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Old seismologic reports

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SEISMIC OBSERVATIONS
AT FABRA OBSERVATORY IN 1986

by M^a TERESA SUSAGNA VIDAL

The Observatory has the following seismographs:

Station FBR (Coordinates 41°25,0'N, 2°07,5'E)

— One short period «Teledyne Geotech» seismograph, vertical component, with ink recording (until 12 November).

— Two long period «Mainka» seismograph, horizontal components, with mechanic recording.

— One short period «Vicentini» seismograph, vertical component, with mechanic recording.

We symbolize by ZT Teledyne Geotech vertical component, by NM and EM the Mainka horizontal components and by ZV the Vicentini vertical component.

For the most outstanding earthquakes, we describe their epicentral characteristics, calculated by the Seismic Section of this Observatory (FBR), together with «Servei Geològic de Catalunya» (SGC) or provided by the United States Geological Survey (GS), by the «Centre Seismologique Europeo-Mediterranean» (CSEM), by the «Instituto Geográfico Nacional» (I.G.N.) or by the Laboratoire de Détection et de Géophysique (LDG) or by P. Sthal (PS).

Station FONT (Coordinates 41°45,7'N, 2°26,0'E)

— One short period «Teledyne Geotech» seismograph, vertical component, with ink recording (since 12 November).

The average instrumental constants have been:

1) Electromagnetic seismograph (electronic and ink recording):

Type	Component	Mass (kg)	Period(s) To	Magnification	Damping
Teledyne Geotech	Z (ZT)	5	1	64.000	0,7

2) Mechanical seismographs (recording on smoked paper):

Type	Component	Mass (kg)	Period(s) To	Damping E	Friction $r/T \sigma^2$	Amplification V
Mainka	N-S (NM)	141	6,4	1,80	0,039	48,2
	E-W (EM)	144	6,2	2,23	0,029	56,1
Vicentini	Z (ZV)	56	0,9	—	—	125



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
1 Jan	ZT	Pn	16	05	06,6	228	Ep.: 40,53 N; 1,31 W; H = 16:04:32 h = - km; M = 3,0 (SSIS) Teruel. Spain
		Pg	16	05	15,6		
		Pg	16	05	55,6		
8	ZT	Pg	13	41	36,2		Ep.: Local
8	ZT	Sg	14	22	31,7		Ep.: Local
9	ZT	Pg	12	48	12,2		Ep.: Local
		Sg	12	48	16,2		
14	ZT	P	01	50	34,4	228	Ep.: 39,78 N; 0,35 E; H = 01:50:03 h = - km; M = - (SSIS) Golfo de Valencia, Spain
14	ZT	P	03	12	27,2	5.830	Ep.: 36,3 N 71,0E; H = 03:03:37.4 h = 245 km; M = 5,2 (GS) Afghanistan-USSR Border Region
15	ZT	P	20	37	21,7	19.010	Ep.: 41,3 S; 170,1 E; H = 20:17:42,7 h = 150 km; M = 6,2 (GS) Loyalty Islands Region
15	ZT	Pg	22	19	55,2		Ep.: See pag. 98
		Sg	22	20	21,2		
17	ZT	Pg	13	11	19,4		Ep.: Local
		Sg	13	11	23,2		
19	ZT	Pn	20	12	30,0	570	Ep.: 36,3 N; 2,8 E; H = 20:11:13,9 h = 28 km; M = - (GS) Algeria
		Pg	20	12	31,5		
		Sg	20	12	24,0		
22	ZT	P	12	46	08,2	15.980	Ep.: 10,2S; 161,0 E; H = 12:26:45,4 h = 95 Km; M = 6,0 (GS) Salomon Islands
28	ZT	P	20	04	10,1	1.235	Ep.: 32,0 N; 5,3 W; H = 20:01:28,3 h = 22 km; M = 4,9 (GS) Marruecos
29	ZT	Pg	13	40	03,1		Ep.: Local
		Sg	13	40	07,1		
2 Feb	ZT	P	02	03	51,4	16.580	Ep.: 13,6 S; 166,7 E; H = 01:44:05,4 h = 31 km; M = 5,8 (GS) Vanuatu Islands
2	ZT	P	05	35	37,6	2.470	Ep.: 44,9 N; 28,1 W; H: 05:29:38.6 h = 10 km; M = 5,0 (GS) North Atlantic Ridge



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
3 Feb	ZT	S	10	22	25,1		Ep.: 42,6 N; 2,3 W; H = 10:20:46,4 h = - km; M = 3,3 (LDG) Burgos, Spain
6	ZT	Pn	01	09	59,0		Ep.: 43,4 N; 0,7 W; H = 01:08:10,7 h = 10 km; M = 3,7 (LDG) Pau, France
6	ZT	Pn Sn	18 18	44 45	14,2 01,0		Ep.: 43,1 N; 1,2 W; H = 18:43:25,6 h = 7 km; M = 3,8 (LDG) Pau, France
12	ZT	P	03	12	56,6	10.410	Ep.: 36,4 N; 141,1 E; H = 02:59:30,4 h = 30 km; M = 6,1 (SG) Near Coast of Honshu, Japan
12	ZT	Pg Sg	04 04	19 19	52,9 55,6		Ep.: See pag. 98
13	ZT	P	19	27	48,6	16.670	Ep.: 14,2 S; 167,3 E; H = 19:08:20,5 h = 206 km; M = 5,7 (SG) Vanuatu Islands
13	ZT	P	20	24	56,1	650	Ep.: 35,6 N; 1,4 E; H = 20:22:30,5 h = 31 km; M = 4,3 (SG) Algeria
17	ZT	Pg Sg	22 22	36 36	11,2 16,2		Ep.: See pag. 98
26	ZT	Pg Sg	05 05	11 11	36,4 52,9		Ep.: See pag. 98
6 Mar	ZT	P	00	12	46,2	4.090	Ep.: 40,4 N; 51,5 E; H = 00:05:38,3 h = 33 km; M = 6,2 (SG) Caspian Sea
14	ZT	Pg Sg	13 13	58 58	36,0 39,7		Ep.: Local
17	ZT	Pg Sg	12 12	44 44	23,5 27,6		Ep.: Local
17	ZT	Sg	13	15	24,1		Ep.: Local
20	ZT	Sg	12	41	09,6		Ep.: Local
22	ZT	Pg Sg	08 08	51 51	04,6 16,1		Ep.: See pag. 99



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
1 Apr	ZT	Pg Sg	11 11	07 07	21,2 24,7		Ep.: Local
1	ZT	P	13	53	07,7	9.160	Ep.: 54,6 N; 161,6 E; H = 13:40:45,1 h = 35 km; M = 5,7 (SG) Near Coast of Kamchatka
8	ZT	Pg Sg	14 14	27 27	26,5 30,0		Ep.: Local
11	ZT	Sg	04	52	39,0		Ep.: 43,1 N; 1,0 W; H = 04:51:09 h = 2 km; M = 3,3 (LDG) Pau, France
14	ZT	P	00	44	56,0	16.629	Ep.: 13,9 S; 166,8 E; H = 00:25:12,4 h = 29 km; M = 6,0 (SG) Vanuatu Islands
19	ZT	Pn Sn	09 09	02 02	33,1 10,1		Ep.: 43,1 N; 0,5 W; H = 09:01:51,6 h = 13 km; M = 3,9 (LDG) Pau, France
19	ZT	P S	22 22	06 06	03,6 30,1		Ep.: 43,1 N; 0,5 W; H = 22:05:13,6 h = 15 km; M = 3,3 (LDG) Pau, France
24	ZT	Pg Sg	10 10	54 54	46,7 48,7		Ep.: Local
26	ZT	P	00	13	31,2		Ep.: 37,21 N; 3,73 W; H = 00:12:01 h = - km; M = 4,2 (IGN) Granada, Spain
26	ZT	P	14	24	03,2	5.850	Ep.: 36,5 N; 71,1 E; H = 14:15:07,6 h = 187 km; M = 5,6 (GS) Afghanistan-USSR Border Region
2 May	ZT	P	10	42	27,0	9.130	Ep.: 55,2 N; 163,8 E; H = 10:30:02,8 h = 15 km; M = 6,0 (GS) East Coast of Kamchatka
5	ZT	P	03	41	29,0	3.050	Ep.: 38,0 N; 37,8 E; H = 03:35:38,8 h = 10 km; M = 5,9 (GS) Turkey
7	ZT	P	22	59	56,1	9.680	Ep.: 51,5 N; 174,8 W; H = 22:47:10,8 h = 33 km; M = 6,4 (GS) Aleutian Islands
7	ZT	P	23	34	16,6	5.800	Ep.: 36,4 N; 70,7 E; H = 23:25:25,9 h = 223 km; M = 5,9 (GS) Hindu-Kush Region
11	ZT	P	01	37	23,1	10,440	Ep.: 26,7 N; 125,2 E; H = 01:24:25,7 h = 194 km; M = 5,6 (GS) Northeast of Taiwan



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
13 May	ZT	Pn	00	21	25,7		Ep.: 36,6 N; 4,5 W; H = 00:19:46 h = - km; M = 4,3 (IGN) Malaga, Spain
		Sn	00	22	36,2		
13	ZT	P	08	50	20,2	3.430	Ep.: 41,4 N; 43,7 E; H = 08:44:02,1 h = 10 km; M = 5,7 (GS) Turkey-USSR Border Region
13	ZT	P	18	39	47,2		Ep.: 39,2 N; 2,7 W; H = 18:38:44,0 h = - km; M = 3,8 (IGN) Albacete, Spain
14	ZT	Pn	23	56	23,7		Ep.: 39,9 N; 1,4 W; H = 23:55:37,0 h = - km; M = 3,4 (IGN) Cuenca, Spain
		Sn	23	57	11,7		
15	ZT	Sg	12	41	53,2		Ep.: See pag. 99
19	ZT	Pg	14	43	00,5		Ep.: Local
		Sg	14	43	13,5		
19	ZT	PKP	21	13	46,5	16.500	Ep.: 12,61 S; 167,2 E; H = 20:54:03,7 h = 52 km; M = 5,4 (GS) Santa Cruz Islands
20	ZT	P	05	42	50,0	10.430	Ep.: 24,1 N; 121,6 E; H = 05:25:46,9 h = 19 km; M = 6,1 (GS) Taiwan
21	ZT	P	06	00	09,0	9.970	Ep.: 43,7 N; 148,4 E; H = 05:47:10,8 h = 39 km; M = 6,1 (GS) Kuril Islands Region
22	ZT	P	19	56	57,0	2.260	Ep.: 34,6 N; 26,5 E; H = 19:52:21,8 h = 43 km; M = 5,1 (GS) Crete
23	ZT	P	10	00	14,5	5.470	Ep.: 12,7 N; 48,2 E; H = 09:51:24,4 h = 10 km; M = 5,5 (GS) Eastern Gulf of Aden
26	ZT	P	18	59	38,0	17.830	Ep.: 21,8 S; 179,1 W; H = 18:40:44,2 h = 583 km; M = 6,1 (GS) Fiji Islands Region
26	ZT	P	19	25	12,6	17.640	Ep.: 20,2 S; 178,8 E; H = 19:06:15,9 h = 583 km; M = 6,1 (GS) South of Fiji Islands
1 Jun	ZT	Pg	12	03	22,1		Ep.: See pag. 99
		Sg	12	03	33,1		
2	ZT	P	01	50	47,2	15.320	Ep.: 7,0 S; 154,5 E; H = 01:31:09,8 h = 16 km; M = 5,9 (SG) Solomon Islands



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
2 Jun	ZT	Pn	22	05	45,7		Ep.: 43,4 N; 0,6 W; H = 22:04:59,2 h = - km; M = 3,7 (LDG) Pau, France
8	ZT	P	11	15	19,6	9.940	Ep.: 43,3 N; 146,5 E; H = 11:02:25,8 h = 56 km; M = 6,0 (SG) Kuril Islands
11	ZT	P	13	58	38,5	7.150	Ep.: 10,6 N; 62,9 W; H = 13:48:01,3 h = 19 km; M = 6,0 (SG) Near Coast of Venezuela
12	ZT	Pg Sg	07 07	18 18	44,6 55,8		Ep.: See pag. 100
16	ZT	P	11	07	23,1	17.850	Ep.: 22,0 S; 179,0 W; H = 10:48:25,7 h = 547 km; M = 6,3 (SG) Fiji Islands Region
17	ZT	P	00	55	00,1	9.210	Ep.: 53,9 N; 160,4 E; H = 00:42:35,4 h = 33 km; M = 5,9 (SG) Near Coast of Kamchakta
17	ZT	P	18	31	41,1	12.240	Ep.: 5,6 N; 125,3 E; H = 18:13:11,5 h = 32 km; M = 6,2 (SG) Mindanao, Philippine Islands
17	ZT	Pg Sn Sg	21 21 21	34 34 34	57,3 24,3 26,1		Ep.: See pag. 100
18	ZT	P	04	11	01,6	2.460	Ep.: 45,2 N; 28,0 W; H = 04:06:03,9 h = 10 km; M = 5,0 (SG) North Atlantic Ridge
19	ZT	P	09	21	25,6	8.900	Ep.: 56,3 N; 152,9 W; H = 09:09:09,2 h = 17 km; M = 6,0 (SG) Kodiak Islands region
19	ZT	P	18	24	54,7	9.630	Ep.: 7,8 N; 94,5 E; H = 18:12:27,8 h = 164 km; M = 5,9 (SG) Nicobar Islands Region
20	ZT	P	17	23	34,2	7.370	Ep.: 31,2 N; 86,8 E; H = 17:12:46,9 h = 33 km; M = 5,9 (SG) Tibet
24	ZT	P	03	06	30,0	10.540	Ep.: 34,8 N; 140,6 E; H = 02:53:11,2 h = 63 km; M = 6,1 (SG) Near East Coast of Honsu Japan
24	ZT	P	03	30	20,0	14.420	Ep.: 4,4 S; 143,9 E; H = 03:11:30,9 h = 102 km; M = 6,6 (SG) Papua New Guinea



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
24 Jun	ZT	P	07	05	12,0	5.030	Ep.: 0,1 S; 17,8 W; H = 06:56:54,5 h = 22 km; M = 5,7 (SG) North of Ascension Islands
27	ZT	Pg Sg	19 19	44 44	04,6 18,6		Ep.: See pag. 100
2 Jul	ZT	P	04	35	50,2	17.840	Ep.: 22,0 S; 179,5 W; H = 04:16:57,7 h = 598 km; M = 5,6 (GS) South Fiji Islands Region
2	ZT	Pg Sg	11 11	56 56	55,2 58,9		Ep.: Local
7	ZT	P	16	41	44,2	6.320	Ep.: 10,4 N; 56,8 E; H = 16:26:56,6 h = 8 km; M = 6,4 (SG) Calsnerg Ridge
9	ZT	Sg	11	15	13,3		Ep.: Local
9	ZT	P	23	29	38,8	12.650	Ep.: 1,9 N; 126,5 E; H = 23:10:53,1 h = 28 km; M = 6,2 (SG) Molucca Passage
12	ZT	P	08	02	13,3	4.570	Ep.: 29,9 N; 51,6 E; H = 07:54:26,8 h = 10 km; M = 5,7 (SG) Southern Iran
13	ZT	P	09	24	33,4	8.980	Ep.: 16,1 N; 93,9 W; H = 09:12:10,7 h = 80 km; M = 5,9 (SG) Chiapas, Mexico
15	ZT	Pg	11	18	59,9		Ep.: Local
15	ZT	Pg	12	02	44,4		Ep.: Local
16	ZT	PKP	13	01	09,4	17.280	Ep.: 19,5 S; 169,2 E; H = 12:41:28,3 h = 111 km; M = 6,2 (SG) Vanuatu Islands
16	ZT	P	22	13	17,4	6.690	Ep.: 31,0 N; 78,0 E; H = 22:03:10,7 h = 33 km; M = 5,6 (SG) Northern India
17	ZT	P	15	55	—	5.840	Ep.: 36,7 N; 71,2 E; H = 15:46:37,0 h = 47 km; M = 5,3 (SG) Afghanistan-USSR Border Region
17	ZT	P	21	12	29,9	9.260	Ep.: 37,3 N; 116,3 W; H = 21:00:00,0 h = 600 km; M = 5,7 (SG) Southern Nevada



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
19 Jul	ZT	P	04	44	29,5	9.410	Ep.: 53,4 N; 165,9 W; H = 04:31:55,9 h = 33 km; M = 5,5 (SG) Vanuatu Islands
19	ZT	P	06	12	09,5	9.700	Ep.: 47,3 N; 151,1 E; H = 05:59:36,2 h = 141 km; M = 5,9 (SG) Kuril Islands
19	ZT	P	22	45	09,5	9.400	Ep.: 53,5 N; 167,3 W; H = 22:32:36,0 h = 33 m; M = 5,6 (SG) Fox Islands, Aleutian Islands
21	ZT	P	14	55	03,7	9.370	Ep.: 37,5 N; 118,4 W; H = 14:42:26,6 h = 9 km; M = 6,0 (SG) California-Nevada Border Region
23	ZT	Pg	12	45	25,7		Ep.: Local
25	ZT	Pg	13	08	18,6		Ep.: Local
4 Aug	ZT	Pg	11	43	40,2		Ep.: Local
8	ZT	P	03	33	31,0	16.740	Ep.: 14,9 S; 167,4 E; H = 03:08:56,0 h = 156 km; M = 5,0 (SG) Vanuatu Islands
10	ZT	P	04	59	19,0	12.760	Ep.: 12,0 N; 128,3 E; H = 04:40:49,7 h = 104 km; M = 6,1 (SG) Halmahera
10	ZT	P	15	13	30,0	770	Ep.: 41,1 N; 7,1 W; H = 15:11:52 h = - km; M = 4,3 (IGN) Portugal
30	ZT	P	21	32	38,1	1.990	Ep.: 45,5 N; 26,3 E; H = 21:28:35,4 h = 132 km; M = 6,4 (SG) Romania
2 Sep	ZT	Pg Sg	01 01	22 22	43,2 55,2		Ep.: See pag. 100
2	ZT	Pg Sg	03 03	01 01	02,2 14,0		Ep.: See pag. 100
2	ZT	Pg	09	36	51,0		Ep.: Local
2	ZT	Pg	12	36	51,7		Ep.: See pag. 100
13	ZT	P	00	09	28,2	8.900	Ep.: 56,2 N; 153,3 W; H = 23:57:15,6 (12 Sep.) h = 31 km; M = 6,1 (SG) Kodiak Islands Region



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
13 Sep	ZT	P	17	28	21,7	1.790	Ep.: 37,0 N; 22,2 E; H = 17:24:31,4 h = 11 km; M = 6,0 (SG) Southern Greece
15	ZT	P	21	51	34,2	5.820	Ep.: 36,7 N; 71,1 E; H = 21:42:29,2 h = 89 km; M = 5,8 (SG) Afghanistan-USSR Border Region
16	ZT	P	18	38	48,2	12.320	Ep.: 19,4 N; 146,3 E; H = 18:20:17,7 h = 48 km; M = 6,5 (SG) Mariana Islands Region
16	ZT	P	21	09	32,7	8.900	Ep.: 56,2 N; 153,6 W; H = 20:57:21,9 h = 33 km; M = 5,3 (SG) Kodiak Island Region
17	ZT	P	12	17	12,7	5.840	Ep.: 37,3 N; 71,7 E; H = 12:08:09,4 h = 120 km; M = 5,53 (SG) Afghanistan-USSR Border Region
17	ZT	P	21	35	03,2	6.330	Ep.: 10,5 N; 57,0 E; H = 21:25:15,0 h = 10 km; M = 5,8 (SG) Carlsberg Ridge
22	ZT	Pg Sg	00 00	12 12	29,8 43,9		Ep.: See pag. 100
23	ZT	P	13	50	10,8	16.910	Ep.: 16,6 S; 167,2 E; H = 13:30:15,3 h = 19 km; M = 5,5 (SG) Vanuatu Islands
24	ZT	Pg Sg	11 11	39 39	44,9 46,4		Ep.: Local
6 Oct	ZT	P	23	40	22,7	8.950	Ep.: 25,5 N; 102,4 E; H = 23:28:07,2 h = 10 km; M = 5,4 (SG) Yuman Province, China
7	ZT	P	14	23	43,7	16.910	Ep.: 16,6 S; 167,3 E; H = 14:03:44,5 h = 10 km; M = 5,7 (SG) Vanuatu Islands
11	ZT	P	09	04	52,0	2.290	Ep.: 37,9 N; 28,6 E; H = 09:00:10,5 h = 5 km; M = 5,4 (SG) Turkey
17	ZT	P	07	51	40,2	13.600	Ep.: 5,3 S; 131,4 E; H = 07:32:51,3 h = 67 km; M = 6,3 (SG) Banda Sea
17	ZT	P	09	09	44,2	2.580	Ep.: 43,1 N; 29,3 W; H = 09:04:36,0 h = 10 km; M = 5,0 (SG) North Atlantic Ridge



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
20 Oct	ZT	P	07	06	17,2	18.530	Ep.: 28,1 S; 176,4 W; H = 06:46:09,9 h = 29 km; M = 6,6 (SG) Kermadec Islands Region
20	ZT	Pg Sg	14 14	50 52	37,2 18,2	1.100	Ep.: 36,7 N; 8,8 W; H = 14:48:19 h = - km; M = 4,7 (IGN) Cabo San Vicente, Spain
22	ZT	P	09	18	51,3	16.240	Ep.: 10,6 S; 166,0 E; H = 08:59:28,8 h = 165 km; M = 5,9 (SG) Santa Cruz Islands
22	ZT	Pg	12	14	29,3		Ep.: Local
22	ZT	Pg	12	37	49,8		Ep.: Local
23	ZT	P	02	38	27,8	16.820	Ep.: 15,6 S; 167,6 E; H = 02:18:51,8 h = 160 km; M = 5,7 (SG) Vanuatu Islands
23	ZT	P	16	08	—	16.250	Ep.: 11,0 S; 165,2 E; H = 15:48:43,7 h = 19 km; M = 5,4 (SG) Santa Cruz Islands
23	ZT	P	16	43	—	16.270	Ep.: 11,1 S; 165,5 E; H = 16:23:49,2 h = 24 km; M = 5,5 (SG) Santa Cruz Islands
23	ZT	P	19	04	36,3	16.269	Ep.: 11,1 S; 165,2 E; H = 18:44:57,4 h = 31 km; M = 5,8 (SG) Santa Cruz Islands
25	ZT	P	21	06	58,3	17.050	Ep.: 17,6 S; 168,1 E; H = 20:47:01,8 h = 31 km; M = 5,8 (SG) Vanuatu Islands
26	ZT	Pg Sg	21 21	56 56	47,3 56,4		Ep.: See pag. 101
27	ZT	P	00	14	30,4	2.430	Ep.: 46,0 N; 27,6 W; H = 00:09:31,9 h = 10 km; M = 5,3 (SG) North Atlantic Ridge
28	ZT	Pg Sg	06 06	48 49	56,8 —		Ep.: 39,9 N; 1,2 W; H = 06:48:13 h = - km; M = 3,3 (IGN) Cuenca, Spain
28	ZT	Pg Sg	13 13	06 06	37,9 39,4		Ep.: Local
28	ZT	Pg	14	52	04,4		Ep.: Local
29	ZT	Pg Sg	11 11	57 57	49,5 50,9		Ep.: Local



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
30 Oct	ZT	P	01	48	33,4	17.820	Ep.: 21,7 S; 176,6 W; H = 01:28:54,5 h = 188 km; M = 6,4 (SG) Fiji Islands Region
1 Nov	ZT	P	05	14	27,5	8.410	Ep.: 26,7 N; 96,3 E; H = 05:02:00,0 h = - km; M = 5,4 (SG) Burna
2	ZT	Pg Sg	16 16	02 03	36,5 08,0		Ep.: See pag. 101
9	ZT	P	03	34	42		Ep.: 36,7 N; 1,8 E; H = 03:33:33,7 h = - km; M = 3,2 (LDG) Mediterranean Sea
12	ZT	Pg	20	23	25,1		Ep.: 42,9 N; 1,1 W; H = 20:22:30,5 h = 2 km; M = 2,6 (LDG) Luz, France
20	ZT	P	13	34	13,1		Ep.: 16,0 S; 167,6 E; H = 13:14:00,0 h = - km; M = 5,5 (SG) Vanuatu Islands
20	ZT	P	20	15	44,3		Ep.: 29,0 N; 51,0 E; H = 20:08:00,0 h = - km; M = 5,2 (SG) Southern Iran
22	ZT	P	17	28	10,1		Ep.: 15,0 S; 167,0 E; H = 17:08:00,0 h = - km; M = 5,4 (SG) Vanuatu Islands
23	ZT	P S	01 01	09 09	10,1 44,6		Ep.: 43,1 N; 0,6 W; H = 01:08:22,4 h = - km; M = 2,6 (LDG) Pau, France
23	ZT	P	01	51	47,1		Ep.: 3,0 S; 77,0 W; H = 01:39:00,0 h = - km; M = 6,4 (SG) Peru-Ecuador Border Region
23	ZT	Pg	04	29	11,1		Ep.: 44,8 N; 6,7 E; H = 04:28:05,9 h = - km; M = 5,4 (LDG) Gap, France
24	ZT	Pg Sg	04 04	56 56	24,1 32,1		Ep.: See pag. 101
25	ZT	Pg Sg	15 15	34 34	27,3 46,6		Ep.: See pag. 101
2 Dic	ZT	Pg	13	16	46,2		Ep.: Local
2	ZT	Pg Sg	21 21	11 12	47,2 25,2		Ep.: 43,1 N; 0,6 W; H = 02:11:03,3 h = 3 km; M = 2,9 (LDG) Pau, France



SEISMIC OBSERVATIONS

1986

Date	Comp.	Phase	Time TU			Δ Km	Remarks
			h	m	s		
3 Dic	ZT	P	02	15	09,5		Ep.: 43,1 N; 0,7 W; H = 02:14:24,9 h = 5 km; M = 3,6 (LDG) Pau, France
		S	02	15	48,7		
12	ZT	Pg	15	08	27,0		Ep.: Local
12	ZT	Pg	17	07	17,5		Ep.: Local
15	ZT	Pg	21	25	34,7		Ep.: Local
		Sg	21	25	37,0		
16	ZT	Pn	14	42	25,6		Ep.: Local
		Pg	14	42	24,1		
		Sn	14	42	31,1		
		Sg	14	42	35,5		
16	ZT	Pg	14	47	32,1		Ep.: Local
		Sg	14	47	48,8		
16	ZT	Pg	17	24	15,6		Ep.: Local
		Sg	17	24	18,6		
18	ZT	P	09	18	01,1		Ep.: Local
		S	09	18	13,1		
19	ZT	P	23	42	33,8		Ep.: 36,4 N; 3,5 E; H = 23:41:16,2 h = - km; M = 4,0 (LDG)
29	ZT	Pn	23	07	09,0		Ep.: 43,0 N; 0,1 W; H = 23:06:36,8 h = - km; M = 2,8 (LDG) Pau, France
		Pg	23	07	15,0		
		Sg	23	07	47,5		
29	ZT	Pg	23	34	09,3		Ep.: 43,0 N; 0,1 W; H = 23:33:30,3 h = - km; M = 2,8 (LDG) Pau, France
30	ZT	Pg	18	10	24,5		Ep.: Local

