

Apéndice A

Detalle de condiciones y parámetros de registraci3n de las estaciones utilizadas de la Red Sismol3gica Zonal Nuevo Cuyo (RSZNC – INPRES)

En este apartado se presentan dos tablas que contienen las condiciones de registraci3n de las estaciones sismol3gicas utilizadas para este estudio y los parámetros de las curvas de respuesta instrumental.

En la tabla A1 se recopila la informaci3n brindada por el INPRES acerca de la localizaci3n geogr3fica de las estaciones, sus períodos de funcionamiento, el tipo de roca en el emplazamiento de la instalaci3n para consideraciones del efecto de sitio y la modalidad de envío de datos (anal3gico o digital) hasta la sede del INPRES en San Juan. Se incluyen adem3s el modelo de sensor empleado, que en estas estaciones puede ser S-13, un modelo corto período de Geotech-Teledyne o GURALP, un sensor banda ancha marca Guralp pero sin especificaci3n del modelo. En algunos casos se indica el modelo de la tarjeta de conversi3n anal3gico-digital (CAD). En todas las estaciones, se informan la resoluci3n del digitizador, la frecuencia de muestreo utilizada y el filtro anal3gico antialias implementado que en general define la banda de paso de la estaci3n dada la frecuencia de muestreo elegida.

En la tabla A2 se presentan los parámetros necesarios para la construcci3n de las curvas de respuesta de las estaciones utilizando, por ejemplo, el programa *resp.exe* que se incluye en el paquete SEISAN (Havskov y Ottem3ller, 2008). A partir de los resultados de calibraciones instrumentales efectuadas por el INPRES, dichos parámetros fueron calculados mediante una subrutina MATHCAD implementada por G. Alguacil (Havskov y Alguacil, 2004). Las curvas de respuesta han sido construidas con el programa *resp* para su empleo en el procesamiento de los datos cada vez que ha sido necesario remover la respuesta instrumental.

Tabla A.1.- Características de emplazamiento y registración. En cada fila se muestra: código de estación en cuatro letras, nombre de estación, códigos alternativos correspondientes a diferentes intervalos de tiempo o curvas e respuesta, fechas de instalación y desinstalación de equipos si las hubiere, coordenadas, elevación y tipo de rocas en el emplazamiento, modelo de sensor (S-13 es modelo corto periodo de Geotech-Teledyne y GURALP es marca de sensor e indica banda ancha), formato de telemetría hasta la Central del INPRES, tipo de convertidor analógico digital de acuerdo a marca-diseño de plaqueta de adquisición, resolución en bits y frecuencia del filtro antialiasing. Las frecuencias de muestreo fueron en todos los casos de 100 mps para eventos anteriores al 06/08/1998. Para los datos de eventos posteriores a esa fecha, la frecuencia cambió a 40 mps a excepción de las estaciones RTLL, RTLS, RTCV, ICAZ, CFAZ (no así FO24) que cambiaron a 80 mps. Debido a la existencia de más de un canal de datos y denominación para algunas estaciones, se adoptó una sigla por emplazamiento de estación, manteniéndose los nombres originales de los canales en las extensiones de los archivos ASCII a través de una selección de tres letras de las cuatro que conforman la sigla. En la tabla, los guiones separan nombres o configuraciones de diferentes canales a veces coetáneos, las barras separan configuraciones sucesivas en el tiempo.

* Se sabe que dejó de funcionar con la configuración original el 01-Nov-88. Luego se ha vuelto a instalar con la configuración mencionada en la tabla pero dejó de funcionar entre abril y julio de 1996.

** La fecha de inicio corresponde a la instalación de la estación con denominación MO13 (m13), MO14 (m14) se sabe que funcionó además como RTMC hasta abril de 1997.

SIGLA	UBICACIÓN	Extensión	Inicio	Cierre	Latitud	Longitud	Elev.	Roca de sitio	Sensor	Telemetría	CAD	Resol. (bits).	AAF
AR11	Agrelo	ar11-ar21	12/06/97		-33.08567	-68.8275	1159	Sedimentaria	S-13	Analógica		24	16 Hz
AR12	Vizcacheras	ar12-ar22	01/10/96		-33.47367	-68.51517	1019	Sedimentaria	S-13	Analógica		24	16 Hz
AR13	Salagasta	ar13-ar23	09/06/97		-32.59167	-68.834	1000?	Sedimentaria	S-13	Analógica		24	16 Hz
AR14	Co. Arco	ar14	No disp.		-32.84133	-68.93283	-	-	-	-		24	16 Hz
CA21	Catantal	ca21-ca11	28/09/96		-32.27467	-67.18767	634	Sedimentaria	GURALP	Digital		24	16 Hz
CFAZ	Coronel Fontana	cfaz-fo24-fo14	01/01/85 03/02/95		-31.60317	-68.23217	621	Metamórfica	S-13/ GURALP	Analógica/ Digital	IASPEI	16-24	7.5 Hz -16 Hz
CH11	Marayes	ch11	03/02/95		-31.456	-67.32683	615	Metamórfica	S-13	Digital (96) Analógica (98)	REF - TEK	16	25 Hz AAF/ 40mps y 16Hz AAF/

SIGLA	UBICACI3N	Extensi3n	Inicio	Cierre	Latitud	Longitud	Elev.	Roca de sitio	Sensor	Telemetría	CAD	Resol. (bits).	AAF
CH12	Chepes	ch15-ch12	03/02/95		-31.16667	-66.66283	1470	Metam3rfica	S-13	Digital	REF - TEK	16	sin AAF/ idem CH11
CO11	Rodeo	co11-rode	No disp.		-30.167	-69.47333	2745	Ígnea	S-13	Anal3gica	REF - TEK	16	idem CH11
CO12	Cuesta del Viento	co12-cues	03/02/95		-30.17083	-69.11967	1572	Sedimentaria	S-13	Anal3gica	REF-TEK	16	idem CH11
CO13	Co. Coronel	co13-co23	03/02/95		-30.5885	-69.081	2792	Metam3rfica	S-13	Digital	REF - TEK	16	idem CH12
CO16	cerca de Co. Coronel	co16	No disp.		-30.58769	-69.06611	-	-	-	Digital	REF - TEK	16	idem CH12
ICAZ	INPRES Central	icaz	01/01/80		-31.52817	-68.55983	660	Sedimentaria	S-13	Anal3gica	IASPEI	16	--
MO11	Mogna	mo11	25/09/96		-30.93967	-68.49233	830	Sedimentaria	S-13	Anal3gica		24	40mps y 16Hz AAF
RTCB	Co. Blanco	rtcb	01/09/75	10/11/96	-31.4885	-68.8095	1030	Ígnea	S-13	Anal3gica	IASPEI	16	12.5 Hz
RTCV	Co. Valdivia	rtcv	01/09/75		-31.86217	-68.54017	670	Metam3rfica	S-13	Anal3gica	IASPEI	16	12.5 Hz
RTLL	La Laja	rtll	01/09/75		-31.32917	-68.47483	690	Sedimentaria	S-13	Anal3gica	IASPEI	16	12.5 Hz
RTLS	El Leoncito	rtls	02/02/94		-31.7995	-69.295	2560	Sedimentaria	S-13	Anal3gica	IASPEI	16	12.5 Hz
RTMC	Mogote Los Corralitos	rtmc-mo13-mo14	01/10/96**		-31.3095	-67.924	3100	Metam3rfica	S-13	Digital	IASPEI	16-24-24	7.5 Hz /16 Hz AAF a 40mps
RTPR	Patquia	rtptr	01/05/83*	*	-30.308	-66.55167	460	Metam3rfica	S-13	Anal3gica	IASPEI	16	12.5 Hz
VF11	Tabla 1. Características de emplazamiento y registraci3n (continua)												
VF12	Punta de los	vf12	20/06/97		-30.39567	-66.52767	725	Sedimentaria	S-13	Anal3gica		24	16 Hz

SIGLA	UBICACIÓN	Extensión	Inicio	Cierre	Latitud	Longitud	Elev.	Roca de sitio	Sensor	Telemetría	CAD	Resol. (bits).	AAF
	Llanos												
VF13	Co. La Cruz	vf13	19/06/97		-29.42617	-66.95117	1650	Ígnea	S-13	Analógica		24	16 Hz

Tabla A.1.- Características de emplazamiento y registración (continuación)

STAT	COMP	PERIOD	DAMP	GENCON [V.s.m ⁻¹]	AMP_GAIN [dB]	REC_MEDIA_GAIN [counts.V ⁻¹]	FLOW [Hz]	P	FHIG [Hz]	P	G@1_HZ [x10 ⁰⁹ counts. ηm ⁻¹]	G@5_HZ [x10 ⁰⁹ counts. ηm ⁻¹]
CFAZ	S_Z	1	0.85	331.1	53.6	3280	0.5	2	7.5	2	1.87	14.655
CH11	S_Z	1	0.81	345	54.2	8740	0.01	2	25	2	6	47.914
CH12	S_Z	1	0.7	382.9	54.2	8740					7.65	53.893
CH15	S_Z	1	0.7	382.9	18.1	8740					0.12	0.844
CO11	S_Z	1	0.69	388.1	54.2	8740	0.01	2	25	2	7.92	54.67
CO12	S_Z	1	0.81	345	54.2	8740	0.01	2	25	2	6	47.914
CO13	S_Z	1	0.7	382.9	42.1	8740					1.9	13.383
CO16	S_Z	1	0.7	382.9	18.1	8740					0.12	0.844
CUES	S_Z	1	0.81	345.1	54.2	8740	0.5	2	7.5	2	5.82	43.833
ICAZ	S_Z	1	0.71	380.2	0	3280					0.0055	0.039
RODE	S_Z	1	0.69	388.1	54.2	8740	0.5	2	7.5	2	7.69	50
RTCB	S_Z	1	0.69	388.1	78.1	3280	0.2	2	12.5	2	46.5	317.659
RTCV	S_Z	1	0.69	388.1	67	3280	0.2	2	12.5	2	13	88.506
RTLL	S_Z	1	0.69	388.1	69.6	3280	0.2	2	12.5	2	17.5	119.388
RTLS	S_Z	1	0.69	388.1	66	3280	0.2	2	12.5	2	11.5	78.88
RTMC	S_Z	1	0.85	331	52	3280	0.5	2	7.5	2	1.55	12.185
RTPR	S_Z	1	0.69	388.1	66	3280	0.2	2	12.5	2	11.5	78.88
VF11	S_Z	1	0.7	382.9	54.2	8740					7.65	53.893
VF14	S_Z	1	0.7	382.9	18.1	8740					0.12	0.844

Tabla A.2.- Constantes de las respuestas de instrumento en desplazamiento a partir de los parámetros listados en la tabla A.1 e incorporados a curvas en formato SEISAN. De izquierda a derecha las columnas contienen código de estaci3n, componente (S por corto período y Z por vertical), período propio del sism3metro, factor de amortiguamiento del sism3metro, constante generadora del sensor, ganancia del amplificador, ganancia promedio del registrador, frecuencia inferior de corte para evitar el paso de DC y número de polos correspondientes, frecuencia superior de corte para evitar el aliasing y número de polos correspondientes, ganancia total en desplazamiento a 1 Hz y a 5 Hz.

Apéndice B

Catálogo de eventos seleccionados

El catálogo original de sismos está compuesto por eventos con profundidades estimadas a priori tanto superficiales como intermedias y registrados digitalmente por las estaciones de la Red Sismológica Zonal Nuevo Cuyo, INPRES, entre agosto de 1995 a marzo de 1999. Las condiciones impuestas en la selección han sido: una buena relación señal-ruido, amplitudes no saturadas y codas con duraciones cercanas o superiores a 60s. Estas resultan ser las condiciones básicas para asegurar una base de datos apta para la implementación de las técnicas de análisis de atenuación propuestas. La localización preliminar se ha efectuado en forma individual y con el programa HYPO71. La estructura de velocidad unidimensional de ondas P fue ajustada a los datos mediante la técnica de determinación conjunta de hipocentros y velocidad (JHD) implementada en el programa VELEST (Kissling et al., 1994, Kissling, 1995). Con el modelo de velocidades (Tabla 3.2) y las correcciones de estación (Tabla 3.3) obtenidos se han relocalizado todos los eventos del catálogo original. En la siguiente tabla se presentan los resultados que consisten en 452 eventos localizados con un RMS promedio de 0.16 para un total de 4205 rayos sísmicos analizados.

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1995	8	1	1	48	33.98	-31.8398	-67.7832	15.11	3.6	0.273
1995	8	1	13	29	44.85	-31.1264	-67.5113	41.39		0.546
1995	8	2	1	17	26.44	-31.8021	-69.5859	110.98	3.2	0.074
1995	8	3	17	59	6.34	-32.4092	-71.7042	18.17	3.7	0.33
1995	8	4	1	21	7.72	-31.3402	-69.2672	110.12	3.4	0.171
1995	8	4	17	9	3.19	-33.2029	-71.1807	104.63	3.1	0.409
1995	8	5	9	59	36.28	-31.2222	-69.6400	104.81	3.3	0.074
1995	8	6	2	53	4.5	-31.5542	-68.6943	102.25	2.8	0.045
1995	8	6	4	49	26.07	-31.5333	-68.7527	104.12	2.9	0.046
1995	8	8	4	24	9.08	-30.9618	-67.8839	30.62	2.9	0.038
1995	8	8	18	26	37.12	-28.9079	-69.4873	74.09	3.3	0.104
1995	8	8	22	54	39.08	-31.4650	-68.8323	100.56	2.7	0.048
1995	8	9	5	4	26.41	-32.0846	-68.1316	120.53	2.8	0.045
1995	8	9	14	22	20.98	-31.1329	-68.7258	101.17	2.9	0.066
1995	8	9	23	56	39.23	-29.4869	-69.6323	0.1	3.2	0.179
1995	8	11	17	18	44.03	-31.1881	-68.7633	103.36	3.2	0.038

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1995	8	13	12	19	16.13	-32.9883	-68.8371	25.45	3.2	0.251
1995	8	13	12	50	22.38	-28.1639	-69.6396	29.28	3.3	0.09
1995	8	14	13	22	23.52	-31.8649	-67.8638	118.52	2.8	0.056
1995	8	15	2	30	6.44	-31.4477	-68.6870	18.32	2.9	0.17
1995	8	15	3	40	29.52	-32.2209	-69.0939	119.77	2.9	0.166
1995	8	17	19	19	34.47	-31.2557	-68.5317	103.76	2.8	0.075
1995	8	17	19	33	9.78	-31.5742	-68.7819	103.9	2.9	0.055
1995	8	18	1	42	39.09	-27.7558	-69.2086	17.26		0.091
1995	8	19	9	5	26.55	-31.9444	-70.6890	87.6	3.4	0.05
1995	8	19	9	16	59.21	-31.3572	-71.1548	112.75	3.3	0.4
1995	8	19	13	9	7.69	-31.6988	-68.9259	106.67	3.3	0.061
1995	8	20	3	4	18.38	-31.9172	-68.9118	20.32	3.0	0.162
1995	8	20	15	17	10.81	-31.0706	-69.9369	115.18	3.1	0.605
1995	8	20	21	28	44.73	-31.7723	-69.7026	111.12	3.6	0.171
1995	8	21	23	47	39.25	-31.4929	-68.6627	107.96	4.0	0.072
1995	8	23	5	56	45.45	-31.7705	-69.0029	101.57	3.3	0.241
1995	8	23	13	15	13	-31.2232	-68.5657	106.67	3.3	0.044
1995	8	23	14	18	14.28	-31.2552	-68.6435	82.41	3.3	0.388
1995	8	24	14	14	25.47	-31.4473	-68.6981	17.94	2.9	0.157
1995	8	25	0	32	35.04	-32.1781	-71.1317	64.94	3.5	0.229
1995	8	25	1	51	34.02	-32.7130	-69.8587	115.32	5.0	0.198
1995	8	25	2	31	57.61	-31.2487	-68.9995	102.62	3.6	0.08
1995	8	25	13	23	11.07	-32.0018	-68.5748	111.79	3.2	0.009
1995	8	25	16	45	43.33	-31.7721	-69.2913	105.5	3.0	0.101
1995	8	25	20	39	11.24	-31.2518	-68.9281	104.38	3.6	0.054
1995	8	26	3	59	2.65	-31.2270	-68.7545	102.62	3.8	0.037
1995	8	26	23	56	0.94	-31.4123	-68.8169	101.54	2.9	0.033
1995	8	27	21	6	49.33	-31.5139	-69.0129	96.71	3.5	0.068
1995	8	27	21	46	5.73	-31.4418	-69.8969	95.35	3.8	0.147
1995	8	29	3	33	28.61	-31.5292	-69.3841	109.17	3.7	0.146
1995	9	1	4	21	18.37	-32.1072	-67.4921	127.39	3.2	0.108
1995	9	2	14	9	52.49	-31.2161	-68.9241	102.15	2.9	0.027
1995	9	4	1	41	39.46	-29.0023	-67.8222	29.18	3.6	0.304
1995	9	5	0	32	12.7	-31.4495	-69.1419	111.94	3.8	0.323
1995	9	8	0	26	9.48	-31.5315	-68.7243	104.14	2.9	0.045
1995	9	8	4	43	22.49	-32.2897	-68.6256	121.78	3.3	0.059
1995	9	9	23	45	58.06	-31.8582	-69.7484	102.21	3.2	0.072
1995	9	11	10	27	6.31	-26.9218	-68.6229	60.27		0.161
1995	9	11	12	19	11.69	-31.4668	-68.8194	99.87	3.1	0.059
1995	9	12	19	38	58.32	-31.2649	-68.7886	102.24	3.2	0.022
1995	9	14	9	30	57.33	-28.1597	-69.2863	26.32	3.7	0.107
1995	9	15	23	21	17.94	-28.3231	-70.2850	88.46	4.1	0.099
1995	9	17	3	31	47.92	-31.3035	-68.6930	100.08	3.0	0.035
1995	9	17	3	38	10.87	-30.9769	-68.2784	18.25	3.4	0.092
1995	9	17	4	13	52.09	-31.2111	-69.0879	103.47	3.5	0.406
1995	9	18	5	32	3.59	-31.6091	-69.5212	106.94	3.1	0.072
1995	9	19	0	51	22.7	-32.2565	-68.9256	27.49	3.1	0.095

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1995	9	19	9	5	12.18	-29.7481	-66.8573	32.2	3.7	0.512
1995	9	20	6	28	34.27	-31.6270	-67.9573	26.22	3.1	0.048
1995	9	22	21	58	35.27	-35.6278	-72.2466	2.65		0.159
1995	9	24	8	34	34.65	-31.3154	-68.6619	95.57	3.2	0.062
1995	9	24	11	59	4.44	-31.7859	-67.7986	20.66	3.4	0.018
1995	9	25	6	24	43.7	-31.2747	-68.0421	28.34	3.2	0.099
1995	9	28	0	52	35.37	-31.4257	-68.6590	102.3	3.1	0.038
1995	9	30	5	13	20.21	-31.3963	-69.2594	122.67	3.0	0.554
1995	9	30	18	57	28.44	-31.1508	-68.4581	98.56	3.1	0.071
1995	10	1	5	22	59.94	-31.2533	-68.4788	100.97	3.1	0.055
1995	10	1	22	3	4.72	-28.8989	-69.4656	154.87	3.8	0.38
1995	10	3	15	11	50.55	-31.8074	-70.2275	113.23	3.3	0.139
1995	10	4	2	26	15.21	-31.3981	-67.9337	8.36	2.9	0.233
1995	10	5	4	1	11.09	-30.4943	-68.8090	102.08	2.9	0.031
1995	10	6	16	58	33.37	-31.1298	-68.4107	102.38	3.0	0.189
1995	10	7	17	54	0.16	-31.2852	-68.0077	21.76	2.8	0.093
1995	10	10	9	37	47.01	-31.8645	-67.1439	132	2.8	0.14
1995	10	10	11	53	2.9	-31.2762	-68.4084	99.16	2.8	0.074
1995	10	10	18	54	58.62	-31.2619	-68.8669	104.16	3.0	0.018
1995	10	18	17	13	8.66	-31.7935	-69.6411	113.64	3.2	0.102
1995	10	19	8	21	42.12	-31.3564	-68.6169	98.69	2.9	0.049
1995	10	19	13	12	55.27	-31.7079	-66.4343	139.39	3.2	0.084
1995	10	19	18	18	19.27	-32.0631	-67.9003	20.8	3.4	0.084
1995	10	20	16	48	57.84	-31.8289	-68.3793	108.61	3.1	0.056
1995	10	21	9	18	55.96	-31.2850	-68.5547	101.48	3.1	0.07
1995	10	21	20	42	44.44	-32.0300	-68.3039	113.69	3.1	0.063
1995	10	22	10	53	44.51	-31.5454	-68.7623	104.32	3.2	0.847
1995	10	25	15	52	40.62	-31.5153	-68.8082	100.95	3.1	0.048
1995	10	25	17	30	2.96	-31.4281	-67.8203	106.97	3.0	0.091
1995	10	27	23	42	36.96	-31.5072	-68.6494	109.8	3.1	0.047
1995	10	29	15	8	52.1	-32.6905	-69.7015	117.21	3.6	0.042
1995	10	31	19	0	2.89	-31.2901	-68.1126	31.11	3.1	0.048
1995	11	1	13	42	42.33	-31.3928	-68.5874	102.26	3.1	0.052
1995	11	1	22	20	27.19	-31.3986	-68.6684	99.72	3.1	0.023
1995	11	2	3	21	21.13	-31.5788	-69.3465	108.9	3.2	0.119
1995	11	2	21	43	54.39	-31.6173	-68.3771	102.42	3.9	0.097
1995	11	3	15	1	17.64	-31.3032	-68.7518	103.2	3.1	0.026
1995	11	3	15	40	31.08	-32.1289	-69.8295	103.59	3.4	0.103
1995	11	4	15	55	10.72	-31.2044	-68.9017	100.9	3.2	0.028
1995	11	5	11	11	26.7	-33.2035	-68.3576	41.25	3.7	0.104
1995	11	6	5	15	0.96	-31.5750	-69.1991	107.42	3.3	0.274
1995	11	7	3	6	2.23	-31.2036	-68.4220	101.01	3.1	0.091
1995	11	7	14	5	9.67	-31.0114	-68.3083	17.11	4.1	0.06
1995	11	10	17	31	13.99	-31.5568	-69.6963	100.43	3.3	0.049
1995	11	11	11	41	20.49	-31.3321	-68.1245	31.49	3.0	0.114
1995	11	11	12	3	2.92	-32.0528	-67.9841	121.36	3.2	0.043
1995	11	12	5	31	16.25	-31.4861	-69.5157	115.84	3.3	0.115

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1995	11	12	16	57	14.46	-31.9112	-67.6828	0.01	3.3	0.171
1995	11	14	3	56	34.97	-32.0937	-67.1822	19.99	3.3	0.547
1995	11	15	5	14	1.23	-31.4901	-69.0666	100.83	3.0	0.055
1995	11	15	14	57	42.28	-31.4984	-69.6849	111.55	3.4	0.042
1995	11	16	1	42	2.49	-29.4800	-68.0913	80.96	3.2	0.067
1995	11	18	5	40	10.94	-31.4192	-69.0414	101.3	3.2	0.01
1995	11	21	22	53	33.67	-31.7568	-68.8383	0.85	3.1	0.208
1995	11	22	4	53	22.99	-33.0007	-72.2217	0.1		0.4
1995	11	24	9	32	2.98	-32.1241	-68.5359	116.81		0.037
1995	11	25	0	24	2.71	-31.2713	-68.0403	25.5	2.8	0.043
1995	11	25	22	32	27.72	-32.2058	-67.1671	28.28	3.1	0.097
1995	11	26	7	40	53.04	-31.2055	-68.8123	102.4	2.9	0.024
1995	11	26	10	47	17.1	-31.2578	-68.2677	106.81	3.0	0.058
1995	11	27	0	40	33.57	-31.7739	-67.9065	0	2.7	0.349
1995	11	27	5	7	27.81	-31.3722	-68.3453	107.16	3.2	0.046
1995	11	28	23	5	8.12	-31.8557	-68.4299	104.91	3.1	0.047
1995	11	29	14	2	24.32	-31.3139	-68.7264	103.51	3.1	0.027
1995	11	29	16	55	8.69	-31.4996	-68.7569	104.64	3.1	0.042
1995	11	29	19	6	32.1	-31.5335	-68.7087	102.06	3.4	0.084
1995	11	29	20	16	5.26	-31.3755	-69.2669	110.57		0.047
1995	12	1	7	8	45.36	-31.1824	-68.3497	100.89	3.1	0.143
1995	12	1	14	24	4.37	-31.2945	-67.9048	27.18	3.2	0.059
1995	12	2	5	50	10.55	-28.5907	-68.9164	19.66	3.6	0.083
1995	12	2	14	23	20.26	-32.8279	-68.9266	137.46	3.3	0.059
1995	12	3	10	21	0.48	-31.5476	-67.9428	28.86	3.2	0.085
1995	12	5	8	16	19.16	-31.2659	-68.4373	100.78	2.9	0.081
1995	12	5	9	50	41.02	-31.2099	-68.4057	97.29	3.0	0.111
1995	12	6	0	44	22.41	-30.8718	-67.3608	37.39	3.4	0.113
1995	12	6	7	17	25.04	-32.2500	-70.7972	80	3.6	0.205
1995	12	6	14	54	43.37	-31.2480	-68.3084	100.62	3.1	0.148
1995	12	7	8	26	12.41	-31.2934	-67.9091	26.77	3.0	0.147
1995	12	13	7	47	45.64	-31.3041	-69.3646	100.16	3.1	0.028
1995	12	14	15	6	20.86	-31.0999	-68.3887	20.01	2.9	0.076
1995	12	16	14	37	25.64	-31.2724	-69.0105	103.36	3.2	0.008
1995	12	17	9	11	8.11	-31.3182	-68.6826	105.59	3.0	0.018
1995	12	18	22	36	7.87	-31.3334	-68.9452	109	2.9	0.059
1995	12	20	11	14	52.65	-31.9065	-68.4418	108.45	3.1	0.041
1995	12	20	22	12	20.11	-30.8179	-67.1800	33.95	3.2	0.134
1995	12	21	8	16	46.85	-30.9805	-69.1415	99.02	3.5	0.212
1995	12	21	19	48	0.48	-31.3442	-69.4732	101.08	3.0	0.066
1995	12	23	9	42	59.32	-31.5938	-68.9987	12.29	3.3	0.024
1995	12	23	17	59	35.15	-31.3900	-68.8308	25.67	2.9	0.064
1995	12	25	8	18	2.4	-31.2670	-68.0325	28.13	2.9	0.056
1995	12	27	4	2	48.8	-31.2676	-68.6769	102.28	3.3	0.041
1995	12	27	23	52	54.94	-31.1029	-67.7335	56.25	3.1	0.501
1995	12	28	22	28	32.63	-32.2714	-67.3499	48.51	3.5	0.417
1995	12	30	8	10	25.11	-31.8523	-67.7833	0.07		0.092

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1995	12	30	15	3	0.12	-31.5166	-68.8979	108.8	3.1	0.039
1995	12	31	8	32	42.42	-31.3711	-68.5755	101.19	3.2	0.084
1995	12	31	15	18	42.76	-31.2172	-68.3752	99.88		0.11
1996	1	1	15	30	19.37	-32.2103	-69.5202	118.18	3.2	0.061
1996	1	1	19	45	43.34	-31.2170	-68.7016	105.49	3.1	0.043
1996	1	5	7	29	42.65	-32.5771	-72.1359	58.39		0.293
1996	1	6	17	10	5.91	-31.5735	-68.6482	107.1	3.2	0.047
1996	1	9	19	57	50.99	-32.3308	-72.1012	55.29	3.7	0.243
1996	1	10	3	26	33.3	-31.6948	-65.0996	9.97	3.6	0.169
1996	1	10	10	8	3.74	-28.1503	-66.8153	65.86	3.4	0.356
1996	1	11	19	50	22.27	-32.0943	-68.3809	112.16	3.2	0.045
1996	1	12	19	26	49.78	-31.5809	-68.8466	104.02	3.9	0.089
1996	1	13	1	44	56.58	-31.7650	-67.9448	1.86	2.9	0.162
1996	1	13	9	34	54.45	-31.2250	-68.4279	100.07	3.3	0.108
1996	1	14	15	45	1.5	-31.2712	-68.7704	98.33	3.4	0.075
1996	1	15	0	46	9.62	-31.4334	-68.7770	97.71	3.1	0.093
1996	1	15	10	23	7.05	-30.9834	-68.2700	21.12	2.8	0.111
1996	1	16	3	35	12.91	-31.1132	-68.4841	100.9	2.8	0.131
1996	1	16	21	57	30.35	-31.2698	-68.9385	103.67	3.5	0.037
1996	1	17	4	53	15.62	-31.2679	-68.0445	27.97	2.9	0.131
1996	1	17	5	38	28.25	-32.3903	-68.5370	123.3	3.9	0.053
1996	1	18	6	58	30.34	-31.7581	-68.3828	105.91	3.3	0.073
1996	1	18	23	23	37.56	-31.0248	-69.2524	108.18	3.7	0.085
1996	1	20	21	59	39.01	-31.7223	-67.7741	18.96	3.0	0.004
1996	1	21	4	16	5.73	-31.2134	-69.2141	100.05	3.7	0.098
1996	1	21	10	31	43.49	-31.4820	-69.4648	103.1	3.2	0.101
1996	1	30	11	59	39.51	-31.5092	-68.7941	103.42	3.6	0.044
1996	1	31	10	32	13.64	-31.5054	-69.5946	111.74	3.2	0.113
1996	2	1	10	42	51.59	-30.6407	-69.0026	25.16	3.2	0.137
1996	2	1	18	49	4.97	-33.0592	-70.6147	99.6		0.148
1996	2	2	0	2	8.09	-31.4793	-67.8532	27.44	3.3	0.08
1996	2	3	10	26	33.88	-31.2187	-68.7854	98.26	3.5	0.013
1996	2	4	11	38	28.26	-31.2564	-68.0456	26.81	3.0	0.084
1996	2	7	7	31	35.25	-31.9094	-69.5678	102.34	3.5	0.077
1996	2	7	15	54	8.26	-31.6235	-68.7185	100.35	3.6	0.071
1996	2	7	18	46	20.72	-31.1644	-68.3504	100.31	3.4	0.141
1996	2	8	18	1	12.51	-32.3020	-70.4761	107.65	3.4	0.112
1996	2	9	14	29	20.51	-31.1340	-68.3996	97.39	3.0	0.086
1996	2	15	5	30	41.9	-31.5906	-68.7581	102.61	3.6	0.092
1996	2	15	6	36	32.54	-31.2002	-68.5190	101.92	3.1	0.067
1996	2	16	5	46	54.32	-31.7555	-68.2563	23.66	3.2	0.032
1996	2	18	21	42	28.31	-29.1965	-69.9031	81.8	4.0	0.112
1996	2	23	18	53	2.26	-31.3778	-69.2365	103.08		0.079
1996	3	1	0	25	11.03	-32.8467	-68.8772	0.1	3.5	0.171
1996	3	4	3	58	36	-31.3643	-67.7455	0.1	3.3	0.215
1996	3	4	4	2	1.9	-31.3834	-67.7301	0.01	3.2	0.261
1996	3	4	11	3	5.96	-31.4507	-68.6046	104.65	2.7	0.042

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1996	3	4	12	54	55.87	-31.2192	-68.4900	107.67	3.5	0.048
1996	3	4	15	43	49.62	-31.2128	-68.3816	100.58	3.1	0.117
1996	3	4	20	40	42.65	-30.8211	-71.8326	11.85	4.6	0.324
1996	3	4	22	18	4.9	-32.0627	-69.7858	98.27	3.4	0.132
1996	3	5	6	45	59.5	-33.1154	-68.5245	24.64	3.4	0.161
1996	3	5	7	39	49.98	-31.8681	-69.9755	90.34	3.3	0.228
1996	3	5	9	21	58.86	-31.3384	-69.4143	99.68	3.1	0.095
1996	3	5	15	10	35.77	-31.3516	-69.3094	110.89	3.8	0.097
1996	3	5	16	50	31.65	-31.3157	-68.6132	100.72	2.9	0.042
1996	3	5	16	57	49.26	-31.2848	-69.1252	109.84	3.7	0.732
1996	3	5	21	47	11.52	-31.2087	-68.9676	102.81	3.1	0.034
1996	3	6	1	15	28.07	-31.7502	-67.7906	20.64	2.8	0.056
1996	3	6	8	48	16.65	-28.3367	-70.3781	79.33		0.224
1996	3	6	9	42	47.62	-30.5361	-69.0228	0.1	4.3	0.625
1996	3	6	11	41	40.13	-29.5092	-68.1739	0.1	4.8	0.066
1996	3	6	11	51	47.91	-31.1699	-68.4688	97.11	3.0	0.069
1996	3	6	12	32	43.86	-31.4280	-69.3102	0.1	3.4	0.258
1996	3	6	14	50	38.9	-32.4329	-68.4103	35.1	3.0	0.07
1996	3	6	16	10	54.16	-29.2751	-68.2476	94.33	3.2	0.189
1996	3	6	17	31	15.36	-32.2465	-68.3946	121.16	4.0	0.082
1996	3	7	9	52	8.71	-31.6404	-69.5916	105.74	4.4	0.11
1996	3	7	12	14	43.73	-31.5482	-67.7961	30.83	2.7	0.092
1996	3	7	22	22	25.22	-31.2614	-69.0077	105.23	2.8	0.062
1996	3	8	5	15	10.27	-30.5406	-69.4086	102.25	3.7	0.103
1996	3	8	5	59	15.25	-31.5140	-68.7018	105.36	3.0	0.064
1996	3	8	6	17	35.69	-31.7402	-68.7252	0	3.0	0.123
1996	3	8	9	0	10.58	-28.4893	-67.2960	119.11		0.197
1996	3	8	12	47	59.96	-31.4232	-68.1918	96.44	3.0	0.11
1996	3	8	17	31	53.85	-31.1972	-68.6013	104.02	3.5	0.063
1996	3	8	18	38	4.23	-31.0366	-69.2505	112.96	3.7	0.107
1996	3	8	20	19	31.14	-31.9365	-67.2484	127.78	3.3	0.069
1996	3	8	22	8	25.88	-31.3762	-68.5810	104.15	3.8	0.079
1996	3	10	18	50	38.48	-30.9057	-67.5994	32.97	3.2	0.075
1996	3	10	23	19	18.03	-28.4651	-67.5083	56.43	3.5	0.191
1996	3	11	0	23	58.6	-31.4531	-68.6641	11.37		0.054
1996	3	11	4	25	2.96	-31.8621	-68.2764	113.45	3.3	0.033
1996	3	11	5	32	51.19	-31.9272	-67.6097	8.4	3.3	0.091
1996	3	11	12	15	25.68	-31.2464	-68.8106	98.6	3.2	0.052
1996	3	12	17	6	54.34	-31.2454	-68.7402	102.91	3.2	0.075
1996	3	12	23	31	30.01	-31.3944	-68.7028	105.93	3.0	0.028
1996	3	13	2	1	20.08	-29.6706	-69.4660	97.29	3.7	0.145
1996	3	13	8	24	45.97	-31.9013	-67.1325	134.37	2.9	0.146
1996	3	14	0	55	48.41	-31.6145	-69.6744	92.87	3.2	0.029
1996	3	14	1	2	48.68	-30.2112	-70.1925	63.47		0.044
1996	3	14	10	8	6.92	-32.7384	-71.8864	2.67	3.8	0.239
1996	3	14	18	37	46.71	-31.4464	-67.7934	28.17	3.0	0.137
1996	3	15	18	22	21.65	-30.9561	-67.4150	32.19	3.5	0.098

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1996	3	16	16	7	21.69	-32.7997	-69.4362	116.53	3.2	0.114
1996	3	17	4	32	12.19	-31.8136	-68.5320	101.83	3.8	0.074
1996	3	17	4	39	24.4	-31.1656	-68.4700	104.36	3.4	0.098
1996	3	17	10	42	44.75	-31.3334	-67.8437	10.85	3.1	0.302
1996	3	17	11	41	58.16	-31.2647	-68.4229	102.6	3.2	0.09
1996	3	17	15	26	50.7	-31.2616	-68.9623	103.88	3.5	0.082
1996	3	17	15	42	10.18	-31.3527	-68.9412	106.66	3.5	0.06
1996	3	17	20	55	7.09	-28.1726	-71.1551	0.1	5.0	0.151
1996	3	17	22	43	55.45	-31.2516	-68.5985	108.52	3.5	0.052
1996	3	17	22	55	10.88	-31.4656	-69.7917	105.14	3.4	0.156
1996	3	18	7	9	17.66	-32.4044	-72.4285	17.84	4.6	0.407
1996	3	18	9	21	59.87	-28.1063	-66.9446	121.19	3.8	0.212
1996	3	18	14	10	43.55	-31.5182	-68.6377	102.21	2.9	0.052
1996	3	18	15	19	24.59	-31.5401	-68.7622	101.29	3.0	0.046
1996	3	18	16	23	30.7	-31.5027	-69.3378	104.85	3.5	0.042
1996	3	18	20	41	7.28	-31.5216	-69.3188	102.47	3.5	0.119
1996	3	18	22	0	50.92	-31.4907	-68.8613	102.33	3.0	0.04
1996	3	18	23	17	6.42	-31.0335	-68.8565	122.26	3.7	0.931
1996	3	19	0	9	38.82	-31.2323	-68.7161	99.29	3.6	0.076
1996	3	19	5	48	16.73	-31.3764	-68.6073	103.87	3.6	0.082
1996	3	19	8	11	11.53	-31.4211	-67.7560	28.75	3.3	0.156
1996	3	19	14	39	22.06	-32.4678	-67.0821	26.65	3.1	0.236
1996	3	19	15	18	0.17	-30.1571	-68.5090	0.02	4.0	0.217
1996	3	19	20	5	7.61	-31.2187	-68.4191	100.31	2.9	0.135
1996	3	20	1	35	12.73	-31.3719	-69.2087	108.55	3.8	0.088
1996	3	20	2	7	20.31	-29.3929	-68.4229	0.1	4.8	0.06
1996	3	20	3	18	33.49	-31.6568	-69.7295	97.18	3.8	0.213
1996	3	20	7	12	26.36	-28.5728	-68.6825	117.5	4.5	0.375
1996	3	20	10	3	50.18	-31.7213	-69.6081	102.77	4.4	0.153
1996	3	20	19	24	13.14	-32.6346	-69.8990	99.2	3.8	0.136
1996	3	20	22	38	25.23	-31.2203	-68.6783	104.7	3.4	0.061
1996	3	20	23	29	16.9	-31.5957	-66.5071	142.25	2.9	0.133
1996	3	21	10	8	57.06	-32.1281	-69.2054	16.49	3.9	0.173
1996	3	21	11	48	19.96	-31.8554	-67.6152	115.52	3.6	0.05
1996	3	21	20	2	27.66	-29.9730	-70.7705	79.87	4.6	0.209
1996	3	21	21	11	36.49	-31.4509	-69.2949	114.25	3.7	0.131
1996	3	22	13	17	7.21	-31.3802	-68.6325	100.54	3.0	0.033
1996	3	22	13	19	53.08	-28.0440	-69.4698	4.35	4.3	0.068
1996	3	22	15	28	0.59	-31.3196	-67.7718	27.04	3.0	0.137
1996	3	22	16	54	2.92	-32.0638	-68.5925	118.72	3.4	0.102
1996	3	22	17	49	49.26	-31.3334	-69.4798	108.47	3.3	0.055
1996	3	23	0	55	27.96	-31.7795	-68.0138	20.15	3.2	0.238
1996	3	23	15	44	8.74	-28.1541	-67.5898	75.39	3.8	0.168
1996	3	23	18	39	8.13	-29.6793	-71.6068	20.12	4.9	0.354
1996	3	24	2	0	15.62	-28.5386	-67.5660	119.4	4.2	0.182
1996	3	24	2	41	43.66	-32.0763	-69.8088	95.24	3.7	0.108
1996	3	24	10	21	10.58	-30.9612	-70.1824	59.7	3.2	0.127

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1996	3	24	20	1	39.74	-28.7765	-68.5239	78.43	4.2	0.262
1996	3	25	3	4	47.54	-31.2296	-68.3999	96.88	3.3	0.051
1996	3	25	20	31	52.08	-31.1699	-68.5423	100.11	3.3	0.066
1996	3	26	2	19	56.05	-27.7388	-70.5478	50.61	3.9	0.171
1996	3	26	5	57	39.76	-31.3453	-69.0569	104.51	3.2	0.09
1996	3	26	6	54	48.42	-31.1346	-68.2301	101.52	2.9	0.129
1996	3	26	10	1	32.16	-28.8952	-67.3905	102.31	3.4	0.153
1996	3	26	19	55	40.7	-31.0974	-68.5046	99.53		0.077
1996	3	27	6	16	2.06	-31.7310	-69.6459	92.37	3.7	0.099
1996	3	27	7	3	50.76	-31.5236	-68.8820	108.83	3.5	0.071
1996	3	27	8	56	47.75	-31.7067	-68.4709	45.31	3.0	0.768
1996	3	27	12	25	25.33	-31.4343	-68.6309	101.67	3.3	0.043
1996	3	27	15	31	34.51	-31.7941	-69.6275	92.26	2.9	0.099
1996	3	28	8	56	16.15	-32.2025	-69.4707	111.75	3.5	0.136
1996	3	28	10	54	49.82	-31.0043	-67.2477	0	3.4	0.806
1996	3	28	11	58	42.14	-31.2449	-68.8667	104.5	3.8	0.026
1996	3	28	14	27	26.78	-29.2317	-68.2435	81.12	3.6	0.095
1996	3	28	17	49	22.1	-29.9826	-68.4958	12.65	3.6	0.149
1996	3	29	12	8	44.81	-31.2096	-68.4255	101.31	3.3	0.074
1996	3	29	21	0	18.41	-31.0416	-69.8232	102.86	3.7	0.197
1996	3	30	6	6	42.21	-32.7946	-69.8073	100.99	3.8	0.124
1996	3	30	15	4	40.27	-31.1985	-68.6550	97.88	3.9	0.089
1996	3	31	17	42	3.45	-30.4624	-70.7406	80.05	4.2	0.349
1996	3	31	19	48	50.67	-31.5256	-68.2217	96.55	3.4	0.087
1996	7	10	16	16	50.82	-31.9082	-67.8153	15.51	3.9	0.104
1996	7	11	22	24	18.25	-31.8043	-67.4869	35.99	3.1	0.211
1996	7	15	19	27	52.69	-31.5102	-68.0823	30.09	3.9	0.089
1996	7	15	22	54	12.6	-31.6743	-68.8509	16.61	3.1	0.111
1996	7	18	12	20	52.31	-30.9781	-68.3094	19.26	4.0	0.086
1996	7	18	13	6	56.73	-31.4547	-68.1487	0	3.2	0.282
1996	7	24	1	20	12.97	-31.3351	-68.1622	21.79	3.3	0.126
1996	7	25	3	17	31.87	-31.5597	-67.8496	21.36	2.9	0.004
1996	7	25	20	52	35.02	-31.4144	-67.8196	0.01	3.2	0.143
1996	7	27	9	42	44.36	-31.4502	-68.0809	26.87	3.4	0.002
1996	7	27	20	56	18.5	-31.1496	-67.8479	0.04	3.4	0.046
1996	8	4	5	2	34.13	-31.5907	-67.9176	28.36	3.4	0.021
1996	8	4	12	24	2.47	-31.5877	-67.8537	0.01	3.4	0.079
1996	8	5	10	56	26.1	-31.1147	-67.8000	0.03	3.2	0.085
1996	8	9	16	22	29.23	-31.7046	-67.9423	24	2.8	0.017
1996	8	9	18	22	27.94	-31.8766	-67.6385	0.42	3.0	0.071
1996	8	14	15	58	49.15	-31.3996	-67.7653	20.41	3.7	0.022
1996	8	16	7	18	51.86	-31.8236	-67.9886	0.01	2.8	0.136
1996	8	18	11	36	36.17	-31.5279	-67.9225	14.68	3.4	0.118
1996	8	21	21	21	23.59	-31.3095	-68.0433	27.4	3.2	0.085
1996	8	21	22	11	23.34	-30.3226	-67.5760	29.05	3.9	0.16
1996	8	22	16	39	9.89	-31.5957	-67.9185	21.87	3.1	0.053
1996	8	25	7	24	13.34	-31.7721	-68.2848	19.34	2.9	0.037

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1996	8	25	12	25	24.24	-31.1931	-68.1920	36.92	3.1	0.1
1996	8	26	1	45	3.57	-32.7082	-68.8547	21.05	3.9	0.063
1996	8	26	22	41	34.96	-31.9212	-69.3443	46.56	3.7	0.309
1996	9	1	0	59	22.19	-31.5855	-67.7632	32.65	3.1	0.032
1996	9	3	12	44	16.62	-27.3735	-69.7573	64.54		0.233
1996	9	3	20	7	22.28	-32.3692	-68.1970	33.67	3.4	0.071
1996	9	3	22	26	7.46	-31.5204	-67.8322	34.09	2.8	0.052
1996	9	4	23	28	46.35	-31.3319	-68.6246	35.6	3.6	0.067
1996	9	8	18	46	26.12	-30.1058	-68.1781	19.97	3.4	0.348
1996	9	8	23	24	20.75	-30.0560	-68.2111	0.69	3.7	0.115
1997	1	2	13	26	17.37	-31.0795	-67.9332	24.3	2.9	0.077
1997	1	5	22	21	5.17	-31.4846	-68.7032	14.99	2.9	0.177
1997	1	6	16	11	37.13	-31.3982	-67.9987	26.11	3.0	0.105
1997	1	6	16	31	46.57	-31.5011	-67.9704	39.76	2.8	0.111
1997	1	8	23	46	9.33	-31.3165	-68.6094	31.38	2.8	0.1
1997	1	9	19	38	49.46	-31.8533	-68.8318	12.34	2.9	0.001
1997	1	11	8	32	16.94	-31.4050	-67.8350	6.82	3.1	0.144
1997	1	12	20	1	57.53	-30.4445	-69.2963	23.21	3.5	0.109
1997	1	16	2	19	53.18	-31.8758	-68.3040	16.89	3.1	0.103
1997	1	18	9	31	52.63	-31.1165	-67.7828	3.76	2.8	0.198
1997	1	18	14	52	6.62	-31.8559	-67.7880	20.16	2.8	0.116
1997	1	18	17	23	0.95	-31.4248	-68.2643	0.25	3.1	0.173
1997	1	18	22	37	41.54	-31.6558	-69.0078	0.33	3.5	0.253
1997	1	21	2	50	13.16	-31.7991	-67.9917	0	3.6	0.206
1997	1	21	4	3	21.9	-31.7459	-67.8521	22.39	2.9	0.045
1997	1	22	7	40	38.57	-31.8007	-67.9913	0.05	3.1	0.155
1997	1	24	0	45	47.54	-31.2890	-68.0113	17.72	3.0	0.051
1997	1	24	5	8	25.39	-31.7474	-68.2493	8.42	3.1	0.088
1997	1	24	7	29	1.38	-31.5795	-68.8208	12.03	3.3	0.122
1997	1	24	9	24	45.8	-31.5747	-68.8281	9.86	3.2	0.139
1997	2	7	19	19	28.46	-33.0171	-68.0576	31.31	3.4	0.353
1997	2	9	14	54	15.21	-31.1882	-67.2899	19.74	3.4	0.099
1997	2	14	21	37	22.09	-31.3654	-69.4723	18.17	3.7	0.189
1997	2	26	7	32	12.43	-31.6567	-67.9769	24.76	2.8	0.131
1997	2	27	21	55	58.24	-30.0990	-67.4369	27.86	4.1	0.281
1997	3	3	17	42	52.84	-31.9079	-68.3196	11.89	3.1	0.156
1997	3	5	22	51	36.69	-31.2874	-66.8992	27.25	3.4	0.372
1997	3	6	2	24	10.26	-33.4699	-69.0446	28.47		0.697
1997	3	8	4	36	2.57	-32.0453	-67.4523	8.91	3.3	0.738
1997	3	9	12	43	49.92	-32.3864	-66.9142	18.53	3.3	0.122
1997	3	9	17	42	7.08	-29.5782	-71.1045	33.69	4.6	0.094
1997	3	10	9	25	37.86	-31.7040	-67.4156	39.44	3.1	0.065
1997	3	11	9	23	28.41	-33.1404	-68.2825	37.12	3.2	0.125
1997	3	11	18	29	24.38	-32.2880	-68.4234	40.56	3.5	0.139
1997	3	13	11	1	17.89	-31.3489	-67.8701	19.33	4.0	0.108
1997	3	15	16	9	40.64	-30.6608	-68.4682	0.01	4.1	0.138
1997	3	22	16	57	51.92	-31.6121	-67.9398	24.28	3.4	0.085

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1997	3	24	6	6	46.48	-29.9625	-69.6220	0.1	4.5	0.414
1997	3	26	2	25	17.89	-31.1842	-67.8654	21.01	3.4	0.085
1997	3	30	10	12	22.88	-31.5661	-67.8479	24.39	3.1	0.073
1997	4	6	12	16	3.97	-28.8001	-66.5401	14.77	4.9	0.333
1997	4	6	16	32	20.51	-31.0958	-67.8284	19.8	3.0	0.041
1997	4	14	3	46	35.14	-31.0470	-67.8467	17.66	3.5	0.094
1997	4	22	7	9	6.22	-31.0496	-67.8462	16.8	3.6	0.15
1997	4	23	11	10	45.07	-31.0461	-67.8491	16.1	3.4	0.107
1997	4	29	8	4	22.25	-32.0952	-68.8952	29.11	3.5	0.277
1997	4	29	21	29	7.76	-31.2705	-68.0498	26.72	3.2	0.093
1998	8	6	15	4	20.6	-32.1952	-68.2860	31.92	4.1	0.235
1998	8	6	18	19	49.06	-32.0819	-67.7184	0.1	3.3	0.249
1998	8	8	5	24	12.86	-31.9664	-67.7130	23.62	3.3	0.187
1998	8	15	11	6	46.32	-31.4401	-68.0626	23.91	3.2	0.231
1998	8	16	23	22	4	-31.5590	-67.7581	31.22	3.6	0.108
1998	8	19	1	38	38.95	-31.8085	-67.7767	14.21	3.1	0.411
1998	8	25	16	59	51.14	-32.4734	-67.6997	28.2	3.6	0.246
1998	8	29	9	4	54.32	-32.1988	-68.2880	29.95	3.3	0.266
1998	9	11	4	26	22.4	-33.4358	-68.2069	44.76	3.5	0.474
1998	9	12	14	18	13.31	-31.4331	-68.0492	25.75	3.2	0.165
1998	11	4	15	37	41.48	-31.5237	-68.2900	0.1	2.7	1.175
1998	11	7	3	56	50.05	-31.4093	-67.9991	31.8	3.6	0.345
1998	11	7	18	46	28.69	-31.0290	-67.9042	25.9	3.6	0.309
1998	11	7	23	31	11.25	-31.0318	-67.9017	18.27	3.3	0.198
1998	11	9	10	40	46.67	-31.2973	-68.0620	26.47	3.7	0.136
1998	11	10	6	16	34.5	-32.7803	-68.5945	32.81	3.3	0.296
1998	11	13	10	37	46.79	-31.0274	-67.8934	10.94	3.4	0.389
1998	11	18	18	51	53.58	-31.6742	-67.9542	24.69	2.9	0.321
1998	11	20	10	12	34.9	-33.4057	-68.4022	13.64	3.4	0.459
1998	11	23	17	35	20.6	-31.7413	-68.0047	19.66	3.0	0.215
1998	11	27	21	7	18.43	-31.0339	-67.8879	16.14	3.8	0.294
1998	11	30	0	17	38.09	-32.8630	-69.0704	27.87	3.0	0.385
1999	1	2	16	30	28.87	-31.1813	-68.5798	36.44	4.0	0.296
1999	1	5	19	37	46.5	-32.6957	-68.8356	16.91	3.1	0.19
1999	1	6	17	9	52.47	-33.3633	-68.9593	0.1	3.1	0.433
1999	1	19	19	18	41.33	-33.3779	-69.7230	12.15	3.4	0.513
1999	1	19	21	45	4.31	-33.6861	-68.6821	34.02	3.6	0.364
1999	1	22	6	34	31.41	-28.8486	-67.4638	119.82	4.6	0.371
1999	1	24	2	5	31.29	-31.4352	-67.6056	36.95	3.1	0.327
1999	1	29	23	6	6.17	-31.7334	-67.8848	14.62	4.1	0.158
1999	1	29	23	49	16.67	-33.4669	-68.6320	22.32		0.939
1999	2	1	7	57	58.31	-32.0004	-68.1836	16.99	4.2	0.515
1999	2	1	13	29	4.46	-33.9314	-68.7007	23.44	4.4	0.414
1999	2	2	20	2	1.14	-30.1184	-67.1797	23.61	3.5	0.466
1999	2	4	5	38	37.69	-33.1514	-68.9574	27.4	3.4	0.473
1999	2	5	16	7	12.56	-34.7508	-70.8096	58.55	5.6	0.176
1999	2	12	2	58	1.06	-34.9807	-68.9532	28.44	4.8	0.158

año	mes	dia	hora	min	seg	lat	long	prof	Mc	RMS
1999	2	21	10	32	52.32	-31.2692	-68.0573	28.95	3.5	0.217
1999	2	26	4	4	53.67	-35.1695	-68.0298	31.23	5.5	0.034
1999	3	6	9	19	22.21	-31.9560	-68.0365	16.95	3.3	0.227
1999	3	7	3	20	26.12	-31.3615	-67.8043	14.48	3.5	0.293
1999	3	9	9	14	12.41	-34.8843	-69.8500	0.15		0.446
1999	3	9	19	41	58.3	-34.8584	-69.4837	28.13	4.6	0.252
1999	3	10	5	55	8.87	-34.0311	-69.0177	49.05	4.8	0.228
1999	3	10	12	0	38.23	-31.4259	-67.7550	24.23	3.3	0.326
1999	3	17	5	25	26.65	-35.0436	-69.8223	7.58		0.288
1999	3	26	4	6	10.79	-32.6473	-68.8837	24.11	3.3	0.167
1999	3	26	11	52	9.96	-33.4677	-68.0519	41.1	3.5	0.403
1999	3	27	6	38	30.94	-35.2002	-69.1415	27.53	5.2	0.806
1999	3	29	20	39	14.42	-33.9028	-67.2616	73.69	4.7	0.677

