

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/01/03	12:46:45.0	+ - 1.08	51.300N	6.490E	23.3	7.8	130	1G		6	4	246	2.0ML	TNS	BGR	I

Krefeld

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg	Z 12:46:56.8	2.2	T	6.2	56.3	73.6	
	e Sg	N 12:47:00.4	-0.7	T				
GSH	e Pg	N 12:46:56.4	0.7	T	2.0	63.1	187.2	
	e Sg	N 12:47:01.3	-1.7	T				
TNS	e Sg	Z 12:47:38.9	1.7	T		182.5	130.3	ML 2.0
CLZ	e Sg	E 12:48:01.4	-2.1	T		275.0	75.8	ML 2.2

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/01/07	18:17:36.9	+ - 0.59	48.676N	8.682E	8.9	5.5	90	22		16	20				ISC	
1997/01/07	18:17:37.5	+ - 0.41	48.680N	8.730E	10.0	5.6	132	5G		7	4	144	1.8ML		SZGRF	L
1997/01/07	18:17:36.3	+ - 0.16	48.711N	8.687E	1.9	1.1	340	22	+ - 0.8	20	7	253	2.2ML		LEDBW	L

Calw/Black Forest

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
LBG	i Pg	- 18:17:40.4	0.1	T		9.5	123.5	ML 2.1
	i Sg	18:17:43.1	0.1	T				
STU	e Sg	E 18:17:48.6	-0.1			37.7	79.7	ML 1.9
ENG	i Sg	18:17:50.6	-0.3	T		46.4	162.8	
BFO	i Pg	+ 18:17:45.5	-0.0	T		49.9	212.0	ML 1.6
	i PmP-	18:17:45.8	-1.2	T				
	i Sg	18:17:51.8	-0.1	T				
	i SmS	18:17:52.5	-1.9	T				
	i Pg	- 18:17:46.2	-0.2	T				
BEU	i PmP-	18:17:46.9	-0.8	T		55.3	104.5	ML 2.2
	i Sg	18:17:53.0	-0.3	T				
	i SmS	18:17:53.5	-2.0	T				
BHB	i Pg	- 18:17:46.5	-0.1	T		56.6	155.5	
	i Sg	18:17:53.4	-0.3	T				
SGW	e Pn	- 18:17:49.5	-0.8	T		77.7	149.7	ML 2.2
	i Pg	+ 18:17:50.1	0.1	T				
	e Sn	18:17:58.7	-1.4	T				
	i Sg	18:17:59.2	-0.1	T				
HEX	e Pn	+ 18:17:50.2	-1.1	T		86.4	207.6	
	e Pg	+ 18:17:51.0	-0.4	T				
	e Sg	18:18:01.4	-0.4	T				
GLO	e Pg	+ 18:17:51.7	-0.4			90.8	216.3	
	i PmP+	18:17:52.0	-1.0					
	i Sg	18:18:02.5	-0.5					
	i SmS	18:18:03.1	-1.3					

KIZ	e	Pn	-	18:17:52.0	-1.3	101.4	214.4	ML	2.2
	e	Pg		18:17:53.2	-0.7				
	e	Sn		18:18:03.8	-1.4				
	e	Sg		18:18:05.2	-0.7				
FELD	e	Pg		18:17:53.8	-0.8	105.7	208.8		
HDH	e	Sg		18:18:08.2	-0.8	112.5	96.6	ML	1.7
ROS	e	Sg		18:18:09.3	-0.4	115.0	359.4		
UBR	e	Pn		18:18:03.1	3.3	155.6	136.9	ML	1.8
	i	Pg	-	18:18:05.2	2.2				
	e	Sg		18:18:21.4	0.2				
TNS	e	Pg	Z	18:18:07.3	2.2	168.9	354.2		
	e	Sg	N	18:18:25.4	0.4				
GRFO	e	Pg	Z	18:18:13.5	0.8	213.9	58.4		
	e	Sg	N	18:18:37.0	-0.7				

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type		
1997/01/11	13:39:03.9			47.997N	7.461E				10G			10				NEIC			
1997/01/11	13:39:03.3	+-	0.39	48.014N	7.463E	4.9	3.4	90	10		27	33				ISC			
1997/01/11	13:39:05.3			47.967N	7.564E	3.6	3.6	0	10	+-	3.5	22	16	269		2.1ML	SED		
1997/01/11	13:39:04.5	+-	0.20	47.992N	7.475E	3.1	1.9	104	10	+-	0.0	26	11	212		2.7ML	LDG	L	
1997/01/11	13:39:08.3	+-	1.78	48.100N	7.680E	17.8	8.9	49	10G		7	5	285			1.6ML	SZGRF	L	
1997/01/11	13:39:04.0	+-	2.01	47.980N	7.550E	17.8	7.8	50	10G		8	6	289			2.4ML	TNS	BGR	L
1997/01/11	13:39:04.2	+-	0.10	48.000N	7.506E	0.9	0.6	79	7	+-	2.1	29	16	107		2.2ML	LEDBW	L	

Muellheim/Upper Rhine Graben, NE of Mulhouse/F

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
LIBD	i Pg +	13:39:08.1	0.5	T		18.2	23.3	
	e Sg	13:39:10.8	1.0	T				
BAW	i Pg -	13:39:08.9	0.2	T		25.7	150.2	
	e Sg	13:39:12.3	0.5	T				
FBB	e Sg	13:39:12.2	0.4	T		25.8	89.5	
KIZ	i Pg -	13:39:09.6	0.0	T		31.1	98.9	ML 2.2
	e Sg	13:39:13.3	-0.0	T				
GLO	i Pg +	13:39:10.3	0.1	T		34.5	80.4	
	i PmP	13:39:11.8	-3.1					
	i Sg	13:39:14.3	0.0	T				
END	i Pg -	13:39:10.5	0.1	T		36.1	151.3	
	i Sg	13:39:14.9	0.2	T				
EFR	e Pg -	13:39:11.0	0.4	T		37.5	173.4	
	i Sg	13:39:16.0	0.9	T				
FELD	i Pg -	13:39:11.1	0.1	T		39.6	110.2	
	e Sg	13:39:16.1	0.4	T				
HEX	e Pg +	13:39:12.4	-0.1	T		47.9	87.0	
	i Sg	13:39:18.3	0.3	T				

BBS	e	Pg	-	13:39:15.0	0.6	T	59.5	179.8										
BFO	e	Pg	+	13:39:16.3	-0.0	T	71.3	58.7	ML	1.6								
	e	PmP+		13:39:17.4	-1.9	T												
	i	Sg		13:39:25.1	0.4	T												
	i	SmS		13:39:27.1	-2.4	T												
LBG	e	Pn	+	13:39:23.5	-1.6	T	120.5	51.7	ML	2.0								
	i	Pg	-	13:39:25.1	0.4	T												
	e	Sg		13:39:39.5	0.8													
SGW	e	Pg	-	13:39:26.1	0.3	T	127.6	84.0	ML	2.7								
	i	Sg		13:39:41.7	1.0													
KTD	e	Sg		13:39:49.0	1.1		152.8	15.9										
BEU	e	Pg		13:39:31.0	0.4		155.4	64.6	ML	2.3								
	e	Sg		13:39:49.1	0.4													
UBR	e	Sg		13:40:01.5	0.9		197.4	99.4	ML	2.3								
TOD	e	Sg		13:40:02.6	0.6		202.2	27.5										
ABH	e	Pg	-	13:39:39.7	-0.0		209.2	0.8										
TNS	e	Sg	E	13:40:17.8	0.3		3.7	256.4	15.1	ML	2.4							
FUR	e	Sn	N	13:40:11.6	-2.0		1.6	280.5	84.9	ML	3.1							
	e	Sg	E	13:40:24.7	0.3		1.8											
GRFO	e	Sg	E	13:40:37.7	-0.9		2.2	330.4	53.9									
WET	e	Pg	Z	13:40:13.5	-1.1			415.1	70.2	ML	2.8							
	e	Sg	E	13:41:02.0	-0.8		2.1											
GEC2	e	Sg	N	13:41:16.3	-1.2		2.3	466.6	76.1									

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/01/17	22:57:37.5		50.176N	12.378E				10G			14		3.3ML	STR	NEIC	
1997/01/17	22:57:36.9	+ - 0.63	50.208N	12.425E	6.2	4.0	90	8	+ - 5.9	31	36		3.3ML	STR	ISC	
1997/01/17	22:57:36.3	+ - 0.80	50.230N	12.430E				10G		6	5	335	3.0ML		LEDBW	L
1997/01/17	22:57:38.4	+ - 0.27	50.230N	12.430E	4.4	3.3	121	10G		16	9	109	2.8ML		SZGRF	L
<b>1997/01/17</b>	<b>22:57:37.8</b>	<b>+ - 0.29</b>	<b>50.220N</b>	<b>12.460E</b>	<b>3.3</b>	<b>3.3</b>	<b>40</b>	<b>10G</b>		<b>17</b>	<b>9</b>	<b>94</b>	<b>3.0ML</b>	<b>TNS</b>	<b>BGR</b>	<b>L</b>

Klingenthal, Kraslice/CR, Erzgebirge

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
HOF	i Pg +	22:57:45.6	0.4			42.7	284.3	
MOX	e Pg Z	22:57:50.9	0.0	T	78.9	76.2	308.6	ML 2.4
	e Sg E	22:57:59.3	-0.4	T				
GRA3	e Pg + Z	22:57:54.6	0.4			96.2	238.5	
GRA1	e Pg + Z	22:57:56.3	0.4			106.3	236.9	
	e Sg N	22:58:08.9	0.6					
GRFO	e Pg Z	22:57:56.1	0.2	T	113.9	106.4	236.9	ML 2.7
	e Sg E	22:58:08.9	0.6	T				
WET	e Pg Z	22:57:58.9	0.1	T	95.8	123.4	165.7	ML 2.6
	e Sg N	22:58:14.1	0.9	T				
CLL	e Pg - Z	22:57:59.0	-0.4			126.8	17.3	ML 3.0
	e Sg N	22:58:14.0	-0.2					



CLZ	e	Sn	E	23:26:39.9	1.8	T	1.4	231.1	321.6	ML	2.2
	e	Sg	E	23:26:45.4	-0.3	T	2.3				
FUR	e	Sg	E	23:26:49.1	-0.7	T	3.6	245.4	201.0	ML	2.6

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/01/18	02:46:46.0	+ - 0.92	51.533N	7.840E	10.2	8.9	0	1		7	9				ISC	
1997/01/18	02:46:47.9	+ - 0.54	51.600N	7.790E	8.9	4.4	161	1G		8	4	196	2.2ML		SZGRF	I
<b>1997/01/18</b>	<b>02:46:47.9</b>	<b>+ - 0.39</b>	<b>51.610N</b>	<b>7.780E</b>	<b>5.6</b>	<b>3.3</b>	<b>161</b>	<b>1G</b>		<b>10</b>	<b>6</b>	<b>116</b>	<b>2.2ML</b>	<b>GSH</b>	<b>BGR</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag	
BUG	e	Pg	Z	02:46:53.6	-1.0	T	4.5	40.0	242.1	ML 2.2
	e	Sg	E	02:46:59.4	0.1	T				
IBBN	e	Pg	Z	02:47:00.3	-0.7	T	2.8	77.5	358.8	ML 2.1
GSH	e	Pg	Z	02:47:10.5	-0.7	T	2.6	137.8	225.8	ML 2.2
	e	Sg	N	02:47:27.9	0.7	T	3.6			
TNS	e	Pn	+	02:47:13.6	-0.9			161.2	162.9	ML 2.1
	e	Pg	Z	02:47:14.6	-0.6	T	3.7			
	e	Sg	N	02:47:33.0	-1.0	T				
CLZ	e	Pg	Z	02:47:17.1	-1.3	T	4.9	180.4	80.8	ML 2.1
	e	Sg	E	02:47:39.3	-0.1	T				
MOX	i	(Pg)		02:47:36.7	-0.0			288.3	110.4	
	e	Sg	E	02:48:11.3	1.1	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/01/19	11:04:56.5	+ - 1.45	47.773N	7.550E	17.3	5.4	90	2		9	9				ISC	
1997/01/19	11:04:56.0		47.766N	7.671E	11.8	5.8	100	2	+ - 0.0	8	4	245	2.1ML		LDG	L
<b>1997/01/19</b>	<b>11:04:56.2</b>	<b>+ - 0.03</b>	<b>47.794N</b>	<b>7.655E</b>	<b>0.40</b>	<b>0.10</b>	<b>108</b>	<b>5</b>	<b>+ - 0.2</b>	<b>10</b>	<b>5</b>	<b>202</b>	<b>1.4ML</b>		<b>LEDBW</b>	<b>L</b>

Sierentz/F, NW of Loerrach/Upper Rhine Graben

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BAW	i	Pg	+	11:04:57.3	0.2	T	1.7	69.8	
	i	Sg		11:04:58.1	0.4	T			
END	i	Pg	-	11:04:58.4	0.2	T	10.7	144.8	
	i	Sg		11:05:00.0	0.4	T			
EFR	e	Pg	-	11:04:59.4	0.3	T	15.9	205.6	
	i	Sg		11:05:01.7	0.7	T			
KIZ	i	Pg	+	11:05:00.9	0.1	T	26.7	47.3	ML 1.5
	i	Sg		11:05:04.2	0.2	T			
WYH	i	Pg	-	11:05:01.0	0.1	T	27.3	172.6	
	i	Sg		11:05:04.5	0.4	T			
BFO	e	Pg	Z	11:05:09.8	0.4		2.5	77.9	39.8
	e	Sg	E	11:05:18.9	0.4				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/01/20	19:01:01.8	+ - 1.09	51.609N	7.820E	11.4	10.8	90	1		6	9				ISC	
1997/01/20	19:01:04.0	+ - 0.56	51.620N	7.780E	7.8	3.3	164	1G		9	5	200	2.0ML		SZGRF	I
<b>1997/01/20</b>	<b>19:01:04.1</b>	<b>+ - 0.39</b>	<b>51.620N</b>	<b>7.790E</b>	<b>5.6</b>	<b>3.3</b>	<b>161</b>	<b>1G</b>		<b>10</b>	<b>6</b>	<b>117</b>	<b>2.1ML</b>	<b>GSH</b>	<b>BGR</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg	Z 19:01:10.1	-1.0	T	4.6	41.2	241.2	ML 1.9
	e Sg	N 19:01:16.1	0.2	T				
IBBN	e Pg	Z 19:01:16.7	-0.4	T	4.6	76.4	358.3	ML 1.8
	e Pg	Z 19:01:26.6	-1.1	T	2.5	139.1	225.6	ML 2.1
TNS	e Sg	E 19:01:44.5	0.6	T				
	e Pg	Z 19:01:30.6	-1.1	T	2.5	162.1	163.2	ML 2.0
CLZ	e Sg	N 19:01:50.8	0.4	T				
	e Pg	Z 19:01:33.4	-1.2	T	6.1	179.5	81.1	ML 2.1
MOX	e Sg	E 19:01:55.9	0.4	T				
	e Sg	E 19:02:25.8	-0.7	T		288.1	110.6	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/01/21	21:38:29.9	+ - 0.41	50.220N	8.200E	7.8	4.4	6	5G		8	6	117	1.3ML		SZGRF	L
<b>1997/01/21</b>	<b>21:38:29.6</b>		<b>50.220N</b>	<b>8.140E</b>				<b>9</b>					<b>2.1ML</b>		<b>IGF</b>	

Limburg/Lahn

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	i Pg +	21:38:32.8	-0.8			21.9	89.2	ML 1.3
	i Sg -	21:38:35.1	-1.2					
GSH	e Pg	Z 21:38:53.4	0.5			137.3	295.4	
	e Sg	N 21:39:09.3	0.4					
BFO	e Pg	Z 21:39:04.7	-0.6			210.6	176.2	
GRA1	e Sg	E 21:39:33.2	-1.7			228.1	103.7	
CLZ	e Sg	E 21:39:38.2	0.4			238.5	40.0	
MOX	e Sg	N 21:39:41.3	0.0			250.6	77.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/01/31	11:50:24.2	+ - 1.10	51.709N	14.892E	34.1	10.8	110	0G		4	3	168	3.1ML		PIDC	
<b>1997/01/31</b>	<b>11:50:24.6</b>	<b>+ - 1.26</b>	<b>51.590N</b>	<b>14.450E</b>	<b>11.1</b>	<b>6.7</b>	<b>68</b>	<b>0G</b>		<b>9</b>	<b>6</b>	<b>285</b>	<b>1.9ML</b>	<b>CLL</b>	<b>BGR</b>	<b>B</b>

S of Cottbus, Oberlausitz

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pg	Z 11:50:39.8	0.4	T	2.2	87.2	204.1	ML 1.9
	e Sg	E 11:50:49.1	-0.4	T	13.8			
CLL	e Pg	Z 11:50:42.6	0.1	T	3.3	105.1	253.2	ML 1.9
	e Sg	E 11:50:55.1	0.4	T	7.2			

MOX	e	Pg	Z	11:51:02.6	0.1	T	2.7	224.0	243.1
	e	Sg	N	11:51:28.1	-0.5	T	5.2		
CLZ	e	Pg	Z	11:51:12.3	-0.2	T	2.0	282.3	277.3
WET	e	Sg	N	11:51:48.3	-0.3	T	2.4	293.9	202.9
GRFO	e	Sg	N	11:51:54.1	0.8	T	2.4	310.5	228.4

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/02/01	14:01:57.6	+ - 0.85	47.814N	7.498E	12.7	8.0	180	0G		7	5	138	3.5ML		PIDC	
1997/02/01	14:01:57.3		47.633N	7.300E				10G			70		3.7ML	LDG	NEIC	
1997/02/01	14:01:58.1	+ - 0.33	47.694N	7.312E	3.5	2.2	90	26	+ - 4.3	115	122		3.3ML	STR	ISC	
1997/02/01	14:01:59.4		47.655N	7.354E	3.1	1.7	59	15	+ - 0.0	95	34	170	3.7ML		LDG	L
1997/02/01	14:01:58.4		47.688N	7.456E	1.5	1.5	0	10	+ - 4.9	22	18	243	3.2ML		SED	
1997/02/01	14:02:01.4	+ - 0.93	47.790N	7.540E	15.6	14.5	91	10G		12	6	293	3.5ML		SZGRF	L
1997/02/01	14:01:59.9	+ - 0.75	47.740N	7.520E	7.8	4.4	36	10G		25	10	267	3.4ML	TNS	BGR	L
<b>1997/02/01</b>	<b>14:01:58.7</b>	<b>+ - 0.06</b>	<b>47.672N</b>	<b>7.476E</b>	<b>0.5</b>	<b>0.4</b>	<b>85</b>	<b>10</b>	<b>+ - 0.8</b>	<b>42</b>	<b>28</b>	<b>74</b>	<b>3.6ML</b>		<b>LEDBW</b>	<b>L</b>

Same epicenter as of the quake on July 15, 1980 (Ml= 4.7, Int.= VII),

Max. Intensity = IV (MSK), Felt in Basel accompanied by acoustic phenomena, felt in Weil am Rhein, Grenzach.

Radius of perceptibility 30 km

Sierentz/F, NW of Loerrach/Upper Rhine Graben

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
EFR	i Pg +	14:02:01.0	0.2	T		6.6	96.4	
	i Sg	14:02:02.8	0.6	T				
BAS	i Pg -	14:02:02.3	0.3	T		16.5	150.9	
	i Sg	14:02:05.2	0.9	T				
END	i Pg +	14:02:02.7	0.1	T		20.2	76.2	
	i Sg	14:02:05.6	0.4	T				
BAW	i Pg +	14:02:02.8	0.1	T		20.6	46.6	
	i Sg	14:02:05.8	0.4	T				
WYH	i Pg -	14:02:02.8	-0.0	T		21.6	128.5	
	i Sg	14:02:05.8	0.3	T				
BBS	e Pg -	14:02:03.3	0.2	T		23.2	173.8	
FELD	i Pg +	14:02:06.9	0.3	T		45.5	59.9	
KIZ	i Pg +	14:02:06.7	-0.0	T		45.7	46.1	ML 3.6
	i Sg	14:02:12.3	0.2	T				
FBB	i Pg +	14:02:07.1	0.3	T		46.2	37.4	
	e Sg	14:02:12.9	0.6	T				
LIBD	i Pg -	14:02:08.5	0.5	T		54.0	10.0	
	e Sg	14:02:15.1	0.6	T				
HEX	i Pg +	14:02:09.6	-0.0	T		63.5	52.1	
	i Sg	14:02:17.2	0.1	T				
BFO	e Pg Z	14:02:14.6	-0.7		455.0	96.9	40.6	ML 3.2
	i Sg	14:02:26.6	-0.0	T				
MSS	e Pg +	14:02:19.8	-0.1			124.6	62.5	
	i Sg	14:02:35.1	0.6					

ENG	e	Sn	14:02:33.5	-1.4		126.0	55.1	
	i	Sg	14:02:35.5	0.6				
SGW	e	Pn +	14:02:20.0	-1.5		138.4	68.9	ML 3.7
	e	Pg	14:02:21.9	-0.4				
	i	Sg	14:02:38.6	0.2				
HSN	e	Pn +	14:02:20.8	-1.5		145.9	60.6	
	i	Pg	14:02:23.2	-0.3				
	e	Sn	14:02:38.4	-0.7				
	i	Sg	14:02:40.9	0.4				
LBG	e	Pn	14:02:20.7	-1.8		147.4	41.1	ML 3.5
	e	Pg	14:02:23.1	-0.7				
	i	Sg	14:02:40.6	-0.3				
BEU	i	Pn +	14:02:24.3	-1.8		176.0	54.1	ML 3.4
	e	Pg +	14:02:28.6	-0.0				
	e	Sn	14:02:44.4	-1.1				
	e	Sg	14:02:48.6	-0.5				
KTD	e	Pg	14:02:30.9	0.2		188.6	13.5	
UBR	e	Pn +	14:02:28.4	-0.2		197.0	88.7	ML 3.3
	e	Sg	14:02:55.8	0.7				
HEI	e	Pn	14:02:28.9	-1.7		212.9	25.2	
	i	Pg	14:02:35.6	0.7				
	i	Sg	14:03:00.2	0.5				
RUP	e	Pg	14:02:36.9	-0.4		227.7	352.4	
TOD	e	Pn	14:02:31.2	-2.2		236.1	23.9	
ABH	e	Pn -	14:02:33.7	-0.9		245.7	1.2	
	i	Pg	14:02:39.9	-0.6				
ROS	e	Pg -	14:02:40.7	0.1		246.6	20.3	
HOL	e	Pg	14:02:41.3	-0.8		255.4	41.4	ML 3.8
	e	Sg	14:03:10.3	-1.5				
OGA	i	Pg +	14:02:47.1	0.5		282.3	107.2	
FUR	e	Pg Z	14:02:47.9	0.3	3.9	288.3	77.7	ML 3.7
	e	Sg E	14:03:22.5	1.3	7.8			
TNS	e	Pn Z	14:02:39.9	-0.4	5.7	292.3	13.7	ML 3.4
	e	Pg Z	14:02:47.9	-0.5	11.2			
	e	Sn E	14:03:10.5	0.5	11.3			
	e	Sg E	14:03:21.9	-0.4	70.3			
SCE	i	Pn +	14:02:46.5	2.1		326.6	100.9	
GSH	e	Pn Z	14:02:47.6	0.3	2.7	350.0	347.2	ML 3.0
	e	Pg Z	14:02:58.4	0.3	4.1			
	e	Sg E	14:03:37.8	-1.0	4.8			
GRA1	e	Pg Z	14:02:58.9	-0.0		355.0	49.4	ML 3.8
	e	Sg N	14:03:39.0	-1.2				
BUG	e	Sg N	14:03:58.8	0.2	2.6	419.3	358.0	ML 3.3
WET	e	Pn Z	14:02:59.5	2.4	1.6	430.9	65.7	ML 3.7
	e	Pg Z	14:03:11.4	-0.4	6.1			
	e	Sg N	14:04:01.3	-0.6	20.7			
HOF	e	Pg	14:03:11.3	-1.2		435.1	45.9	
MOX	e	Pn Z	14:03:00.0	0.9	2.0	446.9	40.8	ML 3.7
	e	Pg Z	14:03:13.1	-1.4	11.0			



	e	Sn	E	14:03:44.0	1.3												
	e	Sg	E	14:04:04.6	-1.9			37.9									
GEC2	e	Pn	Z	14:03:05.8	2.8			5.0	478.8	71.9							
	e	Pg	Z	14:03:20.5	0.6			8.3									
	e	Sg	E	14:04:15.6	-0.0			21.5									
CLZ	e	Pg	Z	14:03:25.4	0.6			2.9	508.1	23.1			ML	3.6			
	e	Sg	N	14:04:22.7	-1.2			12.7									
CLL	e	Pg		14:03:34.0	-1.0				567.8	42.6							
	e	Sg		14:04:40.0	-1.0												
BRG	e	Pg	Z	14:03:37.0	-1.5			4.2	588.5	50.4			ML	3.7			
	e	Sg	N	14:04:44.7	-2.2			13.8									

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/02/08	21:47:27.4	+ - 1.34	51.133N	5.816E	10.6	8.8	90	26	+ - 12.1	24	24		2.0ML	UCC	ISC	
1997/02/08	21:47:31.5		50.932N	5.863E	5.1	3.8	34	15	+ - 0.0	44	18	274	2.7ML		LDG	L
1997/02/08	21:47:28.3		51.127N	5.975E				12					2.1ML		KNMI	
1997/02/08	21:47:29.0	+ - 1.14	51.138N	6.079E	13.3	4.4	102	10G		7	4	246	2.5ML	TNS	BGR	L
<b>1997/02/08</b>	<b>21:47:27.5</b>		<b>51.128N</b>	<b>5.931E</b>				<b>15G</b>			<b>4</b>		<b>2.0ML</b>		<b>GLA</b>	<b>L</b>

Waldfeucht, S of Roermond/NL, Dutch-German border region

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
GSH	e Pg	Z	21:47:37.5	0.6	T		53.5	144.1	ML 2.0
	e Sg	N	21:47:44.5	1.1	T				
BUG	e Pg	Z	21:47:44.0	-0.5		10.7	99.3	69.0	ML 2.7
	e Sg	N	21:47:55.5	-0.8					
IBBN	e Sg	N	21:48:18.6	-1.0			181.7	43.1	ML 2.6
TNS	e Pn	Z	21:47:58.7	1.0		1.2	203.9	118.6	ML 2.5
	e Sg	E	21:48:24.4	-1.5					
CLZ	e (Sg)	N	21:48:55.2	-3.1			317.5	73.8	ML 2.9
BFO	e (Sg)	N	21:49:07.5	-1.7			355.6	150.1	
MOX	e (Sg)	E	21:49:19.2	-3.3			402.2	95.5	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/02/12	18:49:14.6		51.324N	5.906E				10G			17		2.6ML	DBN	NEIC	
	Less reliable solution															
1997/02/12	18:49:16.4	+ - 1.00	51.128N	5.883E	10.8	6.6	90	10	+ - 7.5	24	25		2.4ML	UCC	ISC	
1997/02/12	18:49:19.5		51.081N	5.867E	6.6	3.9	42	2	+ - 0.0	34	18	279	3.0ML		LDG	L
1997/02/12	18:49:19.1		51.155N	5.970E				16					2.4ML		KNMI	
1997/02/12	18:49:19.6	+ - 1.13	51.177N	6.062E	14.5	5.6	104	10G		8	4	246	2.5ML	TNS	BGR	L
<b>1997/02/12</b>	<b>18:49:18.8</b>		<b>51.168N</b>	<b>5.947E</b>				<b>15G</b>			<b>8</b>	<b>317</b>	<b>2.3ML</b>		<b>GLA</b>	<b>L</b>

Waldfeucht, S of Roermond/NL, Dutch-German border region

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
JCK	i Pg	Z	18:49:25.6	0.1	T		36.9	113.2	
	i Sg	E	18:49:30.4	0.2	T				
GSH	e Pg	Z	18:49:28.9	0.2	T		56.6	147.7	ML 2.3
	e Sg	N	18:49:35.8	0.3	T				
OLF	e Pg	Z	18:49:32.9	-0.0	T		81.8	155.8	ML 2.5
	e Sg	N	18:49:42.7	0.1	T				
BUG	e Pg	Z	18:49:34.6	-0.8		5.8	96.8	71.2	ML 3.0
	e Sg	N	18:49:46.4	-0.3					
IBBN	e Sg	N	18:50:08.3	-1.4			177.7	43.8	ML 2.6
TNS	e Pn	Z	18:49:49.8	0.7		1.7	205.1	119.9	ML 2.5
	e Pg	Z	18:49:53.3	-0.3		5.8			
	e Sg	N	18:50:15.6	-2.0					
CLZ	e (Sg)	E	18:50:46.1	-2.9			315.3	74.5	ML 2.9
MOX	e (Sg)	E	18:51:08.1	-5.5			401.6	96.1	
CLL	e (Sg)	E	18:51:36.4	-2.8			491.2	85.4	

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/02/16	16:40:11.6	+-	0.91	49.310N	6.801E	12.1	5.5	90	0		12	16				ISC	
1997/02/16	16:40:12.8	+-	0.67	49.340N	6.790E	10.0	4.4	66	1G		6	3	215	2.4ML	TNS	BGR	I
1997/02/16	16:40:13.4	+-	0.71	49.330N	6.770E	8.9	4.4	63	1G		7	5	216	2.1ML		SZGRF	I
<b>1997/02/16</b>	<b>16:40:12.9</b>	<b>+-</b>	<b>0.70</b>	<b>49.340N</b>	<b>6.810E</b>	<b>9.0</b>	<b>3.0</b>	<b>87</b>	<b>1G</b>		<b>16</b>	<b>11</b>	<b>204</b>	<b>2.4ML</b>		<b>LEDBW</b>	<b>I</b>

## Saarbruecken-West

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg	-	16:40:20.6	0.2	T		44.1	24.0	
	e Sg		16:40:26.4	0.9	T				
ABH	i Pg	+	16:40:26.4	-0.2	T		80.3	41.1	
KTD	e Pg		16:40:29.9	1.4			92.3	90.9	
TOD	i Sg		16:40:56.1	1.2	T		147.1	77.7	
TNS	e Pn	Z	16:40:38.4	-0.1		3.3	153.1	49.5	ML 2.4
	i Pg	-	16:40:39.4	0.5					
	e Sg	N	16:40:57.1	0.5		4.9			
BFO	e Pg	N	16:40:39.9	0.2			158.0	134.7	ML 1.9
	e Sg	N	16:40:58.2	0.2					
GSH	e Pg	Z	16:40:39.0	-0.7			158.4	348.9	ML 2.1
	e Sg	N	16:40:58.4	0.2					
LBG	e Pg		16:40:40.8	0.2	T		163.1	116.7	ML 2.4
	e Sg		16:40:59.6	0.1	T				
KIZ	e Pg	-	16:40:42.2	-0.2	T		174.1	151.7	ML 2.4
	e Sg		16:41:02.1	-0.5	T				
FELD	e Pg		16:40:44.2	-0.1	T		184.9	151.2	
BEU	e Pg		16:40:48.2	0.1	T		207.9	112.9	ML 2.3
	e Sg		16:41:12.2	-0.1	T				
HOL	e Sg		16:41:17.3	2.3			217.4	88.0	ML 2.3

SGW	e	Pg	-	16:40:50.7	-0.1	T	223.4	126.9	ML	2.4
	e	Sg		16:41:16.7	-0.1	T				
BUG	e	Sg	N	16:41:21.7	1.4		235.8	7.8	ML	2.4
GRA1	e	Sg	E	16:41:46.5	2.0		320.8	81.3		
CLZ	e	Sg	N	16:42:01.0	1.0		374.9	40.8		

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/02/20	15:39:33.4		47.754N	7.411E				20G			38		3.1ML	VIE	NEIC	
1997/02/20	15:39:32.8	+ - 0.70	47.777N	7.402E	4.5	3.2	90	14	+ - 6.2	49	59		3.1ML	STR	ISC	
1997/02/20	15:39:33.6		47.840N	7.548E	5.6	3.5	44	15	+ - 0.0	42	20	218	3.2ML		LDG	L
1997/02/20	15:39:34.4		47.828N	7.540E	3.8	3.8	0	10	+ - 16.6	15	12	283	2.7ML		SED	
1997/02/20	15:39:30.3	+ - 1.54	47.640N	7.460E	14.5	6.7	21	10G		7	5	282	2.6ML	BFO	BGR	L
1997/02/20	15:39:38.7	+ - 1.40	47.900N	7.700E	20.0	8.9	30	5G		9	6	275	2.8ML		SZGRF	L
<b>1997/02/20</b>	<b>15:39:34.4</b>	<b>+ - 0.06</b>	<b>47.810N</b>	<b>7.556E</b>	<b>0.9</b>	<b>0.6</b>	<b>119</b>	<b>21</b>	<b>+ - 0.6</b>	<b>55</b>	<b>35</b>	<b>69</b>	<b>3.1ML</b>		<b>LEDBW</b>	<b>L</b>

Max. Intensity = III (MSK), Felt in Neuenburg am Rhein and Muellheim, Radius of perceptibility 15 km

Muellheim/Upper Rhine Graben, NE of Mulhouse/F

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BAW	i Pg +	15:39:38.2	-0.0	T		9.1	97.4	
	i Sg	15:39:40.9	0.0	T				
EFR	i Pg +	15:39:38.9	0.0	T		16.1	178.0	
	i Sg	15:39:42.1	0.2	T				
END	i Pg +	15:39:38.9	-0.1	T		17.2	127.8	
	i Sg	15:39:42.0	-0.1	T				
BAS	i Pg +	15:39:40.7	0.1	T		29.8	176.1	
	i Sg	15:39:45.3	0.5	T				
FBB	i Pg +	15:39:40.9	0.2	T		30.7	46.0	
	e Sg	15:39:45.2	0.2	T				
KIZ	i Pg +	15:39:40.8	-0.1	T		31.5	58.8	ML 3.3
	i Sg	15:39:45.1	-0.0	T				
FELD	i Pg +	15:39:41.4	0.2	T		34.2	77.4	
LIBD	e Pg +	15:39:42.2	0.4	T		38.0	5.3	
BBS	i Pg +	15:39:41.9	0.1	T		38.6	185.2	
	e Sg	15:39:47.0	0.0	T				
HEX	i Pg +	15:39:43.5	-0.1	T		50.1	61.9	
	e Sg	15:39:49.7	-0.2	T				
	i SmS	15:39:50.6	-2.0	T				
BFO	e Pn +	15:39:47.5	-1.5	T		81.5	44.5	ML 2.4
	e Pg	15:39:48.5	-0.2	T				
	e Sg	15:39:58.3	-0.2					
ENG	e Sn	15:40:04.7	-1.2	T		112.7	59.8	
	e Sg	15:40:07.1	-0.0	T				
MSS	i Sg	15:40:07.1	-0.1	T		112.7	68.1	
SGW	e Pn +	15:39:53.6	-1.0	T		127.9	74.4	ML 3.1
	e Pg	15:39:55.8	-0.5	T				

	e	Sg		15:40:10.8	-0.6	T											
LBG	e	Pn		15:39:53.9	-1.2	T		132.0	43.6	ML	3.0						
	e	Pg		15:39:56.7	-0.4	T											
BEU	e	Pn		15:39:57.4	-1.5	T		162.5	57.3	ML	3.1						
	e	Pg		15:40:01.0	-1.2	T											
	e	Sg		15:40:20.4	-0.8	T											
UBR	e	Pn -		15:40:02.8	0.4	T		191.3	93.4	ML	3.1						
	e	Pg		15:40:09.0	2.0												
	e	Sg		15:40:29.1	-0.3	T											
ABH	e	Pn		15:40:06.7	-0.5			230.3	359.8								
HOL	e	Pg		15:40:15.4	0.2			240.0	42.9	ML	3.1						
	e	Sg		15:40:43.4	0.2												
TNS	e	(Pn) Z		15:40:13.3	0.5		1.8	276.0	13.3	ML	2.7						
	e	Sg E		15:40:55.5	2.0												
GRC1	e	Sg N		15:41:05.5	-0.8			321.0	64.3	ML	3.0						
GSH	e	Sg N		15:41:11.4	0.7			336.5	345.7								
GRFO	e	(Sg) E		15:41:12.9	1.1		4.3	340.4	50.7								
GRA1	e	Pg Z		15:40:33.4	1.2			340.6	50.7	ML	3.3						
	e	Sg E		15:41:13.2	1.3												
WET	e	Pg E		15:40:45.0	-0.6			419.3	67.3								
	e	Sg N		15:41:33.4	-1.0												

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/03/01	12:17:14.6			48.008N	8.756E				1		10	6	305	2.3ML		SED	
presumably quarry blast (after LEDBW)																	

Spaichingen/Swabian Jura, S of Albstadt

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/03/01	12:28:04.5	+-	9.06	51.689N	6.688E	64.5	35.5	0	0		6	7				ISC	
1997/03/01	12:28:09.6	+-	0.52	51.510N	6.920E	7.8	4.4	114	1G		8	4	188	2.3ML		SZGRF	I
1997/03/01	12:28:08.5	+-	0.49	51.510N	6.940E	7.8	4.4	120	1G		11	5	187	2.3ML	GSH	BGR	I
1997/03/01	12:28:07.9			51.534N	6.916E				1G					1.6ML		RUB	I

Duisburg, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg + Z	12:28:13.2	0.8	TA		26.6	112.9	ML 1.6
	e Sg E	12:28:17.5	2.0					
GSH	e Pg Z	12:28:23.8	-0.4		4.1	96.3	203.2	ML 2.3
	e Sg N	12:28:36.5	1.1					
IBBN	e Pg Z	12:28:25.6	0.1		3.7	103.5	33.5	ML 2.4
	e Sg N	12:28:39.5	2.1					
TNS	e Pn	12:28:37.7	0.8			181.1	143.0	ML 2.6
	e Pg Z	12:28:38.2	-0.5		3.2			

	e	Sg	N	12:28:58.4	-1.3												
CLZ	e	Pn	Z	12:28:44.5	0.3	1.4	240.7	80.5	ML	2.4							
	e	Pg	Z	12:28:48.9	0.2	5.2											
	e	Sg	N	12:29:15.5	-1.2												

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/03/10	14:18:27.6		47.795N	7.797E				10G			10		2.0ML	STR	NEIC	
1997/03/10	14:18:27.7	+ - 0.59	47.785N	7.774E	6.9	5.0	90	10		12	12				ISC	
1997/03/10	14:18:28.3		47.787N	7.812E	2.1	2.1	0	10	+ - 9.2	14	10	260	1.8ML		SED	
<b>1997/03/10</b>	<b>14:18:27.9</b>	<b>+ - 0.06</b>	<b>47.793N</b>	<b>7.798E</b>	<b>1.1</b>	<b>0.5</b>	<b>124</b>	<b>15</b>	<b>+ - 0.5</b>	<b>21</b>	<b>12</b>	<b>135</b>	<b>2.0ML</b>		<b>LEDBW</b>	<b>L</b>

Schopfheim, NE of Basel/CH

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BAW	i Pg +	14:18:31.1	0.1	T		9.1	274.5	
	i Sg	14:18:33.4	0.3	T				
END	i Pg +	14:18:31.2	0.2	T		9.8	207.5	
	i Sg	14:18:33.5	0.3	T				
FELD	i Pg +	14:18:32.2	0.3	T		18.0	58.8	
	i Sg	14:18:35.3	0.6	T				
KIZ	i Pg +	14:18:32.3	0.0	T		20.2	26.2	ML 2.0
	i Sg	14:18:35.4	0.2	T				
WYH	i Pg +	14:18:33.2	-0.1	T		27.9	195.0	
	i Sg	14:18:37.0	-0.0	T				
HEX	i Pg +	14:18:34.6	-0.0	T		36.5	45.8	
	e Sg	14:18:39.2	0.0	T				
LIBD	i Pg +	14:18:36.0	0.5	T		42.3	340.0	
	e Sg	14:18:41.7	0.9	T				
BBS	i Pg +	14:18:35.7	0.1	T		42.5	210.8	
	i Sg	14:18:41.3	0.4	T				
BFO	e P* +	14:18:40.2		T		71.6	33.3	
	e Sg	14:18:48.6	-0.3					
SGW	i Sg	14:19:00.0	0.0			111.2	71.2	ML 2.0
LBG	e Sg	14:19:02.6	-0.4			121.8	36.9	ML 1.9

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/03/19	11:28:11.7		47.795N	7.988E				5G			9		2.3ML	VIE	NEIC	
1997/03/19	11:28:11.0	+ - 0.75	47.786N	8.043E	7.2	6.7	90	5		15	15		2.5ML	STR	ISC	
1997/03/19	11:28:11.4		47.818N	7.996E	2.5	2.5	0	0G		12	10	255	1.9ML		SED	B?
<b>1997/03/19</b>	<b>11:28:11.5</b>	<b>+ - 0.09</b>	<b>47.810N</b>	<b>8.006E</b>	<b>1.5</b>	<b>0.6</b>	<b>110</b>	<b>0G</b>		<b>21</b>	<b>13</b>	<b>121</b>	<b>2.1ML</b>		<b>LEDBW</b>	<b>B</b>

Quarry blast near Bernau

Neustadt/Southern Black Forest, SE of Freiburg

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
FELD	i Pg +	11:28:12.9	0.2	T		7.4	358.8	
	e Sg	11:28:14.1	0.5	T				
KIZ	i Pg +	11:28:14.5	0.1	T		17.5	338.1	ML 1.7
	i Sg	11:28:16.9	0.4	T				
END	i Pg +	11:28:15.4	0.1	T		22.7	242.3	
	i Sg	11:28:18.5	0.6	T				
SOL	i Pg +	11:28:15.5	0.0	T		23.6	191.2	
	i Sg	11:28:18.6	0.4	T				
BAW	i Pg +	11:28:15.7	0.0	T		24.6	267.4	
	e Sg	11:28:19.1	0.6	T				
HEX	i Pg +	11:28:16.1	0.2	T		25.8	24.5	
	i Sg	11:28:19.5	0.7	T				
WYH	e Pg +	11:28:17.8	0.1	T		36.7	218.4	
	e Sg	11:28:22.6	0.6	T				
BBS	i Pg +	11:28:21.0	0.4	T		53.5	224.3	
BFO	e Pg Z	11:28:22.3	0.2		13.9	62.6	22.5	
	e Sg E	11:28:30.3	1.0					
SGW	e Pg -	11:28:28.8	1.1	T		95.9	69.4	ML 2.4
	e Sg	11:28:42.4	3.5					
LBG	e Pg	11:28:31.3	1.0	T		111.5	31.3	ML 2.1
BEU	i Pn -	11:28:33.6	-1.5	T		135.3	50.0	ML 2.2
	i Pg -	11:28:35.2	0.7	T				
UBR	e Pn	11:28:37.6	-0.2			157.8	94.4	ML 2.0
	e Pg -	11:28:39.2	1.0					
	e Sg	11:28:58.9	2.4					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/03/20	00:19:54.2	+/- 1.10	52.370N	7.710E	17.8	6.7	152	1G		8	5	259	2.3ML		SZGRF	I
1997/03/20	00:19:54.0	+/- 0.95	52.350N	7.800E	15.6	10.0	138	1G		7	5	255	2.5ML	BUG	BGR	I

Tecklenburg/Ibbenbueren, W of Osnabrueck

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
IBBN	e Pg Z	00:19:54.1	-0.9	T		5.6	211.8	
BUG	e Pg Z	00:20:12.4	0.2	T		107.5	200.0	ML 2.5
	e Sg N	00:20:26.5	1.8	T				
CLZ	e Pg Z	00:20:24.1	-1.2	T		184.6	106.8	ML 2.0
	e Sg N	00:20:50.4	3.7					
GSH	e Pg Z	00:20:28.4	-0.3	T		204.6	209.3	ML 2.3
	e Sg E	00:20:51.9	-0.6	T				
TNS	i Pn	00:20:33.0	2.7			240.8	169.0	ML 2.5
	e Sg E	00:21:02.0	-0.8	T				
MOX	e Sg	00:21:29.5	2.6			325.1	124.2	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/03/20	23:47:34.9		49.344N	6.796E				10G			21		2.6ML	STR	NEIC	I
Mining induced event in the Lorraine region, France																
1997/03/20	23:47:33.6	+ - 0.42	49.327N	6.715E	6.0	3.1	90	0		27	30				ISC	
1997/03/20	23:47:35.2		49.361N	6.762E	6.0	3.4	56	2	+ - 0.0	25	11	210	2.6ML		LDG	L
1997/03/20	23:47:36.2	+ - 0.73	49.340N	6.780E	11.1	4.4	65	1G		6	3	215	1.9ML		SZGRF	I
<b>1997/03/20</b>	<b>23:47:35.7</b>	<b>+ - 0.40</b>	<b>49.340N</b>	<b>6.780E</b>	<b>6.0</b>	<b>2.0</b>	<b>97</b>	<b>1</b>	<b>+ - 5.0</b>	<b>18</b>	<b>12</b>	<b>207</b>	<b>2.1ML</b>		<b>LEDBW</b>	<b>I</b>

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg +	23:47:43.5	0.2	T		45.0	26.5	
	i Sg	23:47:49.2	0.6	T				
ABH	i Pg -	23:47:49.2	-0.4	T		81.8	42.3	
	i SmS	23:48:02.7	-1.9	T				
TOD	i Sg	23:48:18.8	0.5	T		149.2	77.8	
TNS	e Pn	23:48:00.2	-1.3			154.8	50.0	ML 2.1
	e Pg Z	23:48:01.6	-0.3					
	e Sg E	23:48:20.7	0.7					
GSH	e Pg Z	23:48:02.0	-0.5			158.0	349.7	ML 1.9
	e Sg N	23:48:20.8	-0.1					
BFO	e Pg Z	23:48:02.6	-0.2			159.6	134.1	ML 1.8
	e Sg N	23:48:21.1	-0.2					
LBG	e Sg	23:48:23.9	1.0	T		165.1	116.3	ML 2.1
KIZ	e Pg	23:48:04.9	-0.4	T		175.1	151.1	ML 2.1
	e Sg	23:48:24.9	-0.9	T				
FELD	i Pg +	23:48:07.0	-0.2	T		186.0	150.6	
	i Sg	23:48:28.4	-0.4	T				
BEU	e Pg	23:48:10.7	-0.6	T		209.9	112.6	ML 2.0
HOL	e Sn	23:48:32.7	-0.7			219.5	88.0	ML 2.1
	e Sg	23:48:40.2	1.7	T				
SGW	i Pg -	23:48:13.5	-0.4	T		225.2	126.6	ML 2.0
	i Sg	23:48:40.4	0.4	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/03/21	07:24:58.3		49.247N	6.527E				10G			16		2.6ML	STR	NEIC	I
Mining induced event in the Lorraine region, France																
1997/03/21	07:24:54.9	+ - 0.46	49.335N	6.666E	7.3	3.1	90	0		22	25		2.5ML	DBN	ISC	
1997/03/21	07:24:56.7		49.353N	6.731E	6.6	3.1	58	2	+ - 0.0	21	9	208	2.7ML		LDG	L
1997/03/21	07:24:57.8	+ - 0.71	49.340N	6.820E	11.1	4.4	65	1G		6	3	213	2.2ML	TNS	BGR	I
<b>1997/03/21</b>	<b>07:24:57.4</b>	<b>+ - 0.40</b>	<b>49.340N</b>	<b>6.870E</b>	<b>7.0</b>	<b>2.0</b>	<b>93</b>	<b>1G</b>		<b>11</b>	<b>8</b>	<b>205</b>	<b>2.1ML</b>		<b>LEDBW</b>	<b>I</b>

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg +	07:25:04.8	0.2	T		42.5	18.7	

ABH	i	Pg +	07:25:10.4	-0.1	T	77.5	38.8										
	i	SmS	07:25:23.8	-1.4	T												
KTD	i	SmS	07:25:27.0	-0.7	T	88.0	91.0										
TNS	e	Pg Z	07:25:23.2	0.4		2.0	149.8	48.5	ML	2.2							
	e	Sg N	07:25:41.2	1.0													
BFO	e	Pg Z	07:25:23.8	0.1		2.7	155.0	135.9	ML	1.8							
	e	Sg E	07:25:42.4	0.7													
LBG	e	Sg	07:25:43.8	0.9	T	159.2	117.4		ML	2.1							
GSH	e	Pg Z	07:25:23.0	-1.4		1.1	159.3	347.4	ML	1.9							
	e	Sg E	07:25:42.8	-0.1													
KIZ	e	Pg	07:25:29.8	3.3			172.1	153.0	ML	2.1							
	e	Sg	07:25:46.2	-0.3	T												
FELD	i	Pg +	07:25:28.5	0.1	T	182.9	152.4										
	i	Sg	07:25:49.8	0.2	T												
SGW	e	Sg	07:26:01.0	0.7		220.0	127.7		ML	2.2							

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/03/21	10:00:49.3	+/- 0.98	49.111N	6.833E	19.3	5.3	90	0		9	9				ISC	
1997/03/21	10:00:48.8	+/- 1.10	49.110N	6.590E	16.0	3.0	87	1G		7	4	243	2.0ML		LEDBW	I
<b>1997/03/21</b>	<b>10:00:51.2</b>	<b>+/- 0.95</b>	<b>49.150N</b>	<b>6.860E</b>	<b>14.5</b>	<b>5.6</b>	<b>68</b>	<b>1G</b>		<b>5</b>	<b>3</b>	<b>219</b>	<b>1.8ML</b>	<b>TNS</b>	<b>BGR</b>	<b>I</b>

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg -	10:01:01.6	-0.3			63.0	13.1	
	i Sg	10:01:09.3	0.1					
	SmS	10:01:11.8	-4.1					
ABH	i Pg -	10:01:07.2	-0.2			95.3	31.1	
	SmS	10:01:22.4	-0.8					
BFO	e Pg Z	10:01:14.6	-0.6	T	4.9	141.1	129.7	ML 1.7
	e Sg N	10:01:31.2	-0.4	T				
KIZ	e Sg	10:01:34.8	-0.4			153.9	149.2	ML 2.0
FELD	i Pg	10:01:18.1	-1.0			164.8	148.8	
	i Sg	10:01:38.9	0.6					
TNS	e Pg Z	10:01:18.3	-0.9	T	2.1	165.1	43.2	ML 1.8
	e Sg E	10:01:38.4	-0.0	T				
GSH	e Sg E	10:01:42.1	-0.5	T		179.8	349.1	ML 1.9

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/03/21	20:58:24.0		50.196N	7.305E				5G			8		2.1ML	DBN	NEIC	
1997/03/21	20:58:23.0	+/- 0.83	50.304N	7.304E	10.2	5.1	90	8	+/- 8.3	16	22				ISC	
1997/03/21	20:58:25.1		50.272N	7.252E	9.1	4.3	45	2	+/- 0.0	19	8	269	2.6ML		LDG	L
1997/03/21	20:58:24.9	+/- 2.00	50.330N	7.210E	17.0	16.0	339	2G		8	4	325	2.0ML		LEDBW	L
1997/03/21	20:58:25.4	+/- 0.40	50.380N	7.380E	4.4	3.3	55	10G		9	6	136	2.1ML		SZGRF	L
<b>1997/03/21</b>	<b>20:58:24.7</b>	<b>+/- 0.38</b>	<b>50.360N</b>	<b>7.390E</b>	<b>4.4</b>	<b>3.3</b>	<b>31</b>	<b>10G</b>		<b>12</b>	<b>8</b>	<b>137</b>	<b>2.1ML</b>	<b>CLZ</b>	<b>BGR</b>	<b>L</b>

Koblentz/Middle Rhine Area



Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
ABH	i Pg +	20:58:34.5	0.5			54.4	168.0	
	i Sg	20:58:40.3	-0.1					
TNS	e Pg Z	20:58:39.2	1.4	T	3.9	76.6	101.1	ML 2.0
	e Sg E	20:58:47.4	0.6	T	42.9			
RUP	i Pg +	20:58:37.3	-0.5			76.9	198.0	
	i SmS	20:58:49.5	-1.4					
GSH	e Pg Z	20:58:39.5	0.6	T	2.2	82.9	300.7	ML 1.9
	e Sg E	20:58:48.3	-0.2	T	15.1			
BUG	e Pg Z	20:58:44.9	-0.3	T	4.0	120.4	356.0	ML 2.3
	e Sg E	20:58:59.2	-0.1	T	8.2			
HOL	e Sg	20:59:24.7	1.3			205.4	121.4	ML 2.0
LBG	e Sg	20:59:24.0	-1.9			214.1	151.2	ML 2.0
IBBN	e Sg N	20:59:26.6	-0.5			218.0	6.6	
BFO	e Sg E	20:59:31.6	-0.5	T	6.2	235.7	162.9	ML 2.0
CLZ	e Pg Z	20:59:08.8	-0.9	T	2.1	265.5	50.5	ML 2.1
	e Sg N	20:59:40.7	0.1	T	4.0			
FELD	i Pg -	20:59:11.7	-0.4			279.7	170.6	
	i Sg	20:59:45.8	1.2					
GRA1	e Sg N	20:59:47.4	1.6			283.6	103.7	
MOX	e Sg E	20:59:50.8	0.2	T	2.7	300.5	82.3	ML 2.2
CLL	e Sg E	21:00:21.7	0.4	T	2.0	407.9	72.9	ML 2.5
WET	e Sn N	21:00:03.6	1.2	T	1.2	416.7	106.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/03/27	11:15:43.5		48.257N	9.909E				10G			8		2.6ML	VIE	NEIC	
1997/03/27	11:15:35.2	+ - 3.18	48.811N	10.289E	21.9	16.4	0	10		8	8				ISC	
1997/03/27	11:15:36.2		48.544N	10.869E				1		10	10	310	2.3ML		SED	
<b>1997/03/27</b>	<b>11:15:37.6</b>	<b>+ - 0.30</b>	<b>48.770N</b>	<b>10.170E</b>	<b>4.4</b>	<b>3.3</b>	<b>3</b>	<b>0G</b>		<b>16</b>	<b>8</b>	<b>121</b>	<b>2.2ML</b>	<b>GRFO</b>	<b>BGR</b>	<b>B</b>

## Heidenheim/Swabian Jura

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
FUR	e Pg Z	11:15:56.3	0.8	T	5.4	105.8	129.2	ML 2.4
	e Sg N	11:16:09.6	1.8	T	4.9			
GRFO	e Pg Z	11:15:59.0	-0.2	T	2.8	127.7	36.3	ML 2.2
	e Sg N	11:16:15.7	1.6	T	9.8			
BFO	e Pg Z	11:16:02.0	-0.0	T	6.8	144.0	250.8	ML 2.2
	e Sg N	11:16:17.4	-1.3	T	18.4			
WET	e Pn Z	11:16:10.3	1.0	T	1.4	202.0	77.1	ML 2.1
	e Sg N	11:16:34.2	-1.1	T	14.0			
TNS	e Pg Z	11:16:13.3	1.1	T	3.1	203.9	323.0	ML 2.4
	e Sg N	11:16:36.7	0.9	T	5.6			
MOX	e Pn Z	11:16:12.4	-0.6	T	2.7	232.9	26.0	ML 2.2
	e Sg N	11:16:43.4	-0.7	T	3.4			

GEC2	e	Pn	Z	11:16:16.4	0.2	T	1.3	258.7	86.8
	e	Pg	Z	11:16:20.6	-0.8	T	3.5		
	e	Sg	N	11:16:51.1	-0.4	T	13.0		
CLL	e	Pn	Z	11:16:25.5	-1.4	T	2.9	347.1	34.6

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/04/01	21:59:42.3		48.323N	8.912E				5G			12		2.5ML	STR	NEIC	
1997/04/01	21:59:40.3	+ - 0.46	48.384N	9.014E	5.3	5.2	90	13	+ - 7.5	22	28				ISC	
1997/04/01	21:59:44.7		48.213N	8.887E	30.3	30.3	0	10	+ - 10.2	8	8	300	2.0ML		SED	
1997/04/01	21:59:41.9	+ - 0.43	48.390N	8.990E	7.8	4.4	169	10G		9	6	164	2.1ML		SZGRF	L
1997/04/01	21:59:41.8	+ - 0.40	48.380N	9.020E	5.6	3.3	174	10G		12	7	166	2.1ML	GRFO	BGR	L
<b>1997/04/01</b>	<b>21:59:41.6</b>	<b>+ - 0.09</b>	<b>48.358N</b>	<b>9.008E</b>	<b>1.0</b>	<b>0.8</b>	<b>340</b>	<b>9</b>	<b>+ - 1.0</b>	<b>43</b>	<b>20</b>	<b>64</b>	<b>2.1ML</b>		<b>LEDBW</b>	<b>L</b>

Intensity = III (MSK) in the area of Hechingen.

Ebingen/Swabian Jura

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
MSG	i Pg +	21:59:43.5	0.1	T		5.0	23.8	
	i Sg	21:59:44.9	0.2	T				
ENG	i Pg -	21:59:44.2	0.1	T		11.2	243.2	
	i Sg	21:59:46.1	0.3	T				
BHB	i Pg +	21:59:44.4	0.2	T		12.3	181.3	
	i Sg	21:59:46.5	0.5	T				
HSN	i Pg +	21:59:44.8	0.2	T		15.0	113.5	
	i Sg	21:59:47.0	0.3	T				
SGW	i Pg -	21:59:47.4	0.1	T		31.9	151.2	ML 1.8
	i Sg	21:59:51.5	0.4	T				
LBG	e Pg	21:59:48.3	0.2	T		37.5	335.3	ML 1.4
	e Sg	21:59:53.0	0.3	T				
BEU	i Pg +	21:59:48.6	0.2	T		39.1	49.9	ML 2.0
	e Sg	21:59:53.5	0.4	T				
BFO	i Pg +	21:59:50.3	0.0	T		50.2	266.7	ML 1.4
	i Sg	21:59:56.4	0.2	T				
HEX	i Pg +	21:59:54.2	0.0	T		73.8	239.8	
	e PmP	21:59:55.5	-1.3	T				
	e Sg	22:00:02.8	-0.1	T				
FELD	i Pn -	21:59:57.3	-1.5	T		91.8	234.7	
KIZ	e Pn +	21:59:57.3	-1.5	T		92.4	241.5	ML 2.1
	i Sg	22:00:07.9	-0.2	T				
LIBD	e Pg	21:59:59.5	-0.2	T		106.5	258.0	
UBR	e Pg +	22:00:01.4	0.9	T		111.2	132.2	ML 2.1
	e SmS	22:00:16.1	-0.4	T				
SOL	e Pn +	22:00:00.2	-1.5	T		115.5	223.7	
	e Pg -	22:00:01.5	0.2	T				
	e Sn	22:00:14.5	-1.2	T				
	i Sg	22:00:15.6	0.9	T				

BAW	e	Pn	+	22:00:00.2	-1.6	T		116.8	238.4								
	i	Pg	-	22:00:01.7	0.2	T											
	e	Sn		22:00:14.4	-1.6	T											
	i	Sg		22:00:15.9	0.9	T											
END	e	Pn	+	22:00:00.4	-1.6	T		118.5	233.3								
	i	Pg	+	22:00:01.9	0.1	T											
	e	Sn		22:00:14.8	-1.6	T											
	e	Sg		22:00:16.0	0.5	T											
HOL	e	Pg		22:00:03.6	0.4	T		127.0	27.2			ML	2.5				
	e	Sn		22:00:17.4	-0.8	T											
WYH	e	Pg		22:00:04.0	-0.1	T		132.4	227.8								
	e	Sg		22:00:19.5	-0.0	T											
TOD	i	Sg		22:00:21.8	0.3	T		139.5	353.9								
BBS	e	Pg		22:00:07.2	0.2			149.5	228.9								
FUR	e	Pg	Z	22:00:10.9	0.6		2.4	169.2	96.5			ML	2.4				
	e	Sg	N	22:00:30.8	0.8		4.6										
TNS	e	Sg	N	22:00:42.5	0.4		3.4	211.3	349.1			ML	2.1				
GRFO	e	Pg	Z	22:00:18.7	-0.1		2.7	219.0	46.6			ML	2.1				
	e	Sg	N	22:00:42.8	-1.4		11.8										
GRA1	e	Pg	Z	22:00:18.8	-0.0			219.2	46.6			ML	2.2				
	e	Sg	E	22:00:43.4	-0.9												
WET	e	Pg	Z	22:00:31.9	-0.1		2.2	296.8	71.4			ML	2.4				
	e	Sg	E	22:01:06.2	-0.3		7.2										
MOX	e	Sg	N	22:01:11.4	-0.7		3.2	316.3	35.5			ML	2.2				
GEC2	e	Pg	Z	22:00:40.4	-0.5		1.3	349.3	79.3								
	e	Sg	E	22:01:21.9	0.4		3.5										

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/04/04	04:07:40.0	+ - 0.66	51.439N	6.786E	8.7	6.3	90	0		19	23				ISC	
1997/04/04	04:07:43.2		51.407N	6.870E	6.3	5.6	63	2	+ - 0.0	27	12	295	3.0ML		LDG	L
1997/04/04	04:07:44.5	+ - 0.51	51.500N	6.900E	7.8	4.4	121	1G		10	5	189	2.3ML		SZGRF	I
1997/04/04	04:07:43.6	+ - 0.47	51.490N	6.910E	6.7	4.4	118	1G		15	8	188	2.3ML	GSH	BGR	I
<b>1997/04/04</b>	<b>04:07:42.7</b>		<b>51.531N</b>	<b>6.917E</b>				<b>1G</b>					<b>2.0ML</b>		<b>RUB</b>	<b>I</b>

Duisburg, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg + Z	04:07:48.0	0.8	TA		26.4	112.3	ML 2.0
	e Sg E	04:07:52.6	2.4		49.5			
GSH	e Pg Z	04:07:58.5	-0.4		7.1	96.0	203.3	ML 2.3
	e Sg E	04:08:10.9	0.7		27.8			
IBBN	e Pg E	04:08:01.8	1.5		3.0	103.7	33.4	ML 2.4
	e Sg N	04:08:15.0	2.7		6.7			
TNS	e Pg Z	04:08:12.5	-0.8		2.1	180.8	143.0	ML 2.6
	e Sg N	04:08:33.5	-0.8		19.7			
CLZ	e Pn Z	04:08:18.9	-0.0		1.2	240.6	80.4	ML 2.4
	e Pg Z	04:08:23.7	0.2		3.6			



BFO	e	Sg	E	06:17:35.2	0.5		2.3	305.1	149.9								
CLZ	e	Pg	Z	06:17:00.8	0.5		1.4	311.8	64.9	ML	2.4						
	e	Sg	N	06:17:37.1	0.5		3.1										

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/04/07	12:11:43.3	+/- 1.14	51.697N	7.938E	11.9	11.7	0	0		6	9				ISC	
1997/04/07	12:11:45.8	+/- 0.40	51.680N	7.920E	6.7	4.4	152	1G		9	5	111	2.4ML		SZGRF	I
1997/04/07	12:11:44.5	+/- 0.32	51.670N	7.920E	3.3	3.3	149	1G		11	6	110	2.4ML	CLZ	BGR	I
<b>1997/04/07</b>	<b>12:11:43.1</b>		<b>51.698N</b>	<b>7.863E</b>				<b>1G</b>					<b>2.3ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	12:11:53.1	1.5	TA		50.0	235.3	ML 2.3
	e Sg N	12:11:59.9	2.5		12.1			
IBBN	e Pg Z	12:11:56.9	2.3		4.0	68.1	353.9	ML 2.4
	e Sg N	12:12:05.0	2.4		8.0			
GSH	e Pg Z	12:12:09.3	1.0		9.2	148.7	224.7	ML 2.5
	e Sg N	12:12:26.8	1.2		9.1			
TNS	e Pn Z	12:12:11.3	0.6		1.4	169.1	165.8	ML 2.3
	e Pg Z	12:12:13.1	1.3					
	e Sg N	12:12:32.5	1.0		9.7			
CLZ	e Pn Z	12:12:12.2	1.0		2.3	173.4	83.7	ML 2.4
	e Pg Z	12:12:13.0	0.5					
	e Sg E	12:12:33.2	0.6		15.4			
MOX	e Sg E	12:13:05.0	0.0		2.7	286.6	112.6	ML 2.6

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/04/09	11:21:45.1	+/- 1.94	51.785N	14.290E	40.9	17.3	90	0G		5	3	164	3.3ML		PIDC	
<b>1997/04/09</b>	<b>11:21:42.4</b>	+/- <b>1.46</b>	<b>51.590N</b>	<b>14.320E</b>	<b>15.6</b>	<b>6.7</b>	<b>51</b>	<b>0G</b>		<b>9</b>	<b>6</b>	<b>280</b>	<b>2.0ML</b>	<b>MOX</b>	<b>BGR</b>	<b>B</b>

Hoyerswerda, Oberlausitz

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pg Z	11:21:57.3	0.6	T	3.9	83.9	198.4	ML 1.5
	e Sg E	11:22:06.5	0.1	T	10.0			
CLL	e Pg Z	11:21:59.3	0.5	T	2.3	96.5	251.5	ML 1.7
	e Sg N	11:22:10.3	0.2	T	4.0			
MOX	e Sg Z	11:22:42.9	-1.2	T	3.5	216.0	241.9	ML 2.0
CLZ	e Sg E	11:23:01.3	0.7	T	2.9	273.3	277.4	ML 2.2
WET	e Sg E	11:23:05.5	0.0	T	1.4	290.5	201.2	
GRFO	e Pg Z	11:22:32.3	-1.6	T	2.2	303.9	227.2	ML 2.0
	e Sg N	11:23:10.5	1.2	T	2.5			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/04/17	19:06:34.7	+- 0.32	50.130N	8.620E	5.6	4.4	18	10G		10	5	123	1.8ML		SZGRF	L
1997/04/17	19:06:34.5	+- 0.29	50.100N	8.690E	5.6	4.4	16	5G		17	9	106	2.0ML	MOX	BGR	L
<b>1997/04/17</b>	<b>19:06:34.8</b>		<b>50.110N</b>	<b>8.630E</b>				<b>9</b>					<b>2.0ML</b>		<b>IGF</b>	

Frankfurt/M-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	i Pg -	19:06:38.5	0.3			18.0	313.9	ML 1.1
	i Sg	19:06:41.1	0.5					
GSH	e Pg Z	19:07:02.3	-2.0			174.2	294.5	ML 2.0
	e Sn N	19:07:21.5	0.1		3.8			
	e Sg N	19:07:23.9	-0.7					
GRFO	e Sg N	19:07:28.8	-0.7		6.2	191.3	103.1	ML 2.1
GRA1	e Pg Z	19:07:07.5	0.2			191.4	103.1	ML 2.2
	e Sg E	19:07:29.0	-0.5					
BFO	e Pg Z	19:07:08.6	0.1		1.7	199.1	186.4	ML 1.7
	e Sg N	19:07:30.8	-1.0		5.0			
MOX	e Pn Z	19:07:06.3	-1.3		1.4	219.9	73.2	ML 2.0
	e Pg Z	19:07:10.9	-1.2		3.3			
	e Sg Z	19:07:35.8	-1.8		5.2			
CLZ	e Pg Z	19:07:12.8	-0.7		3.7	227.9	31.7	ML 2.2
	e Sn N	19:07:34.0	1.2		3.1			
	e Sg N	19:07:41.0	1.0		6.4			
WET	e Pn Z	19:07:22.7	2.4		1.6	324.2	107.7	ML 2.2
	e Sg N	19:08:04.2	-3.3		4.7			
BRG	e Sg N	19:08:21.7	-3.2		2.9	385.2	75.2	ML 2.5
GEC2	e Pn Z	19:07:30.4	1.8		1.3	392.4	109.1	
	e Sg N	19:08:25.7	-1.3		3.0			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/04/20	07:25:19.3	+- 0.47	50.077N	8.621E	6.4	4.0	90	2		25	35				ISC	
1997/04/20	07:25:20.7	+- 0.60	50.090N	8.600E	7.0	2.0	33	4	+- 3.0	17	10	239	2.5ML		LEDBW	L
1997/04/20	07:25:20.4	+- 0.23	50.110N	8.660E	4.4	3.3	25	2		24	13	107	2.3ML		SZGRF	L
1997/04/20	07:25:20.0	+- 0.24	50.100N	8.690E	3.3	2.2	178	5G		19	9	106	2.4ML	GSH	BGR	L
<b>1997/04/20</b>	<b>07:25:20.2</b>		<b>50.100N</b>	<b>8.640E</b>				<b>6</b>					<b>2.5ML</b>		<b>IGF</b>	

Frankfurt/M-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	i Pg -	07:25:24.2	0.6			19.3	314.8	ML 1.7
	i Sg	07:25:26.7	0.7					
ROS	i Pg -	07:25:27.4	0.4			39.5	177.0	
	i PmP+	07:25:28.5	-3.0					
	i SmS	07:25:33.1	-6.2					
HEI	e Pg +	07:25:33.9	0.4			78.2	175.4	
	e Sg	07:25:43.3	0.7					
	i SmS	07:25:45.7	-1.7					

ABH		Pg	07:25:34.2	0.1		81.8	253.2	
HOL	e	Sg	07:25:54.9	1.3		116.8	133.5	ML 3.0
RUP		Pn	07:25:40.9	-0.5		121.6	249.2	
LBG	e	Sn	07:26:03.9	-0.6		160.1	175.9	ML 2.5
	e	Sg	07:26:06.5	0.5				
GSH	e	Pn	Z 07:25:47.8	-0.1	1.7	175.3	294.7	ML 2.4
	e	Pg	Z 07:25:50.3	0.4	2.4			
	e	Sn	E 07:26:07.3	-0.3				
	e	Sg	E 07:26:11.0	0.7	4.9			
BUG	e	Pn	Z 07:25:49.2	1.0	2.3	177.5	327.6	ML 2.2
	e	Sg	N 07:26:11.7	0.8				
BEU	e	Sn	07:26:07.3	-0.9		177.7	161.3	ML 2.5
	e	Sg	07:26:11.8	0.8				
GRFO	e	Sn	E 07:26:09.8	-1.0		190.3	102.8	ML 2.3
	e	Sg	E 07:26:14.3	-0.3	4.8			
GRA1	e	Pn	Z 07:25:52.7	2.9		190.4	102.8	mb 4.4
	e	Sg	N 07:26:14.3	-0.3				
BFO	e	Pn	Z 07:25:50.5	-0.2	6.3	198.1	186.7	ML 2.2
	e	Pg	Z 07:25:53.9	0.1	6.4			
	e	Sg	E 07:26:16.9	0.1	5.7			
HDH	e	Pg	07:25:54.4	-0.3		203.2	145.4	ML 2.2
	e	Sg	07:26:28.1	9.8				
MOX	e	Pg	E 07:25:56.4	-1.0	6.0	219.5	72.8	ML 2.2
	e	Sn	N 07:26:16.1	-0.9				
	e	Sg	N 07:26:22.1	-0.8	6.8			
SGW	e	Pn	07:25:53.8	-0.3		225.6	169.1	ML 2.7
	e	Pg	07:25:59.5	1.0				
	e	Sn	07:26:17.0	-1.3				
	e	Sg	07:26:25.1	0.4				
CLZ	e	Pn	Z 07:25:54.6	0.2		228.5	31.4	ML 2.5
	e	Pg	Z 07:25:58.6	-0.4	11.8			
	e	Sg	E 07:26:24.8	-0.7	1.7			
GRB1	e	Pn	Z 07:25:55.0	0.4		230.3	108.9	ML 2.9
	e	Sg	N 07:26:26.4	0.4				
KIZ	e	Pg	07:26:03.4	1.8		244.1	192.7	ML 2.4
	e	Sg	07:26:29.9	-0.1				
IBBN	e	Sg	N 07:26:31.4	-1.1	2.6	253.0	346.3	ML 2.7
FUR	e	Pg	Z 07:26:08.6	-0.5		288.3	137.3	ML 2.9
	e	Sg	E 07:26:41.9	-0.7	2.2			
UBR	e	Pn	07:26:02.6	0.7		289.6	157.7	ML 2.3
	e	Pg	07:26:10.7	1.4				
	e	Sn	07:26:34.8	2.9				
	e	Sg	07:26:44.6	1.6				
WET	e	Pn	Z 07:26:08.2	2.2	4.2	323.2	107.6	ML 2.6
	e	Sg	N 07:26:52.3	-0.3				
CLL	e	Sg	N 07:26:55.3	-0.7	4.0	335.2	64.7	ML 2.7
BRG	e	Sg	Z 07:27:09.2	-1.0	2.3	384.8	75.1	ML 2.7
GEC2	e	Pn	Z 07:26:16.1	1.8	3.8	391.3	108.9	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/04/23	11:28:25.4	+/- 2.50	53.083N	14.924E	55.3	21.1	94	0G		5	3	160	3.4ML		PIDC	
probably mislocated (after BGR)																
<b>1997/04/23</b>	<b>11:28:44.7</b>	<b>+/- 1.75</b>	<b>51.450N</b>	<b>13.990E</b>	<b>24.5</b>	<b>8.9</b>	<b>35</b>	<b>0G</b>		<b>5</b>	<b>3</b>	<b>285</b>	<b>1.8ML</b>	<b>CLL</b>	<b>BGR</b>	<b>B</b>

Senftenberg, Schwarzheide

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pg	Z	11:28:54.7	-0.8	T		64.2	183.0	ML 1.6
	e Sg	E	11:29:03.7	0.7	T				
CLL	e Pg	N	11:28:56.8	0.2	T		70.3	257.4	ML 1.8
	e Sg	E	11:29:06.1	1.4	T				
MOX	e Sg	N	11:29:37.2	-1.4	T		188.6	242.6	ML 1.9

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/04/23	14:51:15.0	+/- 3.52	49.916N	12.088E	24.3	17.0	123	0G		4	3	200	3.5ML		PIDC	
<b>1997/04/23</b>	<b>14:51:15.8</b>	<b>+/- 0.37</b>	<b>49.950N</b>	<b>12.170E</b>	<b>4.4</b>	<b>3.3</b>	<b>78</b>	<b>0G</b>		<b>9</b>	<b>6</b>	<b>97</b>	<b>1.7ML</b>	<b>WET</b>	<b>BGR</b>	<b>B</b>

Erbendorf, SE of Bayreuth

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
GRFO	e Pg	N	14:51:28.4	0.0	T	1.4	74.0	247.4	
MOX	e Pg	Z	14:51:31.0	0.4	T	3.1	86.7	333.2	ML 1.5
	e Sg	N	14:51:40.3	-0.3	T				
WET	e Pg	Z	14:51:33.1	-0.2	T	1.2	103.2	150.0	ML 1.7
	e Sg	N	14:51:45.7	0.4	T				
CLL	e Sg	E	14:52:02.1	-0.0	T		162.0	20.9	ML 1.9
BRG	e Pg	Z	14:51:43.4	0.1	T	1.7	162.2	50.1	ML 1.6
	e Sg	E	14:52:02.1	-0.1	T				
GEC2	e Pg	Z	14:51:43.7	-0.2	T	1.4	165.5	137.4	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/13	23:47:27.0		49.344N	7.088E				5G			7		2.6ML	UCC	NEIC	I
Mining induced event in the Lorraine region, France, Less reliable solution																
1997/05/13	23:47:26.2	+/- 0.46	49.146N	6.854E	7.3	3.5	90	0		25	28		3.0ML	STR	ISC	
1997/05/13	23:47:22.8		49.543N	6.515E	162.8	162.8	0	10	+/- 202	8	7	320	2.9ML		SED	
1997/05/13	23:47:26.1	+/- 0.86	49.100N	6.700E	13.3	6.7	68	1G		5	3	227	2.5ML	TNS	BGR	I
1997/05/13	23:47:27.5	+/- 0.62	49.160N	6.770E	7.8	4.4	62	1G		12	8	222	2.6ML		SZGRF	L
<b>1997/05/13</b>	<b>23:47:26.5</b>	<b>+/- 0.60</b>	<b>49.120N</b>	<b>6.730E</b>	<b>6.0</b>	<b>4.0</b>	<b>91</b>	<b>1G</b>		<b>24</b>	<b>15</b>	<b>202</b>	<b>2.5ML</b>		<b>LEDBW</b>	<b>I</b>

Merlebach/F, SW of Saarbruecken, French-German border region



Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg	23:47:38.2	0.1	T		68.9	20.1	
ABH	e Pg	23:47:44.2	0.2	T		103.2	34.6	
LIBD	e Pg -	23:47:48.9	1.2	T		125.4	148.9	
BFO	e Pn Z	23:47:50.4	-0.9		36.0	146.6	126.2	ML 2.3
	e Pg -	23:47:51.4	0.1	T				
	e Sg	23:48:08.9	0.6	T				
KIZ	e Pg +	23:47:52.8	-0.2	T		156.2	145.5	ML 2.4
	e Sn	23:48:08.3	-2.5	T				
	i Sg	23:48:11.7	0.6	T				
LBG	e Pg	23:47:53.2	-0.3	T		159.2	107.8	ML 2.7
	i Sg	23:48:12.5	0.5	T				
HEX	e Pg +	23:47:53.5	-0.3	T		160.8	138.9	
	e Sg	23:48:12.8	0.4	T				
BAW	e Pg +	23:47:54.2	0.1	T		162.6	154.2	
FELD	e Pg +	23:47:54.8	-0.1	T		167.1	145.4	
	e Sg	23:48:14.7	0.5	T				
TNS	e Pn Z	23:47:54.0	-0.7			174.0	44.6	ML 2.4
	e Sg N	23:48:14.9	-1.3					
GSH	e Pn Z	23:47:55.1	-0.5			181.6	352.1	ML 2.3
	e Pg Z	23:47:57.5	0.2					
	e Sg N	23:48:19.6	1.2					
BBS	e Pn +	23:47:59.7	2.8			192.9	162.3	
	e Pg	23:48:01.6	2.4					
BEU	e Pg -	23:48:01.1	-0.2	T		205.3	105.9	ML 2.6
	e Sg	23:48:24.2	-1.0	T				
SGW	e Sg	23:48:27.1	-0.7	T		214.6	120.7	ML 2.5
HOL	e Pg	23:48:03.6	-1.1	T		225.4	81.7	ML 2.5
	e Sg	23:48:29.8	-1.1	T				
BUG	e Sg N	23:48:40.1	-0.9			260.9	8.2	ML 2.6
HDH	e Sg	23:48:40.0	-1.2			261.2	101.9	ML 2.3
UBR	e Sg	23:48:52.9	1.8			296.3	121.4	ML 2.5
GRA1	e Sg E	23:49:01.0	-0.1			331.1	77.2	ML 2.9
FUR	e Pn Z	23:48:18.0	1.9			350.4	106.0	ML 3.1
	e Sg N	23:49:09.1	2.5					
MOX	e Sg N	23:49:17.7	0.1			388.8	62.3	ML 2.7
CLZ	e Sg N	23:49:20.3	0.2			397.4	39.0	ML 2.8
CLL	e Sg	23:49:59.0	7.3			508.1	59.0	
BRG	e Sg	23:50:09.5	5.6			550.9	66.5	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/15	17:29:34.5	+ - 1.73	54.758N	12.324E	21.0	12.7	144	0G		7	4	238	3.8ML		PIDC	
1997/05/15	17:29:32.3	+ - 0.59	54.749N	12.561E	13.9	4.8	90	0		17	18				ISC	
<b>1997/05/15</b>	<b>17:29:34.5</b>	<b>+ - 1.24</b>	<b>54.690N</b>	<b>12.730E</b>	<b>17.8</b>	<b>7.8</b>	<b>13</b>			<b>9</b>	<b>5</b>	<b>285</b>	<b>2.9ML</b>		<b>SZGRF</b>	<b>L?</b>

Baltic Sea, N of Zingst

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BSEG	e Pg	Z	17:30:03.3	-1.3	T		177.6	242.8	ML 2.8
	e Sg	E	17:30:24.7	-0.6	T				
CLZ	e Pn	Z	17:30:26.0	1.4	T		353.3	207.3	ML 2.9
	e Sn	E	17:31:05.7	5.0	T				
CLL	e Pn	Z	17:30:28.7	1.2	T		376.5	177.1	
	e Sn	E	17:31:08.1	2.4	T				
BRG	e Pn	Z	17:30:35.0	0.7	T		432.1	168.6	ML 2.9
	e Sn	E	17:31:20.8	3.4	T				
MOX	e Pn	Z	17:30:38.3	1.2	T		456.0	189.9	

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/16	12:32:30.8	+-	1.87	51.938N	14.074E	44.4	13.6	100	0G		4	3	205	3.4ML		PIDC	
1997/05/16	12:32:30.8	+-	1.37	51.853N	13.637E	57.6	10.8	90	0		5	5				ISC	
<b>1997/05/16</b>	<b>12:32:31.2</b>	<b>+-</b>	<b>1.51</b>	<b>51.440N</b>	<b>14.280E</b>	<b>27.8</b>	<b>18.9</b>	<b>13</b>	<b>0G</b>		<b>4</b>	<b>3</b>	<b>299</b>	<b>2.0ML</b>	<b>MOX</b>	<b>BGR</b>	<b>B</b>

Hoyerswerda, Oberlausitz

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pg	Z	12:32:42.0	-0.6	T	6.9	67.3	200.6	
CLL	e Pg	Z	12:32:45.2	-1.3	T	5.1	89.9	261.1	
MOX	e Pn	Z	12:33:04.7	1.3	T	2.8	206.2	245.6	ML 2.0
	e Sg	N	12:33:30.5	0.4	T				

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/20	21:19:47.4	+-	0.84	51.590N	15.450E	20.0	11.1	169	1G		12	5	314	2.3ML		SZGRF	B
1997/05/20	21:19:51.5	+-	2.21	51.470N	15.080E	40.0	21.1	52	0G		6	6	295	2.1ML	CLL	BGR	B
<b>1997/05/20</b>	<b>21:19:49.0</b>			<b>51.476N</b>	<b>15.290E</b>				<b>0.1</b>							<b>ARPA</b>	<b>BG</b>
explosion "Polonaise", shotpoint 401, 900 kg																	

Poland

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pg	Z	21:20:08.8	0.3		102.9	115.4	235.0	ML 2.1
	e Sg	E	21:20:24.6	2.6					
CLL	e Pn	Z	21:20:15.5	-0.1		31.9	159.8	264.2	ML 2.1
	e Pg	Z	21:20:16.0	-0.1					
	e Sg	E	21:20:36.1	1.4					
MOX	e Pn	Z	21:20:31.0	1.6		13.1	272.9	251.6	ML 2.2
	e Pg	Z	21:20:35.4	0.1					
	e Sg	N	21:21:09.7	2.7					
WET	e Pn	Z	21:20:34.9	0.9		6.3	310.7	214.4	
GEC2	e Pn	Z	21:20:36.1	1.8		10.3	313.7	201.8	

GRA1	e	Pn	Z	21:20:39.5	0.9				349.0	236.9							
	e	Pg	Z	21:20:48.3	0.2												
GRFO	e	(Pn)	Z	21:20:39.7	1.0			2.1	349.2	236.9							

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/20	22:35:00.1	+/- 1.17	52.720N	15.720E	35.6	17.8	132	1G		6	4	335	2.2ML		SZGRF	B
1997/05/20	22:35:00.5	+/- 1.36	52.790N	15.570E	35.6	14.5	147	0G		5	4	327	2.2ML	CLL	BGR	B
<b>1997/05/20</b>	<b>22:35:00.0</b>		<b>52.682N</b>	<b>15.659E</b>				<b>0.1</b>							<b>ARPA</b>	<b>BG</b>

explosion "Polonaise", shotpoint 912, 1000 kg

Poland

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag	
BRG	e	Pg	Z	22:35:40.9	1.4		14.9	233.2	211.1	ML 2.1
	e	Sg	N	22:36:07.9	1.3					
CLL	e	Pn	Z	22:35:37.2	1.2		6.9	237.5	231.0	ML 2.2
	e	Pg	Z	22:35:40.9	0.7					
	e	Sg	N	22:36:09.5	1.6		1.7			
MOX	e	Pn	Z	22:35:51.2	0.3		4.2	359.2	232.5	
WET	e	Pn	Z	22:36:01.5	0.9			439.0	207.4	
GEC2	e	Pn	Z	22:36:03.4	1.7		7.3	448.3	198.6	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/20	22:49:48.4	+/- 0.95	51.690N	15.750E	21.1	11.1	164	1G		9	4	318	2.3ML		SZGRF	B
1997/05/20	22:49:48.6	+/- 1.24	51.760N	15.690E	30.0	10.0	177	0G		6	4	308	2.1ML	CLL	BGR	B
<b>1997/05/20</b>	<b>22:49:49.0</b>		<b>51.626N</b>	<b>15.676E</b>				<b>0.1</b>							<b>ARPA</b>	<b>BG</b>

explosion "Polonaise", shotpoint 402, 300 kg

Poland

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag	
BRG	e	Pn	Z	22:50:13.9	-0.0		57.7	146.8	235.9	ML 2.1
	e	Pg	Z	22:50:14.4	0.5					
	e	Sg	N	22:50:32.8	1.8					
CLL	e	Pn	Z	22:50:18.9	-0.1		15.2	188.5	260.2	ML 2.1
	e	Pg	Z	22:50:20.5	-0.5					
	e	Sg	N	22:50:44.0	1.1		2.1			
MOX	e	Pn	Z	22:50:34.0	0.9		11.4	303.5	250.5	ML 2.4
	e	Pg	Z	22:50:40.5	0.1					
	e	Sg	N	22:51:17.3	1.5		3.4			
GEC2	e	Pn	Z	22:50:39.0	1.6		4.6	339.5	205.2	
WET	e	Pn	Z	22:50:38.2	0.7			339.8	216.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/20	23:35:01.0	+/- 0.97	52.600N	15.350E	24.5	13.3	134	1G		9	3	335			SZGRF	B
1997/05/20	23:34:60.0	+/- 1.31	52.670N	15.320E	31.1	13.3	149	0G		6	4	325	2.2ML	CLL	BGR	B
<b>1997/05/20</b>	<b>23:35:00.0</b>		<b>52.559N</b>	<b>15.356E</b>				<b>0.1</b>							<b>ARPA</b>	<b>BG</b>

explosion "Polonaise", shotpoint 202, 1000 kg

Poland

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pn	Z	23:35:33.6	0.8		20.4	211.2	208.0	
	e Pg	Z	23:35:37.1	1.3		20.3			
	e Sg	N	23:36:02.0	1.7					
CLL	e Pn	Z	23:35:34.1	1.1		9.1	213.0	230.2	ML 2.2
	e Pg	Z	23:35:37.1	1.0					
	e Sg	N	23:36:02.9	2.1		2.8			
MOX	e Pn	Z	23:35:48.1	0.3		3.7	334.6	232.0	
	e Pg	Z	23:35:57.4	0.7					
	e Sg	N	23:36:36.7	1.1					
GEC2	e Pn	Z	23:36:01.1	1.7		3.1	429.0	196.4	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/21	00:50:01.2	+/- 2.62	52.830N	15.250E	41.1	31.1	12	0G		5	4	327	1.8ML	CLL	BGR	B
<b>1997/05/21</b>	<b>00:50:00.0</b>		<b>52.782N</b>	<b>15.404E</b>				<b>0.1</b>							<b>ARPA</b>	<b>BG</b>

explosion "Polonaise", shotpoint 103, 300 kg

Poland

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
CLL	e Pg	Z	00:50:39.9	0.6		3.6	232.0	226.0	ML 1.8
BRG	e Pn	Z	00:50:36.8	1.1		3.8	234.8	205.9	
	e Pg	Z	00:50:41.1	1.3		2.6			
MOX	e Pn	Z	00:50:50.7	0.6		2.5	352.9	229.2	
GEC2	e Pn	Z	00:51:03.6	1.2		2.2	453.7	195.9	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/21	20:05:01.6	+/- 0.90	51.200N	13.300E	14.5	6.7	60	0G		7	3	247	1.5ML		SZGRF	B
1997/05/21	20:05:01.8	+/- 0.51	51.180N	13.250E	7.8	4.4	56	0G		9	5	175	1.4ML	MOX	BGR	B
<b>1997/05/21</b>	<b>20:05:01.8</b>		<b>51.191N</b>	<b>13.230E</b>				<b>0.1</b>							<b>ARPA</b>	<b>BG</b>

explosion "Polonaise", shotpoint 427, 300 kg

Doebeln, W of Dresden

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
CLL	e Pg	Z	20:05:05.5	0.2		40.8	20.5	309.5	ML 0.8
	e Sg	N	20:05:08.0	0.4		41.4			
BRG	e (Pg)	Z	20:05:12.6	0.4		3.9	61.0	125.0	
	e Sg		20:05:19.7	0.4					
MOX	e Pg	Z	20:05:23.9	0.3		11.6	128.4	242.4	ML 1.4
	e Sg	E	20:05:39.8	1.3		4.3			
WET	e Pn	Z	20:05:36.4	-0.4		3.5	228.9	186.4	
	e Pg	Z	20:05:40.4	-0.2					
	e Sg	E	20:06:06.7	-0.5		3.8			
GEC2	e Pn	Z	20:05:41.2	0.3		2.8	263.0	172.5	
	e Sg	E	20:06:16.1	-0.9		3.4			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/21	21:19:48.8	+/- 0.87	51.820N	16.420E	16.7	11.1	151	0G		11	4	323	2.3ML		SZGRF	B
1997/05/21	21:19:50.4	+/- 0.97	51.890N	16.190E	16.7	11.1	114	0G		8	5	313	2.1ML	BRG	BGR	B
<b>1997/05/21</b>	<b>21:19:49.0</b>		<b>51.873N</b>	<b>16.302E</b>				<b>0.1</b>							<b>ARPA</b>	<b>BG</b>

explosion "Polonaise", shotpoint 404, 900 kg

Poland

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pn	Z	21:20:21.4	1.2		16.4	197.9	236.8	ML 2.1
	e Pg	Z	21:20:22.9	0.4					
	e Sg	N	21:20:46.4	0.9		2.7			
CLL	e Pn	Z	21:20:24.6	-0.3		10.9	236.4	255.9	ML 2.3
	e Pg	Z	21:20:28.5	-0.6					
	e Sg	N	21:20:58.4	1.9					
MOX	e Pn	Z	21:20:39.9	0.8		1.9	353.4	249.1	ML 2.5
	e Pg	Z	21:20:48.9	-0.0		3.9			
	e Sg	N	21:21:31.2	1.2					
GEC2	e Pn	Z	21:20:44.4	1.5		5.9	383.8	209.7	
	e Sg	E	21:21:39.0	0.3		2.2			
WET	e Pn	Z	21:20:44.7	1.4		2.3	388.1	219.9	
	e Sg	E	21:21:39.7	-0.2					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/21	22:04:59.0	+/- 1.11	52.080N	17.230E	31.1	13.3	131	0G		8	4	329	2.3ML		SZGRF	B
1997/05/21	22:05:03.2	+/- 2.43	52.180N	16.690E	38.9	22.2	30	0G		7	5	320	2.1ML	CLL	BGR	B
<b>1997/05/21</b>	<b>22:05:00.0</b>		<b>52.176N</b>	<b>16.954E</b>				<b>0.1</b>							<b>ARPA</b>	<b>BG</b>

explosion "Polonaise", shotpoint 914, 1000 kg

Poland

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pn	Z	22:05:39.7	1.7		14.0	253.7	236.4	ML 2.2
	e Pg	Z	22:05:43.5	0.5		8.1			
	e Sg	N	22:06:14.0	1.5					
CLL	e Pn	Z	22:05:43.2	0.9		5.5	288.6	252.0	ML 2.1
	e Pg	Z	22:05:49.8	0.9		1.7			
MOX	e Pn	Z	22:05:57.7	0.9		5.3	407.4	247.4	
GEC2	e Pn	Z	22:06:02.0	1.8		2.9	435.8	213.1	
WET	e Pn	Z	22:06:03.2	2.1		2.1	442.8	222.0	
	e Sg	N	22:07:07.1	0.6					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/21	23:05:00.5	+/- 1.70	52.950N	15.000E	52.3	14.5	95	0G		5	3	334	2.2ML	BRG	BGR	B
1997/05/21	23:05:00.0		52.867N	15.129E				0.1							ARPA	BG
explosion "Polonaise", shotpoint 102, 1000 kg																

Poland

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
CLL	e Pn	Z	23:05:35.3	0.7		3.0	226.1	220.8	
BRG	e Pn	Z	23:05:37.0	1.1		3.7	236.1	200.6	ML 2.2
	e Pg	Z	23:05:41.4	1.4		3.0			
	e (Sg)	E	23:06:09.6	2.2		1.7			
MOX	e Pn	Z	23:05:49.6	0.4		4.7	345.6	225.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/22	00:34:59.1	+/- 1.12	51.910N	17.780E	47.8	14.5	158	0G		5	4	329	2.3ML	BRG	BGR	B
1997/05/22	00:35:00.0		51.775N	17.617E				0.1							ARPA	BG
explosion "Polonaise", shotpoint 109, 1000 kg																

Poland

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pn	Z	00:35:41.8	1.3		5.7	274.3	250.0	ML 2.3
	e Sg	N	00:36:22.1	3.7		1.8			
CLL	e Pn	Z	00:35:46.7	0.2		4.1	323.3	262.6	
MOX	e Pn	Z	00:36:01.3	1.1		3.1	436.4	255.6	
WET	e Pn	Z	00:36:02.2	0.9		6.4	444.9	230.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/24	22:26:54.9		48.957N	9.625E				10G			9		2.9ML	VIE	NEIC	
1997/05/24	22:26:53.8	+/- 0.62	48.862N	9.723E	5.3	4.4	90	7	+/- 6.6	33	37				ISC	
1997/05/24	22:26:58.7		48.798N	9.527E	10.9	5.3	119	15	+/- 0.0	25	14	276	2.9ML		LDG	L

1997/05/24	22:26:52.7		48.992N	9.531E					1		14	9	325	2.7ML	SED	
1997/05/24	22:26:55.1	+- 0.29	48.880N	9.760E	3.3	2.2	161	10	+- 0.0	22	9	115	2.4ML	BFO	BGR	L
1997/05/24	22:26:55.5	+- 0.30	48.930N	9.740E	5.6	4.4	154	10G		19	8	111	2.6ML		SZGRF	L
<b>1997/05/24</b>	<b>22:26:55.9</b>	<b>+- 0.12</b>	<b>48.855N</b>	<b>9.752E</b>	<b>1.4</b>	<b>1.2</b>	<b>85</b>	<b>8</b>	<b>+- 1.6</b>	<b>29</b>	<b>11</b>	<b>128</b>	<b>2.5ML</b>		<b>LEDBW</b>	<b>L</b>

N of Schwaebisch Gmuend

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BEU	i Pg -	22:27:02.7	0.0	T		39.0	219.4	ML 2.5
	i Sg	22:27:07.7	0.4	T				
HDH	i Pg +	22:27:03.8	0.1	T		44.9	131.9	ML 2.5
	i Sg	22:27:09.3	0.4	T				
HOL	i Pg -	22:27:05.6	-0.2	T		57.5	4.3	ML 2.2
	i Sg	22:27:12.9	0.4	T				
LBG	e Pg +	22:27:08.2	-0.2	T		73.3	253.5	ML 2.7
	i PmP	22:27:09.5	-1.6	T				
	e Sg	22:27:16.7	-0.2	T				
HSN	e SmS	22:27:19.0	-2.6	T				
	e Pg -	22:27:08.6	0.2	T		73.7	214.0	
	i PmP+	22:27:10.1	-1.1	T				
	i Sg	22:27:17.8	0.7	T				
JUN	e SmS	22:27:20.5	-1.2	T				
	e Pg +	22:27:09.3	0.0	T		78.3	222.1	
	e S?	22:27:18.7		T				
BHB	e Sg	22:27:18.7	0.3	T				
	e Pg -	22:27:10.8	0.1	T		87.2	219.4	
SGW	e Sg	22:27:21.5	0.6	T				
	e Pg -	22:27:11.5	-0.1	T		92.1	205.6	ML 2.5
HEI	e Sg	22:27:22.9	0.6	T				
	e Pg -	22:27:12.7	0.5	T		96.0	309.4	
BFO	e Sg	22:27:24.0	0.6	T				
	e Pg Z	22:27:16.1	-0.1			119.8	241.4	ML 2.4
KTD	e Sg N	22:27:30.0	-0.2					
	i Pg	22:27:18.9	0.5	T		132.0	293.7	
UBR	i Sg	22:27:34.8	1.1	T				
	e Px	22:27:18.6				133.2	168.5	ML 2.6
FUR	i Pn -	22:27:17.7	-0.6	T				
	e Pg -	22:27:19.0	0.5	T				
	e PmP	22:27:18.6	-1.5					
	i Sn	22:27:33.5	-0.6	T				
	e Sg	22:27:35.1	1.1	T				
FUR	i Pn -	22:27:19.0	0.4			136.1	123.9	ML 2.8
	e Pg Z	22:27:19.5	0.5					
	e Sg N	22:27:35.6	0.8					

GRFO	e	Pg	Z	22:27:19.2	-0.7		6.6	141.4	48.3	ML	2.3
	e	Sg	N	22:27:34.7	-1.7		84.1				
GRA1	e	Pg	Z	22:27:20.1	0.2			141.5	48.3	ML	2.5
	e	Sn	N	22:27:34.0	-1.9						
	e	Sg	N	22:27:36.1	-0.3						
HEX	e	Pn	+	22:27:18.6	-1.8			150.2	232.5		
	i	Pg	-	22:27:21.4	0.0						
	i	Sg		22:27:38.7	-0.2						
KIZ	i	Pn	-	22:27:20.7	-1.9			168.3	234.2	ML	2.7
	i	Pg	-	22:27:24.3	-0.1						
	i	Sn		22:27:40.2	-1.3						
	e	Sg		22:27:43.5	-0.5						
FELD	i	Pg	-	22:27:24.5	0.0			168.9	230.5		
	i	Sg		22:27:43.9	-0.3						
TNS	e	Pn	Z	22:27:24.4	0.6		1.2	178.8	328.7	ML	2.3
	e	Sn	N	22:27:41.9	-1.8						
	e	Sg	N	22:27:46.9	-0.1						
BAW	e	Pn		22:27:23.5	-2.1			193.2	233.4		
	e	Pg		22:27:28.5	-0.1						
	i	Sg		22:27:49.7	-1.4						
END	e	Sg		22:27:52.0	0.2			195.6	230.4		
ABH	i	Pn	+	22:27:25.8	-0.2			196.2	306.4		
	i	Pg		22:27:29.2	0.0						
BBS	i	Pg	-	22:27:34.7	0.3			227.1	227.9		
	i	Sg		22:28:01.2	0.3						
WET	e	Pn	Z	22:27:30.4	0.2			230.3	80.8	ML	2.4
	e	Pg	Z	22:27:34.3	-0.6						
	e	Sg	N	22:28:01.1	-0.6						
MOX	e	Pn	Z	22:27:30.2	-1.1		2.8	239.8	33.2	ML	2.4
	e	Pg	Z	22:27:35.4	-1.1		9.9				
	e	Sn	N	22:27:56.4	-0.2						
	e	Sg	N	22:28:02.7	-1.7						
GEC2	e	Pn	Z	22:27:37.7	0.5		4.3	288.9	88.7		
	e	Pg	Z	22:27:44.3	-0.6		19.7				
	e	Sg	Z	22:28:17.8	-0.7		22.5				
CLL	e	Pn	Z	22:27:44.6	-1.1			357.9	39.1	ML	2.9
	e	Pg	Z	22:27:51.3	-5.2						
	e	Sg	N	22:28:36.3	-1.9						
BRG	e	Pg	Z	22:27:58.7	-0.8		2.1	374.8	51.6	ML	2.8
	e	Sg	N	22:28:41.4	-1.6						

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/25	11:07:37.5		50.480N	6.444E				5G			11		2.4ML	UCC	NEIC	
1997/05/25	11:07:36.4	+ - 0.65	50.578N	6.486E	9.1	5.2	90	5		16	17				ISC	
1997/05/25	11:07:39.2		50.574N	6.434E	7.5	5.8	44	2	+ - 0.0	21	9	285	2.8ML		LDG	L
1997/05/25	11:07:37.5		50.682N	6.488E				5					2.2ML		KNMI	



1997/05/25 11:07:38.6 +- 1.31	50.760N	6.360E	25.6	4.4	96	5G	6	3	233	2.3ML	SZGRF	L
1997/05/25 11:07:37.6 +- 0.37	50.670N	6.550E	5.6	4.4	46	5G	11	6	148	2.2ML	BUG	L
<b>1997/05/25 11:07:37.3</b>	<b>50.688N</b>	<b>6.478E</b>				<b>9</b>		<b>5</b>	<b>195</b>	<b>1.7ML</b>	<b>GLA</b>	<b>L</b>

Zuelpich, SE of Dueren

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GSH	i Pg Z	11:07:39.7	0.2	T		9.0	307.5	ML 1.7
	i Sg N	11:07:41.1	0.2	T				
OLF	i Pg Z	11:07:41.7	0.4	T		21.8	190.7	ML 1.6
	i Sg N	11:07:44.3	0.3	T				
JCK	i Pg Z	11:07:44.3	0.2	T		38.9	355.2	
	i Sg E	11:07:49.1	0.4	T				
BUG	e Pg Z	11:07:54.6	0.3		6.3	100.3	33.1	ML 2.2
	e Sg E	11:08:06.8	0.8		26.9			
TNS	e Pg Z	11:08:02.4	-0.2		10.4	148.7	109.6	ML 2.0
	e Sg E	11:08:19.1	-0.8		10.6			
IBBN	e Pn Z	11:08:09.9	2.1		0.9	200.6	25.7	ML 2.5
	e Pg Z	11:08:10.8	-0.5					
	e Sg N	11:08:34.1	-0.5		10.4			
BFO	e Pn Z	11:08:21.6	2.4		1.0	294.3	152.3	
	e Sg N	11:08:59.7	-1.7		2.4			
MOX	e Sg N	11:09:18.4	-2.4		2.1	362.0	88.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/26 23:05:02.4 +- 1.54	53.720N	18.270E	56.7	18.9	142	0G				6	3	348	2.9ML		SZGRF	B
1997/05/26 23:05:01.3 +- 1.19	54.020N	18.270E	25.6	14.5	136	0G				10	6	337	3.1ML	CLL	BGR	B
<b>1997/05/26 23:05:00.0</b>	<b>53.704N</b>	<b>18.552E</b>				<b>0.1</b>									<b>ARPA</b>	<b>BG</b>

explosion "Polonaise", shotpoint 306, 1000kg

Poland

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pn Z	23:06:02.9	1.6		6.3	444.1	226.7	ML 2.7
	e Sn N	23:06:48.8	3.4		5.6			
CLL	e Pn Z	23:06:04.8	1.6		12.8	460.3	236.9	ML 3.1
	e Sn N	23:06:51.4	2.6		6.7			
MOX	e Pn Z	23:06:19.2	1.2		6.2	582.2	237.1	ML 2.9
	e Sn E	23:07:16.8	2.2		3.3			
GEC2	e Pn Z	23:06:28.5	3.8		2.0	636.7	213.9	
	e Sn E	23:07:31.0	4.9		2.6			
WET	e Pn Z	23:06:28.9	3.7		2.0	641.4	220.1	
GRFO	e Pn Z	23:06:32.1	2.9		2.1	673.6	231.5	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/26	23:34:59.9	+ - 1.48	53.530N	19.490E	33.4	16.7	170	0G		8	5	324	3.0ML	CLL	BGR	B
<b>1997/05/26</b>	<b>23:35:00.0</b>		<b>53.376N</b>	<b>19.316E</b>				<b>0.1</b>							<b>ARPA</b>	<b>BG</b>

explosion "Polonaise", shotpoint 308, 800 kg

Poland

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BRNL	e Sn N	23:36:42.3	3.4		1.1	413.1	257.6	
BRG	e Pn Z	23:36:05.3	2.1		4.3	460.2	235.0	
	e Sn E	23:36:52.2	3.4		1.7			
CLL	e Pn Z	23:36:07.8	1.4		6.6	486.4	244.3	ML 3.0
	e Sn E	23:36:56.9	2.5		4.6			
MOX	e Pn Z	23:36:23.1	1.9		2.5	607.7	243.1	ML 2.9
	e Sn E	23:37:24.5	4.5		1.9			
GEC2	e Pn Z	23:36:27.6	2.7		1.4	637.8	220.1	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/27	22:05:00.6	+ - 1.19	54.090N	17.580E	17.8	14.5	131	0G		10	5	326	2.9ML		SZGRF	B
1997/05/27	22:05:00.1	+ - 1.13	54.280N	17.630E	21.1	15.6	141	0G		11	6	322	3.1ML	CLL	BGR	B
<b>1997/05/27</b>	<b>22:05:00.0</b>		<b>54.066N</b>	<b>17.615E</b>				<b>0.1</b>							<b>ARPA</b>	<b>BG</b>

explosion "Polonaise", shotpoint 303, 1000 kg

Poland

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pn Z	22:06:01.3	1.4		8.4	433.4	216.5	ML 2.7
	e Sn N	22:06:46.3	3.1		6.6			
CLL	e Pn Z	22:06:02.0	1.7		4.9	436.5	227.2	ML 3.1
	e Sn E	22:06:46.8	3.0		10.6			
CLZ	e Pn Z	22:06:15.2	1.8		4.1	544.2	245.9	
	e Sn E	22:07:09.7	3.1		2.4			
MOX	e Pn Z	22:06:16.1	1.1		6.7	557.1	229.4	ML 3.0
	e Sn N	22:07:11.6	2.3		3.6			
WET	e Pn Z	22:06:27.7	2.9		1.8	637.3	212.7	
	e Sn E	22:07:31.7	5.5		4.2			
GEC2	e Pn Z	22:06:28.2	3.1		2.0	640.5	206.6	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/05/31	01:17:21.8	+ - 1.14	51.546N	6.724E	18.3	8.5	90	0		5	5				ISC	
1997/05/31	01:17:24.1	+ - 0.65	51.500N	6.840E	8.9	5.6	105	1G		8	5	193	2.0ML		SZGRF	I
1997/05/31	01:17:22.9	+ - 0.53	51.610N	6.820E	6.7	4.4	124	1G		9	6	201	1.9ML	GSH	BGR	I
<b>1997/05/31</b>	<b>01:17:20.9</b>		<b>51.564N</b>	<b>6.737E</b>				<b>1G</b>					<b>1.7ML</b>		<b>RUB</b>	<b>I</b>

Duisburg, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	01:17:28.7	1.1	TA	9.9	39.3	110.2	ML 1.7
	e Sg E	01:17:33.7	1.6					
GSH	e Pg Z	01:17:39.6	2.5		7.6	95.3	195.4	ML 1.9
	e Sg E	01:17:52.9	4.8					
IBBN	e Pg Z	01:17:40.6	1.4		2.1	108.3	39.8	ML 2.2
	e Sg E	01:17:55.2	3.4					
TNS	e Pg Z	01:17:53.5	0.2		2.0	191.4	140.5	ML 2.1
	e Sg N	01:18:14.6	-1.0					
CLZ	e Pn Z	01:17:59.8	1.2		0.8	252.4	81.5	ML 2.2
	e Sg E	01:18:32.7	-0.3					
MOX	e Sg N	01:19:03.5	1.0		2.9	355.5	104.8	ML 2.4

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/01	01:09:01.9		47.250N	10.759E				5G			19		3.2ML	VIE	NEIC	
Intensity = IV (MSK) at Imst/A																
1997/06/01	01:09:02.3	+ - 0.23	47.295N	10.723E	3.1	2.6	90	10		85	93		3.4ML	STR	ISC	
1997/06/01	01:09:02.0		47.177N	10.811E	7.4	7.4	0	10	+ - 51.0	13	9	302	2.8ML		SED	
1997/06/01	01:09:04.8		47.320N	10.650E	4.6	3.2	65	2	+ - 0.0	59	24	268	3.1ML		LDG	L
1997/06/01	01:09:03.9	+ - 1.80	47.320N	10.800E	21.0	12.0	332	10G		23	13	288	2.9ML		LEDBW	L
Foreshock of event on June 5, 20:23 UTC																
1997/06/01	01:09:04.0	+ - 0.79	47.290N	10.730E	8.9	5.6	166	23		23	9	266	3.2ML		SZGRF	L
<b>1997/06/01</b>	<b>01:09:02.6</b>	<b>+ - 0.61</b>	<b>47.230N</b>	<b>10.760E</b>	<b>6.7</b>	<b>3.3</b>	<b>162</b>	<b>10G</b>		<b>22</b>	<b>10</b>	<b>255</b>	<b>3.0ML</b>	<b>BFO</b>	<b>BGR</b>	<b>L</b>

Imst/A, Western Mieminger Mountains

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
OGA	i Pg -	01:09:10.2	-0.2			45.0	153.4	
	i Sg	01:09:15.5	-0.2					
UBR	e Pg -	01:09:15.0	0.4			70.1	315.9	ML 2.8
SCE	i Pg -	01:09:14.9	-0.5			75.0	106.1	
	i Sg	01:09:24.4	0.2					
FUR	e Pg Z	01:09:21.9	0.5	T	69.5	110.7	20.2	ML 3.8
	e Sg N	01:09:36.1	1.8					
SGW	e Pn -	01:09:27.3	0.4			151.3	310.7	ML 3.2
	e Pg -	01:09:28.4	0.1					
	e Sn	01:09:45.5	1.4					
	e Sg	01:09:47.0	1.1					
	e Pn -	01:09:27.5	0.1					
HDH	e Sg	01:09:48.0	0.7			156.1	344.9	ML 2.9
BHG	e Pn	01:09:31.1	2.1			168.3	70.3	
BEU	i Pn -	01:09:30.8	0.3			180.8	326.8	ML 2.8
	e Pg	01:09:33.1	-0.1					
GRC1	e Sn	01:09:51.2	0.7			204.3	15.8	
	e Pn Z	01:09:33.3	-0.1					
	e Sg N	01:10:00.6	-0.4					

LBG	e	Pn	-	01:09:35.5	0.7			216.4	318.2	ML	2.9
	e	Pg		01:09:39.6	0.3						
	e	Sn		01:09:58.5	0.6						
	e	Sg		01:10:04.9	0.4						
BFO	e	Pn	Z	01:09:35.9	0.8	T	3.1	218.9	304.9	ML	3.0
	e	Pg	Z	01:09:39.4	-0.3	T	11.9				
	e	Sn	N	01:10:00.6	2.2	T	2.0				
	e	Sg	N	01:10:05.3	0.1	T	3.4				
FELD	e	Pn		01:09:35.5	0.4			218.9	290.2		
KIZ	e	Pn		01:09:36.9	0.7			227.9	291.8	ML	3.2
	e	Pg		01:09:40.9	-0.3						
	e	Sn		01:10:00.7	0.3						
	e	Sg		01:10:07.6	-0.1						
BBS	e	Pn	-	01:09:39.4	0.9			246.3	277.3		
HOL	e	Pn	-	01:09:38.5	-0.2			248.2	343.9	ML	3.1
	e	Pg		01:09:44.5	-0.1						
WET	e	Pn	Z	01:09:41.4	0.7	T	30.8	264.5	35.6	ML	2.9
	e	Pg	Z	01:09:48.1	0.6	T	1.4				
	e	Sn	N	01:10:10.7	2.6	T	3.1				
	e	Sg	N	01:10:17.0	-1.2	T	1.5				
GRFO	e	Sn	N	01:10:12.3	1.8	T	2.0	275.7	6.9	ML	3.1
	e	Sg	N	01:10:21.7	0.3	T	2.6				
GRA1	e	Pn	Z	01:09:41.5	-0.6			275.9	6.9	ML	3.2
	e	Pg	Z	01:09:49.5	0.2						
	e	(Sn)	N	01:10:12.9	2.4						
	e	Sg	N	01:10:20.7	-0.7						
GEC2	e	Pn	Z	01:09:44.2	1.3	T	11.5	282.9	49.5		
	e	Sn	N	01:10:14.9	2.9	T	2.0				
	e	Sg	N	01:10:23.1	-0.4	T	2.3				
TNS	e	Pn	Z	01:09:55.3	1.3	T	13.9	373.4	333.9	ML	3.0
	e	Pg	-	01:10:08.6	2.7						
	e	(Sn)	N	01:10:31.9	0.7						
	e	Sg	N	01:10:47.8	-1.5						
ABH	e	Pn		01:09:56.7	2.1			377.8	322.5		
MOX	e	Pn	Z	01:09:55.3	-0.1	T	3.1	384.8	9.0	ML	3.2
	i	Pg		01:10:09.8	2.0						
	e	Sn	N	01:10:35.2	1.7	T	4.4				
	e	Sg	N	01:10:51.7	-0.8	T	2.4				
RUP	e	Pn		01:09:57.5	1.8			387.2	316.6		
BRG	e	(Pn)	Z	01:10:05.2	-0.1			466.7	28.6	ML	3.3
	e	Pg		01:10:20.7	-1.0						
	e	Sn		01:10:53.7	2.9						
	e	Sg	N	01:11:15.7	-0.2	T	2.5				
CLL	e	(Pn)	Z	01:10:07.2	0.0			481.6	18.9	ML	3.5
	e	Sg	N	01:11:20.2	0.0	T	3.7				
CLZ	e	Sg	E	01:11:28.2	-1.1	T	3.2	513.5	357.0	ML	3.5

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/01	05:08:01.7	+- 0.59	50.346N	12.395E	7.3	4.7	90	10		16	17				ISC	
1997/06/01	05:08:03.4	+- 0.30	50.360N	12.360E	4.4	3.3	92	10G		14	8	102	2.1ML		SZGRF	L
1997/06/01	05:08:02.8	+- 0.29	50.350N	12.430E	3.3	2.2	114	10G		12	7	89	2.0ML	BRG	BGR	L

Klingenthal, Kraslice/CR, Erzgebirge

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
HOF	i Pg -	05:08:09.6	-0.1			39.4	264.3	
MOX	e Pg Z	05:08:14.1	-0.0	T	6.4	66.3	299.9	ML 1.8
	e Sg N	05:08:21.8	-0.2	T	11.9			
GRA1	i Pg + Z	05:08:22.2	0.1			113.1	230.2	ML 2.0
	e Sg E	05:08:35.5	0.2					
GRFO	e Pg Z	05:08:22.2	0.1	T	11.3	113.3	230.2	ML 1.8
	e Sg E	05:08:35.7	0.3	T	7.6			
CLL	e Pg Z	05:08:22.6	0.4	T	20.4	113.8	20.5	ML 2.5
	e Sg N	05:08:35.5	0.0	T	10.2			
BRG	e Pg Z	05:08:23.7	0.2	T	25.3	121.6	60.8	ML 2.0
	e Sg E	05:08:37.7	0.1	T	4.3			
WET	e Pg Z	05:08:26.2	-0.1	T	24.2	137.9	166.3	ML 1.9
	e Sg E	05:08:42.4	0.1	T	7.6			
GRC1	i Pg Z	05:08:30.5	-0.2			164.1	203.8	ML 2.2
	e Sg N	05:08:49.3	-0.5					
GEC2	e Pg Z	05:08:34.8	-0.4	T	18.9	190.8	150.8	
CLZ	e Pg Z	05:08:39.9	-0.1	T	3.2	219.4	319.9	ML 2.4
	e Sg Z	05:09:04.3	-1.3					
TNS	e Sg E	05:09:22.4	-1.5			283.3	268.7	ML 2.2
BFO	e Pg E	05:09:05.4	-0.5		1.8	372.3	234.5	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/01	05:12:49.9		50.223N	12.283E				5G			7		3.8ML	VIE	NEIC	
1997/06/01	05:12:48.8	+- 0.59	50.334N	12.318E	4.9	4.1	90	9	+- 4.9	67	76		3.6ML	STR	ISC	
1997/06/01	05:12:43.4		50.746N	12.716E	45.2	45.2	0	10	+- 7.7	9	6	341	3.8ML		SED	
1997/06/01	05:12:50.4		50.208N	12.519E	8.9	5.4	144	2	+- 0.0	39	18	310	3.4ML		LDG	L
1997/06/01	05:12:50.5	+- 0.40	50.350N	12.400E	5.0	4.0	27	10G		33	18	121	3.4ML		LEDBW	L

Foreshock at 05:08:03.4 followed by a swarm of 13 events until June 3, 1997,

Intensity = IV (MSK) between Plauen, Selb and Klingenthal, Radius of perceptibility 20 km

1997/06/01	05:12:51.1	+- 0.25	50.360N	12.370E	3.3	3.3	108	10G		20	11	102	3.3ML		SZGRF	L
1997/06/01	05:12:50.5	+- 0.23	50.340N	12.420E	3.3	2.2	87	10G		21	12	89	3.1ML	BRG	BGR	L

Klingenthal, Kraslice/CR, Erzgebirge

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
HOF	i Pg +	05:12:57.1	-0.1			38.6	265.9	
MOX	e Pg Z	05:13:01.6	-0.2	T	79.3	66.2	301.1	ML 2.9
	e Sg E	05:13:09.5	-0.1	T	8.3			
GRA3	i Pg + Z	05:13:08.1	0.3			101.5	231.2	

GRA1	i Pg + Z	05:13:09.7	0.2			111.9	230.4	ML	3.1
	e Sg E	05:13:22.9	0.3						
GRFO	e Pg Z	05:13:09.6	0.1	T	121.6	112.1	230.4	ML	2.9
	e Sg E	05:13:22.8	0.1	T	2.8				
CLL	i Pg Z	05:13:10.1	-0.0			115.1	20.6	ML	3.7
	e Sg N	05:13:23.2	-0.3	T	4.8				
BRG	e Pg E	05:13:11.3	-0.1	T	451.6	122.7	60.5	ML	3.1
	e Sg E	05:13:25.3	-0.4	T	2.8				
WET	e Pn Z	05:13:13.1	0.0	T	1.8	137.0	165.9	ML	2.9
	e Pg Z	05:13:13.7	-0.0	T	355.4				
	e Sg E	05:13:29.6	-0.1	T	6.8				
GRC1	i Pg Z	05:13:18.2	0.1			162.8	203.8	ML	3.3
	e Sg E	05:13:37.1	-0.0						
GEC2	e Pn Z	05:13:20.5	0.9	T	10.5	190.2	150.4		
	e Pg Z	05:13:22.3	-0.5	T	233.3				
	e Sg E	05:13:45.1	0.2		6.5				
HOL	e Pn -	05:13:23.0	0.3			215.8	241.1	ML	3.5
	e Pg	05:13:26.9	-0.2						
	e Sg	05:13:51.1	-1.1						
CLZ	e Pn Z	05:13:23.5	0.3	T	2.0	219.8	320.2	ML	3.5
	e Pg Z	05:13:27.5	-0.3	T	29.8				
	e Sg Z	05:13:52.4	-1.0	T	4.2				
HDH	e Pn +	05:13:26.4	-0.7			252.3	220.2	ML	3.3
	e Pg	05:13:33.1	-0.2						
	i PmP+	05:13:34.4	0.3						
	i Sn	05:13:54.6	1.2						
	e Sg	05:14:01.6	-1.0						
FUR	e Pg Z	05:13:33.3	-0.6	T	9.6	255.9	199.4	ML	4.0
	e Sg E	05:14:03.5	-0.1		7.3				
TOD	e Sg	05:14:07.6	-0.4			271.2	253.9		
TNS	e Pn Z	05:13:32.0	1.2	T	5.1	282.5	268.9	ML	3.4
	i Pg	05:13:37.1	-1.3						
	e Sg Z	05:14:09.6	-1.7		2.8				
BEU	e Pn +	05:13:31.3	-0.7			292.0	229.2	ML	3.5
	e Pg	05:13:40.0	0.0						
	e Sn	05:14:03.4	1.6						
	e Sg	05:14:11.5	-2.4						
LBG	e Pg	05:13:43.7	-1.3			321.3	235.9	ML	3.4
	e Sg	05:14:19.3	-3.0						
KTD	e Pg	05:13:46.0	-0.6			331.0	251.6		
SGW	e Pn	05:13:37.1	-0.8			340.3	224.4	ML	3.5
	e Pg	05:13:47.1	-1.1						
	e Sn	05:14:14.6	2.6						
	e Sg	05:14:27.0	-0.7						
UBR	e Pn +	05:13:37.1	-0.7			340.3	210.6	ML	3.4
	e Pg	05:13:49.1	0.9						
ABH	i Pn -	05:13:40.8	1.7			351.1	263.5		
BFO	e Pn Z	05:13:41.8	0.2	T	3.3	371.1	234.5	ML	3.3
	e Pg Z	05:13:52.4	-1.0						
	e Sg N	05:14:35.4	-1.1	T	4.1				

BUG	e	Pn	Z	05:13:44.5	1.6	T	3.0	381.3	290.7								
RUP	e	Pn	-	05:13:45.5	1.7			389.4	261.6								
	e	Sg		05:14:42.0	0.2												
KIZ	e	Pn		05:13:46.5	-1.2			421.1	232.7		ML	3.2					
	e	Pg		05:14:00.8	-1.1												
FELD	e	Pg		05:14:00.8	-1.2			422.2	231.2								
	e	Sg		05:14:48.7	-2.4												
BSEG	e	Pn	Z	05:13:48.2	0.0	T	7.5	424.7	341.1								
BBS	e	Pg		05:14:11.1	-0.8			480.5	230.2								

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/05	20:22:56.9		47.344N	10.692E				5G			52		4.1ML	LDG	NEIC	
1997/06/05	20:22:57.4	+ - 0.40	47.308N	10.701E	2.4	1.9	90	3	+ - 3.6	164	172		4.3ML	STR	ISC	
1997/06/05	20:22:53.6		47.252N	11.150E	11.2	11.2	0	10	+ - 4.4	39	30	304	4.2ML		SED	
1997/06/05	20:23:00.9		47.269N	10.643E	3.6	2.6	58	2	+ - 0.0	82	33	247	4.1ML		LDG	L
1997/06/05	20:23:01.1	+ - 1.05	47.350N	10.900E	8.9	5.6	3	15	+ - 4.7	18	10	284	4.6ML	MOX	BGR	L
1997/06/05	20:23:02.1	+ - 0.59	47.350N	10.840E	6.7	5.6	112	37		36	17	284	4.5ML		SZGRF	L
<b>1997/06/05</b>	<b>20:22:57.9</b>	<b>+ - 0.20</b>	<b>47.220N</b>	<b>10.770E</b>	<b>4.0</b>	<b>3.0</b>	<b>80</b>	<b>15</b>	<b>+ - 6.0</b>	<b>14</b>	<b>8</b>	<b>130</b>	<b>4.4ML</b>		<b>LEDBW</b>	<b>L</b>

Max. Intensity = V-VI (MM ), Felt in large parts of Bavaria, northern Swabia and Allgaeu  
Radius of perceptibility 120 km

Imst/A, Western Mieminger Mountains

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
OGA	i Pg -	20:23:06.4	0.7			43.7	153.6	
UBR	e P* -	20:23:11.0		T		71.4	316.1	ML 4.2
	e S*	20:23:20.7		T				
SCE	i Pg -	20:23:10.9	0.2			73.9	105.5	
FUR	e Pn +	20:23:17.9	1.1	T		111.5	19.6	ML 5.1
	i Pg + Z	20:23:19.1	2.2					
	e Sn	20:23:32.2	2.1	T				
	i Sg	20:23:34.8	4.8					
SGW	e Pn -	20:23:23.4	1.6			152.6	310.8	ML 4.2
	e Pg +	20:23:24.6	0.7					
	e Sg	20:23:43.4	1.7					
HDH	e Pn -	20:23:23.6	1.2			157.4	344.7	ML 4.6
	e Sg	20:23:43.9	0.8					
BHG	i Pn +	20:23:27.1	3.4			168.0	69.8	
HSN	e Pn -	20:23:25.5	1.7			168.5	316.2	
	e Sn	20:23:44.6	2.4					
	e Sg	20:23:47.5	1.2					
MSS	e Pn -	20:23:26.0	1.8			172.1	309.0	
	e Sn	20:23:45.9	3.0					
BHB	e Pn -	20:23:26.2	1.8			174.6	311.5	
	e Pg +	20:23:28.4	0.8					
	i Sg	20:23:49.9	2.0					

JUN	e	Pn	+	20:23:26.7	1.7	178.7	314.3	
	e	Pg		20:23:29.0	0.7			
	e	Sn		20:23:47.2	2.9			
	e	Sg		20:23:52.4	3.3			
BEU	e	Pn	-	20:23:26.9	1.4	182.2	326.8	ML 4.4
	e	Pg		20:23:29.3	0.4			
	i	Sn		20:23:47.1	2.0			
	e	Sg		20:23:50.6	0.5			
GRC2	e	Pg	Z	20:23:30.1	0.1	188.7	13.6	
	e	Sg	Z	20:23:51.9	-0.1			
GRC3	e	Pg	Z	20:23:30.8	-0.4	195.3	17.8	
GRC1	e	Pg	Z	20:23:33.2	0.4	205.2	15.5	ML 4.4
	e	Sg	N	20:23:56.6	-0.0			
GRC4	i	Pn	+ Z	20:23:30.5	1.1	215.0	14.8	
	e	Pg	Z	20:23:35.0	0.6			
HEX	e	Pn	-	20:23:31.2	1.7	215.6	295.4	
	e	Pg		20:23:35.2	0.6			
	e	Sn		20:23:54.4	2.3			
	e	Sg		20:23:59.7	0.0			
LBG	e	Pn	-	20:23:31.5	1.8	217.8	318.2	ML 4.4
	i	Pg	-	20:23:35.8	0.9			
	i	Sn		20:23:54.5	1.9			
	i	Sg		20:24:01.0	0.8			
FELD	i	Pn	-	20:23:31.8	1.8	220.0	290.4	
GRB5	e	Pg	Z	20:23:35.9	0.5	220.9	17.4	
KIZ	e	Pn	-	20:23:32.6	1.5	229.0	292.0	ML 4.2
	e	Pg	+	20:23:37.0	0.2			
	e	Sg		20:24:03.8	0.3			
WYH	e	Pn		20:23:33.6	1.9	233.9	280.2	
	e	Sg		20:24:04.9	0.0			
END	e	Pn	-	20:23:33.4	1.6	234.5	284.7	
	e	Pg		20:23:38.1	0.4			
	e	Sn		20:23:58.4	2.3			
	e	Sg		20:24:05.3	0.2			
FBB	e	Pg		20:23:41.4	3.5	235.3	292.8	
	e	Sg		20:24:05.7	0.4			
GRB2	e	Pg	Z	20:23:38.9	0.7	237.6	16.0	
BAW	e	Pn	-	20:23:34.1	1.5	241.1	286.6	
	e	Pg	+	20:23:39.0	0.2			
	e	Sn		20:23:59.4	1.9			
	e	Sg		20:24:07.2	0.3			
EFR	e	Pg	+	20:23:40.3	0.6	246.1	282.8	
	e	Sg		20:24:09.3	1.0			
BBS	i	Pn	-	20:23:35.4	2.0	247.2	277.5	
GRB3	e	Pg	Z	20:23:40.7	0.6	248.3	17.6	
HOL	e	Pn	-	20:23:34.5	0.9	249.5	343.8	ML 4.7
	e	Pg		20:23:40.7	0.5			
	e	Sn		20:24:02.0	2.8			
	e	Sg		20:24:08.8	-0.5			



GRB1	i	Pn + Z	20:23:34.6	0.9		250.0	14.8	
	e	Pg Z	20:23:41.0	0.6				
	e	Sg N	20:24:09.8	0.3				
LIBD	e	Pg +	20:23:42.4	0.6		258.6	294.7	
	e	Sg	20:24:12.1	0.1				
WET	i	Pn + Z	20:23:37.3	1.8		264.9	35.4	ML 4.2
	e	Pg Z	20:23:44.5	1.6				
	e	Sg N	20:24:12.3	-1.4				
GRA4	e	Pn + Z	20:23:36.3	0.7		265.3	10.4	
GRFO	i	Pn + Z	20:23:37.5	0.5	13.8	276.7	6.7	ML 4.5
	e	Pg Z	20:23:45.3	0.4	258.7			
	e	Sg N	20:24:16.2	-0.8				
GRA1	i	Pn + Z	20:23:37.5	0.6		276.9	6.7	ML 4.6
	e	Pg Z	20:23:45.4	0.5				
	e	Sg N	20:24:16.4	-0.7				
HEI	e	Pn +	20:23:39.9	1.9		285.5	328.8	
	e	Pg +	20:23:47.4	1.0				
	e	Sn	20:24:08.5	1.6				
	e	Sg	20:24:20.6	1.1				
TOD	e	Sg	20:24:24.0	-0.4		302.3	332.1	
KTD	i	Pg +	20:23:51.4	1.5		306.6	320.6	
	e	Sg	20:24:28.0	2.4				
HOF	e	Pn	20:23:55.7	9.4		353.4	12.9	
TNS	e	Pn Z	20:23:51.1	2.2		374.8	333.8	ML 4.5
	e	Pg Z	20:24:03.2	1.7	83.6			
	e	Sn E	20:24:27.3	1.5				
	e	Sg N	20:24:45.1	0.0				
ABH	e	Pn -	20:23:52.0	2.6		379.2	322.5	
MOX	i	Pn + Z	20:23:50.5	0.2		385.8	8.9	ML 4.6
	i	Pg	20:24:06.1	2.8				
	e	Sn N	20:24:30.8	2.7				
	e	Sg N	20:24:48.4	0.2				
RUP	e	Pn +	20:23:53.7	3.1		388.5	316.6	
BRG	e	Pn + Z	20:24:01.4	1.2		467.3	28.5	ML 4.6
	e	Pg Z	20:24:16.5	-0.7				
	e	Sg N	20:25:11.2	-0.3				
CLL	e	Pn Z	20:24:02.3	0.3		482.5	18.8	ML 4.9
	e	Pg Z	20:24:18.6	-1.1				
	e	Sg E	20:25:14.7	-1.2				
GSH	e	Pn Z	20:24:08.1	3.3		505.5	322.3	ML 4.1
	e	Sn N	20:24:57.4	4.0				
CLZ	e	Pn Z	20:24:07.9	1.9	4.6	514.7	357.0	
BUG	e	Pn Z	20:24:10.2	2.0	3.1	533.3	332.9	
BRNL	e	Sg E	20:25:51.4	-0.3		608.0	16.8	
BSEG	e	Sg N	20:26:31.5	0.1		747.4	357.7	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/18	13:19:28.5	+ - 0.59	49.338N	6.933E	8.8	4.2	90	0		15	16				ISC	
1997/06/18	13:19:30.1	+ - 0.65	49.360N	6.880E	7.8	4.4	60	1G		7	4	210	2.5ML		SZGRF	I
1997/06/18	13:19:30.1	+ - 0.60	49.370N	6.910E	11.1	6.7	61	1G		10	7	208	2.2ML	BFO	BGR	I
<b>1997/06/18</b>	<b>13:19:29.8</b>	<b>+ - 0.30</b>	<b>49.380N</b>	<b>6.920E</b>	<b>4.0</b>	<b>3.0</b>	<b>41</b>	<b>1G</b>		<b>14</b>	<b>11</b>	<b>136</b>	<b>2.4ML</b>		<b>LEDBW</b>	<b>I</b>

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg -	13:19:36.5	0.4	T		37.2	15.6	
WLF	Pg +	13:19:40.8	0.2	T		63.8	300.0	
	Sg	13:19:51.0	2.9					
ABH	e Pg -	13:19:41.7	-0.3	T		71.8	38.8	
	e Sg	13:19:50.6	0.3	T				
KTD	e Pg -	13:19:44.8	0.6	T		84.5	94.1	
TOD	i Pg -	13:19:53.2	-0.0	T		138.3	78.8	
TNS	e Pg Z	13:19:54.5	0.3		5.7	144.2	48.9	ML 2.5
	e Sg N	13:20:11.5	0.6		16.8			
LIBD	e Pg	13:19:54.4	-0.1	T		145.6	159.6	
BFO	e Pg Z	13:19:55.3	-0.9		10.8	155.8	138.0	ML 2.2
	e Sg N	13:20:14.3	-0.0		22.9			
GSH	e Pg Z	13:19:55.9	-0.3		4.6	155.8	345.8	ML 2.2
	e Sg N	13:20:14.1	-0.3		6.5			
LBG	e Sg	13:20:15.3	0.3	T		158.2	119.5	ML 2.4
KIZ	i Pg +	13:19:58.6	-0.7	T		174.5	154.8	ML 2.6
	e Sg	13:20:18.6	-1.1	T				
FELD	e Pg	13:20:00.2	-1.0	T		185.2	154.1	
HOL	e Pg	13:20:08.6	3.4			209.3	89.2	ML 2.3
SGW	e Pg	13:20:06.6	-0.4	T		219.9	129.2	ML 2.3
	e Sg	13:20:33.0	0.4	T				
HDH	e Sg	13:20:39.4	-3.4			255.6	109.0	ML 2.2
GRFO	e Sg E	13:20:58.3	-0.7		3.5	312.2	82.0	ML 2.7
GRA1	e Sg N	13:21:00.4	1.3			312.3	82.0	ML 2.8
MOX	e Pg Z	13:20:34.2	2.7		3.1	363.7	65.5	
GEC2	e Pn E	13:20:38.5	1.2			497.0	94.3	
BRG	e Pn E	13:20:44.1	3.1			527.2	69.0	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/20	00:20:03.9		49.401N	6.935E				10G			9				NEIC	I
Mining induced event in the Lorraine region, France																
1997/06/20	00:20:02.1	+ - 0.55	49.352N	6.914E	8.2	3.5	90	0		24	26		2.3ML	UCC	ISC	
1997/06/20	00:20:03.9	+ - 0.71	49.350N	6.820E	11.1	4.4	65	1G		6	3	213	2.4ML		SZGRF	I
1997/06/20	00:20:02.7	+ - 0.69	49.340N	6.800E	11.1	4.4	65	1G		6	3	214	2.3ML	BFO	BGR	I
<b>1997/06/20</b>	<b>00:20:03.0</b>	<b>+ - 0.50</b>	<b>49.380N</b>	<b>6.840E</b>	<b>7.0</b>	<b>2.0</b>	<b>104</b>	<b>1G</b>		<b>18</b>	<b>12</b>	<b>211</b>	<b>2.4ML</b>		<b>LEDBW</b>	<b>I</b>

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg	00:20:10.6	0.9	T		39.1	23.8	
ABH	e Pg -	00:20:15.9	0.1	T		75.5	42.1	
	e Sg	00:20:24.4	-0.1	T				
KTD	e Pg	00:20:19.0	0.7	T		90.3	93.8	
TOD	i Pg -	00:20:27.4	0.0	T		144.0	79.2	
	e Sg	00:20:44.2	0.0	T				
LIBD	e Pg	00:20:28.6	0.6	T		147.7	157.5	
TNS	e Pn Z	00:20:28.7	0.6		10.8	148.6	50.3	ML 2.7
	e Sg N	00:20:46.6	1.1		4.8			
GSH	e Pg Z	00:20:29.7	0.6		6.2	154.5	347.8	ML 2.3
	e Sg N	00:20:48.1	0.9		3.2			
BFO	e Pn Z	00:20:28.4	-1.0		23.4	159.7	136.4	ML 2.3
	e Pg Z	00:20:29.8	-0.2					
	e Sg N	00:20:48.4	-0.2		5.1			
LBG	e Pg +	00:20:30.5	-0.2	T		163.2	118.5	ML 2.4
	e Sg	00:20:49.4	-0.2	T				
KIZ	i Pg +	00:20:32.8	-0.2	T		177.0	153.0	ML 2.6
	e Sg	00:20:52.7	-0.9	T				
FELD	e Pg -	00:20:34.4	-0.4	T		187.8	152.5	
	e Sg	00:20:56.1	-0.5	T				
BEU	e Pg +	00:20:37.7	-0.5	T		207.7	114.2	ML 2.3
HOL	e Pg +	00:20:43.0	3.6			215.1	89.1	ML 2.3
BBS	e Pg -	00:20:42.9	2.9			218.6	166.7	
SGW	i Pg +	00:20:40.9	-0.1	T		224.4	128.2	ML 2.4
	e Sg	00:21:06.9	-0.3	T				
HDH	e Pg +	00:20:46.5	-0.8			261.1	108.5	ML 2.2
UBR	e Pg	00:20:55.4	0.5			305.9	126.9	ML 2.2
BRG	e Pg	00:21:31.7	-1.6			532.6	69.1	
	e Sg	00:22:35.4	0.2					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/24	13:50:34.3		51.142N	5.657E				10G			11		2.2ML	DBN	NEIC	
1997/06/24	13:50:36.4	+- 1.13	51.092N	5.955E	12.3	8.9	90	31	+-10.8	20	23		2.1ML	UCC	ISC	
1997/06/24	13:50:39.0		50.921N	5.998E	7.6	5.3	51	15	+- 0.0	23	12	278	2.8ML		LDG	L
1997/06/24	13:50:37.5	+- 1.05	51.130N	6.090E	13.3	5.6	107	12		8	5	245	2.4ML		SZGRF	I
<b>1997/06/24</b>	<b>13:50:36.3</b>		<b>51.113N</b>	<b>5.931E</b>				<b>11</b>			<b>4</b>	<b>320</b>	<b>1.8ML</b>		<b>GLA</b>	<b>L</b>

Waldfeucht, S of Roermond/NL, Dutch-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
JCK	i Pg Z	13:50:42.7	0.0	T		36.0	103.5	ML 1.8
	e Sg E	13:50:47.3	0.2	T				

GSH	i	Pg	Z	13:50:46.0	0.7	T		52.2	143.0	ML	1.9
	e	Sg	N	13:50:52.7	1.2						
BUG	e	Pg	Z	13:50:52.2	-1.1			100.0	68.1	ML	2.7
	e	Sg	E	13:51:04.6	-0.5						
IBBN	e	Sg	N	13:51:27.2	-1.5			182.9	42.7	ML	2.5
TNS	e	Pn	Z	13:51:07.3	0.5			203.1	118.2		
	e	Sg	N	13:51:33.7	-0.7						
CLZ	e	Sg	E	13:52:04.5	-2.7			318.0	73.5	ML	2.5

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/25	00:05:53.1	+/- 0.46	49.350N	6.896E	6.5	3.2	90	0		24	24		2.1ML	UCC	ISC	
1997/06/25	00:05:55.9	+/- 1.37	49.420N	6.850E	17.8	7.8	31	1G		5	3	264	2.5ML	TNS	BGR	I
<b>1997/06/25</b>	<b>00:05:54.9</b>	<b>+/- 0.20</b>	<b>49.380N</b>	<b>6.940E</b>	<b>2.0</b>	<b>2.0</b>	<b>39</b>	<b>1G</b>		<b>20</b>	<b>14</b>	<b>117</b>	<b>2.2ML</b>		<b>LEDBW</b>	<b>I</b>

According to single reports felt in Reisbach, Saarwellingen

#### Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg	00:06:01.5	0.4	T		36.8	13.5	
	e Sg	00:06:06.5	1.1					
WLF	Pg +	00:06:06.0	0.1	T		65.1	299.4	
	Sg	00:06:13.9	0.4	T				
ABH	e Pg -	00:06:06.9	-0.0	T		70.9	37.9	
	e Sg	00:06:15.7	0.5	T				
KTD	e Pg	00:06:10.5	1.5	T		83.1	94.2	
TOD	e Pg -	00:06:18.4	0.3	T		136.9	78.7	
TNS	e Pg Z	00:06:19.6	0.4			143.1	48.5	ML 2.5
	e Sg N	00:06:37.5	1.7					
GSH	e Pg Z	00:06:21.1	-0.2			156.1	345.3	ML 2.2
	e Sg N	00:06:39.2	-0.3					
LBG	i Pg +	00:06:21.5	-0.0	T		156.9	119.8	ML 2.2
	e Sg	00:06:39.9	0.2	T				
KIZ	i Pg +	00:06:23.8	-0.6	T		173.8	155.2	ML 2.4
	e Sg	00:06:43.7	-0.8	T				
FELD	e Pg -	00:06:25.4	-0.7	T		184.6	154.5	
	e Sg	00:06:47.0	-0.7	T				
BEU	e Pg +	00:06:28.9	-0.1	T		201.1	115.2	ML 2.2
	e Sg	00:06:52.6	0.3					
HOL	e Pg	00:06:33.5	3.4			207.8	89.2	ML 2.2
BBS	e Pg	00:06:32.3	0.6	T		217.1	168.6	
SGW	e Pg +	00:06:31.9	-0.0	T		218.8	129.5	ML 2.2
	e Sg	00:06:57.7	0.3	T				
UBR	e Pg	00:06:46.7	0.9			300.1	127.8	ML 2.1
GRFO	e (Pg) Z	00:06:50.4	2.8			310.7	82.0	
GRA1	e Pg	00:06:49.4	1.8			310.9	82.0	
	e Sg	00:07:31.8	8.1					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/25	00:51:31.6	+- 1.13	51.507N	6.806E	16.4	8.2	90	1		5	5				ISC	
1997/06/25	00:51:33.1	+- 1.06	51.540N	6.980E	14.5	5.6	147	1G		6	4	235	2.2ML	TNS	BGR	I
1997/06/25	00:51:33.7	+- 0.63	51.530N	6.960E	7.8	6.7	138	1G		7	4	186	1.9ML		SZGRF	I

## Duisburg, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg Z	00:51:37.4	-0.3	T		23.6	114.8	ML 1.5
	e Sg E	00:51:41.6	1.2	T				
GSH	e Pg Z	00:51:48.7	-1.4	T		97.1	205.0	ML 1.9
	e Sg N	00:52:02.2	0.8	T				
IBBN	e Pg Z	00:51:50.4	-0.6	T		102.2	32.0	ML 2.1
TNS	e Pg Z	00:52:01.9	-2.1	T		178.9	143.8	ML 2.2
	i Sn +	00:52:22.7	-0.2					
CLZ	e Sg E	00:52:24.2	-0.6	T				
	e (Sg) E	00:52:41.0	-0.6			237.8	80.3	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/26	23:05:08.1	+- 0.74	49.332N	6.902E	11.4	4.5	90	0		11	14				ISC	
1997/06/26	23:05:08.3	+- 1.86	49.330N	6.830E	18.9	8.9	12	1G		5	3	299	2.2ML	TNS	BGR	I
1997/06/26	23:05:09.5	+- 0.40	49.360N	6.950E	8.0	2.0	91	1G		14	9	189	2.0ML		LEDBW	I

Felt in Reisbach, Saarwellingen

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg -	23:05:16.5	0.4	T		38.8	11.7	
ABH	i Pg -	23:05:21.5	-0.3	T		72.2	36.3	
	e Sg	23:05:30.5	0.3	T				
KTD	i Pg -	23:05:24.4	1.0	T		82.2	92.7	
TNS	e Pg Z	23:05:34.2	0.3		3.1	144.0	47.7	ML 2.2
	e Sg N	23:05:52.4	1.7					
LBG	e Sg	23:05:56.5	2.7			155.2	119.2	ML 2.0
GSH	e Pg Z	23:05:35.7	-0.7		2.5	158.5	345.3	
	e Sg N	23:05:54.0	-0.8					
KIZ	i Pg +	23:05:38.3	-0.2	T		171.5	155.1	ML 2.3
	e Sg	23:05:58.5	-0.0	T				
FELD	i Pg	23:05:40.4	0.0	T		182.3	154.4	
	i Sg	23:06:02.6	1.0	T				
SGW	e Pg	23:05:46.5	0.2	T		216.8	129.1	ML 2.0
CLZ	e (Sg) E	23:06:55.8	1.5			366.6	39.9	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/06/28	02:44:58.6		47.612N	12.509E				5G			75		3.7ML	VIE	NEIC	
Intensity = IV (MSK) at Zell-am-See/A																
1997/06/28	02:44:59.2	+ - 0.24	47.625N	12.522E	3.3	2.4	90	10		109	111		3.7ML	STR	ISC	
1997/06/28	02:45:03.4		47.563N	12.345E	6.1	4.5	68	2	+ - 0.0	53	31	269	3.3ML		LDG	L
1997/06/28	02:45:03.1		47.483N	12.186E	42.4	42.4	0	10	+ -15.5	26	26	322	3.3ML		SED	
1997/06/28	02:44:58.7	+ - 0.68	47.540N	12.660E	5.6	5.6	163	10G		19	9	290	3.6ML		SZGRF	L
1997/06/28	02:45:00.2	+ - 0.69	47.580N	12.660E	6.7	4.4	158	10G		16	8	274	3.5ML	WET	BGR	L
<b>1997/06/28</b>	<b>02:44:58.9</b>	<b>+ - 0.20</b>	<b>47.560N</b>	<b>12.610E</b>	<b>5.0</b>	<b>3.0</b>	<b>62</b>	<b>10G</b>		<b>12</b>	<b>6</b>	<b>154</b>	<b>3.5ML</b>		<b>LEDBW</b>	<b>L</b>

## Kitzbuehler Alps/A

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BHG	i Pg -	02:45:03.3	-0.5			27.0	48.2	
SCE	i Pg -	02:45:13.6	-0.5			89.2	229.8	
FUR	e Pn	02:45:19.9	0.4	T		120.0	304.4	ML 3.5
	e Pg Z	02:45:20.1	0.8		38.1			
	e Sg	02:45:35.4	2.1					
OGA	e Pg	02:45:22.9	-0.2			142.3	237.8	
GEC2	e Pn Z	02:45:25.8	1.0		17.1	164.2	29.1	
	e Pg Z	02:45:26.9	0.1		308.6			
	e Sg E	02:45:46.2	0.3		14.2			
WET	e Pn +	02:45:27.2	0.8	T		177.2	6.3	ML 3.5
	e Pg	02:45:28.7	-0.3	T				
	e Sn	02:45:48.5	2.5					
	e Sg	02:45:50.4	0.8	T				
GRC1	e Pn Z	02:45:26.9	0.3			178.8	333.6	ML 3.6
	e Sg E	02:45:50.3	0.3					
UBR	i Pn +	02:45:29.4	1.7	T		188.0	275.0	ML 3.5
	e Pg	02:45:31.1	0.3	T				
	e Sg	02:45:54.0	1.3	T				
GRB2	e Pn Z	02:45:29.8	0.3			202.5	340.3	
HDH	e Pn	02:45:32.2	1.6	T		211.8	303.4	ML 3.4
	e Pg	02:45:34.8	-0.0	T				
	e Sg	02:45:59.2	-0.3	T				
ROTZ	i Pn +	02:45:35.2	0.3			247.3	353.3	ML 3.1
GRFO	e Pn Z	02:45:37.2	0.9		3.7	258.0	337.2	ML 3.3
	e Pg Z	02:45:43.4	0.7		9.9			
	e Sg E	02:46:13.5	0.8					
GRA1	e Pn Z	02:45:37.8	1.6			258.1	337.2	ML 3.5
	e Sg N	02:46:13.6	0.9					
SGW	e Pn	02:45:38.7	2.2			260.6	284.7	ML 3.5
	e Sg	02:46:12.9	-0.5					
BEU	e Pn	02:45:38.9	2.1			263.2	296.8	ML 3.4
	e Sg	02:46:13.8	-0.3					
HOL	e Pn -	02:45:41.4	1.5			288.3	315.3	ML 3.3
	e Pg +	02:45:48.0	0.2					
	e Sg	02:46:20.3	-1.0					
LBG	e Pn	02:45:44.5	2.1			308.7	294.8	ML 3.5
	e Sg	02:46:26.3	-0.8					

HOF	e	Pn		02:45:43.0	0.3			310.8	350.4								
FELD	i	Pn +		02:45:49.0	2.0			346.3	277.5								
	e	Sg		02:46:38.0	0.1												
MOX	e	Pn	Z	02:45:48.8	1.3		24.7	350.5	348.5		ML	3.7					
	e	Pg		02:45:59.0	0.7												
	e	Sn	N	02:46:26.0	3.4												
	e	Sg	E	02:46:40.6	1.5		4.4										
KIZ	e	Pn +		02:45:49.6	1.7			353.4	278.9		ML	3.5					
	e	Sn		02:46:26.0	2.8												
	e	Sg		02:46:38.6	-1.3												
TOD	e	Pn		02:45:50.7	1.9			360.6	310.5								
BRG	e	Pn	Z	02:45:53.3	2.0			380.9	14.2		ML	3.5					
	e	Sg	E	02:46:47.6	-0.1		2.7										
BBS	e	Pn +		02:45:53.5	2.0			383.2	270.3								
CLL	e	Pn	Z	02:45:56.7	1.0		4.6	417.7	3.7		ML	3.9					
	i	Pg		02:46:11.9	2.2												
	e	Sg	E	02:46:58.6	0.3		5.0										
TNS	e	Pn	Z	02:45:58.9	2.4		22.3	424.4	315.8		ML	3.6					
	e	Sn	N	02:46:41.9	3.6												
	e	Sg	N	02:47:01.2	1.0		1.9										
ABH	e	Pn +		02:46:02.2	2.3			452.1	306.7								
RUP	e	Pn		02:46:04.8	2.5			472.1	302.3								

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/04	20:13:32.2	+/- 0.78	50.744N	10.133E	9.1	7.0	90	0		13	14				ISC	
1997/07/04	20:13:36.0	+/- 0.43	50.790N	10.000E	5.6	4.4	94	1G		7	4	131	2.4ML		SZGRF	I
<b>1997/07/04</b>	<b>20:13:35.5</b>	<b>+/- 0.39</b>	<b>50.790N</b>	<b>10.030E</b>	<b>5.6</b>	<b>4.4</b>	<b>151</b>	<b>1G</b>		<b>7</b>	<b>4</b>	<b>130</b>	<b>2.3ML</b>	<b>TNS</b>	<b>BGR</b>	<b>I</b>

Mixed event, the largest of three events within 30 seconds.

Tann, E of Fulda

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
MOX	e	Pg	Z	20:13:54.5	-0.1	T	13.2	112.8	97.6
	e	Sg	N	20:14:07.5	-0.3	T			ML 2.1
CLZ	e	Pg	Z	20:13:54.9	-0.8	T	9.6	119.3	11.4
	e	Sg	E	20:14:10.4	0.7	T			ML 2.4
TNS	e	Pg	Z	20:13:57.6	0.3	T	2.6	128.5	241.2
	e	Sg	E	20:14:12.1	-0.1	T			ML 2.3
GRA1	e	Pg	Z	20:13:59.3	-1.4			148.6	144.8
	e	Sg	N	20:14:19.1	1.1				ML 2.6
GRFO	e	Sg	N	20:14:18.8	0.8	T		148.7	144.8
BRG	i	Pg		20:14:20.3	-1.8			274.9	86.6
	i	Sg		20:14:53.8	-0.3				ML 2.5

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/11	16:16:48.3	+/- 1.04	51.598N	7.830E	11.7	10.3	0	0		7	7				ISC	
1997/07/11	16:16:49.9	+/- 0.33	51.620N	7.790E	5.6	4.4	130	1G		10	5	117	2.4ML		SZGRF	I
1997/07/11	16:16:50.9	+/- 0.29	51.640N	7.720E	3.3	2.2	153	1G		23	12	127	2.3ML	TNS	BGR	I
<b>1997/07/11</b>	<b>16:16:48.6</b>		<b>51.653N</b>	<b>7.726E</b>				<b>1G</b>					<b>2.4ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	16:16:56.5	1.2	TA		39.4	233.4	ML 2.4
	e Sg E	16:17:02.4	2.5					
IBBN	e Pg Z	16:17:03.4	2.4		5.5	72.8	1.7	ML 2.4
	e Sg N	16:17:12.4	3.0					
GSH	e Pg Z	16:17:13.6	1.5		9.8	138.5	223.2	ML 2.4
	e Sg N	16:17:31.0	2.8					
TNS	e Pn Z	16:17:17.5	1.6			166.9	162.1	ML 2.3
	e Sg E	16:17:37.0	0.7					
CLZ	e Pn Z	16:17:20.1	2.2			183.4	82.4	ML 2.3
	e Sg E	16:17:44.0	3.0					
MOX	e Pn Z	16:17:34.2	2.8		3.1	293.5	110.9	ML 2.4
	e Pg Z	16:17:40.8	2.4		2.0			
	e Sg N	16:18:15.0	2.5					
GRFO	e Sg E	16:18:28.7	6.1			328.9	130.2	ML 2.6
CLL	e Pg Z	16:17:51.2	0.4		1.8	367.4	93.9	ML 2.5
	e Sg N	16:18:36.7	3.1					
BFO	e Pn Z	16:17:41.8	0.9			371.9	173.1	ML 2.4
	e Sn E	16:18:21.0	2.5					
	e Sg E	16:18:36.9	2.0					
BRG	e Sg N	16:18:57.1	2.5			441.0	98.9	ML 2.5
WET	e Sg E	16:19:02.8	3.0			459.4	125.4	ML 2.6
GEC2	e Pg Z	16:18:20.6	2.7		1.4	527.0	124.0	
	e Sg E	16:19:24.0	4.9					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/12	14:07:47.0	+/- 0.52	51.500N	6.900E	7.8	5.6	124	1G		10	6	189	2.0ML	TNS	BGR	I
<b>1997/07/12</b>	<b>14:07:44.0</b>		<b>51.563N</b>	<b>6.736E</b>				<b>1G</b>					<b>1.8ML</b>		<b>RUB</b>	<b>I</b>

Duisburg, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	14:07:51.9	1.2	TA		39.4	110.0	ML 1.8
	e Sg E	14:07:56.6	1.3					
GSH	e Pg Z	14:08:02.0	1.9		3.0	95.2	195.4	ML 1.9
	e Sg N	14:08:15.1	3.8					
IBBN	e Pg Z	14:08:04.8	2.4			108.4	39.8	ML 2.2
	e Sg N	14:08:17.9	3.0					
TNS	e Pg Z	14:08:16.5	0.1		4.3	191.4	140.5	ML 2.0
	e Sg N	14:08:36.4	-2.3					



CLZ	e	Sg	E	14:08:55.5	-0.7				252.5	81.5	ML	2.1
MOX	e	Sg	N	14:09:26.3	0.7				355.6	104.8		

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/15	04:56:31.7		47.481N	12.592E				5G			8		2.5ML	VIE	NEIC	
1997/07/15	04:56:31.6	+ - 0.54	47.610N	12.580E	6.6	5.5	90	5		17	19				ISC	
<b>1997/07/15</b>	<b>04:56:33.4</b>	<b>+ - 0.84</b>	<b>47.630N</b>	<b>12.620E</b>	<b>10.0</b>	<b>4.4</b>	<b>151</b>	<b>10G</b>		<b>12</b>	<b>6</b>	<b>255</b>	<b>2.4ML</b>	<b>BFO</b>	<b>BGR</b>	<b>L</b>

Reit i. Winkl, SW of Salzburg/A, Austrian-German border reg.

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BHG	e Pg	04:56:37.1	-0.4			21.9	62.2	
SCE	i Pg +	04:56:46.9	-2.7			95.0	226.5	
FUR	e Pg Z	04:56:53.6	0.4	T	1.6	116.5	301.1	ML 2.3
	e Sg N	04:57:04.8	-2.0	T				
OGA	e Pg	04:56:58.6	0.2			147.2	235.4	
GEC2	e Pn Z	04:56:58.6	0.2	T	12.2	157.1	30.3	
	e Sg N	04:57:18.0	-0.4	T				
GRFO	e Pg Z	04:57:16.8	0.8	T	1.1	251.1	336.4	ML 2.2
	e Sg E	04:57:44.6	-0.6	T				
BFO	e Pn Z	04:57:20.1	0.8	T	1.8	328.6	285.3	ML 2.4
	e Sn E	04:57:54.6	2.2	T				
	e Sg E	04:58:08.6	1.3	T				
MOX	e Sn N	04:57:57.9	2.4	T		343.1	348.1	ML 2.4
	e Sg N	04:58:11.8	0.4	T				
BRG	e Sg E	04:58:20.2	0.2	T		373.2	14.4	ML 2.4

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/17	14:31:23.0	+ - 1.05	51.449N	10.395E	15.2	7.0	90	0		7	12				ISC	
1997/07/17	14:31:24.2	+ - 0.29	51.520N	10.420E	5.6	4.4	54	1G		13	7	101	2.4ML		SZGRF	I
<b>1997/07/17</b>	<b>14:31:24.2</b>	<b>+ - 0.29</b>	<b>51.490N</b>	<b>10.390E</b>	<b>2.2</b>	<b>2.2</b>	<b>10</b>	<b>1G</b>		<b>16</b>	<b>9</b>	<b>97</b>	<b>2.4ML</b>	<b>MOX</b>	<b>BGR</b>	<b>I</b>

Bleicherode, S Harz Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
CLZ	e Pg Z	14:31:30.8	-0.0	T	39.7	39.1	358.2	ML 2.1
	e Sg E	14:31:35.7	0.3	T				
MOX	e Pg Z	14:31:46.0	0.3	T	6.2	127.1	137.2	ML 2.4
	e Sg E	14:32:01.5	1.0	T				
CLL	e Pn Z	14:31:53.8	0.5	T	6.2	182.4	95.4	ML 2.3
	e Sg E	14:32:15.8	-0.5	T				
TNS	e Pn Z	14:31:54.7	-0.3	T	2.3	196.1	224.8	ML 2.4
	e Pg Z	14:31:57.5	0.1	T	6.5			
	e Sg N	14:32:19.7	-0.5	T				

GRA1	e Pg	Z	14:31:59.1	-0.4					208.4	163.3	ML	2.6
	e Sg	N	14:32:25.1	1.3								
GRFO	e Pg	Z	14:31:59.5	-0.0	T	1.9			208.5	163.3	ML	2.5
	e Sg	E	14:32:24.1	0.4	T							
BUG	e Sg	E	14:32:26.2	0.3	T				216.2	269.8	ML	2.5
BRG	e Pg	Z	14:32:08.0	0.2	T	2.0			256.9	104.1	ML	2.2
	e Sg	E	14:32:37.5	-0.1	T							
GSH	e Sg	E	14:32:49.3	1.6					292.3	254.9	ML	2.5
WET	e Sg	E	14:32:54.5	0.3	T				315.0	144.9	ML	2.4
GEC2	e Sg	E	14:33:13.6	1.7					376.9	140.0		
BFO	e Sg	E	14:33:13.3	0.3	T				381.0	203.6	ML	2.7

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/22	14:11:54.7	+/- 0.42	51.710N	7.870E	6.7	4.4	145	1G		8	5	118	2.0ML	GSH	BGR	I
<b>1997/07/22</b>	<b>14:11:53.3</b>		<b>51.694N</b>	<b>7.867E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

## Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	14:12:03.3	1.5	TA		50.0	236.0	ML 1.9
IBBN	e Pg Z	14:12:06.0	1.0		2.0	68.6	353.7	
GSH	e Pg Z	14:12:19.4	0.9		4.4	148.6	224.9	ML 2.0
	e Sg E	14:12:38.7	2.9					
TNS	e Pg Z	14:12:23.7	1.8		2.3	168.6	165.8	ML 2.0
	e Sg N	14:12:42.7	1.2					
CLZ	e Pg Z	14:12:23.5	0.8		2.5	173.2	83.6	ML 2.1
	e Sg E	14:12:45.2	2.4					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/25	15:24:48.2		49.383N	6.919E				5G			5		2.3ML	UCC	NEIC	I
	Mining induced event in the Lorraine region, France, Less reliable solution															
1997/07/25	15:24:46.8	+/- 0.62	49.346N	6.923E	10.3	4.1	90	0		14	16				ISC	
1997/07/25	15:24:47.9	+/- 0.66	49.360N	6.890E	8.9	4.4	60	1G		7	4	209	2.0ML	BFO	BGR	I
<b>1997/07/25</b>	<b>15:24:48.1</b>	<b>+/- 0.40</b>	<b>49.380N</b>	<b>6.910E</b>	<b>5.0</b>	<b>2.0</b>	<b>98</b>	<b>1G</b>		<b>12</b>	<b>9</b>	<b>203</b>	<b>2.1ML</b>		<b>LEDBW</b>	<b>I</b>

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg	15:24:55.1	0.6	T		37.4	16.7	
ABH	e Pg +	15:25:00.5	0.1	T		72.2	39.2	
	e Sg	15:25:09.3	0.5	T				
TNS	e Pg Z	15:25:13.0	0.3		7.0	144.7	49.1	ML 2.3
	e Sg N	15:25:31.0	1.5		4.0			
GSH	e Pg Z	15:25:14.7	0.3		3.6	155.6	346.1	ML 2.1
	e Sg N	15:25:32.6	-0.0		3.6			
BFO	e Pg Z	15:25:14.4	-0.1		5.2	156.2	137.8	ML 2.0
	e Sg	15:25:33.2	0.5	T				

LBG	e	Pg +	15:25:14.9	-0.1	T	158.8	119.4	ML	2.1
KIZ	i	Pg +	15:25:17.3	-0.5	T	174.8	154.6	ML	2.3
	e	Sg	15:25:37.4	-0.7					
FELD	e	Pg	15:25:18.8	-0.7	T	185.5	153.9		
SGW	i	Pg +	15:25:25.4	-0.1	T	220.5	129.1	ML	2.1
GRFO	e	Sg E	15:26:17.2	-0.3		1.6	312.9	82.0	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/26	01:17:48.0		51.536N	7.623E				10G			12		2.5ML	UCC	NEIC	
1997/07/26	01:17:46.2	+ - 0.85	51.544N	7.773E	8.7	8.0	90	0		18	18				ISC	
1997/07/26	01:17:48.6		51.654N	7.755E	6.0	5.3	53	2	+ - 0.0	28	11	305	2.7ML		LDG	L
1997/07/26	01:17:49.6	+ - 1.47	51.610N	7.760E	17.8	7.8	17	1G		6	3	281	2.3ML		SZGRF	I
1997/07/26	01:17:48.6	+ - 0.37	51.630N	7.790E	5.6	3.3	151	1G		11	5	118	2.3ML	GSH	BGR	I
<b>1997/07/26</b>	<b>01:17:47.2</b>		<b>51.654N</b>	<b>7.728E</b>				<b>1G</b>					<b>2.2ML</b>		<b>RUB</b>	

## Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	01:17:55.1	1.2	TA		39.6	233.4	ML 2.2
	e Sg E	01:18:00.8	2.2		9.3			
IBEN	e Pg Z	01:18:02.0	2.4		2.2	72.6	1.5	
GSH	e Pg Z	01:18:12.3	1.6		9.4	138.8	223.2	ML 2.3
	e Sg E	01:18:28.7	1.9		5.0			
TNS	e Pn Z	01:18:14.9	0.4			167.0	162.2	ML 2.1
	e Pg Z	01:18:16.1	0.6		7.4			
	e Sg N	01:18:35.5	0.6		4.0			
CLZ	e Pn Z	01:18:17.1	0.6			183.2	82.4	ML 2.2
	e Pg Z	01:18:18.7	0.4		12.6			
	e Sg E	01:18:40.6	1.1		2.7			
MOX	i (Pn)	01:18:32.0	2.1			293.4	111.0	
	i Pg	01:18:38.7	1.8					
	i Sg	01:19:15.4	4.4					
CLL	i Pg	01:18:50.5	1.1			367.2	94.0	
	e Sg	01:19:36.0	3.9					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/29	22:54:02.6	+ - 0.60	51.700N	7.870E	10.0	4.4	158	1G		8	4	208	2.0ML		SZGRF	I
1997/07/29	22:54:01.9	+ - 0.41	51.680N	7.890E	6.7	4.4	151	1G		9	5	114	2.1ML	GSH	BGR	I
<b>1997/07/29</b>	<b>22:54:00.1</b>		<b>51.694N</b>	<b>7.867E</b>				<b>1G</b>					<b>1.8ML</b>		<b>RUB</b>	<b>I</b>

## Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	22:54:10.0	1.4	TA		50.0	236.0	ML 1.8
	e Sg E	22:54:17.1	2.7		1.8			
IBBN	e Pg Z	22:54:13.6	1.9		0.9	68.6	353.7	ML 2.2
	e Sg E	22:54:21.4	1.6	5.2				
GSH	e Pg Z	22:54:26.5	1.2		4.4	148.6	224.9	ML 2.1
	e Sg E	22:54:45.3	2.8	5.2				
TNS	e Pg Z	22:54:30.8	2.1			168.6	165.8	ML 2.0
	e Sg N	22:54:49.2	0.9	3.5				
CLZ	e Pg N	22:54:30.9	1.5		4.2	173.2	83.6	ML 2.1
	e Sg E	22:54:51.8	2.3	3.6				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/30	00:40:20.4		49.770N	6.702E				10G			12		2.2ML	DBN	NEIC	
1997/07/30	00:40:19.5	+ - 0.66	49.746N	6.620E	8.2	4.3	90	6	+ - 8.3	22	26		2.1ML	UCC	ISC	
1997/07/30	00:40:24.5		49.669N	6.576E	4.9	2.6	56	11	+ - 0.0	35	13	218	2.6ML		LDG	L
1997/07/30	00:40:21.5	+ - 0.58	49.820N	6.810E	11.1	5.6	67	10G		7	4	197	1.9ML		SZGRF	L
1997/07/30	00:40:20.9	+ - 0.57	49.820N	6.780E	6.7	4.4	67	10G		8	5	199	2.0ML	TNS	BGR	L
<b>1997/07/30</b>	<b>00:40:22.2</b>	<b>+ - 0.40</b>	<b>49.850N</b>	<b>6.840E</b>	<b>3.0</b>	<b>3.0</b>	<b>115</b>	<b>2G</b>		<b>7</b>	<b>4</b>	<b>279</b>	<b>2.1ML</b>		<b>LEDBW</b>	<b>L</b>

Wittlich/Mosel

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg -	00:40:26.3	0.2	T		22.8	136.2	
	i Sg	00:40:29.4	0.7					
ABH	i Pg +	00:40:31.2	0.3	T		50.8	85.8	
	i Sg	00:40:38.6	1.9					
GSH	e Pg Z	00:40:38.7	-1.1		2.1	104.0	341.7	ML 1.7
	e Sg E	00:40:51.5	-0.5	2.8				
KTD	i Pg	00:40:40.8	0.4	T		107.3	122.8	
	i Sg	00:40:54.1	1.3					
TNS	e Pn -	00:40:41.9	-2.0			122.0	69.5	ML 2.0
	e Pg Z	00:40:42.7	-0.2	12.5				
	e Sg N	00:40:57.7	0.7	2.5				
BUG	e Sn E	00:41:10.9	-0.4			179.4	9.5	ML 2.1
	e Sg N	00:41:12.4	-1.1					
LBG	e Sg	00:41:16.7	-0.9			193.7	132.2	ML 1.9
BFO	e Pg E	00:40:55.5	-0.8			200.8	146.7	ML 1.6
	e Sg E	00:41:17.5	-2.1	2.8				
HOL	e Pn	00:40:54.1	-1.8			220.6	102.8	ML 2.2
	e Sn	00:41:17.5	-2.5					
KIZ	e Sg	00:41:24.5	-1.9			224.8	159.1	ML 2.1
BEU	e Sg	00:41:29.2	0.1			234.1	126.0	ML 2.1
FELD	i Pg -	00:41:02.4	0.3			235.4	158.4	
	i Sg	00:41:28.5	-1.0					
SGW	e Sg	00:41:35.5	-1.0			260.0	137.3	ML 2.1
CLZ	e Sg N	00:41:57.4	0.2		2.0	332.4	46.9	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/30	21:24:15.9		50.234N	7.852E				10G			57		3.6ML	STR	NEIC	
ML= 3.0 (VIE)																
1997/07/30	21:24:15.9	+ - 0.32	50.242N	7.839E	3.9	3.2	90	10		72	76		3.1ML	DBN	ISC	
1997/07/30	21:24:17.6		50.178N	7.958E	3.7	2.7	51	2	+ - 0.0	78	28	276	3.6ML		LDG	L
1997/07/30	21:24:17.5		50.239N	7.973E				9					3.1ML		KNMI	
1997/07/30	21:24:18.2	+ - 0.90	50.210N	7.920E	10.0	3.0	357	2	+ - 4.0	27	18	257	2.8ML		LEDBW	L
Aftershock about 60 seconds later with Ml= 2.0																
1997/07/30	21:24:17.4	+ - 0.34	50.240N	7.940E	4.4	3.3	49	10	+ - 0.0	14	9	124	2.8ML	BFO	BGR	L
1997/07/30	21:24:17.4	+ - 0.47	50.240N	8.010E	7.8	4.4	28	10	+ - 3.3	22	13	122	3.1ML		SZGRF	L
<b>1997/07/30</b>	<b>21:24:17.4</b>		<b>50.260N</b>	<b>7.970E</b>				<b>7</b>					<b>2.8ML</b>		<b>IGF</b>	

Bad Ems, E of Koblenz

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	e Pg -	21:24:23.7	0.4			34.2	96.8	ML 2.9
	e Sg +	21:24:27.3	-0.1					
ABH	i Pg +	21:24:26.5	0.2			51.8	215.8	
	e PmP	21:24:29.2	-0.7					
	e Sg	21:24:32.7	0.4					
RUP	e Pg +	21:24:32.4	-0.3			90.0	226.7	
TOD	e Pg -	21:24:33.2	-0.2			94.1	140.3	
	e Sg	21:24:44.2	-0.2					
KTD	i Pg -	21:24:35.3	0.1			104.8	175.5	
HEI	i Pg -	21:24:36.4	0.3			110.1	150.1	
	PmP	21:24:37.3	-0.8					
	e Sg	21:24:50.1	1.2					
GSH	e Pg Z	21:24:38.7	0.1			124.5	295.8	ML 2.9
	e Sg N	21:24:53.9	0.9					
BUG	e Pg Z	21:24:41.5	0.3			140.2	339.7	ML 3.1
	e Sg N	21:24:58.1	0.6					
HOL	e Pn	21:24:43.5	-0.3			165.0	126.1	ML 3.2
	i Pg -	21:24:46.2	0.8					
	e Sn	21:25:02.4	-0.0					
LBG	e Pn	21:24:46.3	-0.2			187.2	161.1	ML 2.8
	e Sg	21:25:10.3	-0.7					
BEU	i Pn +	21:24:49.5	-0.2			213.7	150.2	ML 2.8
BFO	e Pn Z	21:24:49.6	-0.4			216.2	172.9	ML 2.8
	e Pg Z	21:24:53.2	-0.9					
	e Sg E	21:25:17.5	-1.7					
IBBN	e Pg Z	21:24:54.7	-1.3			228.1	356.4	ML 3.5
	e Sn N	21:25:18.0	2.1					
	e Sg N	21:25:22.4	-0.2					
GRFO	e Pn Z	21:24:54.4	1.4			240.9	104.0	ML 3.0
	e Pg Z	21:24:58.9	0.6					
	e Sn N	21:25:20.1	1.6					
	e Sg N	21:25:25.1	-1.1					

GRA1	e Pn	Z	21:24:54.3	1.3					240.9	103.9	ML	3.1
	e Pg	Z	21:24:59.2	0.9								
	e Sg	E	21:25:24.2	-2.1								
CLZ	e Pn	Z	21:24:52.4	-0.9					243.1	42.7	ML	3.1
	e Pg	Z	21:24:57.2	-1.5								
	e Sg	E	21:25:28.7	1.8								
HDH	e Pn		21:24:53.7	-0.0					246.7	138.2	ML	2.8
	e Sn		21:25:19.2	-0.5								
SGW	e Pn	-	21:24:54.8	-0.1					256.0	158.8	ML	3.0
	e Sg		21:25:30.3	-0.2								
KIZ	e Pn		21:24:54.1	-0.7					256.2	180.9	ML	3.0
	e Pg		21:25:03.3	2.5								
	e Sg		21:25:29.4	-1.2								
MOX	e Pn	Z	21:24:55.8	0.3					261.6	79.2	ML	3.0
	e Pg	Z	21:25:00.6	-1.2								
	e Sn	N	21:25:24.5	1.6								
	i Sg		21:25:31.4	-0.8								
FELD	e Pn	+	21:24:55.5	-0.5					265.1	179.5		
HOF	e Pn		21:24:58.0	0.5					277.6	87.3		
WYH	e Sg		21:25:42.7	-1.0					301.9	183.8		
ROTZ	i Pn	-	21:25:02.1	0.9					307.7	98.6	ML	3.0
BBS	e Pn		21:25:00.8	-1.0					312.7	186.4		
UBR	e Pn	+	21:25:04.5	1.0					326.5	150.6	ML	2.8
	e Sn		21:25:36.2	-0.4								
FUR	e Pn	Z	21:25:06.6	2.1					334.6	132.9	ML	3.4
	e Sn	E	21:25:40.9	2.5								
CLL	e Pn	Z	21:25:09.5	0.4					372.4	69.8	ML	3.4
	e Pg	Z	21:25:19.9	-0.7								
	e Sg	N	21:26:02.4	-1.5								
WET	e Pn	Z	21:25:10.9	1.6					374.1	107.5	ML	3.1
	e Sg	N	21:26:01.2	-3.1								
BRG	e Pn	Z	21:25:16.5	0.7					427.2	78.5	ML	3.3
	e Pg	Z	21:25:31.0	1.2								
	e Sg	N	21:26:17.7	-1.7								
BSEG	e Pn	Z	21:25:17.4	0.2					438.9	20.5		
GEC2	e Pn	Z	21:25:19.2	1.7				20.6	442.2	108.6		
	e Sn	N	21:26:03.1	2.0				5.9				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/30	21:28:23.3		50.218N	7.972E				10			16		2.6ML	STR	NEIC	
	ML= 2.2 (DBN)															
1997/07/30	21:28:22.3	+- 0.67	50.232N	7.950E	6.2	5.1	90	6	+- 6.5	24	31		2.5ML	UCC	ISC	
1997/07/30	21:28:23.6		50.236N	8.020E				7					2.2ML		KNMI	
1997/07/30	21:28:24.3		50.179N	7.893E	6.5	5.4	55	2	+- 0.0	22	10	281	2.8ML		LDG	L
1997/07/30	21:28:23.9	+- 0.34	50.260N	7.970E	5.6	3.3	31	10G		12	9	122	2.1ML	BUG	BGR	L
<b>1997/07/30</b>	<b>21:28:23.6</b>		<b>50.260N</b>	<b>7.970E</b>				<b>7</b>					<b>2.1ML</b>		<b>IGF</b>	

Bad Ems, E of Koblenz

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	i Pg -	21:28:29.8	0.3			34.2	96.8	ML 2.1
	e Sg E	21:28:33.4	-0.2		23.4			
GSH	e Pg Z	21:28:44.9	0.1		3.4	124.5	295.8	ML 2.0
	e Sg N	21:29:00.0	0.8		4.2			
BUG	e Sg E	21:29:03.7	-0.0		4.3	140.2	339.7	ML 2.1
BFO	e Sg E	21:29:24.9	-0.5		2.9	216.2	172.9	ML 2.1
GRFO	e Sg N	21:29:32.2	-0.2		2.6	240.9	104.0	
CLZ	e Pg Z	21:29:04.9	0.0		4.1	243.1	42.7	
MOX	e Pn	21:29:02.2	0.5			261.6	79.2	ML 2.3
	e Sn N	21:29:31.1	2.0		1.5			
WET	e Pn E	21:29:17.3	1.8		5.6	374.1	107.5	
GEC2	e Pn Z	21:29:25.4	1.6		3.9	442.2	108.6	
	e Sn N	21:30:09.3	2.0		3.2			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/07/30	22:39:08.6	+ - 0.96	51.556N	7.815E	11.3	9.6	0	0		6	10				ISC	
1997/07/30	22:39:09.1	+ - 0.91	51.720N	7.720E	15.6	4.4	154	1G		7	4	219	2.1ML	GSH	BGR	I
<b>1997/07/30</b>	<b>22:39:08.4</b>		<b>51.653N</b>	<b>7.726E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	22:39:16.2	1.1	TA		39.4	233.4	ML 1.9
	e Sg E	22:39:21.7	2.1		7.2			
GSH	e Sg N	22:39:50.5	2.6		4.2	138.5	223.2	ML 2.1
TNS	e Pn Z	22:39:36.8	1.1		3.4	166.9	162.1	ML 2.2
	e Sn N	22:39:57.0	2.0					
CLZ	e Pg Z	22:39:40.0	0.5		5.6	183.4	82.4	ML 2.2
	e Sg Z	22:40:02.0	1.2		2.1			
MOX	e (Pg)	22:39:59.7	1.6			293.5	110.9	
	e Sg	22:40:35.2	2.9					
CLL	e Sg	22:40:59.0	5.6			367.4	93.9	
BRG	i Sg	22:41:15.9	1.5			441.0	98.9	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/01	03:51:17.1	+ - 0.95	51.584N	7.780E	10.2	9.8	0	0		7	9				ISC	
1997/08/01	03:51:18.1	+ - 0.43	51.620N	7.810E	7.8	4.4	146	1G		8	5	115	2.2ML	GSH	BGR	I
<b>1997/08/01</b>	<b>03:51:16.8</b>		<b>51.658N</b>	<b>7.732E</b>				<b>1G</b>					<b>2.1ML</b>		<b>RUB</b>	<b>I</b>

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	
	GSH	e Pg Z	03:51:41.7	1.3	5.8	139.3	223.2	ML 2.2
TNS	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
CLZ	e Pg Z	03:51:45.9	0.7		4.3			
	e Sg N	03:52:05.3	0.7					
	e Pg Z	03:51:48.5	0.8		11.0	182.9	82.6	ML 2.2
MOX	e Sg N	03:52:12.5	3.5					
	e (Pn)	03:52:02.5	3.0			293.3	111.1	
CLL	e Pg	03:52:06.6	0.1					
	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	22:00:09.9	+/- 0.31	51.620N	7.780E	4.4	3.3	133	1G		11	5	118	2.1ML	GSH	BGR	I
<b>1997/08/01</b>	<b>22:00:08.3</b>		<b>51.655N</b>	<b>7.725E</b>				<b>1G</b>					<b>2.0ML</b>		<b>RUB</b>	<b>I</b>

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	ML 2.1
	e Sg E	22:00:21.7	2.1					
IBBN	e Pg Z	22:00:22.7	2.2		5.3	72.5	1.7	ML 2.2
	e Sg N	22:00:32.1	3.1					
GSH	e Pg Z	22:00:33.1	1.3		5.5	138.7	223.1	ML 2.1
	e Sg E	22:00:50.5	2.5					
TNS	e Pg Z	22:00:37.5	0.8		4.5	167.2	162.1	ML 2.0
	e Sg E	22:00:56.6	0.6					
CLZ	e Pn Z	22:00:38.2	0.6			183.4	82.5	ML 2.0
	e Pg Z	22:00:39.9	0.5		7.6			
	e Sg E	22:01:02.1	1.4					
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	18:19:14.7	+/- 0.80	51.033N	6.067E	13.0	10.0	90	41	+/-21.3	14	21				ISC	
1997/08/02	18:19:12.6		51.119N	6.103E	7.9	6.0	27	8	+/- 0.0	19	10	283	2.8ML		LDG	L
1997/08/02	18:19:14.3		51.137N	5.977E				9					1.7ML		KNMI	
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
<b>1997/08/02</b>	<b>18:19:13.8</b>		<b>51.129N</b>	<b>5.936E</b>				<b>14</b>			<b>6</b>	<b>312</b>	<b>2.0ML</b>		<b>GLA</b>	<b>L</b>

Waldfeucht, S of Roermond/NL, Dutch-German border region



Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
JCK	e Pg Z	18:19:20.4	0.0	T		36.1	106.4	
	e Sg N	18:19:24.8	-0.1	T				
GSH	e Pg Z	18:19:23.6	0.4	T		53.4	144.5	ML 2.0
	e Sg E	18:19:30.2	0.6	T				
OLF	e Pg Z	18:19:28.7	1.4	T		78.2	154.0	ML 2.1
	e Sg E	18:19:39.2	2.7	T				
BUG	e Pg Z	18:19:30.1	-0.6			99.0	69.0	ML 2.7
	e Sg N	18:19:41.8	-0.6					
IBBN	e Pg Z	18:19:43.1	-1.5			181.3	43.0	ML 2.2
	e Sg N	18:20:04.7	-1.0					
TNS	e Pn Z	18:19:44.7	0.7			203.6	118.7	ML 2.0
	e Sg N	18:20:11.0	-1.1					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/08	03:07:43.2	+/- 0.91	51.591N	7.849E	10.4	9.4	0	0		8	10				ISC	
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	1G		15	8	122	2.2ML	GSH	BGR	I
<b>1997/08/08</b>	<b>03:07:43.8</b>		<b>51.647N</b>	<b>7.709E</b>				<b>1G</b>					<b>2.1ML</b>		<b>RUB</b>	<b>I</b>

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		38.1	233.2	ML 2.2
	e Sg E	03:07:57.0	2.4		106.5			
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			
	e Sg E	03:08:38.2	1.7		9.2			
MOX	e Pn Z	03:08:28.2	1.5		2.2	294.4	110.7	ML 2.2
	e Sg E	03:09:09.2	1.3		4.6			
CLL	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	

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	1G		13	7	110	2.0ML	GSH	BGR	I
<b>1997/08/08</b>	<b>22:32:15.3</b>		<b>51.707N</b>	<b>7.894E</b>				<b>1G</b>					<b>1.8ML</b>		<b>RUB</b>	<b>I</b>

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	24.3	52.4	235.8	ML 1.9
	e Sg E	22:32:32.7	2.4					
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					
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					
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					
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					
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					
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	15:04:07.2		47.304N	11.249E				10G			40		2.9ML	VIE	NEIC	
1997/08/11	15:04:05.6	+/- 0.29	47.359N	11.331E	4.0	2.6	90			63	66		3.0ML	STR	ISC	
1997/08/11	15:04:11.8		47.373N	11.086E	7.7	4.6	52	15	+/- 0.0	31	17	262	3.0ML		LDG	L
1997/08/11	15:04:05.7		47.243N	11.464E	5.8	5.8	0	10	+/- 3.6	18	16	313	2.9ML		SED	
1997/08/11	15:04:08.7	+/- 2.40	47.330N	11.250E	23.0	16.0	323	10G		19	9	310	3.1ML		LEDBW	L
Strongest event in a small series																
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
<b>1997/08/11</b>	<b>15:04:08.2</b>	<b>+/- 0.66</b>	<b>47.370N</b>	<b>11.290E</b>	<b>6.7</b>	<b>3.3</b>	<b>160</b>	<b>10G</b>		<b>20</b>	<b>10</b>	<b>250</b>	<b>3.1ML</b>	<b>MOX</b>	<b>BGR</b>	<b>L</b>

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					
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					
SGW	e Sg	15:04:55.4	2.2			175.4	298.6	ML 3.1
	e Pn	15:04:37.3	1.8					
	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	00:33:04.7	+/- 0.41	50.130N	9.190E	4.4	3.3	119	20	+/- 0.6	17	10	101	1.7ML	MOX	BGR	L
1997/08/12	00:33:05.4		50.130N	9.160E				19					2.0ML		IGF	

Alzenau i. Unterfranken, E of Hanau

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	e	Pg	Z	00:33:14.9	0.1	14.6	51.8	281.7	ML 1.5
	e	Sg	E	00:33:21.3	0.2				
STU	e	Pg	Z	00:33:31.0	-0.2	2.0	151.1	179.1	ML 2.0
	e	Sg	N	00:33:48.5	-0.5				
GRFO	e	Pg	Z	00:33:31.8	-0.1	4.3	155.4	107.5	ML 1.6
	e	Sg	N	00:33:48.7	-1.5				

MOX	e	Pg	Z	00:33:35.1	-1.5			3.3	183.2	70.9	ML	1.7
	e	Sg	E	00:33:56.4	-1.7							
CLZ	e	Sg	E	00:34:03.7	-1.5				208.4	23.6	ML	1.8
BFO	e	Pg	Z	00:33:40.1	-0.8			2.2	209.0	197.1	ML	1.9
	e	Sg	E	00:34:03.5	-1.8							
WET	e	Pn	Z	00:33:43.7	-1.8			1.2	289.3	110.8	ML	1.9
	e	Sg	N	00:34:25.7	-2.5							
CLL	e	Pg	Z	00:33:54.6	-1.8			1.0	300.5	62.7	ML	2.2
	e	Sg	N	00:34:29.6	-1.9							
BRG	e	Sg	N	00:34:44.4	-0.6				348.1	74.4		
GEC2	e	Sg	Z	00:34:46.7	-1.1				357.7	111.8		

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	02:14:10.5	+- 0.95	49.321N	7.141E	20.5	5.9	90	0		6	6				ISC	
<b>1997/08/12</b>	<b>02:14:09.2</b>	<b>+- 0.72</b>	<b>49.370N</b>	<b>6.800E</b>	<b>11.1</b>	<b>4.4</b>	<b>65</b>	<b>1G</b>		<b>6</b>	<b>3</b>	<b>213</b>	<b>1.8ML</b>	<b>TNS</b>	<b>BGR</b>	<b>I</b>

## 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	17:15:14.5	+- 1.13	51.596N	7.789E	12.2	9.3	90	0		7	7				ISC	
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	1G		10	5	115	2.0ML	CLZ	BGR	I
<b>1997/08/12</b>	<b>17:15:14.6</b>		<b>51.647N</b>	<b>7.709E</b>				<b>1G</b>					<b>1.8ML</b>		<b>RUB</b>	<b>I</b>

## 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
1997/08/15	19:56:52.3	+/- 0.94	51.582N	7.707E	10.8	10.4	90	0		7	9				ISC	
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	1G		14	8	117	2.1ML	GSH	BGR	I
<b>1997/08/15</b>	<b>19:56:51.6</b>		<b>51.657N</b>	<b>7.728E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

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 Pg Z	19:57:06.3	2.5		3.0	72.3	1.5	ML 2.0
	e Sg E	19:57:13.3	1.0					
GSH	e Pg Z	19:57:16.7	1.5		3.9	139.0	223.1	ML 2.1
	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	11:13:05.3	+/- 1.51	51.548N	7.903E	20.0	11.4	0	0		6	7				ISC	
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	1G		10	7	109	2.0ML	GSH	BGR	I
<b>1997/08/16</b>	<b>11:13:03.4</b>		<b>51.709N</b>	<b>7.901E</b>				<b>1G</b>					<b>1.8ML</b>		<b>RUB</b>	<b>I</b>

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
1997/08/18	05:17:32.2		52.834N	7.050E				2					2.1ML		KNMI	
Intensity = III (EMS)																

Lathen, N of Meppen, Dutch-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
IBBN	e Pg	Z 05:17:48.2	3.2		2.0	75.6	140.5	
	e Sg	N 05:17:59.1	5.3					
BUG	e Sg	E 05:18:19.8	3.1			155.7	174.4	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/19	04:46:50.7	+/- 2.01	51.589N	7.773E	26.2	20.2	0	0		4	5				ISC	
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	1G		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	05:29:37.4	+/- 0.87	55.768N	11.790E	18.9	9.6	90	46	+/-23.8	10	14				ISC	
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	08:27:41.0	+- 1.22	51.679N	7.928E	12.0	10.7	90	0		5	5				ISC	
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	1G		10	5	108	2.1ML	GSH	BGR	I
<b>1997/08/21</b>	<b>08:27:40.6</b>		<b>51.707N</b>	<b>7.894E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

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	23:34:08.9	+- 0.87	51.583N	7.839E	9.7	9.3	0	0		8	11				ISC	
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	1G		17	9	121	2.1ML	TNS	BGR	I
<b>1997/08/21</b>	<b>23:34:08.7</b>		<b>51.661N</b>	<b>7.735E</b>				<b>1G</b>					<b>1.8ML</b>		<b>RUB</b>	<b>I</b>

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		4.6			
	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	6.0				
	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					

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/23	06:44:24.8	+-	1.03	51.622N	7.773E	11.0	10.1	90	0		8	8				ISC	
1997/08/23	06:44:26.3	+-	0.57	51.630N	7.790E	8.9	6.7	87	1G		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
<b>1997/08/23</b>	<b>06:44:24.8</b>			<b>51.654N</b>	<b>7.726E</b>				<b>1G</b>					<b>2.0ML</b>		<b>RUB</b>	<b>I</b>

## 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 Pg Z	06:44:53.8	0.7			167.0	162.1	ML 2.1
	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

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	+-	0.96	51.625N	7.785E	10.6	9.7	0	0		8	10				ISC	
1997/08/25	20:07:01.7	+-	1.45	51.780N	7.650E	36.7	6.7	144	1G		6	4	228	2.3ML	GSH	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
<b>1997/08/25</b>	<b>20:07:01.4</b>			<b>51.657N</b>	<b>7.724E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

## 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					



65

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	22:12:06.2	+/- 1.07	51.576N	7.718E	12.7	10.3	90	0		7	8				ISC	
1997/08/26	22:12:06.4		51.640N	7.840E				1G		7	5	114	2.2ML	GSH	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
<b>1997/08/26</b>	<b>22:12:04.9</b>		<b>51.656N</b>	<b>7.726E</b>				<b>1G</b>					<b>2.1ML</b>		<b>RUB</b>	<b>I</b>

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	04:14:53.7	+/- 2.80	51.822N	7.572E	28.2	25.0	0	0		6	7				ISC	
1997/08/27	04:14:54.0	+/- 0.54	51.720N	7.880E	6.7	4.4	92	1G		7	4	173	2.2ML	GSH	BGR	I
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
<b>1997/08/27</b>	<b>04:14:55.1</b>		<b>51.658N</b>	<b>7.726E</b>				<b>1G</b>					<b>1.6ML</b>		<b>RUB</b>	<b>I</b>

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	04:15:08.7	2.3					
IBBN	e Pg Z	04:15:10.4	3.1			72.2	1.7	ML 2.2
	e Sg E	04:15:16.9	1.1					
GSH	e Pn Z	04:15:19.5	0.5			139.0	223.1	ML 2.2
	e Sg E	04:15:36.4	1.6					
TNS	e Pn Z	04:15:23.7	1.2			167.4	162.1	ML 2.1
	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	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/08/29	21:13:54.1	+ - 0.74	51.521N	7.820E	8.0	8.0	0	0		16	17				ISC	
1997/08/29	21:13:57.4		51.594N	7.790E	8.3	7.8	28	12	+ - 0.0	17	7	308	2.7ML		LDG	L
1997/08/29	21:13:56.0	+ - 0.57	51.620N	7.780E	8.9	4.4	160	1G		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
<b>1997/08/29</b>	<b>21:13:54.4</b>		<b>51.656N</b>	<b>7.726E</b>				<b>1G</b>					<b>2.2ML</b>		<b>RUB</b>	<b>I</b>

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					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/01	18:50:08.1	+ - 1.08	51.597N	7.720E	12.7	10.4	90	0		7	8				ISC	
1997/09/01	18:50:08.8	+ - 0.43	51.620N	7.790E	7.8	4.4	94	1G		7	4	164	2.0ML	TNS	BGR	I
1997/09/01	18:50:08.7	+ - 0.32	51.610N	7.780E	4.4	3.3	130	1G		10	5	116	2.1ML		SZGRF	I
<b>1997/09/01</b>	<b>18:50:07.1</b>		<b>51.655N</b>	<b>7.728E</b>				<b>1G</b>					<b>2.0ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg + Z	18:50:15.0	1.2	TA		39.7	233.2	ML 2.1
	e Sg E	18:50:20.9	2.4					
IBBN	e Pg Z	18:50:22.0	2.6			72.5	1.5	ML 2.2
	e Sg E	18:50:30.4	2.6					
GSH	e Pn Z	18:50:31.8	0.9			138.9	223.2	ML 2.1
	e Sg E	18:50:48.5	1.7					
TNS	e Pn Z	18:50:36.0	1.6			167.1	162.2	ML 2.0
	e Sg E	18:50:54.8	-0.0					
CLZ	e Pn Z	18:50:38.4	2.0			183.2	82.5	ML 2.1
	e Sg E	18:51:00.7	1.2					
CLL	e Sg	18:51:55.0	3.0			367.2	94.0	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/02	00:30:52.0		47.547N	7.795E				10G			17		2.9ML	FUR	NEIC	
1997/09/02	00:30:51.9	+ - 0.29	47.592N	7.705E	4.7	3.0	90	25		53	66				ISC	
1997/09/02	00:30:52.5		47.620N	7.827E	3.6	2.1	68	15	+ - 0.0	61	25	205	3.1ML		LDG	L
1997/09/02	00:30:53.2		47.595N	7.865E	1.0	1.0	0	25	+ - 0.8	13	9	222	2.6ML		SED	
1997/09/02	00:30:49.0	+ - 1.64	47.500N	7.660E	20.0	12.2	16	10G		4	3	297	2.6ML	BFO	BGR	L
1997/09/02	00:30:50.0	+ - 0.86	47.580N	7.750E	21.1	14.5	6	10G		15	10	269	3.0ML		SZGRF	L
<b>1997/09/02</b>	<b>00:30:53.4</b>	<b>+ - 0.11</b>	<b>47.603N</b>	<b>7.854E</b>	<b>1.3</b>	<b>1.2</b>	<b>55</b>	<b>23</b>	<b>+ - 0.8</b>	<b>44</b>	<b>22</b>	<b>84</b>	<b>3.0ML</b>		<b>LEDBW</b>	<b>L</b>

Max. Intensity = IV (MSK), Felt in Schopfheim, Bad Saeckingen, Schachen-Albruck, Rheinfelden, Schoenau, Waldshut.

Radius of perceptibility 30 km

Schopfheim, NE of Basel/CH

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
SOL	i Pg -	00:30:57.5	-0.0	T		6.8	91.2	
END	i Pg -	00:30:58.1	0.0	T		15.2	325.1	
EFR	i Pg -	00:31:01.5	0.2	T				
	i Pg -	00:30:58.9	0.0	T		22.8	287.8	
	i Pg -	00:31:03.1	0.4	T				
BAW	i Pg -	00:30:59.2	-0.0	T		25.5	328.8	
	i Pg +	00:31:03.3	0.0	T				
FELD	i Pg +	00:31:00.2	0.1	T		32.4	20.2	
	i Pg +	00:31:05.1	0.3	T				
KIZ	i Pg +	00:31:01.0	-0.2	T		39.6	6.9	ML 3.3
	i Pg +	00:31:06.4	-0.1	T				
FBB	e Pg	00:31:01.9	0.0	T		44.3	359.9	
	i Pg +	00:31:07.8	0.1	T				
LIBD	i Pg +	00:31:04.9	0.0	T		63.7	343.0	
	i Pg +	00:31:13.3	0.6	T				
BFO	e Pn +	00:31:07.1	-1.4	T		88.3	23.5	ML 2.6
	i Pg +	00:31:08.1	-0.8	T				
	i Pg +	00:31:18.9	-0.5	T				
BHB	i Pn -	00:31:10.1	-1.2	T		111.7	49.7	
	i Pg +	00:31:12.1	-0.6	T				
	i Pg +	00:31:25.4	-0.5	T				
SGW	i Pn -	00:31:10.7	-1.1	T		116.0	60.6	ML 3.0
	i Pg -	00:31:12.9	-0.5	T				
	e Sn	00:31:24.2	-0.7	T				
	i Pg +	00:31:27.1	-0.1	T				
JUN	e Pn -	00:31:10.9	-1.4	T		119.8	47.1	
	e Pg	00:31:13.3	-0.7	T				
	e Pg	00:31:27.4	-0.8	T				
HSN	i Pn -	00:31:11.9	-1.3	T		126.6	51.5	
	e Pg +	00:31:14.4	-0.8	T				
	i Pg	00:31:29.5	-0.6	T				
LBG	e Pn	00:31:12.9	-1.6	T		137.1	30.3	ML 3.0
	e Pg	00:31:15.7	-1.3	T				
	e Pg	00:31:32.2	-0.9	T				

BEU	i	Pn	-	00:31:15.5	-1.6	T	159.2	46.2	ML	2.8
	e	Pg		00:31:19.5	-1.1					
	e	Sg		00:31:38.0	-1.3	T				
UBR	i	Pn	-	00:31:18.3	-0.0	T	169.1	86.2	ML	2.7
	i	Pg		00:31:24.9	2.6					
HDH	e	Sx		00:31:43.4			206.0	57.1	ML	2.8
	e	Sg		00:31:50.8	-1.8					
HOL	e	Pg		00:31:34.9	-0.0		243.8	35.5	ML	3.0
	e	Sg		00:32:03.2	-0.2					
FUR	e	Sg	E	00:32:08.6	-0.1		262.6	75.0	ML	3.1
TNS	e	Pn	Z	00:31:33.2	-0.4		294.5	8.2	ML	2.6
	e	Sn	E	00:32:03.4	0.8					
GRC1	e	Sg	N	00:32:22.8	-0.1		312.3	58.9		
GRA1	e	Sg	E	00:32:31.9	1.4		339.3	45.6	ML	3.1
GSH	e	Pn	Z	00:31:42.8	0.7		364.6	343.4		
WET	e	Pn	Z	00:31:51.4	3.9		408.6	63.4	ML	2.9
	e	Sn	E	00:32:28.0	1.2					
	e	Sg	E	00:32:48.8	-1.5					
HOF	e	Pn		00:31:48.1	-0.9		420.7	42.8		
MOX	e	Sn	E	00:32:32.6	0.3		435.0	37.6	ML	2.9
	e	Sg	E	00:32:55.9	-2.0					
CLZ	e	Sg	E	00:33:17.8	0.1		504.8	20.1	ML	3.1
CLL	e	Sg	E	00:33:29.4	-2.6		554.9	40.2	ML	3.3
BRG	e	Sg		00:33:36.2	-0.7		572.0	48.3		

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/02	09:19:14.0	+-	1.21	51.731N	7.825E	13.9	12.2	90	0		6	6				ISC	
1997/09/02	09:19:15.3	+-	0.33	51.680N	7.890E	5.6	4.4	128	1G		10	5	114	2.1ML		SZGRF	I
1997/09/02	09:19:13.1			51.693N	7.863E				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	09:19:23.0	1.5	TA		49.7	235.9	ML 2.0
	e Sg N	09:19:30.1	2.8					
IBBN	e Pg Z	09:19:26.0	1.2			68.7	353.9	ML 2.2
	e Sg E	09:19:36.2	3.5					
GSH	e Pn Z	09:19:39.3	1.2			148.3	224.8	ML 2.1
	e Sg N	09:19:59.2	3.7					
TNS	e Pn Z	09:19:44.0	3.4			168.5	165.7	ML 2.1
	e Sg N	09:20:02.6	1.3					
CLZ	e Pn Z	09:19:43.1	1.9			173.4	83.5	ML 2.1
	e Sg N	09:20:04.9	2.3					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/03	19:59:31.6	+- 0.94	51.572N	7.791E	11.1	11.1	90	0		7	7				ISC	
1997/09/03	19:59:32.0	+- 0.30	51.620N	7.790E	5.6	4.4	139	1G		12	6	117	2.0ML		SZGRF	I
<b>1997/09/03</b>	<b>19:59:30.7</b>		<b>51.657N</b>	<b>7.723E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg + Z	19:59:38.6	1.2	TA		39.6	232.7	ML 2.1
	e Sg E	19:59:44.4	2.4					
IBBN	e Pg Z	19:59:45.1	2.2			72.3	1.8	ML 2.1
	e Sg E	19:59:54.2	2.8					
GSH	e Pn Z	19:59:54.2	-0.4			138.8	223.0	ML 2.0
	e Pg Z	19:59:55.6	1.4					
TNS	e Sg E	20:00:12.5	2.1			167.4	162.1	ML 2.0
	e Pn Z	19:59:59.7	1.6					
CLZ	e Sg E	20:00:19.1	0.6			183.5	82.5	ML 2.0
	e Pn Z	20:00:00.9	0.8					
MOX	e Sg E	20:00:25.2	2.1			293.8	111.0	
	e Pn Z	20:00:15.6	2.1					
	e Sg N	20:00:53.1	-1.6					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/03	21:48:50.6		49.128N	6.707E				10G			45		3.1ML	UCC	NEIC	I
			Mining induced event in the Lorraine region, France													
1997/09/03	21:48:49.4	+- 0.28	49.141N	6.710E	4.2	2.8	90	0		69	72		3.0ML	STR	ISC	
1997/09/03	21:48:45.5		49.828N	7.033E				1		21	15	316	3.3ML		SED	
1997/09/03	21:48:52.0		49.148N	6.793E	3.7	2.3	61	5 +- 0.0		57	22	198	3.3ML		LDG	L
1997/09/03	21:48:52.9	+- 0.40	49.220N	6.950E	5.0	3.0	73	1G		12	11	200	2.9ML		LEDBW	I
1997/09/03	21:48:50.4	+- 0.98	49.140N	6.730E	10.0	4.4	56	1G		19	12	225	3.1ML		SZGRF	I
<b>1997/09/03</b>	<b>21:48:50.8</b>	<b>+- 0.59</b>	<b>49.150N</b>	<b>6.710E</b>	<b>7.8</b>	<b>3.3</b>	<b>65</b>	<b>1G</b>		<b>15</b>	<b>9</b>	<b>225</b>	<b>3.0ML</b>	<b>TNS</b>	<b>BGR</b>	<b>I</b>

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg -	21:49:02.4	0.4			66.3	22.3	
	i Sg	21:49:10.6	0.9					
ABH	e Pg +	21:49:07.5	-0.4			101.4	36.3	
	e Sg	21:49:21.4	1.6					
KTD	i Pg	21:49:07.0	-1.0			101.5	78.7	
	i Sg	21:49:19.7	-0.1					
BFO	e Pn Z	21:49:14.9	-1.1	T	4.4	149.7	126.9	ML 2.8
	e Pg Z	21:49:17.0	0.8	T	47.2			
KIZ	e Sg N	21:49:33.1	-0.4	T	4.2	159.8	145.7	
	e P?	21:49:17.3						
	e Sn	21:49:35.6	-0.3					

TOD	i	Pn		21:49:15.4	-1.8					159.8	70.7						
	i	Sn		21:49:35.0	-0.9												
LBG	e	Pn -		21:49:15.8	-1.6					161.6	108.7						
	e	S?		21:49:35.7													
FELD	i	Pn +		21:49:19.3	0.8					170.7	145.6						
	i	Sn		21:49:38.9	0.7												
TNS	e	Pn N		21:49:18.1	-0.7	T	2.4			172.7	45.7	ML	3.0				
	e	Pg N		21:49:20.6	0.5	T	19.2										
	e	Sg N		21:49:39.6	-0.6	T	4.2										
GSH	e	Pn Z		21:49:19.3	-0.1	T	1.8			178.1	352.4	ML	2.6				
	e	Pg Z		21:49:20.9	-0.0	T	6.0										
	e	Sg Z		21:49:42.3	0.6	T	2.6										
BBS	e	Pn		21:49:24.1	2.4					196.5	162.2						
BEU	e	Pn		21:49:22.2	-0.8					207.6	106.6	ML	2.9				
	i	Pg -		21:49:25.1	-0.8												
	i	Sg		21:49:48.7	-1.4												
SGW	e	Pn		21:49:23.9	-0.3					217.6	121.3	ML	3.0				
	i	Pg -		21:49:28.1	0.4												
	e	Sg		21:49:51.3	-1.6												
HOL	e	Pn		21:49:23.6	-1.7					226.4	82.6	ML	2.7				
	i	Pg +		21:49:28.0	-1.2												
	e	Sn		21:49:47.8	-2.2												
	e	Sg		21:49:55.2	-0.3												
BUG	e	Pn Z		21:49:31.2	2.0					257.8	8.7	ML	3.0				
	e	Sg N		21:50:04.2	-0.3	T	2.8										
HDH	e	Pg		21:49:37.5	2.1					263.4	102.5	ML	2.7				
	e	Sg		21:50:04.8	-1.3												
UBR	e	Pg		21:49:35.5	-6.0					299.2	121.8	ML	2.9				
	e	Sg		21:50:17.8	1.5												
GRA1	e	Sg N		21:50:24.3	-1.3					331.8	77.8	ML	3.2				
FUR	e	Pn Z		21:49:41.8	1.1					352.7	106.4	ML	3.5				
	e	Sg N		21:50:32.5	0.9	T	4.2										
IBBN	e	Sg E		21:50:32.9	-0.4	T	1.7			358.7	11.4	ML	3.4				
MOX	e	Pg		21:49:56.4	-0.2					388.6	62.8	ML	3.0				
	i	Sn		21:50:25.2	0.9												
	e	Sg N		21:50:43.3	1.5												
CLZ	e	Pn Z		21:49:45.8	-0.2					395.7	39.5	ML	3.3				
	e	Sn E		21:50:26.4	0.6	T											
	e	Sg N		21:50:43.3	-0.5												
WET	e	Pn E		21:49:53.1	0.7	T	5.5			448.5	87.8	ML	3.0				
	e	Sg N		21:50:56.8	-2.1												
CLL	e	Sg N		21:51:15.7	-0.1					507.6	59.4	ML	3.4				
GEC2	e	Pn E		21:50:00.3	0.3	T	14.9			511.0	91.2						
BRG	e	Sg N		21:51:28.3	0.1					550.9	66.9	ML	3.2				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/03	22:29:13.5	+/- 0.32	51.600N	7.790E	4.4	3.3	157	1G		11	7	114	2.1ML	GSH	BGR	I
1997/09/03	22:29:11.4		51.652N	7.726E				1G					1.7ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg - Z	22:29:19.2	1.1	TA		39.4	233.5	ML 2.0
	e Sg E	22:29:25.2	2.6		9.9			
IBBN	e Pg Z	22:29:26.9	3.2		2.5	72.9	1.6	ML 2.2
	e Sg E	22:29:35.7	3.5		3.1			
GSH	e Sg E	22:29:53.6	2.7		4.0	138.5	223.3	ML 2.1
TNS	e Pg Z	22:29:40.5	0.8		1.3	166.8	162.1	ML 2.1
	e Sg N	22:29:59.4	0.3		2.9			
CLZ	e Pg Z	22:29:44.8	2.3		2.4	183.4	82.4	ML 2.2
	e Sg E	22:30:05.2	1.4		4.2			
MOX	e Sg Z	22:30:34.7	-0.5		2.4	293.5	110.9	ML 2.4
CLL	e Sg E	22:30:58.4	2.1		2.2	367.3	93.9	ML 2.6
BRG	e Sg	22:31:21.4	4.0			441.0	98.9	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/04	06:15:54.5	+/- 1.10	51.638N	7.675E	13.0	10.3	90	0		7	7				ISC	
1997/09/04	06:15:55.8	+/- 0.32	51.620N	7.780E	5.6	4.4	130	1G		10	5	118	2.1ML		SZGRF	I
<b>1997/09/04</b>	<b>06:15:54.0</b>		<b>51.647N</b>	<b>7.709E</b>				<b>1G</b>					<b>1.7ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	06:16:01.6	1.1	TA		38.1	233.2	ML 2.2
	e Sg N	06:16:07.8	2.9					
IBBN	e Pg Z	06:16:10.1	3.6			73.5	2.5	ML 2.1
	e Sg N	06:16:17.1	2.1					
GSH	e Pn Z	06:16:18.5	0.8			137.3	223.1	ML 2.1
	e Sg E	06:16:36.7	3.5					
TNS	e Pn Z	06:16:23.0	1.7			166.6	161.6	ML 2.0
	e Sg E	06:16:42.0	0.4					
CLZ	e Pn Z	06:16:25.1	1.6			184.7	82.2	ML 2.0
	e Sg E	06:16:47.8	1.1					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/05	22:49:53.0	+/- 0.95	51.584N	7.781E	10.1	9.6	0	0		8	8				ISC	
1997/09/05	22:49:54.5	+/- 0.36	51.630N	7.790E	4.4	4.4	115	1G		8	4	118	2.1ML		SZGRF	I
1997/09/05	22:49:54.1	+/- 0.40	51.640N	7.800E	5.6	3.3	151	1G		9	5	118	2.1ML	CLZ	BGR	I
<b>1997/09/05</b>	<b>22:49:52.5</b>		<b>51.657N</b>	<b>7.724E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg + Z	22:50:00.4	1.2	TA		39.6	232.8	ML 2.1
	e Sg E	22:50:06.7	2.9					

IBBN	e	Pg	Z	22:50:07.0	2.2				2.5	72.3	1.8	ML	2.1
	e	Sg	E	22:50:15.7	2.5								
GSH	e	Pg	Z	22:50:17.2	1.2				7.3	138.8	223.1	ML	2.1
	e	Sg	N	22:50:34.8	2.6								
TNS	e	Pn	Z	22:50:21.7	1.8				3.7	167.4	162.1	ML	2.0
	e	Sg	N	22:50:41.2	0.9								
CLZ	e	Pn	Z	22:50:23.8	2.0				5.9	183.5	82.5	ML	2.1
	e	Sg	E	22:50:46.0	1.1								
MOX	i	(Sg)		22:51:16.7	0.3					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
1997/09/13	12:51:51.2	+-	0.37	51.600N	7.750E	5.6	3.3	127	1G		8	5	118	2.0ML		SZGRF	I
1997/09/13	12:51:48.7			51.654N	7.725E				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	12:51:56.5	1.1	TA		39.5	233.2	ML 2.0
	e Sg E	12:52:02.4	2.4					
IBBN	e Pg Z	12:52:04.1	3.0			72.7	1.7	ML 1.9
	e Sg E	12:52:13.6	4.2					
GSH	e Pg Z	12:52:13.2	1.0			138.6	223.2	ML 2.0
	e Sg E	12:52:30.7	2.4					
TNS	e Sg E	12:52:37.1	0.7			167.0	162.1	
CLZ	e Sg E	12:52:43.7	2.6			183.4	82.4	

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/13	13:27:07.6	+-	1.75	51.638N	7.774E	17.1	11.8	0	0		6	6				ISC	
1997/09/13	13:27:10.7	+-	0.33	51.610N	7.760E	4.4	3.3	131	1G		10	5	118	2.1ML		SZGRF	I
1997/09/13	13:27:09.9	+-	0.54	51.610N	7.760E	7.8	3.3	164	1G		10	5	199	2.1ML	GSH	BGR	I
1997/09/13	13:27:08.1			51.656N	7.725E				1G					1.9ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg + Z	13:27:16.0	1.2	TA		39.6	232.9	ML 2.0
	e Sg E	13:27:21.5	2.1					
IBBN	e Pg Z	13:27:23.3	3.0			72.4	1.7	ML 2.2
	e Sg N	13:27:32.7	3.9					
GSH	e Pg Z	13:27:33.0	1.4			3.7	138.8	223.1
	e Sg E	13:27:49.9	2.2					
TNS	e Pg Z	13:27:37.1	0.7			2.3	167.3	162.1
	e Sg E	13:27:55.6	-0.3					
CLZ	e Pg Z	13:27:40.0	0.8			4.8	183.4	82.5
	e Sg E	13:28:02.4	1.9					



MOX	e Pg	Z	13:27:59.7	1.8		1.5	293.7	111.0	ML	2.2
	e Sg	N	13:28:33.1	1.1						

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/17	02:54:41.4	+ - 1.72	51.588N	7.722E	22.3	14.8	0	0		7	8				ISC	
1997/09/17	02:54:41.9	+ - 0.32	51.630N	7.770E	5.6	4.4	125	1G		10	5	120	2.1ML		SZGRF	I
1997/09/17	02:54:42.5	+ - 0.30	51.620N	7.730E	4.4	3.3	146	1G		13	6	123	2.1ML	GSH	BGR	I
<b>1997/09/17</b>	<b>02:54:40.7</b>		<b>51.647N</b>	<b>7.709E</b>				<b>1G</b>					<b>2.0ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg + Z	02:54:48.3	1.1	TA		38.1	233.2	ML 2.1
	e Sg E	02:54:54.3	2.7					
IBBN	e Pg Z	02:54:55.3	2.1		2.1	73.5	2.5	ML 2.2
	e Sg E	02:55:03.9	2.2					
GSH	e Pg Z	02:55:05.1	1.1		7.7	137.3	223.1	ML 2.1
	e Sg E	02:55:22.5	2.6					
TNS	e Pn Z	02:55:09.3	1.3		3.5	166.6	161.6	ML 2.2
	e Sg E	02:55:28.7	0.4					
CLZ	e Pn N	02:55:12.1	2.0		2.3	184.7	82.2	ML 2.2
	e Sg E	02:55:35.7	2.2					
MOX	e Pn Z	02:55:25.1	1.5		0.9	294.4	110.7	ML 2.3
	e Pg Z	02:55:31.9	1.3					
	e Sg N	02:56:06.8	2.0					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/17	04:12:35.1		51.505N	6.781E				10G			12		2.6ML	STR	NEIC	
	ML= 2.3(UCC), Less reliable solution															
1997/09/17	04:12:34.5	+ - 0.77	51.467N	6.629E	11.9	6.8	90	0		16	17		2.3ML	DBN	ISC	
1997/09/17	04:12:36.4		51.568N	6.786E	11.4	8.6	43	2 +- 0.0		13	9	296	2.7ML		LDG	L
1997/09/17	04:12:38.8	+ - 1.07	51.460N	7.020E	14.5	5.6	87	1G		7	4	244	2.1ML	TNS	BGR	I
<b>1997/09/17</b>	<b>04:12:34.9</b>		<b>51.566N</b>	<b>6.735E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

Duisburg, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	04:12:42.9	1.3	TA		39.5	110.4	ML 1.3
IBBN	e Pg Z	04:12:56.4	3.1		0.8	108.2	40.0	ML 2.3
	e Sg N	04:13:09.3	3.5					
TNS	e Pg Z	04:13:07.1	-0.3		4.3	191.6	140.5	ML 2.1
	e Sg N	04:13:27.5	-2.1					
CLZ	e Pg Z	04:13:20.2	2.5		2.1	252.5	81.6	ML 2.3
	e Sg N	04:13:45.5	-1.6					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/17	19:58:20.7		49.407N	6.939E				10G			6		1.7ML	UCC	NEIC	
1997/09/17	19:58:19.0	+ - 0.76	49.334N	6.928E	9.8	5.0	90	0		14	14				ISC	
1997/09/17	19:58:19.6	+ - 0.71	49.350N	6.770E	13.3	5.6	63	1G		8	4	215	2.1ML	TNS	BGR	I
1997/09/17	19:58:19.9	+ - 1.00	49.380N	6.850E	13.0	5.0	93	1G		16	10	222	2.1ML		LEDBW	I

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg	19:58:27.1	0.6	T		38.8	22.8	
ABH	i Pg +	19:58:32.3	-0.3	T		75.1	41.7	
	e Sg	19:58:41.4	0.1					
KTD	i Pg	19:58:36.1	1.0	T		89.6	93.8	
TOD	i Pg	19:58:43.4	-0.8	T		143.3	79.2	
	i Sg	19:59:01.6	0.8	T				
TNS	e Pg Z	19:58:45.0	0.0		3.0	148.0	50.1	ML 2.1
	e Sg E	19:59:03.1	0.9					
GSH	e Pg Z	19:58:46.4	0.3		1.7	154.6	347.6	ML 1.9
	e Sg N	19:59:04.5	0.4					
BFO	e Pg Z	19:58:46.4	-0.5		7.2	159.2	136.6	ML 1.8
	e Sg	19:59:05.1	-0.3	T				
LBG	e Pg	19:58:46.8	-0.6	T		162.6	118.6	ML 2.0
	e Sg	19:59:05.7	-0.7	T				
KIZ	i Pg +	19:58:49.1	-0.7	T		176.7	153.2	ML 2.2
	i Sg	19:59:09.4	-1.0	T				
FELD	i Pg +	19:58:50.8	-0.8	T		187.5	152.7	
	i Sg	19:59:12.7	-0.8	T				
SGW	i Pn +	19:58:57.4	3.2			223.9	128.3	ML 2.1
	e Pg	19:59:00.2	2.4					
GEC2	e Pn Z	19:59:29.2	1.1		4.0	502.0	94.2	
	e Sn N	20:00:20.5	3.1					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/19	01:51:01.5	+ - 0.85	49.314N	6.928E	11.8	5.8	90	0		9	9		1.4ML	UCC	ISC	
1997/09/19	01:51:02.5	+ - 1.50	49.370N	6.950E	25.0	4.0	94	1G		8	5	208	2.1ML		LEDBW	I

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg	01:51:09.6	0.7	T		37.7	12.0	
ABH	i Pg +	01:51:14.6	-0.0	T		71.3	36.9	
	i Sg	01:51:24.6	1.7	T				
KTD	i Pg	01:51:19.4	3.0			82.3	93.4	
TOD	i Pg	01:51:26.0	0.4			136.4	78.2	
	i Sg	01:51:43.7	2.2					
BFO	e Pg Z	01:51:28.6	0.1			153.5	138.4	
	e Sg N	01:51:46.4	0.0					

KIZ	e	Pg		01:51:31.5	-0.3				172.5	155.3	ML	2.2				
	e	Sg		01:51:51.7	-0.1											
FELD	i	Pg +		01:51:33.1	-0.5	T			183.3	154.6						
	i	Sg		01:51:54.9	0.1	T										
GEC2	e	Pn	Z	01:52:11.1	1.3				4.3	494.7	94.2					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/20	04:35:44.5	+/- 1.22	51.581N	7.725E	14.9	11.3	90	0		6	7				ISC	
1997/09/20	04:35:46.0	+/- 0.36	51.640N	7.720E	6.7	3.3	137	1G		8	4	141	2.0ML		SZGRF	I
1997/09/20	04:35:45.5	+/- 0.36	51.670N	7.700E	6.7	3.3	133	1G		8	4	139	2.0ML	GSH	BGR	I
<b>1997/09/20</b>	<b>04:35:43.4</b>		<b>51.660N</b>	<b>7.740E</b>				<b>1G</b>					<b>2.0ML</b>		<b>RUB</b>	<b>I</b>

## Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg + Z	04:35:51.5	1.2	TA		40.6	233.4	ML 2.0
	e Sg E	04:35:57.0	2.0					
IBBN	e Pg Z	04:35:58.0	2.4		5.9	72.0	0.9	ML 2.1
	e Sg E	04:36:05.6	1.6					
GSH	e Pg Z	04:36:08.6	1.5		2.8	139.8	223.3	ML 2.0
	e Sg E	04:36:25.7	2.4					
CLZ	e Pn Z	04:36:15.1	2.5		4.1	182.3	82.6	ML 2.1
	e Sg E	04:36:38.6	3.1					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/23	02:17:28.3		48.282N	8.205E				10G			11		2.0ML	STR	NEIC	
1997/09/23	02:17:27.7	+/- 0.55	48.326N	8.232E	6.2	5.0	90	13	+/- 6.4	19	25				ISC	
1997/09/23	02:17:27.2		48.276N	8.340E	10.0	8.7	102	11	+/- 0.0	13	7	290	2.2ML		LDG	L
1997/09/23	02:17:28.7	+/- 2.02	48.250N	8.410E	38.9	8.9	168	10G		5	3	275	2.0ML	STU	BGR	L
<b>1997/09/23</b>	<b>02:17:28.3</b>		<b>48.326N</b>	<b>8.277E</b>				<b>17</b>		<b>29</b>	<b>15</b>	<b>126</b>	<b>2.1ML</b>		<b>LEDBW</b>	<b>L</b>

## Haslach/Black Forest, N of Freiburg

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BFO	i Pg +	02:17:31.4	0.1	T		3.9	83.3	
	e Sg E	02:17:33.4	0.2					
SPAK	i Pg +	02:17:36.6	0.1	T		45.2	123.2	
	i Sg	02:17:42.4	0.3	T				
KIZ	i Pg +	02:17:37.1	-0.0	T		49.0	213.1	ML 2.2
	i Sg	02:17:43.1	-0.0	T				
LBG	i Pg +	02:17:37.7	-0.1	T		53.5	45.2	ML 2.1
	i Sg	02:17:44.2	-0.1	T				
LIBD	i Pg -	02:17:38.8	0.9	T		53.6	248.9	
	e Sg	02:17:45.3	0.9	T				

FELD	i	Pg	-	02:17:38.0	0.1	T			54.0	202.2							
	i	Sg		02:17:44.7	0.3	T											
BHB	i	Pg	+	02:17:38.1	0.1	T			54.5	99.0							
	i	Sg		02:17:44.8	0.2	T											
HSN	e	Pg	+	02:17:40.2	0.1	T			67.8	91.7							
	e	Sg		02:17:48.5	0.2	T											
SGW	i	Pg	+	02:17:41.1	-0.1	T			73.7	109.0	ML	2.1					
	i	Sg		02:17:50.0	0.1	T											
END	e	Pn	+	02:17:41.3	-1.8	T			78.9	210.8							
	i	Sg		02:17:51.4	0.0	T											
STU	e	Pg	Z	02:17:43.4	0.6		3.3		83.6	53.4	ML	2.0					
	e	Sg	E	02:17:53.3	0.6												
SOL	e	Pg	-	02:17:42.7	-0.2	T			84.3	197.2							
	e	Sg		02:17:52.8	-0.1	T											
BEU	i	Pg	-	02:17:43.5	-0.2	T			88.7	70.7	ML	1.6					
	i	Sg		02:17:54.3	0.1	T											
BBS	i	Sg		02:18:00.6	-0.0	T			111.6	211.1							
HDH	e	Sg		02:18:09.4	-0.7				145.2	77.9	ML	1.6					
UBR	e	Sg		02:18:12.2	-0.3				153.9	117.1	ML	1.8					
HOL	e	Sg		02:18:12.9	-1.9				161.6	43.4	ML	2.1					
GRFO	e	Sg	N	02:18:41.7	-1.8				262.9	53.6							

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/26	12:57:34.7	+ - 1.12	51.656N	7.698E	12.8	10.0	90	0		7	7				ISC	
1997/09/26	12:57:36.4	+ - 0.54	51.600N	7.750E	8.9	4.4	160	1G		8	4	198	2.1ML	GSH	BGR	I
<b>1997/09/26</b>	<b>12:57:34.2</b>		<b>51.647N</b>	<b>7.709E</b>				<b>1G</b>					<b>2.1ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg Z	12:57:41.8	1.1	TA		38.1	233.2	ML 2.1
	e Sg E	12:57:47.6	2.6					
GSH	e Pg Z	12:57:59.0	1.5		3.1	137.3	223.1	ML 2.1
	e Sg E	12:58:16.0	2.5					
TNS	e Pn Z	12:58:03.0	1.6		2.1	166.6	161.6	ML 2.0
	e Sg E	12:58:22.0	0.2					
CLZ	e Pn Z	12:58:05.4	1.7		2.9	184.7	82.2	ML 2.2
	e Sg E	12:58:29.1	2.1					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/28	02:58:12.6		51.366N	6.368E				10G			49		2.9ML	DBN	NEIC	
	ML= 3.1(UCC)															
1997/09/28	02:58:11.1	+ - 0.46	51.397N	6.370E	5.2	4.3	90	0		62	66		3.4ML	STR	ISC	
1997/09/28	02:58:15.7		51.315N	6.376E	4.3	3.3	13	6	+ - 0.0	61	24	285	3.3ML		LDG	L
1997/09/28	02:58:12.6		51.451N	6.518E				1					2.9ML		KNMI	
1997/09/28	02:58:19.0	+ - 3.30	51.240N	6.730E	43.0	16.0	339	10G		13	12	321	2.6ML		LEDBW	L

1997/09/28 02:58:14.4 +- 0.52	51.420N	6.590E	6.7	3.3	115	1	+- 3.1	18	8	207	2.8ML	SZGRF	L	
1997/09/28 02:58:14.1 +- 0.54	51.440N	6.570E	6.7	3.3	119	1G		18	8	209	2.8ML	TNS	BGR	I
<b>1997/09/28 02:58:11.2</b>	<b>51.476N</b>	<b>6.485E</b>				<b>1G</b>					<b>2.5ML</b>	<b>RUB</b>	<b>I</b>	

## Moers, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	02:58:22.1	1.7	TA		54.5	93.8	ML 2.6
	e Sg N	02:58:29.4	2.7					
GSH	e Pg Z	02:58:26.6	1.5			82.5	185.3	ML 2.6
	e Sg E	02:58:36.9	2.1					
IBBN	e Pg Z	02:58:35.2	2.4			127.1	42.8	ML 3.0
	e Sg E	02:58:50.7	3.2					
ABH	i Pn -	02:58:42.9	1.3			192.4	156.7	
TNS	e Pn Z	02:58:43.5	1.5		5.6	195.9	134.6	ML 2.8
	e Pg Z	02:58:45.8	1.4					
	e Sg N	02:59:07.4	0.2					
RUP	i Pn	02:58:45.6	2.9			201.4	168.2	
TOD	i Pn +	02:58:52.5	2.1			264.7	140.9	
	i Pg	02:58:58.6	2.5					
CLZ	e Pg Z	02:58:58.5	1.4			271.2	79.8	ML 3.0
	e Sg N	02:59:29.3	0.6					
HOL	i Pn +	02:59:00.8	2.1			332.0	133.5	
LBG	i Pn +	02:59:03.3	2.1			353.4	151.3	ML 2.7
MOX	e Pn Z	02:59:06.0	2.7		4.5	370.2	102.4	ML 2.9
	e Pg Z	02:59:15.9	2.0					
	e Sg E	02:59:57.6	0.7					
BFO	e Pn Z	02:59:05.5	1.7		11.5	373.8	158.6	ML 2.7
	e Pg Z	02:59:17.3	2.8					
	e Sn E	02:59:43.7	2.1					
	e Sg E	02:59:59.9	1.9					
BEU	i Pn -	02:59:07.7	2.7			383.6	145.8	ML 2.6
GRFO	e Pn Z	02:59:08.4	2.8		4.3	388.7	118.8	ML 3.2
	e Pg Z	02:59:20.3	3.2					
	e Sg E	03:00:07.1	4.8					
GRA1	e Pn Z	02:59:08.5	2.9			388.7	118.8	ML 3.2
	e Sg E	03:00:02.7	0.4					
KIZ	i Pn +	02:59:08.9	1.4			404.6	164.7	ML 2.5
FELD	i Pn +	02:59:10.5	1.8			414.8	164.1	
SGW	i Pn +	02:59:12.0	2.3			422.7	151.3	
CLL	e Pg Z	02:59:28.7	0.8			452.5	89.8	ML 3.1
	e Sg E	03:00:19.9	-0.6					
UBR	i Pn -	02:59:22.3	3.7			496.1	146.8	ML 2.5
FUR	e Sg E	03:00:37.7	2.6			503.6	135.1	ML 3.6
WET	e Pn Z	02:59:24.2	2.3		2.6	522.5	117.2	ML 3.2
	e Pg Z	02:59:42.8	3.1					
	e Sg N	03:00:41.4	0.9					
BRG	e Sg N	03:00:42.0	1.1			524.0	94.4	ML 3.2

GEC2	e	Pn	Z	02:59:34.7	4.5	3.8	591.1	116.8
	e	Pg	Z	02:59:54.1	2.7			
	e	Sg	N	03:01:00.9	0.8			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/29	17:27:17.2	+/- 2.57	51.781N	7.611E	27.8	25.3	0	0		6	6				ISC	
1997/09/29	17:27:18.6	+/- 0.87	51.670N	7.830E	18.9	5.6	158	1G		6	4	205	2.0ML	GSH	BGR	I
1997/09/29	17:27:19.7	+/- 0.38	51.640N	7.770E	6.7	4.4	151	1G		10	5	121	1.9ML		SZGRF	I
<b>1997/09/29</b>	<b>17:27:18.0</b>		<b>51.663N</b>	<b>7.744E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	17:27:26.2	1.2	TA		41.0	233.2	ML 1.9
	e Sg E	17:27:32.3	2.6					
IBBN	e Pg Z	17:27:32.7	2.6			71.7	0.7	
GSH	e Pg Z	17:27:42.8	1.0			140.2	223.3	ML 2.0
	e Sg E	17:28:00.6	2.5					
TNS	e Pn Z	17:27:47.3	1.9			167.6	162.6	
	e Sg E	17:28:07.3	1.5					
CLZ	e Pn Z	17:27:48.5	1.4			182.0	82.7	
	e Sg N	17:28:11.8	1.8					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/09/30	07:58:55.0		49.224N	6.929E				10G			11		2.9ML	DBN	NEIC	I
Mining induced event in the Lorraine region, France																
1997/09/30	07:58:53.4	+/- 0.76	49.166N	6.884E	10.8	5.4	90	0		17	22		2.9ML	UCC	ISC	
1997/09/30	07:58:53.1	+/- 0.82	49.180N	6.740E	13.3	5.6	64	1G		6	3	223	2.9ML	TNS	BGR	I
1997/09/30	07:58:54.0	+/- 0.63	49.170N	6.810E	7.8	4.4	61	1G		10	5	220	2.9ML		SZGRF	I
<b>1997/09/30</b>	<b>07:58:54.9</b>	+/- <b>1.60</b>	<b>49.180N</b>	<b>6.880E</b>	<b>25.0</b>	<b>6.0</b>	<b>71</b>	<b>1G</b>		<b>18</b>	<b>10</b>	<b>192</b>	<b>2.8ML</b>		<b>LEDBW</b>	<b>I</b>

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg +	07:59:05.1	0.1	T		59.4	12.5	
	e Sg	07:59:13.2	1.3	T				
KTD	e Pg	07:59:10.1	0.1	T		88.7	79.4	
	e Sg	07:59:21.4	1.1	T				
ABH	e Pn	07:59:09.7	-3.3	T		91.7	31.4	
BFO	e Pn Z	07:59:18.8	-0.4			142.2	131.1	ML 2.6
	i Pg -	07:59:19.5	0.5	T				
	i Sg	07:59:35.7	0.2	T				
TOD	e Pn	07:59:17.4	-2.4	T		147.0	70.5	
	e Sg	07:59:37.0	0.1	T				
LBG	e Pg	07:59:21.1	0.6	T		151.2	111.6	ML 2.8
	e Sg	07:59:38.1	0.0	T				

KIZ	e	Pg	+	07:59:20.6	-0.7	T	156.0	150.3	ML	2.7
	e	Sg		07:59:38.0	-1.4	T				
TNS	e	Pn	Z	07:59:21.6	0.1		161.7	43.6	ML	2.9
	e	Sg	N	07:59:41.8	0.7					
FELD	e	Pg		07:59:22.3	-0.9	T	166.9	149.9		
	e	Sg		07:59:41.5	-1.1	T				
GSH	e	Pn	Z	07:59:23.2	-0.2		176.8	348.5	ML	2.6
	e	Sg	N	07:59:44.1	-1.3					
SPAK	e	Sg		07:59:49.2	1.6		184.3	129.8		
BBS	e	Pg		07:59:30.5	2.3		196.3	166.1		
SGW	e	Pg		07:59:31.2	0.9	T	209.0	123.9	ML	3.0
	e	Sg		07:59:54.0	-0.6	T				
HOL	e	Pg		07:59:29.6	-1.5		213.7	83.2	ML	2.7
UBR	e	Sg		08:00:19.5	1.5		290.7	123.8	ML	2.9
GRFO	e	Pn	Z	07:59:42.5	1.8		318.9	78.1	ML	3.1
	e	Sg	N	08:00:26.1	0.1					
IBBN	e	Pg	Z	07:59:51.0	-3.8		353.1	9.7	ML	3.3
	e	Sg	N	08:00:35.4	-0.4					
CLL	e	Sg		08:01:17.0	0.6		495.3	59.1		
BRG	e	Sg		08:01:35.2	6.5		538.2	66.9		

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/01	21:00:59.3		47.905N	10.178E				10G			8		2.3ML	VIE	NEIC	
1997/10/01	21:00:59.7	+- 0.83	47.900N	10.141E	11.7	9.2	90	26	+-10.7	10	14				ISC	
1997/10/01	21:00:59.3	+- 0.78	47.850N	10.110E	8.9	4.4	177	10G		7	5	224	2.5ML	FUR	BGR	L
<b>1997/10/01</b>	<b>21:00:59.2</b>	<b>+- 0.12</b>	<b>47.842N</b>	<b>10.162E</b>	<b>1.5</b>	<b>1.1</b>	<b>92</b>	<b>27</b>	<b>+- 1.0</b>	<b>14</b>	<b>6</b>	<b>190</b>	<b>2.2ML</b>		<b>LEDBW</b>	<b>L</b>

## Memmingen

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
UBR	i Pg -	21:01:05.3	0.5	T		18.4	192.7	ML 2.2
	i Sg	21:01:09.7	1.1	T				
SGW	i Pn +	21:01:12.2	-0.2	T		76.4	293.0	ML 2.2
	i Pg +	21:01:12.4	-0.6	T				
	e Sg	21:01:21.9	-0.5	T				
HDH	i Pn	21:01:12.8	-0.4	T		82.6	2.3	ML 1.8
	i Pg +	21:01:13.2	-0.8	T				
	e Sg	21:01:23.7	-0.3	T				
HSN	e Pg +	21:01:14.3	-0.6	T		88.4	305.9	
	i Sg	21:01:25.0	-0.6	T				
FUR	e Pg Z	21:01:15.3	0.1		1.9	90.2	66.3	ML 2.5
	e Sg N	21:01:26.9	0.7					
BEU	i Pg -	21:01:15.7	-1.0	T		99.3	326.4	ML 2.5
	e Sn	21:01:26.0	-0.5	T				
	i Sg	21:01:27.7	-1.0	T				
LBG	e Sg	21:01:37.0	-2.0	T		136.4	312.6	ML 2.1

BFO	e	Pg	Z	21:01:23.1	-1.4			1.2	146.5	292.4							
	e	Sg	N	21:01:40.4	-1.4												
KIZ	e	Pg		21:01:29.1	1.0				167.7	275.2	ML	2.0					
GRFO	e	Sg	N	21:02:02.5	0.0				219.7	20.3							
TNS	e	Sg	N	21:02:23.0	-0.2				292.7	335.4							
MOX	e	Sg	N	21:02:32.6	-0.9				329.0	18.2							

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/04	12:24:21.3	+/- 0.43	51.510N	10.360E	5.6	3.3	83	1G		10	6	158	2.2ML	MOX	BGR	I

Bleicherode, S Harz Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
CLZ	e Pg	Z 12:24:27.7	0.1	T	30.2	36.9	1.3	ML 2.0
	e Sg	E 12:24:32.4	0.5	T	3.2			
MOX	e Pg	Z 12:24:43.1	-0.2	T	8.5	130.2	137.2	ML 2.2
	e Sg	E 12:24:58.7	0.2	T	5.7			
CLL	e Pn	Z 12:24:50.7	-0.0	T	6.2	184.6	96.0	ML 2.3
	e Sg	E 12:25:13.7	-0.4	T	4.1			
GRFO	e Pg	N 12:24:57.0	-0.1	T	4.2	211.2	163.0	ML 2.5
	e Sg	N 12:25:21.7	0.0	T	7.3			
BUG	e Sg	E 12:25:23.1	0.6			214.2	269.1	ML 2.5
GEC2	e Sg	E 12:26:10.5	0.6	T	2.9	379.9	139.9	
BFO	e Sg	E 12:26:10.0	-0.5	T	3.2	382.3	203.1	ML 2.7

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/05	10:57:40.7		48.159N	9.058E				10G			9		2.2ML	LDG	NEIC	
1997/10/05	10:57:39.7	+/- 0.46	48.183N	9.023E	5.0	4.4	90	0		22	28				ISC	
1997/10/05	10:57:41.6		48.291N	8.935E	16.9	12.5	172	2	+/- 0.0	9	6	325	2.2ML		LDG	L
1997/10/05	10:57:41.2	+/- 0.70	48.130N	8.990E	10.0	4.4	4	5G		8	5	206	2.0ML		SZGRF	L
1997/10/05	10:57:40.8	+/- 0.05	48.145N	9.033E	0.6	0.5	331	5	+/- 1.1	28	14	101	2.0ML		LEDBW	L

Sigmaringen/Donau

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BHB	i Pg -	10:57:42.9	0.0	T		11.6	349.4	
SGW	i Pg -	10:57:43.4	0.1	T		14.2	107.4	ML 2.1
	i Sg	10:57:45.6	0.6	T				
SPAK	i Pg +	10:57:44.3	0.3	T		18.9	255.6	
	i Sg	10:57:46.8	0.5	T				
JUN	i Pg +	10:57:44.4	0.1	T		20.6	1.6	
	i Sg	10:57:47.3	0.5	T				
HSN	i Pg +	10:57:44.6	0.1	T		21.3	33.9	
	i Sg	10:57:47.6	0.6	T				
BFO	i Pg -	10:57:50.4	0.1	T		56.0	291.8	ML 1.5
	e Sg	10:57:56.9	0.1	T				



BEU	i	Pg +	10:57:50.6	0.2	T	56.4	29.9	ML	1.8
	i	Sg	10:57:57.5	0.6	T				
LBG	i	Pg -	10:57:51.1	0.1	T	60.3	343.1	ML	1.9
	i	Sg	10:57:58.5	0.4	T				
	e	SmS	10:58:02.3	-1.8					
FELD	i	PmP+	10:57:54.8	-2.7	T	82.2	249.1		
	i	SmS	10:58:07.6	-1.5	T				
KIZ	i	Pg +	10:57:55.2	-0.1	T	85.5	256.2	ML	2.0
	e	Sg	10:58:05.3	0.1	T				
	e	SmS	10:58:08.0	-1.9					
UBR	i	Pg -	10:57:57.5	0.6	T	95.3	122.4	ML	2.3
	e	Sg	10:58:09.7	1.6	T				
	i	SmS	10:58:11.9	-0.3	T				
HDH	i	Pg +	10:57:57.6	-0.0	T	99.5	60.2	ML	1.8
	i	PmP	10:57:58.4	-1.7	T				
	i	Sg	10:58:09.8	0.6	T				
	e	SmS	10:58:12.0	-1.3					
BBS	i	Pn	10:58:02.8	-1.1	T	136.7	236.9		
HOL	e	Sg	10:58:22.1	-0.9		147.8	22.4	ML	2.2
FUR	e	Sg N	10:58:29.4	1.1		166.3	88.5	ML	2.4
GRC1	e	Pg Z	10:58:15.5	-0.2		206.0	61.7		
	e	Sg N	10:58:40.6	0.9					
GRA1	e	Pg Z	10:58:20.7	0.1		234.9	42.1	ML	2.1
	e	Sg E	10:58:49.8	1.9					
TNS	e	Sg N	10:58:48.2	0.3		234.9	349.8		

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/09	02:41:56.7		49.068N	6.900E				10G			6		2.5ML	UCC	NEIC	I
mining induced event in the Lorraine region, France, Less reliable																
1997/10/09	02:41:56.5	+ - 0.87	49.262N	7.066E	8.8	8.0	90	0		14	20		2.6ML	DBN	ISC	I
1997/10/09	02:41:56.2	+ - 0.70	49.150N	6.720E	8.9	4.4	61	1G		9	5	225	2.4ML		SZGRF	I
<b>1997/10/09</b>	<b>02:41:55.9</b>	<b>+ - 0.67</b>	<b>49.150N</b>	<b>6.710E</b>	<b>7.8</b>	<b>3.3</b>	<b>59</b>	<b>1G</b>		<b>16</b>	<b>9</b>	<b>225</b>	<b>2.5ML</b>	<b>TNS</b>	<b>BGR</b>	<b>I</b>

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BFO	e	Pg Z	02:42:21.4	0.1	T	11.6	149.7	126.9	ML 2.3
	e	Sg N	02:42:37.9	-0.8	T				
TNS	e	Pg Z	02:42:24.8	-0.4	T	3.7	172.7	45.7	ML 2.5
	e	Sg N	02:42:44.7	-0.6	T				
GSH	e	Pg Z	02:42:26.2	0.1	T	2.6	178.1	352.4	ML 2.3
	e	Sg N	02:42:46.6	-0.3	T				
BUG	e	Pg Z	02:42:39.0	-0.6	T	1.1	257.8	8.7	ML 2.7
	e	Sg N	02:43:10.1	0.5	T				
GRFO	e	Pg Z	02:42:51.2	-0.9	T	1.2	331.7	77.8	ML 2.9
	e	Sg N	02:43:31.2	0.5	T				

GRA1	e	Pg	Z	02:42:50.6	-1.5					331.8	77.8
	e	Sg	E	02:43:31.5	0.8						
MOX	e	Sn	N	02:43:29.3	-0.1	T				388.6	62.8
CLZ	e	Sn	E	02:43:31.5	0.5	T				395.7	39.5
WET	e	Pn	Z	02:42:58.3	0.7	T	1.9			448.5	87.8
	e	Sn	E	02:43:42.6	0.5	T					
GEC2	e	Pn	Z	02:43:05.7	0.5	T	3.0			511.0	91.2
	e	Sn	N	02:43:55.7	0.3	T					
BRG	e	Sg		02:44:34.6	1.3					550.9	66.9

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/11		00:35:34.5		49.416N	6.897E				5G			13		2.5ML	DBN	NEIC	I
	mining induced event in the Lorraine region, France																
1997/10/11		00:35:32.7	+- 0.55	49.365N	6.961E	7.6	4.0	90	0		22	25		2.5ML	UCC	ISC	
1997/10/11		00:35:34.5	+- 0.66	49.370N	6.830E	8.9	4.4	62	1G		9	5	212	2.7ML		SZGRF	I
1997/10/11		00:35:33.9	+- 0.63	49.370N	6.850E	8.9	4.4	68	1G		8	4	211	2.3ML	BFO	BGR	I
<b>1997/10/11</b>		<b>00:35:34.4</b>	<b>+- 0.40</b>	<b>49.380N</b>	<b>6.930E</b>	<b>6.0</b>	<b>2.0</b>	<b>77</b>	<b>1G</b>		<b>13</b>	<b>10</b>	<b>211</b>	<b>2.4ML</b>		<b>LEDBW</b>	<b>I</b>

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg	00:35:41.0	0.4	T		37.0	14.6	
	e Sg	00:35:45.9	0.9	T				
ABH	e Pg -	00:35:46.9	0.4	T		71.3	38.3	
	e Sg	00:35:55.3	0.5	T				
KTD	e Pg	00:35:49.4	0.8	T		83.8	94.1	
TNS	e Pg Z	00:35:58.9	0.1		10.5	143.6	48.7	ML 2.8
	e Sg E	00:36:17.0	1.6					
BFO	e Pg Z	00:36:00.5	-0.2		12.4	155.3	138.2	ML 2.3
	e Sg N	00:36:19.1	0.4					
GSH	e Pg Z	00:36:00.0	-0.8		4.8	156.0	345.6	ML 2.5
	e Sg E	00:36:18.7	-0.3					
LBG	e Pg +	00:36:00.9	-0.2	T		157.5	119.7	ML 2.3
	e Sg	00:36:19.7	0.3	T				
KIZ	e Pg +	00:36:03.2	-0.7	T		174.1	155.0	ML 2.3
	e Sg	00:36:23.4	-0.8					
FELD	e Pg	00:36:04.7	-1.0	T		184.9	154.3	
	e Sg	00:36:26.6	-0.6					
SPAK	e Pg +	00:36:07.6	-0.2	T		196.7	135.5	
BEU	e Pg	00:36:08.3	-0.3	T		201.8	115.1	ML 2.4
HOL	e Pg	00:36:11.1	1.4			208.6	89.2	ML 2.5
BBS	e Pg	00:36:12.4	1.1			217.2	168.4	
SGW	i Pg +	00:36:11.4	-0.2	T		219.3	129.3	ML 2.5
BUG	e (Pg) Z	00:36:13.4	-0.1		1.5	230.4	5.9	ML 2.8
	e Sg N	00:36:39.9	-0.4					
HDH	e Sg	00:36:47.5	0.2			255.0	109.1	ML 2.5
UBR	e Pg	00:36:26.5	1.2			300.7	127.7	ML 2.5

GRA1	e Pg	Z	00:36:27.6	0.3					311.6	82.0	ML	3.0				
	e Sg	N	00:37:05.9	2.5												
MOX	e (Sg)		00:37:19.6	1.5					363.1	65.4						

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/11	10:28:51.2		51.425N	6.953E				5G			9		2.5ML	DBN	NEIC	
	Less reliable solution															
1997/10/11	10:28:51.9	+ - 0.73	51.458N	6.813E	9.7	6.6	90	5		15	19				ISC	
1997/10/11	10:28:55.6	+ - 0.50	51.334N	6.690E	9.2	8.7	103	2	+ - 0.0	11		302	2.9ML		LDG	L
1997/10/11	10:28:52.5	+ - 0.83	51.470N	6.680E	11.1	5.6	113	1G		7	5	203	2.4ML	TNS	BGR	I
<b>1997/10/11</b>	<b>10:28:54.5</b>	<b>+ - 0.53</b>	<b>51.490N</b>	<b>6.820E</b>	<b>6.7</b>	<b>4.4</b>	<b>124</b>	<b>1G</b>		<b>11</b>	<b>6</b>	<b>194</b>	<b>2.2ML</b>		<b>SZGRF</b>	<b>I</b>

## Duisburg, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg	Z	10:28:59.9	0.1	T	31.6	99.8	ML 1.7
	e Sg	E	10:29:04.8	1.3	T			
GSH	e Pg	Z	10:29:09.2	-0.4	T	89.3	200.4	ML 2.2
	e Sg	E	10:29:19.9	-0.0	T			
IBBN	e Pg	Z	10:29:11.6	-1.7	T	111.3	34.9	ML 2.4
	e Sg	E	10:29:26.3	0.1	T			
TNS	e Pg	Z	10:29:23.7	-1.5	T	181.4	140.3	ML 2.4
	e Sg	E	10:29:45.7	-0.5	T			
CLZ	e Pg	Z	10:29:35.6	-0.9	T	248.1	79.5	
	e Sg	E	10:30:04.6	-0.7	T			
MOX	e Sg	E	10:30:33.7	-0.2	T	347.9	103.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/14	21:56:35.2	+ - 1.57	51.530N	7.692E	17.6	11.4	90	0		8	9				ISC	
1997/10/14	21:56:35.1	+ - 0.38	51.610N	7.770E	7.8	4.4	135	1G		7	4	144	2.0ML	IBBN	BGR	I
1997/10/14	21:56:35.2	+ - 0.34	51.620N	7.780E	4.4	3.3	151	1G		9	5	118	2.0ML		SZGRF	I
<b>1997/10/14</b>	<b>21:56:33.3</b>		<b>51.652N</b>	<b>7.720E</b>				<b>1G</b>					<b>2.0ML</b>		<b>RUB</b>	<b>I</b>

## Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg	- Z	21:56:41.1	1.2	TA	39.1	233.2	ML 2.0
	e Sg	N	21:56:47.2	2.8				
IBBN	e Pg	Z	21:56:47.9	2.3		72.9	1.9	ML 2.0
	e Sg	E	21:56:56.7	2.6				
GSH	e Pg	Z	21:56:57.8	1.1		138.2	223.1	ML 2.0
	e Sg	N	21:57:15.3	2.5				
CLZ	e Pg	Z	21:57:04.4	-0.0		183.8	82.4	
	e Sg	N	21:57:27.2	1.4				
MOX	e Sg	N	21:57:57.7	0.5		293.8	110.9	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/19	06:21:49.6		49.125N	6.988E				10G			6		2.6ML	UCC	NEIC	I
mining induced event in the Lorraine region, France, Less reliable																
1997/10/19	06:21:49.0	+ - 0.88	49.276N	7.098E	9.4	9.3	90	0		15	17		2.2ML	DBN	ISC	
1997/10/19	06:21:48.9	+ - 0.71	49.160N	6.780E	10.0	4.4	64	1G		10	6	222	2.5ML		SZGRF	I
1997/10/19	06:21:49.7	+ - 0.51	49.220N	6.880E	6.7	3.3	57	1G		20	9	215	2.4ML	TNS	BGR	I

## Saarbruecken-West

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BFO	e Pg	Z	06:22:13.6	-0.6	T	19.0	145.2	132.4	ML 2.3
	e Sg	N	06:22:30.4	-0.8	T	37.8			
TNS	e Pn	Z	06:22:15.5	-0.4	T	1.2	158.5	44.7	ML 2.4
	e Pg	Z	06:22:17.2	0.6	T	9.2			
	e Sg	N	06:22:34.4	-0.6	T	21.0			
GSH	e Pn	Z	06:22:17.2	-0.4	T	1.5	172.5	348.2	ML 2.2
	e Pg	Z	06:22:18.9	-0.0	T	2.9			
	e Sg	E	06:22:37.8	-1.2	T	6.9			
GRFO	e Pg	Z	06:22:44.7	1.1	T	2.1	318.0	78.9	ML 2.7
	e Sg	N	06:23:20.8	0.2	T	3.6			
GRA1	e Pg	Z	06:22:40.8	-2.8			318.1	78.9	ML 2.9
	e Sg	E	06:23:21.2	0.7					
IBBN	e Sg	N	06:23:29.7	0.4	T	4.9	348.8	9.8	ML 3.0
MOX	e Sg	Z	06:23:37.4	0.9	T	2.8	374.0	63.2	ML 2.8
CLZ	e Pn	Z	06:22:43.1	-0.1	T	1.4	381.9	38.9	ML 2.9
	e Pg	E	06:22:55.1	0.7	T	1.1			
	e Sn	E	06:23:23.2	1.4	T	1.9			
	e Sg	E	06:23:37.9	-0.9	T	3.2			
WET	e Pn	Z	06:22:50.8	1.0	T	2.2	435.9	88.8	ML 2.9
	e Sn	N	06:23:35.1	1.9	T	2.6			
	e Sg	N	06:23:52.9	-1.3	T	3.6			
GEC2	e Pn	Z	06:22:58.2	0.8	T	4.1	498.9	92.2	
BRG	e Sg		06:24:30.3	7.3			536.5	67.3	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/19	10:30:58.0		47.359N	11.758E				10G			54		3.1ML	VIE	NEIC	
Intensity = IV (MSK) at Schwaz/A																
1997/10/19	10:30:57.6	+ - 0.32	47.408N	11.824E	4.4	2.6	90	10		84	85		3.0ML	STR	ISC	
1997/10/19	10:31:00.2	+ - 0.32	47.471N	11.699E	6.2	4.1	46	2	+ - 0.0	46		274	3.0ML		LDG	L
1997/10/19	10:30:57.5		47.300N	11.763E				1		17	14	324	3.1ML		SED	
1997/10/19	10:31:02.6	+ - 0.90	47.460N	11.630E	10.0	8.0	47	10G		24	15	302	3.1ML		LEDBW	L
1997/10/19	10:30:57.7	+ - 0.20	47.375N	11.808E	1.3	0.7	74	8	+ - 3.3	17	9				FUR	L
1997/10/19	10:30:58.8	+ - 0.65	47.390N	11.710E	16.7	10.0	155	10G		25	9	270	3.3ML		SZGRF	L
1997/10/19	10:30:59.9	+ - 0.53	47.410N	11.870E	6.7	4.4	162	10G		31	11	252	3.0ML	BFO	BGR	L

## Inntal, NE of Innsbruck/A

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
SCE	i Pg -	10:31:04.1	-3.3			43.0	196.3	
OGA	i Pg -	10:31:11.2	-3.7			87.8	227.0	
FUR	e Pg Z	10:31:15.2	-0.8	T	17.0	94.8	332.3	ML 3.7
	e Sg E	10:31:27.5	0.4	T				
UBR	e Pn -	10:31:20.7	-1.6			135.6	283.5	ML 3.1
	i Pg -	10:31:22.3	-0.6					
	e Sn	10:31:37.6	-0.5					
	i Sg	10:31:39.9	1.1					
HDH	i P?	10:31:28.2				179.9	317.2	ML 3.4
	i Sn	10:31:47.1	-0.4					
	i Sg	10:31:50.1	-1.3					
WET	e Pn Z	10:31:30.3	-0.7	T	14.6	206.7	20.8	ML 2.7
	e Pg Z	10:31:34.5	-0.4	T				
	e Sn N	10:31:54.5	1.3	T				
	e Sg N	10:31:59.4	0.4	T				
GEC2	e Pn Z	10:31:31.0	-0.3	T	10.8	209.6	39.7	
	e Sn N	10:31:56.3	2.5	T				
	e Sg N	10:31:59.8	-0.1	T				
GUT	i Pn	10:31:32.7	0.3			218.7	290.6	ML 3.0
	e Sg	10:31:59.9	-2.6					
HSN	i Sg	10:32:01.2	-2.4			223.0	297.5	
BEU	e Pn	10:31:33.6	0.5			224.5	306.5	ML 3.1
	e Sn	10:31:56.3	-0.7					
	e Sg	10:32:01.5	-2.5					
SPAK	i Pg	10:31:36.2	-4.9			243.0	289.6	
	i Sg	10:32:06.7	-2.7					
GRFO	e Pn Z	10:31:37.6	0.3	T	1.4	258.1	349.6	ML 2.9
	e Pg Z	10:31:42.5	-1.2	T				
	e Sg E	10:32:13.8	0.1	T				
GRA1	e Pg Z	10:31:42.5	-1.2			258.2	349.6	ML 3.1
	e Sn E	10:32:04.9	0.8					
	e Sg E	10:32:12.9	-0.8					
ROTZ	i Pn -	10:31:36.2	-1.7			263.3	5.3	ML 2.6
HOL	i Pn	10:31:38.0	-0.2			265.8	325.9	ML 3.2
	e Pg	10:31:43.4	-1.6					
	e Sg	10:32:14.3	-1.6					
LBG	e Sn	10:32:05.0	-1.1			267.8	302.5	ML 3.3
	e Sg	10:32:14.5	-1.9					
BFO	e Pn Z	10:31:40.0	-0.3	T	13.4	283.2	292.5	ML 3.0
	e Sn E	10:32:09.4	0.1	T				
	e Sg E	10:32:17.3	-3.5					
FELD	i Pn	10:31:41.4	-0.2			294.2	281.6	
KIZ	i Pg	10:31:50.0	-1.1			302.0	283.1	ML 3.0
HOF	e Pn	10:31:50.4	5.3			322.9	0.1	
BBS	i Pn	10:31:45.9	0.2			328.0	272.7	
TOD	i Pn	10:31:46.5	0.1			332.5	318.4	

MOX	e	Pn	Z	10:31:47.9	-1.8	T	2.9	360.1	357.1	ML	3.1
	e	Pg	Z	10:31:59.5	-1.4	T					
	e	Sn	E	10:32:27.0	1.3	T					
	e	Sg	E	10:32:43.1	0.3	T					
TNS	e	Pn	Z	10:31:54.8	0.2	T	9.2	400.6	322.6	ML	3.6
	e	Sn	E	10:32:34.4	0.2	T					
	e	Sg	E	10:32:53.1	-1.2	T					
BRG	e	Pg	Z	10:32:08.2	-1.8	T	3.2	413.5	20.6	ML	3.2
	e	Sn	E	10:32:40.7	3.8						
	e	Sg	E	10:32:56.4	-1.7	T					
ABH	i	Pn		10:31:57.5	0.5			419.8	312.5		
CLL	e	Pn	Z	10:31:58.7	-0.8	T	3.0	441.1	10.3	ML	3.4
	e	Pg	Z	10:32:13.9	-0.7	T					
	e	Sg	N	10:33:06.4	0.5	T					
CLZ	e	Pn	Z	10:32:09.5	2.2			504.4	348.2	ML	3.6
	e	Pg	Z	10:32:25.0	-0.4	T	2.4				
	e	Sn	N	10:32:56.6	0.4	T					
	e	Sg	N	10:33:22.6	-1.4	T					
GSH	e	Pn	Z	10:32:13.0	0.9	T	1.6	544.6	314.8		
	e	Sn	E	10:33:05.7	1.0	T					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/20	12:03:58.7	+/- 0.87	50.621N	6.231E	10.6	9.6	0	4	+/-17.7	8	8		2.3ML	UCC	ISC	
1997/10/20	12:03:59.3	+/- 1.36	50.610N	6.240E	17.8	8.9	64	10G		6	3	289	2.2ML	BUG	BGR	L
<b>1997/10/20</b>	<b>12:03:58.9</b>		<b>50.795N</b>	<b>6.184E</b>				<b>12</b>			<b>4</b>	<b>277</b>	<b>2.2ML</b>		<b>GLA</b>	<b>L</b>

Aachen, Dutch-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GSH	i Pg	Z 12:04:02.5	0.3	T		15.0	115.3	ML 2.2
	i Sg	N 12:04:04.8	0.4	T				
JCK	i Pg	Z 12:04:06.8	2.1	T		32.0	32.8	
	e Sg	N 12:04:12.9	4.2	T				
BUG	e Pg	Z 12:04:20.6	3.9		2.1	104.4	46.1	ML 2.2
	e Sg	N 12:04:32.6	3.7					
TNS	e Pg	Z 12:04:26.9	-1.2		2.7	172.2	110.8	
	e Sg	E 12:04:45.9	-2.4					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/21	16:44:39.6		48.737N	9.620E				20G			78		4.1ML	VIE	NEIC	
			ML= 4.1 (CLL), ML= 3.9 (FUR), Intensity = V (MSK) at Lorch and at Schwabisch Gmund													
1997/10/21	16:44:40.0	+/- 0.49	48.759N	9.621E	3.4	2.6	90	27	+/- 5.5	112	119		4.0ML	STR	ISC	
1997/10/21	16:44:39.1		48.750N	9.772E	2.8	2.8	0	10	+/- 2.8	32	22	308	3.4ML		SED	
1997/10/21	16:44:41.7	+/- 0.31	48.779N	9.619E	4.2	2.5	57	19	+/- 1.3	99		252	3.9ML		LDG	L
1997/10/21	16:44:39.4	+/- 0.24	48.780N	9.720E	4.4	4.4	12	10G		31	11	124	4.0ML		SZGRF	L

1997/10/21 16:44:39.3 +- 0.31 48.810N 9.730E 3.3 2.2 14 10G 31 13 121 3.8ML GRFO BGR L  
 1997/10/21 16:44:40.2 +- 0.08 48.782N 9.695E 1.0 0.8 325 9 +- 1.5 40 15 113 3.7ML LEDBW L

The last quake in this region with a comparable magnitude occurred on Aug. 4, 1940,  
 Max. Intensity = V (MS), Felt in the Ostalb, Goepingen and Rems-Murr, Radius of perceptibility 30 km

Eislingen, E of Goepingen/Swabian Jura

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BEU	i Pg +	16:44:45.7	0.1	T		30.1	223.1	ML 3.7
	i Sg	16:44:49.7	0.4	T				
STU	i Pg +	16:44:46.7	-0.0	T		36.8	268.3	
	i Sg	16:44:51.3	0.2	T				
HDH	i Pg +	16:44:47.9	0.1	T		43.5	120.1	ML 3.8
	i Sg	16:44:53.3	0.3	T				
MSG	e Pg +	16:44:51.4	0.1	T		64.5	229.0	
	e PmP+	16:44:53.1	-1.0	T				
	e Sg	16:44:59.3	0.4	T				
HSN	i Pg +	16:44:51.6	0.2	T		64.7	215.0	
	e Sg	16:44:59.6	0.6	T				
	e SmS	16:45:02.8	-0.9					
HOL	i Pg -	16:44:51.5	-0.0	T		66.0	7.3	ML 3.8
	i Sg	16:45:00.0	0.7	T				
	e SmS	16:45:02.1	-1.9					
LBG	e Pg +	16:44:51.8	-0.0	T		67.3	259.1	
	e PmP+	16:44:53.2	-1.3	T				
	i Sg	16:45:00.1	0.4	T				
	i SmS	16:45:02.3	-2.0	T				
JUN	e Pg +	16:44:52.3	0.1	T		69.6	224.0	
	i PmP+	16:44:52.9	-2.0					
	i Sg	16:45:00.7	0.4	T				
	e SmS	16:45:03.7	-1.2					
BHB	e Pg +	16:44:53.8	0.2	T		78.3	220.8	
	i PmP+	16:44:54.9	-1.1	T				
	e Sg	16:45:03.2	0.5	T				
	e SmS	16:45:05.8	-1.0					
ENG	e Pg +	16:44:53.9	0.1	T		79.9	229.5	
	i Sg	16:45:03.7	0.5	T				
	i SmS	16:45:05.9	-1.4	T				
GUT	e Pg -	16:44:55.5	-0.0	T		89.9	208.6	ML 3.6
	e PmP-	16:44:56.5	-1.2	T				
	e Sg	16:45:06.6	0.5	T				
HEI	e Pg +	16:44:57.6	0.6	T		98.3	314.6	
	e PmP-	16:44:57.9	-1.1	T				
	e Sg	16:45:08.2	-0.3	T				
	e SmS	16:45:09.7	-2.2	T				
SPAK	i Pn +	16:44:57.6	-0.9	T		101.0	221.9	
	e Pg +	16:44:58.5	1.1	T				
	e Sg	16:45:09.6	0.4	T				

TOD	e	Pn	-	16:44:55.2	-4.7					
	e	Pg	-	16:44:59.5	0.2					
BFO	i	Pn	+	16:44:58.7	-1.3					
	i	Pg	+	16:44:59.5	0.2					
	e	Sn		16:45:12.5	-1.2					
	i	Sg		16:45:13.2	0.7					
UBR	e	Pn	-	16:45:01.2	-0.4					
	e	Pg	-	16:45:02.0	0.4					
	e	Sg		16:45:17.7	1.3					
KTD	e	Pg		16:45:02.7	0.0					
FUR	e	Pn	Z	16:45:03.4	0.7					
	e	Sn	E	16:45:18.1	-0.5	11.7	131.8	297.6		ML 4.4
	e	Sg	N	16:45:19.7	0.7	254.2	135.3	120.0		
GRC1	i	Pn	+	16:45:02.1	-0.6					
	e	Pg	-	16:45:03.4	0.1		135.6	79.2		
	i	Sg		16:45:19.2	0.1					
HEX	e	Pn	+	16:45:02.1	-1.4					
	e	Pg	-	16:45:04.4	0.1					
	e	Sn		16:45:18.8	-1.2					
	e	Sg		16:45:21.2	0.3					
GRFO	e	Pn	Z	16:45:03.8	-0.7					
	e	Sg	N	16:45:22.6	-0.6	17.9	149.9	47.0		ML 3.8
GRA1	i	Pn	+	16:45:03.8	-0.8	879.8				
	e	Pg	+	16:45:05.9	0.2		150.1	47.0		ML 3.9
	e	Sg	N	16:45:22.6	-0.6					
GRB1	i	Pn	+	16:45:04.8	-0.6					
	e	Pg	-	16:45:07.3	0.3		157.8	63.8		
KIZ	e	Pn	+	16:45:04.2	-1.6					
	i	Pg	-	16:45:07.2	-0.2					
	e	Sn		16:45:22.6	-1.3					
	e	Sg		16:45:25.5	-0.6					
FELD	i	Pn	+	16:45:04.4	-1.4					
	e	Pg	+	16:45:07.7	0.2					
FBB	e	Sg		16:45:26.2	-0.2					
TNS	e	Pn	N	16:45:09.0	0.3					
	e	Pg	N	16:45:11.2	-0.3	1.4	161.3	238.2		
	e	Sg	E	16:45:32.6	-0.2	59.7	183.8	331.1		ML 3.7
SOL	e	Pn	-	16:45:07.0	-1.7	421.1				
	e	Pg	+	16:45:11.6	0.0		184.5	225.3		
	e	Sn		16:45:27.4	-1.6					
	e	Sg		16:45:32.1	-0.9					
BAW	e	Pn	+	16:45:07.0	-1.8					
	e	Pg	+	16:45:11.2	-0.5					
	e	Sg		16:45:32.3	-0.8					
END	e	Pn	+	16:45:07.3	-1.8					
	e	Pg	-	16:45:12.0	0.0					
	e	Sn		16:45:28.3	-1.3					
	e	Sg		16:45:33.2	-0.6					
ABH	i	Pn	-	16:45:10.5	0.1					
ROTZ	i	Pn	+	16:45:11.3	-0.8					
							197.9	309.0		
							212.7	58.0		ML 3.4



RUP	e	Pn	16:45:12.9	0.2					216.9	299.1								
BBS	i	Pn +	16:45:11.1	-1.7					218.6	228.7								
	e	Pg +	16:45:17.4	0.1														
HOF	i	Pn -	16:45:13.6	-0.9					231.9	41.9								
OGA	i	Pn -	16:45:15.4	0.6					234.9	154.5								
WET	e	Pn Z	16:45:14.9	-0.1				12.2	235.8	79.0			ML	3.6				
	e	Pg E	16:45:19.4	-0.9				236.6										
	e	Sg N	16:45:45.4	-2.3				370.7										
SCE	i	Pn -	16:45:16.8	0.7					245.2	141.5								
MOX	e	Pn Z	16:45:15.4	-1.1				22.2	248.9	33.0			ML	4.0				
	i	Pg	16:45:24.0	1.5														
	e	Sg E	16:45:48.9	-2.5				479.5										
BHG	e	Pn	16:45:24.9	6.6					263.5	115.4								
GEC2	e	Pn Z	16:45:22.5	0.5				44.4	293.4	87.1								
	e	Pg Z	16:45:29.2	-0.8				158.5										
	e	Sn N	16:45:51.6	-0.4				125.8										
	e	Sg N	16:46:02.3	-1.9				480.3										
GSH	e	Pn Z	16:45:26.1	0.5				3.3	322.5	313.6			ML	3.7				
	e	Sg E	16:46:10.0	-2.5				35.2										
BUG	e	Pn Z	16:45:29.7	1.8					342.4	330.6			ML	3.9				
	e	Sg N	16:46:15.9	-2.2				10.8										
CLZ	e	Pn Z	16:45:27.4	-0.7				3.3	343.6	7.8			ML	3.9				
	e	Pg Z	16:45:37.4	-1.1				47.5										
	e	Sg Z	16:46:16.2	-2.3				66.9										
CLL	e	Pn Z	16:45:29.7	-1.3				10.9	366.9	38.8			ML	4.5				
	e	Pg Z	16:45:42.0	-0.4				38.0										
	e	Sg N	16:46:22.0	-3.1				136.7										
BRG	e	Pn Z	16:45:32.6	-0.4				2.4	383.2	51.0			ML	4.2				
	e	Pg Z	16:45:42.8	-2.4				31.5										
	e	Sg E	16:46:27.4	-2.4				150.9										
IBBN	e	Sg Z	16:46:39.6	0.7				3.3	415.2	341.5								

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/22	12:22:33.0		47.838N	13.161E				5G			6		2.2ML	VIE	NEIC	
Less reliable solution																
1997/10/22	12:22:32.3	+ - 0.94	47.640N	13.220E	19.1	8.3	0	5		6	6				ISC	
<b>1997/10/22</b>	<b>12:22:34.9</b>	<b>+ - 1.00</b>	<b>47.627N</b>	<b>13.264E</b>	<b>10.5</b>	<b>4.6</b>	<b>148</b>	<b>10</b>		<b>11</b>	<b>6</b>	<b>181</b>	<b>1.8ML</b>	<b>WET</b>	<b>BGR</b>	<b>L</b>

Hallein/A, S of Salzburg/A, Austrian-German border reg.

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BHG	i Pg +	12:22:37.0	-3.4			30.7	290.1	
GEC2	e Pg Z	12:22:58.2	-0.3	T	4.4	139.3	13.3	
	e Sg Z	12:23:15.5	0.7	T				
WET	e Sg E	12:23:23.5	-0.3	T		171.1	350.6	ML 1.8

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/23	17:27:23.1		51.657N	7.732E				1G					2.1ML		RUB	I

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	17:27:31.1	1.2	TA		40.0	233.2	ML 2.1
	e Sg E	17:27:37.0	2.4					
GSH	e Pg Z	17:27:47.6	0.9		2.6	139.2	223.2	
	e Sg E	17:28:04.8	1.9					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/24	16:10:21.2		49.428N	6.935E				10G			9		1.7ML	UCC	NEIC	I
Mining induced event in the Lorraine region, France																
1997/10/24	16:10:19.4	+ - 0.75	49.331N	6.910E	10.6	5.1	90	0		12	13				ISC	
1997/10/24	16:10:20.9	+ - 0.30	49.370N	6.960E	5.0	2.0	83	1G		10	8	195	2.0ML		LEDBW	I

Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg +	16:10:27.5	0.3	T		37.6	11.0	
ABH	i Pg +	16:10:32.9	0.0	T		70.9	36.4	
KTD	e Pg	16:10:36.7	2.0			81.6	93.5	
TOD	e Pg	16:10:43.8	-0.1	T		135.7	78.2	
BFO	e Pg Z	16:10:46.9	0.1		3.7	153.0	138.6	
	e Sg E	16:11:05.2	0.5					
LBG	e Pg	16:10:47.3	0.2	T		155.1	119.7	ML 1.9
	e Sg	16:11:06.3	1.1	T				
GSH	e Pg Z	16:10:47.1	-0.5		1.4	157.6	344.9	
	e Sg E	16:11:05.5	-0.4					
KIZ	i Pg +	16:10:49.7	-0.4	T		172.2	155.5	ML 2.1
	e Sg	16:11:09.8	-0.3	T				
FELD	e Pg	16:10:51.7	-0.2	T		182.9	154.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/24	21:19:11.9	+ - 2.52	49.006N	6.551E	38.4	22.3	90	33		5	5		2.0ML	WLF	ISC	
(after WLF)																
1997/10/24	21:19:09.3	+ - 0.87	49.120N	6.700E	12.2	4.4	63	1G		6	3	227	2.0ML	TNS	BGR	I

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BFO	e Pg Z	21:19:34.8	0.4	T	5.5	148.3	125.7	ML 1.7
	e Sg E	21:19:51.3	-0.4	T				

TNS	i	Pn		21:19:38.4	0.7				175.6	45.1	ML 2.0
	e	Pg	Z	21:19:39.8	0.6	T	3.1				
	e	Sg	N	21:19:59.4	-0.1	T					
GSH	e	Pg	Z	21:19:40.1	0.0	T	0.9	181.3	352.8		
	e	Sg	N	21:20:00.6	-0.6	T					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/24	22:17:18.4	+/- 0.58	49.149N	6.902E	8.6	3.6	90	0		23	28				ISC	
1997/10/24	22:17:19.2	+/- 0.84	49.140N	6.710E	13.3	5.6	63	1G		6	3	225	2.2ML		SZGRF	I
1997/10/24	22:17:18.8	+/- 0.77	49.140N	6.760E	11.1	4.4	60	1G		9	5	223	2.4ML	TNS	BGR	I
<b>1997/10/24</b>	<b>22:17:19.3</b>	<b>+/- 0.50</b>	<b>49.150N</b>	<b>6.860E</b>	<b>8.0</b>	<b>2.0</b>	<b>85</b>	<b>1G</b>		<b>19</b>	<b>13</b>	<b>201</b>	<b>2.3ML</b>		<b>LEDBW</b>	<b>I</b>

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg -	22:17:30.2	0.2	T		63.0	13.1	
	e Sg	22:17:38.1	0.8	T				
KTD	e Pg	22:17:35.3	0.6			90.8	77.5	
ABH	e Pg +	22:17:35.5	0.1	T		95.3	31.1	
LIBD	e Pg	22:17:40.0	-0.3	T		123.8	153.6	
BFO	e Pg Z	22:17:43.6	0.4		10.6	141.1	129.7	ML 2.1
	e Sg N	22:18:00.5	0.8					
TOD	e Sg	22:18:01.9	-0.1	T		149.6	69.5	
LBG	e Pg	22:17:45.5	0.6	T		151.4	110.2	ML 2.3
	e Sg	22:18:03.3	0.7	T				
KIZ	e Pg	22:17:45.3	-0.1	T		153.9	149.2	ML 2.1
	e Sg	22:18:02.9	-0.4	T				
FELD	e Pg +	22:17:47.1	-0.1	T		164.8	148.8	
	e Sg	22:18:06.6	0.3	T				
TNS	i Pn +	22:17:45.4	-1.0			165.1	43.2	ML 2.4
	e Pg Z	22:17:48.6	1.3		4.9			
	e Sg E	22:18:08.5	2.0					
GSH	e Pg Z	22:17:49.0	-0.8		2.1	179.8	349.1	ML 2.2
	e Sg N	22:18:09.0	-1.6					
BBS	e Pg	22:17:54.6	2.5			193.5	165.4	
BEU	e Pg	22:17:52.6	-0.1			197.2	107.6	ML 2.3
	i Sg	22:18:16.5	0.9	T				
GUT	e Pg	22:17:56.1	2.1			204.7	125.0	ML 2.0
	e Sg	22:18:17.5	-0.2	T				
HOL	e Pg	22:17:55.6	-0.3	T		215.5	82.3	ML 2.2
	e Sg	22:18:21.1	0.2					
HDH	e Sg	22:18:31.8	0.3			252.7	103.1	ML 2.3
BUG	e Sg N	22:18:33.7	1.1			256.3	6.4	ML 2.6
UBR	e Pn	22:18:02.6	1.0			290.0	123.1	ML 2.3
GRFO	e Pg Z	22:18:16.0	2.3		1.4	321.0	77.6	
	e Sg N	22:18:51.2	0.2					

FUR	e	Sg	N	22:19:01.5	4.4			342.3	107.0
MOX	e	Sg	E	22:19:07.1	-0.5			378.9	62.2
WET	e	Pn	Z	22:18:20.8	1.2	2.4		437.6	87.8
	e	Sn	N	22:19:05.9	2.7				
GEC2	e	Pn	Z	22:18:28.3	1.1	3.7	500.1		91.3
	e	Sn	E	22:19:19.6	3.2				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/28	04:34:20.2	+ - 0.63	49.223N	7.028E	12.9	7.3	90	1		14	17				ISC	
1997/10/28	04:34:22.0	+ - 0.73	49.150N	6.830E	11.1	5.6	59	1G		7	4	220	2.2ML		SZGRF	I
<b>1997/10/28</b>	<b>04:34:19.9</b>	<b>+ - 0.64</b>	<b>49.150N</b>	<b>6.700E</b>	<b>7.8</b>	<b>4.4</b>	<b>54</b>	<b>1G</b>		<b>14</b>	<b>7</b>	<b>225</b>	<b>2.3ML</b>	<b>TNS</b>	<b>BGR</b>	<b>I</b>

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BFO	e Pg Z	04:34:44.1	-1.2	T	12.3	150.3	126.7	ML 2.1
	e Sg N	04:35:02.4	-0.4	T				
TNS	e Pn Z	04:34:47.4	-0.6	T	1.9	173.2	45.8	ML 2.3
	e Pg Z	04:34:48.9	-0.3	T	8.1			
	e Sg N	04:35:08.8	-0.5	T				
GSH	e Pg Z	04:34:50.3	0.3	T	2.9	178.0	352.7	ML 2.2
	e Sg E	04:35:11.0	0.3	T				
GRFO	e Sg E	04:35:56.2	1.3	T		332.4	77.9	
GRA1	e Sg N	04:35:55.1	0.3	T		332.5	77.8	
MOX	e Sg N	04:36:10.4	-0.6	T		389.2	62.9	
WET	e Pn Z	04:35:22.2	0.6	T	1.8	449.2	87.7	
	e Sn N	04:36:07.2	1.1	T				
	e Sg N	04:36:28.5	0.3	T				
GEC2	e Pn Z	04:35:29.6	0.4	T	4.1	511.7	91.1	
	e Sn N	04:36:19.9	0.6	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/29	23:47:32.1	+ - 0.83	49.160N	6.820E	10.0	4.4	64	1G		7	5	220	2.1ML	TNS	BGR	I

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BFO	e Pg Z	23:47:56.7	0.1	T	6.6	144.1	129.3	ML 2.0
	e Sg E	23:48:13.4	0.1	T				
TNS	e Pn Z	23:47:58.7	-0.7	T	0.9	166.3	44.1	ML 2.1
	e Sg E	23:48:20.0	0.4	T				
GSH	e Sg N	23:48:23.5	0.4	T		178.2	349.9	ML 2.1
BUG	e Sg N	23:48:45.3	0.2	T		255.6	7.0	ML 2.4
GRFO	e Sg N	23:49:04.8	0.2	T		323.6	77.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/30	12:07:34.1		47.811N	8.004E				5G			18		2.0ML	STR	NEIC	
1997/10/30	12:07:33.8	+ - 0.44	47.808N	7.967E	4.8	3.5	90	7	+ - 5.6	30	34				ISC	
1997/10/30	12:07:35.4	+ - 0.45	47.787N	7.947E	7.2	4.0	81	3G		21		235	2.3ML		LDG	L
1997/10/30	12:07:32.3		47.932N	7.900E	9.4	9.4	0	0G		10	9	278	2.1ML		SED	B?
1997/10/30	12:07:34.4	+ - 0.14	47.817N	7.997E	1.6	1.6	18	0G		13	8	124	2.2ML		LEDBW	B

Quarry blast near Bernau

Freiburg i. Breisgau/Upper Rhine Graben

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
FELD	i Pg +	12:07:35.7	0.2	T		6.6	4.5	
	i Sg	12:07:36.8	0.5					
KIZ	i Pg +	12:07:37.3	0.1	T		16.6	339.2	ML 1.9
	i Sg	12:07:39.9	0.7	T				
LIBD	e Sg	12:07:49.7	1.8			47.3	321.8	
BBS	i Pg +	12:07:43.7	0.2	T		53.6	223.2	
BFO	e Pg Z	12:07:45.0	0.1		16.2	62.2	23.3	
	e Sg N	12:07:51.4	-0.8					
SPAK	i Pg +	12:07:46.0	0.3	T		66.8	61.3	
	i PmP	12:07:48.2	-1.4	T				
GUT	e Pb	12:07:50.3				87.9	70.9	ML 2.2
	e Pg +	12:07:49.4	0.1	T				
	i PmP	12:07:51.0	-1.4	T				
	i SmS	12:08:03.0	-1.8	T				
LBG	i PmP-	12:07:54.1	-1.7			111.2	31.8	ML 2.2
	i SmS	12:08:08.6	-1.9					
BEU	i Pn -	12:07:56.4	-1.6			135.3	50.4	ML 2.3
	i Pg -	12:07:57.9	0.6					
	e Sn	12:08:10.0	-4.5					
	e Sg	12:08:14.7	1.6					
UBR	e Pn	12:08:00.5	-0.3			158.5	94.7	ML 2.1
	e Pg	12:08:02.3	1.1					
	e Sg	12:08:21.7	2.0					
HDH	i Sg	12:08:28.1	0.9			184.7	61.7	ML 2.3
GRFO	e Sg E	12:09:02.8	-1.5			315.0	47.4	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/10/30	12:29:04.2	+ - 2.50	53.007N	14.388E	77.5	27.7	99	0G		4	4	164	3.4ML		PIDC	
1997/10/30	12:29:17.8	+ - 2.35	54.470N	15.270E	41.1	11.1	56	0G		6	5	278	2.6ML	RGN	BGR	B?

Baltic Sea

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RGN	e Pg Z	12:29:39.4	0.3	T	3.3	126.1	274.7	ML 2.6
CLL	e Pn Z	12:30:11.7	0.2	T	4.1	383.1	204.3	

BRG	e	Pn	Z	12:30:14.6	-0.2	T	2.5	409.8	193.1
	e	Sn	E	12:30:55.6	-0.4	T			
CLZ	e	Pn	Z	12:30:17.8	-0.4	T	5.0	438.0	230.2
MOX	e	Pn	Z	12:30:24.0	-0.8	T	5.7	491.7	211.6

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/01		01:59:18.7	+ - 0.95	49.160N	6.790E	13.3	5.6	68	5G		6	3	221	2.1ML	TNS	BGR	I

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BFO	e Pg Z	01:59:44.0	0.6	T	5.0	145.8	128.7	ML 1.8
	e Sg E	01:59:59.8	-0.6	T	15.7			
TNS	e Pn Z	01:59:45.7	0.1	T	1.5	167.8	44.6	ML 2.1
	e Pg Z	01:59:47.5	0.4	T	3.8			
	e Sg E	02:00:06.9	0.2	T	6.0			
GSH	e Sg E	02:00:09.2	-0.3	T	1.9	177.8	350.6	ML 2.0

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/01		02:42:22.3		51.456N	6.337E				5G			15		2.4ML	UCC	NEIC	
1997/11/01		02:42:21.5	+ - 0.72	51.464N	6.401E	7.5	5.6	90	0		27	29		3.0ML	STR	ISC	
1997/11/01		02:42:25.0	+ - 0.40	51.433N	6.378E	6.6	5.0	31	2	+ - 0.0	27		293	2.7ML		LDG	L
1997/11/01		02:42:26.4	+ - 0.68	51.400N	6.660E	10.0	4.4	124	1G		9	5	201	1.9ML		SZGRF	I
1997/11/01		02:42:22.4		51.478N	6.483E				1G					2.1ML		RUB	

Moers, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	02:42:33.4	1.7	TA		54.6	94.0	ML 1.8
	e Sg E	02:42:40.2	2.2					
GSH	e Pg Z	02:42:38.0	1.6			82.7	185.2	ML 1.9
	e Sg E	02:42:49.4	3.3					
IBBN	e Sg E	02:43:02.1	3.4			127.1	43.0	
TNS	e Pg Z	02:42:55.2	-0.5			196.2	134.6	ML 2.1
	e Sg E	02:43:17.6	-0.9					
CLZ	e Pg Z	02:43:09.1	0.7			271.3	79.9	
	e Sg E	02:43:40.6	0.7					

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/01		10:42:14.2	+ - 0.70	49.350N	6.790E	11.1	4.4	65	1G		8	5	214	2.1ML	TNS	BGR	I

Saarbruecken-West

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	e Pg	Z	10:42:39.9	-0.3	T	5.3	153.5	50.2	ML 2.1
	e Sg	E	10:42:57.6	-0.5	T	7.3			
GSH	e Pg	Z	10:42:40.4	-0.4	T	2.0	157.0	349.3	ML 1.9
	e Sg	N	10:42:58.8	-0.3	T	3.3			
BFO	e Pg	Z	10:42:41.3	0.0	T	8.1	159.9	134.6	ML 1.9
	e Sg	E	10:42:59.1	-0.8	T	13.0			
GRFO	e Pg	Z	10:43:10.0	1.2	T	3.7	322.0	81.6	
GEC2	e Pn	Z	10:43:24.1	1.2	T	8.3	506.1	93.7	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/06	22:56:41.2	+ - 1.43	51.646N	7.172E	19.0	8.4	90	0		6	8				ISC	
1997/11/06	22:56:42.8	+ - 0.47	51.690N	7.220E	8.9	4.4	114	1G		9	5	178	2.0ML		SZGRF	I
1997/11/06	22:56:43.4	+ - 0.50	51.630N	7.320E	8.9	4.4	108	1G		6	4	167	2.1ML	GSH	BGR	I
<b>1997/11/06</b>	<b>22:56:40.4</b>		<b>51.688N</b>	<b>7.134E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

## Recklinghausen, Ruhr Coal Mining District

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg	- Z	22:56:46.2	0.9	TA		29.1	161.2	ML 1.8
	e Sg	N	22:56:50.8	2.1					
IBBN	e Pg	Z	22:56:54.7	0.6			81.0	31.5	ML 2.2
	e Sg	N	22:57:06.6	3.1					
GSH	e Pg	Z	22:57:03.6	3.2		2.2	118.2	206.8	ML 2.1
	e Sg	E	22:57:17.7	3.5					
TNS	e Pg	Z	22:57:13.4	1.2		2.8	187.1	150.0	ML 2.3
	e Sg	N	22:57:33.6	-0.3					
CLZ	e Sg	N	22:57:44.2	-0.1			223.5	84.4	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/08	20:05:44.4	+ - 2.49	52.250N	7.792E	21.6	12.3	0	0		8	8				ISC	
<b>1997/11/08</b>	<b>20:05:44.3</b>	+ - <b>1.00</b>	<b>52.350N</b>	<b>7.770E</b>	<b>11.1</b>	<b>4.4</b>	<b>151</b>	<b>1G</b>		<b>10</b>	<b>5</b>	<b>257</b>	<b>2.8ML</b>		<b>SZGRF</b>	<b>I</b>

## Tecklenburg/Ibbenbueren, W of Osnabrueck

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
IBBN	e Pg	Z	20:05:44.7	-0.5	T		4.8	190.8	ML 3.2
	e Sg	Z	20:05:45.3	-0.4	T				
BUG	e Pg	Z	20:06:02.2	-0.2	T		106.8	199.0	ML 2.8
	e Sg	E	20:06:15.6	0.8	T				
CLZ	e Pg	Z	20:06:15.2	-0.7	T		186.5	106.6	ML 2.5
	e Sg	E	20:06:37.2	-0.5	T				
GSH	e Pg	Z	20:06:17.2	-1.7	T		203.6	208.8	ML 2.7
	e Sg	E	20:06:41.8	-0.7	T				

TNS	e	Pn		20:06:21.3	0.6					241.2	168.5	ML	2.9
	e	Pg	Z	20:06:23.1	-2.1	T							
	e	Sn	-	20:06:45.3	-1.4								
	e	Sg	E	20:06:53.9	0.7	T							
MOX	i	(Pg)		20:06:42.4	2.7					326.8	123.9		
	e	Sg		20:07:23.6	5.9								
CLL	e	Sg		20:07:33.0	0.8					377.7	105.8		

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/09	01:27:47.5		48.256N	7.775E				5G			18		1.9ML	STR	NEIC	
1997/11/09	01:27:46.3	+ - 0.40	48.292N	7.764E	4.2	3.6	90	5		29	33				ISC	
1997/11/09	01:27:48.4	+ - 0.53	48.300N	7.747E	8.1	4.4	57	2	+ - 0.0	21		263	2.2ML		LDG	L
1997/11/09	01:27:49.3	+ - 1.70	48.340N	7.910E	16.7	6.7	53	5G		7	5	277	2.2ML	TNS	BGR	L
<b>1997/11/09</b>	<b>01:27:47.7</b>	<b>+ - 0.10</b>	<b>48.290N</b>	<b>7.800E</b>	<b>2.0</b>	<b>1.0</b>	<b>18</b>	<b>5</b>	<b>+ - 4.0</b>	<b>26</b>	<b>16</b>	<b>56</b>	<b>2.0ML</b>		<b>LEDBW</b>	<b>L</b>

Lahr/Upper Rhine Graben

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
LIBD	i Pg +	01:27:51.9	0.5	T		21.3	223.3	
	e Sg	01:27:54.8	0.8					
KIZ	i Pg -	01:27:54.2	-0.0	T		38.1	166.7	ML 1.7
	i Sg	01:27:58.9	0.2	T				
BFO	i Pg +	01:27:54.5	0.0	T		39.4	83.3	
	e Sg	01:27:59.1	0.1	T				
HEX	i Pg -	01:27:54.5	-0.0	T		39.6	139.0	
	e Sg	01:27:59.3	0.2					
FELD	i Pg -	01:27:56.0	0.1	T		48.4	161.7	
	e Sg	01:28:01.8	0.2	T				
LBG	e Pg	01:28:02.2	0.2			84.3	60.1	ML 1.8
	e Sg	01:28:12.4	0.5					
BAS	e Sg	01:28:12.3	0.3	T		84.7	191.1	
BBS	e Pg +	01:28:04.1	0.4	T		94.3	193.4	
	e Sg	01:28:14.9	0.3	T				
GUT	i Pn -	01:28:05.0	-1.4	T		100.5	103.5	ML 2.0
	i Sn	01:28:16.7	-2.8	T				
	i SmS	01:28:17.4	-3.0					
BEU	i Pn -	01:28:08.6	-0.7			123.6	74.1	ML 2.0
	i Sn	01:28:23.6	-0.8					
	i Sg	01:28:24.4	1.4					
RUP	i Pg +	01:28:15.8	-0.1	T		166.0	341.3	
ABH	i Pg	01:28:17.6	-0.3	T		177.9	354.2	
	e Sg	01:28:37.5	-1.0					
HDH	i Pg	01:28:18.6	0.3	T		180.5	78.7	ML 2.1
	e Sg	01:28:39.4	0.1	T				
UBR	e Sg	01:28:40.6	0.1			184.6	110.7	ML 2.1
HOL	e Pg	01:28:19.9	0.0	T		190.0	50.0	ML 2.1
TNS	e Sg E	01:28:50.4	-0.1			219.9	12.1	ML 2.2



FUR	e	Sg	E	01:29:01.8	0.5				257.8	91.8							
GRFO	e	Pg	Z	01:28:37.5	-0.1		1.4		294.1	56.7							
	e	Sg	E	01:29:10.9	-0.8												
WET	e	Sg	N	01:29:35.7	-1.8				384.4	73.8							

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/09	05:25:32.8	+- 1.04	51.565N	7.829E	11.0	9.3	90	0		7	7				ISC	
<b>1997/11/09</b>	<b>05:25:34.8</b>	<b>+- 0.33</b>	<b>51.590N</b>	<b>7.800E</b>	<b>4.4</b>	<b>3.3</b>	<b>133</b>	<b>1G</b>		<b>10</b>	<b>5</b>	<b>112</b>	<b>2.0ML</b>		<b>SZGRF</b>	<b>I</b>

Unna, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg Z	05:25:40.8	-0.8	T		40.3	245.9	ML 1.9
	e Sg E	05:25:46.1	-0.2	T				
IBBN	e Pg Z	05:25:46.9	-1.4	T		79.8	357.9	ML 2.0
	e Sg E	05:25:58.2	0.6	T				
GSH	e Pg Z	05:25:56.4	-1.6	T		137.3	226.8	ML 2.0
	e Sg E	05:26:14.9	0.9	T				
TNS	e Pg Z	05:26:01.0	-0.7	T		158.7	163.1	
	e Sg E	05:26:20.1	-0.0	T				
CLZ	e Pg N	05:26:04.7	-0.5	T		179.4	80.0	
	e Sg E	05:26:25.6	-0.4	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/10	16:13:04.9		50.222N	10.199E				10G			22		3.2ML	VIE	NEIC	
1997/11/10	16:13:03.7	+- 0.48	50.315N	10.164E	4.6	4.3	0			59	66		3.3ML	STR	ISC	
1997/11/10	16:13:03.8	+- 0.48	50.480N	10.369E	7.6	5.8	171	17	+- 2.2	38		299	3.3ML		LDG	L
1997/11/10	16:13:05.1	+- 0.50	50.380N	10.280E	12.0	4.0	328	10G		37	23	178	3.2ML		LEDBW	L
1997/11/10	16:13:05.5	+- 0.30	50.420N	10.270E	4.4	3.3	171	10G		12	8	101	2.9ML	MOX	BGR	L
<b>1997/11/10</b>	<b>16:13:05.7</b>	<b>+- 0.25</b>	<b>50.390N</b>	<b>10.290E</b>	<b>4.4</b>	<b>3.3</b>	<b>11</b>	<b>10G</b>		<b>21</b>	<b>11</b>	<b>82</b>	<b>3.1ML</b>		<b>SZGRF</b>	<b>L</b>

Bad Neustadt a. d. Saale, N of Schweinfurt

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
MOX	i Pg + Z	16:13:22.0	-0.4	T		97.9	72.7	ML 2.9
	e Sg N	16:13:34.1	0.4	T				
GRA1	i Pg - Z	16:13:23.1	0.0	T		102.2	139.0	
	e Sg N	16:13:36.1	1.1	T				
GRFO	e Pg Z	16:13:23.2	0.2			102.3	139.1	
	e Sg N	16:13:35.8	0.8					
HOF	i Pg +	16:13:24.3	-0.6			112.9	93.7	
	i Sg	16:13:38.1	0.1					
HOL	e Pn	16:13:24.7	-1.3			118.4	197.0	ML 3.6
	i Pg -	16:13:25.3	-0.5					
	e Sg	16:13:38.6	-1.0					

TNS	e	Pn	+	16:13:26.8	-0.9		132.2	262.6	ML	3.1
	i	Pg	+	Z 16:13:28.1	-0.1	T				
	e	Sg		N 16:13:44.1	0.6	T				
TOD	i	Pn	+	16:13:26.7	-1.6		137.4	231.2		
	i	Pg	+	16:13:28.4	-0.7					
	e	Sg		16:13:45.1	0.1					
GRB1	e	Pg		Z 16:13:30.7	-0.1	T	147.8	138.2		
	e	Sg		E 16:13:47.8	-0.2	T				
ROTZ	i	Pn	-	16:13:30.2	-0.0		153.4	116.1	ML	3.0
HEI	i	Pn	-	16:13:29.0	-1.7		157.1	226.0		
	e	Pg		16:13:32.2	-0.2					
	e	Sg		16:13:50.4	-0.3					
CLZ	e	Pn		Z 16:13:30.9	-0.4		161.5	2.0	ML	3.4
	e	Sg		N 16:13:51.1	-0.7	T				
GRC1	e	Pg		Z 16:13:35.6	-0.3	T	178.5	149.8	ML	2.6
	e	Sg		N 16:13:55.3	-1.4	T				
KTD	i	Pg	+	16:13:39.5	0.3		197.9	233.9		
	e	Sg		16:14:02.2	-0.0					
HDH	e	Pn		16:13:34.9	-1.2		200.9	181.7	ML	3.3
	i	Pg	-	16:13:39.2	-0.6					
	e	Sg		16:14:01.2	-1.9					
ABH	e	Pg		16:13:39.0	-1.2		203.5	254.9		
	e	Sg		16:14:04.5	0.7					
BEU	i	Pn	-	16:13:35.5	-1.7		210.5	197.8	ML	3.2
	e	Sg		16:14:04.2	-1.6					
CLL	e	Pn		Z 16:13:39.4	1.5		216.0	60.8	ML	3.0
	e	Pg		Z 16:13:41.3	-1.0	T				
	e	Sg		E 16:14:06.9	-0.5	T				
LBG	e	Sg		16:14:06.6	-2.0		220.2	209.9	ML	3.2
WET	e	Pg		Z 16:13:44.6	-0.3	T	231.8	125.7		
	e	Sg		N 16:14:10.2	-1.7	T				
RUP	e	Pg		16:13:42.7	-4.2		243.0	252.9		
	e	Sg		16:14:14.9	-0.3					
FUR	e	Sg		E 16:14:20.0	0.6	T	257.7	163.5	ML	3.4
BRG	e	Pg		Z 16:13:49.4	-0.9		263.1	76.8	ML	3.1
	i	Sg		16:14:17.9	-3.0					
BFO	e	Pn		Z 16:13:42.4	-2.0	T	269.5	212.5	ML	3.0
	e	Pg		Z 16:13:50.2	-1.2	T				
	e	Sg		N 16:14:22.6	-0.1	T				
GUT	i	Pn	+	16:13:42.6	-2.0		271.6	198.7	ML	2.9
	e	Sg		16:14:22.6	-0.8					
SPAK	i	Pg	+	16:13:52.2	-0.4		276.8	203.8		
GSH	e	Pn		Z 16:13:46.2	0.6	T	279.0	279.5		
	e	Sg		N 16:14:25.4	-0.1	T				
GEC2	e	Pn		Z 16:13:50.0	1.9		299.8	123.6		
UBR	e	Pn		16:13:47.3	-1.0		301.5	182.6	ML	3.3
	e	Sg		16:14:30.0	-1.8					
LIBD	e	Pg		16:13:59.0	-0.3		316.2	219.1		

KIZ	e	Pn -	16:13:48.4	-2.3					320.8	213.4	ML	3.1				
	e	Pg	16:13:58.2	-1.8												
	e	Sn	16:14:22.0	-1.1												
	e	Sg	16:14:35.9	-1.4												
FELD	e	Pn	16:13:48.9	-2.3					325.2	211.6						
BBS	e	Pg	16:14:09.1	-1.5					383.5	213.0						

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/10	22:06:03.2	+- 1.55	49.347N	7.000E	28.3	5.4	90	0		7	8				ISC	
1997/11/10	22:06:03.9	+- 0.85	49.350N	6.870E	12.2	5.6	70	1G		5	3	211	2.0ML	TNS	BGR	I
<b>1997/11/10</b>	<b>22:06:04.2</b>	<b>+- 0.10</b>	<b>49.390N</b>	<b>6.980E</b>	<b>3.0</b>	<b>1.0</b>	<b>95</b>	<b>1G</b>		<b>6</b>	<b>5</b>	<b>194</b>	<b>2.2ML</b>		<b>LEDBW</b>	<b>I</b>

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg +	22:06:10.5	0.4	T		35.1	9.3	
ABH	i Pg +	22:06:16.0	0.2	T		68.3	36.6	
	i Sg	22:06:25.4	1.7					
TNS	e Pg Z	22:06:28.7	0.8			140.2	48.1	ML 2.0
	e Sg E	22:06:46.9	2.7					
BFO	e Pg Z	22:06:30.3	0.1			153.7	139.5	
	e Sg N	22:06:48.5	0.4					
GSH	e Sg N	22:06:49.3	0.6			155.8	344.2	
KIZ	i Pg	22:06:33.0	-0.6	T		173.7	156.3	ML 2.2
	i Sg	22:06:53.1	-0.7					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/13	04:53:24.6		48.156N	7.666E				10G			8				NEIC	
1997/11/13	04:53:24.2	+- 0.54	48.169N	7.667E	5.8	5.0	90	10		16	21				ISC	
1997/11/13	04:53:26.0	+- 0.86	48.187N	7.552E	16.6	6.7	103	2	+- 0.0	7		270	2.1ML		LDG	L
<b>1997/11/13</b>	<b>04:53:24.7</b>	<b>+- 0.20</b>	<b>48.170N</b>	<b>7.670E</b>	<b>7.0</b>	<b>2.0</b>	<b>29</b>	<b>11</b>	<b>+- 1.0</b>	<b>21</b>	<b>12</b>	<b>97</b>	<b>1.7ML</b>		<b>LEDBW</b>	<b>L</b>

## Emmendingen/Upper Rhine Graben, N of Freiburg

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
LIBD	i Pg -	04:53:27.4	0.6	T		5.4	246.5	
	i PmP	04:53:30.5	-2.5	T				
	i Sg	04:53:28.6	0.4	T				
KIZ	i Pg +	04:53:30.1	0.0	T		30.1	142.1	ML 1.8
	e Sg	04:53:34.0	0.1	T				
HEX	i Pg -	04:53:31.7	0.1	T		39.3	114.8	
	i PmP	04:53:32.4	-2.9	T				
	e Sg	04:53:36.5	0.1	T				
FELD	i Pg +	04:53:32.1	0.2	T		41.0	142.6	
	i Sg	04:53:37.2	0.3	T				

BFO	e	Pg	Z	04:53:35.1	1.4			1.6	52.0	69.7							
	e	Sg	E	04:53:40.3	0.5												
BBS	e	Pg		04:53:38.5	0.2	T			79.4	188.8							
SPAK	e	Pg	-	04:53:39.4	0.5	T			83.2	94.8							
LBG	e	Sg		04:53:54.1	0.8	T			99.5	56.1	ML	1.9					
GUT	e	Pg		04:53:43.3	0.2	T			107.8	95.3	ML	1.6					
	i	Sg		04:53:56.3	0.6	T											
BEU	i	Sg		04:54:04.5	0.6				136.9	69.7	ML	1.8					
RUP	e	Sg		04:54:14.6	-0.5				176.0	345.6							
ABH	e	Sg		04:54:19.2	-0.0				190.5	357.4							

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/13	14:37:35.7			49.933N	7.612E				5G			8		2.1ML	DBN	NEIC	
1997/11/13	14:37:35.6	+-	0.80	49.904N	7.612E	9.6	7.0	90	7	+-11.4	11	11		2.3ML	STR	ISC	
<b>1997/11/13</b>	<b>14:37:36.5</b>	<b>+-</b>	<b>0.45</b>	<b>49.960N</b>	<b>7.680E</b>	<b>11.1</b>	<b>5.6</b>	<b>58</b>	<b>0G</b>		<b>5</b>	<b>3</b>	<b>148</b>	<b>2.1ML</b>	<b>GSH</b>	<b>BGR</b>	<b>B</b>

## Bad Kreuznach

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	e Pg Z	14:37:47.3	0.2	T		62.0	61.6	
GSH	e Pg Z	14:37:57.1	-0.8	T		126.5	313.6	ML 2.1
	e Sg N	14:38:13.3	0.6	T				
BFO	e Pg Z	14:38:08.0	-0.3	T		187.3	165.1	
	e Sg N	14:38:30.5	0.4	T				

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/14	15:04:17.4			47.933N	7.793E				5G			10		1.6ML	STR	NEIC	
1997/11/14	15:04:16.9			47.987N	7.788E	2.8	2.8	0	10	+-14.1	8	5	287	2.0ML		SED	
<b>1997/11/14</b>	<b>15:04:17.5</b>	<b>+-</b>	<b>0.09</b>	<b>47.942N</b>	<b>7.826E</b>	<b>0.7</b>	<b>0.7</b>	<b>40</b>	<b>9</b>	<b>+- 1.1</b>	<b>25</b>	<b>16</b>	<b>76</b>	<b>1.8ML</b>		<b>LEDBW</b>	<b>L</b>

## Freiburg i. Breisgau/Upper Rhine Graben

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
FBB	i Pg +	15:04:19.7	0.3	T		6.9	16.9	
	e Sg	15:04:21.3	0.6	T				
KIZ	i Pg +	15:04:19.5	0.1	T		7.0	77.0	ML 1.9
	i Sg	15:04:21.0	0.3	T				
FELD	i Px	15:04:21.5				15.1	118.8	
	i Pg +	15:04:20.7	0.2	T				
	e Sg	15:04:22.8	0.3	T				
HEX	e Pg +	15:04:22.1	-0.0	T		25.6	69.9	
	e Sg	15:04:25.2	-0.0	T				
END	i Pg +	15:04:22.2	0.1	T		26.1	194.7	
	i Sg	15:04:25.5	0.2	T				
LIBD	e Pg	15:04:23.1	0.5	T		28.5	324.5	
	i Sg	15:04:26.5	0.5					

BFO	e	Pg	Z	15:04:27.2	-0.1		9.9	57.1	40.7								
	e	Sg	N	15:04:33.8	-0.2												
BBS	i	Pg	+	15:04:27.7	0.2	T		58.2	204.2								
SPAK	e	Sg		15:04:38.4	-0.3			73.6	75.6								
GUT	e	Pg	-	15:04:34.3	0.3	T		97.0	81.0			ML	1.8				
	e	Sg		15:04:46.5	1.2												
LBG	e	Sg		15:04:48.3	-0.1	T		107.6	41.4			ML	1.7				
BEU	e	Pg		15:04:41.0	0.1	T		137.6	58.2			ML	2.0				
	e	Sg		15:04:57.2	0.3	T											
UBR	e	Pg	+	15:04:47.4	0.6	T		172.9	98.8			ML	1.8				
	e	Sg		15:05:08.1	1.1	T											
HDH	e	Sg		15:05:11.3	-0.6			190.1	67.1			ML	2.0				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/15	08:11:55.6		49.697N	8.361E				10G			12		2.0ML	STR	NEIC	
1997/11/15	08:11:54.5	+ - 0.81	49.585N	8.418E	12.0	5.3	90	13	+ - 13.7	12	12				ISC	
1997/11/15	08:11:56.0	+ - 0.48	49.630N	8.470E	6.7	4.4	102	10G		6	4	174	1.7ML	BFO	BGR	L
<b>1997/11/15</b>	<b>08:11:55.4</b>	<b>+ - 0.40</b>	<b>49.640N</b>	<b>8.400E</b>	<b>2.0</b>	<b>1.0</b>	<b>327</b>	<b>13</b>	<b>+ - 9.0</b>	<b>16</b>	<b>10</b>	<b>163</b>	<b>1.8ML</b>		<b>LEDBW</b>	<b>L</b>

## Worms

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TOD	i Pg +	08:12:01.0	0.2	T		29.3	97.3	
	e Sg	08:12:05.1	0.5	T				
KTD	i Pg -	08:12:03.2	0.3	T		42.3	212.8	
	i Sg	08:12:08.9	0.9	T				
TNS	e Pg Z	08:12:06.7	0.0		5.8	64.9	3.0	ML 1.9
	e Sg N	08:12:15.2	0.9		19.4			
ABH	i Pg -	08:12:07.2	0.2	T		66.9	294.0	
	e Sg	08:12:14.8	-0.1					
RUP	e Pg +	08:12:11.9	-0.0	T		96.7	274.6	
	e Sg	08:12:23.0	-0.3					
HOL	e Pg	08:12:14.1	0.6	T		106.2	105.8	ML 2.1
	e Sg	08:12:26.4	0.4	T				
LBG	e Sg	08:12:28.8	1.1			112.3	165.0	ML 1.7
BEU	e Sg	08:12:36.5	1.3			138.7	147.4	ML 1.8
BFO	e Pg N	08:12:20.6	0.4		6.7	145.7	182.0	ML 1.7
	e Sg E	08:12:37.4	0.2		6.5			
HDH	i Sg	08:12:45.7	-0.2			176.3	131.1	ML 1.8
GUT	e Sg	08:12:47.3	-0.3	T		182.2	163.0	ML 1.8
KIZ	e Pg	08:12:28.5	0.7			190.5	190.9	ML 2.1
	i Sg	08:12:49.8	-0.2	T				
FELD	i Pg +	08:12:29.3	0.3	T		198.2	188.6	
	e Sg	08:12:52.0	-0.2	T				
GRFO	e Sg E	08:12:53.1	-0.4		2.2	203.0	87.3	
BBS	e Pg	08:12:38.0	0.0			250.6	195.5	
MOX	e Sg N	08:13:07.7	-0.6		3.6	254.9	62.8	ML 2.0

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/16	16:54:20.8		50.288N	7.231E				10G			6		1.9ML	STR	NEIC	
Less reliable solution																
1997/11/16	16:54:18.1	+ - 0.75	50.291N	7.297E	9.9	5.1	90	10		12	15				ISC	
1997/11/16	16:54:16.6	+ - 1.08	50.433N	7.495E	18.0	10.4	37	2	+ - 0.0	8		285	2.5ML		LDG	L
1997/11/16	16:54:19.1	+ - 0.40	50.350N	7.400E	4.4	3.3	34	10G		9	6	138	1.7ML	GSH	BGR	I

## Koblenz/Middle Rhine Area

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	e Pg	Z 16:54:33.0	0.9	T	2.9	75.7	100.4	ML 1.6
	e Sg	N 16:54:40.6	-0.3	T				
GSH	e Pg	Z 16:54:33.9	0.4	T	1.4	84.1	301.2	ML 1.7
	e Sg	N 16:54:42.4	-0.9	T				
BUG	e Pg	Z 16:54:39.6	-0.2	T	3.0	121.6	355.7	ML 1.9
	e Sg	E 16:54:54.3	0.3	T				
BFO	e Sg	E 16:55:26.1	-0.1	T		234.5	163.0	
CLZ	e Sg	N 16:55:35.0	-0.1	T		265.7	50.2	
MOX	e Sg	E 16:55:44.9	0.0	T		299.9	82.1	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/17	04:32:28.6	+ - 0.81	49.360N	6.991E	15.9	4.3	90	0		11	14				ISC	
1997/11/17	04:32:29.3	+ - 0.69	49.350N	6.880E	10.0	4.4	65	1G		6	3	210	1.8ML	BFO	BGR	I
1997/11/17	04:32:29.6	+ - 1.30	49.380N	6.990E	22.0	5.0	94	1G		13	9	192	2.1ML		LEDBW	I

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg	04:32:35.8	0.1	T		36.1	7.9	
ABH	e Pg +	04:32:41.5	0.3	T		68.7	35.5	
	e Sg	04:32:50.6	1.4	T				
TNS	e Pg	Z 04:32:54.1	0.7		2.7	140.4	47.6	ML 2.1
	e Sg	N 04:33:12.3	2.6		2.8			
BFO	e Pg	Z 04:32:55.8	0.3		3.0	152.4	139.5	ML 1.8
	e Sg	N 04:33:13.7	0.6		4.7			
LBG	e Sg	04:33:14.8	1.3	T		153.8	120.5	ML 1.9
GSH	e Pg	Z 04:32:56.3	0.1		1.2	157.1	344.1	
	e Sg	Z 04:33:14.7	0.2		1.5			
KIZ	i Sg	04:33:18.6	-0.2	T		172.4	156.4	ML 2.3
FELD	e Pg	04:33:00.4	-0.2	T		183.0	155.6	
	e Sg	04:33:21.6	-0.3	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/17	17:09:21.5		47.611N	7.531E				33N			59		3.6ML	VIE	NEIC	
ML= 3.2 (DBN)																
1997/11/17	17:09:20.7	+ - 0.24	47.604N	7.521E	3.7	2.6	90	18		81	88		3.4ML	STR	ISC	

1997/11/17 17:09:22.7 +- 0.26	47.629N	7.554E	4.1	2.0	68	14	+- 1.4	75		194	3.6ML	LDG	L	
1997/11/17 17:09:22.6	47.646N	7.626E	2.1	2.1	0	18	+- 3.3	10	9	254	2.9ML	SED		
1997/11/17 17:09:24.9 +- 0.71	47.730N	7.680E	8.9	6.7	16	39	+- 3.4	21	9	266	3.5ML	SZGRF	L	
1997/11/17 17:09:22.7 +- 0.46	47.690N	7.640E	4.4	3.3	64	10G		22	11	194	3.5ML	GRFO	BGR	L
<b>1997/11/17 17:09:22.6 +- 0.04</b>	<b>47.643N</b>	<b>7.621E</b>	<b>0.5</b>	<b>0.3</b>	<b>93</b>	<b>17</b>	<b>+- 0.6</b>	<b>30</b>	<b>20</b>	<b>61</b>	<b>3.5ML</b>	<b>LEDBW</b>	<b>L</b>	

Max. Intensity = IV (MSK), Felt at Weil am Rhein, Loerrach (IV); also felt at Rheinfeld, Muellheim, Badenweiler  
 Radius of perceptibility 40 km

## Sierentz/F, NW of Loerrach/Upper Rhine Graben

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BAS	i Pg -	17:09:26.4	0.3	T		11.6	194.3	
	e PmP	17:09:28.9	-1.3	T				
	e Sg	17:09:29.4	0.9	T				
END	i Pg -	17:09:26.2	0.1	T		11.8	47.4	
	e Sg	17:09:28.9	0.3	T				
BBS	i Pg +	17:09:27.4	0.1	T		21.6	203.0	
	e Sg	17:09:30.0	-0.5	T				
FELD	i Pg +	17:09:30.0	0.2	T		38.6	47.7	
	e Sg	17:09:35.0	0.4					
KIZ	i Pg +	17:09:30.2	-0.0	T		41.3	32.4	ML 3.5
	i Sg	17:09:35.4	0.0	T				
FBB	i Pg +	17:09:30.7	0.1	T		43.5	23.4	
	e Sg	17:09:36.4	0.4	T				
LIBD	i Pg +	17:09:33.0	0.4	T		56.4	358.6	
	e Sg	17:09:40.1	0.7	T				
HEX	i Pg +	17:09:32.7	-0.2	T		57.6	43.0	
	e Sg	17:09:40.0	0.2	T				
BFO	e Pg Z	17:09:37.1	-1.6		185.8	92.8	34.4	ML 3.4
	e Sg E	17:09:48.2	-1.4		0.6			
SPAK	i Pn +	17:09:38.4	-1.5			100.8	59.1	
	i Pg +	17:09:39.4	-0.5					
ENG	e Pn +	17:09:40.3	-1.9			119.3	50.9	
	e Sn	17:09:54.2	-1.9					
	e Sg	17:09:56.9	-0.2					
GUT	i Pn +	17:09:40.8	-1.6			121.2	66.3	ML 3.2
	e Pg	17:09:42.5	-0.9					
	e Sn	17:09:55.1	-1.4					
BHB	e Sg	17:09:57.0	-0.6					
	i Pn +	17:09:41.0	-1.7			123.0	56.4	
	e Sg	17:09:57.8	-0.3					
HSN	e Pg	17:09:45.2	-1.1			138.2	57.3	
	e Sg	17:10:01.7	-0.7					
LBG	e Pn +	17:09:43.1	-2.0			143.0	37.0	ML 3.5
	e Pg	17:09:48.8	1.8					
	e PmP	17:09:47.3	-0.7					
BEU	i Sg	17:10:02.8	-1.0					
	i Pn +	17:09:46.3	-2.0			169.4	51.2	ML 3.5
	e Sn	17:10:05.0	-1.7					

	e	Sg		17:10:10.3	-0.9				
UBR	i	Pn	+	17:09:50.0	-0.3		186.3	87.8	ML 3.5
	e	Pg		17:09:54.6	0.2				
	i	Sn		17:10:10.9	0.6				
	e	Sg		17:10:16.0	-0.0				
KTD	e	Pn		17:09:48.5	-2.3		189.6	10.2	
HDH	e	Pn		17:09:52.4	-1.9		218.6	60.4	ML 3.6
	e	Pg		17:09:59.8	-0.0				
	e	Sn		17:10:16.2	-0.9				
	e	Sg		17:10:23.4	-1.9				
RUP	e	Pn		17:09:57.2	1.1		232.6	350.0	
ABH	e	Pn		17:09:57.9	-0.1		249.0	358.8	
HOL	e	Pg		17:10:05.1	-0.1		250.9	39.2	ML 3.5
	e	Sg		17:10:34.8	0.3				
OGA	e	Pn		17:10:03.4	2.7		271.0	107.3	
FUR	e	Pg	Z	17:10:10.8	0.9	3.5	278.4	76.7	ML 3.7
	e	Sg	N	17:10:42.8	0.4	4.8			
TNS	e	Pn	Z	17:10:02.9	-0.6	2.3	293.1	11.6	ML 3.1
	e	Sn	N	17:10:34.0	1.1	2.5			
	e	Sg	E	17:10:46.8	0.3				
SCE	i	Pn	-	17:10:08.0	1.9		315.3	100.8	
GRC1	e	Pg	Z	17:10:17.3	-0.6		325.2	61.0	ML 3.4
	e	Sg	E	17:10:55.4	-0.3				
GRFO	e	Pg	Z	17:10:21.4	-0.4	11.1	348.8	47.9	ML 3.5
	e	Sn	E	17:10:44.6	-0.0	1.2			
	e	Sg	E	17:11:00.6	-1.8	3.9			
GRA1	e	Pg	Z	17:10:21.5	-0.3		349.0	47.9	ML 3.6
	e	Sg	N	17:11:01.6	-0.9				
GRB1	e	Pg	Z	17:10:22.9	0.1		354.8	55.3	
	e	Sg	E	17:11:03.8	-0.3				
GSH	e	Pn	Z	17:10:11.2	0.2	2.2	355.7	345.7	ML 3.1
	e	Sn	E	17:10:46.8	0.7	2.4			
	e	Sg	E	17:11:02.6	-1.8	1.1			
WET	e	Pn	Z	17:10:18.3	-0.9		422.4	64.8	ML 3.6
	e	Pg	Z	17:10:33.5	-0.8				
	e	Sn	E	17:11:01.0	0.8	2.5			
	e	Sg	N	17:11:22.4	-1.0	4.0			
HOF	e	Pg		17:10:35.0	-0.5		429.6	44.7	
MOX	e	Pn	Z	17:10:22.8	1.2		442.4	39.5	ML 3.6
	i	Pg		17:10:36.7	-1.0				
	e	Sn	E	17:11:04.9	0.5	2.3			
	e	Sg	E	17:11:28.3	-0.8	3.1			
CLL	e	Pg	Z	17:10:57.4	-0.7	3.7	562.9	41.6	ML 3.8
	e	Sg	E	17:12:01.5	-2.0	3.2			
BRG	e	Pg		17:11:02.2	0.8		582.3	49.6	ML 3.6
	e	Sg	N	17:12:07.2	-1.9	4.8			



Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/18	17:50:18.5	+- 0.60	49.356N	6.970E	10.7	3.9	90	0		14	14				ISC	
1997/11/18	17:50:18.8	+- 0.64	49.350N	6.820E	10.0	4.4	68	1G		7	3	213	2.0ML	BFO	BGR	I
<b>1997/11/18</b>	<b>17:50:19.4</b>	<b>+- 0.50</b>	<b>49.380N</b>	<b>6.940E</b>	<b>9.0</b>	<b>3.0</b>	<b>85</b>	<b>1G</b>		<b>14</b>	<b>9</b>	<b>199</b>	<b>2.2ML</b>		<b>LEDBW</b>	<b>I</b>

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg -	17:50:25.9	0.3	T		36.8	13.5	
ABH	e Pg +	17:50:31.6	0.1	T		70.9	37.9	
TNS	e Pg Z	17:50:44.2	0.5		3.5	143.1	48.5	ML 2.1
	e Sg N	17:51:02.5	2.2		2.8			
BFO	e Pn N	17:50:45.7	0.5		3.7	154.8	138.4	ML 2.0
	e Sn E	17:51:03.5	0.0		0.7			
	e Sg N	17:51:04.3	0.7		6.6			
GSH	e Pg Z	17:50:45.0	-0.8		1.6	156.1	345.3	ML 2.1
	e Sg E	17:51:03.9	-0.1		1.4			
LBG	e Pg +	17:50:46.2	0.2	T		156.9	119.8	ML 2.1
	e Sg	17:51:03.9	-0.3	T				
KIZ	e Pg	17:50:48.2	-0.6	T		173.8	155.2	ML 2.2
	i Sg	17:51:08.7	-0.4	T				
FELD	e Pg	17:50:50.7	-0.0	T		184.6	154.5	
	e Sg	17:51:11.6	-0.5	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/19	06:19:56.1	+- 0.74	49.126N	6.883E	13.1	4.1	90	0		14	19				ISC	
1997/11/19	06:19:54.3	+- 1.06	49.150N	6.680E	14.5	4.4	68	1G		6	4	226	2.1ML	BFO	BGR	I
<b>1997/11/19</b>	<b>06:19:57.1</b>	<b>+- 0.80</b>	<b>49.160N</b>	<b>6.850E</b>	<b>16.0</b>	<b>4.0</b>	<b>87</b>	<b>1G</b>		<b>18</b>	<b>11</b>	<b>193</b>	<b>2.3ML</b>		<b>LEDBW</b>	<b>I</b>

## Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg -	06:20:07.9	0.2	T		62.1	14.0	
	i Sg	06:20:15.8	1.0	T				
ABH	e Pg	06:20:13.1	-0.0	T		94.7	31.8	
	e Sg	06:20:24.8	0.7	T				
LIBD	i Pg	06:20:18.7	0.4			125.1	153.5	
BFO	e Pg Z	06:20:20.8	-0.4		7.2	142.4	129.8	ML 2.1
	e Sg N	06:20:36.7	-1.1					
LBG	e Sg	06:20:41.4	0.7	T		152.4	110.5	ML 2.3
KIZ	i Pn	06:20:22.9	-0.1	T		155.2	149.2	ML 2.3
	i Pg	06:20:24.5	1.1	T				
	e Sg	06:20:41.0	-0.5	T				
TNS	e Pg Z	06:20:24.1	-1.0		3.6	164.8	43.6	ML 2.3
	e Sg N	06:20:44.4	0.2					

FELD	i	Pg	+	06:20:24.8	-0.5	T	166.1	148.8									
	i	Sg		06:20:44.1	-0.4	T											
GSH	e	Sg	E	06:20:44.8	-3.3		178.6	349.3	ML	2.1							
BEU	e	Sg		06:20:53.8	0.0	T	198.2	107.9	ML	2.4							
GUT	e	Pg		06:20:33.3	1.3		205.9	125.2	ML	2.2							
	e	Sg		06:20:57.8	1.8												
HOL	e	Sg		06:20:58.6	-0.2	T	216.1	82.6	ML	2.4							
BUG	e	Sg	N	06:21:08.2	-1.9		255.3	6.5									

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/22	14:00:24.3	+/- 1.75	50.264N	6.418E	26.6	7.6	90	3		5	5		2.5ML	UCC	ISC	
<b>1997/11/22</b>	<b>14:00:22.4</b>	<b>+/- 0.65</b>	<b>50.230N</b>	<b>6.600E</b>	<b>8.9</b>	<b>4.4</b>	<b>61</b>	<b>0G</b>		<b>8</b>	<b>6</b>	<b>195</b>	<b>2.2ML</b>	<b>TNS</b>	<b>BGR</b>	<b>B</b>

## Pruem/Eifel

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GSH	e Pg Z	14:00:32.3	-0.0	T	3.4	58.5	344.5	ML 2.0
	e Sg E	14:00:39.9	0.7	T				
TNS	e Pg Z	14:00:44.0	-0.7	T	4.8	131.4	89.7	ML 2.2
BUG	e Pg Z	14:00:45.8	-0.8	T	3.5	142.6	19.0	ML 2.2
	e Sg N	14:01:03.5	0.4	T				
IBBN	e Sg N	14:01:32.1	-0.2			244.6	18.8	ML 2.7
BFO	e Sg E	14:01:33.2	0.6	T		245.7	148.6	
CLZ	e Sg E	14:01:54.6	1.1	T		318.8	54.4	ML 2.5
GRFO	e Sg N	14:01:58.5	0.1	T		335.8	98.5	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/25	04:36:06.1	+/- 0.90	51.565N	7.867E	9.0	8.5	0	0		9	9				ISC	
1997/11/25	04:36:07.5	+/- 0.66	51.670N	7.770E	10.0	4.4	154	2	+/- 7.1	8	4	209	2.0ML		SZGRF	L
1997/11/25	04:36:07.8	+/- 0.51	51.590N	7.790E	7.8	3.3	165	1G		10	5	194	2.0ML	TNS	BGR	I
<b>1997/11/25</b>	<b>04:36:05.7</b>		<b>51.673N</b>	<b>7.767E</b>				<b>1G</b>					<b>1.8ML</b>		<b>RUB</b>	<b>I</b>

## Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	04:36:14.3	1.3	TA		43.0	233.2	ML 1.8
	e Sg E	04:36:20.3	2.3		16.3			
GSH	e Pg Z	04:36:31.0	1.2		1.9	142.2	223.5	ML 2.6
	e Sg N	04:36:46.4	0.1		11.1			
TNS	e Pg Z	04:36:34.8	0.6		2.3	168.2	163.3	ML 2.0
	e Sg E	04:36:52.9	-0.9		5.6			
CLZ	e Pg Z	04:36:37.8	1.5		4.6	180.3	83.0	ML 2.0
	e Sg N	04:36:59.6	2.4		5.3			
MOX	e Pg Z	04:36:55.7	0.6		2.1	291.7	111.6	ML 2.4
	e Sg N	04:37:31.0	1.9		1.5			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/25	13:06:39.2	+- 1.15	49.402N	7.002E	13.7	10.6	90	0		6	6		1.9ML	WLF	ISC	
<b>1997/11/25</b>	<b>13:06:39.9</b>	<b>+- 0.64</b>	<b>49.370N</b>	<b>6.890E</b>	<b>11.1</b>	<b>4.4</b>	<b>66</b>	<b>1G</b>		<b>7</b>	<b>4</b>	<b>209</b>	<b>2.2ML</b>	<b>TNS</b>	<b>BGR</b>	<b>I</b>

## Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	e Pg	Z 13:07:04.7	-0.0	T	2.2	146.5	49.1	ML 2.2
	e Sg	N 13:07:21.5	-0.3	T	3.0			
GSH	e Pg	Z 13:07:05.7	-0.7	T	1.3	156.3	346.6	ML 2.2
	e Sg	N 13:07:24.9	0.4	T	1.8			
BFO	e Pn	Z 13:07:05.7	-0.2	T	3.3	156.4	137.1	ML 2.1
	e Sg	N 13:07:24.3	-0.3	T	5.8			
GEC2	e Pn	Z 13:07:49.0	1.3	T	3.4	499.1	94.1	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/29	10:54:37.2		50.218N	8.142E				10G			68		3.7ML	DBN	NEIC	
	ML= 3.6 (VIE)															
1997/11/29	10:54:37.3	+- 0.71	50.238N	8.168E	3.7	3.2	90	9	+- 5.6	92	97		3.8ML	STR	ISC	
	ML= 3.6 (UCC)															
1997/11/29	10:54:36.4		50.438N	8.135E	66.0	66.0	0	10	+-70.9	25	22	323	3.5ML		SED	
1997/11/29	10:54:39.9	+- 0.26	50.175N	8.194E	4.5	3.0	58	2	+- 0.0	65		277	3.9ML		LDG	L
1997/11/29	10:54:39.8		50.291N	8.173E				4					3.8ML		KNMI	
1997/11/29	10:54:38.1	+- 0.80	50.290N	8.290E	10.0	3.0	2	5G		27	17	248	3.2ML		LEDBW	L
	Foreshock of event on Nov. 29, 20:06 UTC, Max. Intensity = IV (MS), Felt at Idstein and Naurod/Wiesbaden															
1997/11/29	10:54:38.4	+- 0.28	50.300N	8.330E	6.7	3.3	32	10G		17	10	153	3.5ML	BUG	BGR	L
1997/11/29	10:54:38.2	+- 0.29	50.270N	8.330E	5.6	3.3	29	10	+- 2.2	18	10	111	3.5ML		SZGRF	L
<b>1997/11/29</b>	<b>10:54:38.2</b>		<b>50.270N</b>	<b>8.290E</b>				<b>3</b>					<b>3.3ML</b>		<b>IGF</b>	

## Limburg/Lahn

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	i Pg +	10:54:40.3	-0.1			12.4	115.2	ML 3.2
	e Sg N	10:54:42.3	0.5					
ABH	i Pg +	10:54:50.1	0.3			68.3	231.1	
	e Sg	10:55:00.2	2.4					
TOD	i Pg +	10:54:52.5	0.3			82.5	153.3	
	e PmP	10:54:54.3	-0.9					
HEI	e Sg	10:55:02.2	0.4					
	i Pn -	10:54:55.9	-1.5			101.8	161.9	
KTD	e Sg	10:55:08.9	1.6					
	e Pg +	10:54:56.4	0.1			106.6	188.1	
RUP	e Sg	10:55:11.3	2.6					
	e Pg +	10:54:56.4	-0.2			108.3	234.8	
	e Sg	10:55:11.3	2.1					

GSH	e	Pn	Z	10:55:02.3	-0.2		144.9	291.7	ML	3.5
	e	Pg	Z	10:55:03.2	0.5					
	e	Sg	N	10:55:20.3	0.7					
HOL	e	Pn	+	10:55:02.5	-0.5		148.0	131.9	ML	3.8
	e	Pg	+	10:55:03.8	0.5					
	e	Sg		10:55:21.4	0.9					
BUG	e	Pg	Z	10:55:03.0	-0.3		148.6	331.6	ML	3.5
	e	Sg	E	10:55:21.0	0.3					
LBG	e	Pn		10:55:07.4	0.3		182.3	168.3	ML	3.2
BEU	e	Pn		10:55:09.6	-0.2		204.4	156.1	ML	3.3
	e	Pg		10:55:14.0	1.2					
	e	Sg		10:55:37.1	0.5					
BFO	e	Pn	Z	10:55:10.4	-0.9		215.7	179.2	ML	3.3
	e	Sn	N	10:55:34.4	-0.4					
GRFO	e	Pn	N	10:55:13.1	1.5	3.5	219.2	106.0	ML	3.3
	e	Sg	E	10:55:40.3	-0.5	3.2				
GRA1	e	Pn	Z	10:55:12.7	1.1		219.3	105.9	ML	3.5
	e	Sg	N	10:55:40.4	-0.4					
CLZ	e	Pn	Z	10:55:11.4	-1.2		227.4	39.0	ML	3.6
	e	Sn	N	10:55:35.7	-1.5					
HDH	e	Pn		10:55:13.3	-0.0		233.1	142.8	ML	3.2
	e	Pg		10:55:20.6	2.9					
	e	Sg		10:55:43.8	-1.0					
MOX	e	Pn	Z	10:55:14.0	-0.1		239.1	78.7	ML	3.5
	e	Sn	E	10:55:41.5	1.8					
LIBD	e	Pn		10:55:14.5	0.2		240.9	192.2		
SPAK	e	Pn		10:55:14.5	-0.1		243.7	171.3		
GUT	e	Pn	-	10:55:15.4	-0.2		251.8	165.9	ML	3.0
HOF	e	Pn		10:55:16.5	0.5		254.9	87.5		
KIZ	e	Pn		10:55:15.4	-1.0		258.7	186.1	ML	3.2
GRB1	e	Sg	E	10:55:52.3	-0.3		260.2	110.8	ML	3.9
FELD	e	Pn		10:55:17.2	-0.3		267.0	184.6		
GRC1	e	Sg	E	10:55:56.9	0.8		272.4	120.1		
ROTZ	e	Pn		10:55:20.5	0.8		285.4	99.8	ML	3.3
UBR	e	Pn	-	10:55:24.5	0.9		317.0	154.6	ML	3.4
BBS	e	Pn	+	10:55:23.8	0.2		317.1	190.7		
FUR	i	Pg	+	10:55:35.4	3.1		319.2	136.1	ML	3.7
	e	Sg	E	10:56:08.7	-0.7	1.4				
CLL	e	Pn	Z	10:55:28.6	0.9		350.7	69.0	ML	3.9
	i	Pg		10:55:37.1	-0.5					
	e	Sg	N	10:56:16.9	-1.5					
WET	e	Pn	Z	10:55:29.8	1.8	37.1	352.8	109.0	ML	3.3
BRG	e	Pn	Z	10:55:35.7	1.5	6.1	404.7	78.3	ML	3.6
	i	Pg		10:55:46.5	-0.3					
	e	Sg	N	10:56:32.7	-1.1	3.3				
GEC2	e	Pn	Z	10:55:37.4	1.1	48.6	421.1	110.0		
	e	Sg	E	10:56:37.5	-1.0	1.7				
OGA	e	Pn		10:55:39.1	1.9		428.4	151.0		
SCE	i	Pn	+	10:55:40.0	1.6		438.3	143.7		
BHG	i	Pn	-	10:55:41.0	2.6		438.5	128.5		

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/29	18:54:49.8		50.407N	7.497E				10G			14		2.3ML	STR	NEIC	
Less reliable solution																
1997/11/29	18:54:47.8	+ - 0.52	50.360N	7.511E	6.2	4.5	90	10		23	25				ISC	
1997/11/29	18:54:49.3	+ - 0.69	50.237N	7.330E	11.9	4.6	47	2	+ - 0.0	12		276	2.7ML		LDG	L
1997/11/29	18:54:50.3	+ - 0.54	50.390N	7.480E	8.9	4.4	19	20G		8	5	191	1.9ML	GSH	BGR	L
<b>1997/11/29</b>	<b>18:54:50.3</b>	<b>+ - 0.34</b>	<b>50.340N</b>	<b>7.450E</b>	<b>5.6</b>	<b>4.4</b>	<b>43</b>	<b>10G</b>		<b>13</b>	<b>7</b>	<b>136</b>	<b>2.1ML</b>		<b>SZGRF</b>	<b>L</b>

## Koblenz/Middle Rhine Area

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	e Pg	Z 18:55:02.4	-0.2	T		72.1	100.1	ML 2.3
	e Sg	E 18:55:13.4	2.3	T				
OLF	i Pg	Z 18:55:02.7	-0.5			74.9	283.7	
GSH	e Pg	Z 18:55:04.8	-0.5	T		87.7	300.6	ML 1.9
	e Sg	E 18:55:15.7	0.1	T				
BUG	e Pg	Z 18:55:10.2	-1.0	T		123.0	354.2	ML 2.0
	e Sg	N 18:55:25.3	-0.3	T				
BFO	e Pg	Z 18:55:29.1	-0.7	T		232.4	163.7	
	e Sg	E 18:55:54.6	-2.2	T				
CLZ	e Pg	Z 18:55:33.2	-1.9	T		263.7	49.6	ML 2.4
	e Sg	E 18:56:04.5	-1.2	T				
GRA1	e Pg	Z 18:55:37.1	-0.5	T		278.9	103.5	
MOX	e Pg	Z 18:55:38.9	-1.7	T		296.6	81.8	
	e Sg	N 18:56:14.2	-1.0	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/29	20:06:08.0		50.244N	8.154E				10G			101		4.0ML	DBN	NEIC	
ML= 4.0(VIE)																
1997/11/29	20:06:08.3	+ - 0.80	50.277N	8.150E	3.3	2.7	90	14	+ - 6.6	141	146		3.9ML	UCC	ISC	
ML= 4.8(STR)																
1997/11/29	20:06:13.4		49.972N	8.300E	63.3	63.3	0	10	+ - 758	29	29	318	3.7ML		SED	
1997/11/29	20:06:10.6	+ - 0.22	50.223N	8.200E	3.7	2.5	47	2	+ - 0.0	87		278	4.3ML		LDG	L
1997/11/29	20:06:09.5		50.214N	8.127E				4					4.2ML		KNMI	
1997/11/29	20:06:09.2	+ - 0.90	50.280N	8.270E	11.0	3.0	359	5G		32	24	243	3.8ML		LEDBW	L
Max. Intensity = V (MSK), Felt in the area of Wiesbaden, Frankfurt am Main, and Bad Homburg																
1997/11/29	20:06:09.2	+ - 0.25	50.290N	8.300E	5.6	3.3	31	10G		22	13	111	3.8ML	BUG	BGR	L
1997/11/29	20:06:09.3	+ - 0.28	50.310N	8.350E	6.7	3.3	29	7	+ - 2.7	17	9	109	4.0ML		SZGRF	L
<b>1997/11/29</b>	<b>20:06:08.9</b>		<b>50.270N</b>	<b>8.300E</b>				<b>3</b>					<b>4.0ML</b>		<b>IGF</b>	

## Limburg/Lahn

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	i Pg +	20:06:11.3	0.3			11.7	116.7	ML 3.8
	e Sg	N 20:06:13.3	0.9					

ABH	i	Pg	+	20:06:21.1	0.5		68.9	231.5	
TOD	i	Pg	-	20:06:23.4	0.6		82.2	153.8	
	i	PmP		20:06:25.3	-0.5				
	e	Sg		20:06:33.0	0.6				
HEI	e	Pn	+	20:06:26.6	-1.4		101.6	162.3	
	e	Sg		20:06:39.8	1.8				
KTD	e	Pg	+	20:06:27.2	0.2		106.7	188.4	
RUP	i	Pn	+	20:06:27.2	-1.6		108.9	235.0	
	e	Sg		20:06:42.0	1.9				
GSH	e	Pg	Z	20:06:34.1	0.5		145.6	291.6	ML 4.0
	e	Sg	N	20:06:51.3	0.8				
HOL	i	Pn	+	20:06:33.4	-0.2		147.5	132.1	ML 4.3
	e	Pg		20:06:35.1	1.2				
BUG	e	Pg	Z	20:06:33.9	-0.2		148.9	331.3	ML 3.8
	e	Sg	E	20:06:52.0	0.5				
LBG	e	Pn		20:06:37.9	0.1		182.1	168.5	ML 3.8
	e	Sg		20:06:59.1	-1.8				
BEU	e	Pn		20:06:40.5	0.0		204.1	156.3	ML 3.9
	e	Sg		20:07:07.9	0.6				
BFO	e	Pn	Z	20:06:41.3	-0.7		215.7	179.4	ML 3.8
	e	Sg	N	20:07:10.8	0.2	1.8			
GRFO	e	Pn	Z	20:06:43.8	1.6	12.6	218.5	106.0	ML 3.9
	e	Sg	E	20:07:11.2	-0.1	5.8			
GRA1	e	Pn	Z	20:06:43.7	1.4		218.6	106.0	ML 4.0
	e	Sg	E	20:07:11.9	0.6				
ENG	e	Pn	+	20:06:42.7	0.0		221.6	169.0	
CLZ	e	Pn	Z	20:06:42.1	-1.2		227.0	38.9	ML 4.0
	e	Sn	N	20:07:06.3	-1.6				
HDH	e	Pn		20:06:44.1	0.1		232.7	142.9	ML 3.8
	e	Pg		20:06:51.2	2.9				
	e	Sn		20:07:09.4	0.3				
	e	Sg		20:07:15.0	-0.4				
MOX	e	Pn	Z	20:06:45.2	0.5		238.4	78.7	ML 4.0
	e	Sn	E	20:07:12.4	2.1				
LIBD	e	Pn	-	20:06:44.8	-0.2		241.0	192.4	
SPAK	e	Pn	+	20:06:45.4	0.1		243.6	171.5	
HEX	e	Pn	-	20:06:45.5	-0.7		250.3	182.6	
	e	Sg		20:07:20.6	0.1				
GUT	e	Pn		20:06:46.3	-0.0		251.6	166.1	ML 3.5
	e	Sn		20:07:13.4	0.3				
HOF	i	Pn	+	20:06:47.3	0.7		254.2	87.5	
FBB	e	Sg		20:07:22.9	1.3		254.3	187.5	
KIZ	e	Pn		20:06:46.4	-0.8		258.8	186.3	ML 3.7
	e	Sn		20:07:13.3	-1.2				
FELD	e	Pn	-	20:06:47.8	-0.4		267.0	184.7	
GRC1	e	Pn	Z	20:06:50.3	1.6		271.8	120.2	ML 4.0
	e	Sg	N	20:07:27.9	1.4				
ROTZ	i	Pn	+	20:06:51.4	1.1		284.7	99.8	ML 3.8
END	e	Pn	+	20:06:49.9	-0.8		287.0	188.4	
	e	Pg		20:06:57.8	0.3				

UBR	e	Pn	+	20:06:55.5	1.3				316.7	154.7		ML	3.8
BBS	e	Pn		20:06:54.0	-0.3				317.3	190.8			
FUR	e	Pn	Z	20:06:55.8	1.4		5.4		318.7	136.2		ML	4.1
CLL	e	Pn	Z	20:06:58.4	0.1				350.0	68.9		ML	4.3
	i	Pg		20:07:08.4	0.2								
	e	Sg	E	20:07:47.9	-1.1								
WET	e	Pn	Z	20:07:00.6	2.1		113.8		352.1	109.1		ML	4.1
	e	Sg	N	20:07:49.6	0.1		2.3						
BRG	e	Pn	Z	20:07:06.0	1.2		19.1		404.0	78.3		ML	4.1
	i	Pg		20:07:18.1	0.7								
	e	Sg	Z	20:08:03.8	-0.6		4.0						
GEC2	e	Pn	Z	20:07:08.5	1.6		111.7		420.5	110.1			
	e	Sn	N	20:07:51.6	2.8		4.4						
OGA	e	Pn		20:07:09.8	2.0				428.1	151.0			
BSEG	e	Pn	Z	20:07:07.1	-1.0		4.3		430.1	17.9			
SCE	i	Pn	-	20:07:10.9	1.9				437.9	143.8			
BHG	i	Pn	+	20:07:11.5	2.5				437.9	128.6			

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/11/29	23:01:19.0		50.166N	8.339E				10G			9		2.2ML	STR	NEIC	
1997/11/29	23:01:16.9	+ - 0.59	50.338N	8.373E	7.2	5.6	90	14	+ - 7.2	20	22				ISC	
1997/11/29	23:01:19.9	+ - 0.59	50.221N	8.141E	10.4	6.4	58	2	+ - 0.0	14		292	2.4ML		LDG	L
<b>1997/11/29</b>	<b>23:01:19.0</b>	<b>+ - 0.41</b>	<b>50.260N</b>	<b>8.320E</b>	<b>7.8</b>	<b>3.3</b>	<b>21</b>	<b>10G</b>		<b>12</b>	<b>7</b>	<b>177</b>	<b>1.9ML</b>		<b>SZGRF</b>	<b>L</b>

Limburg/Lahn

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	e	Pg	Z	23:01:21.3	-0.1	T	10.0	114.7	ML 1.7
	e	Sg	N	23:01:22.9	-0.1	T			
GSH	e	Pg	Z	23:01:43.2	-0.8	T	147.3	291.9	ML 2.0
	e	Sg	E	23:02:00.6	-0.6	T			
BUG	e	Pg	Z	23:01:44.3	-0.2	T	150.6	331.1	ML 2.1
	e	Sg	E	23:02:01.5	-0.5	T			
GRA1	e	Pg	Z	23:01:56.0	0.2	T	216.9	105.8	
	e	Sg	E	23:02:20.9	-0.1	T			
CLZ	e	Pg	Z	23:01:55.6	-1.9	T	226.9	38.4	
	e	Sg	E	23:02:24.6	0.7	T			
MOX	e	Sn	E	23:02:22.0	3.3	T	237.2	78.3	
CLL	e	Sg	E	23:02:57.9	-0.9	T	349.1	68.7	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/01	15:18:11.6	+ - 1.96	51.640N	7.810E	21.1	8.9	24	1G		5	3	284	2.1ML	GSH	BGR	I
<b>1997/12/01</b>	<b>15:18:10.3</b>		<b>51.652N</b>	<b>7.720E</b>				<b>1G</b>					<b>1.9ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	e Pg - Z	15:18:18.1	1.2	TA		39.1	233.2	ML 2.1
	e Sg E	15:18:23.7	2.3		9.0			
GSH	e Pg Z	15:18:36.3	2.6		2.9	138.2	223.1	ML 2.1
	e Sg E	15:18:52.3	2.5	2.8				
TNS	e Sg E	15:18:58.3	0.3		2.4	166.9	161.9	ML 2.0
CLZ	e Sg E	15:19:04.4	1.6			183.8	82.4	ML 2.1

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/02	20:03:40.1	+-	1.20	51.568N	7.902E	13.3	13.0	0	0		5	5				ISC	
1997/12/02	20:03:41.2	+-	1.45	51.840N	7.610E	27.8	4.4	149	1G		6	3	233	2.1ML		SZGRF	I
<b>1997/12/02</b>	<b>20:03:40.6</b>			<b>51.673N</b>	<b>7.767E</b>				<b>1G</b>					<b>1.7ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	20:03:49.2	1.3	TA		43.0	233.2	ML 2.1
	e Sg Z	20:03:55.7	2.8					
GSH	e Pg Z	20:04:06.0	1.3			142.2	223.5	
	e Sg Z	20:04:23.6	2.3					
CLZ	e Pg N	20:04:11.3	0.2			180.3	83.0	
	e Sg N	20:04:36.0	3.9					

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/03	19:23:36.9	+-	0.69	49.106N	6.881E	9.1	4.2	90	0		18	22				ISC	
1997/12/03	19:23:12.1	+-	0.59	51.670N	7.730E	12.2	5.6	162	1G		10	5	211	2.6ML		SZGRF	I
1997/12/03	19:23:11.8	+-	0.60	51.670N	7.750E	8.9	3.3	165	1G		11	6	210	2.6ML	GSH	BGR	I
<b>1997/12/03</b>	<b>19:23:10.0</b>			<b>51.673N</b>	<b>7.767E</b>				<b>1G</b>					<b>2.6ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	19:23:18.6	1.3	TA		43.0	233.2	ML 2.6
	e Sg E	19:23:24.7	2.3		5.9			
GSH	e Pg Z	19:23:34.9	0.8		8.0	142.2	223.5	ML 2.6
	e Sg N	19:23:52.8	2.2	4.0				
TNS	e Pn Z	19:23:38.5	1.0		1.2	168.2	163.3	ML 2.5
	e Sn Z	19:23:58.0	1.1					
CLZ	e Sg Z	19:23:59.5	1.5		2.0	180.3	83.0	ML 2.5
	e Pn Z	19:23:40.4	1.5	2.2				
MOX	e Pg Z	19:23:41.8	1.3			291.7	111.6	ML 2.7
	e Sg E	19:24:04.3	2.8					
	e Pn Z	19:23:55.3	2.8	3.2				
	e Pg	19:24:02.3	2.9					
	e Sg N	19:24:36.5	3.2		3.6			



GRA1	e	Pn	Z	19:23:59.0	2.0				328.3	130.8		ML	3.0
	e	Sg	N	19:24:49.5	5.7								
CLL	e	Sg	E	19:24:56.9	2.7		2.6	364.7	94.3		ML	3.0	
BRG	e	Sg		19:25:21.3	6.0			438.6	99.3				

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/03	19:23:34.4	+-	1.64	49.140N	6.650E	24.5	10.0	86	1G		6	3	280	2.2ML	BFO	BGR	I
<b>1997/12/03</b>	<b>19:23:37.4</b>	<b>+-</b>	<b>1.00</b>	<b>49.160N</b>	<b>6.870E</b>	<b>16.0</b>	<b>6.0</b>	<b>86</b>	<b>1G</b>		<b>25</b>	<b>15</b>	<b>192</b>	<b>2.3ML</b>		<b>LEDBW</b>	<b>I</b>

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg	19:23:47.9	0.0	T		61.8	12.7	
	e Sg	19:23:55.9	0.9	T				
KTD	e Pg	19:23:54.1	1.4	T		89.9	78.1	
	e Sg	19:24:05.1	2.0	T				
ABH	e Pg +	19:23:54.7	1.3	T		94.0	31.1	
	e Sg	19:24:06.5	2.3					
LIBD	e Pg	19:23:59.3	0.8	T		124.5	154.1	
	e Sg	19:24:14.0	1.0	T				
BFO	e Pg Z	19:24:01.4	0.0		14.7	141.3	130.2	ML 2.2
	e Sg	19:24:18.8	1.0	T				
LBG	e Pg	19:24:05.2	2.2	T		151.1	110.7	ML 2.5
	e Sg	19:24:21.7	1.1	T				
KIZ	e Pg	19:24:03.3	-0.3	T		154.5	149.7	ML 2.3
	e Sn	19:24:18.7	-2.7	T				
	e Sg	19:24:21.3	-0.2	T				
TNS	e Sn N	19:24:22.9	-0.5			163.8	43.2	ML 2.4
	e Sg N	19:24:24.4	0.2		2.4			
FELD	e Pg -	19:24:04.8	-0.6	T		165.4	149.2	
	e Sg	19:24:24.6	0.0	T				
BEU	e Sg	19:24:34.2	0.6	T		196.9	108.0	ML 2.4
GUT	e Sg	19:24:35.7	-0.2	T		204.7	125.4	ML 2.2
FUR	e Sn E	19:25:00.2	-0.8			341.9	107.3	
	e Sg E	19:25:14.4	-0.7		2.6			

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/05	04:16:56.8			47.596N	8.938E				10G			17		2.3ML	VIE	NEIC	
1997/12/05	04:16:55.5	+-	0.42	47.585N	8.956E	4.2	3.5	90	1	+- 8.8	30	38				ISC	
1997/12/05	04:17:00.6	+-	0.57	47.613N	8.752E	9.2	4.8	72	2	+- 0.0	15		264	2.4ML		LDG	L
1997/12/05	04:16:56.5	+-	2.04	47.600N	8.980E	21.1	6.7	1	10G		5	4	271	2.0ML	BFO	BGR	L
1997/12/05	04:16:56.9	+-	0.17	47.585N	8.927E	2.0	1.0	339	19	+- 1.4	35	19	180	2.3ML		LEDBW	L
<b>1997/12/05</b>	<b>04:16:56.8</b>			<b>47.605N</b>	<b>8.923E</b>	<b>0.8</b>	<b>0.8</b>	<b>0</b>	<b>23</b>	<b>+- 0.8</b>	<b>10</b>	<b>6</b>	<b>202</b>	<b>2.2ML</b>		<b>SED</b>	

Singen/Hohentwiel, Swiss-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GUT	i Pg -	04:17:06.7	-0.0			53.7	15.4	ML 2.3
	i Sg	04:17:13.6	0.1					
SPAK	i Pg -	04:17:07.4	0.3			56.2	349.6	
	e Sg	04:17:14.3	0.2					
BHB	e Pg -	04:17:09.6	0.1			71.7	4.8	
	e Sg	04:17:18.6	0.3					
HEX	e Pn +	04:17:09.6	-0.6			74.0	309.0	
FELD	i Pg	04:17:09.9	-0.2			75.0	294.0	
	i Sg	04:17:19.4	0.2					
HSN	e Pn +	04:17:10.9	-0.1			80.3	14.4	
	e Sn	04:17:20.8	-0.2					
KIZ	e Pn +	04:17:10.7	-0.8			84.6	297.8	ML 2.5
	e Pg -	04:17:11.4	-0.3					
	i Sg	04:17:21.6	-0.2					
MSG	e Pn +	04:17:11.9	-0.0			88.7	5.4	
	e Sn	04:17:22.9	0.2					
UBR	e Pn +	04:17:12.0	-0.0			89.2	84.1	ML 2.2
	e Pg +	04:17:12.4	0.0					
	i Sg	04:17:23.8	0.7					
END	e Pn +	04:17:11.4	-0.7			89.6	278.3	
	e Pg +	04:17:12.3	-0.2					
	e Sg	04:17:23.0	-0.2					
BFO	e Pg Z	04:17:12.5	-0.4		7.8	91.9	331.5	ML 2.0
	e Sg E	04:17:23.8	-0.1					
BBS	i Pn +	04:17:13.8	-0.5			107.3	262.1	
BEU	i Pg +	04:17:15.9	-0.7			114.8	18.4	ML 2.4
	i Sg	04:17:29.9	-0.3					
LIBD	e Sg	04:17:29.8	-0.7			115.6	302.1	
LBG	i Pg +	04:17:16.3	-0.9			118.1	355.4	ML 2.3
	e PmP	04:17:16.9	-0.9					
	e Sg	04:17:30.6	-0.6					
HDH	e Pg	04:17:21.1	-0.5			144.7	40.7	ML 2.0
	e Sg	04:17:37.6	-1.1					
HOL	e Sg	04:17:55.0	-1.3			207.0	18.1	ML 2.2
GRFO	e Sg E	04:18:18.0	-1.0			286.8	35.2	
WET	e Sg N	04:18:32.5	-1.2			338.5	58.2	
MOX	e Sg E	04:18:47.4	-1.2			390.6	29.1	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/06	03:39:57.1		49.353N	6.809E				5G			16				NEIC	I
Mining induced event in the Lorraine region, France																
1997/12/06	03:39:56.0	+ - 0.45	49.338N	6.828E	6.2	3.4	90	0		22	23				ISC	
1997/12/06	03:39:56.7	+ - 0.50	49.428N	6.967E	11.2	3.6	59	2	+ - 0.0	16		233	2.4ML		LDG	L
1997/12/06	03:39:57.5	+ - 0.87	49.340N	6.850E	12.2	5.6	70	1G		5	3	212	2.0ML	BFO	BGR	I
<b>1997/12/06</b>	<b>03:39:57.8</b>	<b>+ - 0.40</b>	<b>49.380N</b>	<b>6.890E</b>	<b>6.0</b>	<b>2.0</b>	<b>92</b>	<b>1G</b>		<b>15</b>	<b>9</b>	<b>207</b>	<b>2.1ML</b>		<b>LEDBW</b>	<b>I</b>

Saarbruecken-West

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg +	03:40:04.6	0.4	T		37.8	18.8	
ABH	i Pg +	03:40:10.1	-0.1	T		73.2	40.1	
	i Sg	03:40:19.0	0.3	T				
TOD	e Pg	03:40:21.3	-0.3	T		140.5	79.0	
	i Sg	03:40:39.1	1.1	T				
TNS	e Pg Z	03:40:23.0	0.5		3.9	145.8	49.4	ML 2.0
	e Sg E	03:40:41.0	1.5					
GSH	e Sg E	03:40:43.0	0.8			155.3	346.6	
BFO	e Pg Z	03:40:24.2	-0.3		4.5	157.2	137.4	ML 2.0
	e Sg N	03:40:41.9	-0.8					
LBG	e Pg	03:40:24.5	-0.4	T		160.1	119.1	ML 1.9
	e Sg	03:40:43.5	0.0	T				
KIZ	e Pg	03:40:26.9	-0.6	T		175.4	154.1	ML 2.2
	i Sg	03:40:47.1	-0.8	T				
FELD	i Pg	03:40:29.1	-0.3	T		186.2	153.5	
	e Sg	03:40:50.0	-1.0					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/09	23:06:57.3		50.287N	8.151E				10G			5				NEIC	
Less reliable solution																
1997/12/09	23:06:56.5	+/- 0.81	50.406N	8.193E	10.1	7.3	90	9	+/- 9.5	13	16				ISC	
1997/12/09	23:07:00.0	+/- 0.63	50.254N	8.307E	9.8	5.9	54	13	+/- 2.6	17		294	2.6ML		LDG	L
1997/12/09	23:06:57.8	+/- 0.39	50.370N	8.390E	7.8	6.7	170	10G		7	4	120	2.0ML		SZGRF	L

## Bad Homburg/Taunus

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
TNS	i Pg + Z	23:07:01.7	0.5	T		16.9	166.1	ML 1.8
	e Sg Z	23:07:03.4	-0.1	T				
GSH	e Pg Z	23:07:20.6	-2.4	T		147.9	286.8	ML 2.1
	e Sg N	23:07:40.3	0.1	T				
CLZ	e Pg Z	23:07:35.1	1.0	T		214.3	39.5	
	e Sg E	23:07:58.2	-0.9	T				
MOX	i (Pg)	23:07:41.6	4.7			230.1	81.1	
	e Sg N	23:08:02.8	-0.9	T				

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/11	18:33:18.8	+/- 1.82	49.310N	6.730E	50.0	5.6	61	1G		5	3	218	2.0ML	BFO	BGR	I
1997/12/11	18:33:19.0	+/- 5.20	49.450N	6.730E	78.0	14.0	100	1G		10	7	234	2.0ML		LEDBW	I

## Lebach, N of Saarbruecken

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	e Pg	18:33:26.0	0.8	T		36.7	40.2	
ABH	e Pg +	18:33:31.8	-0.1	T		75.9	50.5	
	e Sg	18:33:40.7	-0.0	T				
GSH	e Pg Z	18:33:45.9	2.3		1.6	145.3	350.2	
	e Sg E	18:34:04.3	3.8					
BFO	e Pg Z	18:33:46.2	-1.7		4.0	170.8	136.2	ML 2.0
	e Sg E	18:34:04.1	-3.7					
KIZ	e Pn	18:33:48.3	-0.5	T		187.6	151.9	ML 2.3
	i Sg	18:34:08.9	-3.7	T				
FELD	e Pn	18:33:51.0	0.8	T		198.4	151.4	
	e Sn	18:34:12.1	-0.2					
GEC2	e Pn Z	18:34:28.6	0.3		4.5	511.3	94.9	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/13	19:17:23.2	+/- 1.03	51.575N	7.923E	10.5	9.3	90	0		8	8				ISC	
1997/12/13	19:17:24.3	+/- 0.57	51.660N	7.900E	8.9	4.4	160	1G		8	4	201	2.2ML	CLZ	BGR	I
<b>1997/12/13</b>	<b>19:17:21.8</b>		<b>51.722N</b>	<b>7.871E</b>				<b>1G</b>					<b>2.2ML</b>		<b>RUB</b>	<b>I</b>

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	19:17:32.2	1.6	TA		52.0	233.3	ML 2.2
	e Sg E	19:17:39.5	2.9					
GSH	e Pg Z	19:17:48.4	1.0		8.5	151.0	224.1	ML 2.1
	e Sg E	19:18:07.0	2.0					
TNS	e Pg Z	19:17:52.0	1.2		3.8	171.5	166.2	
	e Sg E	19:18:11.3	0.5					
CLZ	e Pg Z	19:17:53.5	2.5		3.8	172.6	84.6	ML 2.2
	e Sg N	19:18:14.0	2.9					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/16	06:06:35.7		51.557N	7.349E				10G			8		2.5ML	DBN	NEIC	
	Less reliable solution															
1997/12/16	06:06:33.0	+/- 0.77	51.549N	7.596E	7.7	6.4	90	0		22	26		2.9ML	STR	ISC	
1997/12/16	06:06:36.5	+/- 0.47	51.533N	7.355E	8.0	6.8	77	2	+/- 0.0	16		302	2.9ML		LDG	L
1997/12/16	06:06:34.9	+/- 0.59	51.610N	7.600E	7.8	3.3	159	1G		12	6	210	2.6ML	GSH	BGR	I
<b>1997/12/16</b>	<b>06:06:34.2</b>		<b>51.591N</b>	<b>7.577E</b>				<b>1G</b>					<b>2.1ML</b>		<b>RUB</b>	<b>I</b>

Dortmund, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	06:06:39.6	0.8	TA		27.1	232.0	ML 2.3
	e Sg E	06:06:43.6	1.6					
GSH	e Pg Z	06:06:56.1	0.4		5.5	126.6	221.9	ML 2.6
	e Sg E	06:07:12.0	1.6					

TNS	e	Pg	Z	06:07:03.5	1.5	4.9	163.9	157.8	ML	2.7
	e	Sg	E	06:07:21.7	0.7					
CLZ	e	Pg	Z	06:07:07.3	0.1	2.5	194.5	80.7	ML	2.3
	e	Sg	E	06:07:30.5	0.7					
MOX	e	Pg	Z	06:07:26.7	1.5	1.9	300.8	108.9		
	e	Sg	E	06:08:00.0	-0.1					
BFO	e	Pn	Z	06:07:27.4	1.6	1.5	366.5	171.3		
	e	Sn	N	06:08:04.5	1.5					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/24	18:42:11.1		49.158N	6.767E				10G			6		2.3ML	UCC	NEIC	I
Mining induced event in the Lorraine region, France, Less reliable solution																
1997/12/24	18:42:09.9	+ - 0.68	49.151N	6.952E	9.6	4.3	90	0		16	17				ISC	
1997/12/24	18:42:11.0	+ - 1.12	49.170N	6.770E	22.2	14.5	38	1G		5	3	272	2.5ML		SZGRF	I
<b>1997/12/24</b>	<b>18:42:11.7</b>	<b>+ - 1.10</b>	<b>49.140N</b>	<b>6.860E</b>	<b>21.0</b>	<b>5.0</b>	<b>93</b>	<b>1G</b>		<b>19</b>	<b>11</b>	<b>201</b>	<b>2.3ML</b>		<b>LEDBW</b>	<b>I</b>

Merlebach/F, SW of Saarbruecken, French-German border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
RUP	i Pg +	18:42:21.9	-0.7	T		64.1	12.9	
	i Sg	18:42:31.1	1.1	T				
KTD	e Sg	18:42:40.0	2.3	T		91.1	76.8	
ABH	i Pg -	18:42:28.4	0.4	T		96.2	30.8	
	i Sg	18:42:39.0	-0.2	T				
BFO	e Pn +	18:42:34.1	-1.7	T		140.4	129.3	
	e Sg	18:42:53.0	1.2	T				
LBG	e Pg	18:42:36.8	-0.5			151.0	109.8	ML 2.3
	e Sg	18:42:55.5	0.7					
KIZ	e Pn -	18:42:36.4	-0.9	T		152.9	149.0	ML 2.3
	i Pg +	18:42:38.1	0.5	T				
	e Sn	18:42:54.8	-0.5	T				
FELD	i Pn +	18:42:38.4	-0.2	T		163.8	148.6	
	i Sg	18:42:58.1	-0.4	T				
TNS	e Pn Z	18:42:36.6	-2.3			165.9	42.9	ML 2.5
	e Sg N	18:42:58.3	-0.8					
GSH	e Pn Z	18:42:38.7	-2.1			180.9	349.2	
	e Sg E	18:43:02.9	-0.5					
BEU	e Pg	18:42:44.0	-1.0	T		196.9	107.3	ML 2.3
HOL	e Pg	18:42:46.9	-1.4			215.7	82.0	ML 2.2
	e Sg	18:43:13.7	0.4					
GRA1	e Pg Z	18:43:06.4	0.2			321.4	77.3	