

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)

AUGUST 2001 UPDATED 12.October.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		
2001/07/31	23:56:30.4	33.010N	26.750E	10.0G	4.5	3.4		SZGRF		
2001/07/31	23:56:52.1	34.730N	24.549E	10G	4.6			NEIC		
Eastern Mediterranean Sea										
Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	00:00:46.8	16.2	146.4					
FUR	e P	Z	00:00:51.2	16.7	138.9					
WET	e P	Z	00:00:52.6	16.8	144.8					
GRA1	e P	Z	00:01:06.0	17.9	141.9	0.9	30	4.5		
	e L	Z	00:09:45.3			19.7	185		3.4	
BRG	e P	Z	00:01:03.5	17.9	150.5					
STU	e P	Z	00:01:08.7	18.1	135.4					
BFO	e P	Z	00:01:08.4	18.2	132.5					
MOX	e P	Z	00:01:11.1	18.5	144.5					
CLL	e P	Z	00:01:11.8	18.6	148.9					
TNS	e P	Z	00:01:23.4	19.4	136.8					
WLF	e P	Z	00:01:29.8	20.1	131.0					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2001/08/01	03:12:39.7	72.020N	14.200W	10.0G	5.3	3.7		SZGRF		
2001/08/01	03:12:46.9	71.181N	12.801W	10G	4.7	3.8		NEIC		
Jan Mayen Island region										
Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	03:18:04.9	24.2	341.3	1.7	107	5.3		
	e S	N	03:22:30.0							
	e L	Z	03:26:53.8			20.5	253		3.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/01	03:04:20.1	21.263S	179.256W	627D	4.6			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	- Z 03:22:58.1			1.0	34			
	e PKPab	Z 03:23:04.0			0.8	16			
	e pPKPbc	Z 03:25:15.2							
GRA1	e PKPbc	Z 03:23:02.7	150.4	20.1					
	e PKPab	Z 03:23:12.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/01	09:20: 0.9	72.180N	13.970W	10.0G	5.4	3.9		SZGRF
2001/08/01	09:20:08.7	71.148N	12.950W	10G	5.0	4.4		NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:25:26.8	24.2	341.1	1.5	132	5.4		
	e S	Z 09:29:52.7							
	e L	Z 09:34:25.8			20.8	405		3.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/01	10:23:33.9			N				SZGRF
2001/08/01	10:24:13.9	20.326S	178.116W	400G	4.4			NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 10:43:16.6	149.7	17.6					
	e PKPab	Z 10:43:24.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/01	21:18: 2.3	70.580N	10.970W	10.0G	4.9	3.1		SZGRF
2001/08/01	21:17:54.3	71.195N	13.307W	10G	4.7			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:23:10.7	24.3	341.0	1.5	56	4.9		
	e L	Z 21:32:31.1			22.0	82		3.1	

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/01	22:29:26.3	20.440S	68.110E	33.0N	5.0			SZGRF

Mid-Indian Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	- Z 22:42:05.0	86.3	128.1	1.4	18	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/01	22:40:40.8	32.060S	63.390E	33.0N	5.4			SZGRF
2001/08/01	22:40:52.4	27.829S	64.274E	10G	4.9	4.3		NEIC

South Indian Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:53:55.3	90.7	135.0	1.7	31	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/01	22:51:33.5	27.490S	62.120E	33.0N	5.4			SZGRF
2001/08/01	22:51:23.9	27.803S	64.267E	10G	5.0			NEIC

Southwest Indian Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 23:04:27.2	90.7	135.0	1.6	42	5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/01	23:09:30.7	28.380S	61.260E	33.0N	5.3			SZGRF
2001/08/01	23:09:23.1	27.792S	64.301E	10G	5.0			NEIC

Southwest Indian Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:22:26.3	90.7	135.0	1.6	30	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/02								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 13:25:52.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/02	14:06:46.6	71.340N	12.200W	10.0G	4.4			SZGRF

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:12:03.1	24.2	341.9	0.8	11	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/02	14:19:40.1	69.160N	12.360W	10.0G	4.7	3.4		SZGRF
2001/08/02	14:19:21.4	71.295N	13.097W	10G	4.8			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:24:40.4	24.3	341.3	1.3	47	4.7		
	e S	Z 14:28:45.7							
	e L	Z 14:33:39.5			20.6	144		3.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/02	16:43:59.7	71.140N	13.330W	10.0G	4.9	3.3		SZGRF
2001/08/02	16:43:58.4	71.253N	12.578W	10G	4.7			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 16:49:16.9	24.2	341.5	1.5	55	4.9		
	e L	Z 16:58:25.2			21.7	103		3.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/02	18:02:14.1	71.600N	14.790W	10.0G		3.1		SZGRF

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:07:37.3	24.9	340.8					
	e L	Z 18:14:55.2			19.8	62		3.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/02	22:17:58.6	70.720N	14.050W	10.0G	4.8	3.3		SZGRF
2001/08/02	22:17:56.3	71.284N	13.011W	10G	4.6			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:23:14.4	24.3	341.3	1.4	45	4.8		
	e L	Z 22:31:41.0			19.4	100		3.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/02	23:41:12.5	56.710N	164.500E	23.8	6.1	6.2		SZGRF
2001/08/02	23:41:05.4	56.263N	163.796E	10G	5.9	6.2		NEIC

Komandorsky Islands, Russia, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	i P	- Z	23:51:59.9	66.6	17.4	1.0	386	6.6		
RUE	i P	- Z	23:52:11.4	68.5	17.4	1.2	212	6.2		
IBBN	i P	- Z	23:52:18.6	69.7	13.9	1.0	258	6.4		
CLZ	i P	- Z	23:52:19.1	69.7	15.4	1.1	221	6.2		
	e		23:52:38.6							
CLL	i P	- Z	23:52:18.5			1.4	185	6.0		
	e		23:52:25.3							
	e		23:53:31.3							
	e PP	Z	23:54:50.6							
	e PPP	Z	23:56:40.7							
	e S	T	00:01:27.4							
	e ScS	T	00:02:13.0							
	e SKSac	R	00:02:16.7							
	e SS	T	00:05:54.1							
	e SSS	Z	00:09:25.2							
	e LQ	T	00:11:33.1							
	e LR	Z	00:14:45.9							
	e L	Z	00:27:06.7			18.0	15629		6.3	
BRG	i P	- Z	23:52:20.3	70.0	17.3	1.2	107	5.9		
BUG	i P	- Z	23:52:23.9	70.6	13.6	1.1	152	6.0		
MOX	i P	- Z	23:52:24.4	70.6	15.9	1.1	129	6.0		
TNS	i P	- Z	23:52:30.2	71.6	14.1	1.0	74	5.8		
GRA1	i P	- Z	23:52:30.6	71.6	15.6	1.1	236	6.2		
	e pP	Z	23:52:37.3							
	e		23:52:50.4							
	e PP	Z	23:55:11.7							
	e		23:57:12.2							
	e		23:59:10.5							
WET	i P	- Z	23:52:32.3	71.9	16.5	1.1	176	6.1		
GEC2	i P	- Z	23:52:32.8	72.0	16.9	1.1	95	5.8		
WLF	i P	- Z	23:52:35.8	72.5	12.8	1.1	61	5.6		
STU	i P	- Z	23:52:38.3	72.9	14.4	1.2	144	6.0		
FUR	i P	- Z	23:52:39.0	73.1	15.5	1.1	141	6.0		
BFO	i P	- Z	23:52:40.9	73.4	13.9	1.0	131	6.0		
	e		23:53:01.2							
GRA1	e S	N	00:01:50.3	71.6	15.6					
	e SS	N	00:06:29.5							
	e L	Z	00:28:51.7			19.8	14474		6.2	

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/08/03

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:33:33.6							
	e	04:33:36.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/03	16:40:19.0	69.820N	10.090W	33.0N	4.2			SZGRF
Jan Mayen Island region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 16:45:16.5	22.5	340.9	1.1	8	4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/03	18:48:18.6	45.060N	16.130E	10.0G				SZGRF
Northwestern Balkan Peninsula								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 18:49:21.3	4.1	155.5					
	e Sn	N 18:50:09.3							
WET	e Pn	Z 18:49:28.7	4.6	150.3					
GRA1	e Pn	Z 18:49:44.1	5.7	142.5					
BRG	e Pn	Z 18:49:46.0	6.0	165.0					
	e Sn	N 18:50:53.0							
BFO	e Pn	Z 18:49:49.8	6.3	118.5					
	e Sn	N 18:51:00.5							
MOX	e Pn	Z 18:49:51.5	6.4	149.8					
	e Sn	N 18:51:01.9							
CLL	e Pn	Z 18:49:54.7	6.6	160.4					
TNS	e Pn	Z 18:50:05.0	7.3	132.0					
	e Sn	N 18:51:23.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/04	00:33:50.8	28.3S	179.4W	400	4.8			NEIC
Kermadec Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	Z 00:53:06.2			0.8	7			
	i PKPab	Z 00:53:24.3			0.7	23			
GRA1	i PKPab	Z 00:53:33.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/04	01:44:53.7	2.834N	126.952E	33N	5.7	5.6		NEIC

Northern Molucca Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
CLL	e Pdiff	Z 01:58:48.1								
	e PP	Z 02:03:06.6								
	e PPP	Z 02:05:12.4								
	e SKSac	R 02:09:23.9								
	e Sdiff	T 02:10:35.5								
	e SP	Z 02:11:54.9								
	e SS	R 02:17:38.1								
	e LQ	T 02:32:33.8								
	e LR	Z 02:35:21.9								
	e L	Z 02:49:36.2				22.0	2755		5.7	
	GRA1	e Pdiff	Z 01:58:56.4	104.1	68.0					
		e	01:59:28.6							
		e	02:02:18.7							
		e PP	Z 02:03:11.1							
e		02:05:37.2								
e SKSac		E 02:09:44.0								
e SP		Z 02:12:19.3								
e		02:13:52.6								
e		02:14:48.6								
e L		Z 02:48:41.6				21.6	1892		5.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/04	11:22: 6.3	2.140S	77.350E	33.0N	4.8			SZGRF

Maldive Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:33:53.5	76.5	110.0			4.8		
	e	11:34:03.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/04	11:43:22.4	40.240N	137.670E	33.0N	5.0	4.3		SZGRF
2001/08/04	11:42:57.6	37.406N	141.613E	35D	4.9			NEIC

Eastern Sea of Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA3	e L	Z 12:36:41.6	82.4	37.7	20.6	148		4.3	
GRA1	i P	+ Z 11:55:20.8	82.5	37.6	0.9	15	5.0		
	e	11:55:32.4							
	e	12:12:01.7							

e 12:15:41.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/04	13:06:12.3			N				SZGRF
2001/08/04	13:06:46.1	21.217S	177.789W	350G	4.6			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 13:25:49.5							
	i PKPbc	- Z 13:25:52.8			0.8	20			
	e PKPab	Z 13:25:57.8							
	e pPKPbc	Z 13:27:25.4							
GRA1	i PKPdf	Z 13:25:57.8	150.6	17.3					
	e PKPab	Z 13:26:06.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/04	14:08:47.2	30.160N	56.120E	33.0N	4.8			SZGRF
2001/08/04	14:07:47.1	25.031N	61.535E	33N	4.4			NEIC

Northern and central Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:16:09.1	45.8	103.5	2.3	62	4.8		
	e	14:16:17.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/04	18:55:08.9	15.892N	147.411E	33N	5.2	4.5		NEIC

Mariana Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (Pdiff)	Z 19:09:06.8	103.9	43.3					
	e PP	Z 19:13:28.0							
	e L	Z 20:00:03.9			19.7	298		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/04	22:05:49.0	70.020N	15.210W	33.0N	4.6	3.1		SZGRF

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:10:59.9	23.8	337.9	1.3	28	4.6		
	e L	Z 22:20:22.0			18.9	64		3.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/05	02:33:17.2	27.070N	127.230E	33.0N				SZGRF

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:45:47.6	84.6	53.5					
	e	02:46:01.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/05	03:54:43.6	2.814N	126.891E	33N	5.1	4.9		NEIC

Northern Molucca Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (Pdiff)	Z 04:08:41.6	104.0	68.1					
	e PP	Z 04:13:08.9							
	e SP	Z 04:22:12.2							
	e L	Z 05:08:33.5			20.9	354	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/05	05:16:11.6	12.210N	95.530E	93.9	5.6	4.9		SZGRF
2001/08/05	05:16:16.7	12.205N	93.394E	96D	5.3			NEIC

Andaman Islands, India, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
CLL	i P	- Z 05:27:47.1			1.1	42	5.4			
	e PcP	Z 05:27:59.3								
	e pP	Z 05:28:11.1								
	e sP	Z 05:28:20.9								
	e PP	Z 05:30:44.9								
	e sPP	Z 05:31:06.4								
	e sPPP	Z 05:32:50.3								
	e S	T 05:37:08.0								
	e sS	T 05:37:52.3								
	e SS	N 05:42:01.4								
	e LR	Z 05:51:27.3								
	e L	Z 06:04:37.0			18.0	1087	5.2			
	GRA1	i P	Z 05:27:53.9	75.7	87.9	1.4	70	5.6		
		e pP	Z 05:28:17.8							
		e sP	Z 05:28:29.2							
		e PP	Z 05:30:56.2							
e		05:32:52.5								
e S	N 05:37:26.5									
e L	Z 06:05:54.4			21.2	648	4.9				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/05	11:09:1.2	52.490N	157.670E	33.0N	4.9	4.1		SZGRF
2001/08/05	11:08:51.1	51.110N	157.480E	33N	5.0	4.2		NEIC

Kamchatka Peninsula, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:20:33.6	75.2	21.1	1.1	16	4.9		
	e L	Z 11:58:57.6			21.0	109		4.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/05	11:25:18.0			N	4.5			SZGRF

Western Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:31:47.6			1.3	9	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/05								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 12:37:36.4							
	e L	Z 13:20:53.5			19.6	559		5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/05	20:02:38.1	35.880N	71.920E	223.8	4.6			SZGRF
2001/08/05	20:02:46.2	36.469N	70.256E	225D	4.3			NEIC

Pakistan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:10:33.5	43.9	84.3			4.6		
	e pP	Z 20:11:21.5							
	e PP	Z 20:12:20.0							
	e SS	N 20:20:21.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/05								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1 e PKPbc Z 20:21:06.0

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/05 20:23:13.3 23.068S 175.572W 33N 4.7 NEIC
 South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 20:43:00.0							
	i PKPbc	+ Z 20:43:04.5			0.9	28			
	e	20:43:08.1							
	e pPKPbc	Z 20:43:15.8							
	e	20:45:15.8							
GRA1	e PKPbc	Z 20:43:08.3	152.8	13.8					
	e	20:43:19.6							
	e	20:43:30.9							

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/05 20:40:12.5 70.470N 14.180W 33.0N 4.2 SZGRF
 Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:45:24.2	23.9	339.3	1.3	10	4.2		

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/05 21:33:09.8 19.968S 177.811W 500G 4.3 NEIC
 Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 21:52:04.4	149.4	16.9					

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/05 21:59:13.9 70.620N 11.670W 33.0N 4.1 SZGRF
 Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:04:21.2	23.5	341.1			4.1		

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/05 23:30: 5.4 68.560N 12.130W 33.0N 4.4 2.9 SZGRF

Iceland region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:34:57.8	22.0	337.3	1.4	20	4.4		
	e L	Z 23:42:49.0			21.8	48		2.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/06	02:30:39.5	23.190N	122.190E	33.0N	5.1	4.6		SZGRF
2001/08/06	02:30:33.7	21.495N	121.139E	40*	5.0	4.7		NEIC

Taiwan region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	+ Z 02:43:11.9	85.7	61.3	1.4	20	5.1		
	e PP	Z 02:46:31.3							
	e S	E 02:53:40.2							
	e SS	N 02:59:42.1							
	e	03:03:56.2							
	e L	Z 03:24:45.0			20.2	263		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/06	03:52:59.4	55.578S	123.321W	10G	6.1	6.5		NEIC

Southern East Pacific Rise

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 04:12:49.1	152.3	240.1					
	e PKPbc	Z 04:12:55.7							
	e	04:16:05.8							
	e	04:16:15.7							
	e PP	Z 04:16:41.2							
	e	04:19:55.9							
	e	04:26:30.8							
	e	04:29:40.7							
	e SS	N 04:36:07.0							
	e L	Z 05:13:39.5			21.6	5910		6.4	
CLL	i PKPdf	- Z 04:12:51.3			2.8	333			
	i PKPbc	Z 04:12:58.9			1.9	248			
	e	04:13:07.1							
	e PKPab	Z 04:13:13.7			1.5	219			
	e	04:13:21.9							
	e PP	Z 04:16:53.8							
	e PPP	Z 04:20:26.1							
	e PPPP	Z 04:22:36.8							
	e PPP2	Z 04:26:14.7							
	e PSKS	R 04:27:16.5							
	e SS	T 04:36:26.0							

e PSS	E	04:37:16.6								
e SSSS	R	04:46:19.5								
e L	Z	05:18:43.2			22.0	10985		6.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/06	05:29: 3.3	71.060N	13.960W	10.0G	5.1			SZGRF
2001/08/06	05:29:02.5	71.245N	12.783W	10G	4.9			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:34:21.2	24.2	341.4	1.7	110	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/06	06:40:26.1	17.724S	178.591W	500G	4.5			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 06:59:12.9	147.1	17.4					
	e PKPab	Z 06:59:16.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/06	07:44:35.6	56.8S	140.3W	10G	5.0			NEIC

Pacific-Antarctic ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 08:04:38.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/06	11:34: 8.3	45.200N	153.800E	33.0N	4.7			SZGRF
2001/08/06	11:34:11.6	45.437N	151.168E	33N	4.6			NEIC

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:46:13.0	78.7	27.4	0.8	8	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/06	17:08:45.9	8.484S	74.843W	137D	5.6			NEIC

Peru-Brazil border region

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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRC2	e PP	Z 17:25:33.9	93.9	261.6					
GRA1	e P	Z 17:21:50.2	93.9	261.5	1.7	30	5.3		
	e	17:21:57.6							
	e pP	Z 17:22:21.1							
	e SKSac	Z 17:32:16.2							
	e S	Z 17:32:47.8							
	e SP	Z 17:33:58.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/06	17:19:35.8			N				SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 17:39:29.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/06	20:01:32.5	19.310N	91.740W	189.0				SZGRF
2001/08/06	20:01:17.2	17.458N	93.676W	206?	4.7			NEIC

Bay of Campeche

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 20:13:38.4	86.0	292.5					
	e pP	Z 20:14:24.7							
	e PP	Z 20:16:52.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/07	03:22:29.5	8.603S	113.827E	33N	5.6	4.9		NEIC

Jawa, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z 03:36:27.9							
	e PP	Z 03:40:41.3							
	e SKSac	R 03:46:57.9							
	e Sdiff	T 03:48:09.0							
	e SP	Z 03:49:37.3							
	e PPS	Z 03:50:52.1							
	e SS	Z 03:55:13.0							
	e L	Z 04:24:16.3			20.0	293		4.8	
GRA1	e Pdiff	Z 03:36:48.3	104.7	86.0					
	e PP	Z 03:40:49.1							
	e SKSac	E 03:46:54.0							
	e SKKSac	E 03:47:51.4							
	e SP	Z 03:49:49.3							

e SS	E	03:55:32.8									
e		04:06:34.6									
e L	Z	04:30:33.2			21.7		241		4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/07	03:53:42.6	19.190N	120.360E	33.0N	4.6			SZGRF
2001/08/07	03:53:44.8	21.361N	120.910E	33N	4.6			NEIC

Philippine Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:06:25.4	85.7	61.6			4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/07	10:51:31.7			N				SZGRF

Norwegian Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:56:13.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/08								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:19:17.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/08	01:51:41.4	67.160N	10.620W	10.0G	4.3	3.0		SZGRF

Iceland region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:56:21.2	20.6	335.8	1.7	27	4.3		
	e	01:56:33.9							
	e L	Z 02:05:40.2			18.9	68		3.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/08								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:27:03.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/08	13:08:03.6	10.853S	165.415E	33N	5.3	5.4		NEIC

Santa Cruz Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 13:27:23.4	135.7	37.7					
	e (pPKPdf)	Z 13:27:32.3							
	e PP	Z 13:30:02.8							
	e PKSbc	E 13:31:00.4							
	e PPS	Z 13:42:03.6							
	e SS	E 13:48:10.0							
	e L	Z 14:31:12.0							
			19.9	566	5.3				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/09	02:06:58.9	14.369S	72.628W	33N	5.5	5.5		NEIC

Central Peru

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:20:29.1	97.0	256.0	1.7	29	5.6		
	e PP	Z 02:24:44.2							
	e SKSac	Z 02:31:17.0							
	e S	N 02:31:57.3							
	e SP	Z 02:33:16.8							
	e SS	N 02:38:32.0							
	e L	Z 02:59:57.1							
CLL	e P	Z 02:20:36.5			21.9	1339		5.4	
	e PP	Z 02:24:41.4							
	e SKSac	Z 02:31:19.3							
	e S	T 02:31:56.9							
	e SP	Z 02:33:34.0							
	e SS	T 02:38:42.3							
	e SSS	N 02:42:31.4							
e L	Z 03:02:49.9								
			20.0	2076	5.6				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/09	02:31:19.3			G				SZGRF
2001/08/09	02:31:28.5	46.032N	10.367E	10G				NEIC

Northern Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e Pg	Z 02:32:13.6	2.7	148.2					
	e Sn	N 02:32:48.6							
WET	e Pg	Z 02:32:22.8	3.5	209.5					

	e Sn	N	02:33:04.0						
	e Sg	N	02:33:18.3						
GRA1	e Sg	N	02:33:25.2	3.7	189.2				
MOX	e Pg	Z	02:32:46.7	4.7	190.7				
	e Sn	N	02:33:32.1						
	e Sg	N	02:33:53.7						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/09	03:09:03.2	30.501S	177.997W	51D	5.3			NEIC

Kermadec Islands, New Zealand

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 03:28:54.6							
	i PKPbc	Z 03:29:05.4			1.2	10			
	i PKPab	Z 03:29:26.3			1.4	53			
	e pPKPab	Z 03:29:42.5							
GRA1	e PKPdf	Z 03:28:55.9	159.6	23.3					
	e pPKPdf	Z 03:29:10.0							
	e sPKPdf	Z 03:29:17.9							
	e PKPab	Z 03:29:34.8							
	e PP	Z 03:33:15.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/09	03:34: 2.9	14.080S	68.450W	113.7	5.5			SZGRF
2001/08/09	03:33:44.5	18.087S	69.199W	113D	5.6			NEIC

Peru-Bolivia border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 03:47:08.8	97.7	251.1	1.1	30	5.5		
	e pP	Z 03:47:38.4							
	e PP	Z 03:50:58.4							
	e PS	N 03:59:53.9							
CLL	i P	Z 03:47:15.9			0.9	15	5.7		
	e pP	Z 03:47:45.8							
	e SP	Z 03:59:46.4							
	e L	Z 04:28:15.2			18.0	499		5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/09	05:33:38.4	36.510N	80.810E	33.0N	5.0			SZGRF
2001/08/09	05:34:42.1	40.845N	71.013E	33N	4.5			NEIC

Southern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1	e P	Z	05:42:34.1	41.8	78.5	0.9	16	5.0
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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/09	13:08:37.9	50.830N	178.730E	33.0N	5.6	4.9		SZGRF
2001/08/09	13:08:36.4	51.474N	178.080W	33N	5.2	4.9		NEIC

Rat Islands, Aleutian Islands, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 13:20:38.5	78.5	5.9	1.8	113	5.6		
	e PP	Z 13:23:50.2							
	e	13:25:31.8							
	e S	N 13:30:39.4							
	e SS	N 13:35:58.4							
	e L	Z 13:59:44.9			21.2	655		4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/09	17:07:47.6	53.650N	160.070W	33.0N	4.7			SZGRF
2001/08/09	17:07:43.1	53.749N	165.314W	33N	4.3			NEIC

South of Alaska

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 17:19:34.1	76.5	357.9			4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/09	18:57:49.5	5.573S	149.680E	146	5.3			NEIC

New Britain region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 19:16:29.7							
	e PP	Z 19:18:12.2							
	e	19:19:09.5							
	e	19:21:39.8							
	e SP	Z 19:27:56.1							
	e PS	N 19:28:13.3							
	e SS	E 19:34:55.6							
CLL	e PP	Z 19:18:06.6							
	e pPP	Z 19:18:51.4							
	e Sdiff	T 19:25:54.2							
	e SP	Z 19:27:33.8							
	e PS	E 19:27:58.2							
	e PPS	Z 19:29:28.1							
	e SS	T 19:34:31.2							
	e sSS	T 19:35:31.2							

e LR	Z	19:56:42.1							
e L	Z	20:08:10.8	20.0	137	4.6				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/10	05:43:47.3	15.640N	92.320W	33.0N	5.4	5.2		SZGRF
2001/08/10	05:43:39.4	13.971N	91.858W	33N	5.1	5.0		NEIC

Mexico-Guatemala border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	- Z 05:56:27.5	87.6	288.9	1.0	29	5.4		
	e PP	Z 05:59:51.8							
	e S	E 06:07:10.8							
	e SS	E 06:13:10.7							
CLL	e L	Z 06:32:02.6			21.6	950		5.2	
	e P	Z 05:56:30.3			0.8	5	4.9		
	e PP	Z 05:59:57.5							
	e S	E 06:07:10.7							
	e PS	E 06:08:34.2							
	e SS	Z 06:13:15.5							
	e SSS	E 06:16:54.2							
	e LR	Z 06:25:19.0							
	e L	Z 06:42:33.2			22.0	627		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/10								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 12:00:32.9							
	e	12:00:42.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/10								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 13:41:44.7							
	e	13:41:55.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/10	15:05:14.6	22.300S	170.730E	33N	5.2	4.9		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	15:24:59.7	148.2	37.9							
	e PKPab	Z	15:25:02.9									
	e PP	Z	15:28:29.7									
	e L	Z	16:31:35.7			20.8		243		5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/10	15:41:59.0	64.280N	130.970W	10G	4.7			NEIC

Southern Yukon Territory, Canada

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:52:24.8	62.3	342.5	1.0	10	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/10	16:24:35.2	14.675S	167.090E	82D	5.2			NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 16:43:51.1	139.8	37.8					
	e pPKPdf	Z 16:44:17.3							
	e PP	Z 16:46:52.0							
	e pPP	Z 16:47:13.2							
	e	16:48:12.9							
	e L	Z 17:43:43.7			21.2	286		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/10	20:19:38.2	39.390N	116.660W	33.0N	4.7	5.0		SZGRF
2001/08/10	20:19:26.0	39.828N	120.632W	15	4.9			NEIC

Nevada, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:31:43.6	81.0	324.6	1.6	16	4.7		
	e	20:31:52.6							
	e S	Z 20:41:45.7							
	e SS	Z 20:47:46.8							
	e L	Z 21:06:15.1			20.0	623		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/11								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i PKPbc	Z 04:05:12.6							
	e PKPab	Z 04:05:16.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/11	05:50:44.9	15.100N	92.510W	33.0N	5.3	4.9		SZGRF
2001/08/11	05:50:40.1	14.030N	91.788W	33N	5.1	4.6		NEIC

Mexico-Guatemala border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 06:03:27.8	87.5	288.9	0.8	19	5.3		
	e L	Z 06:39:13.6			21.6	492		4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/11	06:45: 1.3	11.440S	67.810W	33.0N	5.5	5.0		SZGRF
2001/08/11	06:44:28.8	17.838S	71.209W	37D	5.5	4.9		NEIC

Northern Bolivia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 06:58:05.9	98.8	252.7	1.2	33	5.5		
	e	06:58:21.8							
	e (SP)	Z 07:11:57.7							
	e (SS)	Z 07:16:49.3							
	e	07:20:39.5							
	e L	Z 07:38:51.4			21.8	634		5.0	
CLL	i P	+ Z 06:58:12.7			1.0	15	5.5		
	e pP	Z 06:58:22.0							
	e sP	Z 06:58:27.7							
	e SKSac	N 07:08:43.1							
	e PS	E 07:11:22.7							
	e PPS	Z 07:12:20.0							
	e L	Z 07:41:53.8			20.0	501		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/11								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	Z 08:51:21.7			0.9	34			
	i PKPab	Z 08:51:28.8			0.8	17			
	i pPKPbc	Z 08:53:40.8							
GRA1	e PKPbc	Z 08:51:27.0							
	e PKPab	Z 08:51:37.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/11	13:01:06.0	22.127S	174.967W	33N	5.0	5.2		NEIC

Tonga Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z	13:20:51.8							
	i PKPbc	+ Z	13:20:55.3			1.0	37			
	e		13:20:57.6							
	e PKPab	Z	13:21:00.4							
	e PP	Z	13:24:29.3							
	e PPP	Z	13:28:03.7							
GRA1	e L	Z	14:28:54.2			18.0	375		5.2	
	e PKPdf	Z	13:20:53.3	152.0	12.3					
	e PKPbc	Z	13:20:59.5							
	e PKPab	Z	13:21:09.2							
	e PP	Z	13:24:39.7							
	e		13:34:52.9							
e L	Z	14:35:00.0			20.0	613		5.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/11	15:23:28.6	13.720N	60.100W	33.0N	4.7			SZGRF
2001/08/11	15:23:06.9	12.140N	60.035W	52D	4.8			NEIC

Windward Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	15:34:22.0	68.7	263.6			4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/11	15:43:32.9	45.620N	151.070E	33.0N	4.9			SZGRF
2001/08/11	15:44:22.3	46.636N	144.519E	374	4.3			NEIC

Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z	15:55:31.2	75.5	31.1	0.8	10	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/12	00:42:35.4	38.890N	41.220E	33.0N	4.5			SZGRF
2001/08/12	00:42:05.5	37.284N	44.196E	10G	4.4			NEIC

Turkey

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	00:47:46.1	26.7	105.1	1.4	25	4.5		

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/12	00:41:59.4			N	4.5			SZGRF
2001/08/12	00:41:33.9	12.599N	123.563E	33N	4.6			NEIC

Luzon, Philippine Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 00:54:51.5	94.2	64.8			4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/12	01:58: 4.6	24.430N	94.720E	123.6	5.5			SZGRF
2001/08/12	01:57:59.7	24.439N	95.005E	121D	5.0			NEIC

Myanmar-India border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 02:08:47.6	67.7	78.0	1.1	32	5.5		
	e pP	Z 02:09:17.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/12								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 09:19:48.1							
	e PKPab	Z 09:19:51.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/12	11:03: 9.2	25.510N	59.620E	33.0N	4.6			SZGRF
2001/08/12	11:03:28.8	27.613N	57.713E	33N	4.6			NEIC

Southern Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:11:16.0	41.6	104.4	1.0	14	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/12	12:05:51.7	4.550N	98.400E	33.0N	5.2	5.1		SZGRF
2001/08/12	12:06:09.0	6.319N	94.789E	33N	5.1	5.2		NEIC

Northern Sumatera, Indonesia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	+ Z 12:18:22.7	81.0	90.8	1.3	22	5.2		
	e	12:18:39.1							
	e S	N 12:28:36.4							

BSEG	e P	Z	18:36:15.0	20.9	121.4
BUG	e P	Z	18:36:19.4	21.5	111.1
WLF	e P	Z	18:36:19.1	21.6	105.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/12	19:04:21.8	31.760N	132.670E	33.0N	5.6			SZGRF
2001/08/12	19:04:36.6	31.241N	130.435E	159D	4.6			NEIC

Southeast of Shikoku, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 19:16:46.3	82.8	48.8	1.0	37	5.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/12								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 19:49:19.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/13	22:57: 5.8	46.260N	154.060E	33.0N	5.0	4.3		SZGRF
2001/08/13	22:57:06.1	46.205N	152.174E	40*	4.6	4.8		NEIC

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:09:05.6	78.3	26.4	0.7	10	5.0		
	e L	Z 00:09:35.2			20.8	158		4.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/13	00:16:14.7	50.890N	171.740W	43.3	5.0			SZGRF
2001/08/13	00:16:14.0	51.477N	172.752W	43D	4.7			NEIC

South of Aleutian Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 00:28:16.3	78.8	2.5	0.8	16	5.0		
	e pP	Z 00:28:28.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/13	01:07:16.4	13.908S	167.887E	33N	5.3	5.0		NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPdf)	Z 01:26:46.7	139.5	36.3					
	e PP	Z 01:29:37.1							
	e	01:53:33.9							
	e L	Z 02:28:55.0			20.4	278		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/13								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 04:49:50.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/13	04:32:46.0	10.896S	165.202E	33N	4.9	4.7		NEIC
Santa Cruz Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPdf)	Z 04:52:06.5	135.6	38.0					
	e PP	Z 04:54:48.2							
	e SS	N 05:12:28.9							
	e L	Z 05:55:48.4			18.9	131		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/13	08:21:04.4	13.592S	166.206E	33N	5.1	5.3		NEIC
Vanuatu Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 08:40:27.6	138.5	38.3					
	e	08:40:44.0							
	e PP	Z 08:43:19.2							
	e PKSbc	N 08:44:18.2							
	e PPS	N 08:55:37.0							
	e	08:56:59.2							
	e SS	N 09:01:44.8							
	e SSS	N 09:07:01.3							
	e L	Z 09:43:56.1			20.1	564		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/13	13:52: 3.9	27.130N	111.660W	33.0N	5.2	4.5		SZGRF
2001/08/13	13:51:56.5	25.459N	109.597W	10G	4.7			NEIC

Gulf of California, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:04:51.0	88.4	309.1			5.2		
	e L	Z 14:41:29.4			19.5	200		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/13	14:27:45.5			G	4.1			SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 14:29:42.1			1.2	36	4.4		
GEC2	e P	Z 14:28:51.5			1.8	17			
GRA1	e P	Z 14:29:14.7			0.7	14			
MOX	e P	Z 14:29:19.6			1.1	8			
STU	e P	Z 14:29:37.0			0.8	19	4.3		
TNS	e P	Z 14:29:47.0			0.9	9	3.9		
WET	e P	Z 14:28:59.3			1.1	6			
WLF	e P	Z 14:30:00.9			1.1	10	3.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/13	20:11:30.3	42.340N	143.450E	33.0N	6.4	6.4		SZGRF
2001/08/13	20:11:23.3	41.063N	142.285E	38G	6.0	6.2		NEIC

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	i P	+ Z 20:23:04.4	74.9	37.4	2.2	1487	6.6		
RUE	i P	+ Z 20:23:12.6	76.4	37.4	2.0	1054	6.6		
BRG	i P	+ Z 20:23:19.2	77.6	37.3	2.4	904	6.5		
CLL	i P	+ Z 20:23:19.0	77.6	36.7	2.3	999	6.5		
	e pP	Z 20:23:33.2							
	e PP	Z 20:26:14.4							
	e PPP	Z 20:28:06.3							
	e S	T 20:33:03.6							
	e SKSac	R 20:33:29.7							
	e PS	R 20:33:59.8							
	e SS	E 20:38:11.0							
	e LQ	T 20:46:13.0							
	e LR	Z 20:48:54.0							
	e L	Z 20:59:41.9			20.0	28132		6.6	
IBBN	i P	+ Z 20:23:25.0	78.7	33.2	2.4	1404	6.7		
MOX	i P	+ Z 20:23:25.0	78.7	35.7	2.3	783	6.4		
GEC2	i P	+ Z 20:23:28.5	79.3	36.9	2.3	507	6.1		
WET	i P	+ Z 20:23:29.5	79.4	36.3	2.2	863	6.4		
BUG	i P	+ Z 20:23:29.6	79.6	32.8	2.2	758	6.3		
GRA1	i P	+ Z 20:23:30.8	79.6	35.3	2.2	1539	6.6		

	e			20:23:45.9								
	e PP	Z		20:26:35.0								
	e			20:28:43.2								
	e S	N		20:33:28.9								
	e SS	N		20:38:56.7								
	e PKPPKPdf	Z		20:50:35.0								
	e L	Z		21:01:49.9			21.3	18546		6.4		
TNS	i P	+ Z		20:23:33.0	80.2	33.5	2.2	626		6.1		
FUR	i P	+ Z		20:23:37.1	80.8	35.2	2.2	1280		6.5		
STU	i P	+ Z		20:23:38.3	81.1	33.9	2.3	858		6.4		
WLF	i P	+ Z		20:23:40.0	81.4	31.9	2.3	518		6.1		
BFO	i P	+ Z		20:23:41.7	81.8	33.3	2.0	624		6.3		

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/13 21:45:34.2 1.720S 107.260E 33.0N 5.1 5.1 SZGRF
 Java Sea

	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z 21:58:54.7	95.2	86.5	1.5	11	5.1		
		e	21:59:13.0							
		e	21:59:40.1							
		e L	Z 22:32:17.5			21.3	780		5.1	

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/14 00:31:05.1 34.696S 179.476W 33N 4.9 NEIC
 South of Kermadec Islands

	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKPdf	Z 00:51:03.7	163.1	31.6					
		e PKPab	Z 00:51:53.6							
		e PP	Z 00:55:39.3							
		e SKKSac	N 01:02:28.9							
		e SS	N 01:16:05.4							
		e L	Z 02:14:40.0			19.3	242		5.1	

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/14

	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKPdf	Z 01:44:15.9							
		e	01:44:20.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/14	03:44:3.5	41.780N	143.870E	33.0N	4.3			SZGRF

Hokkaido, Japan, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:56:07.6	79.6	33.9			4.3		
	e	Z 03:56:23.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/14	14:49:56.1	25.278S	179.920E	492?	4.5			NEIC

South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPdf)	Z 15:08:51.2	154.1	23.9					
	e PKPab	Z 15:09:16.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/14	19:35:39.2	74.550N	104.210W	33.0N	5.4	4.8		SZGRF

Queen Elizabeth Islands, Canada

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 19:44:09.4			1.8	33	5.2		
	e S	E 19:51:02.2							
	e SS	Z 19:54:47.5							
	e LR	Z 19:57:57.8							
	e L	Z 20:07:32.9			18.0	1135		4.9	
GRA1	i P	+ Z 19:44:20.1	48.6	341.3	1.4	58	5.4		
	e S	Z 19:51:13.8							
	e SS	Z 19:55:14.5							
	e L	Z 20:04:00.3			22.0	1129		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/14	21:19:45.2	32.350N	64.500E	0.0G		4.2		SZGRF
2001/08/14	21:19:29.8	30.035N	65.250E	33N	5.0	4.4		NEIC

Southwestern Afghanistan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 21:27:27.4	43.0	96.4					
BRG	e P	Z 21:27:29.7	43.1	98.7					
MOX	e P	Z 21:27:40.3	44.6	96.5					
GRA1	e P	Z 21:27:43.8	44.7	95.2					
	e S	N 21:34:29.1							

	e SS	N	21:37:56.1								
	e L	Z	21:50:59.1			18.5		302		4.2	
CLZ	e P	Z	21:27:46.6	45.5	96.6						
TNS	e P	Z	21:27:57.7	46.5	93.5						
WLF	e P	Z	21:28:08.4	48.0	91.2						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/14								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 21:58:03.1							
	e	21:58:08.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/15	05:24:44.6	0.760S	27.080W	10.0G	4.8	3.8		SZGRF
2001/08/15	05:24:58.7	0.672N	25.461W	10G	4.9			NEIC

Central Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:34:52.7	58.2	224.7	0.9	8	4.8		
	e S	N 05:43:07.2							
	e L	Z 05:55:32.2			21.7	73		3.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/15	15:08:20.5	22.491S	179.289E	587D	5.0			NEIC

South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	- Z 15:26:59.2			1.0	16			
	i PKPbc	+ Z 15:27:04.3			1.0	378			
	e PKPab	Z 15:27:12.7			0.7	85			
	e pPKPbc	Z 15:29:23.0							
	e sPKPbc	Z 15:30:14.8							
	e sPP	Z 15:33:38.4							
	e SKSP	Z 15:40:07.9							
	e	15:42:42.1							
	e	15:45:09.0							
	e SS	Z 15:49:32.2							
GRA1	e PKPdf	Z 15:27:02.3	151.2	23.4					
	e PKPbc	Z 15:27:08.8							
	e PKPab	Z 15:27:21.5							
	e pPKPbc	Z 15:29:21.8							
	e pPKPab	Z 15:29:27.1							

e	15:30:15.9
e	15:33:49.0
e	15:42:59.3
e	15:45:25.3
e SS	Z 15:49:57.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/15	16:26:29.8	46.170N	10.690E	10.0G			2.6	SZGRF
2001/08/15	16:26:31.2	46.385N	10.643E	10G				NEIC

Northern Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e Pn	Z 16:27:12.6	2.5	140.3					2.6
	e Sn	N 16:27:45.9							
WET	e Pn	Z 16:27:21.6	3.1	209.4					2.5
	e Sn	N 16:27:59.6							
	e Sg	N 16:28:14.4							
GEC2	e Pn	Z 16:27:20.7	3.2	221.1					2.4
	e Pg	Z 16:27:31.7							
	e Sn	N 16:28:03.0							
GRA1	e Pg	Z 16:27:35.0	3.3	186.9					3.0
	e Sg	N 16:28:22.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/15	23:33:15.8	42.270N	15.490E	10.0G			3.5	SZGRF
2001/08/15	23:33:08.2	42.003N	16.030E	10G				NEIC

Adriatic Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 23:34:52.9	7.0	165.7					3.4
	e Sn	N 23:36:08.3							
WET	e Pn	Z 23:34:58.6	7.5	161.7					3.6
	e Sn	N 23:36:17.0							
BFO	e Pn	Z 23:35:10.2	8.3	136.6					
	e Sn	N 23:36:34.8							
MOX	e Pn	Z 23:35:20.7	9.2	158.9					3.6
	e Sn	N 23:36:55.8							
TNS	e Pn	Z 23:35:29.8	9.7	144.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/16	07:08:18.0	73.260N	3.210E	10.0G	4.5	4.0		SZGRF
2001/08/16	07:08:21.2	72.494N	2.945E	10G	4.7			NEIC

Greenland Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 07:13:31.4	23.1	353.7	1.2	18	4.5		
	e L	Z 07:22:00.6			21.6	571		4.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/16	08:13:19.3			G	4.1			SZGRF

Eastern Mediterranean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 08:17:48.3			1.0	5	3.7		
BUG	e P	Z 08:18:14.6			0.9	16	4.5		
CLZ	e P	Z 08:18:03.7			0.9	8	4.1		
GEC2	e P	Z 08:17:20.7			0.9	8	3.8		
GRA1	e P	Z 08:17:41.7			1.1	22	4.3		
MOX	e P	Z 08:17:48.8			0.8	4	3.6		
TNS	e P	Z 08:18:02.1			0.7	18	4.5		
WET	e P	Z 08:17:30.3			1.4	28	4.2		
WLF	e P	Z 08:18:11.2			0.9	12	4.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/16	08:39:41.8			G	4.3			SZGRF

Eastern Mediterranean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 08:44:19.1			0.9	6	3.8		
GRA1	e P	Z 08:44:37.4			0.6	21	4.8		
MOX	e P	Z 08:44:42.8			0.8	5	4.1		
TNS	e P	Z 08:44:53.7			0.6	15	4.7		
WET	e P	Z 08:44:25.2			1.0	9	4.1		
WLF	e P	Z 08:45:03.8			0.8	6	4.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/16	10:05:29.5	34.360N	24.420E	10.0G	4.0			SZGRF

Crete, Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 10:09:20.1	16.5	147.3	0.8	5	3.7		
WET	e P	Z 10:09:26.4	17.1	145.7	0.9	8	3.8		
GRC1	e P	Z 10:09:31.5	17.5	142.1					
GRB1	e P	Z 10:09:34.7	17.7	143.2	1.0	18	4.2		
GRA1	e P	Z 10:09:39.5	18.1	142.7					
BFO	e P	Z 10:09:42.5	18.4	133.5					

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TNS	e P	Z	10:09:56.8	19.7	137.6	0.6	12	4.3
WLF	e P	Z	10:10:06.6	20.3	131.9	1.2	12	4.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/16	13:33:26.6	30.550N	57.790E	33.0N	4.2			SZGRF

Northern and central Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:40:55.1	39.6	101.1			4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/16	20:05:45.9	26.420N	127.750E	33.0N	4.9			SZGRF

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	+ Z 20:18:20.3	85.4	53.5	1.5	17	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/17	02:19:17.1			G	4.0			SZGRF

Near coast of Libya

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 02:23:51.6			1.8	12	3.9		
BRG	e P	Z 02:23:53.2			2.8	44	4.3		
FUR	e P	Z 02:23:45.2			1.1	16	4.1		
GEC2	e P	Z 02:23:40.6			1.5	4	3.5		
GRA1	e P	Z 02:23:56.6			1.5	18	4.2		
MOX	e P	Z 02:24:06.8			2.8	50	4.4		
TNS	e P	Z 02:24:18.4			1.5	10	4.0		
WET	e P	Z 02:23:47.1			1.2	5	3.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/17	02:53:40.6	69.420N	14.120W	10.0G	4.6	3.3		SZGRF
2001/08/17	02:53:47.6	71.690N	1.060W	33N	4.5			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	+ Z 02:58:47.3	22.7	350.0	1.5	32	4.6		
	e L	Z 03:07:09.8			20.6	116		3.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/17	02:58:47.8	69.160N	14.020W	10.0G	4.7	3.4		SZGRF
2001/08/17	02:58:45.6	71.622N	2.860W	10G	4.3			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:03:52.4	22.9	348.6	1.5	35	4.7		
	e L	Z 03:12:14.1			20.5	148		3.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/17	03:14: 9.1	34.180N	15.860E	10.0G	4.1			SZGRF
2001/08/17	03:15:09.9	38.424N	14.633E	240	4.2			NEIC

Central Mediterranean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e P	Z 03:17:32.8	10.0	164.7	0.7	34			
GEC2	e P	Z 03:17:35.7	10.4	176.0	0.8	15			
BFO	e P	Z 03:17:41.2	10.9	153.0	0.7	14			
STU	e P	Z 03:17:43.9	11.1	157.2	0.8	20			
GRA1	e P	Z 03:17:49.6	11.5	166.5	0.8	11	4.0		
MOX	e P	Z 03:18:01.8	12.4	168.9	1.0	10	3.9		
BRG	e P	Z 03:18:01.4	12.5	177.5	0.9	13	4.1		
TNS	e P	Z 03:18:05.3	12.6	157.2	1.0	21	4.2		
WLF	e P	Z 03:18:05.9	12.8	148.5	0.9	6	3.7		
CLL	e P	Z 03:18:08.6	12.9	174.3	2.7	167	4.7		
CLZ	e P	Z 03:18:18.4	13.7	165.8	0.7	10	4.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/17	03:44: 3.1			N	4.4			SZGRF

Myanmar

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:55:21.0					4.4		
BEAM		03:55:21.0			1.0	3			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/17	13:57:03.6	4.740S	153.419E	58D	4.9			NEIC

New Ireland, Papua New Guinea, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 14:16:00.5	124.9	48.2					
	e pPKPdf	Z 14:16:18.0							

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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:29:48.0					4.5		
BEAM		23:29:48.0			2.2	20			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/18	00:34:21.9			G				SZGRF
2001/08/18	00:34:20.4	33.885N	25.483E	10G	3.8			NEIC

Crete, Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 00:38:25.1	17.3	145.3					
FUR	e P	Z 00:38:29.8	17.8	138.2					
WET	e P	Z 00:38:31.2	17.9	143.9					
BRG	e P	Z 00:38:42.4	19.0	149.3					
GRA1	e P	Z 00:38:43.0	19.0	141.0					
BFO	e P	Z 00:38:47.8	19.3	132.2					
MOX	e P	Z 00:38:49.5	19.6	143.6					
CLL	e P	Z 00:38:49.7	19.6	147.7					
TNS	e P	Z 00:39:02.8	20.6	136.2					
CLZ	e P	Z 00:39:04.6	21.0	142.9					
WLF	e P	Z 00:39:11.4	21.2	130.7					
BUG	e P	Z 00:39:18.8	22.0	136.0					
IBBN	e P	Z 00:39:20.4	22.4	138.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/18	13:08:22.6	7.350N	98.360E	33.0N	4.9			SZGRF
2001/08/18	13:08:48.3	10.923N	92.504E	33N	4.8			NEIC

Malay Peninsula

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:20:42.6	76.1	89.5			4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/19	05:47:54.2	23.135S	169.788E	33N	4.5			NEIC

Southeast of Loyalty Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 06:07:37.9	148.6	40.1					
	e pPKPbc	Z 06:07:48.3							
	e L	Z 07:10:24.7			20.4	58		4.4	

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/19	07:36:37.6	11.040N	38.580W	33.0G	5.1	3.8		SZGRF
2001/08/19	07:36:13.6	8.448N	39.191W	10G	4.8	4.3		NEIC

North Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 07:46:15.0	58.7	243.2	1.6	33	5.1		
	e	07:46:27.0							
	e L	Z 08:05:02.6			19.5	75		3.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/19	13:00:19.1	18.921S	168.606E	100G	4.8			NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 13:19:43.6	144.3	38.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/19								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKP)	Z 23:53:37.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/20	04:12:39.0	26.660N	128.380E	33.0N	5.7	5.1		SZGRF
2001/08/20	04:12:37.3	25.641N	126.218E	33N	5.5	4.8		NEIC

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	i P	- Z 04:25:04.1	83.1	57.2	1.5	63	5.6		
CLL	i P	- Z 04:25:05.0	83.4	56.5	1.3	53	5.6		
	e PP	Z 04:28:19.4							
	e SP	Z 04:36:23.3							
	e SS	N 04:40:58.7							
	e	04:45:50.6							
	e LQ	T 04:50:49.3							
	e LR	Z 04:55:32.6							
	e L	Z 05:05:20.0			20.0	1382			
CLZ	i P	- Z 04:25:10.0	84.4	54.6	1.4	148	6.0		
MOX	i P	- Z 04:25:10.1	84.5	55.4	1.4	67	5.7		
WET	i P	- Z 04:25:10.8	84.6	56.2	1.7	75	5.6		
GRA1	i P	- Z 04:25:14.0	85.2	55.1	1.6	199	6.0		
	e PP	Z 04:28:33.6							

	e S	N	04:35:43.8								
	e SS	N	04:41:20.7								
	e SSS	N	04:46:05.7								
	e L	Z	05:06:43.3			19.9	763		5.1		
IBBN	i P	- Z	04:25:14.8	85.4	52.7	1.2	113	5.9			
FUR	i P	- Z	04:25:18.3	86.1	55.0	1.2	178	6.1			
BUG	i P	- Z	04:25:18.4	86.2	52.2	1.3	64	5.6			
TNS	i P	- Z	04:25:19.2	86.3	53.1	1.7	59	5.5			
STU	i P	- Z	04:25:21.6	86.8	53.5	1.1	44	5.5			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/20	12:56:32.7	46.660N	148.460E	33.0N	5.2	3.9		SZGRF
2001/08/20	12:56:15.3	43.796N	148.129E	33N	5.0	4.1		NEIC

Northwest of Kuril Islands, Russia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	i P	+ Z	13:08:03.2	76.0	32.1	0.8	28	5.3		
CLL	i P	+ Z	13:08:09.6	77.3	31.5	0.8	38	5.5		
BRG	i P	+ Z	13:08:10.2	77.3	32.0	0.9	10	4.9		
CLZ	i P	+ Z	13:08:12.4	77.6	29.8	0.8	30	5.4		
IBBN	i P	+ Z	13:08:14.2	78.0	28.1	0.7	30	5.5		
MOX	i P	+ Z	13:08:15.7	78.3	30.5	1.0	13	5.0		
BUG	i P	+ Z	13:08:18.9	78.9	27.7	1.2	23	5.2		
WET	i P	+ Z	13:08:20.9	79.2	31.2	1.0	20	5.2		
GRA1	i P	+ Z	13:08:21.5	79.2	30.1	1.1	37	5.4		
	e		13:08:28.6							
	e		13:08:32.1							
	e L	Z	13:44:56.6			20.8	61		3.9	
TNS	i P	+ Z	13:08:23.2	79.6	28.3	1.0	13	5.0		
BFO	i P	+ Z	13:08:32.0	81.3	28.1	0.9	8	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/20	18:50:39.4	38.830N	41.230E	10.0G	4.8	3.3		SZGRF
2001/08/20	18:50:38.7	40.289N	41.912E	10G	4.2			NEIC

Turkey

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BRG	e P	Z	18:55:41.8	22.1	107.8					
WET	e P	Z	18:55:40.4	22.3	102.4					
RUE	e P	Z	18:55:44.3	22.7	111.2					
CLL	e P	Z	18:55:46.8	22.8	107.6					
FUR	e P	Z	18:55:50.8	23.1	98.4					
GRA3	e L	Z	19:06:14.0	23.4	102.1	21.9	105		3.3	
GRA1	e P	Z	18:55:53.1	23.4	101.9	1.8	60	4.8		
	e S	E	19:00:05.8							

CLZ	e P	Z	18:56:07.2	24.5	105.6
STU	e P	Z	18:56:03.5	24.6	97.8
BFO	e P	Z	18:56:03.5	25.1	96.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/20	19:56:47.6	17.485S	178.588W	539D	4.8			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 20:15:30.9	146.8	17.3					
	e PKPab	Z 20:15:33.8							
	e pPKPbc	Z 20:17:37.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/21	06:52:06.5	36.872S	179.862W	33N	6.3	7.1		NEIC

East of North Island, New Zealand

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RGN	e L	Z 08:38:08.7	160.1	32.5	21.7	48382		7.3	
RUE	e L	Z 08:33:49.7	161.7	36.9	21.6	43923		7.3	
BRG	e L	Z 08:36:26.0	162.9	40.4	21.2	69871		7.5	
CLL	i PKPdf	+ Z 07:12:04.4			2.0	208			
	e	07:12:12.8							
	e	07:12:35.0							
	i PKPab	Z 07:12:55.3			1.2	290			
	e	Z 07:13:03.2							
	e	Z 07:13:23.3							
	e PP	Z 07:16:47.6							
	e SKSdf	R 07:19:05.7							
	e PP2	Z 07:19:35.5							
	e PPP	Z 07:20:56.9							
	e PcPPKP	Z 07:22:27.7							
	e SKKSac	R 07:23:25.9							
	e PPP2	Z 07:24:26.5							
	e	07:37:24.3							
	e L	Z 08:23:02.0			22.0	61307		7.4	
CLZ	e L	Z 08:34:28.1	163.4	29.8	20.4	48290		7.3	
IBBN	e L	Z 08:32:10.0	163.7	22.1	21.3	49006		7.3	
MOX	e L	Z 08:23:24.0	164.0	35.2	22.0	43324		7.3	
BUG	e L	Z 08:36:17.7	164.6	21.9	22.0	56920		7.4	
WET	e L	Z 08:31:38.5	164.6	41.8	22.0	56501		7.4	
GRA1	e PKPdf	Z 07:12:05.8	164.9	36.2					
	e	07:12:14.3							
	e	07:12:36.7							
	e PKPab	Z 07:13:02.9							

	e			07:13:11.9								
	e			07:13:31.9								
	e	PP	Z	07:16:46.5								
	e			07:17:03.6								
	e			07:17:24.9								
	e	PP2	Z	07:19:21.9								
	e	PcPPKP2	Z	07:21:59.4								
	e	PPP2	Z	07:24:15.1								
	e			07:37:07.6								
	e			07:39:59.3								
	e	L	Z	08:34:02.6				21.3	46847		7.3	
TNS	e	L	Z	08:34:02.5	165.4	27.3		21.4	57710		7.4	
FUR	e	L	Z	08:24:53.6	166.1	39.9		22.0	37188		7.2	
STU	e	L	Z	08:33:59.8	166.4	32.4		21.6	62596		7.4	
WLF	e	L	Z	08:41:15.5	166.5	21.0		21.4	33902		7.2	
BFO	e	L	Z	08:34:47.0	167.1	30.6		21.3	54824		7.4	

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/21 09:16:57.3 37.472S 179.827E 33N 4.8
 Off east coast of North Island, New Zealand

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKPab	Z	09:38:00.6	165.3	38.1					

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/21 10:36:46.2 37.194S 179.166W 33N 5.0
 Off east coast of North Island, New Zealand

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKPab	Z	10:57:48.3	165.4	34.8					
		e		10:57:58.9							

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/21 12:22:22.4 36.978S 179.658W 33N 4.9
 East of North Island, New Zealand

	Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKPab	Z	12:43:19.5	165.1	35.8					
		e		12:43:29.7							
		e		12:48:19.5							
		e		13:11:08.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/21	13:44:42.1	36.787S	179.539W	33N	4.8			NEIC

South of Kermadec Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 14:05:38.6	164.9	35.1					
	e PP2	Z 14:11:10.6							
	e	14:19:01.7							
	e	14:35:44.4							
	e	14:41:30.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/21								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 14:34:17.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/21								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 15:05:56.5							
	e	15:06:05.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/21								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 19:19:34.8							
	e	19:19:45.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/21								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 19:40:16.6							
	e	19:40:34.2							

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/08/21

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 20:43:51.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/21	23:22:34.2	23.080N	47.390W	10.0G	4.6	3.7		SZGRF

Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 23:31:47.4	52.5	261.9	1.5	12	4.6		
	e S	E 23:39:14.8							
	e L	Z 23:48:02.2			22.0	76		3.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/08/22

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 03:23:53.7							
	e	03:24:03.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/22	03:16:13.1	36.906S	179.705W	33N	5.1			NEIC

Off east coast of North Island, New Zealand

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 03:36:12.6	165.0	35.8					
	e	03:36:23.2							
	i PKPab	Z 03:37:10.4							
	e	03:37:20.4							
	e	03:37:27.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/22	04:39:30.4	37.170S	179.857W	33N	4.9			NEIC

East of North Island, New Zealand

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 04:59:29.8	165.2	36.7					
	e PKPab	Z 05:00:28.1							
	e L	Z 06:16:36.8			22.0	247		5.0	

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GRA1	e PKPbc	Z	17:21:01.5	145.2	8.4							
	e		17:21:07.3									
	e		17:21:10.6									
	e L	Z	18:07:00.2			21.9		160				

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source				
2001/08/22												

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 17:53:50.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source				
2001/08/22												

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 20:43:35.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source				
2001/08/23	02:44:47.5	15.580S	172.516W	33N	5.0	4.8		NEIC				
Samoa Islands region												

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 03:04:26.1	145.8	6.4					
	e L	Z 04:17:18.9			20.3	131		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source				
2001/08/23	16:42:50.8	72.440N	119.840W	33.0N	4.9			SZGRF				
2001/08/23	16:43:04.9	77.310N	128.264W	10G	4.6			NEIC				
Northwest Territories, Canada												

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 16:52:06.2	50.5	349.3	0.8	13	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source				
2001/08/23	21:45:05.6	3.371S	146.258E	33N	5.6	6.1		NEIC				
Bismarck Sea												

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	Z 22:03:53.3			1.0	9			

	e PP	Z	22:05:13.9								
	e PPP	Z	22:07:40.1								
	e PS	R	22:14:57.2								
	e PPS	R	22:16:44.8								
	e SS	R	22:21:33.6								
	e SSS	R	22:25:38.7								
	e LR	Z	22:42:32.7								
	e L	Z	22:56:03.4			20.0	13588			6.6	
GRA1	e PKPdf	Z	22:03:57.2	120.1	54.6						
	e PP	Z	22:05:22.5								
	e PPP	Z	22:07:57.9								
	e PS	N	22:15:09.0								
	e PPS	N	22:17:01.8								
	e SS	N	22:22:15.5								
	e L	Z	22:59:31.3			18.6	6406			6.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/23	23:56:48.8	3.085S	146.671E	33N	5.3	5.2		NEIC

Bismarck Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 00:15:39.8	120.1	54.1					
	e PP	Z 00:17:06.5							
	e L	Z 01:11:20.6			18.2	874		5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24	09:47:58.9	41.440N	146.500E	54.0	5.8	4.7		SZGRF
2001/08/24	09:48:02.7	41.186N	142.142E	60D	5.2			NEIC

Off southeast coast of Hokkaido, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 09:59:55.0			1.0	67	5.7		
	e pP	Z 10:00:10.4							
	e PP	Z 10:02:48.3							
	e S	Z 10:09:37.5							
	e sS	Z 10:10:26.1							
	e SS	T 10:14:33.2							
	e sSS	Z 10:15:21.4							
	e LQ	T 10:22:49.9							
	e LR	Z 10:25:28.2							
	e L	Z 10:36:58.2			18.0	464		4.8	
GRA1	i P	+ Z 10:00:06.6	79.4	35.3	0.9	95	5.8		
	e pP	Z 10:00:22.0							
	e PP	Z 10:03:05.8							
	e S	E 10:10:10.9							

e SS	N	10:15:30.8										
e L	Z	10:38:12.3			20.8		344			4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24	11:01:51.5	17.864S	178.612W	577D	5.0			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 11:20:27.6	147.2	17.5					
	e PKPbc	Z 11:20:31.0							
	e PKPab	Z 11:20:35.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24	11:13: 1.4	33.250N	139.510E	33.0N				SZGRF

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:25:35.1	85.2	41.2					
	e	11:25:44.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24	19:42:41.4	32.150N	140.410E	33.0N	4.4			SZGRF

Southeast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:55:21.6	86.6	41.1			4.4		
	e	19:55:28.3							
	e	19:55:38.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 20:30:37.1							
	e	20:30:47.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24	20:56: 6.9	34.160N	138.850E	33.0N	4.8			SZGRF

Near south coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:08:35.3	84.2	41.2			4.8		
	e	21:08:45.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 21:36:47.6							
	e PKPab	Z 21:37:33.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPab)	Z 21:39:51.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 21:40:46.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 21:41:17.5							
	e	21:41:26.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 21:43:42.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24	21:34:00.6	36.920S	179.918E	33N	5.3	5.5		NEIC

Off east coast of North Island, New Zealand

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
CLL	e PKPdf	Z	21:53:59.4			2.6	111				
	e PKPab	Z	21:54:47.6			2.3	122				
	e		21:55:05.2								
	e PP	Z	21:58:36.4								
	e SS	E	22:18:56.7								
	e (SSS)	R	22:25:47.1								
	e L	Z	23:09:06.9			22.0	1467		5.8		
	GRA1	e PKPdf	Z	21:54:01.5	164.8	36.8					
		e PKPab	Z	21:54:56.8							
		e		21:55:14.5							
e PP		Z	21:58:43.8								
e L		Z	23:04:45.5			21.7	688		5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/24								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPab)	Z	22:01:41.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/25	02:02:13.8	6.350N	78.490W	33.0N	6.1	6.0		SZGRF
2001/08/25	02:02:02.0	7.582N	82.638W	26D	5.9	5.7		NEIC

South of Panama

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	i P	- Z	02:14:30.0	83.4	274.0	2.5	470	6.2		
BUG	i P	- Z	02:14:32.7	84.0	274.7	2.0	357	6.2		
IBBN	i P	- Z	02:14:33.7	84.2	275.0	2.4	757	6.5		
TNS	i P	- Z	02:14:37.3	84.9	275.7	1.7	261	6.2		
BFO	i P	- Z	02:14:37.1	85.0	275.8	1.6	99	5.8		
STU	i P	- Z	02:14:40.4	85.5	276.4	1.5	225	6.2		
CLZ	i P	- Z	02:14:42.4	85.9	277.1	1.6	239	6.2		
GRA1	i P	- Z	02:14:46.0	86.7	277.8	1.5	177	6.1		
	e		02:14:53.9							
	e		02:15:04.0							
	e PP	Z	02:18:07.4							
	e		02:21:43.5							
	e S	E	02:25:16.1							
	e SS	E	02:30:36.7							

		e L	Z	02:48:02.2			21.5	7470		6.0
MOX		i P	- Z	02:14:46.7	86.8	278.1	2.5	530	6.3	
FUR		i P	- Z	02:14:47.5	87.0	278.0	2.2	628	6.5	
RGN		e P	Z	02:14:48.8	87.3	279.2	1.4	338	6.3	
CLL		i P	- Z	02:14:50.5	87.6	279.1	1.6	209	6.0	
		e sP	Z	02:14:57.7						
		e		02:15:08.7						
		e PP	Z	02:18:21.0						
		e		02:21:46.8						
		e SKSac	R	02:25:15.9						
		e S	T	02:25:32.4						
		e PS	E	02:26:51.6						
		e SS	R	02:31:21.5						
		e LQ	T	02:39:30.8						
		e LR	Z	02:42:52.3						
		e L	Z	02:48:34.2			22.0	4742		5.9
WET		i P	- Z	02:14:52.1	87.9	279.1	1.5	218	6.1	
RUE		e P	Z	02:14:52.1	87.9	279.7	2.2	380	6.1	
BRG		i P	- Z	02:14:53.9	88.2	279.9	1.8	243	6.0	
GEC2		i P	- Z	02:14:54.6	88.4	279.7	1.7	103	5.7	

Date Origin Time Lat Long Depth mb Ms ML Source
2001/08/25

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e (PKPdf) Z 02:40:46.5

Date Origin Time Lat Long Depth mb Ms ML Source
2001/08/25 02:45:18.8 9.950N 84.920W 33.0N 5.0 SZGRF
Costa Rica

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 02:57:58.0 86.4 281.1 5.0
e PP Z 03:01:26.0

Date Origin Time Lat Long Depth mb Ms ML Source
2001/08/25 03:12:18.8 4.575S 149.982E 572D 4.9 NEIC
New Britain, Papua New Guinea, region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e PKPdf Z 03:30:11.6 123.1 51.6
e PP Z 03:32:02.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/25								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 03:40:05.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/25	06:13: 7.9	19.590N	98.650E	33.0N	4.7	4.3		SZGRF
2001/08/25	06:13:11.0	20.843N	98.612E	33N	4.7	4.4		NEIC

Myanmar

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:24:38.0	72.6	78.0	0.6	6	4.7		
	e (S)	Z 06:34:10.3							
	e SS	Z 06:39:23.6							
	e L	Z 06:59:53.4			21.1	155		4.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/25	13:21:19.7	35.090N	140.430E	33.0N	5.6	4.5		SZGRF
2001/08/25	13:21:27.6	35.067N	135.661E	33N	5.0	4.4		NEIC

Near east coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:33:47.4	82.0	43.0	1.5	55	5.6		
	e	13:34:01.6							
	e (S)	Z 13:44:07.3							
	e SS	Z 13:49:29.2							
	e L	Z 14:13:13.2			19.4	184		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/25								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 19:43:32.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/25	19:48:35.2	27.020N	45.060W	10.0G	5.1	4.4		SZGRF
2001/08/25	19:48:37.1	27.197N	44.351W	10G	4.8			NEIC

Northern Mid-Atlantic Ridge

GRA1	e PKPdf	Z	23:54:50.8
	e		23:54:57.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/25	23:51:22.2	17.580N	120.870E	33.0N	4.7			SZGRF
Luzon, Philippine Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 00:04:12.5	88.7	63.9			4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/26	00:41:15.6	41.420N	29.200E	1.0G	4.6	3.8		SZGRF
2001/08/26	00:41:13.1	40.951N	31.573E	8	5.0			NEIC
Turkey								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WET	e P	Z 00:44:52.5	15.5	114.9	1.2	44			
BRG	e P	Z 00:44:56.3	15.7	122.3	2.6	98			
FUR	e P	Z 00:45:01.6	16.1	109.1	2.2	242			
CLL	e P	Z 00:45:05.0	16.4	121.8	1.2	18			
GRA1	e P	Z 00:45:06.8	16.7	113.8	2.1	155			
	e S	N 00:48:09.9							
	e L	Z 00:54:33.8			18.1	603		3.8	
RUE	e P	Z 00:45:10.0	16.7	126.6	1.3	69			
MOX	e P	Z 00:45:11.2	16.9	117.3	1.4	59			
STU	e P	Z 00:45:17.7	17.6	108.0	2.3	135	4.7		
BFO	e P	Z 00:45:27.7	18.0	105.5	1.3	72	4.6		
CLZ	e P	Z 00:45:26.2	18.1	118.6	1.3	48	4.5		
TNS	e P	Z 00:45:30.4	18.5	111.1	1.5	36	4.3		
BUG	e P	Z 00:45:45.2	19.7	112.7	2.0	150	4.8		
WLF	e P	Z 00:45:45.7	19.8	106.5	1.1	24	4.2		
IBBN	e P	Z 00:45:45.8	19.8	115.6	2.0	187	4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/26	04:38: 4.9	60.330N	179.810W	33.0N	4.4			SZGRF
Bering Sea								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:49:11.3	69.6	5.8			4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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2001/08/26 04:33:14.7 25.068S 176.864W 100G 4.8 NEIC
South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 04:53:20.5	154.6	17.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/26	05:11:30.4	11.100N	123.740E	33.0N	4.9			SZGRF
2001/08/26	05:11:48.0	13.324N	119.710E	33N	4.8			NEIC

Cebu, Philippine Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:24:52.3	91.4	67.4			4.9		
	e	05:25:01.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/26	08:17:58.3	17.830S	167.895E	33N	5.2	5.2		NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 08:37:27.6	143.0	38.8					
	e PP	Z 08:40:44.1							
	e	08:50:52.0							
	e	08:53:14.6							
	e SS	E 08:59:17.7							
	e SSS	E 09:05:18.5							
	e L	Z 09:43:16.3			20.2	316		5.1	
CLL	e (PKHKP)	Z 08:37:19.9							
	e PKPdf	Z 08:37:29.2			0.9	18			
	e PP	Z 08:40:29.2							
	e PSKS	Z 08:50:40.1							
	e PPS	Z 08:53:09.3							
	e SS	T 08:58:57.1							
	e SSS	N 09:04:22.6							
	e L	Z 09:40:16.8			22.0	532		5.3	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/26	14:11:11.5	14.440N	51.510E	10.0G	5.3	4.9		SZGRF
2001/08/26	14:11:07.9	14.148N	51.784E	10G	5.2	5.0		NEIC

Eastern Gulf of Aden

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 14:19:51.3	48.5	122.6	1.5	37	5.3		

	e PcP	Z	14:21:29.2								
	e PP	Z	14:21:46.9								
	e PPP	Z	14:22:40.1								
	e S	N	14:26:52.1								
	e SS	N	14:30:41.2								
	e L	Z	14:40:32.1			21.2	1302		4.9		
CLL	i P	+ Z	14:19:51.9			1.2	10	4.8			
	e PcP	Z	14:21:28.8								
	e PP	Z	14:21:48.9								
	e PPP	Z	14:22:35.0								
	e S	R	14:26:52.0								
	e SS	T	14:30:35.1								
	e SSS	T	14:31:42.8								
	e LQ	T	14:33:11.0								
	e LR	Z	14:35:08.2								
	e L	Z	14:44:08.8			18.0	1826		5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/26	14:06:54.8	15.324S	167.667E	33N	4.9			NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 14:26:17.3	140.7	37.4					
	e	14:26:21.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/26	17:56:24.8	4.330S	36.650E	33.0N	4.7			SZGRF
2001/08/26	17:56:11.9	5.563S	35.735E	10G	4.7			NEIC

Tanzania

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:06:16.9	59.2	151.3	1.5	13	4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/26	18:28:49.6	77.190N	2.600E	10.0G	4.6	4.2		SZGRF
2001/08/26	18:28:23.1	79.823N	2.557E	10G	5.0	5.1		NEIC

Greenland Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	Z 18:34:23.3			1.4	21	4.8		
	e PP	Z 18:35:12.2							
	e PcP	Z 18:37:32.4							
	e S	N 18:39:11.3							

	e LR	Z	18:42:14.1								
	e L	Z	18:44:57.0			18.0	1568		4.7		
GRA1	i P	- Z	18:34:38.1	30.3	357.0	0.9	9	4.6			
	e		18:34:43.0								
	e		18:34:47.5								
	e		18:34:57.3								
	e		18:35:01.9								
	e PcP	Z	18:37:36.1								
	e S	Z	18:39:32.6								
	e L	Z	18:44:51.7			21.9	622		4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/26								

	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e PKPab	Z 19:48:36.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/26	19:45:23.0	5.460S	37.870E	33.0N	4.1			SZGRF
2001/08/26	19:45:22.4	8.549S	35.185E	56D	4.5			NEIC

Tanzania

	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	GRA1	e P	Z 19:55:25.4	61.9	152.9			4.1		
		e	19:55:36.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/27	01:16:47.0	1.079N	126.396E	33N	5.8	5.9		NEIC

Northern Molucca Sea

	Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
	CLL	i Pdiff	Z 01:30:47.5			1.3	13			
		e	01:31:01.3							
		e	Z 01:33:11.6							
		e PP	Z 01:35:01.2							
		e	01:35:20.2							
		e SKSac	R 01:41:22.2							
		e Sdiff	T 01:42:28.3							
		e SP	Z 01:43:57.0							
		e PPS	Z 01:45:00.9							
		e SS	R 01:49:41.9							
		e (SSS)	Z 01:55:06.5							
		e (SSSS)	Z 01:58:19.4							

	e LQ	T	01:58:39.5								
	e LR	Z	02:09:32.6								
	e L	Z	02:20:36.2			22.0	4209		5.9		
GRA1	e Pdiff	Z	01:30:54.6	105.1	69.6	1.7	20				
	e		01:31:01.6								
	e		01:31:13.6								
	e PP	Z	01:35:20.6								
	e SP	Z	01:44:23.2								
	e SS	E	01:50:11.6								
	e L	Z	02:21:04.7			21.6	3379		5.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/27	10:57:27.5	16.643S	173.787W	95D	4.7			NEIC
Tonga Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 11:17:01.1	146.7	8.8					
	e pPKPbc	Z 11:17:26.1							
	e sPKPbc	Z 11:17:38.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/27								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPab)	Z 13:11:32.6			2.1	91			
	e	13:11:42.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/27	14:07:19.0	16.5S	177.5W	419	4.4			NEIC
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 14:26:10.5							
	e pPKPbc	Z 14:27:52.8							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/27								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 15:17:31.9							
	e	15:17:46.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/28	00:32:11.0	38.360N	80.800E	33.0N	4.5			SZGRF
2001/08/28	00:32:50.4	40.603N	73.949E	33N	4.3			NEIC

Southern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 00:40:58.2	43.8	77.0	0.8	5	4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/28	06:56:09.9	21.484S	69.951W	66D	6.0			NEIC

Northern Chile

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e Pdiff	Z 07:09:52.6	100.8	249.4					
	e pPdiff	Z 07:10:10.5							
	e PP	Z 07:13:57.8							
	e pPP	Z 07:14:14.4							
	e SKSac	E 07:20:25.5							
	e SP	Z 07:22:53.2							
	e SS	E 07:28:22.3							
	e L	Z 07:52:48.3			22.0	460		4.9	
CLL	e Pdiff	Z 07:10:00.2							
	e pPdiff	Z 07:10:20.1							
	e PP	Z 07:14:12.9							
	e pPP	Z 07:14:28.5							
	e SKSac	R 07:20:34.2							
	e Sdiff	T 07:21:33.4							
	e SP	Z 07:23:08.1							
	e PSP	Z 07:24:01.7							
	e SS	R 07:28:47.7							
	e LR	Z 07:45:38.3							
	e L	Z 07:51:35.7			22.0	1259		5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/28	07:13:10.0	10.330N	122.180E	33.0N	5.2			SZGRF

Panay, Philippine Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 07:26:30.5	95.2	67.3			5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/28	17:40:27.9	12.950S	12.980W	10.0G	5.0	4.8		SZGRF
2001/08/28	17:40:36.5	11.545S	13.220W	10G	4.9			NEIC

Southern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 17:51:15.8	64.9	206.6	1.5	15	5.0		
	e	17:51:38.8							
	e L	Z 18:18:31.3			20.2	598		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/28	18:17:33.0	17.420N	93.900W	33.0G	5.8	4.5		SZGRF
2001/08/28	18:17:33.3	16.261N	93.681W	95D	5.2			NEIC

Chiapas, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	Z 18:30:11.2	86.9	291.7	1.2	98	5.8		
	e	18:30:52.8							
	e S	E 18:40:34.2							
	e	18:41:56.5							
	e L	Z 19:06:51.1			21.2	205		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/28	19:16:17.2	36.650N	72.700E	112.9	4.8			SZGRF
2001/08/28	19:16:18.6	36.960N	71.502E	103?	4.7			NEIC

Afghanistan-Tajikistan border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:24:23.7	44.4	82.9	1.4	15	4.8		
	e pP	Z 19:24:49.8							
	e	19:26:04.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/28	19:40:27.3	36.550N	72.430E	134.2	5.5			SZGRF
2001/08/28	19:40:27.3	37.988N	72.724E	132D	5.0			NEIC

Afghanistan-Tajikistan border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
RUE	i P	- Z 19:48:13.9	42.6	85.6	0.9	55	5.3		
BRG	i P	- Z 19:48:14.9	42.7	83.9	1.4	127	5.5		
CLL	i P	- Z 19:48:18.7	43.2	83.7	0.8	50	5.3		
WET	i P	- Z 19:48:22.1	43.6	81.4	1.4	53	5.1		
MOX	i P	- Z 19:48:26.8	44.2	82.1	0.9	36	5.3		

GRA1	i P	- Z	19:48:30.8	44.6	80.9	1.2	106	5.6
	e pP	Z	19:48:59.7					
	e sP	Z	19:49:18.8					
	e PP	Z	19:50:17.7					
	e S	E	19:55:01.1					
	e SS	N	19:58:29.4					
CLZ	i P	- Z	19:48:31.7	44.8	82.4	1.6	114	5.6
FUR	i P	- Z	19:48:32.1	44.8	79.4	0.9	102	5.8
STU	i P	- Z	19:48:41.5	46.0	78.7	1.4	63	5.6
TNS	i P	- Z	19:48:42.9	46.2	79.6	0.9	19	5.2
IBBN	i P	- Z	19:48:43.5	46.3	81.1	1.6	190	6.0
BFO	i P	- Z	19:48:46.1	46.7	77.7	0.9	23	5.3
BUG	i P	- Z	19:48:46.9	46.7	79.9	1.0	47	5.6
WLF	i P	- Z	19:48:55.6	47.8	77.6	0.8	38	5.5

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/29 22:47:24.4 47.517S 100.124E 10G 4.8 5.2 ML NEIC
 Southeast Indian Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	23:06:19.5	123.6	125.8					
	e L	Z	00:04:45.8			20.6	737		5.3	

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/29 03:30:20.9 52.539S 17.670E 10G 5.1 4.7 ML NEIC
 Southwest of Africa

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (Pdiff)	Z	03:44:22.5	102.4	176.0					
	e		03:46:17.5							
	e PP	Z	03:48:27.7							
	e SP	Z	03:57:34.8							
	e SS	N	04:02:59.1							
	e L	Z	04:34:18.8			19.2	190		4.6	

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/08/29 17:57:24.0 58.980N 159.940W 33.0G 5.6 SZGRF
 2001/08/29 17:57:23.6 57.912N 155.612W 105D 5.1 NEIC
 Bristol Bay, Alaska, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z	18:08:39.5	71.9	352.7	0.6	31	5.6		
	e S	N	18:17:54.5							

e SS N 18:22:29.2
e SSS N 18:27:01.3

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/30	03:03:55.7	48.060N	26.880W	10.0G	4.7	3.7		SZGRF
2001/08/30	03:03:46.9	47.919N	27.748W	10G	4.4			NEIC

Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:09:18.4	25.4	281.1	1.4	21	4.7		
	e L	Z 03:18:23.1			20.3	242		3.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/30	06:12:37.4	28.460N	129.710E	33.0N	4.9	4.9		SZGRF
2001/08/30	06:12:27.4	26.172N	128.429E	33N	5.0	5.2		NEIC

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 06:24:57.9			0.8	21	5.4		
	i pP	Z 06:25:08.6							
	e PP	Z 06:28:24.7							
	e S	Z 06:35:24.2							
	e SS	Z 06:41:07.1							
	e	06:45:50.6							
	e LR	Z 06:54:01.4							
	e L	Z 07:08:01.9			18.0	1084		5.3	
GRA1	e P	Z 06:25:08.5	85.9	53.1	0.8	7	4.9		
	e	06:25:11.3							
	e	06:25:18.9							
	e PP	Z 06:28:30.9							
	e S	E 06:35:43.4							
	e	06:36:51.3							
	e SS	E 06:41:33.4							
	e SSS	E 06:45:52.7							
	e L	Z 07:07:54.7			20.6	468		4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/30	08:12:30.6	22.965S	169.803E	33N	5.6	5.5		NEIC

Southeast of Loyalty Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKP	- Z 08:32:10.5			0.9	52			
	e	08:32:19.8							

	e PP	Z	08:35:33.8								
	e SKKSac	R	08:42:16.5								
	e PSKS	Z	08:45:48.4								
	e SS	E	08:54:36.3								
	e LR	Z	09:21:43.0								
	e L	Z	09:32:26.1			22.0		945		5.5	
GRA1	e PKPbc	Z	08:32:16.0	148.4	40.0						
	e		08:32:21.1								
	e		08:32:25.1								
	e PP	Z	08:35:47.0								
	e		08:45:57.6								
	e PPS	N	08:48:51.0								
	e SS	N	08:55:09.0								
	e L	Z	09:37:07.6			22.0		674		5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/30	11:39: 4.8	49.500N	25.890W	10.0G	4.9	4.6		SZGRF
2001/08/30	11:38:47.2	49.531N	28.504W	10G	5.0	4.7		NEIC

Northern Mid-Atlantic Ridge

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:44:18.0	25.4	285.0	1.2	45	4.9		
	e S	E 11:48:56.9							
	e L	Z 11:53:21.9			20.9	2014		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/30	13:41:22.1	27.910N	130.410E	33.0N	4.4	4.5		SZGRF
2001/08/30	13:41:19.7	26.860N	128.210E	33N	4.3			NEIC

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:53:57.2	85.3	52.9			4.4		
	e	13:54:04.6							
	e	13:54:19.6							
	e S	E 14:04:29.0							
	e	14:15:03.0							
	e L	Z 14:36:17.2			18.9	173		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/30	16:20:54.1	27.670N	128.950E	33.0N	5.0	4.4		SZGRF

Ryukyu Islands, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1	e P	Z	16:33:26.5	85.0	51.9	0.9	8	5.0
	e		16:33:34.2					
	e S	E	16:43:58.0					
	e		16:54:35.7					
	e L	Z	17:15:29.9			18.0	153	4.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/30	21:28:44.5			G		2.6		SZGRF
2001/08/30	21:28:27.5	37.858N	20.199E	33N	4.5			NEIC

Aegean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 21:31:17.1	11.9	154.4					
WET	e P	Z 21:31:22.4	12.5	152.2					
GRA1	e L	Z 21:38:26.1	13.5	148.1	21.4	65		2.6	
MOX	e P	Z 21:31:46.9	14.2	151.2					
TNS	e P	Z 21:32:03.1	14.9	141.4					
WLF	e P	Z 21:32:12.0	15.5	134.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/30	22:36:55.5	37.149S	179.852W	33N	4.8			NEIC

Off east coast of North Island, New Zealand

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 22:57:52.7	165.1	36.6					
	e	23:13:18.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/31								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 02:33:54.5							
	e	02:34:05.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/08/31	06:30: 4.7	23.790N	99.210E	33.0N	4.9			SZGRF
2001/08/31	06:30:15.9	26.751N	95.892E	51D	4.5			NEIC

Myanmar-China border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:41:18.5	66.6	75.6			4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2001/08/31	06:35:01.5	12.909N	124.130E	33N	4.6	5.0		NEIC		
Samar, Philippine Islands										
Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z	06:48:20.6	94.3	64.2					
	e (PP)	Z	06:52:11.4							
	e SP	Z	07:00:46.9							
	e		07:03:05.2							
	e SS	E	07:06:11.5							
	e L	Z	07:32:30.6			21.9	597		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source		
2001/08/31	16:23: 5.4	46.710N	153.620E	33.0G	5.1	4.2		SZGRF		
Kuril Islands, Russia										
Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	16:35:02.2	78.2	25.3	0.7	13	5.1		
	e		16:35:15.2							
	e		16:35:25.2							
	e L	Z	17:13:58.9			18.0	99		4.2	

Format description

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

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

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

EPICENTER LINES:

The epicenter locations of several authorities can be reported. The epicenter location with the highest priority (i.e. the most reliable one) is written in the undermost EPICENTER LINE. The REGION LINE and all origin related

parameter in the PHASE LINES (i.e. Def, Dist, EvAz) are determined regarding this epicenter location with the highest priority.

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

COMMENT LINE:

Each EPICENTER LINE can be followed by a COMMENT LINE about interesting topics submitted by the preceding authority.

REGION LINE:

The region name of the epicenter location with the highest priority (undermost EPICENTER LINE).

PHASE LINE:

Sta	Station code of the reported phase
Phase	Preceded flag for the sharpness of the onset of the phase
	e - emergent
	i - impulsive
	w - weak
	ISC phase code
	Flag for the direction of the first motion
	'+' - compression
	'-' - dilatation
	Component where the phase was picked
Time	Arrival time of the reported phase
Dist	Distance from the epicenter location with the highest priority to the station in kilometer
BAz	Backazimuth from the epicenter location with the highest priority to the station in degree
T[s]	Phase Period
A[nm]	Phase Amplitude
mb	Body wave magnitude
MS	Surface wave magnitude
ML	Local Richter magnitude