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)

NOVEMBER 2002 UPDATED 07.MAY.2003

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
2002/11/01	02:28:58.3	39.530N	73.910E	33.0N	5.3	4.4		SZGRF
2002/11/01	02:29:04.1	39.911N	72.236E	33N	5.0			NEIC

Tajikistan-Xinjiang border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	02:37:06.2	43.1	78.9	2.0	76	5.3		
	e L	Z	02:56:05.1			21.0	534		4.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/01	05:04:32.0	10.550S	71.030W	33.0N		4.7		SZGRF
2002/11/01	05:03:59.0	14.437S	75.944W	20D	5.2	4.7		NEIC

Peru-Brazil border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	05:17:27.3	96.0	254.7					
BFO	e P	Z	05:17:31.5	97.0	256.1					
STU	e P	Z	05:17:34.9	97.7	256.8					
FUR	e P	Z	05:17:41.2	98.9	258.2					
GRA1	e P	Z	05:17:42.8	99.2	258.4					
	e L	Z	06:05:06.8			18.2	254		4.7	
WET	e P	Z	05:17:46.4	100.1	259.6					
GEC2	e P	Z	05:17:48.5	100.6	260.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/01	08:16:19.5	13.460S	70.860W	33.0N	5.0			SZGRF
2002/11/01	08:15:58.9	14.478S	75.965W	33N	4.7			NEIC

Central Peru

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	08:29:40.0	99.2	258.4			5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/01	13:42:27.5	19.650S	169.275E	400G	5.1			NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	14:01:14.4	143.3	39.3					
	i PKPbc	- Z	14:01:15.7			0.9	34			
	i SKP	Z	14:04:31.9			1.1	34			
BRG	e PKP	Z	14:01:15.2	143.2	41.0					
MOX	e PKP	Z	14:01:18.4	144.3	37.9					
GEC2	e PKP	Z	14:01:20.8	144.8	42.5					
WET	e PKP	Z	14:01:21.3	145.0	41.1					
BUG	e PKP	Z	14:01:21.9	145.2	30.7					
GRA1	e PKP	Z	14:01:22.6	145.2	38.1					
TNS	e PKP	Z	14:01:24.2	145.8	33.4					
FUR	e PKP	Z	14:01:26.1	146.4	39.6					
STU	e PKP	Z	14:01:26.9	146.8	35.8					
WLF	e PKP	Z	14:01:28.2	147.1	30.2					
BFO	e PKP	Z	14:01:28.5	147.5	34.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/01	14:02:35.3	45.630N	98.610E	33.0N	5.1	3.8		SZGRF
2002/11/01	14:02:48.2	46.061N	94.091E	10G	5.1			NEIC

Mongolia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	14:11:02.0	49.4	64.5					
RUE	e P	Z	14:11:46.5	50.0	63.2	0.7	40	5.4		
BRG	e P	Z	14:11:51.3	50.7	62.1	1.4	25	5.1		
CLL	i P	Z	14:11:53.4	51.0	61.9	1.3	34	5.1		
	e		14:11:56.1							
	e L	Z	14:34:36.6			22.0	169		4.0	
GEC2	e P	Z	14:11:59.9	51.8	60.5	1.3	15	4.9		
MOX	e P	Z	14:12:02.0	52.1	60.7	1.2	19	5.0		
WET	e P	Z	14:12:02.4	52.1	60.3	1.4	22	5.0		
GRA1	e P	Z	14:12:07.7	52.8	59.8	1.2	57	5.5		
	e L	Z	14:31:57.4			21.7	84		3.8	
FUR	e P	Z	14:12:13.1	53.5	58.9	1.5	64	5.4		
TNS	e P	Z	14:12:16.5	54.0	58.7	1.2	19	5.0		
BUG	e P	Z	14:12:16.5	54.1	58.9	1.0	23	5.1		

STU	e P	Z	14:12:18.7	54.4	58.2	1.5	24	5.0
BFO	e P	Z	14:12:23.7	55.1	57.5	1.6	22	4.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/01	15:09: 4.2	41.770N	14.930E	10.0G		4.8		SZGRF
2002/11/01	15:09:01.4	41.784N	14.871E	10G	5.5	5.6		NEIC

Southern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
KBA	e Pn	Z	15:10:25.0	5.4	167.8					
ARSA	e Pn	Z	15:10:24.9	5.5	185.1					
WTTA	e Pn	Z	15:10:32.5	5.9	156.0					
MOA	e Pn	E	15:10:34.0	6.1	175.7					
	e Pn	Z	15:10:34.2							
	e Sn	N	15:11:43.5							
GEC2	e Pn	Z	15:10:47.2	7.1	172.9					
	e Sn	N	15:12:06.0							
	e L	Z	15:13:19.6			19.4	13940		4.6	
WET	e Pn	Z	15:10:51.6	7.5	168.5					
	e Sn	N	15:12:13.9							
BFO	e Pn	Z	15:10:58.6	8.0	142.4					
GRA1	e Pn	Z	15:11:04.0	8.3	160.8					
	e Sn	E	15:12:33.0							
	e L	Z	15:14:56.5			18.7	31803		5.1	
BRG	e Pn	Z	15:11:14.5	9.1	175.6					
	e Sn	N	15:12:51.9							
MOX	e Pn	Z	15:11:14.0	9.1	164.5					
TNS	e Pn	Z	15:11:20.1	9.5	149.8					
	e Sn	E	15:13:03.8							
CLL	e Pn	Z	15:11:22.0	9.6	171.6					
WLF	e Pn	Z	15:11:27.3	9.9	139.1					
BUG	e Pn	Z	15:11:42.1	11.0	148.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/01	17:21:34.2	41.840N	14.860E	10.0G		3.3		SZGRF
2002/11/01	17:21:29.3	41.673N	14.774E	10G	4.4			NEIC

Southern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
KBA	e Pn	Z	17:22:54.0	5.5	168.8					
ARSA	e Pn	Z	17:22:54.3	5.6	185.7					
WTTA	e Pn	Z	17:23:02.0	6.0	157.1					
MOA	e Pn	Z	17:23:03.1	6.2	176.5					
	e Sn	E	17:24:11.7							
DAVA	e Pn	Z	17:23:10.0	6.6	146.4					

	GEC2	e Pn	Z	17:23:16.1	7.2	173.6				
		e Sn	N	17:24:34.6						
	WET	e Pn	Z	17:23:21.1	7.6	169.2				
		e Sn	E	17:24:42.1						
	BFO	e Pn	Z	17:23:27.7	8.1	143.3				
	GRA1	e Pn	Z	17:23:32.3	8.4	161.5				
		e L	Z	17:27:53.2			18.1	502	3.3	
	MOX	e Pn	Z	17:23:44.2	9.2	165.1				
		e Sn	N	17:25:21.9						
	TNS	e Pn	Z	17:23:49.3	9.6	150.4				
		e Sn	N	17:25:31.7						
	CLL	e Pn	Z	17:23:50.8	9.7	172.1				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/01	22:09:25.6	34.270N	75.140E	33.0N	5.8	5.0		SZGRF
2002/11/01	22:09:29.6	35.584N	74.700E	33N	5.3	5.4		NEIC

Eastern Kashmir

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	RUE	e P	Z	22:17:48.4	45.4	86.7	1.9	203	5.9		
	BRG	e P	Z	22:17:48.9	45.4	85.2	1.9	160	5.8		
	RGN	e P	Z	22:17:50.5	45.6	88.4	2.5	969	6.5		
	GEC2	e P	Z	22:17:51.7	45.8	83.1	1.9	158	5.8		
	CLL	i P	+ Z	22:17:52.8	46.0	85.0	1.9	126	5.6		
		e PP	Z	22:19:44.2							
		e S	R	22:24:30.3							
		e SS	Z	22:28:02.5							
		e LR	Z	22:32:12.7							
		e L	Z	22:39:49.6			20.0	3730		5.3	
	WET	e P	Z	22:17:55.7	46.3	82.8	2.1	128	5.7		
	MOX	e P	Z	22:18:00.7	46.9	83.4	2.1	218	5.9		
	GRA1	e P	Z	22:18:04.4	47.3	82.2	2.0	314	6.1		
		e S	R	22:24:44.9							
		e L	Z	22:40:43.7			20.6	1741		5.0	
	FUR	e P	Z	22:18:05.0	47.5	80.9	1.8	338	6.1		
	STU	e P	Z	22:18:14.5	48.7	80.0	2.2	267	5.8		
	TNS	e P	Z	22:18:16.6	48.9	80.8	2.2	118	5.4		
	BFO	e P	Z	22:18:18.9	49.4	79.1	1.5	42	5.2		
	BUG	e P	Z	22:18:20.6	49.5	81.0	2.0	172	5.6		
	WLF	e P	Z	22:18:28.6	50.5	78.8	0.8	27	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/01	22:44: 1.9	41.870N	14.890E	10.0G				SZGRF
2002/11/01	22:44:00.6	41.990N	14.988E	10G				NEIC

Southern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e Pn	Z	22:45:41.1	6.7	155.7					
GEC2	e Pn	Z	22:45:43.8	6.9	172.0					
	e Sn	N	22:47:01.8							
WET	e Pn	Z	22:45:48.6	7.3	167.6					
	e Sn	E	22:47:10.6							
BFO	e Pn	Z	22:45:56.9	7.9	141.1					
	e Sn	N	22:47:22.6							
GRA1	e Sn	N	22:47:28.2	8.1	159.8					
MOX	e Pn	Z	22:46:10.8	9.0	163.7					
	e Sn	E	22:47:48.6							
TNS	e Sn	N	22:47:59.7	9.4	148.7					
CLL	e Pn	Z	22:46:18.1	9.4	170.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/01	23:02: 2.5	35.770N	72.390E	33.0N	5.0			SZGRF
2002/11/01	23:01:45.0	35.505N	74.770E	33N	4.7			NEIC

Pakistan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:10:20.4	47.4	82.3			5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02	00:00:59.4	26.244S	179.323E	537?	4.8			NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	00:20:19.2	154.8	25.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02	01:27:26.7	35.590N	75.150E	33.0N	5.6			SZGRF
2002/11/02	01:27:26.8	35.654N	74.408E	33N	5.1			NEIC

Eastern Kashmir

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	01:35:43.8	45.2	85.4					
GEC2	e P	Z	01:35:46.6	45.5	83.2	1.6	81	5.5		
CLL	e P	Z	01:35:48.2	45.7	85.1	2.1	97	5.6		
	e PP	Z	01:37:38.1							
WET	e P	Z	01:35:50.7	46.0	83.0	1.7	57	5.4		
MOX	e P	Z	01:35:55.6	46.7	83.5					

GRA1	e P	Z	01:35:59.2	47.0	82.3	1.9	192	5.9	
FUR	e P	Z	01:35:59.9	47.2	81.0				
STU	e P	Z	01:36:09.4	48.5	80.2				
BUG	e P	Z	01:36:15.6	49.3	81.2				
WLF	e P	Z	01:36:23.5	50.3	78.9				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02	01:26:18.9	2.760N	95.080E	33.0N	6.7	7.1		SZGRF
2002/11/02	01:26:11.5	2.997N	96.082E	33N	6.2	7.7		NEIC

Off west coast of northern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	01:38:32.9	82.7	94.2	2.7	2472	6.9		
GEC2	e P	Z	01:38:33.2	82.7	93.8	2.6	5760	7.2		
RUE	e P	Z	01:38:35.0	82.9	94.3	1.1	850	6.9		
WET	e P	Z	01:38:36.7	83.3	93.2	2.7	3001	7.1		
CLL	e P	Z	01:38:35.6	83.3	93.5	1.1	308	6.4		
	e PP	Z	01:41:52.4							
	e PPP	Z	01:43:51.2							
	e S	T	01:48:58.3							
	e SS	T	01:54:27.8							
	e SSS	T	01:57:56.1							
	e SSSS	Z	01:59:48.0							
	e PKPPKPdf	Z	02:05:01.6							
	e LR	Z	02:07:43.4							
	e L	Z	02:29:08.7			18.0	87586		7.2	
RGN	e P	Z	01:38:38.3	83.4	94.2	1.1	643	6.8		
MOX	e P	Z	01:38:41.4	84.2	92.4	2.5	1522	6.8		
FUR	e P	Z	01:38:41.2	84.3	91.9	1.5	725	6.7		
GRA1	e P	Z	01:38:42.4	84.4	92.0	1.4	918	6.8		
	e S	N	01:49:09.9							
	e PKPPKP	Z	02:05:06.3							
	e L	Z	02:27:32.2			19.4	70582		7.1	
STU	e P	Z	01:38:48.2	85.7	90.4	1.8	556	6.5		
TNS	e P	Z	01:38:51.1	86.2	89.9	1.2	397	6.4		
BFO	e P	Z	01:38:50.8	86.3	89.7	1.2	310	6.3		
BUG	e P	Z	01:38:55.3	86.9	89.1	1.1	533	6.6		
WLF	e P	Z	01:38:58.5	87.7	88.1	1.9	997	6.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02								SZGRF

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	02:38:46.2							
WET	e Pn	Z	02:38:51.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02	02:42:45.6	7.110S	128.850E	33N	5.3			NEIC

Banda Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	03:01:19.4	113.1	72.9					
	e		03:02:09.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02	04:47:41.4	12.040N	93.040E	33.0N	6.1			SZGRF
2002/11/02	04:47:42.1	12.750N	92.893E	33N	5.7	5.5		NEIC

Andaman Islands, India, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	04:59:12.5	73.2	90.3	1.0	148	6.0		
RUE	e P	Z	04:59:12.9	73.3	90.7	0.9	342	6.4		
GEC2	e P	Z	04:59:13.3	73.3	89.5	0.9	261	6.3		
CLL	i P	- Z	04:59:15.5	73.8	89.7	1.2	137	5.9		
	e pP	Z	04:59:26.0							
	e sP	Z	04:59:29.7							
WET	e P	Z	04:59:16.5	73.9	89.0	1.1	120	5.8		
MOX	i P	- Z	04:59:21.0	74.7	88.5	1.0	102	5.8		
GRA1	e P	Z	04:59:23.2	74.9	87.9	1.2	181	6.1		
FUR	e P	Z	04:59:22.3	75.0	87.6	1.2	152	6.0		
STU	e P	Z	04:59:30.1	76.3	86.2	0.8	62	5.8		
TNS	e P	Z	04:59:32.6	76.7	86.0	1.0	85	5.8		
BFO	e P	Z	04:59:33.3	76.9	85.4	1.3	79	5.7		
BUG	e P	Z	04:59:36.2	77.4	85.3	1.2	176	6.1		
WLF	e P	Z	04:59:41.5	78.2	84.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WET	e Pn	Z	06:23:34.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02	09:46:48.5	2.120N	95.750E	38.5	5.7	6.3		SZGRF
2002/11/02	09:46:47.6	3.034N	96.491E	33N	5.9	6.4		NEIC

Off west coast of northern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	09:59:11.4	82.9	93.9					
GEC2	e P	Z	09:59:11.4	83.0	93.4					
RUE	e P	Z	09:59:12.3	83.2	93.9					
WET	e P	Z	09:59:14.2	83.5	92.8					
CLL	e P	Z	09:59:12.9	83.6	93.2	1.6	237	6.2		
	e PP	Z	10:02:34.2							
	e S	T	10:09:32.4							
	e PS	Z	10:10:29.7							
	e SS	T	10:14:55.0							
	e		10:15:54.6							
	e SSS	T	10:18:18.9							
	e SSSS	Z	10:19:56.5							
	e LR	Z	10:29:05.2							
	e L	Z	10:44:29.6			18.0	7760		6.1	
MOX	e P	Z	09:59:18.5	84.4	92.0					
FUR	e P	Z	09:59:18.7	84.5	91.5					
GRA1	e P	Z	09:59:20.2	84.6	91.6	1.1	60	5.7		
	e pP	Z	09:59:31.5							
	e S	N	10:09:46.1							
	e L	Z	10:43:08.4			20.6	13360		6.3	
STU	e P	Z	09:59:25.8	85.9	90.0					
TNS	e P	Z	09:59:29.2	86.4	89.6					
BFO	e P	Z	09:59:28.4	86.5	89.4					
WLF	e P	Z	09:59:36.0	87.9	87.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02	10:57:46.4	44.680N	12.250E	10.0G			4.8	SZGRF
2002/11/02	10:57:43.2	44.589N	12.185E	10G	4.9			NEIC

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e Pn	Z	10:58:42.5	3.6	169.7					
GEC2	e Pn	Z	10:58:51.1	4.4	194.3					4.8
	e Sn	N	10:59:42.6							
WET	e Pn	Z	10:58:53.5	4.6	186.2					4.6
	e Sn	N	10:59:44.6							
BFO	e Pn	Z	10:58:54.5	4.6	143.2					4.6
	e Sn	N	10:59:45.6							
STU	e Pn	Z	10:58:55.2	4.7	152.8					
GRA1	e Pn	Z	10:59:01.5	5.1	172.3					5.0
	e Sn	N	10:59:57.6							
MOX	e Pn	Z	10:59:13.1	6.1	176.2					
	e Sn	E	11:00:19.4							
TNS	e Pn	Z	10:59:16.2	6.2	154.4					

	e Sn	E	11:00:25.3			
BRG	e Pn	Z	10:59:18.7	6.4	191.3	
WLF	e Pn	Z	10:59:23.1	6.5	138.8	
CLL	e Pn	Z	10:59:23.2	6.7	185.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02	15:24: 5.7	36.600N	70.590E	33.0N				SZGRF
2002/11/02	15:23:35.9	35.448N	74.603E	33N	4.7			NEIC

Hindu Kush, Afghanistan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	15:32:10.3	47.3	82.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/02	22:29:36.6	18.311S	177.927W	522D	4.4			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	22:48:24.6	147.8	16.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/03	01:49:52.5	53.610N	128.840W	33.0N	5.9	5.2		SZGRF
2002/11/03	01:49:25.0	51.310N	131.120W	10G	5.6	5.3		NEIC

British Columbia, Canada

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z	02:00:53.1	71.4	334.0	1.4	142	6.0		
RUE	e P	Z	02:00:57.6	72.1	337.8	1.2	211	6.1		
WLF	e P	Z	02:01:01.4	72.7	333.6	1.7	144	5.8		
TNS	e P	Z	02:01:01.9	72.8	334.9	1.3	94	5.8		
CLL	e P	Z	02:01:01.6	73.0	337.5	1.4	124	5.8		
	e PcP	Z	02:01:22.8							
	e PP	Z	02:03:46.7							
	e S	T	02:10:28.0							
	e SS	T	02:15:08.7							
	e LQ	T	02:19:17.1							
	e LR	Z	02:24:06.7							
	e L	Z	02:34:50.8			18.0	2326		5.5	
MOX	e P	Z	02:01:04.3	73.3	336.7	1.1	87	5.8		
BRG	e P	Z	02:01:06.6	73.6	338.1	1.3	161	6.0		
GRA1	e P	Z	02:01:09.5	74.0	336.6	1.3	125	5.9		
	e L	Z	02:33:35.8			20.8	1530		5.2	
STU	e P	Z	02:01:10.8	74.3	335.5	1.3	84	5.7		

BFO	e P		Z	02:01:11.8	74.5	335.1	1.3	169	6.0
WET	e P		Z	02:01:14.5	75.0	337.6	1.3	70	5.6
FUR	e P		Z	02:01:17.6	75.5	336.8	1.4	202	6.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/03	03:37:51.0	40.790N	143.250E	33.0N	6.1	6.2		SZGRF
2002/11/03	03:37:43.2	38.868N	141.979E	49D	5.7	6.1		NEIC

Off east coast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	03:49:40.8	78.2	38.7	1.2	324	6.3		
BRG	e P	Z	03:49:47.2	79.4	38.6	1.1	154	5.9		
CLL	i P	+ Z	03:49:47.1	79.4	38.0	1.1	240	6.0		
	e pP	Z	03:50:01.4							
	e PP	Z	03:52:53.5							
	e PPP	Z	03:54:55.8							
	e S	T	03:59:45.8							
	e SS	T	04:04:49.3							
	e SSS	E	04:08:25.3							
	e LQ	T	04:12:56.9							
	e LR	Z	04:15:18.6							
	e L	Z	04:28:13.1			18.0	22754		6.6	
MOX	e P	Z	03:49:53.1	80.5	37.0	1.2	171	5.8		
WET	e P	Z	03:49:57.2	81.2	37.7	1.4	208	5.9		
GRA1	e P	Z	03:49:58.5	81.4	36.6	1.2	387	6.3		
	e PP	Z	03:53:00.9							
	e S	E	04:00:05.2							
	e L	Z	04:28:29.9			21.4	13005		6.2	
BUG	e P	Z	03:49:57.7	81.4	34.0	1.2	168	5.8		
TNS	e P	Z	03:50:01.1	82.0	34.8	1.2	125	5.8		
FUR	e P	Z	03:50:04.5	82.6	36.5	1.1	309	6.3		
STU	e P	Z	03:50:05.8	82.9	35.2	1.1	202	6.2		
WLF	e P	Z	03:50:08.3	83.3	33.1	1.5	262	6.1		
BFO	i P	Z	03:50:09.4	83.6	34.5	1.3	311	6.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/03	06:21:14.6	15.856S	178.110W	33N	4.9			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	06:40:51.3	145.3	15.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/03	06:35:54.5	15.965S	178.164W	33N	4.8			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	06:55:31.0	145.4	16.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/03	07:33:32.9	34.650N	75.720E	33.0N	5.6	4.9		SZGRF
2002/11/03	07:33:37.6	35.348N	74.593E	33N	5.4	5.0		NEIC

Eastern Kashmir

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	07:41:57.5	45.5	85.6	1.4	112	5.8		
CLL	i P	+ Z	07:42:01.7	46.0	85.3	1.5	77	5.5		
	e PP	Z	07:43:49.0							
	e LR	Z	07:56:54.2							
	e L	Z	08:03:58.9			20.0	2520		5.2	
WET	e P	Z	07:42:04.2	46.3	83.2	1.7	68	5.5		
MOX	i P	Z	07:42:09.2	47.0	83.7	1.5	93	5.7		
GRA1	e P	Z	07:42:12.8	47.3	82.5	1.5	181	5.9		
	e PP	Z	07:44:04.0							
	e L	Z	08:04:52.5			20.6	1237		4.9	
FUR	e P	Z	07:42:13.5	47.5	81.2	1.4	203	6.0		
STU	e P	Z	07:42:23.0	48.8	80.4	1.2	69	5.5		
TNS	e P	Z	07:42:25.0	49.0	81.1	1.5	54	5.2		
BFO	e P	Z	07:42:27.3	49.4	79.4	1.5	46	5.2		
BUG	e P	Z	07:42:29.2	49.6	81.3	1.4	90	5.5		
WLF	e P	Z	07:42:37.1	50.6	79.1	1.2	68	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/03	17:50:12.4	47.350N	153.240E	33.0N	5.2			SZGRF
2002/11/03	17:50:08.0	46.288N	153.780E	79*	4.7			NEIC

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	18:02:05.4	78.7	25.4	0.9	17	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/03	19:14:36.3	37.180N	142.610E	33.0N	5.3			SZGRF
2002/11/03	19:14:43.7	39.158N	141.829E	33N	5.0			NEIC

Off east coast of Honshu, Japan

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

GRA1	e P	Z	19:26:59.1	81.1	36.6	0.9	19	5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/03	22:13: 3.2	65.790N	145.430W	33.0N	7.4	7.8		SZGRF
2002/11/03	22:12:41.0	63.520N	147.533W	5G	7.0	8.5		NEIC

Northern Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	22:23:11.4	63.1	350.8	1.2	4847	7.2		
BUG	e P	Z	22:23:13.0	63.4	347.7	1.2	4502	7.2		
CLL	i P	Z	22:23:17.8	64.2	350.5	1.3	3107	7.4		
	e		22:24:11.1							
	e PP	Z	22:25:45.7							
	e S	T	22:32:02.5							
	e SS	T	22:36:10.3							
	e SSS	E	22:39:18.0							
	e LQ	T	22:39:39.9							
	e LR	Z	22:43:39.3							
	e P'P'bc	Z	22:52:09.8							
	e L	Z	22:58:19.0			18.0	537674		7.8	
	e P4KP	Z	23:00:15.7							
MOX	e P	Z	22:23:21.8	64.7	349.9	1.2	4166	7.4		
BRG	e P	Z	22:23:21.8	64.7	351.0	1.2	3035	7.3		
TNS	e P	Z	22:23:22.2	64.7	348.4	1.5	4284	7.3		
WLF	e P	Z	22:23:24.0	64.9	347.4	1.3	5062	7.5		
GRA1	e P	Z	22:23:28.1	65.6	349.8	1.5	4397	7.4		
	e S	N	22:32:08.6							
	e PKPPKP	Z	22:52:06.2							
	e L	Z	22:55:27.0			19.3	606045		7.8	
STU	e P	Z	22:23:32.0	66.2	348.9					
WET	e P	Z	22:23:32.8	66.3	350.6	1.4	5361	7.6		
BFO	e P	Z	22:23:34.0	66.5	348.5	1.5	3787	7.4		
FUR	e P	Z	22:23:37.4	67.1	349.9	1.1	4869	7.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/03	22:32:10.7	61.580N	147.260W	33.0N	6.2			SZGRF
2002/11/03	22:32:17.5	63.315N	145.634W	4	5.7			NEIC

Southern Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:43:03.2	65.5	348.8	2.1	312	6.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/04	00:35:50.9	41.970N	14.910E	10.0G				SZGRF
2002/11/04	00:35:49.8	42.063N	14.478E	10G				NEIC

Southern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WET	e Pn	Z	00:37:36.5	7.2	170.4					
	e Sn	E	00:38:58.1							
BFO	e Pn	Z	00:37:43.7	7.6	143.1					
	e Sn	N	00:39:10.7							
GRA1	e Pn	Z	00:37:48.3	8.0	162.3					
	e Sn	N	00:39:15.3							
MOX	e Pn	Z	00:37:58.7	8.8	166.0					
	e Sn	N	00:39:35.7							
BRG	e Pn	Z	00:37:59.1	8.8	177.4					
TNS	e Pn	Z	00:38:05.0	9.2	150.7					
	e Sn	N	00:39:46.1							
CLL	e Pn	Z	00:38:05.8	9.3	173.2					
WLF	e Pn	Z	00:38:11.5	9.5	139.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/04	00:50:29.1	60.800N	151.410W	33.0N	5.3			SZGRF
2002/11/04	00:50:42.0	63.383N	145.067W	5	5.6			NEIC

Kenai Peninsula, Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:01:29.3	65.4	348.6	1.3	27	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/04	02:08:41.8	64.140N	143.750W	33.0N	5.3			SZGRF
2002/11/04	02:08:27.6	63.318N	144.162W	5G	5.1			NEIC

Central Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z	02:18:55.8	62.3	346.2	0.8	21	5.4		
RUE	e P	Z	02:18:59.5	62.9	349.1	0.9	23	5.4		
BUG	e P	Z	02:19:00.0	63.1	346.1	0.7	17	5.3		
CLL	e P	Z	02:19:05.6	64.0	348.8	0.8	8	4.9		
TNS	e P	Z	02:19:09.2	64.4	346.8	0.7	7	5.0		
MOX	e P	Z	02:19:09.2	64.5	348.2	1.3	65	5.7		
BRG	e P	Z	02:19:09.4	64.5	349.3	0.9	7	4.9		
WLF	e P	Z	02:19:10.8	64.6	345.8	1.0	19	5.3		
GRA1	e P	Z	02:19:15.7	65.3	348.1	1.3	24	5.3		
WET	e P	Z	02:19:20.2	66.1	349.0	1.2	30	5.4		
BFO	e P	Z	02:19:20.9	66.3	346.9	0.8	7	4.9		
FUR	e P	Z	02:19:24.7	66.8	348.3	1.2	54	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/04	03:26:34.8	42.000N	15.100E	10.0G				SZGRF

Southern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WET	e Pn	Z	03:28:20.3	7.3	166.9					
	e Sn	E	03:29:41.6							
BFO	e Pn	Z	03:28:29.5	7.9	140.5					
	e Sn	N	03:29:55.5							
GRA1	e Sn	N	03:30:00.1	8.1	159.2					
BRG	e Pn	Z	03:28:42.9	8.9	174.4					
MOX	e Pn	Z	03:28:42.5	9.0	163.2					
	e Sn	N	03:30:19.6							
TNS	e Sn	N	03:30:30.7	9.4	148.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/04	04:35:34.8	29.250N	136.740E	43.7	5.9			SZGRF
2002/11/04	04:35:57.6	32.369N	131.524E	33N	5.5	5.9		NEIC

Southeast of Shikoku, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z	04:48:08.9	85.8	46.8	1.2	39	5.3		
	e PP	Z	04:51:15.2							
	e S	T	04:58:18.9							
	e SS	R	05:03:28.4							
	e LR	Z	05:15:59.8							
	e L	Z	05:26:50.8			22.0	6111		5.9	
GRA1	e P	Z	04:48:19.2	82.4	47.4	1.6	106	5.9		
	e pP	Z	04:48:32.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/04	22:31:10.2	37.560N	70.580E	33.0N	4.7			SZGRF
2002/11/04	22:30:35.6	35.508N	74.583E	33N	4.8			NEIC

Afghanistan-Tajikistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:39:10.2	47.2	82.4	1.3	22	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/05	01:33:17.4	60.640N	151.280W	33.0N	4.7			SZGRF

Kenai Peninsula, Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:44:18.5	68.8	350.9			4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/05	02:10:08.1	20.412S	176.390W	200G	4.6			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	02:29:37.3	150.1	14.4					
	e PKPab	Z	02:29:43.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/05	08:47:15.6	49.030N	149.760E	589.7	6.0			SZGRF
2002/11/05	08:47:26.1	49.055N	142.343E	596D	5.2			NEIC

Northwest of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z	08:57:45.9	73.4	28.1	0.5	405	6.8		
	i pP	Z	08:59:47.5							
	e S	T	09:06:13.2							
GRA1	i P	- Z	08:57:58.0	72.7	31.1			6.0		
	e pP	Z	09:00:00.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/05	14:05:19.3			N	5.2			SZGRF
2002/11/05	14:05:19.9	19.613N	104.563W	103*	5.0			NEIC

Baja California, Mexico

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:18:14.2	90.5	302.0			5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/05	17:22:28.7	60.980N	153.280W	33.0N	4.9			SZGRF
2002/11/05	17:22:44.0	63.283N	144.983W	25	4.8	4.3		NEIC

Southern Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	17:33:29.0	65.5	348.5			4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/05	21:45: 9.6	50.880N	172.360W	44.5	4.6			SZGRF
2002/11/05	21:45:07.6	51.490N	173.589W	33N	4.6			NEIC

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:57:11.0	78.7	3.1			4.6		
	e pP	Z	21:57:23.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/05	22:21:26.8	20.900S	176.920W	572.0G				GRSN
2002/11/05	22:21:36.0	20.392S	178.022W	600G	4.7			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	22:40:12.2	148.6	18.0	1.6	29			
	i PKPbc	Z	22:40:16.4			0.8	96			
	i PKPab	Z	22:40:20.6			0.9	38			
	e pPKPbc	Z	22:42:21.1							
GRA1	e PKPdf	Z	22:40:15.5	149.8	17.4					
	e PKPbc	Z	22:40:21.4							
	e PKPab	Z	22:40:29.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/05	22:58:59.5	50.390N	171.100W	44.6				SZGRF
2002/11/05	22:59:00.3	51.517N	173.566W	33N	4.8	4.2		NEIC

South of Aleutian Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:11:03.7	78.7	3.0					
	e pP	Z	23:11:16.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/05	23:10:38.7			G				SZGRF

Southern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Sn	N	23:14:09.0							
MOX	e Sn	N	23:14:31.8							
WET	e Pn	Z	23:12:28.9							
	e Sn	N	23:13:51.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/05	23:39:48.4	31.420N	87.000E	33.0N	4.6			SZGRF
2002/11/05	23:39:44.4	31.018N	86.574E	33N	4.9			NEIC

Xizang

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:49:36.7	57.8	78.5			4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/06	01:23:56.6	51.830N	176.870W	33.0N	5.0			SZGRF
2002/11/06	01:23:50.4	51.485N	173.628W	33N	4.5			NEIC

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	01:35:53.5	78.7	3.1	1.4	22	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/06	09:12:53.5	37.890N	20.080E	10.0G				SZGRF
2002/11/06	09:12:44.8	37.829N	20.914E	10G	5.0	4.2		NEIC

Ionian Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pn	Z	09:15:59.3	13.7	146.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/07	15:14: 6.7	50.990N	177.190E	33.0N	6.0	6.4		SZGRF
2002/11/07	15:14:06.8	51.172N	179.459E	33N	5.9	6.4		NEIC

Rat Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	15:25:51.3	75.7	9.2	1.4	208	6.1		
IBBN	e P	Z	15:25:55.6	76.3	5.3	1.3	597	6.6		
CLL	i P	+ Z	15:25:57.8	76.9	8.7	1.5	160	5.9		
	e PP	Z	15:28:49.8							
	e PPP	Z	15:30:45.0							
	e S	T	15:35:42.3							
	e ScS	T	15:36:09.5							
	e PS	N	15:36:31.5							
	e SS	R	15:40:50.9							
	e LQ	T	15:49:06.5							

	e LR	Z	15:51:24.7						
	e L	Z	16:02:56.4			20.0	29649		6.6
BUG	e P	Z	15:26:00.0	77.2	5.0	1.4	259	6.2	
BRG	e P	Z	15:25:59.6	77.2	9.3	1.5	132	5.8	
MOX	e P	Z	15:26:02.7	77.7	7.8	1.4	119	5.8	
TNS	e P	Z	15:26:06.3	78.3	5.7	1.5	186	5.9	
GRA1	e P	Z	15:26:08.8	78.6	7.5	1.6	388	6.2	
	e L	Z	16:03:40.9			21.5	18264		6.4
WLF	e P	Z	15:26:10.8	79.0	4.3	1.5	222	6.0	
WET	e P	Z	15:26:10.3	79.0	8.5	1.7	162	5.8	
GEC2	e P	Z	15:26:11.2	79.2	9.0	1.4	100	5.6	
STU	e P	Z	15:26:14.1	79.7	6.2	1.5	196	5.8	
BFO	e P	Z	15:26:16.4	80.2	5.6	1.4	138	5.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/07								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	15:52:59.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/08	02:22:23.5	35.487N	74.658E	33.0N	4.5			NEIC

Northwestern Kashmir

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	02:30:57.5	47.4	82.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/08	04:04:28.6	62.610N	140.630W	33.0N	5.4			SZGRF
2002/11/08	04:04:17.0	62.200N	141.817W	1	5.3	4.4		NEIC

Southern Yukon Territory, Canada

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	04:14:53.5	63.7	347.6	1.3	76	5.7		
BUG	e P	Z	04:14:53.4	63.7	344.5	0.9	38	5.5		
CLL	e P	Z	04:14:59.7	64.7	347.3	1.2	25	5.3		
TNS	e P	Z	04:15:02.7	65.1	345.2	1.5	44	5.5		
MOX	e P	Z	04:15:03.1	65.2	346.7	1.2	47	5.6		
BRG	e P	Z	04:15:03.5	65.3	347.8	1.2	32	5.4		
GRA1	e P	Z	04:15:09.0	66.1	346.6			5.3		
STU	e P	Z	04:15:12.2	66.6	345.7	1.4	38	5.4		
WET	e P	Z	04:15:13.8	66.8	347.5	1.0	34	5.5		
BFO	e P	Z	04:15:14.0	66.9	345.4	1.0	16	5.2		

GEC2	e P	Z	04:15:16.3	67.3	347.9	1.3	24	5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/08	14:46:59.0	63.100N	144.500W	7	4.6			NEIC

Central Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:57:47.5	67.3	350.5	0.8	10	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/08	17:35: 7.0	64.920N	147.580W	33.0N		4.4		SZGRF
2002/11/08	17:34:52.0	63.467N	148.300W	7	5.2	4.7		NEIC

Central Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z	17:45:19.3	62.7	348.2	1.5	128			
RUE	e P	Z	17:45:22.4	63.2	351.1	1.3	91			
BUG	e P	Z	17:45:24.1	63.5	348.1	1.4	122			
CLL	e P	Z	17:45:29.0	64.3	350.9	1.4	49			
	e L	Z	18:13:31.3			19.7	319		4.5	
MOX	e P	Z	17:45:32.5	64.8	350.2	1.1	55			
	e L	Z	18:09:12.5			20.3	237		4.4	
BRG	e P	Z	17:45:32.5	64.8	351.3	1.3	57			
TNS	e P	Z	17:45:33.2	64.8	348.8	1.4	56			
WLF	e P	Z	17:45:35.1	65.1	347.7	1.3	93			
GRA1	e P	Z	17:45:39.0	65.7	350.1	1.3	57			
STU	e P	Z	17:45:43.1	66.4	349.2	0.9	26			
WET	e P	Z	17:45:43.5	66.4	351.0	1.3	73			
BFO	e P	Z	17:45:44.9	66.7	348.9	1.5	63			
GEC2	e P	Z	17:45:45.7	66.8	351.4	1.5	58			
FUR	e P	Z	17:45:48.2	67.2	350.3	0.9	77			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/08	20:29:02.0	62.800N	143.500W	9	5.0			NEIC

Central Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	20:39:48.9	66.1	347.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/08	22:20:53.7	53.240N	164.340E	33.0N	5.3			SZGRF
2002/11/08	22:21:08.3	55.171N	161.906E	80*	4.8			NEIC

Komandorsky Islands, Russia, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:32:30.0	72.3	17.1	1.7	56	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/09	00:14:16.3	12.420N	90.370W	33.0N	5.8	5.7		SZGRF
2002/11/09	00:14:19.6	13.928N	91.211W	33N	5.5	5.6		NEIC

Off coast of central America

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:27:02.9	87.2	288.4	1.4	75	5.8		
	e		00:27:23.2							
	e PP	Z	00:30:26.3							
	e S	R	00:38:00.0							
	e SS	R	00:43:53.2							
	e L	Z	01:02:45.7			21.3	3293		5.7	
CLL	e P	Z	00:27:05.8	88.6	288.1	1.1	12	5.1		
	e		00:27:25.4							
	e PP	Z	00:30:37.1							
	e S	E	00:37:40.1							
	e PS	Z	00:39:03.0							
	e SS	E	00:43:33.1							
	e SSS	E	00:47:00.3							
	e SSSS	Z	00:50:10.5							
	e LR	Z	00:56:00.1							
	e L	Z	01:06:10.2			22.0	2681			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/09	02:18:11.2	45.033N	37.631E	10G	5.0	4.4		NEIC

Ukr-Moldova-SW Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	02:22:10.9	16.7	94.1					
	e Pn	N	02:22:11.5							
BRG	e Pn	Z	02:22:11.1	16.8	101.1					
WET	e Pn	Z	02:22:16.5	17.3	94.4					
CLL	e Pn	Z	02:22:18.8	17.5	101.4					
MOX	e Pn	Z	02:22:28.0	18.2	97.8					
	e Pn	N	02:22:32.3							
FUR	e Pn	Z	02:22:30.1	18.3	90.0					
GRA1	e Pn	Z	02:22:30.8	18.4	94.5					
STU	e Pn	Z	02:22:46.3	19.7	90.2					
TNS	e Pn	Z	02:22:51.8	20.2	93.6					
BFO	e Pn	Z	02:22:51.8	20.2	88.3					

IBBN	e Pn	Z	02:22:59.2	20.8	98.5
BUG	e Pn	Z	02:23:00.8	21.0	95.7
WLF	e Pn	Z	02:23:09.4	21.7	90.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/09	03:56:39.7	31.049S	179.173W	400G	4.8			NEIC

KERMADEC ISLANDS REGION

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	04:16:33.1	159.8	26.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/09	04:43:26.9	52.530N	178.590W	33.0N	5.3			SZGRF
2002/11/09	04:43:16.8	51.066N	179.405E	33N	5.0			NEIC

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	04:55:19.3	78.7	7.5	1.5	39	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/09	05:29:49.7	0.680S	65.220E	33.0N	5.9	4.7		SZGRF
2002/11/09	05:29:26.7	2.668S	68.159E	10G	5.6	5.7		NEIC

Carlsberg Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WET	e P	Z	05:40:39.0	70.3	119.3	2.1	63	5.5		
BRG	e P	Z	05:40:41.8	70.6	120.8	1.5	64	5.6		
FUR	e P	Z	05:40:42.5	70.8	117.6	2.2	608	6.4		
CLL	e P	Z	05:40:46.4	71.3	120.1	1.4	87	5.8		
RUE	e P	Z	05:40:47.4	71.5	121.1	1.3	137	6.0		
GRA1	e P	Z	05:40:47.3	71.5	118.0	1.6	255	6.2		
	e L	Z	06:17:11.9			20.8	515		4.7	
MOX	e P	Z	05:40:49.2	71.7	118.7	1.4	53	5.6		
STU	e P	Z	05:40:51.7	72.3	116.0	1.6	141	5.9		
BFO	e P	Z	05:40:54.1	72.6	115.2	1.5	91	5.8		
RGN	e P	Z	05:40:55.7	72.8	121.3	1.6	400	6.3		
TNS	e P	Z	05:40:58.9	73.3	115.8	1.5	88	5.7		
WLF	e P	Z	05:41:05.2	74.5	113.7	2.2	254	6.0		
BUG	e P	Z	05:41:05.9	74.5	115.1	1.3	57	5.5		
IBBN	e P	Z	05:41:06.7	74.6	115.7	2.0	258	6.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/09	21:49:48.7	37.353N	20.657E	50*	4.2			NEIC

IONIAN SEA

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pn	Z	21:53:15.6	14.1	147.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/10	00:07:26.4	24.470N	121.470E	33.0N	4.9			SZGRF

Taiwan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:19:51.6	83.6	59.2	1.2	10	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/10	03:19:12.1	34.920N	79.910E	33.0N	5.1			SZGRF
2002/11/10	03:19:01.8	34.389N	80.822E	33N	4.7			NEIC

Kashmir-Xizang border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	03:28:11.0	51.9	79.3	1.8	47	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/10	21:54: 4.1	16.820N	93.540E	33.0N	5.4			SZGRF
2002/11/10	21:54:01.5	17.179N	93.738E	33N	5.2			NEIC

Bay of Bengal

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	22:05:15.3	70.4	86.6					
RUE	e P	Z	22:05:15.3	70.4	87.1					
GEC2	e P	Z	22:05:17.1	70.7	85.8	1.0	40	5.5		
CLL	e P	Z	22:05:18.4	70.9	86.1					
WET	e P	Z	22:05:20.3	71.2	85.2					
MOX	e P	Z	22:05:24.3	71.9	84.8					
GRA1	e P	Z	22:05:27.0	72.2	84.2	0.8	33	5.5		
FUR	e P	Z	22:05:26.8	72.3	83.8					
STU	e P	Z	22:05:34.6	73.6	82.4					
TNS	e P	Z	22:05:36.6	73.9	82.3	0.9	29	5.3		
IBBN	e P	Z	22:05:37.5	74.1	82.4					
BFO	e P	Z	22:05:37.9	74.2	81.7					
BUG	e P	Z	22:05:39.8	74.5	81.8					
WLF	e P	Z	22:05:46.0	75.5	80.5	1.4	36	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/11	16:39:02.5	23.304S	179.899W	541D	5.4			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e PKPdf	Z	16:57:48.1	150.4	26.5					
	e PKPbc	Z	16:57:54.0							
	e pPKPdf	Z	17:00:00.2							
CLL	e PKPdf	Z	16:57:47.4							
	i PKPbc	- Z	16:57:53.6	150.3	24.5	0.8	106			
	e		16:57:58.5							
	e pPKPdf	Z	16:59:59.2							
	e pPKPbc	Z	17:00:03.8							
GRA1	e PKPbc	Z	16:57:57.3	152.2	22.4					
GRA3	e PKP	Z	16:57:57.7	152.2	22.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/11	20:54:41.3	14.380N	122.840E	33.0N	5.5			SZGRF
2002/11/11	20:55:02.5	13.922N	120.741E	194D	5.1			NEIC

Luzon, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:07:48.9	91.5	66.2					
	e P	Z	21:07:49.1			0.8	16	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/11	21:29:12.9	50.580N	172.340W	33.0N	5.2			SZGRF
2002/11/11	21:29:14.5	51.473N	173.900W	33N	4.8			NEIC

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	21:41:17.6	78.7	3.3	0.7	21	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/12	01:46:48.7	56.555S	27.747W	114D	6.0			NEIC

South Sandwich Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z	02:01:11.3	111.0	201.8					
	e SKSac	N	02:11:36.9							
	e PS	N	02:15:04.3							

		e SS	N	02:21:05.8					
		e L	Z	02:47:39.0	112.6	203.1	20.9	1547	5.6
	CLL	e Pdiff	Z	02:01:15.4					
		e PKiKP	Z	02:05:10.9			1.1	27	
		e PP	R	02:05:59.9					
		e SKSac	R	02:11:48.1					
		e SP	R	02:15:21.4					
		e PS	T	02:15:30.5					
		e PKKPbc	Z	02:16:01.5					
		e PKKPab	Z	02:16:09.0					
		e SS	R	02:21:31.0					
		e SSS	R	02:26:12.5					
		e LQ	T	02:34:24.8					
		e LR	Z	02:39:57.8					
		e L	Z	02:49:46.9			20.0	2423	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/12								

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	02:16:07.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/12	09:27:47.7	41.730N	15.030E	10.0G				SZGRF
2002/11/12	09:27:48.2	41.734N	14.650E	10G	4.6			NEIC

Southern Italy

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	WET	e Pn	Z	09:29:38.3	7.5	169.8					
		e Sn	E	09:30:59.8							
	BFO	e Pn	Z	09:29:43.4	8.0	143.6					
		e Sn	E	09:31:13.9							
	GRA1	e Sn	E	09:31:17.6	8.3	162.0					
	MOX	e Pn	Z	09:29:57.0	9.2	165.6					
		e Sn	N	09:31:40.0							
	TNS	e Pn	Z	09:30:07.0	9.5	150.8					
		e Sn	E	09:31:47.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/12	19:58:23.0	50.990N	154.640E	33.0N	5.3			SZGRF
2002/11/12	19:58:00.9	47.381N	154.081E	33N	4.9			NEIC

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	20:09:40.3	74.6	26.7	1.1	72	5.7		
CLL	i P	Z	20:09:47.1	75.8	26.0	0.9	50	5.6		
BRG	e P	Z	20:09:48.0	75.9	26.6	1.2	26	5.2		
MOX	e P	Z	20:09:53.2	76.8	25.1	1.2	26	5.2		
GRA1	e P	Z	20:09:59.2	77.8	24.7	0.8	40	5.5		
WET	e P	Z	20:09:59.3	77.8	25.7	1.1	31	5.3		
GEC2	e P	Z	20:09:59.0	77.8	26.2	1.2	14	4.8		
TNS	e P	Z	20:09:59.8	78.0	23.0	1.0	25	5.2		
FUR	e P	Z	20:10:06.5	79.1	24.6	2.1	190	5.8		
STU	e P	Z	20:10:06.3	79.1	23.4					
BFO	e P	Z	20:10:09.3	79.8	22.8	1.3	21	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/13	03:24:41.0	20.994S	179.003W	606?	4.7			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	03:43:17.5	148.3	21.7					
	i PKPbc	- Z	03:43:21.1			1.1	58			
	e PKPab	Z	03:43:26.7			0.9	23			
	e pPKPbc	Z	03:45:37.6							
GRA1	e PKPbc	Z	03:43:26.1	150.2	19.5					
	e PKPab	Z	03:43:35.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/13	08:29:09.8	20.737S	178.913W	600G	4.4			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	- Z	08:47:49.7	148.1	21.4	0.8	34			
	e		08:47:55.0							
	e pPKP	Z	08:50:11.5							
GRA1	e PKP	Z	08:47:54.9	149.9	19.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/13	10:48: 2.2	45.400N	10.200E	10.0G			4.9	SZGRF
2002/11/13	10:48:03.2	45.546N	10.187E	10G				NEIC

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e Pn	Z	10:48:48.9	2.7	196.3					
	e Lg	E	10:49:31.0							

BFO	e Pn	Z	10:48:52.1	3.1	154.8		4.9
	e Lg	E	10:49:40.5				
WET	e Pn	Z	10:49:05.9	4.0	207.9		4.7
GEC2	e Pn	N	10:49:06.4	4.1	217.2		
	e Sn	E	10:49:53.2				4.5
GRA1	e Pn	Z	10:49:06.9	4.2	189.9		5.4
	e Lg	E	10:50:20.1				
TNS	e Pn	Z	10:49:16.6	4.8	165.3		4.9
	e Lg	E	10:50:38.8				
WLF	e Pn	Z	10:49:19.2	4.9	145.0		
	e Lg	E	10:50:40.9				
MOX	e Pn	Z	10:49:19.8	5.2	191.1		4.9
	e Sn	E	10:50:20.1				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/13	13:40:45.6	63.050N	144.530W	13.1	5.5			SZGRF
2002/11/13	13:40:39.0	63.133N	144.450W	7	4.9			NEIC

Central Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	13:51:26.9	65.6	348.2	1.7	59	5.5		
	e pP	Z	13:51:30.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/13	15:53: 0.5	0.260N	95.980E	33.0N	5.2			SZGRF
2002/11/13	15:53:08.1	3.036N	96.131E	33N	5.3	5.5		NEIC

Off west coast of northern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	16:05:39.9	84.4	91.9	1.0	20	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/14	10:43:53.2	5.360S	67.850E	33.0N	5.6			SZGRF
2002/11/14	10:43:47.5	5.003S	68.661E	10G	5.0	4.6		NEIC

Carlsberg Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	10:55:23.4	73.7	119.0	1.2	64	5.6		
	e pP	Z	10:55:30.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

2002/11/14 11:05:20.9 17.621S 178.888W 554D 4.8 NEIC
Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKP	Z	11:23:52.3	141.9	19.1					
RUE	e PKP	Z	11:23:53.4	143.8	20.7					
CLL	e PKP	Z	11:23:57.2	145.0	20.0					
BRG	e PKP	Z	11:23:58.0	145.2	21.8					
BUG	e PKP	Z	11:23:59.4	145.8	10.5					
MOX	e PKP	Z	11:23:59.6	145.9	18.1					
TNS	e PKP	Z	11:24:02.4	146.9	12.9					
GRA1	e PKP	Z	11:24:03.4	146.9	17.8					
	e		11:24:06.4							
WET	e PKP	Z	11:24:03.4	147.1	20.9					
	e		11:24:07.1							
GEC2	e PKP	Z	11:24:03.5	147.1	22.5					
STU	e PKP	Z	11:24:06.3	148.2	14.7					
FUR	e PKP	Z	11:24:06.7	148.4	18.7					
BFO	e PKP	Z	11:24:07.1	148.7	13.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/14	15:53:37.4	15.850N	90.400W	33.0N	5.5	4.7		SZGRF
2002/11/14	15:53:33.4	16.325N	91.001W	33N	4.7	4.3		NEIC

Guatemala

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z	16:05:55.6	82.3	286.6	1.4	48	5.4		
TNS	e P	Z	16:06:01.3	83.4	287.6	1.2	33	5.4		
STU	e P	Z	16:06:05.7	84.3	288.3	1.3	32	5.4		
MOX	e P	Z	16:06:10.5	85.2	290.0	1.4	40	5.4		
GRA1	e P	Z	16:06:11.1	85.2	289.8	1.5	69	5.7		
	e L	Z	16:41:56.3			19.2	301		4.7	
CLL	e P	Z	16:06:13.3	85.7	291.0	1.3	43	5.4		
RUE	e P	Z	16:06:13.8	85.8	291.5	1.2	43	5.4		
WET	e P	Z	16:06:17.1	86.4	291.0	1.4	83	5.7		
BRG	e P	Z	16:06:16.7	86.5	291.7	1.5	59	5.5		
GEC2	e P	Z	16:06:19.8	87.1	291.6	1.3	33	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/14	23:32:20.9	14.879S	177.500W	300G	4.4			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	23:51:22.0	144.5	14.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/15	13:05:40.3	55.647S	35.662W	33N	5.9	5.5		NEIC

SOUTH GEORGIA ISLAND REGION

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z	13:20:19.9	112.3	206.4					
	e PP	Z	13:24:57.3							
	e PS	Z	13:34:25.1							
	e SS	N	13:40:35.9							
	e L	Z	14:06:46.8			20.8	1707			
CLL	e Pdiff	Z	13:20:30.3	114.0	207.8					
	e PP	Z	13:25:09.3							
	e PPP	Z	13:27:43.4							
	e SKSac	R	13:31:06.6							
	e Sdiff	T	13:33:07.9							
	e PS	R	13:34:51.5							
	e PKKPab	Z	13:35:05.2							
	e SS	R	13:41:10.2							
	e LR	Z	13:59:16.0							
	e L	Z	14:06:10.0			22.0	1958		5.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/15	19:58:33.9	55.930S	35.900W	33N	6.0	6.6		NEIC

South Georgia Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z	20:13:22.6	112.6	206.4					
	e PP	Z	20:17:47.9							
	e SKSac	N	20:23:49.3							
	e SP	Z	20:27:27.9							
	e PKKP	Z	20:28:07.1							
	e SS	N	20:33:32.2							
	e L	Z	20:59:35.0			20.5	27287		6.8	
CLL	e Pdiff	Z	20:13:24.7	114.3	207.7					
	e PKiKP	Z	20:17:06.2							
	e PP	Z	20:18:06.1							
	e PPP	Z	20:20:39.2							
	e SKSac	R	20:23:48.7							
	e Sdiff	T	20:25:46.5							
	e PS	R	20:27:49.0							
	e PKKPbc	Z	20:27:51.7							
	e PKKPab	Z	20:27:58.0							
	e PPS	Z	20:28:54.7							
	e SS	R	20:34:03.2							
	e SSS	R	20:38:01.5							

e SSSS	R	20:41:13.7					
e LR	Z	20:52:01.3					
e L	Z	20:59:20.0		22.0	37593		6.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/15	21:56: 9.4	2.150S	86.250E	33.0N	5.2			SZGRF
2002/11/15	21:56:04.4	3.105S	84.961E	10G	5.0			NEIC

South Indian Ocean

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	22:08:19.3	80.6	106.9					
WET	e P	Z	22:08:19.5	80.8	105.7					
RUE	e P	Z	22:08:22.0	81.2	107.0					
CLL	e P	Z	22:08:22.7	81.3	106.2					
MOX	e P	Z	22:08:26.6	82.0	105.0					
GRA1	e P	Z	22:08:26.7	82.0	104.5	0.9	16	5.2		
BFO	e P	Z	22:08:34.0	83.5	102.1					
TNS	e P	Z	22:08:36.4	83.8	102.4					
IBBN	e P	Z	22:08:40.5	84.7	102.1					
BUG	e P	Z	22:08:41.0	84.8	101.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/16	12:06:36.1	53.030N	155.930E	33.0N	6.0	4.5		SZGRF
2002/11/16	12:06:24.9	50.386N	156.503E	96D	5.5			NEIC

Kamchatka Peninsula, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P	Z	12:17:33.6	70.6	23.9					
RUE	e P	Z	12:17:44.0	72.4	23.9					
CLL	e P	Z	12:17:51.0	73.7	23.3					
BRG	e P	Z	12:17:52.1	73.9	23.8					
IBBN	e P	Z	12:17:53.1	74.0	20.1					
MOX	e P	Z	12:17:57.0	74.6	22.4					
BUG	e P	Z	12:17:58.3	74.9	19.7					
GRA1	e P	Z	12:18:03.2	75.6	22.0	1.3	287	6.2		
	e L	Z	12:56:13.0			19.3	272		4.5	
WET	e P	Z	12:18:03.6	75.7	23.0	1.2	136	6.0		
TNS	i P	Z	12:18:03.7	75.8	20.4	1.3	130	5.8		
GEC2	e P	Z	12:18:03.6	75.8	23.4					
STU	e P	Z	12:18:10.2	77.0	20.7					
FUR	e P	Z	12:18:10.8	77.0	21.9	1.2	205	6.0		
BFO	e P	Z	12:18:13.6	77.6	20.1	1.1	103	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/16	17:53: 7.5	16.550N	93.790E	33.0N	5.0			SZGRF
2002/11/16	17:53:06.4	17.092N	93.741E	29D	4.9			NEIC

Bay of Bengal

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	18:04:32.6	72.3	84.3	1.2	17	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/16	20:23:32.3	26.325S	178.320E	600G	4.7			NEIC

South of Fjfi Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	20:42:46.3	154.6	27.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/16	20:44:50.3	26.387S	178.126E	640D	4.9			NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPdf	Z	21:03:27.7	151.4	30.3					
	e PKPbc	Z	21:03:34.5							
CLL	e PKPdf	Z	21:03:28.6	152.6	30.0					
	e PKPbc	Z	21:03:37.4							
	e PKPab	Z	21:03:51.2							
	e pPKPbc	Z	21:06:01.3							
BRG	e PKPdf	Z	21:03:29.4	152.7	32.2					
	e PKPbc	Z	21:03:38.0							
	e PKPab	Z	21:03:51.9							
	e pPKPbc	Z	21:06:03.2							
IBBN	e PKPbc	Z	21:03:38.5	153.1	19.3					
	e PKPab	Z	21:03:52.9							
	e pPKPbc	Z	21:06:04.6							
MOX	e PKPdf	Z	21:03:30.9	153.6	28.1					
GEC2	e PKPdf	Z	21:03:31.6	154.5	34.0					
WET	e PKPdf	Z	21:03:32.1	154.5	32.0					
GRA1	e PKPab	Z	21:04:00.6	154.6	28.2					
TNS	e PKPdf	Z	21:03:32.9	154.9	22.2					
	e PKPab	Z	21:04:01.6							
WLF	e PKPdf	Z	21:03:34.4	155.9	17.8					
	e PKPab	Z	21:04:06.2							
STU	e PKPdf	Z	21:03:34.1	156.0	25.0					
	e PKPbc	Z	21:03:44.9							
	e PKPab	Z	21:04:06.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/17	02:58:42.9	23.508S	175.711W	48D	5.4	5.4		NEIC

Tonga Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	03:18:25.5	151.4	16.9	1.5	20			
	i PKPbc	- Z	03:18:33.1			1.1	77			
	e PP	Z	03:22:09.8							
	e L	Z	04:31:46.4			19.4	593		5.4	
GRA1	e PKPdf	Z	03:18:37.2	153.3	14.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/17	04:53:44.8	47.150N	148.310E	500.3	6.9			SZGRF
2002/11/17	04:53:50.6	47.979N	146.276E	499D	6.9			NEIC

Northwest of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	05:04:25.1	71.7	31.3					
	e pP	Z	05:06:09.4							
	e S	N	05:13:13.2							
CLL	i P	- Z	05:04:31.8	73.0	30.6	1.1	3967	7.4		
	e pP	Z	05:06:19.0							
	e sP	Z	05:07:10.1							
	e pPP	Z	05:08:57.1							
	e sPP	Z	05:09:50.6							
	e S	T	05:13:22.3							
	e SKSac	Z	05:13:38.0							
	e sS	T	05:16:32.0							
	e sSKSac	Z	05:17:12.7							
	e SS	E	05:18:17.2							
	e sSS	N	05:20:53.0							
	e SSS	Z	05:21:46.3							
	e sSSS	E	05:24:22.1							
	e SSSS	Z	05:24:33.1							
	e P'P'	Z	05:32:02.2							
	e L	Z	05:38:56.3			18.0	69129		7.0	
	e P4KP	Z	05:41:17.5							
BRG	e P	Z	05:04:32.5	73.0	31.2	1.1	714	6.7		
	e S	N	05:13:27.9							
IBBN	e P	Z	05:04:36.2	73.7	27.5	0.9	1148	7.0		
	e S	N	05:13:34.3							
MOX	e P	Z	05:04:38.1	74.0	29.7	0.8	439	6.6		
	e S	N	05:13:38.6							
BUG	e P	Z	05:04:41.3	74.6	27.1	1.1	1234	6.9		
	e S	N	05:13:45.4							

GEC2	e P	Z	05:04:43.1	74.9	30.7	1.4	1971	7.0
WET	e P	Z	05:04:43.7	74.9	30.3			
	e S	N	05:13:50.0					
GRA1	e P	Z	05:04:44.1	74.9	29.3	0.8	1063	7.0
	e pP	Z	05:06:28.6					
	e sP	Z	05:07:21.8					
	e pPP	Z	05:09:12.2					
	e S	N	05:13:50.0					
	e ScS	N	05:14:19.5					
	e sS	N	05:16:49.2					
	e SS	E	05:18:51.6					
	e PKPPKP	Z	05:31:32.6					
TNS	e P	Z	05:04:45.8	75.3	27.7	1.3	2038	7.1
	e S	N	05:13:53.3					
FUR	e P	Z	05:04:51.2	76.2	29.2	0.7	728	6.8
	e pP	Z	05:06:37.8					
	e S	N	05:14:04.4					
STU	e P	Z	05:04:51.6	76.4	28.0			
	e S	N	05:14:06.1					
WLF	e S	N	05:14:07.3	76.5	26.2			
BFO	e P	Z	05:04:55.1	77.0	27.4	1.4	2764	7.1
	e S	N	05:14:12.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/17	10:01:59.9	8.430N	83.440W	33.0N	5.2			SZGRF
2002/11/17	10:01:57.3	8.918N	83.848W	1	4.9	4.7		NEIC

Costa Rica

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	10:14:40.2	86.5	279.6	1.0	19	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/17	18:24:58.1	40.054N	19.534E	10G	4.5			NEIC

Albania

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	18:27:20.4	9.7	152.6					
FUR	e Pn	Z	18:27:24.6	10.0	140.9					
WET	e Pn	Z	18:27:26.6	10.2	150.1					
GRA1	e Pn	Z	18:27:42.9	11.3	145.5					
MOX	e Pn	Z	18:27:51.0	11.9	149.4					
TNS	e Pn	Z	18:28:02.3	12.8	138.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/17	18:21:43.1	5.786S	151.213E	141?	4.6			NEIC

New Britain Region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	18:40:29.2	124.7	51.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/18	00:30:58.1	24.740N	46.690W	28.8	5.0	4.3		SZGRF
2002/11/18	00:31:30.5	28.985N	43.461W	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	00:39:56.0	45.8	264.2	1.9	36	5.0		
		e pP	Z	00:40:03.5							
		e sP	Z	00:40:07.9							
		e L	Z	00:55:12.7			21.8	335		4.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/18	22:52: 4.5	4.100S	100.210E	24.3	5.6	5.0		SZGRF
2002/11/18	22:51:56.5	4.156S	102.258E	33N	5.5	5.2		NEIC

Southwest of Sumatera, Indonesia

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	CLL	i P	Z	23:05:06.7	91.4	94.7	1.2	17	5.3		
		e sP	Z	23:05:17.3							
		e S	E	23:15:39.1							
		e PS	Z	23:17:27.5							
		e SS	E	23:22:18.5							
		e LR	Z	23:39:12.6							
		e L	Z	23:54:43.1			20.0	392		4.9	
	GRA1	e P	Z	23:05:12.4	93.8	91.9	1.1	36	5.6		
		e pP	Z	23:05:19.1							
		e sP	Z	23:05:23.0							
		e L	Z	23:55:37.1			18.0	501		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/19	01:25:37.7	38.040N	38.900E	33.0N	4.7			SZGRF
2002/11/19	01:25:39.4	37.903N	38.526E	33N	4.3			NEIC

Turkey

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	01:30:39.2	22.8	110.8	1.4	39	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/20	21:32:29.0	34.470N	74.700E	33.0N	6.2	6.3		SZGRF
2002/11/20	21:32:30.9	35.398N	74.552E	33N	5.7	6.5		NEIC

Southwestern Kashmir

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	21:40:48.9	45.4	87.0	1.9	313	6.0		
BRG	e P	Z	21:40:49.4	45.4	85.6	2.3	734	6.3		
	e PP	Z	21:42:39.6							
RGN	e P	Z	21:40:51.0	45.6	88.7	1.3	297	6.2		
	e PP	Z	21:42:42.8							
GEC2	e P	Z	21:40:52.1	45.8	83.4	2.6	786	6.4		
CLL	e P	Z	21:40:53.2	46.0	85.3	1.6	164	5.8		
	e PP	Z	21:42:48.8							
	e		21:44:51.6							
	e S	R	21:47:36.5							
	e SS	Z	21:51:08.1							
	e LR	Z	21:54:49.4							
	e L	Z	22:02:53.9			20.0	48637		6.4	
WET	e P	Z	21:40:56.2	46.3	83.1	2.5	744	6.4		
MOX	e P	Z	21:41:01.2	46.9	83.7	3.1	1653	6.6		
GRA1	e P	Z	21:41:04.8	47.3	82.5	1.8	590	6.4		
	e PP	Z	21:42:56.7							
	e S	E	21:47:50.6							
	e SS	E	21:51:17.7							
	e L	Z	22:03:33.2			20.6	32700		6.3	
FUR	e P	Z	21:41:05.4	47.5	81.2	1.8	655	6.5		
	e PP	Z	21:42:55.3							
STU	e P	Z	21:41:15.0	48.7	80.3	2.1	495	6.1		
TNS	e P	Z	21:41:17.1	49.0	81.1	2.0	225	5.8		
IBBN	e P	Z	21:41:17.9	49.1	82.4	3.0	2667	6.6		
	e PP	Z	21:43:14.1							
BFO	e P	Z	21:41:19.6	49.4	79.4	1.7	166	5.7		
BUG	e P	Z	21:41:21.2	49.5	81.3	1.6	207	5.8		
WLF	e P	Z	21:41:29.1	50.5	79.1	1.4	158	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/20	21:44:13.9	36.650N	73.450E	33.0N	5.2			SZGRF
2002/11/20	21:43:58.1	35.354N	74.661E	33N	4.9			NEIC

Northwestern Kashmir

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	21:52:17.0	45.5	87.0					
BRG	e P	Z	21:52:17.0	45.5	85.5					

GEC2	e P	Z	21:52:20.0	45.9	83.4				
CLL	e P	Z	21:52:20.9	46.1	85.3				
WET	e P	Z	21:52:23.6	46.4	83.1				
MOX	e P	Z	21:52:28.8	47.0	83.6				
GRA1	e P	Z	21:52:32.9	47.4	82.5	1.3	42	5.3	
FUR	e P	Z	21:52:33.3	47.6	81.1				
TNS	e P	Z	21:52:45.1	49.1	81.1	1.2	17	5.0	
IBBN	e P	Z	21:52:45.5	49.2	82.4				
WLF	e P	Z	21:52:57.3	50.6	79.1				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/21	02:53:32.4	14.140N	80.860W	33.0N	5.6	5.6		SZGRF

Caribbean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	03:05:24.6	77.4	277.0	1.0	63	5.7		
BUG	e P	Z	03:05:26.9	77.8	277.5	0.9	35	5.5		
IBBN	e P	Z	03:05:27.9	78.0	277.7	1.1	80	5.8		
TNS	e P	Z	03:05:32.1	78.7	278.6	0.8	31	5.4		
BFO	e P	Z	03:05:32.5	79.0	278.9	1.3	33	5.2		
STU	e P	Z	03:05:35.5	79.4	279.5	1.3	49	5.3		
GRA1	e P	Z	03:05:42.0	80.6	280.8	1.1	52	5.5		
	e pP	Z	03:05:50.8							
	e PP	Z	03:08:45.5							
	e SS	E	03:21:35.5							
	e L	Z	03:39:37.5			19.1	2895		5.6	
MOX	e P	Z	03:05:42.1	80.7	280.9	1.1	39	5.3		
FUR	e P	Z	03:05:43.6	80.9	281.1	1.8	120	5.6		
CLL	i P	- Z	03:05:45.8	81.4	281.9	1.0	64	5.8		
	e pP	Z	03:05:54.5							
	e S	R	03:16:01.0							
	e PPS	R	03:16:49.9							
	e SS	R	03:21:24.1							
	e LQ	T	03:27:53.2							
	e LR	Z	03:32:46.2							
	e L	Z	03:38:27.0			22.0	1867		5.4	
RUE	e P	Z	03:05:46.9	81.6	282.3	1.5	137	5.9		
WET	e P	Z	03:05:48.2	81.8	282.1	1.6	112	5.7		
BRG	e P	Z	03:05:49.5	82.1	282.7	1.3	81	5.7		
GEC2	e P	Z	03:05:50.9	82.3	282.8	1.2	61	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/21	17:23:36.6	44.780N	12.130E	10.0G				SZGRF

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	17:24:41.5	4.2	195.4					
	e Sn	N	17:25:29.0							
WET	e Pn	Z	17:24:42.4	4.4	186.9					
	e Sn	N	17:25:32.7							
BFO	e Pn	Z	17:24:43.1	4.4	142.2					
	e Sn	N	17:25:32.9							
GRA1	e Sn	N	17:25:45.4	5.0	172.5					
TNS	e Sn	N	17:26:12.8	6.0	154.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/23	00:51:30.6	16.590S	168.730E	33N	4.6			NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPbc	Z	01:24:44.2	139.0	38.3					
	e PKPab	Z	01:24:51.0							
BRG	e PKPbc	Z	01:24:47.4	140.2	39.7					
CLL	e PKPdf	Z	01:24:39.5	140.3	38.0	1.5	18			
	i PKPbc	Z	01:24:46.7			0.9	42			
	e		01:24:53.5							
	e PKPab	Z	01:24:58.0			1.0	29			
	e pPKPbc	Z	01:25:23.0							
IBBN	e PKPbc	Z	01:24:46.8	141.3	29.9					
	e PKPab	Z	01:24:57.9							
MOX	e PKPbc	Z	01:24:49.1	141.3	36.6					
	e PKPab	Z	01:25:01.7							
WET	e PKPab	Z	01:25:07.6	142.0	39.6					
BUG	e PKPbc	Z	01:24:48.7	142.2	29.8					
	e PKPab	Z	01:25:01.7							
GRA1	e PKPab	Z	01:25:06.9	142.2	36.8					
TNS	e PKPab	Z	01:25:06.3	142.8	32.3					
FUR	e PKPab	Z	01:25:12.2	143.4	38.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/23	14:48:41.9	27.764S	177.090W	33N	4.9			NEIC

Kermadec Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdif	Z	15:08:41.6	155.3	21.8	1.1	10			
	i PKPab	Z	15:08:57.4			1.3	24			
GRA1	e PKP	Z	15:09:06.5	157.2	19.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/23	23:56:59.2	3.100N	71.310W	33.0N	5.4	4.5		SZGRF
2002/11/23	23:57:00.5	2.816N	75.979W	197?	4.7			NEIC

Colombia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BUG	e P	Z	00:09:08.3	83.6	266.5	1.1	20	5.0		
TNS	e P	Z	00:09:12.2	84.3	267.5	1.2	26	5.1		
STU	e P	Z	00:09:14.1	84.7	268.2	1.2	26	5.1		
GRA1	e P	Z	00:09:20.5	86.0	269.7	2.2	125	5.8		
	e L	Z	00:44:34.1			19.5	206		4.5	
MOX	e P	Z	00:09:23.2	86.3	269.9	1.9	43	5.3		
WET	e P	Z	00:09:26.4	87.1	271.0	1.2	27	5.3		
CLL	e P	Z	00:09:27.4	87.2	271.0	1.8	28	5.2		
RGN	e P	Z	00:09:27.6	87.3	271.1	1.4	176	6.1		
RUE	e P	Z	00:09:29.5	87.6	271.5	0.6	14	5.4		
GEC2	e P	Z	00:09:28.9	87.7	271.6	1.2	14	5.1		
BRG	e P	Z	00:09:30.6	87.8	271.7	2.3	72	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/24	05:08: 8.3	29.750N	127.260E	33.0N	5.6	5.0		SZGRF
2002/11/24	05:07:54.8	29.255N	130.487E	33N	4.9			NEIC

Northwest of Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z	05:20:16.6	80.8	53.4	1.6	40	5.4		
	e PP	R	05:23:31.0							
	e S	Z	05:30:35.0							
	e LR	Z	05:54:40.9							
	e L	Z	06:01:07.4			18.0	1406		5.4	
GRA1	e P	Z	05:20:27.6	84.4	49.9	1.9	81	5.6		
	e		05:20:35.3							
	e L	Z	06:01:53.0			20.9	702		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/24	06:44:14.9	29.050N	128.120E	33.0N		4.7		SZGRF
2002/11/24	06:44:06.7	29.263N	130.557E	33N	4.6			NEIC

Northwest of Ryukyu Islands, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	06:56:39.4	84.5	49.8					
	e L	Z	07:38:15.6			19.4	346		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/24	12:57:29.5	37.110N	71.490E	33.0N				SZGRF
2002/11/24	12:57:00.8	35.334N	74.881E	33N	4.7			NEIC

Afghanistan-Tajikistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	13:05:36.2	47.5	82.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/24	13:33:22.7	37.280N	70.320E	33.0N	4.8			SZGRF
2002/11/24	13:32:46.7	35.331N	74.893E	33N	4.8	4.3		NEIC

Afghanistan-Tajikistan border region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	13:41:22.7	47.5	82.4	1.5	31	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/24	15:09:24.6	11.550N	63.730W	33.0N	5.2			SZGRF
2002/11/24	15:09:33.1	10.862N	62.672W	112*	4.8			NEIC

Caribbean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	e P	Z	15:20:22.7	68.1	260.8	0.9	22	5.4		
BUG	e P	Z	15:20:28.5	69.1	261.0	1.1	23	5.3		
BFO	e P	Z	15:20:29.8	69.3	263.0	1.0	6	4.7		
IBBN	e P	Z	15:20:31.7	69.5	261.1	0.9	48	5.6		
TNS	e P	Z	15:20:32.3	69.6	262.4	0.8	31	5.5		
STU	e P	Z	15:20:33.8	69.9	263.5	0.8	34	5.5		
FUR	e P	Z	15:20:42.3	71.2	265.4	2.6	193	5.8		
GRA1	e P	Z	15:20:42.7	71.3	264.8	1.0	12	5.0		
MOX	e P	Z	15:20:44.6	71.7	264.8	0.9	6	4.7		
WET	e P	Z	15:20:48.8	72.4	266.3	0.9	9	4.9		
CLL	e P	Z	15:20:50.1	72.6	265.7	1.0	13	5.0		
GEC2	e P	Z	15:20:51.9	72.9	267.0	0.9	19	5.2		
BRG	e P	Z	15:20:53.6	73.2	266.6	0.9	12	5.0		
RUE	e P	Z	15:20:53.6	73.2	265.9	0.8	28	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/24	15:26:27.7	59.380N	40.180W	33.0N	5.1			SZGRF
2002/11/24	15:27:00.9	58.640N	31.647W	10G	4.8			NEIC

North Atlantic Ocean

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

	GRA1	e P	Z	15:32:37.9	26.1	306.5	1.4	33	5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/25	06:11: 4.5	29.750N	99.750E	33.0N	4.9			SZGRF
2002/11/25	06:11:05.4	30.905N	99.980E	33N	4.8			NEIC

Sichuan, China

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	06:21:53.7	66.2	69.7					
		e P	Z	06:21:54.0			1.3	11	4.9		
		e		06:21:57.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/25	18:35:13.2	24.942S	179.355E	584?	4.3			NEIC

South of Fiji Islands

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	CLL	i PKPbc	+ Z	18:54:03.5	151.7	26.8	0.8	20			
		e pPKPbc	Z	18:56:06.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/26	00:48:31.6	53.590N	173.210W	33.0N	6.1	5.8		SZGRF
2002/11/26	00:48:14.9	51.511N	173.518W	19D	5.9	5.8		NEIC

Andreanof Islands, Aleutian Islands, United States

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	RGN	e P	Z	00:59:51.5	73.8	4.4	1.3	428	6.4		
	RUE	e P	Z	01:00:02.8	75.8	4.7	1.3	313	6.2		
	CLL	i P	+ Z	01:00:09.3	77.0	4.2	1.1	177	6.1		
		e PP	Z	01:03:03.4							
		e PPP	Z	01:05:00.0							
		e S	T	01:09:57.6							
		e SS	R	01:15:09.1							
		e LR	Z	01:25:36.0							
		e L	Z	01:35:05.3			22.0	5935		5.9	
	BUG	e P	Z	01:00:09.4	77.0	0.5	1.1	74	5.6		
	BRG	e P	Z	01:00:11.5	77.4	4.7	1.0	199	6.2		
	MOX	e P	Z	01:00:13.6	77.8	3.3	1.1	164	6.1		
	TNS	e P	Z	01:00:16.5	78.3	1.2	1.1	122	5.9		
	GRA1	e P	Z	01:00:19.5	78.7	3.0	1.2	318	6.3		
		e		01:00:34.1							
		e S	T	01:10:27.0							
		e SS	R	01:15:43.6							

	e L	Z	01:44:54.7			18.5	4428		5.8
WET	e P	Z	01:00:21.8	79.2	4.0	1.1	90	5.8	
GEC2	e P	Z	01:00:22.9	79.5	4.6	1.2	117	5.9	
STU	e P	Z	01:00:24.3	79.7	1.7	1.1	162	6.1	
BFO	e P	Z	01:00:26.8	80.1	1.2	1.3	141	5.9	
FUR	e P	Z	01:00:27.4	80.2	3.0	2.5	1307	6.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/26	04:33:55.3	53.880N	172.240W	33.0N	5.0			SZGRF
2002/11/26	04:33:38.5	51.580N	173.688W	33N	5.0	4.6		NEIC

Andreanof Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z	04:45:25.2	75.8	4.8	0.6	20	5.3		
CLL	e P	Z	04:45:31.5	77.0	4.3	1.0	17	5.0		
BUG	e P	Z	04:45:31.1	77.0	0.6	0.8	6	4.7		
BRG	e P	Z	04:45:33.8	77.3	4.9	0.9	19	5.1		
MOX	e P	Z	04:45:36.0	77.7	3.4	0.9	13	5.1		
TNS	e P	Z	04:45:38.8	78.2	1.4	0.9	12	5.0		
GRA1	e P	Z	04:45:41.9	78.6	3.1	0.9	29	5.4		
WET	e P	Z	04:45:44.1	79.1	4.1	0.9	7	4.7		
GEC2	e P	Z	04:45:45.2	79.4	4.7	0.9	9	4.9		
STU	e P	Z	04:45:46.8	79.6	1.8	0.9	14	5.1		
BFO	e P	Z	04:45:49.1	80.1	1.3	0.9	9	4.9		
FUR	e P	Z	04:45:49.4	80.2	3.1	1.0	22	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/26	06:35:30.3	49.050N	170.590W	33.0N	5.6			SZGRF
2002/11/26	06:35:40.5	51.566N	173.566W	33N	4.6			NEIC

South of Aleutian Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	06:47:43.4	78.7	3.0	2.4	124	5.6		
	e		06:47:55.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/26	15:30:13.4	3.745N	32.192W	10G	4.5			NEIC

Central Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	15:40:12.1	58.8	233.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/26	22:46:14.4	20.949S	178.886W	536D	4.9			NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e PKPbc	Z	23:04:54.6	145.2	20.2					
RUE	e PKPdf	Z	23:04:55.0	147.0	22.1					
	e PKPbc	Z	23:04:57.5							
IBBN	e PKPdf	Z	23:04:56.4	148.2	11.8					
	e PKPbc	Z	23:05:00.7							
CLL	i PKPdf	Z	23:04:56.1	148.3	21.4	1.3	29			
	i PKPbc	- Z	23:05:00.8			1.0	196			
	i PKPab	Z	23:05:06.1			0.7	66			
	i pPKPbc	Z	23:07:09.6							
	e SKP	Z	23:07:39.3							
	e PKS	Z	23:08:32.2							
BRG	e PKPdf	Z	23:04:56.5	148.4	23.3					
	e PKPbc	Z	23:05:01.4							
	e PKPab	Z	23:05:06.8							
BUG	e PKPdf	Z	23:04:57.3	149.1	11.3					
	e PKPbc	Z	23:05:02.8							
	e PKPab	Z	23:05:09.4							
MOX	e PKPdf	Z	23:04:57.4	149.2	19.4					
	e PKPbc	Z	23:05:03.1							
	e PKPab	Z	23:05:09.3							
GRA1	e PKPdf	Z	23:04:59.2	150.2	19.2					
TNS	e PKPdf	Z	23:04:59.4	150.2	13.9					
GRA1	e PKPbc	Z	23:05:05.7	150.2	19.2					
	e PKPab	Z	23:05:14.6							
TNS	e PKPbc	Z	23:05:05.4	150.2	13.9					
	e PKPab	Z	23:05:14.0							
WET	e PKPdf	Z	23:04:59.5	150.3	22.6					
	e PKPbc	Z	23:05:05.8							
	e PKPab	Z	23:05:15.0							
GEC2	e PKPdf	Z	23:04:59.3	150.3	24.3					
	e PKPbc	Z	23:05:05.8							
	e PKPab	Z	23:05:14.7							
WLF	e PKPdf	Z	23:05:00.8	151.0	9.7					
	e PKPbc	Z	23:05:07.8							
STU	e PKPdf	Z	23:05:01.2	151.4	15.9					
	e PKPbc	Z	23:05:08.2							
	e PKPab	Z	23:05:18.5							
BFO	e PKPbc	Z	23:05:09.3	152.0	14.5					
	e PKPab	Z	23:05:21.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/26	23:06:19.2	21.078S	178.832W	566D	4.7			NEIC

Fiji Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	Z	23:24:59.2			1.4	9			
	i PKPbc	- Z	23:25:03.6			1.1	45			
	e PKPab	Z	23:25:08.8			1.1	12			
	i		23:26:32.4							
	e pPKPbc	Z	23:27:12.4							
	e SKP	Z	23:27:43.4							
GRA1	e PKP	Z	23:25:08.1	150.3	19.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/27	00:17:19.9	12.294N	120.738E	33N	4.8			NEIC

Mindoro, Philippines

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:30:32.5	92.8	67.2					
	e		00:30:37.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/27	01:35:20.0	56.380N	160.090W	33.0N	5.7	4.9		SZGRF
2002/11/27	01:35:07.0	54.683N	160.650W	1	5.4	5.2		NEIC

Alaska Peninsula, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
IBBN	e P	Z	01:46:34.1	72.6	353.0	1.2	124	5.9		
RUE	e P	Z	01:46:34.9	72.7	356.6	1.4	173	6.0		
BUG	e P	Z	01:46:38.6	73.4	352.7	1.2	90	5.8		
CLL	i P	+ Z	01:46:41.2	73.9	356.2	1.4	82	5.6		
	e PcP	Z	01:46:55.7							
	e PP	Z	01:49:36.4							
	e S	T	01:56:20.9							
	e SS	R	02:01:09.3							
	e SSS	N	02:04:40.5							
	e LQ	T	02:07:51.9							
	e LR	Z	02:10:49.1							
	e L	Z	02:28:31.0			18.0	992		5.2	
BRG	e P	Z	01:46:44.2	74.3	356.8	1.4	84	5.7		
MOX	e P	Z	01:46:45.1	74.5	355.4	1.5	129	5.8		
TNS	e P	Z	01:46:46.5	74.7	353.5	1.7	137	5.8		
WLF	e P	Z	01:46:48.9	75.1	352.1	1.5	113	5.7		
GRA1	e P	Z	01:46:50.9	75.4	355.2	1.6	145	5.8		
	e S	E	01:56:32.7							
	e L	Z	02:29:49.4			19.5	686		4.9	

WET	e P	Z	01:46:54.4	76.0	356.1	1.5	93	5.6
STU	e P	Z	01:46:54.9	76.2	354.0	1.7	106	5.6
GEC2	e P	Z	01:46:56.0	76.4	356.6	1.6	80	5.5
BFO	e P	Z	01:46:57.1	76.6	353.5	1.7	104	5.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/27	06:02:27.5	20.372S	178.662W	600G	4.4			NEIC

Fiji Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	- Z	06:21:06.9	147.8	20.9	0.8	39			
	i PKPab	Z	06:21:11.4			0.7	20			
	e pPKPbc	Z	06:23:34.8							
GRA1	e PKP	Z	06:21:12.0	149.6	18.6					
	e		06:21:20.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/27	06:41:36.7	17.691S	178.739W	600G	4.2			NEIC

Fiji Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	07:00:15.9	147.0	17.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/27	16:43:17.9	14.384S	167.776E	33N	5.6	5.8		NEIC

Vanuatu Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	17:02:42.0	137.9	38.1	0.9	8			
	e PP	Z	17:05:31.0							
	e PKS	R	17:06:20.8							
	e SS	T	17:23:50.4							
	e LR	Z	17:48:55.4							
	e L	Z	18:11:13.5			20.0	1116		5.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/28	18:53:59.3	48.840N	78.780E	33.0N	4.6			SZGRF
2002/11/28	18:53:33.2	47.741N	82.426E	23D	4.8			NEIC

Eastern Kazakhstan

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

	GRA1	e P	Z	19:01:52.2	45.2	63.8			4.6	
		e		19:02:02.4						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/28	19:23:50.3	13.490S	68.210W	33.0N	5.2			SZGRF
2002/11/28	19:24:01.8	15.737S	69.303W	235D	4.9			NEIC

Peru-Bolivia border region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z	19:37:03.3	96.0	252.7			5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/29	05:49:41.2	18.397S	173.210W	33N	4.9			NEIC

Tonga Islands

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKP	Z	06:09:27.6	148.5	8.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/29	06:18:10.2	28.840S	63.001W	601D	5.4			NEIC

Chile-Argentina border region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e Pdiff	Z	06:31:03.3	102.3	239.6					
		e PP	Z	06:35:21.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/30	02:52:11.6	29.380N	94.330E	33.0N	5.5			SZGRF
2002/11/30	02:52:04.4	28.611N	95.038E	47	5.1			NEIC

Eastern Xizang-India border region

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	RUE	e P	Z	03:02:26.7	62.5	77.9	1.0	40	5.6		
	BRG	e P	Z	03:02:28.4	62.8	77.2	0.9	25	5.4		
	CLL	e P	Z	03:02:31.2	63.3	76.8	0.9	16	5.3		
	GEC2	e P	Z	03:02:32.8	63.4	76.1	1.2	37	5.4		
	WET	e P	Z	03:02:35.8	63.9	75.6	0.8	21	5.3		
	BSEG	e P	Z	03:02:38.6	64.2	76.1	1.0	45	5.6		
	MOX	e P	Z	03:02:38.3	64.3	75.5	0.9	18	5.2		
	GRA1	e P	Z	03:02:42.2	64.8	74.8	0.9	36	5.6		
	GRFO	e P	Z	03:02:42.1	64.8	74.8					

FUR	e	P	Z	03:02:44.3	65.1	74.1	0.8	92	6.1
IBBN	e	P	Z	03:02:50.6	66.1	73.5	1.0	23	5.3
STU	e	P	Z	03:02:51.6	66.3	73.0	1.0	46	5.7
TNS	e	P	Z	03:02:51.8	66.3	73.1	0.9	26	5.5
BUG	e	P	Z	03:02:54.1	66.7	72.8	1.0	27	5.4
BFO	e	P	Z	03:02:55.4	67.0	72.2	0.8	11	5.1
WLF	e	P	Z	03:03:02.4	67.9	71.3			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/30	04:06:58.8	0.120S	96.610E	33.0N	5.1			SZGRF
2002/11/30	04:07:09.3	2.941N	96.250E	33N	5.2	4.7		NEIC

Southwest of Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	04:19:41.6	84.5	91.9			5.1		
	e		04:19:50.0							
	e		04:20:08.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/30	07:16: 0.0	43.150N	145.330E	48.9	5.5	5.1		SZGRF
2002/11/30	07:15:54.3	42.502N	144.967E	33N	5.3	4.9		NEIC

Hokkaido, Japan, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z	07:27:41.9	76.0	32.7	1.0	86	5.8		
RUE	e P	Z	07:27:42.3	76.1	34.9	1.3	108	5.8		
CLL	i P	+ Z	07:27:48.6	77.3	34.2	1.0	89	5.9		
	e pP	Z	07:27:59.2							
	e sP	Z	07:28:04.0							
	e PP	R	07:30:47.4							
	e S	T	07:37:44.3							
	e		07:44:09.8							
	e LQ	T	07:50:11.7							
	e LR	Z	07:54:25.5							
	e L	Z	08:05:50.1			18.0	1256		5.3	
BRG	e P	Z	07:27:49.1	77.4	34.8	1.1	30	5.3		
IBBN	e P	Z	07:27:54.0	78.2	30.8	1.1	81	5.7		
MOX	e P	Z	07:27:54.5	78.4	33.2	1.2	38	5.4		
GEC2	e P	Z	07:27:58.9	79.1	34.4	1.1	24	5.1		
BUG	e P	Z	07:27:58.7	79.1	30.3	1.2	56	5.5		
WET	e P	Z	07:27:59.6	79.2	33.9	1.1	64	5.6		
GRA1	e P	Z	07:28:00.6	79.3	32.8	1.1	80	5.7		
	e pP	Z	07:28:14.6							
	e L	Z	08:06:24.6			19.8	981		5.1	
GRFO	e P	Z	07:28:00.5	79.3	32.8	1.1	67	5.6		

TNS	e P	Z	07:28:02.7	79.8	31.0	1.0	27	5.1
FUR	e P	Z	07:28:07.1	80.6	32.7	0.8	59	5.6
STU	e P	Z	07:28:07.9	80.8	31.4	1.0	49	5.5
BFO	e P	Z	07:28:11.4	81.5	30.8	1.7	71	5.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/30	08:15:50.1	46.570N	26.360E	33.0N				SZGRF
2002/11/30	08:15:46.1	45.734N	26.475E	164D	4.9			NEIC

Romania

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
ARSA	e Pn	Z	08:17:39.1	7.7	97.4					
MOA	e Pn	Z	08:17:51.4	8.6	99.7					
KBA	e Pn	Z	08:17:58.4	9.1	93.6					
GEC2	e Pn	Z	08:17:57.9	9.2	105.0					
WTTA	e Pn	Z	08:18:13.9	10.3	93.1					
GRA1	e Pn	Z	08:18:21.5	11.0	105.3					
BFO	e Pn	Z	08:18:42.2	12.6	95.1					
TNS	e Pn	Z	08:18:44.9	12.8	103.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/30								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	09:11:23.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/30	13:51:19.6	25.050N	121.170E	33.0N	5.2			SZGRF
2002/11/30	13:51:07.3	23.831N	123.315E	49*	4.8			NEIC

Taiwan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	14:03:41.6	85.1	58.3			5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/30								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	21:04:22.0							
	e PKPab	Z	21:04:25.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/30	21:50:39.2	15.225S	172.456W	33N	5.1	5.3		NEIC

Samoa Islands Region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	22:10:16.1	145.4	6.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/30	22:53:38.8	40.570N	25.920W	33.0G	4.6			SZGRF

Azores Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:59:21.8	27.4	264.9			4.6		
	e		23:00:11.8							
	e		23:00:28.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/11/30								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	23:42:21.7							
	e PKPab	Z	23:42:30.0							

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

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