

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

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

FEBRUARY 2002 UPDATED 23.March.2002

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

(Format description at the end of the bulletin)

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2002/02/01	21:54:47.5	45.760N	138.250E	33.0N	7.0			SZGRF		
2002/02/01	21:55:20.9	45.544N	136.656E	353D	6.1			NEIC		
Eastern Sea of Japan										
Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e P		Z 22:05:52.5	69.0	38.8	1.4	2538	7.1		
RUE	e P		Z 22:06:01.1	70.5	38.6	1.0	1544	7.1		
BSEG	e P		Z 22:06:01.8	70.6	36.7	0.9	745	6.8		
BRG	e P		Z 22:06:08.1	71.6	38.4	1.8	1842	6.9		
CLL	i P	-	Z 22:06:08.3			1.1	2550	7.2		
	e PcP		Z 22:06:25.2							
	e pP		Z 22:07:26.4							
	e sP		Z 22:08:07.3							
CLZ	e P		Z 22:06:11.9	72.2	36.4	0.6	1308	7.2		
MOX	e P		Z 22:06:14.6	72.7	36.9	0.7	583	6.8		
IBBN	e P		Z 22:06:14.7	72.8	34.8	0.6	1047	7.1		
GEC2	e P		Z 22:06:18.2	73.3	37.8	0.7	400	6.6		
WET	e P		Z 22:06:19.2	73.4	37.4	1.0	1333	6.9		
GRA1	i P	-	Z 22:06:20.7	73.6	36.5	1.0	1473	7.0		
BUG	e P		Z 22:06:19.8	73.7	34.3					
TNS	e P		Z 22:06:23.5	74.3	34.9	1.6	1515	6.8		
FUR	e P		Z 22:06:27.3	74.9	36.3	1.0	2634	7.3		
STU	e P		Z 22:06:28.7	75.2	35.1	0.9	1487	7.1		
WLF	e P		Z 22:06:30.7	75.5	33.4	0.8	267	6.4		
BFO	e P		Z 22:06:32.6	75.9	34.5	0.9	1397	7.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/02	17:45: 1.2	45.120N	6.060E	10.0G				SZGRF

2002/02/02 17:45:02.3
France

45.113N 6.520E 1

NEIC

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e Pn	Z	17:45:55.8	3.4	201.8					
	e Sg	N	17:46:53.6							
GRC1	e Pn	Z	17:46:19.6	5.2	223.1					
	e Sg	E	17:47:50.1							
TNS	e Sg	E	17:47:51.9	5.3	195.0					
GRA1	e Pg	Z	17:46:47.3	5.6	216.6					
	e Sg	E	17:48:03.3							
WET	e Sg	N	17:48:18.8	5.9	229.4					
GEC2	e Pn	Z	17:46:35.0	6.2	235.4					
	e Sn	N	17:47:45.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/03	07:11:32.8	38.330N	31.210E	10.0G		6.1		SZGRF
2002/02/03	07:11:28.8	38.490N	31.305E	10G	5.7	6.5		NEIC

Turkey

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	07:15:23.5	16.3	122.7					
	e S	N	07:18:20.3							
	e L	Z	07:22:10.0			20.2	80149		5.9	
WET	e P	Z	07:15:30.2	17.0	122.0					
	e L	Z	07:22:28.9			20.7	108364		6.1	
BRG	e P	Z	07:15:35.6	17.4	128.6					
	e S	N	07:18:57.2							
	e L	Z	07:22:24.7			18.9	117607		6.2	
FUR	e P	Z	07:15:36.6	17.4	116.3					
	e L	Z	07:22:45.5			19.3	106118		6.1	
CLL	e P	Z	07:15:42.1	18.1	127.8					
	e S	N	07:19:03.1							
	e L	Z	07:24:33.9			21.8	67791		5.9	
GRA1	e P	Z	07:15:45.5	18.2	120.4					
	e S	E	07:19:11.8							
MOX	e L	Z	07:22:55.4			21.1	70190		5.9	
	e P	Z	07:15:47.7	18.5	123.6					
	e S	E	07:19:21.3							
STU	e L	Z	07:25:11.1			19.2	78068		6.0	
	e P	Z	07:15:49.1	18.9	114.6					
	e S	Z	07:19:29.3							
BFO	e L	Z	07:23:28.7			20.7	139564		6.3	
	e P	Z	07:15:56.1	19.3	112.2					
	e S	N	07:19:27.4							
CLZ	e L	Z	07:23:26.5			20.0	125260		6.2	
	e P	Z	07:16:03.6	19.8	124.2					

	e S	N	07:19:45.2							
	e L	Z	07:25:54.9			18.8	116745		6.2	
TNS	e P	Z	07:16:06.0	20.0	117.2					
	e S	N	07:19:48.2							
	e L	Z	07:23:24.4			21.7	91303		6.1	
RGN	e P	Z	07:16:07.1	20.1	135.4					
	e S	N	07:19:51.2							
	e L	Z	07:25:16.7			18.9	158122		6.4	
BSEG	e P	Z	07:16:16.4	21.0	128.7					
	e S	N	07:20:08.3							
	e L	Z	07:25:43.7			18.0	160754		6.5	
WLF	e L	Z	07:24:45.7	21.1	112.4	19.9	83896		6.1	
BUG	e P	Z	07:16:18.9	21.2	118.2					
	e S	N	07:20:15.1							
	e L	Z	07:25:09.3			20.3	112380		6.2	
IBBN	e L	Z	07:24:50.8	21.4	120.9	18.5	82794		6.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/03	09:26:41.4	38.380N	31.460E	10.0G		6.0		SZGRF
2002/02/03	09:26:43.6	38.628N	30.805E	10G	5.8	5.6		NEIC

Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 09:30:31.1	16.0	123.4					
	e S	N 09:33:35.5							
	e L	Z 09:37:36.2			11.6	45611		5.9	
WET	e P	Z 09:30:40.6	16.6	122.6					
	e S	N 09:33:49.7							
	e L	Z 09:37:53.7			13.9	48996		5.9	
FUR	e P	Z 09:30:46.2	17.0	116.8					
	e S	E 09:34:05.2							
	e L	Z 09:37:59.5			14.1	43700		5.9	
BRG	e P	Z 09:30:44.8	17.0	129.4					
	e S	E 09:34:05.2							
	e L	Z 09:38:32.5			11.4	93020		6.3	
CLL	e P	Z 09:30:53.5	17.8	128.5					
	e S	Z 09:34:20.7							
	e L	Z 09:38:59.7			12.0	90559		6.3	
GRA1	e P	Z 09:30:54.2	17.8	121.0					
	e S	Z 09:34:19.4							
	e L	Z 09:38:39.3			14.2	41385		5.9	
MOX	e P	Z 09:30:57.8	18.1	124.2					
	e S	E 09:34:31.0							
	e L	Z 09:39:04.5			12.5	46103		6.0	
STU	e P	Z 09:31:03.8	18.5	115.1					
	e S	Z 09:34:36.9							
	e L	Z 09:38:51.0			11.9	37852		5.9	

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BFO	e P	Z	09:31:08.0	18.9	112.6				
	e S	Z	09:34:42.0						
	e L	Z	09:39:19.1			11.3	45757		6.0
CLZ	e P	Z	09:31:13.3	19.4	124.9				
	e S	Z	09:34:52.3						
	e L	Z	09:39:49.2			12.4	39289		6.0
TNS	e P	Z	09:31:15.8	19.6	117.7				
	e S	E	09:34:58.8						
	e L	Z	09:39:54.0			14.0	28377		5.8
RGN	e P	Z	09:31:15.7	19.8	136.2				
	e S	Z	09:35:01.4						
	e L	Z	09:40:14.4			12.0	20310		5.7
BSEG	e P	Z	09:31:26.2	20.7	129.3				
	e L	Z	09:41:17.5			12.6	73977		6.3
BUG	e P	Z	09:31:28.5	20.8	118.7				
	e S	E	09:35:22.0						
	e L	Z	09:40:57.1			11.4	44493		6.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/03	11:39:53.6	38.420N	31.980E	10.0G		4.3		SZGRF
2002/02/03	11:39:54.9	38.526N	30.956E	10G	5.3			NEIC

Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 11:43:49.8	16.1	123.3					
	e S	Z 11:46:55.0							
	e L	Z 11:50:26.7			20.7	1250		4.1	
WET	e P	Z 11:43:56.3	16.7	122.6					
	e S	Z 11:47:13.3							
	e L	Z 11:50:56.0			18.2	2381		4.5	
FUR	e P	Z 11:44:01.3	17.2	116.8					
	e S	Z 11:47:22.5							
	e L	Z 11:52:23.4			21.5	1320		4.2	
BRG	e P	Z 11:44:01.5	17.2	129.3					
	e S	Z 11:47:19.0							
	e L	Z 11:50:50.1			19.1	904		4.1	
CLL	e P	Z 11:44:08.0	17.9	128.5					
	e S	Z 11:47:38.5							
	e L	Z 11:51:12.9			18.3	1063		4.2	
GRA1	e P	Z 11:44:10.3	17.9	121.0					
	e S	Z 11:47:38.5							
	e L	Z 11:51:42.1			21.5	1091		4.1	
MOX	e P	Z 11:44:14.3	18.2	124.2					
	e S	Z 11:47:45.4							
	e L	Z 11:50:44.1			21.2	1103		4.1	
STU	e P	Z 11:44:17.9	18.7	115.1					
	e S	Z 11:47:52.2							

	e L	Z	11:51:46.0			20.0	2316	4.5
BFO	e P	Z	11:44:22.9	19.0	112.6			
	e S	Z	11:48:02.5					
	e L	Z	11:52:53.9			19.6	1946	4.4
CLZ	e P	Z	11:44:26.8	19.6	124.8			
	e S	Z	11:48:10.5					
	e L	Z	11:54:20.9			21.1	1216	4.2
TNS	e P	Z	11:44:30.1	19.8	117.7			
	e S	Z	11:48:16.3					
	e L	Z	11:52:07.7			21.2	833	4.1
BSEG	e P	Z	11:44:39.5	20.9	129.2			
	e S	Z	11:48:34.6					
	e L	Z	11:53:59.4			18.4	2003	4.5
BUG	e P	Z	11:44:42.7	21.0	118.7			
	e S	Z	11:48:39.2					
	e L	Z	11:53:26.0			20.8	1717	4.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/03	11:54:34.5	38.140N	31.470E	10.0G		4.5		SZGRF
2002/02/03	11:54:34.6	38.559N	31.027E	10G	5.1	4.5		NEIC

Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 11:58:30.0	16.1	123.1					
	e L	Z 12:05:39.2			14.0	2864		4.6	
WET	e P	Z 11:58:35.4	16.8	122.3					
	e S	Z 12:01:51.9							
	e L	Z 12:06:03.2			13.8	4092		4.8	
FUR	e P	Z 11:58:42.5	17.2	116.6					
	e S	Z 12:02:00.8							
	e L	Z 12:05:00.6			19.5	1332		4.2	
BRG	e P	Z 11:58:40.4	17.2	129.1					
	e S	Z 12:02:00.8							
	e L	Z 12:05:56.5			17.3	1687		4.4	
CLL	e P	Z 11:58:50.4	17.9	128.2					
	e S	Z 12:02:17.5							
	e L	Z 12:06:24.4			16.8	1600		4.4	
GRA1	e P	Z 11:58:50.1	18.0	120.8					
	e S	Z 12:02:15.6							
MOX	e P	Z 11:58:54.2	18.3	124.0					
	e S	Z 12:02:25.0							
	e L	Z 12:05:54.6			18.5	1580		4.3	
STU	e P	Z 11:58:58.0	18.7	114.9					
	e S	Z 12:02:30.6							
	e L	Z 12:06:28.3			16.8	2055		4.5	
BFO	e P	Z 11:59:00.5	19.1	112.4					
	e S	Z 12:02:39.9							

	e L	Z	12:06:23.4			19.4	1711	4.4	
CLZ	e P	Z	11:59:07.1	19.6	124.6				
	e S	Z	12:02:49.0						
	e L	Z	12:07:22.2			22.7	841	4.0	
TNS	e P	Z	11:59:11.0	19.8	117.5				
	e S	Z	12:02:54.9						
	e L	Z	12:07:27.0			16.4	1592	4.5	
BSEG	e P	Z	11:59:19.3	20.9	129.0				
	e S	Z	12:03:15.5						
	e L	Z	12:08:41.1			19.7	1856	4.5	
BUG	e P	Z	11:59:21.6	21.0	118.5				
	e S	Z	12:03:19.3						
	e L	Z	12:08:44.9			12.7	4561	5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/03	17:06:49.8	47.800N	25.300W	33.0N	4.7			SZGRF
2002/02/03	17:06:29.0	47.187N	27.381W	10G	4.8	4.5		NEIC

Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 17:12:01.4	25.4	279.3	1.4	34	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/03	20:58:58.9	36.150N	73.670E	33.0N	5.3			SZGRF
2002/02/03	20:59:26.6	38.795N	69.902E	33N	4.9			NEIC

Northwestern Kashmir

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:07:21.3	42.3	81.8	1.5	46	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/04	20:08:53.9	36.960N	2.100W	10.0G		4.5		SZGRF
2002/02/04	20:09:32.1	37.138N	2.457W	33N	5.0			NEIC

Northern Algeria

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 20:12:57.6	13.7	219.1					
	e L	Z 20:18:53.9			15.9	1786		4.2	
WLF	e P	Z 20:13:01.2	14.0	209.6					
	e L	Z 20:18:51.9			13.0	5031		4.8	
STU	e P	Z 20:13:04.9	14.4	220.4					
	e L	Z 20:19:30.4			14.6	2121		4.4	
FUR	e P	Z 20:13:08.3	14.9	227.4					

	e L	Z	20:19:40.5			15.8	2440	4.4
TNS	e P	Z	20:13:14.3	15.2	215.0			
	e L	Z	20:19:49.1			13.4	3454	4.7
BUG	e P	Z	20:13:21.8	15.9	209.5			
	e L	Z	20:20:07.9			13.9	5812	4.9
GRA1	e P	Z	20:13:22.3	16.0	223.3			
	e L	Z	20:20:22.0			14.4	1369	4.3
WET	e P	Z	20:13:25.8	16.4	228.5			
	e L	Z	20:20:26.6			16.0	1903	4.4
GEC2	e P	Z	20:13:26.4	16.6	231.1			
	e L	Z	20:20:35.2			19.4	861	4.0
IBBN	e P	Z	20:13:32.2	16.8	209.3			
	e L	Z	20:20:37.8			14.4	5157	4.9
MOX	e P	Z	20:13:31.9	16.8	222.0			
	e L	Z	20:21:12.2			12.7	2825	4.7
CLZ	e P	Z	20:13:36.0	17.3	216.6			
	e L	Z	20:21:11.7			14.7	2143	4.5
CLL	e P	Z	20:13:44.5	17.9	223.7			
	e L	Z	20:21:49.2			12.8	3150	4.8
BRG	e P	Z	20:13:44.9	18.0	226.7			
	e L	Z	20:21:39.6			15.1	1724	4.4
BSEG	e P	Z	20:13:56.3	19.0	212.8			
	e L	Z	20:21:46.7			24.4	651	3.8
RUE	e P	Z	20:13:58.0	19.1	223.0			
	e L	Z	20:22:46.9			12.2	2329	4.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/04	23:32:42.6	27.250N	141.400E	33.0N	5.1			SZGRF
2002/02/04	23:33:32.2	27.446N	139.954E	468*	4.6			NEIC

Bonin Islands, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:45:45.0	90.4	43.8	1.1	11	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/05	07:56:03.5	17.829S	178.723W	584	4.7			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 08:14:36.8			0.6	32			
	i PKPbc	+ Z 08:14:38.7			1.1	110			
	e	08:14:48.4							
	e pPKP	Z 08:16:51.1							
GRA1	e PKPbc	Z 08:14:44.0							
	e	08:16:58.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/05	13:27:24.7	5.343S	151.302E	39	5.8	6.3		NEIC

New Britain region, P.N.G.

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z	13:42:48.7							
	e (PKPbc)	Z	13:46:13.0							
	i PKPdf	+ Z	13:46:17.5			0.9	59			
	e		13:46:22.8							
	e pPKPdf	Z	13:46:33.6							
	e PP	Z	13:48:00.9							
	e PPP	Z	13:50:43.1							
	e pPKKP	Z	13:56:28.8							
	e PS	Z	13:57:50.0							
	e PPS	Z	13:59:20.9							
	e		14:03:43.5							
	e SS	E	14:04:50.2							
	e sSS	R	14:05:23.0							
	e SSS	Z	14:09:25.5							
	e LR	Z	14:28:16.8							
	e L	Z	14:39:31.3			22.0	17962		6.7	
GRA1	e PKP	Z	13:46:22.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/06	01:30:55.9	49.820N	18.400E	G			3.4	SZGRF

Czech and Slovak Republics

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e Pg	Z	01:31:50.9	3.0	108.6					3.1
	e Sg	N	01:32:31.8							
GEC2	e Pn	Z	01:31:46.9	3.2	70.6					3.2
	e Sg	N	01:32:39.0							
WET	i Pn	Z	01:31:52.9	3.6	77.2					3.6
	e Sg	N	01:32:51.8							
CLL	e Pn	Z	01:31:54.0	3.7	111.4					3.4
	e Pg	Z	01:32:05.6							
	e Sg	N	01:32:53.9							
MOX	e Pn	Z	01:32:03.5	4.4	98.1					
	e Sg	N	01:33:17.8							
GRA1	e Sg	N	01:33:23.7	4.6	85.7					3.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2002/02/06 17:18:39.6 60.360N 150.500W 33.0G 5.2 SZGRF
2002/02/06 17:18:43.5 61.271N 149.869W 45D 4.9 NEIC
Kenai Peninsula, Alaska, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z 17:29:32.4			1.4	44	5.5		
	e pP	Z 17:29:47.4							
GRA1	e P	Z 17:29:42.0	68.0	350.3	1.4	22	5.2		

Date Origin Time Lat Long Depth mb Ms ML Source
2002/02/06 17:19:26.4 61.347N 149.881W 45D 4.9 NEIC
Kenai Peninsula, Alaska, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z 17:30:15.7			1.2	36	5.5		
GRA1	i P	- Z 17:30:25.5	67.9	350.4	1.4	39	5.4		

Date Origin Time Lat Long Depth mb Ms ML Source
2002/02/07 13:34:48.8 38.710N 144.660E 20.5 5.0 SZGRF
2002/02/07 13:34:53.0 39.804N 143.302E 33N 4.7 NEIC
Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:47:08.8	81.1	35.3	1.1	12	5.0		
	e pP	Z 13:47:14.7							

Date Origin Time Lat Long Depth mb Ms ML Source
2002/02/07 18:43:43.2 37.760N 94.340E 19.8 SZGRF
Qinghai, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:53:35.7	58.1	67.6					
	e pP	Z 18:53:41.2							

Date Origin Time Lat Long Depth mb Ms ML Source
2002/02/08 06:27:54.4 20.358S 173.983W 33 4.9 NEIC
Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e (P)	Z 06:47:33.6							
CLL	i PKPbc	- Z 06:47:40.5							

e 06:47:46.3 1.8 90

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/09								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:52:43.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/09	16:56: 6.9	45.550N	143.860E	350.8	5.4			SZGRF
2002/02/09	16:56:03.8	46.155N	142.770E	300G	5.0			NEIC

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	Z 17:07:17.8	75.4	32.4	1.6	53	5.4		
	e pP	Z 17:08:37.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/09	21:48:30.0	73.080N	8.080E	33.0N	4.7			SZGRF
2002/02/09	21:48:04.4	75.283N	7.751E	10G	4.7			NEIC

Greenland Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 21:52:56.7	21.4	358.2	1.4	50	4.6		
CLZ	e P	Z 21:53:12.8	23.5	358.3	2.4	128	4.8		
CLL	e P	Z 21:53:21.8	24.1	356.7	1.7	32	4.5		
BRG	e P	Z 21:53:26.8	24.5	356.2	1.5	23	4.4		
MOX	e P	Z 21:53:28.3	24.7	357.7	0.8	20	4.7		
TNS	e P	Z 21:53:30.3	25.1	359.6					
GRA1	e P	Z 21:53:36.8	25.6	358.0	1.8	38	4.6		
WET	e P	Z 21:53:42.6	26.2	357.1	1.2	14	4.4		
GEC2	e P	Z 21:53:45.7	26.6	356.6	1.1	8	4.2		
BFO	e P	Z 21:53:50.6	27.0	359.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/10	01:47:06.8	55.928S	29.086W	192D	5.6			NEIC

South Sandwich Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (Pdiff)	Z 02:01:15.6	110.8	202.8					
	e PP	Z 02:05:51.7							

	e PS	N	02:15:03.1						
	e PKKPbc	Z	02:16:16.5						
	e PKKPab	Z	02:16:26.6						
CLL	i PKPdf	+ Z	02:05:19.3		2.0			48	
	e PP	Z	02:06:08.3						
	e PS	Z	02:15:27.9						
	e PKKPbc	Z	02:16:09.6						
	e PKKPab	Z	02:16:17.4		1.5			27	
	e SS	T	02:21:35.3						
	e LR	Z	02:40:47.9						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/10								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pn	Z 10:14:37.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/11	01:09:48.4	34.200N	141.480E	33.0N	5.3			SZGRF
2002/02/11	01:09:52.6	35.648N	141.047E	33N	5.0	4.8		NEIC

Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 01:22:10.9			0.9	25	5.3		
	e pP	Z 01:22:22.8							
GRA1	e P	Z 01:22:22.1	83.8	38.9	1.1	24	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/11	03:39:32.7	17.997S	178.484W	562	4.9			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 03:58:14.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/11	17:32:15.1	19.021S	169.230E	33	4.5			NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 17:51:48.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/11	20:24:18.5			G				SZGRF
2002/02/11	20:24:21.0	47.958N	19.892E	10G				NEIC

Hungary

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 20:25:27.1	4.2	99.9					
	e Sn	N 20:26:21.2							

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

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:27:26.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/12	03:27:29.7	25.530N	122.980E	33.0N	6.1	5.4		SZGRF
2002/02/12	03:27:23.6	23.713N	121.555E	33N	5.9	5.4		NEIC

Taiwan region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 03:39:40.0	81.4	61.8	1.0	198	6.1		
BRG	e P	Z 03:39:43.5	82.1	61.8	2.0	250	6.0		
CLL	i P	+ Z 03:39:44.6			0.9	132	6.1		
	e pP	Z 03:39:58.9							
	e sP	Z 03:40:04.4							
	e PP	Z 03:42:53.5							
	e S	T 03:49:59.3							
	e SS	R 03:55:16.4							
	e LQ	T 04:06:22.2							
	e L	Z 04:20:38.7							
BSEG	e P	Z 03:39:45.7	82.5	59.4	1.2	85	5.8		5.9
GEC2	e P	Z 03:39:49.2	83.2	61.4	0.9	133	6.2		
MOX	e P	Z 03:39:50.7	83.5	60.0	1.0	97	6.0		
WET	e P	Z 03:39:51.2	83.5	60.8	1.5	146	6.0		
CLZ	e P	Z 03:39:51.4	83.6	59.2	1.0	212	6.3		
GRA1	i P	+ Z 03:39:54.9	84.2	59.6	1.5	267	6.2		
	e L	Z 04:21:02.6			21.9	1726			5.4
FUR	e P	Z 03:39:58.3	85.0	59.6	0.9	418	6.6		
BUG	e P	Z 03:40:00.1	85.4	56.8	1.2	273	6.4		
TNS	e P	Z 03:40:00.7	85.5	57.6	1.5	135	6.0		
STU	e P	Z 03:40:02.1	85.8	58.1	1.1	93	5.9		
BFO	e P	Z 03:40:05.5	86.5	57.4	1.8	150	5.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/12	10:37:36.1	20.173S	178.083W	500	4.4			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	Z 10:56:24.5			0.9	29			
	e PKPab	Z 10:56:28.8			0.8	14			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/12	13:44:45.9	38.510N	141.830E	43.1		5.2		SZGRF
2002/02/12	13:44:35.9	36.586N	140.919E	33N	5.6	5.0		NEIC

Near east coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e P	Z 13:56:43.8	79.8	40.6	1.4	275			
	e pP	Z 13:56:56.0							
BSEG	e P	Z 13:56:44.8	80.0	38.3	1.2	212			
BRG	e P	Z 13:56:49.8	80.9	40.5	1.0	99			
CLL	i P	+ Z 13:56:50.1			1.2	259	6.1		
	e pP	Z 13:57:01.6							
	e sP	Z 13:57:09.1							
	e PP	Z 13:59:52.8							
	e SS	Z 14:12:37.5							
	e LR	Z 14:22:45.7							
	e L	Z 14:36:23.2			18.0	1159		5.3	
CLZ	e P	Z 13:56:53.6	81.6	38.1	1.4	230			
MOX	e P	Z 13:56:55.8	82.0	38.9	1.5	120			
GEC2	e P	Z 13:56:58.4	82.6	40.2	1.0	46			
WET	e P	Z 13:56:59.4	82.7	39.6	1.4	116			
GRA1	e P	Z 13:57:01.2	82.9	38.5	1.4	269	6.2		
	e L	Z 14:37:40.6			19.5	945		5.2	
BUG	e P	Z 13:57:00.7	83.1	35.8	1.1	56			
TNS	e P	Z 13:57:03.9	83.6	36.6	1.3	73			
FUR	e P	Z 13:57:06.6	84.1	38.4	0.9	159			
	e pP	Z 13:57:19.1							
STU	e P	Z 13:57:08.2	84.5	37.0	1.1	171			
BFO	e P	Z 13:57:11.5	85.2	36.4	1.2	153			
	e pP	Z 13:57:24.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/12	20:54:41.8	27.370N	127.950E	29.5	5.4			SZGRF
2002/02/12	20:54:32.8	27.393N	129.565E	33N	5.0			NEIC

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:07:12.8	85.5	51.6	1.4	36			
	e pP	Z 21:07:21.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/14	01:12:12.1	40.470N	143.910E	80.5	5.5	5.0		SZGRF
2002/02/14	01:12:21.3	41.526N	141.993E	62D	5.1			NEIC

Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 01:24:11.0			1.0	49	5.6		
	e sP	Z 01:24:32.4							
	e PP	Z 01:27:09.5							
	e S	T 01:34:04.2							
	e SS	T 01:39:03.9							
	e LQ	T 01:47:04.0							
	e LR	Z 01:49:43.7							
	e L	Z 02:01:02.3			22.0	1214		5.2	
GRA1	e P	Z 01:24:22.5	79.1	35.3	1.0	53	5.5		
	e pP	Z 01:24:43.9							
	e L	Z 02:02:21.7			20.2	701		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/14	19:00:45.4	59.570N	2.450E	10.0G			4.6	SZGRF

North Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e Pn	Z 19:02:27.8	7.1	325.8					
	e Sn	N 19:03:46.1							
BUG	e Sn	N 19:04:23.8	8.6	343.4					4.5
CLZ	e Pn	Z 19:02:52.7	8.9	333.2					
	e Sn	E 19:04:28.8							
TNS	e Pn	Z 19:03:07.1	10.0	342.2					
	e Sn	N 19:04:52.4							
CLL	e Sn	N 19:04:59.0	10.2	328.3					
GRA1	e Pn	Z 19:03:23.1	11.1	336.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/14	23:23:48.1	14.120N	92.900W	33.0N	5.4			SZGRF
2002/02/14	23:23:13.0	14.975N	92.470W	74D	5.3			NEIC

Near coast of Chiapas, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:36:35.7	87.2	290.0	1.3	25	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/15	15:21:40.0	52.440N	158.040E	33.0N	5.2			SZGRF
2002/02/15	15:21:35.7	52.286N	159.509E	60*	4.8			NEIC

Near east coast of Kamchatka Peninsula, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 15:33:00.7			1.5	53	5.5		
	e pP	Z 15:33:15.5							
GRA1	i P	Z 15:33:13.1	74.5	19.5	1.5	43	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/16	02:33:28.3	19.041S	169.471E	300	4.9			NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 02:52:31.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/16								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 03:56:52.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/16								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 05:30:30.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/16								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e PKP	Z 08:25:21.9							
WLF	e PKP	Z 08:25:21.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/16	23:05:49.3	45.660N	11.060E	10.0G				SZGRF
2002/02/16	23:05:56.2	46.094N	11.284E	10G				NEIC

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e Sg	N	23:07:09.7	2.1	179.8					
BFO	e Pn	Z	23:06:40.9	3.0	137.0					
	e Sn	N	23:07:18.5							
GEC2	e Pn	Z	23:06:45.0	3.2	211.6					
	e Sn	N	23:07:29.4							
	e Sg	N	23:07:44.8							
WET	e Pn	Z	23:06:46.2	3.2	200.0					
	e Sn	N	23:07:29.8							
GRA1	e Sn	N	23:07:37.0	3.6	179.3					
MOX	e Sg	N	23:08:27.2	4.6	182.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/17	00:30:16.3	18.844S	177.371W	500	4.7			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	- Z	00:49:01.0			0.9	31			
	e PKPab	Z	00:49:03.4			1.0	27			
GRA1	e PKPbc	Z	00:49:06.9							
	e PKPab	Z	00:49:12.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/17	08:55:44.6	43.070N	72.160E	33.0N	4.2			SZGRF
2002/02/17	08:55:48.5	43.160N	70.472E	33N	4.6			NEIC

Central Kazakhstan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	09:03:27.9	40.3	75.8	0.9	4	4.1		
	e		09:03:32.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/17	12:46:38.1	71.061N	6.110W	10	4.3			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 12:51:45.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/17	13:03:56.3	28.080N	51.230E	33.0N	5.6	4.2		SZGRF
2002/02/17	13:03:52.9	28.118N	51.753E	33N	5.6	5.1		NEIC

Southern Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 13:10:49.7	35.7	111.4	2.5	236	5.7		
	e PcP	Z 13:13:20.7							
	e PcS	Z 13:17:02.3							
WET	e P	Z 13:10:54.5	36.3	110.9	1.1	47	5.3		
	e PcP	Z 13:13:22.4							
	e PcS	Z 13:17:04.5							
BRG	e P	Z 13:10:55.1	36.4	114.2	1.0	45	5.3		
	e PcP	Z 13:13:23.2							
FUR	e P	Z 13:11:00.7	37.0	108.0	1.1	333	6.2		
CLL	i P	Z 13:11:01.6			1.3	95	5.4		
	e PcP	Z 13:13:24.5							
	e (S)	T 13:16:54.4							
	e LQ	T 13:21:39.8							
	e L	Z 13:28:56.9			18.0	1152		4.7	
RUE	e P	Z 13:11:01.9	37.1	116.0	1.3	196	5.9		
GRA1	e P	Z 13:11:05.5	37.5	109.8	1.2	104	5.6		
	e PcP	Z 13:13:26.8							
	e PcS	Z 13:17:09.3							
	e L	Z 13:28:42.1			20.5	506		4.2	
MOX	e P	Z 13:11:06.2	37.6	111.4	1.2	34	5.1		
CLZ	e P	Z 13:11:16.4	38.8	111.5	1.1	152	5.8		
BFO	e P	Z 13:11:16.8	38.9	105.2	2.0	120	5.4		
	e PcP	Z 13:13:30.2							
	e PcS	Z 13:17:13.9							
TNS	e P	Z 13:11:21.0	39.4	107.6	1.2	86	5.4		
	e PcP	Z 13:13:32.2							
BSEG	e P	Z 13:11:23.5	39.6	113.8	1.3	134	5.5		
IBBN	e P	Z 13:11:30.9	40.5	109.2	1.7	377	5.9		
BUG	e P	Z 13:11:30.6	40.5	107.8	1.3	115	5.5		
	e PcS	Z 13:17:20.3							
WLF	e P	Z 13:11:31.2	40.7	104.7	1.0	50	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/18	02:41:44.7	23.764S	176.859W	105	4.8			NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	- Z	03:01:27.1			1.0	24			
	e		03:01:31.0							
	e		03:01:35.9							
	e pPKPbc	Z	03:02:17.0							
	e sPKPbc	Z	03:02:37.3							
GRA1	e PKP	Z	03:01:40.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/18	13:52:36.6	21.007S	179.212W	625	4.8			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	+ Z	14:11:14.6			0.8	36			
	i PKPab	Z	14:11:20.0			0.7	12			
	e pPKPbc	Z	14:13:38.9							
GRA1	e PKPbc	Z	14:11:19.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/19	00:35:49.3	3.816S	150.948E	33	5.9	6.0		NEIC

New Ireland region, P.N.G.

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	00:54:40.3			1.5	21			
	e		00:54:51.2							
	e PP	Z	00:56:09.8							
	e SP	Z	01:05:48.1							
	e PPS	R	01:07:15.2							
	e		01:08:20.7							
	e SS	T	01:12:36.6							
	e SSS	E	01:17:24.7							
	e LQ	T	01:26:11.7							
	e LR	Z	01:34:05.4							
	e L	Z	01:47:01.6			22.0	5524		6.2	
GRA1	e PKP	Z	00:54:47.2							
	e L	Z	01:50:13.5			20.2	3917			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/20	19:07:22.9	6.170S	34.000E	33.0N	5.7			SZGRF
2002/02/20	19:07:16.5	7.709S	31.986E	37D	5.6	5.4		NEIC

Tanzania

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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FUR	e P	Z	19:17:11.5	58.8	155.8	1.6	296	6.1		
GEC2	e P	Z	19:17:11.7	58.8	158.7	1.6	129	5.7		
WET	e P	Z	19:17:14.5	59.3	157.8	1.7	74	5.4		
BFO	e P	Z	19:17:18.9	59.8	152.6	1.7	174	5.8		
STU	e P	Z	19:17:20.0	59.9	153.7	1.5	191	5.9		
GRA1	e P	Z	19:17:21.6	60.2	156.1	1.5	248	6.0		
BRG	e P	Z	19:17:23.5	60.6	159.4	1.6	44	5.2		
MOX	e P	Z	19:17:26.7	61.0	156.8	1.7	104	5.6		
CLL	i P	- Z	19:17:28.0	61.2	158.4	1.6	90	5.3		
	e pP	Z	19:17:39.9							
	e sP	Z	19:17:43.6							
	e PcP	Z	19:18:12.4							
	e PP	R	19:19:47.0							
	e S	Z	19:25:43.1							
	e L	Z	19:46:13.2			22.0	780		4.8	
TNS	e P	Z	19:17:30.2	61.4	153.2	1.4	156	5.9		
WLF	e P	Z	19:17:31.7	61.6	150.6	1.6	118	5.5		
RUE	e P	Z	19:17:34.2	62.2	159.5	1.4	117	5.5		
CLZ	e P	Z	19:17:36.6	62.4	155.7	1.6	100	5.4		
BUG	e P	Z	19:17:40.0	62.9	152.2	1.3	120	6.0		
IBBN	e P	Z	19:17:44.6	63.5	153.0	1.6	203	6.1		
BSEG	e P	Z	19:17:48.9	64.3	156.0	1.8	200	5.9		

Date Origin Time Lat Long Depth mb Ms ML Source
 2002/02/21 01:11:22.6 9.610S 160.938E 49D 5.2 5.1 NEIC
 Bougainville - Solomon Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	01:30:33.6	132.7	42.6					
	e SKP	Z	01:33:59.4							
CLL	i PKPdf	- Z	01:30:47.0			1.0	17			
	i SKP	Z	01:33:51.5			1.2	50			

Date Origin Time Lat Long Depth mb Ms ML Source
 2002/02/21 14:36:12.2 43.730N 12.220E 10.0G 4.0 SZGRF
 2002/02/21 14:36:12.0 43.820N 12.068E 10G NEIC
 Central Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	14:37:29.4	5.1	193.2					
	e Sn	N	14:38:29.0							
BFO	e Pn	Z	14:37:31.8	5.2	148.7					4.0
	e Sn	E	14:38:30.4							
WET	e Pn	Z	14:37:32.4	5.4	186.3					4.0
	e Sn	N	14:38:33.4							

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GRA1	e Sn	E	14:38:48.4	5.9	174.1
MOX	e Pn	Z	14:37:52.2	6.8	177.3
	e Sn	E	14:39:07.4		
TNS	e Pn	Z	14:37:54.9	6.9	157.6
BRG	e Pn	Z	14:37:57.0	7.2	190.9
	e Sn	N	14:39:16.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/21	19:16:15.6	17.938S	178.406W	522	4.4			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPbc	Z 19:34:55.4			0.9	36			
GRA1	e PKP	Z 19:35:01.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/22	09:05:1.5	46.400N	13.140E	10.0G			2.8	SZGRF

Austria

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 09:05:41.9	2.5	189.0					2.7
	e Sg	E 09:06:19.9							
WET	e Pn	Z 09:05:45.7	2.7	176.2					2.9
	e Sn	E 09:06:21.2							
GRA1	e Sg	E 09:06:53.7	3.5	158.0					
BFO	e Pn	Z 09:05:59.8	3.8	118.9					
	e Sn	N 09:06:45.0							
	e Sg	N 09:07:01.3							
MOX	e Pn	Z 09:06:06.4	4.4	166.0					
	e Sn	N 09:06:58.2							
	e Sg	E 09:07:20.0							
BRG	e Sg	E 09:07:24.2	4.5	187.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/22	19:32:51.2	34.560N	119.300W	33.0N				SZGRF
2002/02/22	19:32:41.6	32.375N	115.352W	10G	5.3	5.5		NEIC

Southern California, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 19:45:19.7			1.4	32	5.4		
	e S	T 19:55:51.7							
	e SS	Z 20:01:50.0							
	e LR	Z 20:13:53.4							

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GRA1 e L Z 20:23:59.4 18.0 2302 5.6
e P Z 19:45:23.9 85.3 317.1

Date Origin Time Lat Long Depth mb Ms ML Source
2002/02/22 19:30:42.1 20.800S 176.226W 100G 4.9 NEIC
Fiji Islands region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e PKP Z 19:50:23.2 150.5 14.2
e 19:50:30.5

Date Origin Time Lat Long Depth mb Ms ML Source
2002/02/23 17:09:35.0 26.654N 54.726E 33 4.6 NEIC
Southern Iran

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 17:17:13.0

Date Origin Time Lat Long Depth mb Ms ML Source
2002/02/23 19:37:14.2 4.470S 152.035E 159 5.6 NEIC
New Britain region, P.N.G.

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
CLL e PKPdf Z 19:55:51.7 0.8 38
e pPKPdf Z 19:56:32.0
GRA1 e PKP Z 19:55:55.4

Date Origin Time Lat Long Depth mb Ms ML Source
2002/02/24 03:28:19.7 35.679N 143.060E 33 4.7 NEIC
Off E coast of Honshu, Japan

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 03:40:54.0
e 03:41:05.1

Date Origin Time Lat Long Depth mb Ms ML Source
2002/02/24 05:32:06.2 34.776N 27.374E 33N 4.5 NEIC
Eastern Mediterranean Sea

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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:30:28.3	68.4	348.9	1.3	27	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/26	16:11:56.5	20.226S	177.799W	500	4.4			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	Z 16:30:45.3			1.0	36			
	e PKPab	Z 16:30:48.7			0.6	6			
GRA1	e PKP	Z 16:30:51.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/28	01:50:50.1	5.602S	151.246E	45D	5.9	6.4		NEIC

New Britain, Papua New Guinea, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	e PKPdf	Z 02:09:40.4	121.6	52.2					
BSEG	e PKPdf	Z 02:09:41.7	122.3	47.9					
BRG	e PKPdf	Z 02:09:42.2	122.5	53.1					
CLL	i PKPdf	Z 02:09:42.2	122.7	52.0	1.0	106			
	e pPKPdf	Z 02:09:56.2							
	e sPKPdf	Z 02:10:02.7							
	e PP	Z 02:11:27.7							
	e PPP	Z 02:13:55.7							
	e SKSac	R 02:16:39.8							
	e PS	R 02:21:19.6							
	e PPS	Z 02:22:39.1							
	e SS	T 02:28:09.4							
	e SSS	R 02:33:16.9							
	e LQ	T 02:45:27.8							
	e LR	Z 02:50:34.1							
	e L	Z 03:04:57.6			22.0	8308		6.3	
CLZ	e PKPdf	Z 02:09:44.6	123.6	49.0					
MOX	e PKPdf	Z 02:09:44.6	123.8	50.9					
GEC2	e PKPdf	Z 02:09:44.6	123.8	54.0					
WET	e PKPdf	Z 02:09:45.3	124.1	53.0					
IBBN	e PKPdf	Z 02:09:46.1	124.5	45.9					
GRA1	e PKPdf	Z 02:09:46.2	124.6	51.0					
	e pPKPdf	Z 02:10:00.1							
	e PP	Z 02:11:42.6							
	e PS	E 02:21:44.1							
	e SS	E 02:28:52.5							
	e L	Z 03:06:07.4			20.8	7017		6.3	
BUG	e PKPdf	Z 02:09:47.4	125.3	45.8					

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FUR	e PKPdf	Z	02:09:47.9	125.5	51.9
TNS	e PKPdf	Z	02:09:48.3	125.6	47.7
STU	e PKPdf	Z	02:09:49.4	126.2	49.3
BFO	e PKPdf	Z	02:09:50.4	126.9	48.6
WLF	e PKPdf	Z	02:09:51.7	127.1	45.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/28	03:02:17.5	50.977N	178.198W	33	4.9			NEIC

Andreanof Isl, Aleutian Is.

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:14:21.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/28	06:33:37.1	5.720S	151.082E	120?	5.2			NEIC

New Britain, Papua New Guinea, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	Z 06:52:21.1			1.1	26			
GRA1	e PKP	Z 06:52:24.9	124.6	51.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2002/02/28	11:09:25.1	54.501N	162.623W	72	4.8			NEIC

Alaska peninsula

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:21:08.6							

Format description

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

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

Each event is reported by several EPICENTER LINES with possible COMMENT LINES, a REGION LINE and a block of PHASE LINES.

EPICENTER LINES:

The epicenter locations of several authorities can be reported. The epicenter location with the highest priority (i.e. the most reliable one) is written in the undermost EPICENTER LINE. The REGION LINE and all origin related parameter in the PHASE LINES (i.e. Def, Dist, EvAz) are determined regarding this epicenter location with the highest priority.

Date	Date of the event
Origin Time	Origin time of the event
Lat	Geographic latitude (N/S) of epicenter in degree
Long	Geographic longitude (E/W) of epicenter in degree
Depth	Depth of the hypocenter beneath the surface in kilometer
	Appended flag indicates the method by which the depth was determined:
	BLANK - free
	N - preset depth of 33 kilometer
	G - geophysicist preset depth
mb, Ms, ML	Magnitudes of the event and magnitude type
Source	Abbreviations for the authority (e.g. SZGRF, NEIC, 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