

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)

JULY 2001 UPDATED 12.September.2001

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
2001/07/01	00:57:57.6	27.550N	132.590E	33.0N	5.1			SZGRF
2001/07/01	00:58:02.4	28.140N	130.560E	33N	5.0	4.8		NEIC

West of Bonin Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:10:39.4	85.4	50.5			5.1		
	e L	Z 01:53:17.4			19.4	427			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/01	01:46:06.4	4.304S	152.906E	33N	5.7	6.0		NEIC

New Britain, Papua New Guinea, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	+ Z 02:05:00.8			0.7	64			
	e pPKPdf	Z 02:05:10.2							
	e PP	Z 02:06:38.8							
	e SKP	Z 02:08:34.0							
	e	02:08:50.3							
	e PPP	Z 02:09:23.1							
	e SKSac	E 02:11:58.7							
	e SKKSac	R 02:13:28.8							
	i PKKPbc	Z 02:14:55.8			1.2	28			
	e PS	R 02:16:31.6							
	e PPS	Z 02:17:53.0							
	e SKKP	Z 02:18:53.1							
	e SKKSdf	Z 02:22:19.7							
	e SS	T 02:23:22.4							
	e L	Z 03:02:40.0			20.0	6032		6.2	

GRA1	i PKPdf	- Z	02:05:04.7	124.3	48.4						
	e pPKPdf	Z	02:05:14.3								
	e PP	Z	02:06:54.5								
	e SKPdf	Z	02:08:38.4								
	e		02:08:54.8								
	e PPP	Z	02:09:41.7								
	e SKSac	E	02:12:07.5								
	e SKKSac	E	02:13:44.5								
	e PKKP	Z	02:14:47.4								
	e PS	E	02:16:47.4								
	e PPS	Z	02:18:11.0								
	e (SKKP)	Z	02:18:34.4								
	e		02:22:08.0								
	e SS	E	02:23:43.7								
	e L	Z	03:04:22.4			21.0	4735		6.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/01	14:46:26.8				4.4			SZGRF
2001/07/01	14:46:10.8	56.225N	153.464W	33N	4.4	4.9		NEIC

Gulf of Alaska

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:57:44.0	73.3	351.2			4.4		
	e pP	Z 14:57:51.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/01	14:47:19.3				4.5			SZGRF

Alaska Peninsula, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:58:41.2					4.5		
BEAM		14:58:41.2			1.0	4			
GRA1	e pP	Z 14:58:49.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/01								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 16:17:47.9					4.2		
BEAM		16:17:47.9			0.9	4			

./2001/bul0107.txt

Thu Apr 23 08:38:25 2020

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/07/01

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:47:25.0							
BEAM		20:47:25.0			1.0	4			
GRA1	e (pP)	Z 20:47:33.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/07/02

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 01:02:22.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/02	05:56: 8.0	26.540N	136.900E	32.7	5.5	5.1		SZGRF
2001/07/02	05:56:27.3	28.147N	129.956E	30D	5.2	5.1		NEIC

West of Bonin Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:09:03.7	85.1	50.9			5.5		
	e (pP)	Z 06:09:13.2							
	e L	Z 06:51:32.3			19.5	721		5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/02	11:55:28.8	46.330N	149.300E	33.0N	5.5			SZGRF
2001/07/02	11:55:25.9	44.408N	148.155E	98D	4.9			NEIC

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 12:07:20.6	78.7	29.8			5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/02	12:15:45.2	16.861S	173.443W	33N	4.5	4.6		NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 12:35:28.4	147.0	8.2					

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/07/02

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1 e PKP Z 14:03:32.5

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/07/02 15:05:10.0

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1 e P Z 15:15:59.2
BEAM 15:15:59.2 0.9 6 4.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/07/02 16:49:16.1

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1 e P Z 17:01:16.9
BEAM 17:01:16.9 1.0 6 4.6
GRA1 e L Z 17:41:46.1 20.6 124 4.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/07/02 22:52:16.7

2001/07/02 22:52:26.9

Tajikistan-Xinjiang border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1 i P - Z 23:00:31.1 44.6 80.3 4.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/07/02 23:23:53.6

Southwest of Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1 e P Z 23:37:14.4 94.9 92.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 11:40:30.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/03	12:57:41.8	16.510S	73.747W	29D	5.5	5.0		NEIC

Near coast of Peru

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z 13:11:24.1	99.3	255.4					
	e pPdiff	Z 13:11:33.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/03	13:10:52.4	22.620N	143.020E	321.9		5.9		SZGRF
2001/07/03	13:10:42.8	21.608N	143.009E	290D	6.0			NEIC

Volcano Islands, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	i P	+ Z 13:23:23.0	92.5	45.7					
	e pP	Z 13:24:39.2							
RUE	i P	+ Z 13:23:28.5	93.8	46.2					
BSEG	i P	+ Z 13:23:30.2	94.2	43.3					
	e pP	Z 13:24:46.3							
	e L	Z 14:06:28.6			19.1	4241		5.9	
BRG	i P	+ Z 13:23:33.3	94.8	46.4					
	e pP	Z 13:24:49.5							
	e L	Z 14:10:30.8			18.7	3956		5.9	
CLL	i P	+ Z 13:23:33.6			1.1	266	6.6		
	e pP	Z 13:24:42.6							
	e sP	Z 13:25:13.4							
	e PP	Z 13:27:29.0							
	e pPP	Z 13:28:55.9							
	e SKSac	R 13:33:37.8							
	e S	T 13:34:20.8							
	e SP	Z 13:35:35.0							
	e PS	R 13:36:22.3							
	e PPS	Z 13:37:01.7							
	i PKKPbc	Z 13:40:26.2							
	e SS	R 13:40:48.7							
	e sSS	E 13:42:39.4							
	e P'P'	Z 13:48:34.3							
	e L	Z 14:08:05.5			18.0	4567		6.0	
CLZ	i P	+ Z 13:23:37.4	95.7	43.4					
	e pP	Z 13:24:54.0							
	e L	Z 14:06:45.0			18.5	4505		6.0	

MOX	i P	+ Z	13:23:38.8	96.0	44.5					
	e pP	Z	13:24:55.1							
	e L	Z	14:05:35.5			21.1	4217	5.9		
GEC2	i P	+ Z	13:23:40.0	96.3	46.4					
	e pP	Z	13:24:56.2							
	e L	Z	14:06:28.4			19.3	3533	5.9		
IBBN	i P	+ Z	13:23:40.6	96.4	41.2					
	e pP	Z	13:24:56.8							
WET	i P	+ Z	13:23:41.2	96.5	45.7					
	e pP	Z	13:24:57.4							
	e L	Z	14:08:36.7			19.7	3453	5.8		
GRA1	i P	+ Z	13:23:43.2	96.9	44.3					
	e pP	Z	13:24:59.7							
	e PP	Z	13:27:45.6							
	e SKS	Z	13:33:52.4							
	e S	Z	13:34:37.5							
	e PS	Z	13:35:58.7							
	e PKKP	Z	13:40:21.9							
	e L	Z	14:13:07.3			18.2	4163	6.0		
	GRFO	i P	+ Z	13:23:43.1	96.9	44.3				
	BUG	i P	+ Z	13:23:44.1	97.3	40.9				
e pP		Z	13:25:00.8							
e L		Z	14:10:59.1			18.6	5546	6.1		
TNS	i P	+ Z	13:23:46.5	97.7	42.0					
	e pP	Z	13:25:02.9							
	e L	Z	14:08:06.1			21.0	3100	5.8		
FUR	i P	+ Z	13:23:47.9	98.0	44.5					
	e pP	Z	13:25:04.6							
	e L	Z	14:12:55.3			18.2	5466	6.1		
STU	i P	+ Z	13:23:49.7	98.5	42.7					
	e pP	Z	13:25:05.6							
	e L	Z	14:06:57.2			20.7	2810	5.7		
BFO	i P	+ Z	13:23:52.8	99.2	42.0					
	e pP	Z	13:25:09.9							
	e L	Z	14:15:24.6			18.6	2262	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/03	21:08:37.4				4.9			SZGRF
2001/07/03	21:08:38.8	43.764N	147.517E	41*	4.9			NEIC

East of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z	21:20:42.7	79.1	30.5	1.5	22	4.9		
	e pP	Z	21:20:53.9							
	e sP	Z	21:20:59.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/03	23:56:45.0			G		3.7		SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 00:03:59.2							
	e L	Z 00:28:24.8			19.1	119		3.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/04	07:06:32.4	21.604S	176.711W	186D	5.8			NEIC
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	- Z 07:25:55.1			1.1	82			
	i PKPbc	- Z 07:26:00.1			1.0	1533			
	i PKPab	- Z 07:26:04.1			0.9	717			
	e pPKPdf	Z 07:26:44.3							
	e pPKPbc	Z 07:26:49.0							
	e pPKPab	Z 07:26:54.0							
	e sPKPbc	Z 07:27:06.2							
	e PP	Z 07:29:29.2							
	e pPP	Z 07:30:27.9							
	e sPPP	Z 07:33:53.3							
	e SKKSac	R 07:36:00.2							
	e	07:37:29.4							
	e	07:37:37.7							
	e ScPPKP	R 07:40:48.9							
	e SS	T 07:48:24.9							
	e sSS	T 07:49:51.5							
	e SSS	E 07:54:14.0							
	e sSSS	E 07:55:23.7							
	e LR	Z 08:16:58.8							
GRA1	i PKPdf	- Z 07:25:58.0	151.2	15.5					
	i PKPbc	- Z 07:26:05.3							
	e PKPab	Z 07:26:13.4							
	e pPKPdf	Z 07:26:49.2							
	e pPKPbc	Z 07:26:53.6							
	e pPKPab	Z 07:26:59.3							
	e L	E 08:21:57.5			20.9	1675		5.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/04	09:25: 7.1				5.2			SZGRF
2001/07/04	09:25:09.5	32.156N	139.518E	33N	4.9			NEIC
Southeast of Honshu, Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:37:51.2	86.2	41.8			5.2		
	e pP	Z 09:37:56.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/04	10:23:52.0				5.4	4.6		SZGRF
2001/07/04	10:23:33.3	32.476N	139.580E	33N	4.9			NEIC

Near south coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:36:13.9	85.9	41.5			5.4		
	e pP	Z 10:36:31.6							
	e L	Z 11:14:42.2			20.4	281		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/04	12:09: 1.1	18.760S	65.810W	36.1	5.6	5.9		SZGRF
2001/07/04	12:09:03.4	16.814S	65.185W	33N	5.7	5.9		NEIC

Central Bolivia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 12:22:25.6	94.3	248.9			5.6		
	e pP	Z 12:22:36.2							
	e PP	Z 12:26:07.2							
	e SKS	Z 12:32:57.3							
	e SP	Z 12:34:50.7							
	e SS	Z 12:40:07.5							
	e L	Z 13:05:07.1			18.4	3715		5.9	
CLL	e P	Z 12:22:30.6			1.3	15	5.4		
	e PP	Z 12:26:18.3							
	e SKSac	R 12:33:06.1							
	e S	T 12:33:54.6							
	e PS	Z 12:35:04.3							
	e SS	E 12:40:28.3							
	e SSS	E 12:44:17.0							
	e LR	Z 12:54:33.9							
	e L	Z 13:00:53.5			20.0	5714		6.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/04	16:58:02.7	22.149S	170.898E	33N	4.7			NEIC

Southeast of Loyalty Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1	e PKPbc	Z	17:17:48.5	148.1	37.6
	e PKPab	Z	17:17:52.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/04	17:47:47.5	31.490N	138.480E	31.2	5.9	5.6		SZGRF
2001/07/04	17:47:45.6	32.162N	139.520E	33N	5.4	5.5		NEIC

Southeast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z	18:00:16.2			1.5	82	5.6		
	e		18:00:20.6							
	e pP	Z	18:00:26.3							
	e		18:01:53.1							
	e PP	Z	18:03:35.2							
	e SKSac	R	18:10:37.7							
	e S	T	18:10:45.8							
	e SS	R	18:16:25.8							
	e (SSS)	E	18:20:13.3							
	e LQ	T	18:25:41.6							
	e LR	Z	18:28:15.4							
	e L	Z	18:46:24.2			18.0	2793		5.7	
GRA1	i P	- Z	18:00:26.7	86.2	41.7			5.9		
	i pP	+ Z	18:00:35.8							
	e PP	Z	18:03:46.1							
	e SKS	Z	18:11:02.4							
	e SS	Z	18:16:53.5							
	e L	Z	18:44:58.0			19.4	2359		5.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/04	18:12:51.9	32.545N	139.567E	33N	4.6			NEIC

Southeast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	18:25:31.9	85.9	41.5			4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/05	01:41:14.6	31.660N	140.750E	20.8	5.5	5.4		SZGRF
2001/07/05	01:41:19.3	32.358N	139.612E	33N	5.3	5.2		NEIC

Southeast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z	01:53:49.3			1.3	99	5.9		
	i		01:53:55.5							

e PP	Z	01:57:06.0									
e S	T	02:03:56.6									
e SKSac	R	02:04:21.6									
e SS	T	02:09:46.4									
e LQ	T	02:18:56.7									
e LR	Z	02:23:15.5									
e L	Z	02:35:18.6				20.0	1511		5.4		
GRA1 e P	- Z	01:53:59.4	86.1	41.6					5.5		
e (pP)	Z	01:54:05.5									
e		01:54:37.7									
e		01:55:51.1									
e PP	Z	01:57:25.5									
e SKS	Z	02:04:34.8									
e L	Z	02:33:42.4				21.1	1691		5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/05	02:05:56.0	32.900N	139.260E	33.0N	5.2	4.9		SZGRF
2001/07/05	02:05:50.2	32.496N	139.576E	33N	5.2			NEIC

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z 02:18:20.1			1.0	78	5.9		
	e pP	Z 02:18:26.1							
	e	02:20:26.6							
	e PP	Z 02:21:34.2							
GRA1	e P	Z 02:18:30.6	85.9	41.5			5.2		
	e L	Z 03:00:12.6			18.1	495		4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/05	02:15:42.6	32.273N	139.645E	33N	5.2	4.9		NEIC

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z 02:28:12.9			1.0	54	5.7		
	i pP	Z 02:28:18.4							
	e PP	Z 02:31:30.4							
GRA1	e P	Z 02:28:23.3	86.1	41.6			5.1		
	e (pP)	Z 02:28:29.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/05	03:47:37.0	32.610N	138.580E	26.0	5.9	5.2		SZGRF
2001/07/05	03:47:32.9	32.366N	139.512E	33N	5.4	5.2		NEIC

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
CLL	i P	- Z 04:00:01.9			1.0	63	5.8			
	e pP	Z 04:00:07.5								
	e PP	Z 04:03:16.9								
	e pPP	Z 04:03:23.7								
	e S	T 04:10:26.6								
	e PPS	N 04:11:37.8								
	e SS	Z 04:16:30.9								
	e SSS	N 04:19:48.3								
	e LQ	T 04:25:27.7								
	e LR	Z 04:29:04.9								
	e L	Z 04:37:18.6			18.0	1588		5.4		
	GRA1	e P	- Z 04:00:12.5	86.0	41.6			5.9		
		e pP	Z 04:00:18.8							
		e sP	Z 04:00:24.9							
e PP		Z 04:03:34.4								
e SKS		Z 04:10:45.0								
e SS		Z 04:16:41.4								
e L		Z 04:39:54.9			20.8	951		5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/05	05:08:33.2	32.600N	139.430E	20.9	5.0			SZGRF
2001/07/05	05:08:31.1	32.420N	139.619E	33N	5.1	4.4		NEIC

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:21:11.2	86.0	41.5			5.0		
	e pP	Z 05:21:17.2							
	e sP	Z 05:21:19.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/05	05:41:22.8	32.330N	139.870E	19.9	4.8			SZGRF
2001/07/05	05:41:26.9	32.489N	140.815E	33N	5.1	4.5		NEIC

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:54:03.0	86.5	40.6			4.8		
	e pP	Z 05:54:08.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/05	09:45:46.7			N				SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:59:04.5							
BEAM		09:59:04.5			0.8	3			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/05	13:12:06.7	43.198N	145.086E	91D	5.1			NEIC

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 13:24:03.9	78.7	32.4	1.2	53	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/05	13:53:49.7	15.562S	73.454W	62G	6.1			NEIC

Southern Peru

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:07:24.5	98.4	255.9					
	e (pP)	Z 14:07:43.2							
	e (sP)	Z 14:07:51.2							
	e	14:11:03.2							
	e PP	Z 14:11:23.9							
	e SKSac	Z 14:17:55.2							
	e S	Z 14:18:36.2							
	e SP	Z 14:20:12.9							
	e PKKP	Z 14:24:19.7							
	e PKPPKP	Z 14:32:03.1							
	e L	Z 14:47:37.7			21.8	16626		6.5	
CLL	i P	Z 14:07:28.8			1.8	34	5.7		
	i	14:07:49.2							
	e PP	Z 14:11:38.1							
	e PPP	Z 14:13:44.2							
	e SKSac	R 14:18:09.5							
	e SKKSac	E 14:18:35.1							
	e Sdiff	T 14:18:54.1							
	e PS	Z 14:20:31.1							
	e PPS	E 14:21:18.5							
	e PKKPbc	Z 14:23:47.4							
	e PKKPab	Z 14:24:12.8							
	e SS	T 14:26:00.3							
	e P'P'df	Z 14:32:04.0			1.7	54			
	e LR	Z 14:41:56.6							
	e L	Z 14:49:18.8			20.0	17756		6.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/05	17:14:54.4				4.9	4.5		SZGRF
2001/07/05	17:14:44.3	14.051N	92.053W	33N	5.1	4.6		NEIC

Guatemala

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 17:27:32.5	87.6	289.1			4.9		
	e pP	Z 17:27:38.8							
	e L	Z 18:04:38.3			21.3	224		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/06								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 01:29:04.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/06	03:41:39.7	20.910S	169.890E	33N	4.3			NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 04:01:22.7	146.6	38.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/06	11:33:54.7	44.460N	149.290E	54.2	5.7	5.2		SZGRF
2001/07/06	11:33:48.7	44.545N	149.262E	33N	5.4	5.1		NEIC

Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 11:45:40.8			1.2	186	6.1		
	e pP	Z 11:45:57.2							
	e (PP)	Z 11:48:37.3							
	e PPP	Z 11:50:26.3							
	e S	Z 11:55:39.8							
	e SS	Z 12:01:03.1							
	e L	Z 12:23:32.4			18.0	1689		5.4	
GRA1	e P	Z 11:45:52.9	78.9	29.0			5.7		
	e	11:46:03.0							
	e (pP)	Z 11:46:08.3							
	e	11:46:11.8							
	e	11:46:17.0							
	e S	Z 11:56:05.6							

e L Z 12:25:20.2 20.3 1269 5.2

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/07/06 15:53:9.1 N 4.6 SZGRF
 Pakistan

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 16:01:25.8 4.6
 BEAM 16:01:25.8 1.2 9

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/07/06 19:47:47.7 4.8 SZGRF
 Northwest of Kuril Islands, Russia

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 i P + Z 19:59:23.8 4.8
 BEAM 19:59:23.8 1.3 10
 GRA1 e pP Z 19:59:41.3

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/07/07 01:51:15.5 N 4.3 SZGRF
 Tuva-Buryatia-Mongolia border region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 02:00:22.6 4.3
 BEAM 02:00:22.6 1.3 5

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/07/07 05:00:52.0 N 4.5 SZGRF
 2001/07/07 04:59:35.7 12.361N 87.569W 79D 4.9 NEIC
 Caribbean Sea

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 05:12:30.5 86.2 284.6 4.5

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/07/07 05:11:12.7 2.810N 64.680E 26.9 5.6 SZGRF
 2001/07/07 05:11:06.1 2.892N 66.291E 30D 5.1 4.7 NEIC
 Carlsberg Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z	05:21:49.8			2.2	162	5.9		
	e pP	Z	05:21:59.5							
	e PP	Z	05:24:08.8							
	e S	Z	05:30:30.1							
	e L	Z	05:51:59.2			20.0	654		4.8	
GRA1	e P	Z	05:21:50.9	65.9	116.2			5.6		
	e pP	Z	05:21:58.1							
	e sP	Z	05:22:02.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/07	05:38:0.3				5.0			SZGRF
2001/07/07	05:37:55.2	44.500N	149.260E	58D	4.9			NEIC

East of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	05:49:56.0	79.0	29.1			5.0		
	e		05:50:00.2							
	e		05:50:03.3							
	e pP	Z	05:50:12.3							
	e sP	Z	05:50:14.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/07	09:38:43.8	17.448S	72.041W	33N	6.6	7.3		NEIC

Near coast of Peru

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z	09:52:23.0	99.0	253.6					
	e PP	Z	09:56:20.8							
	e SKS	Z	10:03:01.7							
	e SS	Z	10:10:34.1							
	e PKPPKP	Z	10:17:08.1							
CLL	e L	Z	10:40:29.4			18.2	179801		7.6	
	i P	Z	09:52:28.5			1.3	87	6.2		
	e		09:52:42.5							
	e PP	Z	09:56:33.9							
	e SKSac	R	10:03:03.2							
	e SKKSac	R	10:03:39.8							
	e Sdiff	T	10:04:07.5							
	e PS	R	10:05:44.5							
	e SS	T	10:11:10.8							
	e P'P'df	Z	10:17:16.6							
e L	Z	10:37:42.2			18.0	357986		7.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source	
2001/07/07	11:17:32.8	17.575S	71.813W	33D	5.2			NEIC	
Near coast of Peru									
Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z 11:31:10.2	98.9	253.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source	
2001/07/07	21:25:21.3				4.7			SZGRF	
2001/07/07	21:25:28.6	36.588N	71.587E	185D	4.1			NEIC	
Northwestern Kashmir									
Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:33:25.8	44.7	83.2			4.7		
	e (pP)	Z 21:34:06.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source	
2001/07/08	04:40: 3.9			N	4.1			SZGRF	
Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:48:24.0					4.1		
BEAM		04:48:24.0			0.9	2			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source	
2001/07/08	07:46:53.7			N	4.7			SZGRF	
2001/07/08	07:48:35.5	36.593N	71.254E	152?	4.3			NEIC	
Xizang									
Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 07:56:34.9	44.4	83.5			4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source	
2001/07/08	17:17:33.2	13.583N	120.895E	33N	5.2	4.9		NEIC	
Mindoro, Philippine Islands									
Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRB1	e L	E 18:15:33.0	91.7	66.7	20.1	735		5.1	
GRA1	e P	Z 17:30:46.0	91.9	66.3					

e PP Z 17:33:48.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/08	17:54:22.3	6.679S	152.055E	33N	6.0	5.7		NEIC

New Britain, Papua New Guinea, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	- Z 18:13:18.5			1.3	104			
	e pPKPdf	Z 18:13:28.8							
	e PP	Z 18:15:03.7							
	e PKKPab	Z 18:23:04.2			1.3	25			
	e PS	R 18:25:03.7							
	e PPS	Z 18:26:25.4							
	e SS	T 18:31:54.4							
	e	18:32:39.5							
	e SSS	N 18:36:09.4							
	e LQ	T 18:49:49.3							
	e LR	Z 18:53:47.7							
	e L	Z 19:09:14.7			18.0	4461		6.2	
GRA1	i PKPdf	- Z 18:13:22.9	125.9	50.8					
	e PP	Z 18:15:14.0							
	e L	Z 19:08:09.5			21.5	2742		5.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/09	04:43:23.0	30.047S	177.913W	33N	5.0			NEIC

Kermadec Islands, New Zealand

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 05:03:55.3	159.2	22.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/09	13:54:23.8			N	4.6	3.8		SZGRF
2001/07/09	13:55:31.3	48.096N	145.956E	485D	4.3			NEIC

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:06:23.9	74.7	29.5			4.6		
	e L	Z 15:11:40.8			20.0	50		3.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/09	15:44: 0.3			N	4.9			SZGRF

Mid-Indian Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:56:32.7					4.9		
BEAM		15:56:32.7			1.4	12			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/09								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 20:08:03.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/09	23:51:19.0				4.5	4.6		SZGRF
2001/07/09	23:51:33.5	24.874N	101.421E	33N	4.8	4.7		NEIC

Southeastern China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 00:02:53.9	71.4	73.2			4.5		
	e (pP)	Z 00:02:59.0							
	e S	Z 00:12:12.8							
	e SS	Z 00:16:55.1							
	e (SSS)	Z 00:20:26.9							
	e L	Z 00:37:53.0			19.9	314		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/10	11:26:41.8	28.950N	129.450E	33.0N	5.4	5.3		SZGRF
2001/07/10	11:26:32.4	27.995N	130.097E	33N	5.1	4.8		NEIC

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 11:39:00.3			1.2	82	5.8		
	e PP	Z 11:42:17.9							
	e SKSac	R 11:49:21.2							
	e S	T 11:49:23.9							
	e SS	R 11:54:55.0							
	e LQ	T 12:11:52.0							
	e L	Z 12:20:38.6			20.0	2551		5.6	
GRB1	e SKS	Z 11:49:38.5	85.3	51.2					
GRA1	e P	Z 11:39:10.2	85.3	50.9			5.4		
	e	11:39:12.7							
GRFO	e L	Z 12:21:59.7	85.3	50.9	19.6	1295		5.3	

Date Origin Time
2001/07/10 17:33:48.4
Southern Iran

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/10	17:33:48.4				3.9			SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 17:41:31.8					3.9		
BEAM		17:41:31.8			0.6	2			
GRA1	e (pP)	Z 17:41:35.3							

Date Origin Time
2001/07/10

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/10								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 21:24:08.9							
	e (PKPab)	Z 21:24:11.3							
	e PP	Z 21:26:20.7							

Date Origin Time
2001/07/10 21:42:06.4
Turkey

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/10	21:42:06.4	39.876N	41.590E	13	5.0	4.3		NEIC

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:47:18.3	23.5	103.1	1.3	103	5.2		
	e S	E 21:51:35.0							
	e L	Z 22:00:03.1			18.1	838		4.2	

Date Origin Time
2001/07/10 21:40:41.7
2001/07/10 21:41:09.7
Western Nei Mongol, China

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/10	21:40:41.7			N	5.3			SZGRF
2001/07/10	21:41:09.7	38.968N	98.009E	33N	5.1	4.5		NEIC

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:51:14.7	59.5	64.3			5.3		

Date Origin Time
2001/07/11 01:32:17.7
2001/07/11 01:32:13.5
Andreanof Islands, Aleutian Islands, United States

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/11	01:32:17.7	51.420N	174.130W	33.0N	4.9			SZGRF
2001/07/11	01:32:13.5	51.434N	174.630W	33N	4.7			NEIC

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Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z	01:44:17.6	78.8	3.7			4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/11	08:52:59.9	21.619S	174.102W	33N	5.1	4.9		NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPdf)	Z	09:12:48.3	151.6	10.5					
	e PKPbc	Z	09:12:54.1							
	e (pPKPbc)	Z	09:12:57.7							
	e PKPab	Z	09:13:01.8							
	e (pPKPab)	Z	09:13:05.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/11	15:11:49.6	20.195S	178.155W	563D	4.9			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	15:30:31.7	149.6	17.6					
	i PKPbc	- Z	15:30:37.5							
	e PKPab	Z	15:30:44.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/11								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z	22:51:30.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/12	06:12:18.0	7.550S	13.650W	26.8		4.8		SZGRF
2001/07/12	06:12:16.9	7.516S	13.465W	10G	5.8	5.1		NEIC

Ascension Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	- Z	06:22:30.9	61.1	208.2					
	e pP	Z	06:22:38.4							
	e		06:22:50.1							
	e PP	Z	06:24:44.5							
	e S	Z	06:30:55.3							
	e SS	Z	06:34:42.5							

	e L	Z	06:47:05.0		20.5	719		4.8
CLL	i P	- Z	06:22:43.5		1.7	122	5.5	
	e pP	Z	06:22:53.4					
	e PP	Z	06:25:05.4					
	e PPP	Z	06:26:31.9					
	e S	Z	06:31:11.4					
	e SS	Z	06:35:17.0					
	e SSS	Z	06:38:07.2					
	e LR	Z	06:43:20.5					
	e L	Z	06:50:27.2		18.0	1119		5.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/13								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:16:31.5							
	e L	Z 03:22:04.7			20.7	92		2.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/13	03:18:53.4			N	4.6			SZGRF
2001/07/13	03:19:01.6	45.274N	148.796E	138?	4.4			NEIC

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:30:49.8	78.1	29.0			4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/13								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 04:53:26.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/13	12:31:10.7	44.960N	152.360E	33.0N	4.9	3.7		SZGRF
2001/07/13	12:31:10.8	43.526N	146.701E	33N	4.7			NEIC

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	- Z 12:43:14.4	79.0	31.2			4.9		
	e L	Z 13:37:51.6			22.0	43		3.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/13	19:23:21.6				5.3			SZGRF
2001/07/13	19:24:01.0	6.848S	30.655E	45*	4.7			NEIC

Zambia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	- Z 19:33:57.1	59.0	157.3			5.3		
	e (pP)	Z 19:34:19.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/13								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 19:35:25.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/13	19:48:13.4	27.050N	44.190W	43.4	5.5	5.2		SZGRF
2001/07/13	19:48:18.9	28.703N	43.421W	10G	5.5	5.4		NEIC

Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	- Z 19:56:45.3	46.0	263.9			5.5		
	e pP	Z 19:56:57.0							
	e (PcP)	Z 19:58:22.6							
	e S	Z 20:03:34.9							
	e L	Z 20:12:16.4			20.7	2859		5.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/14	01:14:56.0	52.762N	34.932W	10G	5.0	4.5		NEIC

North Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	- Z 01:20:55.4	28.6	294.1			4.7		
	e PP	Z 01:21:40.3							
	e S	Z 01:25:51.5							
	e L	Z 01:30:34.4			21.2	489		4.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/14	13:38:07.7	28.779N	43.374W	10G	4.7	4.3		NEIC

Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:46:33.6	45.9	263.9			4.4		
	e L	Z 14:02:12.9			21.6	107		3.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/14	14:38:24.2	7.394N	79.637W	10G	4.8			NEIC

South of Panama

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:51:04.6	84.9	275.4			5.4		
	e pP	Z 14:51:16.6							
	e S	Z 15:01:40.1							
	e SS	Z 15:07:12.9							
	e L	Z 15:24:59.9			20.9	1419		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/14	16:42: 4.7			N	4.7	4.6		SZGRF

Leeward Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 16:52:46.0					4.7		
BEAM		16:52:46.0			1.6	8			
GRA1	e L	Z 17:26:26.9			21.3	435		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/14	18:35:58.5	22.430N	103.810E	33.0N	4.3	4.2		SZGRF
2001/07/14	18:36:08.3	24.455N	102.655E	33N	4.6	4.2		NEIC

Yunnan, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:47:35.3	72.5	72.6			4.3		
	e L	Z 19:22:10.2			21.5	137		4.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/14	21:42:15.2	15.330N	58.850E	36.4	5.4	4.2		SZGRF
2001/07/14	21:42:20.2	14.619N	55.540E	10G	5.3			NEIC

Arabian Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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CLL	i P	Z	21:51:17.3	46.3	124.5	1.5	38	5.2			
	e pP	Z	21:51:26.6								
	e S	E	21:58:30.5								
	e LR	Z	22:06:43.4								
	e L	Z	22:15:40.6			22.0	257	4.1			
GRA1	e P	Z	21:51:17.7	50.2	118.3	1.2	53	5.4			
	e		21:51:24.5								
	e pP	Z	21:51:27.6								
	e sP	Z	21:51:31.9								
	e S	Z	21:58:28.8								
	e L	Z	22:20:25.8			19.5	249	4.2			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/14	21:49:3.7			N	4.3			SZGRF
Southern Iran								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 21:56:39.8					4.3		
BEAM		21:56:39.8			1.6	10			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/15	02:52:40.9			N	4.6			SZGRF
2001/07/15	02:52:33.5	14.654N	55.479E	10G	4.7			NEIC
Arabian Sea								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:01:30.2	50.1	118.4			4.6		
	e pP	Z 03:01:39.6							
	e sP	Z 03:01:44.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/15	03:07:53.6	19.408S	176.097W	152?	4.5			NEIC
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 03:27:24.6	149.2	13.6					
	e (pPKP)	Z 03:27:30.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/15	06:31:45.8			N	4.2			SZGRF
Pakistan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:39:59.1					4.2		
BEAM		06:39:59.1			0.9	3			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/15	16:18:15.6			N				SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 16:26:15.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/15								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPab)	Z 19:49:23.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/16	08:03:10.6	22.030S	170.192E	33N	5.1			NEIC
Southeast of Loyalty Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 08:22:53.8	147.8	38.6					
	e	08:22:56.8							
	e (pPKP)	Z 08:23:06.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/16	14:10:10.3	75.600N	4.190E	37.8	4.9	3.7		SZGRF
2001/07/16	14:09:29.1	79.486N	4.149E	10G	5.0	4.4		NEIC
Greenland Sea								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	- Z 14:15:40.6	29.9	357.4			4.9		
	e pP	Z 14:15:50.2							
	e L	Z 14:26:13.1			21.9	244		3.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/16	15:22:51.6	21.516S	170.548E	33N	4.7			NEIC

Southeast of Loyalty Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i (PKPbc)	+ Z 15:42:33.0	147.4	37.6					
	e (PKPab)	Z 15:42:35.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/16	16:07:20.3	33.240N	73.770E	50.4	5.5	4.6		SZGRF
2001/07/16	16:07:18.1	33.083N	73.135E	51D	5.1			NEIC

Pakistan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 16:15:55.1	47.8	86.0			5.5		
	e pP	Z 16:16:08.7							
	e PP	Z 16:17:59.7							
	e S	Z 16:22:45.8							
	e SS	Z 16:26:40.6							
	e L	Z 16:40:32.3			18.6	563		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/16	16:12:47.9	27.770N	85.510E	36.6	5.1			SZGRF
2001/07/16	16:12:44.5	27.994N	85.180E	17D	5.1			NEIC

Nepal

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	- Z 16:22:46.4	58.9	82.1			5.1		
	e pP	Z 16:22:56.1							
	e (sP)	Z 16:23:01.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/17	00:21:01.1	39.801N	76.573E	33N	4.4			NEIC

Southern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 00:29:24.0	45.9	76.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/17	17:35: 4.5			N	4.3			SZGRF
2001/07/17	17:33:35.9	82.501N	4.766W	10G	4.5			NEIC

Greenland Sea

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2001/07/19 13:10:25.8
Vanuatu Islands

17.355S 167.728E 33N 5.0 4.7 NEIC

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e (PKP) Z 13:29:39.6 142.5 38.7

Date Origin Time
2001/07/19 16:56:11.6

Lat Long Depth mb Ms ML Source
N SZGRF

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 17:01:18.0

Date Origin Time
2001/07/19 18:00:45.5

Lat Long Depth mb Ms ML Source
57.630N 151.590W 28.7 6.1 5.3 SZGRF

2001/07/19 18:00:40.2

57.250N 151.035W 33N 5.9 5.4 NEIC

Kodiak Island, Alaska, United States, region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
CLL i P + Z 18:11:56.3
e pP Z 18:12:05.9
e PP Z 18:14:37.7
e PPP Z 18:16:24.3
e S T 18:21:11.9
e SS N 18:26:05.4
e SSS E 18:29:17.8
e 18:29:39.5
e LQ T 18:29:41.7
e LR Z 18:34:35.9
e L Z 18:47:30.9
GRA1 i P + Z 18:12:05.5 72.1 350.0 22.0 2210 6.1 5.4
e pP Z 18:12:13.6
e 18:12:45.2
e 18:13:12.0
e PP Z 18:14:52.4
e S Z 18:21:31.5
e SS Z 18:25:56.9
e L Z 18:50:51.2 18.3 1476 5.3

Date Origin Time
2001/07/19 20:12:15.0

Lat Long Depth mb Ms ML Source
16.939S 174.715W 224D 5.4 NEIC

Tonga Islands

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Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	+ Z	20:31:27.0			1.2	499			
	i PKPbc	Z	20:31:28.0			1.2	499			
	e sPKPbc	Z	20:32:45.7							
	e PP	Z	20:34:45.0							
	e SS	E	20:53:17.1							
	e sSS	E	20:54:56.6							
	e SSS	E	20:58:52.2							
	e sSSS	E	21:00:24.6							
GRA1	e PKPdf	Z	20:31:31.1	146.9	10.4					
	e PKPbc	Z	20:31:33.8							
	e (PKPab)	Z	20:31:42.3							
	e pPKPbc	Z	20:32:31.9							
	e PP	Z	20:34:52.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/19	21:02:37.5	36.540N	139.230E	33.0N	5.4			SZGRF
2001/07/19	21:02:37.1	36.120N	139.657E	81*	4.8			NEIC

Eastern Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z	21:14:56.2	82.8	39.6			5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/20	00:21:51.0	15.118S	173.770W	38D	5.3	5.0		NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	00:41:27.5	145.2	8.5					
	e		00:41:41.1							
	e		00:41:46.6							
	e L	Z	01:44:55.1			22.0	313		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/20	00:28:16.2	17.845S	175.091W	205D	4.5			NEIC

Tonga Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	00:47:39.2	147.7	11.3					
	e		00:47:42.6							

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/20	05:09:31.9			G				SZGRF
2001/07/20	05:09:39.2	45.769N	26.776E	126D	4.7			NEIC

Romania

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 05:11:52.8	9.4	104.2	1.0	80			
BRG	e Pn	Z 05:11:58.7	9.9	116.0	1.5	65			
WET	e Pn	Z 05:12:01.0	10.0	104.5	1.2	203			
CLL	e Pn	Z 05:12:07.9	10.6	116.0	1.2	32			
FUR	e Pn	Z 05:12:12.8	10.8	97.0	1.4	600			
GRA1	e Pn	Z 05:12:16.4	11.1	104.7	1.7	304			
MOX	e Pn	Z 05:12:17.8	11.2	110.0	1.5	126			
STU	e Pn	Z 05:12:30.6	12.3	97.5	1.8	203			
CLZ	e Pn	Z 05:12:33.8	12.4	113.0	1.2	33			
BFO	e Pn	Z 05:12:38.6	12.8	94.6	1.1	54			
TNS	e Pn	Z 05:12:40.6	13.0	103.0	1.2	67			
BUG	e Pn	Z 05:12:55.3	14.0	106.2	1.4	84			
WLF	e Pn	Z 05:13:01.1	14.4	97.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/20	09:45:55.5	6.126N	126.709E	100D	5.4			NEIC

Mindanao, Philippine Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z 09:59:38.2	101.3	66.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/20								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 15:01:30.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/20	22:38:38.8	16.780N	96.430W	33.0N	5.0			SZGRF
2001/07/20	22:38:47.6	16.077N	93.543W	91D	4.4			NEIC

Oaxaca, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:51:26.6	87.0	291.5			5.0		

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/21	12:47:35.3	38.971N	24.243E	10G	4.8			NEIC

Aegean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WET	e P	Z 12:50:43.0	13.0	137.1					
BRG	e P	Z 12:51:01.8	13.9	144.7					
GRA1	e P	Z 12:51:02.0	14.2	134.3	1.2	19			
	e L	Z 12:56:19.9			18.7	588		3.7	
CLL	e P	Z 12:51:07.0	14.6	143.1					
MOX	e P	Z 12:51:06.7	14.7	137.9					
BFO	e P	Z 12:51:10.4	14.8	123.4					
TNS	e P	Z 12:51:25.3	15.8	129.2	1.2	21	4.1		
CLZ	e P	Z 12:51:29.1	16.1	137.7	1.6	42	4.3		
WLF	e P	Z 12:51:34.8	16.7	122.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/21								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 20:38:22.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/21	21:51:23.4	17.7S	178.9W	600	4.2			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 22:10:02.4							
	e PKPbc	22:10:05.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/22	18:15:08.5	5.214S	132.302E	33N	5.7	5.4		NEIC

Aru Islands, Indonesia, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z 18:29:48.7							
	e PKP	Z 18:33:43.0			0.7	4			
	i	18:34:00.8			1.1	9			
	e PP	Z 18:34:38.3							
	e PPP	Z 18:36:45.3							
	e SKSdf	R 18:40:57.0							
	e Sdiff	T 18:42:08.4							
	e SP	Z 18:43:54.3							

	e SS	T	18:50:05.9								
	e SS	N	18:50:26.8								
	e LQ	T	19:00:47.8								
	e LR	Z	19:12:02.1								
	e L	Z	19:29:46.7			20.0		1286		5.5	
GRA1	e (Pdiff)	Z	18:29:58.4	113.7	68.7						
	e		18:34:03.8								
	e PP	Z	18:34:37.2								
	e		18:41:03.0								
	e SP	Z	18:44:10.0								
	e L	Z	19:31:22.2			20.7		1103		5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/22	23:10:10.9	24.160N	44.930W	26.2	4.5	4.2		SZGRF
2001/07/22	23:10:02.0	23.755N	45.308W	10G	4.7	4.5		NEIC

Northern Mid-Atlantic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	+ Z	23:19:04.3	50.7	260.8	1.0	6	4.5		
	e pP	Z	23:19:11.4							
	e S	E	23:26:30.0							
	e L	Z	23:36:03.9			21.8	270		4.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/23	01:02:28.5	22.419S	179.730W	596D	4.9			NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	01:21:06.5			1.9	16			
	i PKPbc	- Z	01:21:12.0			0.6	69			
	e PKPab	Z	01:21:19.4			0.6	38			
	e pPKPdf	Z	01:23:25.7							
	e pPKPbc	Z	01:23:30.8							
	e PP	Z	01:24:12.4							
GRA1	e PKPdf	Z	01:21:09.6	151.4	21.5					
	e PKPbc	Z	01:21:16.3							
	e PKPab	Z	01:21:28.0							
	e pPKPdf	Z	01:23:31.4							
	e pPKPab	Z	01:23:43.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/23	08:49:46.1	6.296S	151.605E	33N	5.0	4.8		NEIC

New Britain, Papua New Guinea, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 09:08:45.6	125.4	51.0					
	e	09:09:17.6							
	e L	Z 10:05:57.7			21.3	177		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/23	12:09:43.8			N				SZGRF
2001/07/23	12:09:42.4	0.3N	98.5E	33N	5.0			NEIC

Northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 12:22:44.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/23	12:47:13.9	17.840N	121.320E	109.6	5.4			SZGRF
2001/07/23	12:46:59.0	13.872N	120.695E	109D	5.4			NEIC

Luzon, Philippine Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	+ Z 12:59:55.6	91.5	66.3			5.4		
	e pP	Z 13:00:23.6							
	e sP	Z 13:00:36.8							
	e PP	Z 13:03:34.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/23	17:04:10.5	19.8S	178.0W	500	4.2			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKP)	Z 17:23:02.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/23	21:49:26.4	5.0S	151.3E	140	5.1			NEIC

New Britain region, P.N.G.

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 22:08:09.6							

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/23	22:31:19.6	12.020N	84.200W	33.0N	5.2	5.1		SZGRF
2001/07/23	22:31:08.1	9.227N	83.864W	33N	4.8	5.0		NEIC

Nicaragua

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML			
GRA1	e P	Z 22:43:48.6	86.2	279.8	1.9	26	5.2					
	e S	E 22:54:18.7										
	e	22:55:27.9										
CLL	e SS	E 23:00:26.3										
	e L	Z 23:18:46.1										
	i P	Z 22:43:52.4								19.9	710	5.1
	e PP	Z 22:47:14.0								1.3	13	4.9
	e SKSac	R 22:54:18.2										
	e S	T 22:54:30.7										
	e PS	R 22:55:32.4										
	e SS	Z 23:00:34.1										
	e SSS	R 23:04:12.8										
	e LR	Z 23:12:00.3										
	e L	Z 23:20:10.8								20.0	430	4.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/24	00:27: 7.9	38.260N	145.330E	33.0N	4.8			SZGRF
2001/07/24	00:26:56.0	37.992N	141.743E	33N	4.5			NEIC

Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 00:39:31.2	82.1	37.2	0.8	5	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/24	05:00:11.9	19.220S	68.880W	33.0N		6.0		SZGRF
2001/07/24	05:00:09.0	19.317S	69.014W	33N	5.9	6.2		NEIC

Chile-Bolivia border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:13:46.7	98.6	250.1					
	e	05:13:51.9							
	e	05:13:56.8							
	e PP	Z 05:17:48.6							
	e SKSac	N 05:24:31.8							
	e SP	Z 05:26:44.5							
	e SS	E 05:32:02.9							
CLL	e L	Z 05:53:30.1	21.6	5953	6.0				
	e Pdiff	Z 05:13:53.0	1.3	15					
	e	05:15:19.9							

e PP	Z	05:17:28.6									
e (PPP)	Z	05:20:02.3									
e SKSac	R	05:24:38.2									
e Sdiff	T	05:25:29.7									
e PS	Z	05:26:57.3									
e SS	T	05:32:05.6									
e LQ	T	05:42:01.3									
e LR	Z	05:45:51.3									
e L	Z	05:54:40.9				22.0		14165		6.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/24	09:37:05.4	20.5S	178.6W	600	4.4			NEIC
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 09:55:48.9							
	e PKPab	Z 09:55:57.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/24	11:40:24.3	37.336N	72.119E	178D	5.0			NEIC
Tajikistan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z 11:48:10.4			0.8	31	5.1		
	e sP	Z 11:49:06.3							
	e sPP	Z 11:50:48.0							
	e S	E 11:54:25.6							
	e sS	E 11:55:36.9							
	e SS	Z 11:57:48.7							
GRA1	e P	- Z 11:48:21.9	44.5	82.0	1.0	52	5.5		
	e sP	Z 11:49:19.0							
	e	11:50:52.3							
	e	11:50:52.3							
	e S	E 11:54:47.7							
	e sS	E 11:55:53.0							
	e SS	N 11:58:08.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/24	15:35:42.8	18.124S	178.395W	600G	4.5			NEIC
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 15:54:22.1	147.5	17.2					

e PKPab Z 15:54:26.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/24	17:42:41.3	32.854S	71.366W	33N	5.6	4.7		NEIC

Near coast of central Chile

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (Pdiff)	Z 17:57:08.2	110.1	242.5					
	e PKiKP	Z 18:01:11.0							
	e	18:12:32.2							
	e L	Z 18:44:55.3			21.9	334		4.9	
CLL	i PKPdf	Z 18:01:14.3			0.9	7			
	e PP	Z 18:01:59.5							
	e PS	R 18:11:26.6							
	e PS	E 18:11:36.2							
	e PPS	Z 18:12:53.3							
	e SS	T 18:17:25.0							
	e SSS	Z 18:21:57.7							
	e SSSS	Z 18:25:59.2							
	e LR	Z 18:36:09.1							
	e L	Z 18:46:38.5			22.0	401		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/24	19:00:47.2	16.620N	65.560W	33.0G		4.3		SZGRF
2001/07/24	19:01:07.2	18.811N	64.346W	76*	4.8			NEIC

Caribbean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:11:49.2	66.5	271.8					
	e PcP	Z 19:12:16.0							
	e	19:13:50.7							
	e L	Z 19:44:27.1			18.5	152		4.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/25	01:13: 7.9	52.660N	161.200W	33.0N	4.7			SZGRF
2001/07/25	01:13:20.6	54.451N	163.327W	101*	4.2			NEIC

South of Alaska

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:25:00.3	75.8	356.7	1.1	7	4.7		

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/25	11:36:35.8	19.283S	174.968W	33N	4.7			NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPdf)	Z 11:56:22.7	149.2	11.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/25	12:22: 7.9	51.270N	179.900E	33.0G	5.6	4.6		SZGRF
2001/07/25	12:22:03.4	51.135N	179.390W	33N	5.1	4.7		NEIC

Rat Islands, Aleutian Islands, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 12:34:06.7	78.8	6.8	0.8	50	5.6		
	e pP	Z 12:34:16.0							
	e	12:41:50.9							
	e S	N 12:44:00.9							
	e SS	N 12:49:28.3							
	e L	Z 13:16:40.3			18.3	250		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/25	15:42:33.5			G				SZGRF
2001/07/25	15:43:10.5	38.941N	24.280E	10G	4.6			NEIC

Aegean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 15:46:12.8	12.5	138.6					
WET	e P	Z 15:46:16.9	13.1	137.1					
MOX	e P	Z 15:46:38.2	14.7	137.8					
BFO	e P	Z 15:46:51.7	14.8	123.4					
TNS	e P	Z 15:46:57.7	15.9	129.2					
CLZ	e P	Z 15:47:06.5	16.1	137.7					
WLF	e P	Z 15:47:13.9	16.8	122.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/25	16:02:49.6	31.710N	95.470E	33.0N	5.5	5.3		SZGRF
2001/07/25	16:02:52.1	33.188N	95.620E	33N	5.4	5.3		NEIC

Xizang

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z 16:13:00.7			0.9	12	4.7		
	e	16:13:05.6							
	e	16:13:22.0							

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 20:42:23.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/25	20:57:18.6	51.140N	177.710E	33.0N	5.3			SZGRF
2001/07/25	20:57:13.6	51.115N	179.303W	33N	4.8			NEIC

Rat Islands, Aleutian Islands, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 21:09:17.0	78.8	6.7	0.9	25	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/25	21:13:1.3	32.690N	27.210E	10.0G	4.4	3.0		SZGRF
2001/07/25	21:13:36.7	34.817N	24.272E	33N	4.4			NEIC

Eastern Mediterranean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:17:42.3	17.7	142.4	1.0	21	4.4		
	e L	Z 21:25:36.3			19.2	68		3.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/25	21:56:42.3	3.810N	119.940E	10.0G		4.8		SZGRF
2001/07/25	21:56:38.9	0.035N	123.123E	171*	5.2			NEIC

Celebes Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z 22:10:15.8			20.4	50			
	e PP	Z 22:14:30.9							
	e sPP	Z 22:15:32.2							
	e PPP	Z 22:16:47.6							
	e Sdiff	N 22:21:49.4							
	e PS	Z 22:23:28.7							
	e PPS	Z 22:24:36.0							
	e SS	T 22:28:57.0							
	e sSS	Z 22:30:01.5							
	e sSSS	Z 22:34:04.3							
	e LR	Z 22:46:47.3							
	e L	Z 22:57:42.5			18.0	307		4.9	
GRA1	e (Pdiff)	Z 22:10:23.1	103.9	72.9					
	e	Z 22:11:28.9							
	e PP	Z 22:14:45.2							
	e	Z 22:15:42.5							

e				22:24:12.3							
e				22:29:56.0							
e				22:34:33.1							
e L		Z		22:58:27.7	20.6		353			4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	00:15:3.2	43.170N	20.290E	10.0G				SZGRF
2001/07/26	00:15:06.6	43.599N	19.986E	10G				NEIC

Northwestern Balkan Peninsula

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	00:16:48.8	6.8	138.0					
WET	e Pn	Z	00:16:56.5	7.4	135.9					
FUR	e Pn	Z	00:16:58.7	7.6	123.8					
GRA1	e Pn	Z	00:17:12.0	8.6	132.1					
MOX	e Pn	Z	00:17:19.5	9.0	137.9					
STU	e Pn	Z	00:17:19.5	9.1	120.7					
BFO	e Pn	Z	00:17:22.8	9.4	116.0					
TNS	e Pn	Z	00:17:36.1	10.3	125.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	00:21:13.7	37.520N	25.940E	10.0G		6.1		SZGRF
2001/07/26	00:21:36.9	39.054N	24.225E	10G	6.0	6.6		NEIC

Dodecanese Islands, Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	i Pn	+ Z	00:24:36.0	12.4	138.5					
	e L	Z	00:29:34.9			18.0	79236		5.9	
WET	i Pn	+ Z	00:24:43.3	12.9	137.0					
FUR	e Pn	+ Z	00:24:45.5	13.0	129.5					
	e L	Z	00:29:44.7			20.6	152162		6.1	
BRG	i Pn	+ Z	00:24:55.0	13.8	144.6					
	e L	Z	00:30:18.1			21.2	126401		6.1	
GRA1	e Pn	+ Z	00:24:57.6	14.1	134.1					
	e L	Z	00:30:24.3			19.8	140114		6.2	
STU	e Pn	+ Z	00:25:05.4	14.5	126.5					
	e L	Z	00:30:40.7			20.7	89043		6.0	
CLL	i Pn	+ Z	00:25:04.3	14.5	143.0					
	e L	Z	00:31:01.4			19.6	97442		6.0	
MOX	i Pn	+ Z	00:25:05.4	14.6	137.7					
	e L	Z	00:31:15.2			18.7	136893		6.2	
BFO	e Pn	Z	00:25:06.8	14.7	123.2					
RUE	i Pn	+ Z	00:25:13.8	15.2	147.6					
	e Sn	N	00:28:15.0							
	e L	Z	00:32:19.4			18.4	141318		6.2	

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TNS	e Pn	Z	00:25:21.4	15.8	129.0				
	e L	Z	00:31:38.6			18.7	75416	6.0	
CLZ	i Pn	+ Z	00:25:24.6	16.0	137.6				
	e L	Z	00:31:47.3			19.1	153401	6.3	
WLF	e Pn	Z	00:25:35.8	16.6	122.7				
	e L	Z	00:33:11.8			18.1	63918	6.0	
BUG	e Pn	Z	00:25:38.2	17.1	129.7				
	e Sn	N	00:29:00.5						
	e L	Z	00:33:31.7			19.1	109749	6.2	
RGN	i Pn	+ Z	00:25:37.6	17.2	150.1				
	e Sn	N	00:28:59.8						
	e L	Z	00:33:24.6			19.5	112423	6.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	00:34:15.2			G				SZGRF
2001/07/26	00:34:56.9	38.937N	24.330E	10G	4.7			NEIC

Aegean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	00:37:56.9	12.5	138.5					
WET	e Pn	Z	00:38:14.2	13.1	137.0					
BRG	e Pn	Z	00:38:23.0	14.0	144.5					
GRA1	e Pn	Z	00:38:24.9	14.2	134.1					
CLL	e Pn	Z	00:38:32.3	14.7	143.0					
MOX	e Pn	Z	00:38:34.4	14.7	137.7					
BFO	e Pn	Z	00:38:32.3	14.9	123.3					
TNS	e Pn	Z	00:38:48.5	15.9	129.1					
WLF	e Pn	Z	00:38:56.9	16.8	122.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	00:58:58.6			G				SZGRF
2001/07/26	00:59:03.6	39.281N	24.241E	10G	4.3			NEIC

Aegean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	01:02:00.5	12.2	137.8					
WET	e Pn	Z	01:02:06.4	12.8	136.3					
CLL	e Pn	Z	01:02:32.6	14.4	142.5					
MOX	e Pn	Z	01:02:30.3	14.4	137.2					
BFO	e Pn	Z	01:02:34.4	14.6	122.5					
TNS	e Pn	Z	01:02:44.6	15.6	128.5					
CLZ	e Pn	Z	01:02:54.8	15.8	137.1					

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	01:49:22.3			G				SZGRF
2001/07/26	01:48:37.0	38.881N	24.335E	10G	4.4			NEIC

Aegean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 01:51:38.7	12.5	138.6					
WET	e Pn	Z 01:51:46.4	13.1	137.1					
BRG	e Pn	Z 01:51:56.6	14.0	144.6					
CLL	e Pn	Z 01:52:13.9	14.7	143.0					
MOX	e Pn	Z 01:52:12.4	14.8	137.8					
BFO	e Pn	Z 01:52:14.8	14.9	123.4					
TNS	e Pn	Z 01:52:28.6	16.0	129.2					
CLZ	e Pn	Z 01:52:31.5	16.2	137.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	02:04: 4.7			G				SZGRF
2001/07/26	02:01:50.4	39.070N	24.179E	10G	4.5			NEIC

Aegean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 02:04:49.0	12.3	138.6					
WET	e Pn	Z 02:04:55.9	12.9	137.1					
BRG	e Pn	Z 02:05:21.1	13.8	144.7					
CLL	e Pn	Z 02:05:27.6	14.5	143.1					
MOX	e Pn	Z 02:05:26.2	14.6	137.8					
BFO	e Pn	Z 02:05:19.3	14.7	123.2					
TNS	e Pn	Z 02:05:33.6	15.7	129.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	02:07:22.4			G				SZGRF
2001/07/26	02:06:35.8	38.895N	24.345E	10G	4.7			NEIC

Aegean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 02:09:37.0	12.5	138.5					
WET	e Pn	Z 02:09:44.3	13.1	137.0					
GRA1	e Pn	Z 02:09:59.6	14.3	134.2					
CLL	e Pn	Z 02:10:09.6	14.7	143.0					
MOX	e Pn	Z 02:10:06.9	14.8	137.8					
BFO	e Pn	Z 02:10:05.1	14.9	123.4					
RUE	e Pn	Z 02:10:19.2	15.4	147.5					
TNS	e Pn	Z 02:10:24.6	16.0	129.1					
CLZ	e Pn	Z 02:10:27.1	16.2	137.6					
WLF	e Pn	Z 02:10:35.8	16.8	122.9					

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BUG e Pn Z 02:10:41.2 17.3 129.8

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	02:10: 5.1			G				SZGRF
2001/07/26	02:09:48.7	38.822N	24.369E	10G	4.7			NEIC

Aegean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 02:12:51.3	12.6	138.7					
WET	e Pn	Z 02:12:53.6	13.2	137.2					
BRG	e Pn	Z 02:13:08.6	14.1	144.7					
GRA1	e Pn	Z 02:13:22.2	14.3	134.3					
CLL	e Pn	Z 02:13:23.2	14.8	143.1					
MOX	e Pn	Z 02:13:24.2	14.9	137.9					
BFO	e Pn	Z 02:13:24.0	15.0	123.5					
RUE	e Pn	Z 02:13:32.7	15.5	147.6					
TNS	e Pn	Z 02:13:40.2	16.0	129.3					
CLZ	e Pn	Z 02:13:42.3	16.3	137.7					
WLF	e Pn	Z 02:13:48.7	16.9	123.0					
BUG	e Pn	Z 02:13:53.9	17.4	129.9					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	02:26:56.6			G				SZGRF
2001/07/26	02:26:28.3	38.918N	24.240E	10G	4.5			NEIC

Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 02:29:28.4	12.5	138.8					
WET	e Pn	Z 02:29:39.2	13.1	137.3					
BRG	e Pn	Z 02:29:49.6	14.0	144.8					
GRA1	e Pn	Z 02:29:53.2	14.2	134.4					
CLL	e Pn	Z 02:29:59.0	14.7	143.2					
MOX	e Pn	Z 02:29:57.4	14.7	138.0					
BFO	e Pn	Z 02:29:58.1	14.8	123.5					
RUE	e Pn	Z 02:30:12.3	15.4	147.8					
TNS	e Pn	Z 02:30:16.3	15.9	129.3					
CLZ	e Pn	Z 02:30:22.1	16.1	137.8					
WLF	e Pn	Z 02:30:28.5	16.7	123.0					
BUG	e Pn	Z 02:30:33.5	17.2	130.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	02:41:13.8			G				SZGRF
2001/07/26	02:40:39.3	38.939N	24.282E	10G	4.5			NEIC

Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	02:43:40.1	12.5	138.6					
WET	e Pn	Z	02:43:46.9	13.1	137.1					
FUR	e Pn	Z	02:43:53.9	13.2	129.7					
BRG	e Pn	Z	02:44:02.6	14.0	144.7					
GRA1	e Pn	Z	02:44:07.9	14.2	134.3					
CLL	e Pn	Z	02:44:12.8	14.7	143.1					
MOX	e Pn	Z	02:44:10.0	14.7	137.8					
BFO	e Pn	Z	02:44:10.2	14.8	123.4					
RUE	e Pn	Z	02:44:24.0	15.4	147.6					
TNS	e Pn	Z	02:44:27.7	15.9	129.2					
CLZ	e Pn	Z	02:44:31.7	16.1	137.7					
WLF	e Pn	Z	02:44:38.5	16.8	122.9					
BUG	e Pn	Z	02:44:46.1	17.2	129.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	04:31:34.9	38.908N	24.339E	10G	4.2			NEIC

Aegean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	04:34:37.6	12.5	138.5					
WET	e Pn	Z	04:34:44.7	13.1	137.0					
MOX	e Pn	Z	04:35:16.1	14.8	137.7					
TNS	e Pn	Z	04:35:25.3	15.9	129.1					
CLZ	e Pn	Z	04:35:29.5	16.2	137.6					
BUG	e Pn	Z	04:35:51.1	17.3	129.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	04:53:55.7			G				SZGRF
2001/07/26	04:53:34.2	39.019N	24.280E	10G	4.9			NEIC

Greece

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	04:56:33.9	12.4	138.4					
WET	e Pn	Z	04:56:40.6	13.0	136.9					
BRG	e Pn	Z	04:56:58.4	13.9	144.5					
CLL	e Pn	Z	04:57:06.3	14.6	142.9					
MOX	e Pn	Z	04:57:12.9	14.6	137.7					
BFO	e Pn	Z	04:57:03.2	14.8	123.2					
TNS	e Pn	Z	04:57:22.1	15.8	129.0					
CLZ	e Pn	Z	04:57:30.9	16.1	137.5					
WLF	e Pn	Z	04:57:32.5	16.7	122.7					
BUG	e Pn	Z	04:57:31.4	17.2	129.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2001/07/26	07:44:32.0	38.910N	24.136E	10G	4.6			NEIC		
Aegean Sea										
Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	07:47:31.6	12.4	139.1					
WET	e Pn	Z	07:47:37.2	13.0	137.6					
CLL	e Pn	Z	07:48:01.7	14.6	143.5					
MOX	e Pn	Z	07:48:07.3	14.7	138.3					
TNS	e Pn	Z	07:48:18.4	15.8	129.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2001/07/26	14:24:21.1	38.870N	26.450E	10.0G		3.6		SZGRF		
2001/07/26	14:24:32.7	39.103N	24.276E	10G	4.9			NEIC		
Aegean Sea										
Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	14:27:30.7	12.3	138.2					
	e L	Z	14:32:33.5			21.4	391		3.4	
WET	e Pn	Z	14:27:37.5	12.9	136.7					
	e L	Z	14:33:15.5			18.2	591		3.7	
BRG	e Pn	Z	14:27:49.1	13.8	144.4					
	e L	Z	14:33:19.4			20.7	466		3.6	
GRA1	e L	Z	14:34:18.8	14.1	133.9	20.7	384		3.5	
CLL	e Pn	Z	14:28:00.7	14.5	142.8					
	e L	Z	14:33:28.9			20.5	342		3.5	
MOX	e Pn	Z	14:27:59.3	14.6	137.5					
	e L	Z	14:33:53.0			20.5	486		3.7	
BFO	e Pn	Z	14:28:02.8	14.7	122.9					
	e L	Z	14:34:26.3			19.5	692		3.9	
RUE	e L	Z	14:34:23.2	15.2	147.4	21.5	240		3.4	
TNS	e Pn	Z	14:28:19.3	15.8	128.8					
	e L	Z	14:34:49.2			20.3	207		3.4	
CLZ	e Pn	Z	14:28:18.3	16.0	137.4					
	e L	Z	14:34:46.7			18.9	620		3.9	
WLF	e Pn	Z	14:28:35.0	16.6	122.5					
	e L	Z	14:35:44.2			18.6	451		3.8	
BUG	e Pn	Z	14:28:40.6	17.1	129.5					
	e L	Z	14:36:21.6			18.4	434		3.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/26	15:56:51.7	53.650N	169.270W	33.0N	5.6	4.5		SZGRF

2001/07/26 15:56:46.5 53.495N 163.719W 33N 4.9 4.6 NEIC
 Fox Islands, Aleutian Islands, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 16:08:29.8			1.3	34	5.3		
	e PP	Z 16:11:20.1							
	e S	Z 16:18:13.5							
	e SS	N 16:23:45.6							
	e L	Z 16:52:27.8			18.0	472		4.8	
GRA1	i P	+ Z 16:08:39.7	76.7	356.9	1.6	81	5.6		
	e	16:08:53.1							
	e PP	Z 16:11:32.0							
	e S	E 16:18:31.1							
	e SS	N 16:24:13.7							
	e PKKPdf	Z 16:27:27.2							
	e	16:27:29.5							
	e L	Z 17:01:43.4			20.7	252		4.5	

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/07/26 17:35:39.4 18.608S 169.164E 100G 4.7 NEIC
 Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKKPdf	Z 17:55:03.1	144.2	37.5					

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/07/26 18:30:09.9 5.498S 151.706E 33N 4.7 NEIC
 New Britain, Papua New Guinea, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKKPdf	Z 18:49:08.4	124.7	50.4					

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/07/27

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 15:09:59.9							

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/07/27 17:11:31.0 52.960N 163.310E 33.0N 5.1 SZGRF
 2001/07/27 17:11:30.8 52.935N 160.242E 42* 4.6 NEIC

Off east coast of Kamchatka Peninsula, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	+ Z 17:23:07.6	74.1	18.8	1.4	28	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/27	22:42:31.6	17.278S	72.506W	33N	5.0	5.0		NEIC

Near coast of Peru

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	+ Z 22:56:12.2	99.1	254.0	1.5	15	5.5		
	e PP	Z 23:00:11.7							
	e SKSac	E 23:06:56.7							
	e SP	Z 23:09:17.7							
	e L	Z 23:38:32.8			19.6	698		5.2	
CLL	e Pdiff	Z 22:56:21.8			1.3	6			
	e PP	Z 23:00:24.2							
	e SKSac	R 23:07:02.2							
	e Sdiff	T 23:07:52.6							
	e PS	R 23:09:28.6							
	e SS	E 23:14:56.0							
	e L	Z 23:43:39.3			18.0	955		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/28	05:06:43.5	39.470N	22.790E	10.0G		3.3		SZGRF
2001/07/28	05:06:23.9	38.850N	24.313E	10G	4.7			NEIC

Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WET	e Pn	Z 05:09:32.9	13.1	137.2					
	e L	Z 05:16:24.2			21.0	410		3.4	
FUR	e L	Z 05:16:14.8	13.2	129.9	21.0	362		3.3	
BRG	e Pn	Z 05:09:41.4	14.1	144.8					
	e L	Z 05:15:41.4			19.8	222		3.2	
GRA1	e Pn	Z 05:09:48.0	14.3	134.4					
	e L	Z 05:16:33.8			19.2	314		3.4	
STU	e L	Z 05:15:46.5	14.7	126.8	20.5	388		3.5	
CLL	e Pn	Z 05:09:53.9	14.8	143.2					
	e L	Z 05:16:11.3			19.3	235		3.3	
MOX	e Pn	Z 05:09:55.7	14.8	137.9					
	e L	Z 05:17:07.3			19.3	298		3.4	
BFO	e Pn	Z 05:09:55.5	14.9	123.6					
	e L	Z 05:18:52.8			18.4	148		3.1	
RUE	e Pn	Z 05:10:09.0	15.5	147.7					
	e L	Z 05:16:12.9			19.7	240		3.3	

TNS	e Pn	Z	05:10:12.0	16.0	129.3					
	e L	Z	05:18:08.9			20.0	283	3.4		
CLZ	e Pn	Z	05:10:13.6	16.2	137.8					
	e L	Z	05:18:00.3			21.1	386	3.5		
WLF	e Pn	Z	05:10:18.9	16.8	123.1					
	e L	Z	05:17:02.9			22.0	229	3.3		
BUG	e Pn	Z	05:10:29.8	17.3	130.0					
	e L	Z	05:18:53.5			20.9	218	3.3		
RGN	e L	Z	05:17:53.2	17.4	150.2	21.6	174	3.2		
IBBN	e L	Z	05:17:38.8	17.7	133.0	21.4	165	3.2		

Date Origin Time Lat Long Depth mb Ms ML Source
2001/07/28

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 i (PP) Z 05:42:35.1

Date Origin Time Lat Long Depth mb Ms ML Source
2001/07/28 07:32:51.4 60.040N 157.060W 133.0 6.0 SZGRF
2001/07/28 07:32:42.6 59.040N 155.111W 131D 6.0 NEIC
Southern Alaska, United States

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P + Z 07:43:47.7 70.7 352.6 1.0 127 6.0
e sP Z 07:44:34.9
e PP Z 07:47:12.1
e 07:47:59.7
e S E 07:52:52.5
e SS E 07:56:58.8
e PKPPKP Z 08:11:28.2
e 08:11:45.2
e 08:12:19.8
e 08:14:45.5
e 08:14:58.3
CLL i P Z 07:43:38.4 1.2 134 6.0
e (pP) Z 07:44:03.0
e sP Z 07:44:18.6
e sPP Z 07:46:57.0
e PPPP Z 07:48:50.0
e S T 07:52:37.7
e sS T 07:53:25.0
e SS T 07:57:12.5
e SSS Z 08:00:31.0
e SSSS Z 08:01:46.6

e LR Z 08:05:52.6
 e P'P' Z 08:11:38.8
 e pP'P' Z 08:12:16.0
 e SKPPKP Z 08:15:06.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/28	11:20:55.0	3.290N	26.290W	10.0G	5.2	4.3		SZGRF
2001/07/28	11:20:38.6	0.880N	26.491W	10G	4.9	4.6		NEIC

Central Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 11:30:35.4	58.4	225.9	1.5	42	5.2		
	e S	N 11:38:38.7							
	e L	Z 11:53:31.8			20.2	254		4.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/28	17:15:33.7	16.241S	174.897W	33N	4.9			NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 17:35:10.3	146.2	10.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/29	03:24:43.2	18.090S	178.073W	600G	4.0			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 03:43:22.3	147.5	16.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/29	04:36:58.6	21.850N	138.260E	33.0N	4.6			SZGRF
2001/07/29	04:37:31.8	26.110N	129.496E	33N	4.5			NEIC

West of Mariana Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:50:15.7	86.5	52.4			4.6		
	e	04:50:28.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/07/29 07:59: 1.6 44.350N 151.150E 33.0N 4.7 SZGRF
East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 08:11:06.4	79.7	27.9	0.9	10	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/29	08:10: 6.5			N	4.8	3.7		SZGRF
2001/07/29	08:10:17.0	3.601N	63.951E	10G	4.7			NEIC

North Indian Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 08:20:49.7	64.0	117.9	0.9	6	4.8		
	e L	Z 08:45:31.9			21.3	54		3.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/29	11:31:43.9	5.530N	69.150E	10.0G	5.0	4.4		SZGRF
2001/07/29	11:31:52.7	3.532N	63.925E	10G	4.8	4.8		NEIC

North Indian Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z 11:42:26.8			2.5	80	5.5		
	e PP	Z 11:44:56.0							
	e S	E 11:50:59.6							
	e SS	E 11:55:20.1							
	e SSS	N 11:58:10.4							
	e L	Z 12:12:14.1			18.0	310		4.5	
GRA1	e P	Z 11:42:27.2	64.0	118.0	1.0	10	5.0		
	e PP	Z 11:44:49.2							
	e S	N 11:51:13.3							
	e L	Z 12:13:04.8			21.3	234		4.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/29	16:48:26.2	26.900N	99.520E	33.0N	4.8			SZGRF
2001/07/29	16:48:53.6	30.015N	95.397E	33N	4.3			NEIC

Yunnan, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 16:59:27.3	64.0	73.4	0.8	5	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/07/29 19:50:43.5 58.900N 149.760W 33.0N 4.7 SZGRF
2001/07/29 19:50:23.2 56.669N 152.947W 33N 4.5 NEIC
Gulf of Alaska

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:01:54.1	72.8	351.0	0.8	6	4.7		
	e	20:02:04.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	00:15:00.2	6.173S	152.992E	33N	5.3	4.5		NEIC

New Britain, Papua New Guinea, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 00:34:01.6	126.0	49.5					
	e PP	Z 00:35:55.3							
	e L	Z 01:30:27.5			21.3	91	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	05:03:4.4	70.610N	11.810W	33.0N	4.1			SZGRF
2001/07/30	05:02:54.7	71.102N	12.951W	10G	4.2			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:08:12.0	24.1	341.1			4.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	05:14:4.2	12.880N	127.960E	33.0N	5.5	5.0		SZGRF
2001/07/30	05:14:12.4	12.541N	123.358E	33N	5.1	4.7		NEIC

Philippine Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:27:30.7	94.1	65.0	1.2	15	5.5		
	e L	Z 06:13:23.7			18.2	432		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	06:37:21.3			N				SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:42:25.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	09:34:0.8	70.320N	11.560W	10.0G	4.6			SZGRF
2001/07/30	09:33:50.5	71.118N	13.019W	10G	4.1	3.4		NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:39:08.3	24.2	341.1	1.7	35	4.6		
	e	09:45:25.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	10:04:31.9	69.920N	11.770W	33.0N	4.5			SZGRF
2001/07/30	10:04:14.4	71.023N	12.965W	10G	4.3			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:09:34.1	24.1	340.9	0.6	10	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	15:24:58.2			G		3.9		SZGRF
2001/07/30	15:24:57.0	39.038N	24.014E	10G	5.0			NEIC

Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 15:27:53.8	12.3	139.2					
	e L	Z 15:32:00.8			20.2	285		3.3	
WET	e Pn	Z 15:28:00.7	12.9	137.6					
	e L	Z 15:33:23.0			20.6	1388		4.0	
FUR	e Pn	Z 15:28:04.9	12.9	130.1					
	e L	Z 15:33:14.9			18.7	1538		4.1	
BRG	e Pn	Z 15:28:15.1	13.8	145.3					
	e L	Z 15:33:29.5			20.4	787		3.8	
GRA1	e Pn	Z 15:28:15.7	14.0	134.7					
	e L	Z 15:34:33.2			18.3	1455		4.1	
STU	e Pn	Z 15:28:20.6	14.4	127.0					
	e L	Z 15:34:00.7			19.7	1460		4.1	
CLL	e Pn	Z 15:28:24.6	14.5	143.6					
	e L	Z 15:33:50.3			19.2	880		3.9	
MOX	e Pn	Z 15:28:24.2	14.5	138.3					
	e L	Z 15:35:29.0			18.0	1236		4.1	
BFO	e Pn	Z 15:28:25.7	14.6	123.7					
	e L	Z 15:34:54.1			18.8	1989		4.3	
RUE	e Pn	Z 15:28:35.6	15.2	148.2					
	e L	Z 15:34:20.6			19.9	384		3.6	

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TNS	e Pn	Z	15:28:38.0	15.7	129.5				
	e L	Z	15:34:50.4			19.5	795	3.9	
CLZ	e Pn	Z	15:28:44.0	15.9	138.1				
	e L	Z	15:35:07.7			20.6	1339	4.1	
BUG	e Pn	Z	15:28:57.6	17.0	130.2				
	e L	Z	15:35:31.8			19.7	396	3.7	
RGN	e L	Z	15:35:30.3	17.1	150.7	20.5	432	3.7	
IBBN	e Pn	Z	15:29:12.1	17.4	133.3				
	e L	Z	15:37:54.3			19.8	1054	4.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	16:38:22.6	39.037N	24.159E	10G	4.2	3.7		NEIC

Aegean Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z	16:41:20.5	12.3	138.7					
	e L	Z	16:45:34.8			19.8	114	2.8		
WET	e Pn	Z	16:41:29.9	12.9	137.2					
	e L	Z	16:47:59.7			21.2	155	3.0		
GRA1	e Pn	Z	16:41:53.8	14.1	134.3					
	e L	Z	16:48:06.0			20.5	209	3.2		
CLL	e Pn	Z	16:41:57.7	14.5	143.2					
	e L	Z	16:48:47.7			18.9	124	3.0		
MOX	e Pn	Z	16:41:59.9	14.6	137.9					
	e L	Z	16:49:24.4			19.2	227	3.3		
TNS	e Pn	Z	16:42:10.3	15.8	129.2					
	e L	Z	16:47:45.1			20.7	166	3.1		
CLZ	e Pn	Z	16:42:10.8	16.0	137.8					
	e L	Z	16:49:05.8			19.5	122	3.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	19:07:37.8	1.580S	99.280E	33.0N	5.0			SZGRF
2001/07/30	19:08:07.3	3.927N	95.827E	33N	4.7			NEIC

Southern Sumatera, Indonesia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	19:20:34.1	83.5	91.6	1.1	10	5.0		
	e		19:20:47.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	19:23:32.8	3.930S	11.220W	10.0G	4.2			SZGRF

North of Ascension Island

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:33:19.0	57.0	207.0			4.2		
	e	19:33:24.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	19:49:41.4	6.640S	14.910W	10.0		4.8		SZGRF
2001/07/30	19:50:09.1	3.306S	12.183W	10G	5.2	4.7		NEIC

Ascension Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:59:53.4	56.7	208.3					
	e	19:60:00.0							
	e	20:00:50.1							
	e PP	Z 20:02:00.3							
	e S	N 20:07:47.6							
	e L	Z 20:24:34.7			18.1	652		4.8	
CLL	i P	Z 20:00:07.6			2.0	60	5.3		
	e	20:00:13.4							
	e S	N 20:08:18.9							
	e SS	E 20:11:57.6							
	e L	Z 20:26:15.8			18.0	622		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	20:01: 7.0	71.190N	15.020W	10.0G	5.0			SZGRF
2001/07/30	20:01:09.5	70.908N	13.046W	10G	4.6			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:06:27.9	24.0	340.7	1.4	47	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/30	20:27:43.4	36.150N	72.500E	71.6	5.1			SZGRF
2001/07/30	20:27:43.1	36.141N	71.469E	71D	4.7			NEIC

Afghanistan-Tajikistan border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z 20:35:43.6			1.8	30	4.7		
	e pP	Z 20:36:00.5							
	e sP	Z 20:36:09.7							
	e PP	Z 20:37:31.7							
GRA1	i P	- Z 20:35:55.4	44.8	83.8	1.5	32	5.1		
	e pP	Z 20:36:13.1							
	e sP	Z 20:36:21.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2001/07/30										
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z 21:27:31.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2001/07/30	21:24:1.0	69.910N	10.730W	10.0G	5.1	3.4		SZGRF		
2001/07/30	21:23:45.1	71.052N	13.072W	10G	4.8	3.6		NEIC		
Jan Mayen Island region										
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z 21:29:03.4	24.1	340.9	1.6	96	5.1		
		e L	Z 21:38:23.0			19.9	141		3.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2001/07/31	00:33:23.6	69.680N	11.640W	10.0G	5.2	3.2		SZGRF		
Jan Mayen Island region										
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z 00:38:26.2	22.8	339.6	2.7	237	5.2		
		e L	Z 00:47:43.8			20.6	95		3.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2001/07/31	02:07:24.5	71.450N	12.650W	10.0G	5.1	3.4		SZGRF		
2001/07/31	02:07:23.8	71.102N	13.129W	10G	4.8	3.6		NEIC		
Jan Mayen Island region										
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	i P	+ Z 02:12:42.6	24.2	341.0	1.6	96	5.1		
		e S	Z 02:17:03.1							
		e L	Z 02:21:41.2			21.8	149		3.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2001/07/31	02:47:46.6	72.410N	0.610W	33.0N	3.9			SZGRF		
Jan Mayen Island region										
	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML

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GRA1 e P Z 02:52:52.3 23.3 351.0 3.9

Date Origin Time Lat Long Depth mb Ms ML Source
2001/07/31 03:39:32.0 69.200N 13.530W 10.0G 3.9
Jan Mayen Island region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 03:44:35.6 22.9 337.5 3.9

Date Origin Time Lat Long Depth mb Ms ML Source
2001/07/31 03:54:16.6 36.500N 146.340E 33.0N 4.7 SZGRF
2001/07/31 03:55:17.7 37.193N 135.077E 382* 4.4 NEIC
Off east coast of Honshu, Japan

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 04:06:49.6 80.0 42.2 4.7

Date Origin Time Lat Long Depth mb Ms ML Source
2001/07/31 04:41:29.7 70.590N 13.360W 33.0N 4.4 SZGRF
Jan Mayen Island region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 04:46:40.5 23.8 340.0 0.5 7 4.4

Date Origin Time Lat Long Depth mb Ms ML Source
2001/07/31 04:59:31.6 37.380N 140.050E 33.0N 5.3 4.9 SZGRF
2001/07/31 04:59:19.5 36.069N 141.423E 33N 4.8 4.4 NEIC
Eastern Honshu, Japan

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 i P + Z 05:11:48.3 83.6 38.4 1.2 30 5.3
e 05:11:59.2 1.0 43
GRC3 e L Z 05:52:39.7 84.1 38.6 18.1 521 4.9

Date Origin Time Lat Long Depth mb Ms ML Source
2001/07/31 06:57:40.9 17.723S 178.797W 565D 5.3 NEIC
Fiji Islands region

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

CLL	e PKPdf	Z	07:16:15.3			1.3	27
	i PKPbc	+ Z	07:16:16.7			1.0	227
	e PKPab	Z	07:16:19.5			1.1	53
	e pPKPbc	Z	07:18:29.8				
	i SKPbc	Z	07:19:04.5			1.0	23
	e SKSdf	Z	07:22:26.3				
GRA1	e PKPdf	Z	07:16:18.8	147.0	17.7		
	e PKPbc	Z	07:16:22.2				
	e PKPab	Z	07:16:25.6				
	e pPKPab	Z	07:18:28.8				
	e PP	Z	07:19:32.0				
	e SKSdf	Z	07:22:17.6				
	e		07:32:31.5				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	07:47:43.3	70.450N	12.030W	10.0G	4.4	3.3		SZGRF
Jan Mayen Island region								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	07:52:52.8	23.4	340.6			4.4		
	e L	Z	08:01:42.4			21.2	122		3.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	09:43:13.9	5.309S	103.243E	33N	5.5	5.3		NEIC
Southern Sumatera, Indonesia								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z	09:56:31.9			1.7	38	5.4		
	e PP	Z	10:00:16.9							
	e (PPP)	Z	10:02:32.6							
	e SKSac	R	10:07:06.6							
	e S	T	10:07:40.1							
	e SP	Z	10:08:59.6							
	e (SS)	Z	10:14:30.7							
	e LR	Z	10:31:00.2							
	e L	Z	10:46:05.2			18.0	1168		5.4	
GRA1	e P	Z	09:56:37.1	95.4	91.9	0.8	12	5.4		
	e PP	Z	10:00:21.8							
	e SKSac	E	10:07:08.0							
	e S	N	10:07:51.3							
	e SP	Z	10:09:06.2							
	e		10:15:06.8							
	e L	Z	10:46:24.5			20.4	933		5.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	12:24: 7.5	51.020N	177.900E	33.0N	5.2	5.1		SZGRF
2001/07/31	12:24:04.3	51.189N	179.397E	33N	5.3	5.3		NEIC

Rat Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e P	Z	12:35:55.5			1.3	18	5.1		
	e PP	Z	12:38:47.7							
	e PPP	Z	12:40:45.2							
	e S	E	12:45:43.1							
	e PS	N	12:46:11.2							
	e SS	Z	12:50:41.2							
	e LR	Z	13:01:04.6							
	e L	Z	13:17:43.7			18.0	1786		5.4	
GRA1	e P	+ Z	12:36:06.6	78.6	7.5	0.9	23	5.2		
	e		12:36:14.9							
	e		12:36:55.3							
	e PP	Z	12:39:04.4							
	e		12:41:05.2							
	e S	N	12:46:13.2							
	e SS	N	12:51:18.6							
	e L	Z	13:13:48.9			21.5	1071		5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	13:17:56.1	71.200N	14.520W	10.0G	5.5	4.1		SZGRF
2001/07/31	13:17:58.1	71.314N	13.218W	10G	4.7			NEIC

Jan Mayen Island region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	13:23:16.0	24.3	341.2	2.1	192	5.5		
	e L	Z	13:32:19.9			20.6	572		4.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	15:11:18.1	1.554N	126.319E	33N	5.8	5.2		NEIC

Northern Molucca Sea

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z	15:25:17.6							
	e PP	Z	15:29:32.7							
	e SP	Z	15:38:39.1							
	e SS	Z	15:44:06.8							
	e L	Z	16:16:44.0			20.0	1037		5.4	
GRA1	e Pdiff	Z	15:25:23.7	104.7	69.4					
	e		15:25:28.3							

e PP	Z	15:29:45.5									
e SP	Z	15:38:50.8									
e SS	E	15:44:42.9									
e L	Z	16:14:54.7			21.6		931			5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	15:08:04.1	15.1S	174.7W	33N	5.0			NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 15:27:39.8							
	e	15:27:46.6							
	e	15:27:56.0							
	e	15:28:13.8							
	e SS	Z 15:49:30.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	16:41:30.9	8.038N	117.497E	33N	5.2	4.8		NEIC

Borneo

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 16:54:48.9	94.2	72.4			4.6		
	e	16:54:57.5							
	e	16:55:05.2							
	e	17:17:13.5							
	e L	Z 17:43:07.6			20.5	379		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	17:33:16.0	71.300N	15.340W	33.0N	4.5			SZGRF

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 17:38:35.3	24.8	340.0	0.9	9	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 18:01:08.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	19:26:28.5	69.710N	8.890W	33.0N	5.0	3.6		SZGRF
2001/07/31	19:26:03.6	71.084N	12.941W	10G	4.8	4.6		NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:31:22.4	24.1	341.0	1.2	88	5.0		
	e L	Z 19:40:42.4			20.6	256		3.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	20:06: 7.9	70.630N	13.780W	33.0N	4.2	3.0		SZGRF

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:11:19.9	24.0	339.8	1.1	9	4.2		
	e L	Z 20:20:59.3			18.2	51		3.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	22:17:21.7	67.170N	11.400W	33.0N	4.2	3.0		SZGRF

Iceland region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:22:01.3	20.8	335.2	1.1	13	4.2		
	e L	Z 22:31:08.3			19.1	62		3.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/07/31	22:22:14.0	28.350S	31.340E	33.0N	5.1			SZGRF
2001/07/31	22:22:22.7	26.904S	26.675E	10G	5.1			NEIC

South Africa

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	- Z 22:34:20.8	77.8	165.9	1.2	27	5.1		

(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