

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/01	03:51:18.1	+ - 0.43	51.620N	7.810E	7.8	4.4	146	0G		8	5	115	2.2ML	GSH	BGR	I
1997/08/01	03:51:16.8		51.658N	7.732E				1G					2.1ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg - Z	03:51:24.8	1.2	TA		40.1	233.1	ML 2.3
	e Sg E	03:51:30.4	2.1		7.9			
IBBN	e Pg Z	03:51:31.3	2.3		4.8	72.2	1.3	
	e Pg Z	03:51:41.7	1.3		5.8	139.3	223.2	ML 2.2
GSH	e Sg E	03:51:58.4	1.8		3.8			
	e Pn Z	03:51:44.4	0.3		1.7	167.3	162.3	ML 2.2
TNS	e Pg Z	03:51:45.9	0.7		4.3			
	e Sg N	03:52:05.3	0.7					
CLZ	e Pg Z	03:51:48.5	0.8		11.0	182.9	82.6	ML 2.2
	e Sg N	03:52:12.5	3.5					
MOX	e (Pn)	03:52:02.5	3.0			293.3	111.1	
	e Pg	03:52:06.6	0.1					
CLL	e Sg	03:53:06.0	4.4			366.9	94.0	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/01	22:00:08.3		51.655N	7.725E				1G					2.0ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	22:00:16.2	1.2	TA		39.5	233.0	
BRG	i Sg	22:02:16.7	2.4			441.1	98.9	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/02	18:19:12.2		50.874N	6.595E				20G			8		2.1ML	UCC	NEIC	
Less reliable solution, Intensity = II (MSK) near Roermond/NL																
1997/08/02	18:19:12.6	+ - 0.20	51.119N	6.103E	7.9	6.0	27	8	+ - 0.0	19	10		2.8ML		LDG	L
1997/08/02	18:19:14.8	+ - 1.00	51.130N	6.060E	12.2	4.4	97	10G		8	4	248	2.2ML		SZGRF	L

Erkelenz, SW of Moenchengladbach

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GSH	e Pg Z	18:19:23.6	0.3	T		49.0	152.9	ML 1.7
	e Sg E	18:19:30.3	1.2	T				
BUG	e Pg Z	18:19:30.1	-0.2	T		90.9	67.2	ML 2.7
	e Sg N	18:19:41.8	0.9	T				
IBBN	e Pg Z	18:19:43.1	-1.5	T		175.5	41.1	ML 2.2
	e Sg N	18:20:04.7	-0.3	T				

TNS	e	Pn	Z	18:19:44.7	0.1	T	196.1	120.0	ML	2.0
	e	Sg	N	18:20:11.0	0.1	T				

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/06	11:27:01.2	+-	2.80	47.060N	5.430E	37.0	26.0	12	10G		13	10	325	2.8ML		LEDBW	L
1997/08/06	11:27:00.3	+-	0.20	46.822N	5.574E	1.9	1.5	46	2	+- 0.0	83	30		3.4ML		LDG	L

les Essards, S of Dole/F

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BBS	i Pn +	11:27:27.2	0.2			162.8	63.3	
KIZ	e Pg	11:27:37.3	0.2			216.9	53.6	ML 3.0
	e Sn	11:27:53.7	-3.6					
	e Sg	11:28:00.9	-1.3					
FELD	i Pn -	11:27:31.4	-2.2			217.4	56.5	
BFO	e Pg Z	11:27:44.4	-1.0		5.2	266.1	49.9	
	e Sn N	11:28:03.7	-4.0					
	e Sg N	11:28:14.3	-2.0					
SGW	e Pg	11:27:52.8	0.2			308.7	61.1	ML 2.9
LBG	e Sg	11:28:30.2	-0.4			316.1	48.4	ML 2.8
BEU	e Pg	11:27:59.4	0.1			347.8	54.3	ML 2.8
	e Sg	11:28:39.1	-0.6					
UBR	i Pg +	11:28:01.0	0.5			355.2	72.8	ML 2.8
	e Sg	11:28:42.7	0.9					
HDH	e Sg	11:28:53.1	-0.9			398.1	58.8	ML 2.8
HOL	e Sg	11:28:59.6	-1.6			423.4	46.4	ML 3.0
TNS	e Sg N	11:29:04.2	0.1			433.2	28.2	

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/07	08:53:01.2			49.547N	6.114E				10G			5				NEIC	
1997/08/07	08:52:59.9	+-	1.92	49.340N	5.970E	22.2	6.7	67	0G		4	3	248	2.0ML	TNS	BGR	B?
1997/08/07	08:53:01.5	+-	0.20	49.449N	5.974E	10.3	3.5	50	2	+- 0.0	9	5		2.6ML		LDG	L

S of Arlon/B, Belgian-French-Luxembourg border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GSH	e Sg E	08:53:44.8	1.6			146.1	11.2	ML 1.7
TNS	e Pg Z	08:53:34.7	-0.2		1.9	197.1	63.2	ML 2.0
	e Sg E	08:53:58.1	0.3					
BFO	e Sg Z	08:53:58.8	-3.4			212.4	125.0	

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/08	03:07:46.0	+-	0.33	51.620N	7.740E	4.4	3.3	130	1G		10	5	122	2.2ML		SZGRF	I
1997/08/08	03:07:44.9	+-	0.29	51.640N	7.760E	4.4	3.3	142	0G		15	8	122	2.2ML	GSH	BGR	I
1997/08/08	03:07:43.8			51.647N	7.709E				1G					2.1ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg + Z	03:07:51.6	1.3	TA	106.5	38.1	233.2	ML 2.2
	e Sg E	03:07:57.0	2.4					
IBBN	e Pg Z	03:07:58.1	1.8		5.9	73.5	2.5	ML 2.2
	e Sg E	03:08:05.4	0.6		8.0			
GSH	e Pg Z	03:08:08.4	1.3		3.9	137.3	223.1	ML 2.2
	e Sg N	03:08:25.8	2.7		12.4			
TNS	e Pn -	03:08:11.3	0.2			166.6	161.6	ML 2.1
	e Pg Z	03:08:12.0	-0.0		5.4			
	e Sg N	03:08:30.9	-0.5		11.9			
CLZ	e Pn Z	03:08:13.3	0.0		1.4	184.7	82.2	ML 2.1
	e Pg Z	03:08:15.0	-0.1		5.0			
MOX	e Sg E	03:08:38.2	1.7		9.2			
	e Pn Z	03:08:28.2	1.5		2.2	294.4	110.7	ML 2.2
	e Pg	03:08:28.9	-4.8					
CLL	e Sg E	03:09:09.2	1.3		4.6			
	e Pg E	03:08:46.7	0.4		1.5	368.5	93.8	
	e Sg	03:09:32.0	2.9					
BFO	e Sn E	03:09:14.8	1.2		2.3	371.4	172.9	
BRG	i Sg	03:09:57.3	7.2			442.1	98.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/08	10:54:44.9		47.222N	9.488E				5G			47		3.1ML	STR	NEIC	
	ML= 3.3(VIE)															
1997/08/08	10:54:48.6	+ - 0.20	47.225N	9.347E	4.6	3.0	74	2	+ - 0.0	49	20		3.0ML		LDG	L
1997/08/08	10:54:45.2	+ - 0.86	47.110N	9.530E	14.5	8.9	17	10G		14	7	279	3.0ML		SZGRF	L
1997/08/08	10:54:44.8	+ - 0.66	47.120N	9.540E	6.7	4.4	2	0G		20	8	278	3.1ML	TNS	BGR	L
1997/08/08	10:54:45.8	+ - 0.30	47.150N	9.570E	3.0	2.0	334	10G		46	22	242	3.1ML		LEDBW	L
1997/08/08	10:54:45.7		47.134N	9.518E	1.6	1.6	0	1	+ - 168	33	26		2.8ML		SED	

Vaduz/Liechtenstein, Swiss-Liechtenstein-Austrian border reg

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
UBR	e Pg +	10:54:58.4	-0.1			75.3	216.4	ML 2.6
	e PmP	10:55:01.5	-0.4					
	e Sg	10:55:07.7	0.5					
SGW	e Pn	10:55:03.9	-2.1			110.5	168.0	ML 3.1
	e Sn	10:55:17.5	-2.9					
OGA	i Pg +	10:55:05.4	-0.3			118.1	285.1	
BHB	e Pn +	10:55:07.4	-1.0			129.6	162.6	
	i Pg +	10:55:08.0	0.4					
HSN	e Sn	10:55:23.1	-1.2					
	e Sg	10:55:24.2	1.4					
	e Pn +	10:55:07.7	-1.1			132.4	169.3	
	e Pg +	10:55:08.2	0.1					
	e Sn	10:55:23.7	-1.3					
	e Sg	10:55:24.8	1.3					

FELD	i	Pn	-	10:55:09.0	-0.8		140.5	125.4	
HEX	e	Pg	-	10:55:09.8	-0.0		142.3	133.3	
	e	Sg		10:55:27.3	0.9				
WYH	i	Pg	+	10:55:10.6	0.4		144.5	108.0	
	e	Sg		10:55:28.4	1.5				
END	e	Pn	-	10:55:10.0	-0.8		148.7	115.1	
	e	Pg	-	10:55:11.0	0.1				
	e	Sg		10:55:29.3	1.1				
KIZ	i	Pn	-	10:55:10.0	-1.0		150.9	126.7	ML 3.3
	i	Pg	+	10:55:11.2	-0.0				
	i	Sg		10:55:29.4	0.6				
BBS	i	Pn	-	10:55:11.2	-0.4		155.9	102.9	
	e	Sg		10:55:31.9	1.6				
BAW	e	Pn	+	10:55:11.0	-0.8		156.9	117.4	
	i	Pg	+	10:55:12.3	0.0				
	e	Sg		10:55:31.1	0.5				
BFO	e	Pn	Z	10:55:11.2	-0.9	1.9	160.0	145.8	ML 2.7
	e	Pg	+	10:55:12.8	0.0				
	e	Sg		10:55:31.6	0.2				
BEU	i	Pn	-	10:55:11.0	-1.3		161.4	177.2	ML 3.4
	i	Sg		10:55:32.2	0.4				
SCE	e	Pg		10:55:14.1	0.2		166.3	274.5	
HDH	e	Pn	+	10:55:11.4	-1.8		169.2	197.9	ML 2.9
	e	Pg		10:55:13.7	-0.7				
	i	Sg		10:55:34.3	0.2				
FUR	e	Pn	Z	10:55:14.9	1.0	6.2	174.4	229.7	ML 2.9
	e	Sg	N	10:55:35.9	0.4	5.8			
LBG	e	Pn		10:55:13.3	-1.1		178.5	162.1	ML 3.3
	e	Sn		10:55:32.5	-2.2				
	e	Sg		10:55:36.4	-0.3				
HOL	e	Pn	+	10:55:20.8	-2.3		249.7	185.1	ML 3.0
GRC1	e	Pn	Z	10:55:22.0	-1.7		255.0	216.5	ML 2.9
TOD	e	Sg		10:56:05.2	-0.4		279.8	168.9	
GRFO	e	Pn	N	10:55:28.2	-2.3	1.4	310.8	204.5	ML 3.0
	e	Pg	N	10:55:38.9	0.5	3.3			
	e	Sg	N	10:56:14.2	-0.3	7.5			
GRA1	e	Pg	Z	10:55:38.5	0.1		311.0	204.5	ML 3.2
	e	Sg	E	10:56:15.2	0.6				
WET	e	Pn	Z	10:55:32.2	-1.2	5.0	334.8	229.4	ML 3.0
	e	Pg	Z	10:55:40.7	-1.7	13.4			
	e	Sn	N	10:56:08.1	0.4	12.1			
	e	Sg	E	10:56:19.5	-1.9	10.4			
ABH	e	Sg		10:56:21.5	-0.8		338.2	153.8	
RUP	e	Sg		10:56:22.8	0.5		338.2	146.6	
TNS	e	Pn	Z	10:55:34.9	-0.6	1.9	352.3	166.7	ML 3.1
	e	Sn	N	10:56:12.2	0.8	8.0			
	e	Sg	E	10:56:25.8	-0.6	7.7			
ROTZ	i	Pn	+	10:55:33.4	-2.3		353.7	215.1	ML 2.6

HOF	e	Pg		10:55:52.8	0.4			393.6	207.0								
MOX	e	Pn	Z	10:55:42.5	-1.3		1.3	419.4	202.2			ML	3.2				
	e	Pg	Z	10:55:56.6	-0.2		6.8										
	e	Sn		10:56:21.5	-4.1												
	e	Sg	N	10:56:44.3	-1.2		4.1										
CLZ	e	Sg	E	10:57:15.8	-0.5		3.5	527.1	187.1			ML	3.2				
CLL	e	Sg	E	10:57:15.0	-1.7		2.1	528.4	209.9			ML	3.4				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/08	22:32:17.5	+/- 0.31	51.680N	7.930E	3.3	3.3	149	0G		13	7	110	2.0ML	GSH	BGR	I
1997/08/08	22:32:15.3		51.707N	7.894E				1G					1.8ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	22:32:25.3	1.1	TA		52.4	235.8	ML 1.9
	e Sg E	22:32:32.7	2.4		24.3			
IBBN	e Pg Z	22:32:30.3	3.6		3.0	67.4	352.0	ML 2.1
	e Sg E	22:32:37.4	2.9		7.4			
GSH	e Pg Z	22:32:42.4	1.5		4.5	151.0	225.0	ML 2.0
	e Sg E	22:33:01.1	2.7		7.3			
TNS	e Pg Z	22:32:46.1	2.1		3.1	169.5	166.6	ML 1.9
	e Sg N	22:33:04.2	0.5		6.9			
CLZ	e Pn Z	22:32:44.6	1.5		1.2	171.2	84.0	ML 2.0
	e Sg N	22:33:06.1	1.9		9.1			
MOX	e Pg E	22:33:05.9	2.3		1.8	285.0	113.0	ML 2.0
	e Sg N	22:33:37.8	1.0		4.1			
BFO	e Sn N	22:33:48.9	2.6		2.4	376.8	175.1	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/11	07:40:31.9		47.275N	11.315E				5G			5		2.1ML	VIE	NEIC	

Inn Valley/A, W of Innsbruck

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
SCE	i Pg -	07:40:38.9	0.2			39.8	131.2	
OGA	i Pg +	07:40:40.6	0.1			50.3	206.0	
	i Sg	07:40:47.1	0.8					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/11	09:05:56.1		47.300N	11.327E				10G			23		2.7ML	VIE	NEIC	
ML= 3.1(STR), Intensity = III (MSK) at Innsbruck/A																
1997/08/11	09:06:01.1	+ - 0.20	47.417N	11.057E	11.9	6.9	57	15	+ - 0.0	13	8		2.9ML		LDG	L
1997/08/11	09:05:56.4		47.163N	11.422E	11.3	11.3	0	10	+ - 4.9	12	7		2.6ML		SED	
1997/08/11	09:05:58.7	+ - 6.00	47.260N	11.180E	64.0	31.0	339	10G		11	6	311	2.8ML		LEDBW	L
Double quake; a second quake occurred 7 seconds later with the same magnitude																
1997/08/11	09:05:56.9	+ - 1.03	47.260N	11.360E	20.0	10.0	154	10G		10	6	271	2.8ML		SZGRF	L
1997/08/11	09:05:57.1	+ - 0.79	47.340N	11.350E	8.9	4.4	148	10G		15	8	268	2.6ML	BFO	BGR	L

Innsbruck, Hall/A

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
OGA	i Pg -	09:06:05.4	-1.6			58.0	205.2	
	i Sg	09:06:12.0	-1.9					
FUR	e Pg Z	09:06:13.8	1.2	T	8.8	91.7	356.5	ML 3.0
	e Sg Z	09:06:22.4	-1.0	T	9.3			
UBR	e Pn -	09:06:14.2	-1.0			100.7	292.6	ML 3.0
	e PmP	09:06:16.0	-0.1					
	e SmS	09:06:30.0	0.9					
BHG	i Pn +	09:06:12.1	-5.8			122.4	69.2	
HDH	i Pn +	09:06:24.5	1.8			162.4	328.8	ML 2.8
	e Sn	09:06:41.9	0.9					
	e Sg	09:06:44.8	1.2					
SGW	e Pn	09:06:26.9	1.9			181.0	298.9	ML 2.8
	e Sg	09:06:48.8	-0.0					
GRC1	e Pg Z	09:06:28.2	-0.2			184.6	3.9	ML 2.7
	e Sg E	09:06:50.8	0.9					
WET	e Pn Z	09:06:31.8	0.8	T	1.9	230.3	28.9	ML 2.6
	e Sn E	09:06:57.6	2.2	T	8.4			
	e Sg E	09:07:02.9	-0.0	T	8.4			
LBG	e Pg -	09:06:39.5	1.7			240.4	308.7	ML 2.8
BFO	e Pn Z	09:06:34.6	1.1	T	1.6	250.9	297.1	ML 2.6
	e Pg Z	09:06:39.3	-0.3	T	8.9			
	e Sg N	09:07:07.9	-0.9	T	15.9			
HOL	e Pn	09:06:34.6	0.8			252.8	333.8	ML 2.7
	i Pg -	09:06:40.5	0.6					
GRFO	e Sg E	09:07:12.4	0.6	T	3.0	261.6	358.0	ML 2.7
GRA1	e Pg Z	09:06:42.6	1.1			261.7	358.0	ML 3.0
KIZ	e Pg -	09:06:41.4	-0.8			266.0	286.2	ML 2.9
ROTZ	i Pn +	09:06:36.1	-0.7			277.2	12.9	
HOF	i Pg +	09:06:54.0	0.5			332.9	6.5	
MOX	e Sn E	09:07:26.2	1.7	T	2.3	368.0	2.9	ML 2.8
	e Sg N	09:07:42.1	-0.2	T	2.7			
TNS	e Pn Z	09:06:51.0	1.1	T	3.9	384.6	327.5	
	e Sn N	09:07:31.1	3.1	T	3.4			
BRG	e Sg N	09:08:00.2	-1.4	T	2.8	435.8	24.7	ML 3.0

CLZ e Sg Z 09:08:22.2 0.7 T 1.6 505.5 352.4 ML 3.1

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/11	09:36:53.5		47.257N	11.278E				5G			8		2.3ML	VIE	NEIC	
1997/08/11	09:36:54.4	+- 9.90	47.170N	11.130E	83.0	71.0	31	10G		7	5	329	2.5ML		LEDBW	L
1997/08/11	09:36:54.8	+- 1.29	47.370N	11.270E	18.9	7.8	159	10G		9	5	266	2.3ML		SZGRF	L

Inn Valley/A, W of Innsbruck

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
SCE	i Pg -	09:36:59.9	-3.5			49.6	137.8	
OGA	i Pg -	09:37:01.7	-3.2			58.8	198.4	
	i Sg	09:37:08.4	-3.4					
FUR	e Pg Z	09:37:10.7	0.9	T		88.2	0.3	ML 2.5
UBR	e Pg +	09:37:10.6	-0.2			93.8	292.0	ML 2.7
	e PmP	09:37:12.2	-0.6					
	e Sg	09:37:23.1	1.3					
	e SmS	09:37:26.3	1.2					
HDH	e Sg	09:37:40.6	1.0			156.5	330.0	ML 2.4
SGW	e Sg	09:37:45.1	0.5			174.1	298.8	ML 2.5
GRC1	e Pg Z	09:37:24.6	-1.0	T		181.7	5.8	ML 2.2
	e Sg N	09:37:47.1	0.3	T				
BEU	e Sg	09:37:50.3	0.3			193.1	315.0	ML 2.1
WET	e Sn Z	09:37:54.0	0.9	T		230.4	30.5	ML 2.3
LBG	e Pg	09:37:36.0	1.6			233.6	308.9	ML 2.5
BFO	e Pg Z	09:37:35.4	-0.8	T		244.0	297.0	ML 2.2
	e Sn N	09:37:57.1	1.1	T				
	e Sg N	09:38:04.8	0.2	T				
KIZ	e Sg	09:38:08.2	-0.7			259.3	285.8	ML 2.4
TNS	e Pn Z	09:37:47.3	0.5	T		378.5	328.0	
	e Sn N	09:38:27.1	2.7	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/11	15:04:05.7		47.243N	11.464E				10		18	16		2.9ML		SED	
1997/08/11	15:04:07.2		47.304N	11.249E				10G			40		2.9ML	VIE	NEIC	
	ML= 3.0(STR)															
1997/08/11	15:04:11.8	+- 0.20	47.373N	11.086E	7.7	4.6	52	15	+- 0.0	31	17		3.0ML		LDG	L
1997/08/11	15:04:08.7	+- 2.40	47.330N	11.250E	23.0	16.0	323	10G		19	9	311	3.1ML		LEDBW	L
	Strongest event in a swarm															
1997/08/11	15:04:07.3	+- 0.82	47.280N	11.380E	13.3	6.7	149	10G		16	8	270	3.2ML		SZGRF	L
1997/08/11	15:04:08.2	+- 0.66	47.370N	11.290E	6.7	3.3	160	10G		20	10	250	3.1ML	MOX	BGR	L

Inn Valley/A, W of Innsbruck

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
OGA	i Pg -	15:04:15.9	-2.5			59.3	199.8	
	i Sg	15:04:22.5	-2.9					
FUR	e Pg Z	15:04:24.2	0.9	T	12.2	88.2	359.3	ML 3.4
	e Sg N	15:04:34.1	0.5	T				
UBR	e Pg -	15:04:24.7	0.3			95.2	291.7	ML 3.3
	e Sg	15:04:37.3	1.7					
	e SmS	15:04:40.8	1.8					
BHG	i Pg -	15:04:30.4	0.8			125.5	71.3	
HDH	e Pn -	15:04:33.2	-0.1			157.2	329.6	ML 3.2
	i Pg +	15:04:35.1	0.2					
	e Sn	15:04:52.2	1.1					
	e Sg	15:04:55.4	2.2					
SGW	e Pn	15:04:37.3	1.8			175.4	298.6	ML 3.1
	e Sg	15:04:59.4	1.0					
HSN	e Sg	15:05:02.8	0.9			187.8	304.4	
BEU	e Pn	15:04:39.7	1.9			194.1	314.7	ML 2.8
	e Sn	15:04:59.7	0.8					
WET	e Pn Z	15:04:42.2	0.1	T	5.1	229.6	30.2	ML 3.1
	e Sn N	15:05:08.7	2.3	T				
	e Sg N	15:05:13.9	-0.0	T				
LBG	e Pg	15:04:48.5	0.4			234.8	308.7	ML 3.2
	e Sg	15:05:15.4	0.0					
GEC2	e Sn N	15:05:11.7	2.5	T		242.8	46.6	
	e Sg N	15:05:17.6	-0.1	T				
BFO	e Pn Z	15:04:44.4	0.4	T	3.2	245.3	296.9	ML 2.8
	e Pg Z	15:04:49.5	-0.3	T	15.3			
	e Sg N	15:05:19.0	0.6	T				
HOL	e Pn	15:04:45.2	0.9			247.8	334.4	ML 2.9
	e Pg	15:04:51.0	0.7					
	e Sn	15:05:11.6	1.4					
GRFO	e Pg Z	15:04:52.6	0.6	T	11.0	258.1	358.9	ML 2.9
	e Sg E	15:05:21.9	-0.1	T				
GRA1	e Pg Z	15:04:52.7	0.7			258.2	358.9	ML 3.3
	e Sg E	15:05:25.2	3.2					
KIZ	e Pg +	15:04:52.4	-0.0			260.8	285.7	ML 3.1
	e Sg	15:05:22.2	-0.6					
HOF	e Pg	15:05:03.9	-0.3			330.1	7.3	
MOX	e Pg Z	15:05:10.2	0.1	T	3.9	364.9	3.6	ML 3.1
	e Sg E	15:05:52.1	-0.5	T				
TNS	e Pn Z	15:05:01.5	1.1	T	6.0	379.3	327.8	ML 3.1
	e Sn N	15:05:40.1	2.1	T				
BRG	e Sn E	15:05:52.4	2.7	T		434.7	25.4	ML 3.3
	e Sg E	15:06:11.8	-0.7					
CLL	e Sg N	15:06:17.3	-1.0	T		455.0	15.2	ML 3.5
CLZ	e Pg Z	15:05:33.5	0.2	T	2.5	501.6	352.8	ML 3.3
	e Sg N	15:06:31.8	0.2	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/12	00:33:05.4		50.130N	9.160E				19					2.0ML		IGF	

Alzenau i. Unterfranken, E of Hanau

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/12	02:14:11.1		49.352N	7.222E				5G			6		2.0ML	STR	NEIC	
1997/08/12	02:14:09.2	+ - 0.72	49.370N	6.800E	11.1	4.4	65	0G		6	3	213	1.8ML	TNS	BGR	I?

Saarbruecken-West

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	e Pg	Z	02:14:35.3	0.4	T	2.5	151.5	50.7	ML 1.8
	e Sg	E	02:14:52.5	0.0	T	6.9			
GSH	e Pg	Z	02:14:34.6	-0.9	T	1.0	155.0	348.9	ML 1.6
	e Sg	N	02:14:54.2	0.7	T	1.5			
BFO	e Pg	Z	02:14:36.9	0.4	T	3.1	160.9	135.4	ML 1.5
	e Sg	E	02:14:55.0	-0.2	T	7.0			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/12	17:15:17.2	+ - 0.33	51.610N	7.730E	5.6	4.4	131	1G		10	5	121	2.0ML		SZGRF	I
1997/08/12	17:15:16.3	+ - 0.33	51.600N	7.780E	4.4	3.3	130	0G		10	5	115	2.0ML	CLZ	BGR	I
1997/08/12	17:15:14.6		51.647N	7.709E				1G					1.8ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg	+ Z	17:15:22.2	1.1	TA		38.1	233.2	ML 1.9
	e Sg	E	17:15:28.4	2.9		25.0			
IBBN	e Pg	Z	17:15:29.8	2.8		1.9	73.5	2.5	ML 2.1
	e Sg	N	17:15:38.7	3.1		5.2			
GSH	e Pg	Z	17:15:39.1	1.2		3.0	137.3	223.1	ML 1.9
	e Sg	E	17:15:56.2	2.3		10.3			
TNS	e Pg	Z	17:15:43.2	0.4		1.6	166.6	161.6	ML 1.8
	e Sg	E	17:16:02.3	0.1		4.3			
CLZ	e Pn	Z	17:15:44.3	0.2		1.4	184.7	82.2	ML 2.0
	e Pg	Z	17:15:45.1	-0.8					
	e Sg	E	17:16:09.1	1.8		4.5			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/13	09:01:50.4	+ - 0.60	49.480N	5.810E	7.0	2.0	113	10G		5	3	293			LEDBW	L

S of Arlon/B, Belgian-French-Luxembourg border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg -	09:02:06.4	0.1	T		93.4	74.2	ML 1.7
	e Sg	09:02:18.1	0.9	T				
ABH	e Pg	09:02:12.9	-0.0	T		132.7	69.7	ML 1.7
	e Sg	09:02:29.0	0.5	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/14	23:51:47.3		51.295N	5.473E				5G			20		2.4ML	UCC	NEIC	
1997/08/14	23:51:51.7 +-	0.20	51.162N	5.617E	4.8	3.4	28	9	+- 0.0	47	47		2.9ML		LDG	L
1997/08/14	23:51:53.4 +-	0.95	51.280N	5.950E	10.0	4.4	104	1G		9	5	253	2.3ML		SZGRF	L
1997/08/14	23:51:53.0 +-	0.83	51.280N	6.070E	8.9	5.6	114	0G		11	6	244	2.5ML	MOX	BGR	L

Kaldenkirchen, Venlo/NL, Dutch-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GSH	e Pg Z	23:52:03.5	-0.4	T	16.1	64.1	160.3	ML 2.0
	e Sg E	23:52:12.3	0.9	T	17.6			
BUG	e Pg Z	23:52:08.6	1.1	T	7.1	85.2	77.4	ML 2.3
	e Sg Z	23:52:18.0	0.6	T	13.0			
IBBN	e Pg Z	23:52:20.9	0.3	T	2.7	162.8	44.8	ML 2.2
	e Sg E	23:52:42.1	2.5					
TNS	e Pn Z	23:52:23.9	-1.2	T	5.9	204.4	124.2	ML 2.2
	e Pg Z	23:52:28.0	0.3	T	5.3			
	e Sg E	23:52:51.6	0.1	T	8.6			
CLZ	e Sg N	23:53:19.6	-0.2	T	3.9	303.8	76.5	ML 2.5
MOX	e Pn E	23:52:47.7	-0.5	T	1.4	394.6	98.1	ML 2.5
	e Sg N	23:53:45.5	-0.3	T	3.0			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/15	00:00:02.2		51.235N	5.807E				5G			9		2.0ML	UCC	NEIC	
	Less reliable solution															
1997/08/15	00:00:05.3 +-	0.20	51.128N	5.620E	69.2	2.3	94	6	+- 0.0	23	23		2.5ML		LDG	L
1997/08/15	00:00:04.0 +-	1.15	51.240N	5.800E	13.3	5.6	93	22	+- 0.7	10	6	263	2.0ML	BUG	BGR	L

Weert/NL, SE of Eindhoven

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GSH	e Pg Z	00:00:15.9	-0.3	T	6.6	69.0	143.9	ML 1.7
	e Sg N	00:00:24.9	0.3	T				
BUG	e Pg Z	00:00:21.4	-0.7	T	6.1	104.5	77.1	ML 2.0
	e Sg E	00:00:33.7	-0.7	T				
IBBN	e Pg Z	00:00:33.7	-0.9	T	1.2	179.4	47.8	
	e Sg N	00:00:55.3	-0.3	T				

TNS	e	Pg	Z	00:00:40.1	-1.0	T	2.0	218.0	120.2	ML	1.9
	e	Sg	E	00:01:05.0	-1.6	T					
CLZ	e	Sg	N	00:01:33.9	-2.6	T		323.1	76.3	ML	2.2
MOX	e	Sg	N	00:01:58.5	-3.6	T		412.7	97.0		

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/15	19:56:53.0	+-	0.32	51.660N	7.720E	5.6	3.3	122	1G		10	5	129	2.0ML		SZGRF	I
1997/08/15	19:56:53.1	+-	0.37	51.630N	7.800E	6.7	4.4	165	0G		14	8	117	2.1ML	GSH	BGR	I
1997/08/15	19:56:51.6			51.657N	7.728E				1G					1.9ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	19:56:59.6	1.2	TA		39.8	233.0	ML 2.1
	e Sg E	19:57:05.3	2.3		60.9			
IBBN	e Pn Z	19:57:05.6	-1.8			72.3	1.5	ML 2.0
	e Pg Z	19:57:06.3	2.5		3.0			
	e Sg E	19:57:13.3	1.0					
GSH	e Pn Z	19:57:16.1	0.6			139.0	223.1	ML 2.1
	e Pg Z	19:57:16.7	1.5		3.9			
	e Sg N	19:57:33.9	2.5		11.8			
TNS	e Pn Z	19:57:19.5	0.6		5.0	167.3	162.2	ML 1.9
	e Sg N	19:57:39.1	-0.3		11.7			
CLZ	e Pn Z	19:57:23.1	2.2		5.4	183.2	82.5	ML 2.0
	e Sg E	19:57:44.9	0.9		8.3			
MOX	e Pn Z	19:57:37.0	2.7		1.5	293.5	111.0	ML 2.1
	e Pg Z	19:57:42.2	0.9		3.3			
	e Sg N	19:58:15.1	-0.4		4.6			
GRFO	e Sg E	19:58:28.2	2.6		2.2	329.1	130.3	ML 2.3
CLL	e Sg E	19:58:34.4	-2.1		1.7	367.2	94.0	ML 2.5

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/16	11:13:06.6	+-	0.33	51.660N	7.890E	5.6	4.4	129	1G		10	5	112	1.9ML		SZGRF	I
1997/08/16	11:13:06.1	+-	0.42	51.660N	7.920E	6.7	4.4	166	0G		10	7	109	2.0ML	GSH	BGR	I?
1997/08/16	11:13:03.4			51.709N	7.901E				1G					1.8ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	11:13:14.0	1.6	TA		52.9	235.9	ML 1.9
	e Sg N	11:13:20.9	2.4		16.8			
IBBN	e Pg Z	11:13:18.8	4.0		4.0	67.2	351.6	ML 2.1
	e Sg N	11:13:27.8	5.1					
GSH	e Pn Z	11:13:30.5	1.7		3.3	151.4	225.1	ML 2.0
	e Sg N	11:13:49.6	2.9		5.5			

TNS	e	Pn	Z	11:13:32.7	1.7			2.7	169.7	166.7	ML	1.9
	e	Sg	N	11:13:53.2	1.3			6.7				
CLZ	e	Pn	Z	11:13:34.7	3.5				170.7	84.1	ML	2.0
	e	Sg	E	11:13:55.8	3.6			7.1				
MOX	e	Pg		11:13:54.4	2.7				284.7	113.1	ML	2.1
	e	Sg	N	11:14:25.5	0.8			4.7				
BFO	e	Sn	N	11:14:36.9	2.5			2.0	376.9	175.2	ML	2.4

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/16	22:47:54.1		47.066N	6.575E				5G			9		2.0ML	LDG	NEIC	

Morteau/F, W of La Chau-de-Fonds/CH

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BFO	e Pg	Z 22:48:27.3	0.6		1.9	192.3	42.4	
	e Sg	E 22:48:49.9	0.9					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/18	08:40:54.7	+ - 0.38	51.340N	10.550E	4.4	4.4	106	0G		7	4	116	2.0ML	TNS	BGR	I?

Muehlhausen, Bleicherode

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
CLZ	e Pg	Z 08:41:04.2	-0.2	T	8.0	57.1	347.7	
	e Sg	E 08:41:11.3	0.3	T				
CLL	e (Pg)	Z 08:41:23.1	-0.5	T	1.2	170.4	90.2	
	e Sg	E 08:41:44.1	0.7	T				
GRFO	e Sg	E 08:41:49.1	0.3	T		189.4	165.3	
TNS	e (Pg)	Z 08:41:27.4	-0.0	T	1.6	193.1	230.8	ML 2.0
	e Sg	E 08:41:50.0	0.1	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/19	04:46:51.8	+ - 0.32	51.590N	7.760E	4.4	3.3	132	1G		10	5	115	2.2ML		SZGRF	I?
1997/08/19	04:46:51.1	+ - 0.41	51.620N	7.780E	6.7	4.4	144	0G		8	5	118	2.0ML	TNS	BGR	I?
1997/08/19	04:46:49.3		51.655N	7.725E				1G					2.1ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg	- Z 04:46:57.2	1.2	TA		39.5	233.0	ML 2.1
	e Sg	N 04:47:03.3	2.7					
IBBN	e Pg	Z 04:47:04.3	2.8			72.5	1.7	ML 2.4
	e Sg	N 04:47:14.9	4.8					

GSH	e	Pn	Z	04:47:14.4	1.2				138.7	223.1	ML	2.2
	e	Sg	N	04:47:31.6	2.7							
TNS	e	Pn	Z	04:47:17.7	1.1	3.3	167.2	162.1	ML	2.0		
	e	Sg	N	04:47:37.5	0.4							
CLZ	e	Pn	Z	04:47:19.3	0.7	5.5	183.4	82.5	ML	2.1		
	e	Sg	E	04:47:43.3	1.6							
MOX	e	(Sg)		04:48:16.3	3.1		293.7	111.0				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/19	05:29:49.6	+ - 1.47	54.430N	12.850E	30.0	14.5	37	1G		5	3	276	2.6ML		SZGRF	L?

Zingst Peninsula, Baltic Sea

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BSEG	e Pg Z	05:30:15.6	-3.5	T		173.8	252.6	ML 2.6
	e Sg N	05:30:42.2	3.0	T				
CLZ	e Pn Z	05:30:38.2	1.1	T		331.8	210.9	ML 2.6
	e Sg N	05:31:21.9	-2.5	T				
BRG	e Sg E	05:31:46.2	1.7	T		402.3	169.0	ML 2.6

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/21	08:27:43.2	+ - 0.37	51.670N	7.900E	7.8	4.4	140	1G		8	4	143	2.1ML		SZGRF	I
1997/08/21	08:27:42.8	+ - 0.33	51.660N	7.930E	4.4	3.3	132	0G		10	5	108	2.1ML	GSH	BGR	I?
1997/08/21	08:27:40.6		51.707N	7.894E				1G					1.9ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	08:27:51.0	1.5	TA		52.4	235.8	ML 2.0
	e Sg E	08:27:57.8	2.2		6.1			
IBBN	e Pg N	08:27:55.8	3.8		1.0	67.4	352.0	ML 2.2
	e Sg N	08:28:03.7	3.8		5.2			
GSH	e Pg Z	08:28:07.1	0.9		3.3	151.0	225.0	ML 2.1
	e Sg E	08:28:26.2	2.4		5.8			
TNS	e Pg Z	08:28:11.4	2.1		2.1	169.5	166.6	ML 1.9
	e Sg N	08:28:29.6	0.6		4.9			
CLZ	e Pg Z	08:28:11.3	1.7		3.1	171.2	84.0	ML 2.1
	e Sg N	08:28:31.1	1.6		6.1			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/21	23:34:10.5	+ - 0.31	51.620N	7.740E	4.4	3.3	145	1G		12	6	122	2.1ML		SZGRF	I
1997/08/21	23:34:10.5	+ - 0.28	51.630N	7.760E	3.3	3.3	148	0G		17	9	121	2.1ML	TNS	BGR	I
1997/08/21	23:34:08.7		51.661N	7.735E				1G					1.8ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg + Z	23:34:16.8	1.2	TA		40.5	233.0	ML 1.9
	e Sg E	23:34:22.2	2.0					
IBBN	e Pg Z	23:34:23.4	2.5		3.7	71.9	1.2	ML 2.1
	e Sg E	23:34:32.2	2.9					
GSH	e Pg Z	23:34:33.5	1.1		2.4	139.7	223.2	ML 2.1
	e Sg N	23:34:50.5	1.9					
TNS	e Pn Z	23:34:36.7	0.7			167.5	162.4	ML 2.1
	e Pg Z	23:34:38.5	1.4					
	e Sg E	23:34:56.1	-0.5					
CLZ	e Pn Z	23:34:39.2	1.3		0.9	182.6	82.6	ML 2.1
	e Pg Z	23:34:40.5	0.8					
	e Sg E	23:35:03.6	2.7					
MOX	e Pn Z	23:34:53.7	2.3		1.6	293.2	111.1	ML 2.2
	e Sg N	23:35:33.4	0.9					
GRFO	e Sg N	23:35:44.7	2.0			329.0	130.4	ML 2.4
CLL	e Pg Z	23:35:11.7	0.9		1.1	366.7	94.1	
BFO	e Pn Z	23:35:01.7	0.6		1.6	372.8	173.2	
	e Sn E	23:35:40.2	1.4					
BRG	e Sg	23:36:25.0	10.4			440.5	99.0	

Date Origin Time OT_err Lat Long Smajor Sminor Az Depth D_err Ndef Nsta Gap Mag Ref Source Ev_type
1997/08/22 02:33:41.2 47.774N 6.642E 10G 6 2.1ML LDG NEIC
A single network solution

Lure/F, NE of Vesoul

Date Origin Time OT_err Lat Long Smajor Sminor Az Depth D_err Ndef Nsta Gap Mag Ref Source Ev_type
1997/08/23 06:44:26.3 +- 0.57 51.630N 7.790E 8.9 6.7 87 0G 6 4 165 2.1ML TNS BGR I?
1997/08/23 06:44:27.5 +- 0.33 51.590N 7.760E 4.4 3.3 126 1G 10 5 115 2.2ML SZGRF I
1997/08/23 06:44:24.8 51.654N 7.726E 1G 2.0ML RUB I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg + Z	06:44:32.7	1.2	TA		39.4	233.3	ML 2.1
	e Sg E	06:44:38.1	2.1					
IBBN	e Pg Z	06:44:39.7	2.5			72.7	1.7	ML 2.3
	e Sg E	06:44:51.2	5.6					
GSH	e Pg Z	06:44:49.1	0.8			138.6	223.2	ML 2.1
	e Sg E	06:45:06.8	2.4					
TNS	e Pn	06:44:53.2	1.1			167.0	162.1	ML 2.1
	e Pg Z	06:44:53.8	0.7					
	e Sg E	06:45:13.1	0.6					

CLZ	e Pg	Z	06:44:56.8	0.9					183.4	82.4	ML	2.6
	e Sn	N	06:45:19.2	4.3								

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/25	20:07:01.7	+- 1.45	51.780N	7.650E	36.7	6.7	144	0G		6	4	228	2.2ML	TNS	BGR	I
1997/08/25	20:07:03.2	+- 0.37	51.600N	7.810E	5.6	4.4	107	1G		9	5	112	2.2ML		SZGRF	I
1997/08/25	20:07:01.4		51.657N	7.724E				1G					1.9ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	20:07:09.3	1.2	TA		39.6	232.8	ML 2.3
	e Sg E	20:07:15.2	2.5					
IBBN	e Pg Z	20:07:16.3	2.7			72.3	1.8	ML 2.3
	e Sg E	20:07:26.0	3.9					
GSH	e Pn Z	20:07:27.2	1.9			138.8	223.1	ML 2.3
	e Sg E	20:07:43.5	2.5					
TNS	e Pn Z	20:07:30.4	1.7			167.4	162.1	ML 2.1
	e Sg E	20:07:49.5	0.3					
CLZ	e Pn Z	20:07:31.6	0.9			183.5	82.5	ML 2.2
MOX	e (Sg)	20:08:26.8	1.5			293.8	111.0	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/26	22:12:06.4		51.640N	7.840E				0G		7	5	114	2.1ML	TNS	BGR	I
1997/08/26	22:12:06.7	+- 0.32	51.610N	7.780E	4.4	3.3	130	1G		10	5	116	2.2ML		SZGRF	I
1997/08/26	22:12:04.9		51.656N	7.726E				1G					2.1ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg + Z	22:12:12.9	1.3	TA		39.7	233.0	ML 2.3
	e Sg E	22:12:18.4	2.2					
IBBN	e Pg Z	22:12:19.6	2.4			72.4	1.6	ML 2.3
	e Sg E	22:12:28.5	2.9					
GSH	e Pn Z	22:12:30.4	1.6			138.8	223.1	ML 2.2
	e Sg E	22:12:46.4	1.8					
TNS	e Pn Z	22:12:34.1	1.9			167.2	162.1	ML 2.0
	e Sg E	22:12:52.5	-0.2					
CLZ	e Pn Z	22:12:36.4	2.2			183.3	82.5	ML 2.1
	e Sg E	22:12:58.4	1.1					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/27	04:14:56.2	+- 0.30	51.610N	7.820E	4.4	4.4	165	1G		13	7	112	2.2ML		SZGRF	I
1997/08/27	04:14:54.0	+- 0.54	51.720N	7.880E	6.7	4.4	92	0G		7	4	173	2.3ML	GSH	BGR	I
1997/08/27	04:14:55.1		51.658N	7.726E				1G					1.6ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	04:15:03.0	1.2	TA		39.8	232.7	ML 2.2
	e Sg E	04:15:08.8	2.3					
IBBN	e Pg Z	04:15:10.4	3.1			72.2	1.7	ML 2.2
	e Sg N	04:15:12.8	-2.9					
GSH	e Pn Z	04:15:19.7	0.7		3.0	139.0	223.1	ML 2.3
	e Sg N	04:15:37.2	2.4					
TNS	e Pn Z	04:15:22.6	0.1	2.2		167.4	162.1	ML 2.2
	e Sg E	04:15:43.2	0.2					
CLZ	e Pn Z	04:15:25.2	0.8			183.3	82.6	
	e Sg E	04:15:47.8	0.3					
MOX	e Pn Z	04:15:41.0	3.1			293.7	111.0	
	e Sg E	04:16:17.3	-1.7					
GRA1	e Sg E	04:16:26.5	-2.7			329.3	130.2	mb 5.1

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/29	21:13:57.4	+- 0.20	51.594N	7.790E	8.3	7.8	28	12	+- 0.0	17	7		2.7ML		LDG	L
1997/08/29	21:13:56.0	+- 0.57	51.620N	7.780E	8.9	4.4	160	0G		9	5	200	2.3ML	TNS	BGR	I
1997/08/29	21:13:55.8	+- 0.30	51.640N	7.740E	4.4	3.3	141	1G		13	6	124	2.3ML		SZGRF	I
1997/08/29	21:13:54.4		51.656N	7.726E				1G					2.2ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg + Z	21:14:02.3	1.2	TA		39.6	233.0	ML 2.3
	e Sg E	21:14:07.9	2.2					
IBBN	e Pn Z	21:14:09.1	-1.1			72.5	1.7	ML 2.3
	e Sg E	21:14:16.4	1.3					
GSH	e Pn Z	21:14:20.1	1.9			138.8	223.1	ML 2.2
	e Sg E	21:14:35.9	1.8					
TNS	e Pn Z	21:14:23.0	1.2			167.2	162.1	ML 2.3
	e Sg E	21:14:41.9	-0.2					
CLZ	e Pn Z	21:14:25.6	1.9			183.4	82.5	ML 2.2
	e Sg E	21:14:48.1	1.3					
MOX	e Pn Z	21:14:38.9	1.8			293.6	111.0	
	e Pg Z	21:14:44.7	0.5					
	e Sg E	21:15:20.0	1.7					

Unassociated arrivals

Sta	Phase	Date	Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	i Pg	1997/08/01	05:27:19.7						
BRG	i Sg	1997/08/01	05:28:02.5						
CLL	e Sg	1997/08/01	05:28:25.0						ML 2.7
MOX	e (Sg)	1997/08/01	06:17:49.2						
MOX	e Pg	1997/08/01	07:48:07.1						
MOX	e Sg	1997/08/01	07:48:27.1						
MOX	e Pg	1997/08/01	09:50:52.5						
MOX	e Sg	1997/08/01	09:51:11.8						
MOX	e Pg	1997/08/01	10:04:03.7						
MOX	e Sg	1997/08/01	10:04:15.3						
MOX	e Pg	1997/08/01	10:49:53.6						
MOX	e Sg	1997/08/01	10:50:10.9						
MOX	e Pg	1997/08/01	11:59:03.1						
MOX	e Sg	1997/08/01	11:59:17.3						
MOX	e Pg	1997/08/01	12:47:52.3						
MOX	e Sg	1997/08/01	12:47:58.4						
BRG	i Sg	1997/08/01	18:12:01.1						
BRG	i Sg	1997/08/01	20:01:23.7						
BRG	i Sg	1997/08/01	20:54:34.6						
BRG	e Sg	1997/08/02	22:28:00.0						
CLL	e Sg	1997/08/03	20:29:41.0						

BRG	i	Sg	1997/08/04 05:07:08.7
BRG	i	Sg	1997/08/05 02:54:44.2
MOX	e	Pg	1997/08/06 10:13:09.2
MOX	e	Sg	1997/08/06 10:13:49.7
BRG	i	Sg	1997/08/06 16:05:33.4
BRG	i	Sg	1997/08/06 16:13:36.1
BRG	i	Sg	1997/08/06 19:02:43.8
CLL	e	Sg	1997/08/06 19:02:21.0
MOX	i	(Pg)	1997/08/07 23:30:03.7
MOX	e	Sg	1997/08/07 23:30:50.8
BRG	e	Sg	1997/08/08 00:15:02.8
OGA	i	Pg +	1997/08/08 01:23:32.5
MOX	e	Pn	1997/08/08 04:04:04.5
MOX	e	Pg	1997/08/08 04:04:11.6
MOX	e	Sg	1997/08/08 04:04:50.9
BRG	i	Pg	1997/08/08 05:20:02.1
BRG	i	Sg	1997/08/08 05:20:49.1
CLL	e	Sg	1997/08/08 05:21:13.0
MOX	e	Pg	1997/08/08 06:58:13.3
MOX	e	Sg	1997/08/08 06:58:21.3
MOX	e	Sg	1997/08/08 07:37:55.9
MOX	e	Sg	1997/08/08 09:12:35.2
MOX	e	Pg	1997/08/08 09:20:04.7
MOX	e	Sg	1997/08/08 09:20:19.3

MOX	e	Pg	1997/08/08	10:45:07.1
MOX	e	Sg	1997/08/08	10:45:21.2
SCE	i	Pg -	1997/08/08	11:00:43.6
MOX	e	Pg	1997/08/08	11:56:58.1
MOX	e	Sg	1997/08/08	11:57:08.7
TNS	i	Pn +	1997/08/08	12:30:28.8
TNS	i	Sg	1997/08/08	12:30:44.9
BRG	i	Sg	1997/08/09	02:04:28.1
MOX	e	Pg	1997/08/09	12:55:41.9
MOX	e	Sg	1997/08/09	12:55:49.7
CLL	e	Sg	1997/08/09	15:51:37.0
BRG	i	Sg	1997/08/09	15:51:09.3
SCE	i	Pg	1997/08/11	07:50:29.9
CLL	e	Sg	1997/08/11	13:03:24.0
BRG	i	Sg	1997/08/11	17:53:09.1
CLL	e	Sg	1997/08/11	17:53:35.0
BRG	i	Sg	1997/08/11	18:55:18.2
CLL	e	Sg	1997/08/11	19:03:19.0
CLL	e	Sg	1997/08/11	19:29:48.0
BRG	i	Sg	1997/08/12	02:44:13.9
TNS	e	Pn	1997/08/12	15:00:54.4
TNS	i	Sg +	1997/08/12	15:01:10.6
BRG	i	Sg	1997/08/12	17:09:09.5
BRG	i	Sg	1997/08/12	21:57:54.4

BRG	i	Sg	1997/08/13 06:15:12.7
BRG	e	Sg	1997/08/13 10:06:20.7
BRG	i	Sg	1997/08/13 14:00:27.2
MOX	e	Sg	1997/08/14 08:58:38.2
MOX	e	Pg	1997/08/14 09:30:51.2
MOX	e	Sg	1997/08/14 09:31:06.5
MOX	e	Pg	1997/08/14 10:04:29.7
MOX	e	Sg	1997/08/14 10:04:53.9
BRG	e	Sg	1997/08/14 23:09:53.3
MOX	e	Sg	1997/08/14 23:14:06.0
MOX	e	Pg	1997/08/15 03:34:59.6
MOX	e	Sg	1997/08/15 03:35:39.4
CLL	e	Sg	1997/08/15 03:35:05.0
CLL	i	Pg	1997/08/15 04:57:26.4
CLL	i	Sg	1997/08/15 04:57:52.1
CLL	i	Sg	1997/08/15 04:57:52.1
MOX	e	Sg	1997/08/15 06:01:37.6
MOX	e	Sg	1997/08/15 08:33:16.8
CLL	i	Pg	1997/08/15 11:23:34.3
CLL	i	Sg	1997/08/15 11:24:00.1
OGA	i	Pg +	1997/08/15 13:13:31.1
CLL	e	Sg	1997/08/15 13:29:41.0

ML 2.5

BRG	e	Sg	1997/08/15	13:30:06.6
BRG	e	Sg	1997/08/15	16:10:43.6
CLL	e	(Sg)	1997/08/15	19:01:56.0
MOX	i	Pg	1997/08/15	19:22:01.8
MOX	i	Sg	1997/08/15	19:22:03.5
MOX	i	Pg	1997/08/15	19:22:11.6
MOX	i	Sg	1997/08/15	19:22:13.5
BRG	e	Sg	1997/08/15	19:59:03.6
MOX	e	(Sg)	1997/08/15	23:04:57.4
MOX	i	(Sg)	1997/08/15	23:06:59.3
BRG	e	Sg	1997/08/16	02:56:52.4
MOX	e	Sg	1997/08/16	04:54:52.3
CLL	e	(Sg)	1997/08/16	12:22:03.0
CLL	e	Sg	1997/08/16	14:25:05.0
MOX	e	Pg	1997/08/16	14:44:22.3
CLL	e	Sg	1997/08/16	15:12:47.0
CLL	e	(Sg)	1997/08/17	04:14:49.0
BRG	e	Sg	1997/08/17	04:55:57.7
CLL	i	Pn	1997/08/17	19:12:24.9
CLL	i	Pg	1997/08/17	19:12:29.0
CLL	i	Sg	1997/08/17	19:12:54.1
CLL	e	Sg	1997/08/17	23:23:43.0
CLL	i	Sg	1997/08/18	03:04:11.0

ML 2.7

MOX	e	Pg	1997/08/18	08:40:56.2
MOX	e	Sn	1997/08/18	08:41:13.8
MOX	e	Sg	1997/08/18	08:41:28.0
MOX	e	Pg	1997/08/18	09:54:51.5
MOX	e	Sg	1997/08/18	09:54:55.7
MOX	e	(Sg)	1997/08/18	11:28:56.3
MOX	e	(Pg)	1997/08/19	20:18:02.0
MOX	e	Sg	1997/08/19	20:18:12.0
BRG	e	Sg	1997/08/19	20:18:51.0
MOX	e	(Pn)	1997/08/20	02:24:11.6
MOX	e	(Sg)	1997/08/20	02:28:33.6
CLL	e	Sg	1997/08/20	10:21:53.0
CLL	e	Sg	1997/08/20	10:55:24.0
BRG	e	Sg	1997/08/20	10:55:45.3
CLL	e	Pg	1997/08/20	13:18:19.0
CLL	e	Sg	1997/08/20	13:18:42.0
BRG	e	Pg	1997/08/20	13:18:30.0
BRG	e	Sg	1997/08/20	13:19:04.6
CLL	e	Sg	1997/08/20	23:06:38.0
BRG	e	Sg	1997/08/20	23:36:44.2
CLL	i	Sg	1997/08/21	14:00:03.4
BRG	e	Sg	1997/08/21	17:36:39.9
BRG	e	Sg	1997/08/22	00:56:04.8
TNS	e	Pn -	1997/08/22	11:02:31.9

TNS	i	Sg -	1997/08/22 11:02:50.3
CLL	e	Sg	1997/08/22 15:08:07.0
MOX	i	(Sg)	1997/08/22 17:46:00.7
BRG	e	Sg	1997/08/23 00:02:55.0
BRG	e	Pg	1997/08/23 20:19:19.7
BRG	i	Sg	1997/08/23 20:20:01.5
CLL	e	Sg	1997/08/23 20:20:26.0
BRG	e	Pn	1997/08/24 11:49:10.7
BRG	e	Pg	1997/08/24 11:49:16.5
BRG	e	Sg	1997/08/24 11:49:46.1
MOX	e	Sg	1997/08/25 04:36:50.0
BRG	e	Sg	1997/08/25 04:37:16.3
BRG	e	Sg	1997/08/25 20:09:14.4
BRG	e	Sg	1997/08/25 20:47:39.2
CLL	i	Pg	1997/08/26 16:09:33.5
CLL	i	Sg	1997/08/26 16:09:47.0
BRG	e	Sg	1997/08/26 19:01:25.3
GRA1	e	Pg	1997/08/27 11:30:22.3
GRA1	e	Sg	1997/08/27 11:30:38.4
BRG	e	Sg	1997/08/27 17:16:12.6
BRG	e	Sg	1997/08/28 14:28:21.1
CLL	e	Sg	1997/08/28 14:28:16.0
HOF	e	Pn	1997/08/28 20:18:47.0
BRG	e	Pg	1997/08/29 21:15:32.1

ML 2.0

BRG	e	Sg	1997/08/29	21:16:04.3
CLL	e	Sg	1997/08/29	21:16:29.0
BRG	e	Sg	1997/08/31	10:10:19.3
CLL	e	Sg	1997/08/31	10:10:45.0
OGA	e	Pn	1997/08/31	21:16:28.3