00:16.6	19.4	124.8	
TNS	e P	Z	21:00:28.9	20.5	129.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/20	04:01:36.4	43.051N	14.833E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	04:03:02.5	5.8	171.9					
	e Sn	N	04:04:07.4							
WET	e Pn	Z	04:03:07.9	6.2	166.7					
	e Sn	E	04:04:16.8							
MOX	e Pn	Z	04:03:30.3	7.9	162.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/20								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	10:11:56.5							
	e Sn	N	10:13:01.6							
WET	e Pn	Z	10:12:02.1							
	e Sn	N	10:13:11.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/20								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	13:04:20.2							
	e Sn	N	13:05:24.6							
WET	e Pn	Z	13:04:25.6							
	e Sn	N	13:05:34.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/20	21:46:09.9	21.099S	179.234W	650G	4.2			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	22:04:50.9	150.2	19.9					
	e		22:05:00.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	00:02:50.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21	01:18:44.5	37.205N	139.023E	72.0	5.1			SZGRF
2003/04/21	01:18:34.2	36.501N	140.718E	69D	4.6			NEIC

Eastern Honshu, Japan

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	01:30:54.8	82.9	38.7	0.9	16	5.1		
		e pP	Z	01:31:14.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21	01:47:07.1	43.472N	14.612E	10G				NEIC

Adriatic Sea

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	01:48:28.7	5.4	173.0					
		e Sn	N	01:49:33.5							
	WET	e Pn	Z	01:48:33.8	5.8	167.4					
		e Sn	N	01:49:44.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21	05:51:26.1	38.371N	99.299E	33.0N	4.8			SZGRF
2003/04/21	05:51:29.6	37.494N	96.531E	33N	4.6			NEIC

Qinghai, China

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	06:01:34.2	59.6	66.5	1.3	19	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21	06:25:52.0	48.843N	159.876E	33.0N	5.2			SZGRF
2003/04/21	06:25:57.1	49.380N	156.029E	33N	4.6			NEIC

East of Kuril Islands, Russia

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	06:37:46.7	76.4	22.7	1.0	18	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21	07:15:30.5	34.570N	25.380E	33.0N	3.8			SZGRF

Crete, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	07:19:24.3	16.7	144.5	0.7	7	3.9		
FUR	e P	Z	07:19:29.3	17.2	137.2	0.6	11	4.2		
WET	e P	Z	07:19:29.9	17.2	143.0	1.1	6	3.7		
BRG	e P	Z	07:19:41.0	18.3	148.7	1.6	9	3.6		
GRA1	e P	Z	07:19:42.4	18.3	140.2	0.9	23	4.3		
TANN	e P	Z	07:19:43.9	18.4	144.4	1.3	6	3.6		
WERD	e P	Z	07:19:44.2	18.5	144.1	1.2	5	3.6		
CLL	e P	Z	07:19:49.6	19.0	147.1	1.0	6	3.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21	10:03:51.3	45.916N	15.948E	10.0G			2.9	SZGRF
2003/04/21	10:03:53.6	46.133N	15.740E	10G				NEIC

Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ARSA	e Pg	Z	10:04:15.1	1.1	172.3					2.8
	e Sg	E	10:04:35.7							
KBA	e Pn	Z	10:04:26.9	1.9	119.0					2.6
	e Sg	N	10:04:59.4							
WTTA	e Pn	Z	10:04:43.5	3.0	110.4					
GEC2	e Pn	Z	10:04:43.2	3.0	152.3					3.1
	e Sn	N	10:05:20.6							
WET	e Pn	Z	10:04:50.1	3.6	146.3					
TANN	e Pn	Z	10:05:07.3	4.8	151.8					
BRG	e Pn	Z	10:05:07.9	4.9	165.2					
MOX	e Pn	Z	10:05:13.2	5.3	147.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21	10:24:21.0	15.170S	166.877E	33N	5.0	4.6		NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	10:43:52.1	140.2	38.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21	19:55:50.9	29.882N	140.731E	33.0N	5.0			SZGRF
2003/04/21	19:55:45.3	27.800N	140.521E	63*	4.8			NEIC

Southeast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	20:08:41.3	90.4	43.2	1.3	12	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21	20:42:03.2	26.369N	128.698E	33N	4.4			NEIC

Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	20:54:43.8	85.9	52.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/21	22:59:49.8	20.988S	178.327W	400G	4.3			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z	23:18:45.5	146.4	14.7					
CLZ	e PKPbc	Z	23:18:50.5	148.4	15.6					
	e PKPab	Z	23:18:55.7							
CLL	e PKPbc	Z	23:18:51.1	148.4	20.5					
	e PKPab	Z	23:18:55.6							
BRG	e PKP	Z	23:18:51.5	148.6	22.4					
	e PKPab	Z	23:18:56.9							
MOX	e PKPbc	Z	23:18:53.2	149.3	18.4					
	e PKPab	Z	23:18:59.4							
TANN	e PKPab	Z	23:18:59.8	149.4	20.1					
WERD	e PKPbc	Z	23:18:53.7	149.4	19.8					
	e PKPab	Z	23:18:59.9							
GUNZ	e PKPbc	Z	23:18:53.7	149.4	19.9					
	e PKPab	Z	23:19:00.2							
TNS	e PKPbc	Z	23:18:56.2	150.3	12.8					
	e PKPab	Z	23:19:03.4							
GRA1	e PKPab	Z	23:19:04.3	150.3	18.2					
WET	e PKPbc	Z	23:18:56.2	150.5	21.6					
	e PKPab	Z	23:19:04.4							
GEC2	e PKPbc	Z	23:18:56.2	150.5	23.3					
	e PKPab	Z	23:19:05.0							
WLF	e PKPab	Z	23:19:07.1	151.1	8.7					
STU	e PKPbc	Z	23:18:58.9	151.6	14.9					
	e PKPab	Z	23:19:09.1							
FUR	e PKPbc	Z	23:18:59.0	151.8	19.2					
	e PKPab	Z	23:19:10.3							

BFO	e PKPbc	Z	23:18:59.7	152.1	13.4	
	e PKPab	Z	23:19:11.2			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/22	02:03:26.3	21.300S	174.541W	33N	4.9			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	02:23:17.8	151.2	11.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/22	02:58:47.3	20.826S	169.389E	33N	5.1	4.7		NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKP	Z	03:18:20.8	144.3	41.8					
CLL	e PKP	Z	03:18:20.9	144.4	40.0					
CLZ	e PKP	Z	03:18:22.9	145.0	35.7					
TANN	e PKP	Z	03:18:23.8	145.3	40.0					
WERD	e PKP	Z	03:18:23.8	145.3	39.8					
GUNZ	e PKP	Z	03:18:24.1	145.4	39.9					
MOX	e PKP	Z	03:18:24.7	145.4	38.6					
IBBN	e PKP	Z	03:18:24.1	145.5	31.3					
GEC2	e PKP	Z	03:18:25.8	145.9	43.4					
WET	e PKP	Z	03:18:26.3	146.1	41.9					
GRA1	e PKP	Z	03:18:26.9	146.3	38.8					
BUG	e PKP	Z	03:18:26.9	146.4	31.2					
TNS	e PKP	Z	03:18:28.7	147.0	34.1					
FUR	e PKP	Z	03:18:32.6	147.5	40.4					
STU	e PKP	Z	03:18:31.5	147.9	36.6					
WLF	e PKP	Z	03:18:33.1	148.2	30.8					
BFO	e PKP	Z	03:18:33.4	148.6	35.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/22	04:34:00.4	15.374S	174.137W	33N	4.9			NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	04:53:36.2	145.5	9.2					
	e pPKP	Z	04:53:46.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/22	08:35:37.1	73.393N	13.051E	33.0N	4.5			SZGRF
2003/04/22	08:34:59.2	76.502N	7.407E	10G	4.5			NEIC

Norwegian Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	08:40:06.7	22.6	358.2	1.0	40	4.6		
CLZ	e P	Z	08:40:26.6	24.7	358.3	1.0	14	4.4		
BUG	e P	Z	08:40:30.8	25.1	0.1	0.9	19	4.5		
CLL	e P	Z	08:40:31.7	25.3	356.9	0.9	8	4.1		
BRG	e P	Z	08:40:35.7	25.8	356.5	1.0	13	4.4		
MOX	e P	Z	08:40:37.6	25.9	357.8	1.0	23	4.7		
WERD	e P	Z	08:40:39.3	26.1	357.4	1.6	25	4.5		
TANN	e P	Z	08:40:39.9	26.2	357.3	1.2	14	4.4		
GUNZ	e P	Z	08:40:40.3	26.2	357.4	1.2	19	4.5		
GRA1	e P	Z	08:40:46.7	26.9	358.0	1.6	28	4.6		
WET	e P	Z	08:40:52.2	27.4	357.2	1.4	10	4.1		
GEC2	e P	Z	08:40:54.8	27.8	356.9	1.3	15	4.5		
BFO	e P	Z	08:41:00.9	28.2	359.5	2.8	70	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/22	16:39:43.3	15.164S	173.723W	33N	5.3	5.2		NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e sPKPbc	Z	16:59:25.1	142.8	2.4					
CLZ	e sPKPbc	Z	16:59:26.0	143.2	6.6					
CLL	i PKPdf -	Z	16:59:15.5	143.5	10.9	1.0	10			
	e sPKPdf	Z	16:59:29.1							
	e PP	Z	17:02:35.5							
	e PKSdf	Z	17:03:16.5							
	e SKSP	R	17:12:30.4							
	e PPS	R	17:14:56.6							
	e SS	Z	17:21:10.1							
	e SSS	R	17:26:27.1							
	e LR	Z	17:47:13.3							
	e L	Z	17:58:01.7			22.0	567		5.3	
BUG	e sPKPbc	Z	16:59:27.1	143.7	1.6					
BRG	e PKPbc	Z	16:59:15.9	143.8	12.6					
	e sPKPbc	Z	16:59:28.0							
MOX	e PKPbc	Z	16:59:18.0	144.3	8.8					
	e sPKPbc	Z	16:59:30.2							
WERD	e PKPbc	Z	16:59:18.4	144.4	10.0					
	e sPKPbc	Z	16:59:30.7							
TANN	e PKPbc	Z	16:59:18.4	144.4	10.3					
	e sPKPbc	Z	16:59:30.8							
GUNZ	e PKPbc	Z	16:59:18.7	144.5	10.1					

	e sPKPbc	Z	16:59:31.1						
TNS	e PKPbc	Z	16:59:19.0	144.9	3.6				
	e sPKPbc	Z	16:59:31.6						
GRA1	e PKPbc	Z	16:59:20.9	145.2	8.4				
	e sPKPbc	Z	16:59:33.3						
	e L	Z	18:06:14.0			21.5	939	5.5	
WLF	e PKPbc	Z	16:59:21.9	145.5	359.8				
	e sPKPbc	Z	16:59:34.2						
WET	e PKPbc	Z	16:59:22.0	145.6	11.3				
	e sPKPbc	Z	16:59:33.9						
GEC2	e PKPbc	Z	16:59:22.4	145.8	12.8				
	e sPKPbc	Z	16:59:34.7						
STU	e PKPbc	Z	16:59:24.0	146.3	5.1				
	e sPKPbc	Z	16:59:36.5						
FUR	e PKPbc	Z	16:59:25.5	146.7	8.8				
	e sPKPbc	Z	16:59:37.9						
BFO	e PKPbc	Z	16:59:25.4	146.8	3.6				
	e sPKPbc	Z	16:59:37.8						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/23	02:08:54.7	21.119S	179.321W	628D	4.6			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKP	Z	02:27:28.2	146.4	16.4					
RUE	e PKP	Z	02:27:30.0	147.1	22.9					
CLL	i PKPdf	Z	02:27:28.2	148.3	22.3	1.8	16			
	i PKPbc	Z	02:27:32.8			1.1	43			
	e PKPab	Z	02:27:39.1			1.6	27			
	e pPKPbc	Z	02:29:55.7							
IBBN	e PKPbc	Z	02:27:33.0	148.3	12.6					
CLZ	e PKPdf	Z	02:27:29.0	148.4	17.4					
	e PKPbc	Z	02:27:33.5							
	e PKPab	Z	02:27:39.7							
BRG	e PKPdf	Z	02:27:28.8	148.5	24.2					
	e PKPbc	Z	02:27:33.7							
	e PKPab	Z	02:27:40.0							
BUG	e PKPbc	Z	02:27:35.2	149.2	12.1					
	e PKPab	Z	02:27:42.3							
MOX	e PKPdf	Z	02:27:30.3	149.2	20.3					
	e PKPbc	Z	02:27:35.4							
	e PKPab	Z	02:27:43.0							
TANN	e PKPdf	Z	02:27:30.3	149.3	21.9					
	e PKPbc	Z	02:27:35.6							
	e PKPab	Z	02:27:43.1							
WERD	e PKPdf	Z	02:27:30.2	149.3	21.6					
	e PKPbc	Z	02:27:35.0							

	e PKPab	Z	02:27:43.2			
GRA1	e PKPdf	Z	02:27:30.6	150.2	20.1	
	e PKPbc	Z	02:27:38.0			
	e PKPab	Z	02:27:47.5			
	e pPKP	Z	02:30:03.6			
TNS	e PKPbc	Z	02:27:37.9	150.3	14.7	
	e PKPab	Z	02:27:47.0			
WET	e PKPbc	Z	02:27:38.2	150.3	23.5	
	e PKPab	Z	02:27:48.2			
GEC2	e PKPbc	Z	02:27:38.1	150.4	25.2	
	e PKPab	Z	02:27:47.6			
WLF	e PKPbc	Z	02:27:40.7	151.1	10.6	
	e PKPab	Z	02:27:51.0			
STU	e PKPbc	Z	02:27:40.7	151.5	16.8	
	e PKPab	Z	02:27:52.5			
FUR	e PKPab	Z	02:27:53.2	151.6	21.2	
BFO	e PKPbc	Z	02:27:41.3	152.1	15.4	
	e PKPab	Z	02:27:54.4			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/23	02:25:52.6	52.096N	155.556E	33.0N	4.7			SZGRF
2003/04/23	02:25:49.6	52.364N	158.833E	78*	4.2			NEIC

Northwest of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	02:37:24.2	74.3	19.9	1.2	9	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/23								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	03:20:44.4							
	e Sn	N	03:21:51.0							
WET	e Pn	Z	03:20:49.7							
	e Sn	E	03:21:58.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/23								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	03:40:52.1							
	e Sn	N	03:41:59.0							
WET	e Pn	Z	03:40:57.5							

e Sn E 03:42:07.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/23	04:33:50.4	23.735S	179.979E	537D	4.3			NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e PKPbc	Z	04:52:38.6	148.8	18.5					
	e PKPab	Z	04:52:44.7							
RUE	e PKPbc	Z	04:52:40.5	149.4	25.4					
CLL	e PKPdf	Z	04:52:38.0	150.7	24.9					
	i PKPbc	- Z	04:52:42.8			0.8	30			
	i PKPab	Z	04:52:52.0			0.8	12			
	e pPKPbc	Z	04:54:48.8							
CLZ	e PKPbc	Z	04:52:43.3	150.8	19.8					
	e PKPab	Z	04:52:53.2							
BRG	e PKPbc	Z	04:52:43.4	150.8	26.9					
	e PKPab	Z	04:52:53.1							
IBBN	e PKPab	Z	04:52:53.5	150.8	14.7					
TANN	e PKPbc	Z	04:52:45.2	151.6	24.6					
MOX	e PKPbc	Z	04:52:44.9	151.6	22.9					
	e PKPab	Z	04:52:56.1							
WERD	e PKPbc	Z	04:52:45.1	151.6	24.3					
	e PKPab	Z	04:52:56.6							
BUG	e PKPbc	Z	04:52:45.1	151.7	14.2					
GRA1	e PKPab	Z	04:53:01.1	152.6	22.8					
WET	e PKPab	Z	04:53:01.5	152.6	26.4					
GEC2	e PKPbc	Z	04:52:47.2	152.7	28.2					
	e PKPab	Z	04:53:01.2							
TNS	e PKPab	Z	04:53:01.0	152.7	17.1					
WLF	e PKPab	Z	04:53:05.6	153.6	12.8					
STU	e PKPbc	Z	04:52:50.1	153.9	19.5					
	e PKPab	Z	04:53:06.3							
FUR	e PKPab	Z	04:53:07.6	154.0	24.1					
BFO	e PKPab	Z	04:53:08.6	154.5	18.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/23	10:23:26.2	55.050N	163.870E	33.0N	5.9	5.3		SZGRF
2003/04/23	10:23:30.2	55.967N	163.209E	33N	5.1	5.1		NEIC

Off east coast of Kamchatka Peninsula, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	10:34:23.7	66.8	17.8	1.6	291	6.2		
	e PP	Z	10:36:51.2							
BSEG	e P	Z	10:34:29.8	67.9	16.0	2.2	263	6.1		

	e	PP		Z	10:37:01.1				
HLG	e	P		Z	10:34:31.1	68.0	14.6	1.4	221	6.2
RUE	e	P		Z	10:34:35.2	68.7	17.8	1.8	305	6.1
	e	PP		Z	10:37:07.7				
IBBN	e	P		Z	10:34:42.6	69.8	14.3	2.2	418	6.2
	e	PP		Z	10:37:18.6				
CLZ	e	P		Z	10:34:42.3	69.9	15.8	1.6	184	6.0
	e	PP		Z	10:37:18.6				
CLL	i	P	+	Z	10:34:42.0	69.9	17.2	1.5	189	6.0
	e	pP		Z	10:34:49.3				
	e	PcP		Z	10:35:03.0				
	e				10:35:09.4				
	e	PP		Z	10:37:15.5				
	e	PPP		Z	10:39:03.4				
	e	S		T	10:43:52.2				
	e	PPS		T	10:44:27.1				
	e	SS		T	10:48:24.8				
	e	SSS		Z	10:51:54.3				
	e	LR		Z	10:57:39.3				
	e	L		Z	11:07:04.3			22.0	1289	5.1
BRG	e	P		Z	10:34:43.7	70.2	17.7	1.5	101	5.7
	e	PP		Z	10:37:19.8				
BUG	e	P		Z	10:34:47.6	70.8	14.0	1.8	181	5.9
	e	PP		Z	10:37:26.1				
MOX	e	P		Z	10:34:48.0	70.8	16.4	1.6	144	5.8
	e	PP		Z	10:37:26.7				
WERD	e	P		Z	10:34:48.3	70.9	16.7	1.5	149	5.9
TANN	e	P		Z	10:34:48.3	70.9	16.8	1.8	189	5.9
TNS	e	P		Z	10:34:53.4	71.8	14.6	2.0	174	5.8
	e	PP		Z	10:37:34.1				
GRA1	e	P		Z	10:34:54.1	71.8	16.1	1.5	236	6.1
	e	PP		Z	10:37:43.7				
	e	SS		N	10:49:30.2				
	e	L		Z	11:10:36.0			18.0	1462	5.3
WET	e	P		Z	10:34:55.3	72.0	16.9	1.6	175	5.9
	e	PP		Z	10:37:38.7				
GEC2	e	P		Z	10:34:56.1	72.1	17.4	1.7	135	5.8
WLF	e	P		Z	10:34:59.1	72.7	13.2	2.1	180	5.7
	e	PP		Z	10:37:43.6				
STU	e	P		Z	10:35:01.1	73.0	14.9	1.4	82	5.6
	e	PP		Z	10:37:46.0				
FUR	e	P		Z	10:35:02.9	73.3	16.0	1.8	243	5.9
BFO	e	P		Z	10:35:04.1	73.6	14.3	1.4	92	5.6
	e	pP		Z	10:35:10.4				
	e	sP		Z	10:35:16.5				
	e	PP		Z	10:37:51.8				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/23								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	21:48:24.2							
	e Sn	N	21:49:29.3							
WET	e Pn	Z	21:48:29.6							
	e Sn	N	21:49:39.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/24	00:15:40.2	43.093N	15.117E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	00:17:05.8	5.8	169.8					
	e Sn	N	00:18:11.0							
WET	e Pn	Z	00:17:11.1	6.2	164.8					
	e Sn	N	00:18:20.5							
TANN	e Pn	Z	00:17:29.9	7.5	165.1					
MOX	e Pn	Z	00:17:34.5	7.9	161.1					
	e Sn	N	00:19:00.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/24	10:56:21.4	48.680N	154.920E	33.0N	5.7	6.1		SZGRF
2003/04/24	10:56:22.5	48.853N	154.878E	49*	5.5	5.6		NEIC

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	11:07:44.1	71.7	25.5					
BSEG	e P	Z	11:07:50.9	73.0	23.5	1.5	61	5.5		
RUE	e P	Z	11:07:54.0	73.4	25.5	1.2	79	5.6		
CLL	i P	+ Z	11:08:00.4	74.7	24.9	1.2	82	5.6		
	e pP	Z	11:08:14.0							
	e sP	Z	11:08:23.2							
	e PP	Z	11:10:51.5							
	e PPP	Z	11:12:42.3							
	e S	T	11:17:35.3							
	e sS	T	11:17:48.4							
	e SS	R	11:22:32.6							
	e SSS	T	11:26:04.3							
	e LQ	T	11:31:22.3							
	e LR	Z	11:33:15.4							
	e L	Z	11:44:08.7			20.0	9832		6.1	
BRG	e P	Z	11:08:01.2	74.8	25.4	0.7	335	6.5		
CLZ	e P	Z	11:08:01.6	74.9	23.3	1.4	105	5.7		

IBBN	e P	Z	11:08:02.5	75.0	21.7	1.2	59	5.6	
TANN	e P	Z	11:08:05.9	75.6	24.5	2.3	176	5.8	
WERD	e P	Z	11:08:06.3	75.6	24.4	1.6	84	5.6	
MOX	e P	Z	11:08:06.4	75.6	24.0	1.5	72	5.6	
BUG	e P	Z	11:08:08.1	76.0	21.3	1.7	129	5.8	
GRA1	e P	Z	11:08:12.6	76.6	23.6	1.3	125	5.9	
	e S	E	11:17:40.4						
	e SS	N	11:23:13.8						
	e L	Z	11:45:37.4			20.2	10233		6.1
WET	e P	Z	11:08:12.6	76.7	24.6	1.4	85	5.7	
GEC2	e P	Z	11:08:12.2	76.7	25.1	0.9	23	5.3	
TNS	e P	Z	11:08:13.2	76.8	21.9	1.9	135	5.8	
WLF	e P	Z	11:08:19.2	77.9	20.4	1.2	42	5.5	
STU	e P	Z	11:08:19.6	78.0	22.3	1.3	80	5.6	
FUR	e P	Z	11:08:20.1	78.0	23.5	1.3	138	5.8	
BFO	e P	Z	11:08:23.0	78.6	21.7	1.4	110	5.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/24	22:40:26.6	36.350N	140.760E	33.0N	5.1			SZGRF
2003/04/24	22:40:28.0	36.441N	141.057E	57*	4.7			NEIC

Near east coast of eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	22:52:27.3	78.6	40.5	1.3	101	5.7		
RUE	e P	Z	22:52:35.0	80.0	40.5					
BSEG	e P	Z	22:52:35.6	80.1	38.2					
BRG	e P	Z	22:52:40.5	81.1	40.5	1.0	12	4.9		
CLL	i P	+ Z	22:52:40.5	81.2	39.9	1.0	24	5.3		
	e pP	Z	22:52:52.9							
	e PP	Z	22:56:05.3							
	e S	Z	23:02:55.2							
	e (SS)	Z	23:09:23.9							
	e L	Z	23:32:26.4			20.0	160			
CLZ	e P	Z	22:52:44.3	81.8	38.1	1.1	20	5.2		
TANN	e P	Z	22:52:45.6	82.1	39.4	1.2	7	4.7		
WERD	e P	Z	22:52:45.6	82.1	39.3	1.1	8	4.7		
MOX	e P	Z	22:52:46.4	82.2	38.8	1.3	14	5.0		
IBBN	e P	Z	22:52:47.6	82.4	36.2	0.7	18	5.4		
GEC2	e P	Z	22:52:49.0	82.8	40.1	1.0	8	4.9		
WET	e P	Z	22:52:50.4	82.9	39.6	1.2	11	5.0		
GRA1	e P	Z	22:52:51.3	83.1	38.5	1.1	41	5.6		
	e sP	Z	22:53:04.5							
BUG	e P	Z	22:52:51.5	83.3	35.8					
TNS	e P	Z	22:52:55.1	83.8	36.6	0.9	7	4.9		
FUR	e P	Z	22:52:57.4	84.3	38.4	0.9	21	5.4		
STU	e P	Z	22:52:59.4	84.7	37.0	0.9	19	5.3		
BFO	e P	Z	22:53:02.2	85.4	36.4	1.0	21	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/25	16:50:45.9	37.322N	72.317E	33.0N	5.3			SZGRF
2003/04/25	16:50:42.4	36.606N	71.588E	33N	5.0			NEIC

Tajikistan

Sta	Phase			Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P		Z	16:58:40.2	42.8	86.4	0.9	47	5.2		
RUE	e P		Z	16:58:39.8	42.8	88.0	1.0	44	5.1		
GEC2	e P		Z	16:58:42.8	43.1	84.0	1.6	50	5.0		
CLL	i P	+	Z	16:58:44.2	43.4	86.1	1.1	31	4.9		
	e			16:59:15.6							
	e PcP		Z	17:00:30.6							
	e sPP		Z	17:00:41.8							
	e S		T	17:05:13.3							
	e SS		Z	17:08:25.3							
	e LR		Z	17:11:38.2							
	e L		Z	17:17:38.0			20.0	125		3.8	
WET	e P		Z	16:58:46.9	43.6	83.8	1.3	22	4.7		
TANN	e P		Z	16:58:48.2	43.8	84.8	1.2	31	4.9		
WERD	e P		Z	16:58:48.8	43.9	84.7	1.1	31	4.9		
MOX	e P		Z	16:58:52.2	44.3	84.5	1.0	29	5.0		
GRA1	i P	+	Z	16:58:55.9	44.6	83.2	1.5	154	5.7		
FUR	e P		Z	16:58:56.4	44.8	81.7	1.2	134	5.7		
BSEG	e P		Z	16:58:56.5	44.8	86.8	1.1	56	5.4		
CLZ	e P		Z	16:58:57.4	45.0	84.8	1.3	55	5.3		
STU	e P		Z	16:59:06.2	46.1	81.0	1.1	61	5.6		
TNS	e P		Z	16:59:08.4	46.3	81.8	1.0	24	5.3		
IBBN	e P		Z	16:59:09.5	46.5	83.3	1.0	67	5.7		
BFO	e P		Z	16:59:10.7	46.7	80.0	1.1	34	5.4		
BUG	e P		Z	16:59:12.7	46.9	82.2	1.0	50	5.6		
WLF	e P		Z	16:59:20.7	47.9	79.8	1.0	82	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/25	22:39:36.3	43.168N	15.272E	10.0G			3.8	SZGRF
2003/04/25	22:39:32.4	43.099N	15.520E	10G				NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	22:41:01.5	5.9	166.9					3.8
	e Sn	E	22:42:06.1							
WET	e Pn	Z	22:41:07.0	6.3	162.2					3.8
	e Sn	E	22:42:15.8							
TANN	e Pn	Z	22:41:25.5	7.6	162.9					
	e Sn	E	22:42:46.0							

WERD	e Pn	Z	22:41:25.8	7.7	162.1	
BRG	e Pn	Z	22:41:27.6	7.8	171.5	
MOX	e Pn	Z	22:41:29.4	8.0	159.1	
	e Sn	N	22:42:55.6			
CLL	e Pn	Z	22:41:35.4	8.4	167.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/26	08:20:44.9	43.070N	15.107E	10.0G				SZGRF
2003/04/26	08:20:43.0	43.140N	15.358E	10G	4.2			NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	08:22:10.8	5.8	168.0					
	e Sn	N	08:23:16.3							
WET	e Pn	Z	08:22:16.3	6.2	163.1					
	e Sn	N	08:23:25.5							
TANN	e Pn	Z	08:22:34.6	7.5	163.7					
WERD	e Pn	Z	08:22:35.2	7.6	162.9					
BRG	e Pn	Z	08:22:37.6	7.8	172.4					
MOX	e Pn	Z	08:22:39.1	7.9	159.8					
	e Sn	N	08:24:05.8							
CLL	e Pn	Z	08:22:45.5	8.3	168.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/26	18:01:16.6	42.975N	14.584E	10.0G				SZGRF

Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	18:02:42.5	5.9	173.7					
	e Sn	E	18:03:49.9							
WET	e Pn	Z	18:02:48.0	6.3	168.5					
	e Sn	E	18:03:56.9							
TANN	e Pn	Z	18:03:06.6	7.6	168.1					
MOX	e Pn	Z	18:03:12.0	7.9	164.1					
CLL	e Pn	Z	18:03:17.3	8.4	172.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/26	19:37:48.4	38.377N	31.909W	33.0N	5.2	4.3		SZGRF
2003/04/26	19:37:33.7	37.078N	32.459W	10G	5.0	4.9		NEIC

Azores Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRFO	e L	Z	19:55:56.8	33.6	264.8	18.4	568		4.3	

GRA1	e P	Z	19:44:16.3	33.6	264.8	2.1	74	5.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/26								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	21:12:53.2							
	e Sn	N	21:13:58.1							
WET	e Pn	Z	21:12:58.5							
	e Sn	N	21:14:08.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27	04:27: 6.4	43.776N	153.316E	33.0N	4.6			SZGRF
2003/04/27	04:27:16.5	44.054N	147.682E	51	4.5			NEIC

North Pacific Ocean

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	04:39:17.4	78.9	30.3	1.1	7	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27	07:22:31.2	25.729N	45.588W	22.5	4.8			SZGRF
2003/04/27	07:22:52.7	28.703N	43.628W	10G	4.7			NEIC

Northern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	07:31:19.9	46.1	264.1	2.0	25	4.8		
	e pP	Z	07:31:26.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27	07:25:45.4	30.759N	42.007W	33.0N	4.5			SZGRF
2003/04/27	07:25:19.1	28.468N	43.589W	10G	4.5			NEIC

Northern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	07:33:47.7	46.3	263.8	1.3	12	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	09:07:36.1							
	e Sn	N	09:08:41.0							
WET	e Pn	Z	09:07:41.9							
	e Sn	E	09:08:50.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	12:57:14.7							
	e Sn	N	12:58:19.9							
WET	e Pn	Z	12:57:20.2							
	e Sn	N	12:58:30.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	14:21:15.8							
	e Sn	N	14:22:20.9							
WET	e Pn	Z	14:21:21.3							
	e Sn	N	14:22:30.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27	16:03:43.0	20.880S	169.670E	96D	5.9			NEIC

Southeast of Loyalty Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPpre	Z	16:23:07.4	144.6	39.7					
	e PKPdf	Z	16:23:09.3			0.9	346			
	e pPKPdf	Z	16:23:35.2							
	e sPKPdf	Z	16:23:44.5							
	e PKSdf	Z	16:26:41.6							
	e pPP	Z	16:26:50.1							
	e PPP	Z	16:30:04.8							
	e PPS	R	16:39:00.3							
	e SS	T	16:45:07.2							
	e SSS	T	16:50:28.6							
	e LR	Z	17:11:50.3							
	e L	Z	17:30:00.5			22.0	1816		5.8	
GRA1	e PKP	Z	16:23:12.5	146.5	38.5					
	e		16:23:51.8							

		e L	Z	17:32:09.9				20.7	1730		5.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	19:03:32.9							
		e Sn	N	19:04:37.5							
	WET	e Pn	Z	19:03:38.6							
		e Sn	E	19:04:47.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27	19:12:40.7	43.172N	15.455E	10.0G				SZGRF
2003/04/27	19:12:35.3	42.960N	15.452E	10G	3.9			NEIC
Adriatic Sea								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	19:14:06.2	6.0	167.7					
		e Sn	N	19:15:11.6							
	WET	e Pn	Z	19:14:11.6	6.4	163.0					
		e Sn	E	19:15:20.7							
	GRA1	e Pn	Z	19:14:25.8	7.3	155.0					
	TANN	e Pn	Z	19:14:29.4	7.7	163.5					
	WERD	e Pn	Z	19:14:30.3	7.8	162.8					
	BRG	e Pn	Z	19:14:32.6	8.0	172.0					
	MOX	e Pn	Z	19:14:34.2	8.1	159.7					
		e Sn	N	19:16:00.2							
	CLL	e Pn	Z	19:14:40.3	8.5	167.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GEC2	e Pn	Z	20:15:30.8							
		e Sn	N	20:16:36.0							
	WET	e Pn	Z	20:15:36.2							
		e Sn	N	20:16:45.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/27	22:57:55.3	7.140S	70.180W	572.3	6.0			SZGRF
2003/04/27	22:57:44.7	8.207S	71.641W	560D	5.6			NEIC

Western Brazil

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	23:09:38.5	88.5	255.4	1.4	332	6.3		
	e pP	Z	23:11:42.5							
BFO	e P	Z	23:09:42.7	89.5	257.1	1.3	54	5.7		
BUG	e P	Z	23:09:43.4	89.6	256.2	1.5	231	6.3		
	e pP	Z	23:11:47.5							
TNS	e P	Z	23:09:45.7	90.0	257.2	0.9	57	5.9		
	e pP	Z	23:11:49.7							
IBBN	e P	Z	23:09:45.9	90.1	256.6	1.9	358	6.4		
	e pP	Z	23:11:49.9							
STU	e P	Z	23:09:45.9	90.2	257.7	1.2	146	6.2		
	e pP	Z	23:11:50.1							
FUR	e P	Z	23:09:52.0	91.4	259.3	1.3	193	6.2		
	e pP	Z	23:11:56.3							
CLZ	e P	Z	23:09:52.5	91.6	258.7	1.7	153	6.0		
GRA1	e P	Z	23:09:53.4	91.7	259.3	1.5	118	5.9		
	e PKKP	Z	23:27:10.6							
	e		23:35:16.2							
	e		23:35:21.4							
BSEG	e P	Z	23:09:54.5	91.9	258.7	1.1	50	5.7		
MOX	e P	Z	23:09:55.4	92.1	259.6	2.0	154	5.9		
WERD	e P	Z	23:09:57.5	92.5	260.1	1.8	127	6.0		
TANN	e P	Z	23:09:58.0	92.6	260.2	1.7	145	6.0		
	e pP	Z	23:12:02.1							
WET	e P	Z	23:09:57.8	92.6	260.5	1.5	116	6.0		
	e pP	Z	23:12:02.1							
CLL	i P	- Z	23:09:59.7	93.1	260.7	1.7	111	6.0		
	i pP	Z	23:12:03.8							
	e sP	Z	23:13:02.1							
	e sPP	Z	23:16:38.3							
	e SKSac	R	23:19:39.9							
	e SP	Z	23:21:33.9							
	e SS	R	23:26:51.6							
	e SSS	Z	23:30:34.4							
GEC2	e P	Z	23:09:59.7	93.1	261.1	1.0	39	5.7		
BRG	e P	Z	23:10:02.2	93.6	261.4	1.4	78	5.8		
	e pP	Z	23:12:06.7							
RUE	e P	Z	23:10:02.5	93.7	261.4	0.7	26	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/28								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	01:25:28.0							
	e Sn	E	01:26:34.4							

WET	e Pn	Z	01:25:33.6	
	e Sn	E	01:26:43.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/28								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	03:15:20.9							
	e Sn	Z	03:16:26.6							
WET	e Pn	Z	03:15:26.4							
	e Sn	N	03:16:36.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/28	06:46:24.3	22.531S	179.484E	600G	4.0			NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKP	Z	07:05:08.4	149.4	25.1					
BRG	e PKP	Z	07:05:08.9	149.5	27.0					
CLZ	e PKP	Z	07:05:09.3	149.5	20.1					
TANN	e PKP	Z	07:05:10.8	150.3	24.8					
MOX	e PKP	Z	07:05:10.7	150.3	23.1					
WERD	e PKP	Z	07:05:10.6	150.3	24.5					
BUG	e PKP	Z	07:05:10.7	150.5	14.7					
GEC2	e PKP	Z	07:05:13.0	151.4	28.3					
TNS	e PKP	Z	07:05:13.1	151.4	17.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/28	11:29:13.4	20.383S	178.096W	600G	4.3			NEIC

Fiji Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	11:47:49.5	147.9	19.9	0.7	7			
	i PKPbc	Z	11:47:53.3			1.0	42			
	e PKPab	Z	11:47:57.8							
GRA1	e PKPbc	Z	11:47:59.3	149.8	17.5					
	e PKPab	Z	11:48:05.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/28	22:56: 5.1	43.023N	14.809E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	22:57:31.2	5.9	172.1					
	e Sn	N	22:58:36.9							
WET	e Pn	Z	22:57:36.6	6.3	167.0					
	e Sn	N	22:58:46.1							
TANN	e Pn	Z	22:57:55.1	7.6	166.8					
MOX	e Pn	Z	22:57:59.5	7.9	162.8					
	e Sn	E	22:59:25.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	01:38:51.1	48.219N	155.809E	33.0N	4.9			SZGRF
2003/04/29	01:38:58.1	49.217N	155.216E	71*	4.7			NEIC

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:50:43.5	76.4	23.3	1.8	20	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	01:51:21.4	36.943N	21.564E	10.0G				SZGRF
2003/04/29	01:51:19.4	36.981N	21.869E	36*	5.0	4.4		NEIC

Southern Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	01:54:25.6	13.3	150.4					
	e Sn	E	01:56:48.6							
FUR	e Pn	Z	01:54:30.4	13.6	141.4					
	e Sn	N	01:56:53.7							
WET	e Pn	Z	01:54:32.5	13.8	148.4					
	e Sn	E	01:57:00.9							
GRA1	e Pn	Z	01:54:48.7	14.9	144.8					
STU	e Pn	Z	01:54:49.6	15.0	137.3					
BRG	e Pn	Z	01:54:50.1	15.0	154.8					
TANN	e Pn	Z	01:54:51.1	15.0	149.8					
BFO	e Pn	Z	01:54:51.0	15.1	133.9					
	e Sn	N	01:57:27.3							
MOX	e Pn	Z	01:54:55.4	15.5	147.9					
CLL	e Pn	Z	01:54:58.5	15.6	152.8					
TNS	e Pn	Z	01:55:09.7	16.4	138.9					
	e Sn	E	01:57:59.8							
CLZ	e Pn	Z	01:55:17.4	16.9	146.9					
WLF	e Pn	Z	01:55:19.1	17.0	132.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	04:55: 7.5	46.290N	7.524E	10.0G			4.2	SZGRF
2003/04/29	04:55:09.0	46.399N	7.534E	10G				NEIC

Switzerland

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e Pn	Z	04:55:42.2	2.0	195.9					3.8
	e Sg	N	04:56:14.1							
STU	e Pn	Z	04:55:50.9	2.6	205.9					4.3
	e Sg	N	04:56:35.4							
FUR	e Pn	Z	04:55:58.7	3.1	236.6					4.5
	e Sg	N	04:56:48.0							
WLF	e Pn	Z	04:56:04.3	3.4	163.7					4.2
TNS	e Pn	Z	04:56:08.6	3.9	189.4					4.1
	e Sn	E	04:56:53.4							
GRA1	e Pn	Z	04:56:10.5	4.1	218.2					4.3
	e Sg	N	04:57:20.8							
WET	e Pn	Z	04:56:17.3	4.5	234.6					
GEC2	e Pn	Z	04:56:22.2	4.8	241.8					
	e Sn	N	04:57:16.4							
MOX	e Sg	N	04:57:49.6	5.0	214.0					
TANN	e Pn	Z	04:56:24.6	5.2	221.0					
	e Sg	N	04:57:55.2							
CLZ	e Pn	Z	04:56:32.7	5.7	199.9					
	e Sg	N	04:58:14.8							
CLL	e Pn	Z	04:56:37.0	6.1	218.3					
	e Sg	E	04:58:24.1							
BRG	e Sg	N	04:58:26.9	6.2	225.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	10:44:39.6	7.022S	103.715E	33N	5.7	5.7		NEIC

Nicobar Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z	10:58:04.6	95.9	93.8					
	e PP	Z	11:01:59.6							
	e SKSac	R	11:08:34.6							
	e SP	Z	11:10:39.2							
	e L	Z	11:50:47.1			18.0	2226		5.7	
GRA1	e P	Z	10:58:10.1	97.0	92.7	1.6	20	4.9		
	e pP	Z	10:58:18.2							
	e L	Z	11:49:02.1			21.6	2255		5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	13:53:12.4	43.190N	147.800E	33.0N	6.4	5.8		SZGRF

2003/04/29 13:53:16.7 43.668N 147.757E 61D 6.1 NEIC
Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	14:04:52.1	74.4	32.4	1.4	1350	6.8		
BSEG	e P	Z	14:05:00.2	75.8	30.3	1.5	742	6.6		
RUE	e P	Z	14:05:01.1	76.0	32.4	1.7	1174	6.8		
HLG	e P	Z	14:05:03.2	76.3	28.7	1.5	871	6.7		
CLL	i P	+ Z	14:05:07.5	77.3	31.8	1.0	409	6.5		
	e sP	Z	14:05:29.0							
	e PP	Z	14:08:00.8							
	e S	T	14:14:52.4							
	e sS	T	14:15:20.4							
	e ScS	N	14:20:39.4							
	e LQ	T	14:26:25.1							
	e LR	Z	14:29:42.7							
	e L	Z	14:43:39.4			20.0	4730		5.8	
BRG	e P	Z	14:05:08.1	77.3	32.3	1.6	328	6.2		
CLZ	e P	Z	14:05:10.5	77.6	30.1	1.5	930	6.7		
IBBN	e P	Z	14:05:12.1	78.0	28.4	1.0	394	6.4		
TANN	e P	Z	14:05:13.1	78.2	31.3	1.9	390	6.1		
MOX	e P	Z	14:05:13.5	78.3	30.8	1.4	372	6.2		
BUG	e P	Z	14:05:17.0	78.9	28.0	1.2	385	6.2		
GEC2	e P	Z	14:05:18.1	79.1	32.0	1.9	382	6.0		
WET	e P	Z	14:05:18.8	79.1	31.5	1.1	280	6.1		
GRA1	e P	Z	14:05:19.3	79.2	30.4	0.9	468	6.4		
	e L	Z	14:45:14.5			18.9	4604		5.8	
TNS	e P	Z	14:05:21.2	79.6	28.6	1.6	427	6.1		
FUR	e P	Z	14:05:25.9	80.5	30.3	1.0	388	6.4		
STU	e P	Z	14:05:26.5	80.7	29.0	1.0	265	6.2		
WLF	e P	Z	14:05:27.7	80.8	27.1	1.6	455	6.3		
BFO	e P	Z	14:05:29.9	81.3	28.4	1.3	225	6.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	14:53:24.0	43.035N	14.954E	10.0G				SZGRF
2003/04/29	14:53:20.6	43.054N	15.366E	10G	4.3			NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	14:54:50.0	5.9	168.1					
	e Sn	N	14:55:55.5							
WET	e Pn	Z	14:54:55.6	6.3	163.3					
	e Sn	N	14:56:06.1							
TANN	e Pn	Z	14:55:14.1	7.6	163.8					
MOX	e Pn	Z	14:55:18.6	8.0	159.9					
	e Sn	N	14:56:44.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	15:13: 7.2	42.986N	15.102E	10.0G				SZGRF
2003/04/29	15:13:06.9	43.187N	15.423E	10G	4.6			NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	15:14:34.8	5.8	167.4					
	e Sn	N	15:15:40.3							
WET	e Pn	Z	15:14:40.4	6.2	162.6					
	e Sn	E	15:15:50.6							
GRA1	e Pn	Z	15:14:52.0	7.1	154.5					
BFO	e Pn	Z	15:14:51.9	7.1	133.5					
TANN	e Pn	Z	15:14:57.7	7.5	163.2					
BRG	e Pn	Z	15:15:01.2	7.8	172.0					
MOX	e Pn	Z	15:15:02.6	7.9	159.4					
	e Sn	N	15:16:29.5							
CLL	e Pn	Z	15:15:08.4	8.3	167.7					
TNS	e Pn	Z	15:15:12.5	8.5	143.2					
CLZ	e Pn	Z	15:15:28.3	9.3	156.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	17:42:56.8							
	e Sn	E	17:44:02.4							
WET	e Pn	Z	17:43:02.6							
	e Sn	E	17:44:11.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	18:07:42.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	17:56:38.3	50.306S	139.345E	10.0G	4.9			NEIC

W Indian-Antarctic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKP	Z	18:16:23.6	146.7	109.8	1.1	21			

GRA1	e PKP	Z	18:16:24.9	147.2	111.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	18:30:15.9	43.073N	14.937E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	18:31:41.7	5.8	171.1					
	e Sn	E	18:32:47.0							
WET	e Pn	Z	18:31:47.1	6.2	166.0					
	e Sn	E	18:32:56.1							
TANN	e Pn	Z	18:32:05.7	7.5	166.1					
BRG	e Pn	Z	18:32:08.0	7.8	174.7					
MOX	e Pn	Z	18:32:09.8	7.9	162.1					
	e Sn	N	18:33:35.4							
CLL	e Pn	Z	18:32:16.0	8.3	170.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	19:04:32.8							
	e Sn	N	19:05:38.5							
WET	e Pn	Z	19:04:38.8							
	e Sn	E	19:05:48.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	20:01:10.5	14.888S	167.284E	181D	4.9			NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	20:20:13.5	140.1	37.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	21:47:52.8	43.070N	14.925E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	21:49:18.2	5.8	171.2					
	e Sn	N	21:50:23.4							
WET	e Pn	Z	21:49:23.8	6.2	166.1					

	e Sn	E	21:50:33.3			
TANN	e Pn	Z	21:49:42.7	7.5	166.1	
MOX	e Pn	Z	21:49:46.3	7.9	162.1	
	e Sn	N	21:51:12.6			
CLL	e Pn	Z	21:49:53.0	8.3	170.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29	22:08:18.2	42.985N	15.165E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	22:09:45.6	5.9	169.6					
	e Sn	E	22:10:52.1							
WET	e Pn	Z	22:09:50.5	6.4	164.7					
	e Sn	E	22:11:00.3							
MOX	e Pn	Z	22:10:14.5	8.0	161.1					
	e Sn	N	22:11:41.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/29								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	22:20:15.7							
	e Sn	N	22:21:20.0							
WET	e Pn	Z	22:20:20.4							
	e Sn	N	22:21:30.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/30	06:24:41.7	43.087N	15.598E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	06:26:08.5	5.9	166.4					
	e Sn	N	06:27:13.6							
WET	e Pn	Z	06:26:13.9	6.3	161.7					
	e Sn	N	06:27:23.1							
TANN	e Pn	Z	06:26:33.2	7.6	162.5					
WERD	e Pn	Z	06:26:33.2	7.7	161.8					
	e Sn	N	06:27:58.5							
MOX	e Pn	Z	06:26:36.6	8.0	158.7					
	e Sn	N	06:28:04.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/30								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	10:14:53.7							
	e Sn	N	10:15:59.0							
WET	e Sn	N	10:16:08.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/30	14:12:11.8	43.085N	14.751E	10.0G				SZGRF
2003/04/30	14:12:09.1	43.144N	15.372E	10G	4.2			NEIC

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	14:13:37.0	5.8	172.4					
	e Sn	N	14:14:42.0							
WET	e Pn	Z	14:13:42.3	6.2	167.2					
	e Sn	E	14:14:51.1							
TANN	e Pn	Z	14:13:59.9	7.5	167.1					
WERD	e Pn	Z	14:14:01.5	7.5	166.3					
MOX	e Pn	Z	14:14:05.3	7.9	163.0					
	e Sn	N	14:15:30.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/30								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	15:40:11.6							
	e Sn	E	15:41:17.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2003/04/30	18:57:29.7	43.220N	15.309E	10.0G				SZGRF

Adriatic Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	18:58:53.9	5.8	167.9					
	e Sn	N	18:59:58.4							
WET	e Pn	Z	18:58:59.3	6.2	163.0					
	e Sn	E	19:00:07.5							
TANN	e Pn	Z	18:59:18.0	7.5	163.6					
WERD	e Pn	Z	18:59:19.2	7.6	162.8					
MOX	e Pn	Z	18:59:22.7	7.9	159.7					

e Sn N 19:00:48.4

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

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