

	e LR	Z	12:50:54.0							
	e L	Z	13:01:49.8			22.0		98		4.0
GRA1	e P	Z	12:27:58.9	72.7	18.9					
	e S	E	12:37:17.8							
	e L	Z	13:02:11.0			19.4		82		4.0

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/01	13:08:32.9	50.120N	142.280E	33.0N	5.5	4.7		SZGRF
2001/09/01	13:08:11.8	47.330N	142.516E	10G	5.7	4.8		NEIC

Sakhalin Island, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 13:19:40.2			1.0	32	5.4		
	e pP	Z 13:19:44.2							
	e S	E 13:29:09.2							
	e L	Z 13:57:51.3			20.0	663		4.9	
GRA1	e P	Z 13:19:52.4	74.3	31.9	1.0	46	5.5		
	e L	Z 13:50:35.9			21.7	440		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/01	19:22:33.5	34.380N	34.460E	33.0N	4.2			SZGRF
2001/09/01	19:22:42.1	35.052N	33.638E	33N	4.1			NEIC

Cyprus region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:27:34.9	21.9	123.4	1.0	7	4.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/01	21:16:23.9	22.980S	178.810W					GRSN

South of Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	- Z 21:36:20.3	150.2	22.3	1.0	22			
	i PKPab	Z 21:36:25.4			0.7	7			
GRA1	e PKPdf	Z 21:36:25.1							
	e PKPab	Z 21:36:34.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/01	22:38:10.9	32.030N	49.010E	33.0N	4.9	3.9		SZGRF
2001/09/01	22:38:17.0	32.752N	47.721E	14D	5.0	4.4		NEIC

Western Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:44:44.0	31.8	108.3			4.9		
	e	22:44:48.3							
	e PcP	Z 22:47:28.5							
	e L	Z 22:59:08.0			20.8	222		3.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/01	23:54:30.5	5.371S	151.096E	130?	5.4			NEIC

New Britain, Papua New Guinea, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i PKPdf	Z 00:13:16.0	124.3	51.0					
	e PP	Z 00:15:09.1							
	e L	Z 01:08:02.9			20.7	167		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	00:03:21.8			G	4.7			SZGRF

Cyprus region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e P	Z 00:08:30.8							
GEC2	e P	Z 00:08:02.0							
GRA1	e P	Z 00:08:20.1			2.0	52	4.7		
MOX	e P	Z 00:08:24.5							
WET	e P	Z 00:08:08.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	02:26: 8.2	0.290N	78.170E	10.0G	5.9	5.7		SZGRF
2001/09/02	02:25:54.0	0.952N	82.542E	10G	5.6	5.8		NEIC

North Indian Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z 02:37:46.5			1.2	141	6.0		
	e	Z 02:37:54.1							
	i	02:38:00.0			1.0	209			
	e PP	Z 02:40:40.9							
	e PPP	Z 02:42:32.9							
	e PPPP	Z 02:43:48.3							
	e S	T 02:47:28.8							
	e SS	R 02:52:28.0							
	e SSS	R 02:56:01.6							
	e LQ	T 02:57:54.4							

	e LR	Z	03:03:09.1							
	e L	Z	03:16:47.4			18.0	5183		5.9	
GRA1	i P	- Z	02:37:50.6	77.3	103.8	1.3	158	5.9		
	e		02:37:58.2							
	e		02:38:03.8							
	e PP	Z	02:40:44.3							
	e PPP	Z	02:42:41.7							
	e		02:44:05.8							
	e S	N	02:47:29.8							
	e SS	N	02:52:29.5							
	e		02:56:50.7							
	e L	Z	03:15:25.7			18.9	3649		5.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	06:59:59.6	37.780N	22.470E	10.0G		3.3		SZGRF
2001/09/02	06:59:24.0	38.093N	20.215E	33N	4.5			NEIC

Southern Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 07:02:10.8	11.7	154.0					
FUR	e P	Z 07:02:17.4	12.0	143.9					
WET	e P	Z 07:02:17.1	12.2	151.7					
GRA1	e P	Z 07:02:30.1	13.3	147.6	1.4	32			
	e L	Z 07:07:35.9			19.0	203		3.3	
BFO	e P	Z 07:02:33.0	13.4	135.5					
BRG	e P	Z 07:02:32.2	13.5	158.4					
MOX	e P	Z 07:02:40.2	14.0	150.8					
CLL	e P	Z 07:02:48.7	14.2	156.2					
TNS	e P	Z 07:02:55.0	14.7	140.9					
RUE	e P	Z 07:02:56.7	15.1	160.2					
WLF	e P	Z 07:03:07.3	15.3	133.7					
CLZ	e P	Z 07:03:04.3	15.4	149.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	09:32:31.7	5.430S	67.970W	33.0	4.9			SZGRF

Western Brazil

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 09:45:15.3	87.2	258.2	1.5	16	4.9		
	e	09:45:25.8							
	e PP	Z 09:49:15.0							
	e (S)	E 09:55:53.3							
	e	09:58:15.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	10:06:51.0	54.435S	136.789W	10G	5.6	6.3		NEIC

Pacific-Antarctic Ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML	
GRA1	e PKPdf	Z	10:26:51.9	160.0	244.0						
	e		10:26:59.9								
	e PKPab	Z	10:27:29.2								
	e		10:28:04.7								
	e		10:28:37.1								
	e PP	Z	10:31:14.5								
	e SKSP	Z	10:41:39.8								
	e PPS	E	10:44:35.9								
	e SS	E	10:51:24.6								
	e SSS	E	10:57:54.5								
	e L	Z	11:47:48.7			19.4	5520		6.4		
	CLL	e PKPdf	Z	10:26:52.5			1.8	26			
		e PKPab	Z	10:27:39.9							
		e PP	Z	10:31:22.2							
e SKKSac		R	10:38:13.8								
e			10:40:21.7								
e PSKS		Z	10:41:53.6								
e PPS		Z	10:44:53.8								
e SS		T	10:51:43.0								
e SSS	Z	10:58:22.6									
e L	Z	11:34:19.3			22.0	6771		6.5			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	11:20:15.2	50.720N	171.570W	33.0N	4.8			SZGRF
2001/09/02	11:20:17.2	51.658N	173.648W	33N	4.6	5.8		NEIC

South of Aleutian Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	11:32:19.2	78.6	3.1	0.7	9	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	11:13:51.8	54.6S	136.3W	10G		5.8		NEIC

Pacific-Antarctic ridge

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	11:33:50.7							

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Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	15:03:52.2	37.300N	140.830E	33.0N	5.2	4.9		SZGRF

Eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:16:10.9	82.3	38.2	1.0	18	5.2		
	e	15:16:19.0							
	e	15:16:23.8							
	e PP	Z 15:19:27.5							
	e SS	E 15:32:42.8							
	e L	Z 15:57:06.6			20.1	522		4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	15:46:20.6	13.370N	51.600E	33.0N	5.0	3.8		SZGRF
2001/09/02	15:46:20.0	14.045N	51.687E	10G	5.0	3.9		NEIC

Eastern Gulf of Aden

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:55:04.6	48.5	122.8	1.3	22	5.0		
	e	15:55:13.0							
	e L	Z 16:15:18.6			20.4	95		3.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	16:57: 8.1	33.930N	78.700E	33.0N	4.6	4.9		SZGRF

Kashmir-Xizang border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 17:06:06.0	50.9	81.2	1.1	8	4.6		
	e	17:06:39.5							
	e PP	Z 17:07:56.6							
	e S	E 17:12:26.0							
	e SS	N 17:16:03.7							
	e L	Z 17:27:01.0			20.1	1289		4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	20:24:34.7	38.850N	80.610E	33.0N	4.8	4.1		SZGRF
2001/09/02	20:25:19.3	40.943N	73.082E	53*	4.6	4.0		NEIC

Southern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:33:18.7	43.1	77.1	0.8	9	4.8		
	e S	E 20:40:07.2							
	e (SS)	E 20:43:10.3							

e L Z 20:53:00.3 19.4 198 4.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02	21:42:25.3	38.690N	40.860E	33.0N	4.5	3.7		SZGRF

Turkey

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:47:34.9	23.7	106.3	1.2	22	4.5		
	e S	E 21:51:50.8							
	e L	Z 21:57:25.4			20.6	268		3.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 23:06:27.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 23:19:19.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/02								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 23:23:50.1							
	e	23:23:58.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/03	02:39:50.7	28.580N	22.490E	33.0N	4.4			SZGRF
2001/09/03	02:40:54.3	35.030N	23.530E	39	4.1			NEIC

Libya

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:44:51.0	17.2	143.8	1.1	14	4.4		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/03	21:10:49.4	16.268S	178.143E	33N	5.6	5.4		NEIC

Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e (PKPbc)	Z 21:30:17.5			0.9	6			
	i PKPdf	Z 21:30:20.8			1.1	8			
	e PP	Z 21:33:28.9							
	e	21:34:50.1							
	e Sdiff	T 21:42:08.9							
	e SS	T 21:52:19.1							
	e SSS	T 21:57:29.7							
	e LQ	T 22:07:56.5							
	e LR	R 22:12:13.4							
	e L	Z 22:27:17.1			22.0	692		5.4	
GRA1	e PKPbc	Z 21:30:24.4	144.9	22.2					
	e	21:30:29.2							
	e	21:30:39.2							
	e	21:31:19.2							
	e PP	Z 21:33:43.1							
	e	21:35:01.8							
	e SS	E 21:52:27.6							
	e L	Z 22:39:52.3			19.9	582		5.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/04								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 00:04:37.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/04								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 01:50:33.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/04	03:26:30.4	16.469N	98.114W	33N	5.1			NEIC

Near coast of Guerrero, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 03:39:25.7	89.4	295.2			4.6		

e PP	Z	03:42:56.7										
e S	E	03:50:11.6										
e SS	E	03:56:19.2										
e L	Z	04:22:55.7				18.4		406		4.9		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/04	04:05:58.6			N				SZGRF
2001/09/04	04:05:59.0	23.697N	100.638E	33N	4.5			NEIC

Yunnan, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:17:22.3	71.8	74.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/04	13:01:51.3	16.287S	178.223E	33N	5.0	4.9		NEIC

Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 13:21:26.1	145.0	22.1					
	e	13:26:22.7							
	e L	Z 14:36:21.6			20.5	162		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/04	14:54:44.2	37.230N	141.320E	33.0N	5.3	4.7		SZGRF
2001/09/04	14:54:39.2	36.855N	141.378E	33N	5.1			NEIC

Near east coast of eastern Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:07:04.2	82.9	38.0	0.8	16	5.3		
	e	15:07:15.8							
	e S	E 15:17:20.5							
	e SS	E 15:23:29.7							
	e L	Z 15:47:06.0			20.4	357		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/04								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKP)	Z 22:28:46.6							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/05	02:33:49.6	78.014N	114.633W	10G	4.6			NEIC

Queen Elizabeth Islands, Canada

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 02:42:30.4	48.1	346.9	1.2	20	5.1		
	e L	Z 03:01:35.3			20.6	143		3.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/05	04:53:46.8	16.261S	178.031E	33N	5.2	5.7		NEIC

Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 05:13:17.8							
	e	05:13:22.5							
	e	05:15:43.1							
	e PP	Z 05:16:25.4							
	e	Z 05:17:08.0							
	e SS	E 05:35:15.9							
	e SSS	E 05:40:39.3							
	e LR	Z 06:01:05.9							
	e L	Z 06:21:09.9			20.0	1497		5.8	
GRA1	i PKPbc	Z 05:13:22.0	144.9	22.4					
	e	05:13:26.1							
	e	05:13:33.0							
	e	05:14:05.2							
	e	05:17:23.8							
	e SS	E 05:35:26.4							
	e L	Z 06:22:49.7			20.0	1284		5.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/05	19:00:40.1	16.200S	178.174E	33N	4.8			NEIC

Fiji Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i PKPbc	Z 19:20:14.9	144.9	22.1					
	e L	Z 20:29:44.3			21.9	109			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/05	19:43:18.1	4.556S	153.009E	33N	5.1	4.3		NEIC

New Ireland, Papua New Guinea, region

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Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z	20:02:15.1	124.6	48.5					
	e		20:02:31.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/06	05:18:3.9	12.370N	120.580E	33.0N	4.9	4.1		SZGRF
2001/09/06	05:17:37.7	10.056N	125.878E	33N	4.9			NEIC

Mindoro, Philippine Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	05:31:12.6	97.6	64.5			4.9		
	e L	Z	06:16:40.2			21.1	66		4.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/06	06:47:10.0	21.396S	179.300W	600G	4.4			NEIC

Fiji Islands region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z	07:05:55.5	150.5	20.2					
	e PKPab	Z	07:06:03.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/06	10:52:55.8	53.250N	166.820W	33.0N	4.6			SZGRF
2001/09/06	10:52:56.9	53.440N	165.590W	70?	4.6			NEIC

Fox Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	11:04:46.0	76.8	358.1			4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/06	17:52:1.5	44.930N	10.680E	10.0G			3.5	SZGRF

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e Pn	Z	17:53:00.3	3.8	153.7					3.6
	e Sn	N	17:53:43.0							
GEC2	e Pn	Z	17:53:08.4	4.4	208.9					3.2
	e Sn	N	17:53:58.8							
WET	e Pn	Z	17:53:09.6	4.5	200.4					3.3
	e Sn	E	17:54:00.8							
GRA1	e Pn	Z	17:53:13.2	4.8	184.6					3.7

MOX	e Pn	Z	17:53:25.5	5.7	186.6						3.5
	e Sn	N	17:54:29.8								
BRG	e Pn	Z	17:53:34.3	6.3	201.4						
CLL	e Pn	Z	17:53:37.0	6.6	194.5						

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/07	02:46:12.4	12.610S	94.840E	33.0N	6.3	5.6		SZGRF
2001/09/07	02:45:58.8	13.231S	97.254E	10G	6.3	5.5		NEIC

South Indian Ocean

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	02:59:26.3	95.8	103.5	2.1	360	6.3		
BRG	e P	Z	02:59:28.1	96.1	103.5	2.1	265	6.2		
WET	e P	Z	02:59:29.1	96.4	102.9	2.0	255	6.2		
RUE	e P	Z	02:59:30.2	96.6	103.2	1.8	280	6.4		
CLL	i P	+ Z	02:59:30.1			2.0	164	6.3		
	e PP	Z	03:03:28.9							
	e PPP	Z	03:05:33.4							
	e SKSac	R	03:10:11.9							
	e S	T	03:10:50.5							
	e PS	R	03:12:13.5							
	e PPS	Z	03:12:56.4							
	e PKKPbc	Z	03:16:15.1							
	e PKKPab	Z	03:16:45.3							
	e SS	T	03:17:40.5							
	e P'P'df	Z	03:24:29.7							
	e LQ	T	03:31:43.1							
	e LR	Z	03:33:21.1							
	e L	Z	03:46:12.3			18.0	3822		5.9	
FUR	e P	Z	02:59:33.2	97.2	101.8	2.2	281	6.3		
RGN	e P	Z	02:59:33.6	97.3	102.6	2.1	590	6.6		
MOX	e P	Z	02:59:34.4	97.5	101.8	2.1	156	6.1		
GRA1	e P	Z	02:59:34.4	97.5	101.6	2.0	235	6.3		
	e		03:00:27.6							
	e		03:02:44.0							
	e PP	Z	03:03:32.0							
	e PPP	Z	03:05:42.2							
	e SKSac	E	03:10:10.8							
	e PS	E	03:12:11.1							
	e PKKPbc	Z	03:16:13.8							
	e (PKKPab)	Z	03:16:40.1							
	e SS	E	03:17:18.5							
	e		03:24:24.4							
	e L	Z	03:43:54.5			21.9	2450		5.6	
CLZ	e P	Z	02:59:38.7	98.5	100.7	2.5	333	6.4		
STU	e P	Z	02:59:39.5	98.7	100.2	2.0	159	6.3		
BFO	e P	Z	02:59:41.6	99.1	99.7	1.9	91	6.1		

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IBBN	e P	Z	02:59:46.8	100.1	98.6	2.5	474	6.8
BUG	e P	Z	02:59:47.5	100.3	98.3	2.1	158	6.4
WLF	e P	Z	02:59:49.2	100.8	97.8			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/07	15:36:41.7	15.361S	175.370W	300G	4.3			NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 15:55:45.7	145.3	11.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/07	16:22:52.0	17.131S	172.540W	33N	4.5			NEIC

Tonga Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPdf)	Z 16:42:34.0	147.3	6.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/08	06:44: 0.5	50.080N	124.990W	33.0N	4.7	4.6		SZGRF
2001/09/08	06:43:36.6	49.008N	128.269W	10G	4.4			NEIC

British Columbia, Canada

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:55:29.9	75.3	333.9			4.7		
	e L	Z 07:27:41.8			19.7	293		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/08	16:21:16.3	58.124S	26.964W	33N	4.3			NEIC

South Sandwich Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i PKP	Z 16:41:54.0	112.3	200.7					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/08	22:45: 2.3	9.450N	78.980W	33.0N	4.9	4.2		SZGRF
2001/09/08	22:45:09.0	8.319N	74.751W	33N	5.0	4.4		NEIC

Panama

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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:57:24.3	81.1	272.4	1.4	11	4.9		
	e L	Z 23:30:59.7			21.9	110		4.2	

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

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i PKPab	Z 09:15:12.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/10	05:50:48.8			G			3.1	SZGRF
Adriatic Sea								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e Pn	Z 05:52:28.1							
GEC2	e Pn	Z 05:52:05.6							2.9
	e Sn	N 05:53:03.6							
WET	e Pn	Z 05:52:12.4							3.3
	e Sn	N 05:53:15.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/10								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPab)	Z 14:18:22.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/10	14:36:13.7			N				SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 14:48:42.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/10	20:53:34.9	44.780N	139.440E	276.7	5.6			SZGRF
2001/09/10	20:53:33.0	44.671N	138.445E	277D	5.3			NEIC
Eastern Sea of Japan								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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RUE	e P	Z	21:04:29.2	71.9	38.0	1.2	90	5.8
BRG	e P	Z	21:04:36.5	73.1	37.8	0.7	24	5.3
CLL	i P	+ Z	21:04:36.2			0.8	83	5.9
	e		21:04:39.4					
	e pP	Z	21:05:40.8					
	e S	E	21:13:40.4					
	e SS	E	21:18:20.2					
CLZ	e P	Z	21:04:39.8	73.6	35.7	0.8	76	5.8
MOX	e P	Z	21:04:42.5	74.1	36.3	1.3	44	5.3
IBBN	e P	Z	21:04:42.7	74.2	34.1	0.9	76	5.7
GEC2	e P	Z	21:04:46.2	74.8	37.3	0.7	11	5.0
WET	e P	Z	21:04:47.2	74.9	36.8	1.2	66	5.5
BUG	e P	Z	21:04:47.6	75.1	33.6	1.1	86	5.8
GRA1	i P	+ Z	21:04:48.1	75.1	35.9	1.0	107	5.9
	e pP	Z	21:05:52.2					
	e S	E	21:14:04.7					
	e SS	E	21:19:13.7					
FUR	e P	Z	21:04:55.1	76.3	35.7	1.0	103	5.9
STU	e P	Z	21:04:56.5	76.6	34.5	0.9	72	5.8
WLF	e P	Z	21:04:58.2	76.9	32.7	0.9	10	5.0
BFO	e P	Z	21:05:00.1	77.3	33.9	1.1	62	5.6

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/11								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 01:51:49.1							
	e	01:51:59.4							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/11	09:13:22.9	16.330N	95.330W	161.0	5.8			SZGRF
2001/09/11	09:13:26.0	14.975N	91.577W	161D	5.3			NEIC

Oaxaca, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 09:25:53.9	86.6	289.3	1.4	66	5.8		
	e pP	Z 09:26:34.3							
	e sP	Z 09:26:51.3							
	e PP	Z 09:29:17.9							
	e S	E 09:36:16.5							
	e (SP)	Z 09:37:16.5							
	e L	Z 10:00:33.8			20.9	170			
CLL	i P	+ Z 09:25:55.7			1.4	25	5.2		
	e	09:26:04.7							
	e pP	Z 09:26:36.2							

e sP	Z	09:26:52.4
e PP	Z	09:29:20.1
e S	E	09:36:20.2
e sS	E	09:37:30.3
e LR	Z	09:54:35.1

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/11	14:56:50.7	0.583S	133.167E	33N	5.8	6.4		NEIC

Irian Jaya, Indonesia, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z 15:11:15.3							
	e PP	Z 15:15:44.2							
	e PPP	Z 15:18:13.3							
	e SKSac	R 15:21:50.0							
	e Sdiff	T 15:23:29.9							
	e PS	R 15:25:10.8							
	e PPS	Z 15:26:09.1							
	e SS	R 15:30:56.7							
	e SSS	N 15:35:30.5							
	e LQ	N 15:41:21.7							
	e L	Z 16:06:35.9			18.0	18436		6.7	
GRA1	e L(360-D)	Z 17:08:01.5							
	e Pdiff	Z 15:11:23.4	110.5	64.9					
	e PP	Z 15:15:45.4							
	e PPP	Z 15:18:18.5							
	e SKSac	E 15:21:55.2							
	e PS	E 15:25:24.7							
	e PPS	E 15:26:26.3							
	e SS	E 15:31:26.6							
	e L	Z 16:06:40.8			21.1	14602		6.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/11	18:21:10.3	45.500N	152.070E	33.0N	5.6	4.9		SZGRF
2001/09/11	18:21:09.0	45.407N	150.694E	33N	5.1	4.5		NEIC

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	+ Z 18:33:10.8	78.6	27.7	0.9	58	5.6		
	e L	Z 19:11:13.9			19.3	529		4.9	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/11	21:11: 1.1	52.860N	169.750W	33.0N	5.2	4.1		SZGRF

2001/09/11 21:10:53.9 52.396N 169.354W 33N 4.4 NEIC
 Fox Islands, Aleutian Islands, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 21:22:53.5	77.9	0.4	1.5	32	5.2		
	e	21:23:56.0							
	e SS	N 21:37:56.8							
	e (SSS)	N 21:41:57.6							
	e L	Z 21:54:22.6							

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/12

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z 02:01:43.1							

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/12 08:48:37.8 20.874S 179.143W 608D 5.7 NEIC
 Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	- Z 09:07:12.3	150.0	19.7	1.4	93			
	i PKPbc	Z 09:07:17.2			0.8	587			
	e	09:07:19.6							
	i PKPab	Z 09:07:22.0							
	i pPKPbc	Z 09:09:39.3							
	e PP	Z 09:10:37.6							
	e pPP	Z 09:12:54.2							
	e sPP	Z 09:13:59.7							
	e sPPP	Z 09:17:15.0							
	e SKKPbc	Z 09:17:34.6							
	e PSKS	N 09:21:16.5							
	e PPS	N 09:23:48.3							
	e	N 09:28:10.7							
	e SS	E 09:29:14.5							
	e sSS	E 09:32:58.5							
	e SSS	E 09:34:50.1							
	e sSSS	E 09:38:28.7							
	e SSSS	N 09:39:10.6							
	GRA1	e PKPdf			Z 09:07:15.2				
	e PKPbc	Z 09:07:21.5							
e PKPab	Z 09:07:31.0								
e pPKPbc	Z 09:09:50.1								
e pPKPab	Z 09:09:54.3								
e PP	Z 09:11:00.7								

e PPP Z 09:14:24.0
 e (SKKSac) Z 09:17:28.4
 e 09:24:11.5
 e 09:26:53.8
 e 09:39:29.1

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/12 12:48:54.6 48.971N 128.362W 10G 4.8
 Vancouver Island, Canada, region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 13:00:39.7 75.4 333.9 1.9 56 5.4

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/12 12:50:15.3 48.960N 128.319W 10G 5.0 4.7
 Vancouver Island, Canada, region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 13:02:03.5 75.4 333.9 1.0 37 5.5
 e L Z 13:32:27.5 21.2 374 4.7

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/12 13:51:55.2 48.794N 128.202W 10G 4.1
 Vancouver Island, Canada, region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 14:03:41.6 75.5 333.7
 e 14:03:54.2
 e 14:04:06.9

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/12 14:04:39.0 49.011N 128.234W 10G 4.2
 Vancouver Island, Canada, region

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
 GRA1 e P Z 14:16:25.8 75.3 333.8

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/12 14:50:42.8 52.710N 166.360W 33.0N 5.7 4.9
 SZGRF

2001/09/12 14:50:37.6 52.525N 169.305W 33N 5.0 5.1 NEIC
 Fox Islands, Aleutian Islands, United States

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z	15:02:25.9			1.0	26	5.3		
	e PcP	Z	15:02:35.0							
	e pP	Z	15:02:36.4							
	e SKSac	Z	15:12:29.9							
	e SS	Z	15:17:18.8							
	e SSS	Z	15:21:11.6							
	e LQ	E	15:24:35.9							
	e LR	Z	15:27:32.5							
	e L	Z	15:38:48.5			20.0	996		5.1	
GRA1	i P	+ Z	15:02:36.0	77.8	0.3	0.9	58	5.7		
	e PP	Z	15:05:32.8							
	e S	E	15:12:37.7							
	e SS	N	15:17:42.8							
	e		15:21:23.5							
	e L	Z	15:38:06.9			21.6	598		4.9	

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/12

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPab	Z	17:42:09.6							

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/12 22:24: 0.6 30.840N 141.430E 33.0N 6.6 5.0
 Southeast of Honshu, Japan

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	i P	- Z	22:36:48.4	88.1	41.0	1.1	335	6.6		
	e PP	Z	22:40:21.1							
	e L	Z	23:13:00.5			21.8	641		5.0	

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/12 22:30:34.1 50.030N 129.380W 33.0N 5.7
 2001/09/12 22:30:21.5 48.936N 128.626W 10G 5.0
 Vancouver Island, Canada, region

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	22:42:11.1	75.5	334.1	2.0	150	5.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/12	22:46:43.2	50.640N	127.580W	33.0N	4.5			SZGRF
Vancouver Island, Canada, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:58:14.1	73.7	334.2			4.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/13	01:27:00.8	3.434S	101.175E	33N	5.2	4.2		NEIC
Southern Sumatera, Indonesia								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:40:12.8	92.6	92.3					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/13	03:48:31.8	21.044S	179.182W	619D	5.2			NEIC
Fiji Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 04:07:06.6							
	i PKPbc	- Z 04:07:10.5			0.8	31			
	i PKPab	Z 04:07:16.0			0.6	16			
	e pPKPbc	Z 04:09:32.1							
GRA1	e PKPbc	Z 04:07:15.3	150.2	19.8					
	e PKPab	Z 04:07:24.2							
	e pPKPbc	Z 04:09:43.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/13	09:57:4.3	49.530N	129.080W	10.0G	5.6	4.5		SZGRF
2001/09/13	09:56:58.4	48.944N	128.323W	10G	5.2	4.6		NEIC
Vancouver Island, Canada, region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 10:08:46.7	75.4	333.9	1.6	98	5.6		
	e L	Z 10:39:24.3			20.7	231		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/13	12:00:15.2	39.720N	79.720E	33.0N	4.7			SZGRF
Southern Xinjiang, China								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 12:08:50.9	48.0	74.5			4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/13	15:42:48.2	35.220N	26.180E	10.0G	4.3			SZGRF

Crete, Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 15:46:38.5	16.4	141.4	0.8	11	4.1		
WET	e P	Z 15:46:44.4	17.0	140.0	1.1	32	4.4		
BRG	e P	Z 15:46:56.9	18.0	145.9	1.1	11	4.0		
GRA1	e P	Z 15:46:58.6	18.1	137.3	1.2	55	4.7		
	e S	Z 15:50:21.0							
	e L	Z 15:55:27.7			21.0	187			
BFO	e P	Z 15:47:04.4	18.6	128.3	0.9	8	4.0		
CLL	e P	Z 15:47:03.7	18.7	144.4	1.1	20	4.3		
MOX	e P	Z 15:47:05.2	18.7	140.1	0.8	17	4.3		
CLZ	e P	Z 15:47:20.0	20.1	139.6	1.0	16	4.3		
WLF	e P	Z 15:47:25.8	20.5	127.1	0.9	20	4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/13	20:08:19.0	19.700N	101.370W	33.0N	5.1	4.4		SZGRF
2001/09/13	20:08:05.5	17.853N	102.055W	33N	4.7			NEIC

Michoacan, Mexico

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:21:09.4	90.5	299.0	1.3	17	5.1		
	e	20:21:15.7							
	e PP	Z 20:24:44.6							
	e L	Z 21:02:47.7			21.1	139		4.4	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/13	21:58:24.9			N		5.1		SZGRF

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 22:18:24.6							
	e	22:18:42.4							
	e	22:20:19.7							
	e	22:30:10.9							
	e	22:31:42.5							
	e L	Z 23:19:57.2			21.7	322		5.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/14	04:45:19.1	48.950N	127.540W	22.7	5.6	5.8		SZGRF
2001/09/14	04:45:12.1	48.904N	128.317W	10G	5.5	5.8		NEIC

Vancouver Island, Canada, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	- Z 04:56:53.8			1.5	69	5.5		
	e pP	Z 04:57:01.5							
	e PP	Z 04:59:34.8							
	e PPP	Z 05:01:26.2							
	e S	T 05:06:23.7							
	e SS	R 05:11:13.8							
	e SSS	R 05:15:13.1							
	e LQ	T 05:20:02.2							
	e LR	Z 05:20:45.7							
	e L	Z 05:28:08.9			22.0	5751		5.8	
GRA1	e P	Z 04:57:00.2	75.5	333.9	1.5	85	5.6		
	e pP	Z 04:57:06.7							
	e S	N 05:06:42.8							
	e L	Z 05:30:13.6			20.5	5088		5.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/14	08:35:52.5	58.018N	32.449W	10G	4.9	5.1		NEIC

North Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 08:41:36.2	26.5	305.0					
	e L	Z 08:51:02.6			21.0	2873		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/14	11:47:21.7	29.719S	177.730W	53D	5.3			NEIC

Kermadec Islands, New Zealand

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 12:07:12.0							
	i PKPbc	+ Z 12:07:22.6			1.1	14			
	e PKPab	Z 12:07:41.4			1.3	29			
GRA1	e PKP	Z 12:07:50.5	158.9	22.1					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/14	20:46:22.0	47.730N	130.190W	20.8	5.0			SZGRF

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2001/09/14 20:46:24.7 49.121N 128.230W 10G 4.8 4.2 NEIC
Off coast of Washington, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 20:57:48.9	71.2	332.8					
CLL	e P	Z 20:58:06.0	74.3	334.8					
MOX	e P	Z 20:58:07.6	74.5	334.0					
BRG	e P	Z 20:58:10.2	74.9	335.4					
GRA1	e P	Z 20:58:12.2	75.2	333.9	1.2	17	5.0		
	e pP	Z 20:58:18.2							
BFO	e P	Z 20:58:14.1	75.6	332.3					
GRC1	e P	Z 20:58:16.6	75.9	334.2					
WET	e P	Z 20:58:17.4	76.2	335.0					
GEC2	e P	Z 20:58:20.2	76.7	335.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/15	10:50:52.1	48.980N	126.530W	26.9	5.2	5.0		SZGRF
2001/09/15	10:50:40.3	48.812N	128.285W	10G	4.9	4.9		NEIC

Vancouver Island, Canada, region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	Z 11:02:24.2			1.2	11	4.8		
	e pP	Z 11:02:32.1							
	e sP	Z 11:02:35.3							
	e S	N 11:12:04.6							
	e SS	N 11:16:29.7							
	e SSS	N 11:20:54.0							
	e LR	Z 11:26:14.6							
	e L	Z 11:41:44.6			18.0	994		5.2	
GRA1	e P	Z 11:02:29.9	75.5	333.8	1.6	42	5.2		
	e pP	Z 11:02:37.1							
	e sP	Z 11:02:41.5							
	e L	Z 11:38:22.0			18.5	740		5.0	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/15	15:04:37.1	22.390S	175.033W	33N	5.6	6.0		NEIC

Tonga Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	Z 15:24:21.1			3.3	267			
	i PKPbc	+ Z 15:24:27.1			1.8	152			
	e PKPab	Z 15:24:36.2							
	e SKP	Z 15:27:50.9							
	e	15:28:00.2							
	e PP	Z 15:28:02.5							

	e PPP	Z	15:31:28.6								
	e SKKSac	N	15:34:57.3								
	e SKSP	N	15:38:19.3								
	e PPS	Z	15:41:12.2								
	e SS	T	15:47:13.6								
	e SSS	T	15:52:52.8								
	e LQ	T	16:06:51.8								
	e LR	Z	16:16:22.4								
	e L	Z	16:42:18.0			18.0		2854		6.1	
GRA1	e PKPdf	Z	15:24:24.0	152.3	12.5						
	e PKPbc	Z	15:24:32.0								
	e PKPab	Z	15:24:41.4								
	e L	Z	16:38:20.3			19.8		3643		6.2	

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/16 02:00:47.3 37.243N 21.877E 10G 5.1 5.3 ML NEIC
 Southern Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 02:03:55.6	13.0	149.9					
FUR	e P	Z 02:03:57.9	13.4	140.8					
WET	e P	Z 02:04:00.5	13.6	147.9	1.2	53			
GRA1	e P	Z 02:04:23.5	14.6	144.3	1.2	210			
	e L	Z 02:10:49.4			21.0	6684		4.7	
STU	e P	Z 02:04:16.5	14.8	136.7	1.0	75			
BFO	e P	Z 02:04:19.0	14.8	133.3	1.3	62			
MOX	e P	Z 02:04:25.3	15.3	147.4	1.0	34			
RUE	e P	Z 02:04:41.2	16.3	156.4	1.1	287			
CLZ	e P	Z 02:04:46.6	16.7	146.5	1.9	206			
WLF	e P	Z 02:04:48.6	16.8	131.7					
BUG	e P	Z 02:04:55.3	17.6	138.3	1.2	114			
IBBN	e P	Z 02:05:02.0	18.0	141.1					
BSEG	e P	Z 02:05:04.3	18.5	149.8	1.1	151			

Date Origin Time Lat Long Depth mb Ms ML Source
 2001/09/16 04:48:17.8 43.460N 147.830E 31.0 4.7 Ms SZGRF
 2001/09/16 04:48:13.1 42.815N 146.928E 33N 4.8 4.9 Ms NEIC
 Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 05:00:21.2	79.7	31.4	0.9	9	4.7		
	e pP	Z 05:00:29.9							
	e sP	Z 05:00:34.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/16	04:46:37.5	31.941S	179.072E	556	4.8			NEIC

Kermadec Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 05:05:31.5			1.0	4			
	e PKPbc	Z 05:05:43.8			0.6	8			
	i PKPab	+ Z 05:06:08.4			1.0	80			
	e pPKPab	Z 05:08:09.1							
GRA1	e PKP	Z 05:06:17.8	160.1	31.6					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/16	11:12:21.2	37.540N	80.240E	33.0N	5.0			SZGRF
2001/09/16	11:12:58.2	39.620N	74.363E	57*	4.9	4.4		NEIC

Southern Xinjiang, China

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:21:09.5	44.6	77.9	0.8	16	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/16								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 17:14:58.5			0.9	13			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/16	23:20:11.0	47.650N	129.450W	33.0G	5.4			SZGRF
2001/09/16	23:20:11.9	48.786N	128.146W	10G	5.0	5.4		NEIC

Off coast of Washington, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	Z 23:31:54.4			2.3	83	5.4		
	e pP	Z 23:31:58.8							
	e sP	Z 23:32:01.8							
	e PP	Z 23:34:39.0							
	e S	N 23:41:25.5							
	e SS	N 23:46:27.4							
	e SSS	N 23:50:31.0							
	e LR	Z 23:55:51.6							
	e L	Z 00:06:46.0			18.0	2400		5.5	
GRA1	e P	Z 23:32:00.4	75.5	333.7	1.7	56	5.4		
	e	Z 23:32:08.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/17	11:13:13.0	54.210N	158.950E	33.0N	5.6			SZGRF
2001/09/17	11:13:02.6	52.943N	159.743E	42D	5.4	4.7		NEIC

Kamchatka Peninsula, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BSEG	e P	Z 11:24:14.9	70.1	19.0	0.9	45	5.7		
RUE	e P	Z 11:24:18.8	70.8	20.9	0.8	79	5.9		
CLL	e P	Z 11:24:25.4	72.1	20.3	0.8	74	5.8		
CLZ	e P	Z 11:24:26.8	72.1	18.8	0.9	85	5.9		
IBBN	e P	Z 11:24:26.8	72.2	17.3	0.9	58	5.7		
BRG	e P	Z 11:24:26.8	72.3	20.8	0.8	23	5.3		
MOX	e P	Z 11:24:31.4	73.0	19.4	0.8	34	5.5		
BUG	e P	Z 11:24:31.9	73.1	16.9					
GRA1	e P	Z 11:24:37.6	74.0	19.1	0.9	83	5.9		
WET	e P	Z 11:24:38.4	74.1	20.0	0.8	45	5.6		
GEC2	e P	Z 11:24:38.8	74.2	20.5	0.7	21	5.4		
STU	e P	Z 11:24:44.9	75.3	17.8					
FUR	e P	Z 11:24:45.7	75.4	19.0	0.6	45	5.6		
BFO	e P	Z 11:24:48.2	75.9	17.3	0.9	30	5.3		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/17								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 21:23:19.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/18								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (P)	Z 00:42:49.2			1.3	30			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/18	02:19:30.6	7.519S	127.718E	131D	5.6			NEIC

Banda Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e Pdiff	Z 02:33:52.9							
	e PKP	Z 02:37:50.3			0.8	8			

e PP	Z	02:38:30.2								
e pPP	Z	02:39:02.7								
e PPP	Z	02:40:24.2								
e SKSac	R	02:44:12.0								
e Sdiff	T	02:45:50.3								
e sSdiff	T	02:46:52.3								
e SP	Z	02:47:47.8								
e pSP	Z	02:48:36.0								
e sPPS	Z	02:49:51.7								
e SS	T	02:53:52.9								
e sSS	T	02:54:55.3								
e SSS	T	02:57:59.8								
e LQ	T	03:04:45.0								
e LR	Z	03:14:21.5								
e L	Z	03:27:33.6				18.0	1136		5.5	
GRA1 e PKiKP	Z	02:37:52.5	112.7	74.1						
e PP	Z	02:38:40.8								
e Sdiff	N	02:46:06.1								
e SP	Z	02:48:01.6								
e SS	N	02:54:16.8								

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/18	10:34:25.3	27.8S	176.7W	37	5.2			NEIC
Kermadec Islands region								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 10:54:15.8							
	i PKPbc	+ Z 10:54:24.4			1.6	25			
	i PKPab	Z 10:54:40.6			1.5	34			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/18	14:51:03.6	12.9N	88.9W	62	5.0			NEIC
Off coast of Central America								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	Z 15:03:43.5			1.6	21	5.0		
	e pP	Z 15:04:01.6							
	e sP	Z 15:04:06.0							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/18	17:19:02.1	23.7S	179.8E	600	4.5			NEIC
South of Fiji Islands								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPbc	+ Z 17:37:48.6			0.9	22			
	e PKPab	Z 17:37:58.1							
	e pPKPbc	Z 17:40:22.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/19								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 13:07:40.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/20								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 08:43:10.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/21	23:56:40.3	51.470N	172.720W	33.0N	5.5	4.8		SZGRF
Andreanof Islands, Aleutian Islands, United States								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 00:08:29.8			1.0	26	5.3		
	e PP	Z 00:11:05.1							
	e PPP	Z 00:13:11.9							
	e S	E 00:18:00.6							
	e PPS	Z 00:19:06.8							
	e SS	N 00:23:26.8							
	e SSS	N 00:26:36.2							
	e LR	Z 00:34:10.2							
	e L	Z 00:39:20.0			22.0	666		4.9	
GRA1	e P	Z 00:08:40.2	78.8	2.5	1.1	52	5.5		
	e	00:08:54.7							
	e	00:09:29.8							
	e	00:10:20.3							
	e PP	Z 00:11:44.7							
	e S	N 00:18:36.3							
	e SS	N 00:23:39.9							
	e SSS	N 00:27:20.9							
	e L	Z 00:42:35.3			21.9	526		4.8	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/22	03:23:45.5	1.670N	71.730W	178.8	6.6			SZGRF
2001/09/22	03:23:37.7	3.912N	75.939W	172D	5.9			NEIC

Colombia

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
WLF	i P	+ Z	03:35:40.0	81.9	266.5	1.0	432	6.3		
BUG	i P	+ Z	03:35:43.8	82.7	267.1	1.4	636	6.5		
IBBN	i P	+ Z	03:35:45.7	83.1	267.4	1.5	866	6.7		
BFO	i P	+ Z	03:35:46.2	83.3	268.3	1.1	162	6.0		
STU	i P	+ Z	03:35:49.5	83.9	268.9	1.8	887	6.6		
BSEG	i P	+ Z	03:35:53.8	84.6	269.3	1.1	368	6.5		
CLZ	i P	+ Z	03:35:54.1	84.6	269.5	1.4	708	6.7		
GRA1	i P	+ Z	03:35:56.6	85.2	270.4	1.7	823	6.7		
	e pP	Z	03:36:40.5							
	e sP	Z	03:37:00.7							
	e PP	Z	03:39:15.0							
	e (pPP)	Z	03:40:12.2							
	e S	N	03:46:10.1							
	e		03:47:02.2							
	e SS	N	03:51:27.7							
FUR	i P	+ Z	03:35:56.8	85.2	270.5	1.7	1186	6.8		
MOX	i P	+ Z	03:35:57.7	85.4	270.6	1.6	522	6.5		
WET	i P	+ Z	03:36:02.2	86.3	271.7	1.3	951	6.9		
CLL	i P	+ Z	03:36:02.0	86.3	271.6	1.2	555	6.6		
	e pP	Z	03:36:46.5							
	e sP	Z	03:37:02.5							
	e PP	Z	03:39:25.5							
	e sPP	Z	03:40:20.9							
	e S	T	03:46:23.3							
	e SP	Z	03:47:18.2							
	e sS	R	03:47:34.5							
	e PPS	E	03:48:18.8							
	e SS	T	03:52:03.5							
	e sSS	R	03:53:10.2							
	e SSS	R	03:55:44.6							
	e SSSS	T	03:58:36.3							
	e L	Z	04:13:44.5			22.0	610		5.0	
RGN	i P	+ Z	03:36:03.2	86.4	271.7	1.4	1287	7.0		
RUE	i P	+ Z	03:36:04.3	86.7	272.2	1.3	630	6.7		
GEC2	i P	+ Z	03:36:04.6	86.8	272.3	1.1	308	6.4		
BRG	i P	+ Z	03:36:05.2	86.9	272.4	1.3	524	6.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/22								

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
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GRA1 e PKPdf Z 04:02:02.4

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/22	06:48: 4.8	54.590N	151.630W	33.0N	4.9	4.6		SZGRF
2001/09/22	06:48:05.3	55.878N	154.529W	33N	4.9	4.6		NEIC

South of Alaska

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 06:59:41.8	73.8	351.7	1.3	17	4.9		
	e S	N 07:09:18.9							
	e SS	N 07:14:09.7							
	e	07:17:55.8							
	e L	Z 07:39:14.4			19.0	318		4.6	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/22	10:57: 7.6	46.150N	10.570E	10.0G			2.8	SZGRF

Northern Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
BFO	e Pn	Z 10:57:51.2	2.7	144.3					2.6
	e Sn	N 10:58:22.7							
WET	e Pn	Z 10:58:00.7	3.4	208.3					2.8
	e Sn	N 10:58:39.4							
	e Sg	N 10:58:54.5							
GEC2	e Pn	Z 10:58:00.7	3.4	219.3					2.5
	e Sn	N 10:58:42.4							
GRA1	e Sg	N 10:59:00.9	3.6	187.3					3.2
MOX	e Pn	Z 10:58:15.4	4.5	189.2					2.8
	e Sn	N 10:59:09.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/22	10:42:15.5	18.618S	174.872W	146D	4.4			NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 11:01:47.9	148.5	11.1					
	e PKPab	Z 11:01:51.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/22	13:34:35.1			N				SZGRF

Western Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 13:41:09.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/22								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e (PKPab)	Z 13:50:17.9							
	e	Z 13:50:26.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/22								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 17:50:53.7							
	e PKPab	Z 17:50:59.2							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/22	22:25: 5.4	15.330N	92.440W	33.0N	4.7	4.7		SZGRF
2001/09/22	22:25:01.2	13.296N	90.748W	33N	4.7	4.1		NEIC

Mexico-Guatemala border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:37:47.3	87.4	287.6	1.2	8	4.7		
	e L	Z 23:17:41.4			18.1	294		4.7	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/23	03:11: 6.2	44.030N	13.040E	10.0G			3.5	SZGRF

Adriatic Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 03:12:18.8	4.8	185.7					3.1
	e Sn	N 03:13:13.4							
WET	e Pn	Z 03:12:22.4	5.1	178.7					3.5
	e Sn	N 03:13:20.0							
GRA1	e Sn	N 03:13:36.1	5.8	166.9					3.7
MOX	e Sn	N 03:13:57.1	6.7	171.2					3.7
BRG	e Sn	N 03:14:01.4	6.9	185.4					3.5
CLL	e Pn	Z 03:12:51.7	7.3	179.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/23	04:44:35.3	70.170N	8.770W	33.0N				SZGRF
2001/09/23	04:44:12.6	71.696N	12.170W	10G	3.2			NEIC

Jan Mayen Island region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 04:49:33.0	24.4	342.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/23	21:18:28.0			G				SZGRF
2001/09/23	21:16:13.4	37.702N	20.945E	33N	4.6			NEIC

Ionian Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e Pn	Z 21:19:09.4	12.3	152.1					
WET	e Pn	Z 21:19:14.6	12.8	150.0					
BFO	e Pn	Z 21:19:32.8	14.0	134.6					
MOX	e Pn	Z 21:19:38.5	14.5	149.3					
CLL	e Pn	Z 21:19:48.6	14.7	154.5					
WLF	e Pn	Z 21:20:04.1	16.0	132.8					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/23								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 22:47:36.5					4.0		
BEAM		22:47:36.5			1.0	5			

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/23	22:30:05.9	20.209S	173.625W	33N	4.4			NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 22:49:56.3	150.3	9.2					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/24	01:28:41.5	4.080S	36.560E	33.0N	5.0			SZGRF

Tanzania

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Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 01:38:31.8	58.1	149.8	1.3	21	5.0		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/24	19:35:12.2	37.870N	143.740E	33.0N	5.1			SZGRF
2001/09/24	19:35:09.9	36.347N	139.938E	33N	4.7			NEIC

Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 19:47:34.2	82.8	39.3	1.0	12	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/24	19:57:0.9	34.280N	147.860E	33.0N	5.2			SZGRF
2001/09/24	19:57:27.0	36.406N	140.113E	74D	4.6			NEIC

Off east coast of Honshu, Japan

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 20:09:46.4	82.8	39.2	0.9	11	5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/24	21:21:49.9	46.470N	12.690E	10.0G			3.0	SZGRF

Northern Italy

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e Pn	Z 21:22:23.7	1.9	149.9					3.1
	e Sg	N 21:22:52.3							
GEC2	e Pn	Z 21:22:30.1	2.5	196.4					2.8
	e Sg	N 21:23:08.1							
WET	e Pn	Z 21:22:33.1	2.7	182.8					2.6
	e Sn	N 21:23:06.2							
GRA1	e Sn	N 21:23:21.8	3.4	162.5					3.1
	e Sg	N 21:23:36.8							
BFO	e Pn	Z 21:22:44.0	3.5	120.6					2.8
	e Sn	N 21:23:24.3							
MOX	e Pn	Z 21:22:53.7	4.2	169.9					3.1
	e Sn	N 21:23:42.2							
TNS	e Pn	Z 21:23:01.5	4.7	141.5					
CLL	e Sg	N 21:24:23.7	4.8	182.6					3.2

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/25	05:29:17.9	27.667S	177.861W	155D	5.0			NEIC

Kermadec Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 05:48:51.4			1.3	14			
	i PKPbc	Z 05:49:01.7			0.8	24			
	e PKPab	Z 05:49:17.8			1.1	11			
	e pPKPab	Z 05:50:00.6							
GRA1	e PKPdf	Z 05:48:55.4	156.9	20.9					
	e PKPab	Z 05:49:26.2							
	e pPKPab	Z 05:50:06.4							
	e PP	Z 05:53:20.3							
	e	06:06:06.7							
	e SS	Z 06:12:58.3							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/25	11:21:29.3	45.510N	154.370E	33.0N	5.8	4.6		SZGRF
2001/09/25	11:21:49.7	46.687N	150.806E	141*	5.2			NEIC

East of Kuril Islands, Russia

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i P	+ Z 11:33:20.8			1.1	92	5.8		
	i PcP	Z 11:33:27.9							
	e pP	Z 11:33:57.4							
	e PP	Z 11:36:11.6							
	e PPP	Z 11:38:06.0							
	e sS	Z 11:43:49.0							
	e sSSS	Z 11:52:30.9							
	e LR	Z 11:58:01.4							
	e L	Z 12:08:13.3			20.0	319		4.6	
	GRA1	e P	Z 11:33:33.4	77.5	27.1	1.1	119	5.8	
e		11:33:37.8							
e PP		Z 11:36:30.6							
e S		E 11:43:56.7							
e SS		N 11:49:33.7							
e		11:53:39.7							
e L	Z 12:07:44.9			18.3	242		4.6		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/25	11:53:12.1	33.380N	32.200E	33.0N	4.7			SZGRF
2001/09/25	11:53:32.4	36.014N	32.125E	33N	4.6			NEIC

Eastern Mediterranean Sea

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 11:58:09.2	20.4	124.2			4.7		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/25	14:56:54.7	10.560N	77.130E	33.0N	5.7	4.3		SZGRF
2001/09/25	14:56:43.9	11.907N	80.238E	10G	5.5	4.9		NEIC

Southern India

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z	15:07:30.2	65.7	100.0	1.1	20	5.3		
BRG	e P	Z	15:07:32.5	65.9	101.1	2.0	159	5.9		
WET	e P	Z	15:07:33.9	66.3	99.4	1.5	43	5.5		
CLL	i P	+ Z	15:07:36.2			1.1	43	5.6		
	e		15:07:44.5							
	i PcP	Z	15:08:06.0							
	e PP	Z	15:10:09.7							
	e S	Z	15:16:23.2							
	e SS	R	15:20:59.4							
	e LR	Z	15:30:04.1							
	e L	Z	15:40:56.0			18.0				
FUR	e P	Z	15:07:39.5	67.2	97.7	1.1	51	5.7		
MOX	e P	Z	15:07:41.4	67.3	99.0	1.0	60	5.8		
GRA1	e P	Z	15:07:41.4	67.4	98.3	1.0	74	5.9		
	e		15:07:49.5							
	e PcP	Z	15:08:09.5							
	e PP	Z	15:10:17.1							
	e S	E	15:16:42.0							
	e SS	E	15:20:53.0							
	e L	Z	15:41:41.2			18.5	188		4.3	
CLZ	e P	Z	15:07:47.4	68.3	98.5	0.9	42	5.7		
STU	e P	Z	15:07:48.9	68.6	96.4	0.9	51	5.8		
BSEG	e P	Z	15:07:49.5	68.6	99.3	1.0	48	5.7		
TNS	e P	Z	15:07:53.7	69.3	96.3	1.0	43	5.6		
IBBN	e P	Z	15:07:57.9	69.9	96.5	1.1	89	5.9		
BUG	e P	Z	15:07:58.8	70.1	95.8	0.8	24	5.5		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/25	23:16:46.2	15.850N	62.760W	33.0N	5.2	4.7		SZGRF
2001/09/25	23:16:54.2	16.900N	61.410W	33N	5.4	4.8		NEIC

Leeward Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z	23:27:40.4	66.0	268.1	1.2	18	5.2		
	e		23:27:46.5							
	e S	E	23:36:25.9							
	e SS	E	23:40:52.9							
	e SSS	E	23:44:00.6							
	e L	Z	23:50:48.9			20.8	504		4.7	

CLL	i P	+ Z	23:27:48.0						
	e		23:27:57.6						
	e S	E	23:36:41.6						
	e SS	E	23:41:13.5						
	e SSS	Z	23:44:20.9						
	e L	Z	23:51:08.6	22.0				463	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/26	04:19:54.9	34.310N	26.600E	33.0G				SZGRF
2001/09/26	04:19:56.3	35.035N	27.040E	33N	4.9			NEIC

Crete, Greece

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GEC2	e P	Z 04:23:53.5	17.0	139.6					
WET	e P	Z 04:24:00.3	17.5	138.3					
BRG	e P	Z 04:24:11.4	18.5	144.1					
GRA1	e P	Z 04:24:13.6	18.7	135.8	1.0	33			
	e S	E 04:27:45.6							
	e L	Z 04:32:13.2			19.1	362			
CLL	e P	Z 04:24:20.3	19.2	142.7					
BFO	e P	Z 04:24:19.4	19.2	127.0					
MOX	e P	Z 04:24:20.5	19.2	138.5					
TNS	e P	Z 04:24:31.5	20.3	131.3					
CLZ	e P	Z 04:24:37.7	20.6	138.1					
WLF	e P	Z 04:24:40.6	21.1	125.9					
BUG	e P	Z 04:24:45.2	21.7	131.5					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/26	15:57:01.3	15.257S	173.548W	33N	5.1	4.8		NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 16:16:38.0	145.3	8.1					
	e	16:16:59.1							
	e L	Z 17:25:00.5			19.0	86		4.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/26	18:04:38.7	30.320N	51.480E	33.0N	4.8			SZGRF
2001/09/26	18:04:38.0	30.010N	50.938E	33N	4.6			NEIC

Northern and central Iran

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:11:35.2	35.7	108.4	1.6	25	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/26	20:14:37.7	45.560N	11.040E	10.0G			3.7	SZGRF
2001/09/26	20:14:37.9	45.763N	10.810E	10				NEIC

Northern Italy

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
FUR	e Sn	N	20:15:52.4	2.4	187.7					3.8
BFO	e Pn	Z	20:15:29.5	3.1	145.7					3.6
GEC2	e Pn	Z	20:15:36.2	3.7	213.5					3.4
	e Sn	N	20:16:19.9							
WET	e Pn	Z	20:15:36.7	3.7	203.2					3.6
	e Sn	N	20:16:19.8							
GRA1	e Pn	Z	20:15:39.6	3.9	184.2					4.1
	e Pg	Z	20:15:53.3							
	e Sg	N	20:16:49.1							
TNS	e Pn	Z	20:15:52.3	4.7	159.6					3.7
	e Sn	N	20:16:48.2							
MOX	e Pn	Z	20:15:52.7	4.9	186.6					3.7
	e Sn	N	20:16:49.3							
WLF	e Sn	N	20:16:55.8	5.0	139.5					3.6
BRG	e Pn	Z	20:16:00.9	5.5	203.4					3.6
	e Sn	N	20:17:04.3							
CLL	e Pn	Z	20:16:04.8	5.7	195.5					3.9

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/26	21:31:09.5	26.272S	178.179E	584?	5.3			NEIC

South of Fiji Islands

Sta	Phase		Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	i PKPdf	Z	21:49:51.4			1.3	23			
	i PKPbc	Z	21:50:00.4			0.9	172			
	i PKPab	Z	21:50:14.5			0.7	137			
	e pPKPdf	Z	21:52:20.7							
	e pPKPbc	Z	21:52:27.1							
	e pPKPab	Z	21:52:33.4							
	e PP	Z	21:53:46.8							
	e pPP	Z	21:55:56.2							
GRA1	e PKPdf	Z	21:49:54.1	154.5	28.0					
	e PKPbc	Z	21:50:04.0							
	e PKPab	Z	21:50:23.4							
	e pPKPab	Z	21:52:36.9							
	e PP	Z	21:53:57.4							
	e pPP	Z	21:56:09.4							
	e		22:03:14.0							

e 22:06:19.7

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/27	01:50:57.3	16.275S	174.785W	261D	5.0			NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 02:10:09.5	146.2	10.4					
	e pPKPbc	Z 02:11:14.2							
	e	02:23:19.0							
	e	02:25:50.4							
	e SS	Z 02:32:29.7							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/28	04:37:22.3	29.770N	80.060E	33.0N	4.8	4.1		SZGRF
2001/09/28	04:37:56.6	33.305N	75.851E	33N	5.2	4.8		NEIC

Nepal-India border region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	+ Z 04:46:46.8	49.4	83.8	1.0	10	4.8		
	e SS	Z 04:58:03.8							
	e L	Z 05:11:33.8			18.3	167		4.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/28	04:53:09.3	17.072S	175.013W	250D	4.8			NEIC

Tonga Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 05:12:24.4	147.0	11.0					
GRA4	e pPKPbc	Z 05:13:26.8	147.1	11.4					

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/28	15:04: 3.3	52.730N	168.940W	33.0N	4.8			SZGRF

Fox Islands, Aleutian Islands, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 15:15:56.5	77.6	0.1	1.1	9	4.8		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
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GRA1	e P	Z	09:44:56.1	83.7	52.6							
	e S	N	09:55:20.9									
	e SS	N	10:00:42.3									
	e		10:05:19.4									
	e L	Z	10:26:33.0			19.3	923			5.2		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/29								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 22:09:53.1							
	e	22:10:13.2							
	e	22:10:25.1							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/30	06:03:33.0	22.557S	113.531W	10G	5.2	5.3		NEIC
Southern East Pacific Rise								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPdf	Z 06:22:45.5	129.3	281.4					
	e SS	N 06:42:08.6							
	e SSS	N 06:47:03.5							
	e L	Z 07:22:26.4			18.4	850		5.5	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/30								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKP	Z 08:09:13.5							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/30								

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e PKPbc	Z 11:03:01.9							

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/30	18:23:30.2	0.760N	34.690W	33.0N	4.8	4.1		SZGRF
2001/09/30	18:24:00.6	5.704N	32.769W	10G	4.3	3.9		NEIC

North Atlantic Ocean

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:33:51.5	57.4	235.1			4.8		
	e L	Z 18:53:41.9			21.9	129		4.1	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/30	18:25:47.9	51.550N	174.300W	33.0N	5.1			SZGRF
2001/09/30	18:25:43.4	51.186N	178.267W	33N	4.9	4.3		NEIC

Andreanof Islands, Aleutian Islands, United States

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
GRA1	e P	Z 18:37:47.0	78.8	6.0	1.2	22	5.1		

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/30	19:01:19.1	18.445S	168.132E	33N	5.4	6.2		NEIC

Vanuatu Islands

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 19:20:42.0							
	e PP	Z 19:23:52.0							
	e SKP	Z 19:24:35.7							
	e SS	T 19:42:37.0							
	e	19:44:15.8							
	e SSS	N 19:47:46.0							
	e LQ	T 20:07:47.1							
	e L	Z 20:24:28.5			22.0	6467		6.3	
GRA1	e PKPdf	Z 19:20:49.6	143.7	38.9					
	e	19:22:03.3							
	e PP	Z 19:24:07.8							
	e SS	N 19:42:51.6							
	e	19:44:18.2							
	e SSS	N 19:47:54.2							
	e L	Z 20:27:34.7			21.2	4101		6.2	

Date	Origin Time	Lat	Long	Depth	mb	Ms	ML	Source
2001/09/30	21:27:17.7	20.668S	178.367W	500G	4.7			NEIC

Fiji Islands region

Sta	Phase	Time	Dist	BAz	T[s]	A[nm]	mb	MS	ML
CLL	e PKPdf	Z 21:46:02.2							
	i PKPbc	- Z 21:46:06.1			0.9	58			
	i PKPab	Z 21:46:11.2			0.8	28			

GRA1	e PKPbc	Z	21:46:11.1	150.0	18.2
	e PKPab	Z	21:46:19.8		

Format description

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

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

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

EPICENTER LINES:

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

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

COMMENT LINE:

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

REGION LINE:

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

PHASE LINE:

Sta	Station code of the reported phase
Phase	Preceded flag for the sharpness of the onset of the phase

e - emergent
i - impulsive
w - weak

ISC phase code

Flag for the direction of the first motion

'+' - compression
'-' - dilatation

Component where the phase was picked

Time	Arrival time of the reported phase
Dist	Distance from the epicenter location with the highest priority to the station in kilometer
BAz	Backazimuth from the epicenter location with the highest priority to the station in degree
T[s]	Phase Period
A[nm]	Phase Amplitude
mb	Body wave magnitude
MS	Surface wave magnitude
ML	Local Richter magnitude