

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	0G		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	20:03:41.2	+ - 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	19:23:12.1	+ - 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			
	e Pn Z	19:23:40.4	1.5		2.2	180.3	83.0	ML 2.5
	e Pg Z	19:23:41.8	1.3					
	e Sg E	19:24:04.3	2.8					

MOX	e	Pn	Z	19:23:55.3	2.8		3.2	291.7	111.6	ML	2.7
	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>+ - 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>191</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		2.4ML	LDG	NEIC	
													ML= 2.3(VIE)			
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>2.2ML</b>		<b>SED</b>	

Winterthur, Frauenfeld/CH

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GUT	i Pg -	04:17:06.7	-0.0			53.7	195.6	ML 2.3
	i Sg	04:17:13.6	0.1					
SPAK	i Pg -	04:17:07.4	0.3			56.2	169.5	
	e Sg	04:17:14.3	0.2					
BHB	e Pg -	04:17:09.6	0.1			71.7	184.9	
	e Sg	04:17:18.6	0.3					
HEX	e Pn +	04:17:09.6	-0.6			74.0	128.4	
FELD	i Pg	04:17:09.9	-0.2			75.0	113.4	
	i Sg	04:17:19.4	0.2					
HSN	e Pn +	04:17:10.9	-0.1			80.3	194.6	
	e Sn	04:17:20.8	-0.2					
KIZ	e Pn +	04:17:10.7	-0.8			84.6	117.1	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	185.4	
	e Sn	04:17:22.9	0.2					
UBR	e Pn +	04:17:12.0	-0.0			89.2	265.0	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	97.4	
	e Pg +	04:17:12.3	-0.2					
	e Sg	04:17:23.0	-0.2					
BFO	e Pn +	04:17:12.5	0.1			91.9	151.1	ML 2.0
	e Pg Z	04:17:12.5	-0.4		7.8			
	i Sn	04:17:23.8	0.4					
	e Sg E	04:17:23.8	-0.1					
BBS	i Pn +	04:17:13.8	-0.5			107.3	81.1	
BEU	i Pg +	04:17:15.9	-0.7			114.8	198.8	ML 2.4
	i Sg	04:17:29.9	-0.3					
LIBD	e Sg	04:17:29.8	-0.7			115.6	121.1	
LBG	i Pg +	04:17:16.3	-0.9			118.1	175.3	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	221.7	ML 2.0
	e Sg	04:17:37.6	-1.1					
HOL	e Sg	04:17:55.0	-1.3			207.0	198.8	ML 2.2
GRFO	e Sg E	04:18:18.0	-1.0			286.8	216.9	
WET	e Sg N	04:18:32.5	-1.2			338.5	241.1	
MOX	e Sg E	04:18:47.4	-1.2			390.6	211.1	

Date Origin Time OT\_err Lat Long Smajor Sminor Az Depth D\_err Ndef Nsta Gap Mag Ref Source Ev\_type  
 1997/12/05 05:16:24.8 47.363N 6.515E 10G 4 2.0ML LDG NEIC  
 Poor solution

Baume les Dames/F, ENE of Besancon

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/05	05:20:26.6		47.332N	6.669E				10G			6		2.0ML	LDG	NEIC	
A single network solution																

S of Montbeliard/F, Doubs Valley, French-Swiss border region

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/05	05:21:26.1		47.339N	6.726E				10G			7		2.1ML	LDG	NEIC	

S of Montbeliard/F, Doubs Valley, French-Swiss border region

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/05	05:22:50.5		47.343N	6.660E				10G			6		2.2ML	LDG	NEIC	
A single network solution																

Baume les Dames/F, ENE of Besancon

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/05	05:28:05.2		47.352N	6.608E				10G			6		2.1ML	LDG	NEIC	

Baume les Dames/F, ENE of Besancon

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		2.4ML	LDG	NEIC	I
Mining induced event in the Lorraine region, France																
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
1997/12/06	03:39:57.8	+ - 0.40	49.380N	6.890E	6.0	2.0	92	1G		15	9	207	2.1ML		LEDBW	I

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
1997/12/08	17:54:12.6		47.979N	6.426E				20G			13		2.2ML	STR	NEIC	
1997/12/08	17:54:14.2	+/- 0.70	47.990N	6.560E	7.0	3.0	117	10G		11	8	246	2.2ML		LEDBW	L
<b>1997/12/08</b>	<b>17:54:13.2</b>	<b>+/- 0.20</b>	<b>48.025N</b>	<b>6.531E</b>	<b>4.6</b>	<b>3.0</b>	<b>154</b>	<b>19</b>	<b>+/- 1.8</b>	<b>25</b>			<b>2.5ML</b>		<b>LDG</b>	<b>L</b>

Epinal/F, Remiremont, Western Vosges Mountains

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BBS	i Pg	17:54:29.6	-0.2			96.0	130.1	
	e Sg	17:54:41.4	0.3					
END	e Pg	17:54:28.1	-1.7			96.3	110.5	
	e PmP+	17:54:29.5	-1.4					
	e Sg	17:54:39.4	-1.9					
	e SmS	17:54:41.2	-1.9					
KIZ	e Pn	17:54:29.7	-0.9			103.5	93.7	ML 2.2
	i Sn	17:54:43.1	0.2					
FELD	e Pn	17:54:31.4	-0.1			110.9	98.0	
	i Sn	17:54:45.3	0.8					
BFO	e Pg Z	17:54:38.7	1.9			2.0	137.6	75.0
	e Sg E	17:54:52.7	-0.2					
LBG	e Sg	17:55:05.6	0.2			181.7	66.1	ML 2.2
GUT	e Pg	17:54:46.8	0.9			192.1	87.5	ML 2.2
	i Sg	17:55:08.5	0.1					
BEU	e Sg	17:55:17.7	0.8			222.2	72.7	ML 2.1
TNS	e Sg E	17:55:33.8	0.0			281.3	29.0	

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

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	06:40:58.3			47.620N	13.747E				10G			9		2.8ML	VIE	NEIC	
1997/12/11	06:41:04.7	+-	0.93	47.860N	13.650E	14.5	8.9	129	10G		10	6	276	3.0ML		SZGRF	L
1997/12/11	06:40:58.4	+-	1.15	47.640N	13.750E	11.1	7.8	144	10G		8	5	286	2.6ML	WET	BGR	L
<b>1997/12/11</b>	<b>06:40:58.9</b>			<b>47.620N</b>	<b>13.660E</b>									<b>2.8ML</b>		<b>AGS</b>	

Wolfgangsee, Bad Ischl/A, W Salzkammergut

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GEC2	e Pn Z	06:41:19.7	-2.9		2.7	136.3	1.3	
	e Pg Z	06:41:21.0	-0.9		39.3			
	e Sg E	06:41:37.1	-0.7		4.0			
SCE	e Pg	06:41:26.5	0.4			160.5	247.0	
WET	e Pn Z	06:41:26.9	-0.8		9.0	179.0	341.5	ML 2.6
	e Sg E	06:41:49.7	-0.4		6.6			
FUR	e Sg N	06:41:53.9	1.4		2.5	187.8	289.6	ML 3.0
GRA1	e Pn Z	06:41:46.8	5.3			291.8	323.1	ML 2.8
	e Sg E	06:42:21.3	-0.9					
BRG	e Pg	06:41:56.3	-4.0			362.3	3.1	ML 3.0
	e Sg N	06:42:41.7	-0.8		2.0			
MOX	e Sg E	06:42:43.1	-0.9		6.0	367.7	336.9	ML 3.1
BFO	e Pg Z	06:42:09.6	2.2			404.5	283.2	ML 3.3
	e Sg E	06:42:59.1	4.6					
CLL	e Sg N	06:42:55.0	-1.8			412.8	353.6	ML 3.2

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/11	18:33:19.0	+-	5.20	49.450N	6.730E	78.0	14.0	100	1G		10	7	233	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				

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					

Date	Origin	Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/12	21:46:09.1	+-	1.81	47.580N	14.250E	17.8	8.9	143	10G		8	6	290	2.2ML	GEC2	BGR	L

Enns Valley/A,

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
GEC2	e Pg	Z 21:46:34.1	0.1	T	7.7	146.4	344.1	ML 2.2
	e Sg	E 21:46:51.8	0.7	T				
WET	e Pg	Z 21:46:43.5	0.2	T	1.1	201.3	330.3	ML 1.8
	e Sg	E 21:47:05.4	-1.3	T				
FUR	e Sg	E 21:47:14.8	-0.4	T		231.1	287.4	
GRFO	e Sg	E 21:47:43.1	1.5	T		323.4	317.6	
BRG	e Sg	E 21:47:53.6	-0.4	T		366.9	356.6	
MOX	e Sg	E 21:48:00.8	0.0	T		390.9	331.6	

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

Hamm/Westfalen, Ruhr Coal Mining District

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BUG	i Pg - Z	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	
	ML= 2.9(STR), Less reliable solution																
1997/12/16	06:06:36.5	+-	0.47	51.533N	7.355E	8.0	6.8	77	2	+-	0.0	16		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
1997/12/16	06:06:34.2			51.591N	7.577E				1G					2.1ML		RUB	I

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
1997/12/18	15:27:56.3	+ - 0.36	51.290N	12.650E	5.6	3.3	179	0G		12	7	153	2.4ML	MOX	BGR	B?

Leipzig

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
CLL	e Pg	Z	15:28:00.3	-0.2	T	75.4	24.6	85.3	ML 1.7
	e Sg	N	15:28:03.5	0.2	T				
BRG	e Pg	Z	15:28:13.3	-0.3	T	44.0	101.5	116.7	ML 2.6
	e Sg	E	15:28:26.6	1.2	T				
MOX	e Pg	Z	15:28:13.9	0.3	T	62.0	102.0	225.7	ML 2.4
	e Sg	N	15:28:27.1	1.7	T				
HOF	i Pg	+	15:28:17.4	0.5			121.4	206.9	
CLZ	e Pg	Z	15:28:25.2	0.2	T	8.2	168.9	292.2	ML 2.3
	e Sg	N	15:28:44.2	-0.4	T				
GRFO	e Pn	Z	15:28:28.0	-0.3	T	3.7	204.6	210.2	ML 2.4
	e Sg	E	15:28:54.8	0.0	T				
GEC2	e Sg	E	15:29:15.4	-1.5	T		282.0	164.2	
TNS	e Sg	E	15:29:27.3	-0.0	T		318.5	249.8	

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/20	09:31:01.1		49.545N	6.056E				10G			5		2.4ML	LDG	NEIC	
A single network solution																
1997/12/20	09:31:01.9	+ - 1.35	49.420N	6.020E	16.7	5.6	74	0G		5	3	244	1.9ML	GSH	BGR	B?

S of Luxembourg/LUX, French-Luxembourg border region

Sta	Phase		Time	TRes	Def	S/N	Dist	EvAz	Mag
GSH	e Sg	N	09:31:44.5	0.1	T		148.6	9.7	ML 1.9



TNS	e	Pg	Z	09:31:34.8	-0.3	T	1.6	195.6	61.9	ML	2.1
	e	Sg	N	09:31:57.9	0.2	T					
BFO	e	Pg	Z	09:31:37.2	0.1	T	1.7	207.9	124.8		
	e	Sg	N	09:32:01.6	0.3	T					

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/20	11:48:01.2		46.976N	5.794E				10G			23		2.6ML	STR	NEIC	
1997/12/20	11:48:03.7	+ - 0.50	47.000N	6.040E	5.0	3.0	99	13	+ - 3.0	12	8	326	2.3ML		LEDBW	L
<b>1997/12/20</b>	<b>11:48:01.6</b>	<b>+ - 0.11</b>	<b>46.976N</b>	<b>5.913E</b>	<b>2.4</b>	<b>2.1</b>	<b>149</b>	<b>2</b>	<b>+ - 0.0</b>	<b>40</b>			<b>2.7ML</b>		<b>LDG</b>	<b>L</b>

Arbois, SE of Dole/F

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
BBS	i Pg -	11:48:24.5	0.5			132.2	65.2	
	e Sg	11:48:39.8	0.4					
KIZ	i Pg -	11:48:33.1	-0.1			186.0	53.4	ML 2.3
	e Sg	11:48:54.6	-0.1					
FELD	i Pg +	11:48:33.4	0.2			186.4	56.8	
	i Sg	11:48:54.8	-0.0					
BFO	e Pg Z	11:48:41.5	-0.0		2.2	235.4	49.4	
	e Sg N	11:49:09.1	0.2					
GUT	e Pg	11:48:47.3	0.1			269.5	62.0	ML 2.3
	e Sg	11:49:19.0	0.4					

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	18:42:11.0	+ - 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										

Date	Origin Time	OT_err	Lat	Long	Smajor	Sminor	Az	Depth	D_err	Ndef	Nsta	Gap	Mag	Ref	Source	Ev_type
1997/12/28	22:52:27.2		47.133N	10.072E				12			53		3.0ML	VIE	NEIC	
ML= 3.1(STR), Intensity = IV (MSK) at Tschagguns/A																
1997/12/28	22:52:30.9	+/- 0.25	47.155N	9.885E	4.6	3.5	76	2	+/- 0.0	44			3.0ML		LDG	L
1997/12/28	22:52:27.3		47.099N	10.045E	0.8	0.8	0	10	+/- 3.0	12	8		2.8ML		SED	
1997/12/28	22:52:28.2	+/- 0.50	47.100N	10.100E	5.0	3.0	131	10G		39	16	279	2.9ML		LEDBW	L
1997/12/28	22:52:24.7	+/- 0.77	47.010N	10.030E	10.0	6.7	176	10G		17	9	279	2.9ML		SZGRF	L
<b>1997/12/28</b>	<b>22:52:26.0</b>		<b>47.080N</b>	<b>9.840E</b>									<b>3.1ML</b>		<b>AGS</b>	
Intensity = IV (EMS)																

Bludenz/A, Swiss-Austrian border region

Sta	Phase	Time	TRes	Def	S/N	Dist	EvAz	Mag
UBR	e Pg +	22:52:39.3	1.5			69.8	16.7	ML 2.9
	e Sg	22:52:48.6	2.7					
GUT	e Pn -	22:52:49.6	1.6			122.8	334.0	ML 2.6
	i Pg +	22:52:50.5	3.7					
	i Sg	22:53:06.7	5.6					
MSS	e Sg	22:53:10.5	4.9			138.8	332.2	
BHB	e Pn -	22:52:52.5	1.9			144.1	334.6	
HSN	e Pg +	22:52:53.6	3.1			144.4	340.7	
	e Sg	22:53:11.9	4.6					
JUN	e Pn +	22:52:53.3	1.8			151.3	337.0	
	e Pg +	22:52:54.7	3.1					
	e Sn	22:53:11.6	2.1					
	e Sg	22:53:13.8	4.6					
SOL	e Pn +	22:52:54.9	3.1			154.1	292.8	
	e Pg -	22:52:56.7	4.6					
	e Sg	22:53:17.0	6.9					
FUR	e Pn Z	22:52:53.3	0.6			161.5	41.2	ML 3.0
	e Sn E	22:53:12.0	0.4					
HEX	e Pn -	22:52:55.7	2.6			164.4	310.1	
	e Pg -	22:52:57.7	3.8					
	e Sg	22:53:18.8	5.8					
HDH	i Pn +	22:52:53.8	0.0			169.5	9.2	ML 3.1
	i Pg	22:52:56.0	1.3					
	e Sn	22:53:13.6	0.3					
	e Sg	22:53:16.9	2.4					

BEU	e	Pn	-	22:52:54.8	1.0	170.2	349.4	ML	2.9
	e	Sn		22:53:14.7	1.2				
	e	Sg		22:53:17.8	3.2				
END	e	Sg		22:53:22.0	6.5	173.3	294.8		
KIZ	e	Pn	-	22:52:56.9	2.6	174.1	304.7	ML	2.8
	i	Pg	+	22:53:00.4	4.9				
	e	Sg		22:53:22.0	6.3				
BFO	e	Pn	Z	22:52:57.3	2.3	179.1	321.4	ML	2.5
	e	Sn	E	22:53:17.9	2.5				
	e	Sg	E	22:53:21.3	4.2				
BBS	i	Pn	+	22:52:58.7	3.5	181.0	284.5		
	e	Pg	+	22:53:01.2	4.5				
	e	Sg		22:53:24.9	7.2				
BAW	i	Pn	+	22:52:58.1	2.9	181.3	297.0		
	e	Pg		22:53:00.7	4.0				
	e	Sg		22:53:24.1	6.3				
LBG	i	Pn	-	22:52:58.2	1.7	192.6	336.5	ML	2.8
	i	Sn		22:53:19.7	1.4				
HOL	e	Pn		22:53:04.5	0.3	254.7	359.5	ML	2.9
GRA1	e	Pn	Z	22:53:09.5	-1.1	307.8	18.8	ML	3.1
	e	Sg	E	22:53:55.0	1.1				
WET	e	Pn	Z	22:53:11.7	-0.6	321.7	43.4	ML	2.8
	e	Sn	E	22:53:45.3	-0.3				
	e	Sg	E	22:53:55.0	-2.9				
TNS	e	Sn	E	22:53:57.1	2.6	364.1	344.2	ML	3.2
	e	Sg	E	22:54:13.2	3.2				
MOX	i	Pn		22:53:22.2	-1.7	417.1	17.5	ML	3.0
	e	Sn	N	22:54:07.5	1.8				
	e	Sg	N	22:54:25.9	0.7				
BRG	e	Pg		22:53:51.3	-2.3	517.1	33.8		
	e	Sg	E	22:54:51.6	-2.1				
CLL	e	Sg	E	22:54:56.1	0.6	523.1	24.9		
CLZ	e	Sg	E	22:54:56.8	-0.8	530.8	4.0		

## Unassociated arrivals

Sta	Phase	Date	Time	TRes	Def	S/N	Dist	EvAz	Mag
BRG	e Pg	1997/12/01	17:50:52.1						
BRG	e Sg	1997/12/01	17:51:30.9						
CLL	e Sg	1997/12/01	17:51:54.0						
CLL	e (Sg)	1997/12/01	21:26:47.0						
BRG	e Sg	1997/12/03	16:06:17.0						
BRG	e Pg	1997/12/03	22:57:25.4						
BRG	i Sg	1997/12/03	22:57:51.5						
CLL	e Sg	1997/12/04	15:35:33.0						
OGA	i Pg +	1997/12/06	09:53:54.1						
OGA	i Pg +	1997/12/06	18:24:24.2						
SCE	e Pg	1997/12/06	18:24:31.1						
MOX	e Sg	1997/12/07	14:07:57.9						
CLL	e Sg	1997/12/08	14:00:41.0						
CLL	e Sg	1997/12/09	11:49:38.0						
BRG	e Sg	1997/12/09	16:33:39.6						
CLL	e (Sg)	1997/12/10	21:36:07.0						
CLL	e (Sg)	1997/12/10	22:16:36.0						
CLL	e Sg	1997/12/12	08:39:01.0						
BRG	e Sg	1997/12/13	05:20:27.1						
MOX	i Sg	1997/12/15	17:48:30.3						

BFO	e (Pg)	1997/12/22	12:58:27.3
BFO	e Sg	1997/12/22	12:58:33.2
CLL	e Sg	1997/12/24	09:43:37.0
BRG	e Sg	1997/12/27	00:00:02.7
CLL	e Sg	1997/12/27	00:00:02.0
MOX	e (Sg)	1997/12/28	10:13:23.2
MOX	e Sg	1997/12/28	12:47:27.9
BRG	i Sg	1997/12/29	16:27:36.7
CLL	e Sg	1997/12/29	16:28:01.0
CLL	e Sg	1997/12/30	18:14:11.0