

POSIÇÕES ASTROMÉTRICAS DE ASTERÓIDES IDENTIFICADOS EM FEVEREIRO
E MARÇO DE 1981 NO OBSERVATÓRIO EUROPEU AUSTRAL, LA SILLA, CHILE

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ABSTRACT

268 astrometric positions and dependences of asteroids as obtained from photographic observations made at the GPO telescope ($D = 40$ cm; $f = 4$ m) - ESO, La Silla, Chile, during february and march 1981 are given. The reductions of the observations were obtained by means of five reference stars (SAO Catalogue) through two methods: least squares and dependences.

INTRODUÇÃO

Em fevereiro e março de 1981 o Professor Visitante do Observatório do Valongo, Dr. Henri Debehogne (Astrônomo do Observatório Real da Bélgica) e G. de Sanctis (Observatório Astronômico de Turim, Itália) trabalharam no telescópio GPO ($D = 40$ cm; $f = 4$ m) do Observatório Europeu Austral, situado em La Silla, Andes Chilenos. Neste trabalho são apresentadas 206 posições de novos asteróides, indicados provisoriamente por E 3005, E 3009, E 3012, E 3013 e E 3035 e 62 posições de asteróide incluído nas Efemérides de Planetóides - 1981 - do Instituto de Astronomia Teórica de Leningrado, Rússia. Todas as placas fotográficas, na dimensão de 16×16 cm, foram lidas e reduzidas no Observatório do Valongo, Universidade Federal do Rio de Janeiro.

Foi utilizado para a obtenção das coordenadas retilíneas medidas o Coordenatógrafo Ascorecord do Observatório do Valongo. A redução das medidas foi efetuada pelo método dos mínimos quadrados e pelo das dependências por meio de programa computacional especialmente adaptado ao chamado "Programa a Cinco Estrelas" de Uccle, Bélgica, para o computador Burroughs 6700 do Núcleo de Computação Eletrônica - NCE, da UFRJ, (Debehogne et al, 1977).

* Observatório Real da Bélgica e Professor Visitante da UFRJ

** Observatório do Valongo e Departamento de Astronomia do Instituto de Geociências da UFRJ

RESULTADOS

Tabela I

As posições calculadas, (alfa 1950), (delta 1950) e os resíduos (O-C) para o asteróide 334 Chicago são apresentadas. Para os novos asteróides, somente as posições calculadas são fornecidas

Tabela II

As dependências são apresentadas com o objetivo de possibilitar futuras correções, caso venham a ser encontrados melhores valores para a posição e o movimento próprio das estrelas usadas como referência, de acordo com o que preceitua o Instituto de Astronomia Teórica de Leningrado, (Orelskaya, 1981).

AGRADECIMENTOS

O Observatório Europeu Austral financiou a missão de H. Debehogne e de G. de Sanctis; o Observatório Astronômico de Turim, Itália, a viagem aérea Turim-Santiago-Turim de G. de Sanctis. G. Roman foi o Assistente Noturno que muito colaborou para o êxito dos trabalhos.

BIBLIOGRAFIA

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TABLE I - Positions

NO	OBJECT	DATE UT 1981		ALPHA 1950			DELTA 1950			RESIDUALS	
		MON	DAY	H	M	S	o	'	"	M	'
1	3005	2	27.299653	10	38	9.164	11	10	55.16		
2	3005	2	27.312996	10	38	5.237	11	11	0.98		
3	3005	3	1.147557	10	36	17.611	11	24	17.89		
4	3005	3	1.154546	10	35	17.215	11	24	20.75		
5	3005	3	1.151405	10	35	16.207	11	24	21.36		
6	3005	3	2.101196	10	35	21.694	11	31	7.23		
7	3005	3	2.114121	10	35	21.294	11	31	9.99		
8	3005	3	2.115047	10	35	20.894	11	31	13.09		
9	3005	3	3.142096	10	34	20.970	11	38	28.69		
10	3005	3	3.149022	10	34	20.151	11	38	31.71		
11	3005	3	3.155947	10	34	19.775	11	38	34.57		
12	3005	3	4.144213	10	33	22.123	11	45	28.52		
13	3005	3	4.151137	10	33	21.733	11	45	31.32		
14	3005	3	4.158064	10	33	21.299	11	45	34.24		
15	3005	3	5.217663	10	32	19.758	11	52	52.12		
16	3005	3	5.224589	10	32	19.344	11	52	54.78		
17	3005	3	5.231514	10	32	18.933	11	52	57.78		
18	3005	3	6.195583	10	31	23.634	11	59	30.33		
19	3005	3	6.202508	10	31	23.218	11	59	33.12		
20	3005	3	6.210778	10	31	22.814	11	59	35.92		
21	3005	3	7.177712	10	30	30.967	12	5	42.93		
22	3005	3	7.184647	10	30	30.552	12	5	45.38		
23	3005	3	7.191583	10	30	30.138	12	5	47.72		
24	3005	3	8.105282	10	29	36.004	12	12	7.73		
25	3005	3	8.112208	10	29	35.630	12	12	10.24		
26	3005	3	8.119134	10	29	35.255	12	12	12.85		
27	3005	3	8.126062	10	29	34.878	12	12	15.19		
28	3005	3	8.132988	10	29	34.502	12	12	17.18		
29	3005	3	8.139915	10	29	34.125	12	12	19.69		
30	3005	3	9.120846	10	28	39.814	12	18	37.25		
31	3005	3	9.127771	10	28	39.419	12	18	39.92		
32	3005	3	9.134717	10	28	39.013	12	18	42.67		
33	3005	3	10.209195	10	27	35.752	12	25	55.38		
34	3005	3	10.216113	10	27	35.332	12	25	58.26		
35	3005	3	10.223046	10	27	34.959	12	26	0.53		
36	3005	3	12.135266	10	25	57.388	12	37	10.99		
37	3005	3	12.142114	10	25	57.144	12	37	12.73		
38	3005	3	12.148982	10	25	56.921	12	37	14.29		
39	3005	3	14.106175	10	24	18.427	12	48	12.81		
40	3005	3	14.113100	10	24	18.111	12	48	21.16		
41	3005	3	14.120026	10	24	17.791	12	48	25.45		
42	3005	3	14.126951	10	24	17.462	12	48	26.55		
43	3005	3	14.133874	10	24	17.164	12	48	28.39		
44	3005	3	14.140817	10	24	16.857	12	48	30.51		
45	3005	3	15.208901	10	23	30.557	12	53	40.22		

TABLE 1 - Positions

NO	OBJECT	DATE UT 1981		ALPHA 1950			DELTA 1950			RESIDUALS
		MON	DAY	H	M	S	o	'	"	M
46	3005	3	15.095134	10	23	30.272	12	53	42.35	
47	3005	3	15.161366	10	23	30.026	12	53	44.32	
48	3009	3	1.147557	10	36	26.449	11	8	37.82	
49	3009	3	1.154543	10	36	26.131	11	8	43.26	
50	3009	3	1.161408	10	36	25.770	11	8	42.59	
51	3009	3	2.101196	10	35	39.708	11	14	4.09	
52	3009	3	2.108121	10	35	39.377	11	14	6.23	
53	3009	3	2.115047	10	35	39.061	11	14	3.29	
54	3009	3	3.142096	10	34	48.683	11	19	56.59	
55	3009	3	3.149022	10	34	48.339	11	19	58.35	
56	3009	3	3.155947	10	34	48.002	11	20	1.15	
57	3009	3	4.144213	10	33	59.917	11	25	31.73	
58	3009	3	4.151139	10	33	59.575	11	25	34.05	
59	3009	3	4.158064	10	33	59.240	11	25	36.26	
60	3009	3	5.217663	10	33	7.802	11	31	26.63	
61	3009	3	5.224589	10	33	7.446	11	31	28.96	
62	3009	3	5.231514	10	33	7.089	11	31	31.52	
63	3009	3	6.196530	10	32	20.834	11	36	45.92	
64	3009	3	6.203452	10	32	20.573	11	36	48.56	
65	3009	3	6.210378	10	32	20.316	11	36	51.17	
66	3009	3	7.103218	10	31	37.704	11	41	40.21	
67	3009	3	7.109775	10	31	37.397	11	41	42.25	
68	3009	3	7.116631	10	31	37.091	11	41	44.31	
69	3009	3	7.127712	10	31	36.783	11	41	45.84	
70	3009	3	7.134637	10	31	36.476	11	41	48.18	
71	3009	3	7.141563	10	31	36.169	11	41	50.46	
72	3009	3	8.106282	10	30	53.413	11	46	56.96	
73	3009	3	8.113208	10	30	53.106	11	46	58.99	
74	3009	3	8.120133	10	30	49.798	11	47	0.78	
75	3009	3	8.126062	10	30	49.492	11	47	6.32	
76	3009	3	8.133004	10	30	47.487	11	47	15.98	
77	3009	3	8.139949	10	30	47.181	11	47	18.22	
78	3009	3	8.146895	10	30	46.875	11	47	20.37	
79	3009	3	9.120866	10	30	3.123	11	52	13.67	
80	3009	3	9.127791	10	30	2.807	11	52	15.89	
81	3009	3	9.134717	10	30	2.466	11	52	18.15	
82	3009	3	10.289195	10	29	9.090	11	58	11.15	
83	3009	3	10.296813	10	29	8.764	11	58	12.95	
84	3009	3	10.303446	10	29	8.436	11	58	14.53	
85	3009	3	12.135266	10	27	45.336	12	7	26.17	
86	3009	3	12.140114	10	27	45.121	12	7	27.43	
87	3009	3	12.144962	10	27	44.802	12	7	28.58	
88	3009	3	14.126951	10	26	19.451	12	16	47.89	
89	3009	3	14.133134	10	26	19.208	12	16	49.33	
90	3009	3	14.139417	10	26	18.973	12	16	50.70	

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NO	OBJECT	DATE UT 1981		ALPHA 1950			DELTA 1950			RESIDUALS	
		MON	DAY	H	M	S	o	'	"	M	'
91	3009	3	15.352888	10	25	40.325	12	21	0.98		
92	3009	3	15.359121	10	25	40.146	12	21	2.68		
93	3009	3	15.065354	10	25	39.884	12	21	3.74		
94	3009	3	15.088901	10	25	38.812	12	21	10.71		
95	3009	3	15.095134	10	25	38.563	12	21	12.44		
96	3009	3	15.101366	10	25	38.307	12	21	14.43		
97	3012	3	1.147557	10	42	8.328	11	7	38.41		
98	3012	3	1.154546	10	42	7.898	11	7	40.39		
99	3012	3	1.161408	10	42	7.499	11	7	42.35		
100	3012	3	2.101196	10	41	15.332	11	11	40.27		
101	3012	3	2.108121	10	41	14.655	11	11	41.97		
102	3012	3	2.115047	10	41	14.272	11	11	43.56		
103	3012	3	3.142096	10	40	16.823	11	16	1.72		
104	3012	3	3.147022	10	40	16.431	11	16	3.46		
105	3012	3	3.155947	10	40	16.052	11	16	5.11		
106	3012	3	4.144213	10	39	21.095	11	20	8.01		
107	3012	3	4.151139	10	39	20.730	11	20	9.48		
108	3012	3	4.158064	10	39	20.327	11	20	11.08		
109	3012	3	6.196580	10	37	27.895	11	28	17.88		
110	3012	3	6.203852	10	37	27.483	11	28	19.53		
111	3012	3	6.210778	10	37	27.110	11	28	20.97		
112	3012	3	7.133218	10	36	38.720	11	31	46.90		
113	3012	3	7.109705	10	36	38.366	11	31	48.52		
114	3012	3	7.115631	10	36	37.991	11	31	50.17		
115	3012	3	8.194928	10	35	39.713	11	35	52.16		
116	3012	3	8.201854	10	35	39.337	11	35	53.72		
117	3012	3	8.208779	10	35	38.967	11	35	55.11		
118	3012	3	9.140568	10	34	49.006	11	39	20.65		
119	3012	3	9.155493	10	34	48.640	11	39	22.07		
120	3012	3	9.162418	10	34	48.272	11	39	23.49		
121	3012	3	9.172807	10	34	47.702	11	39	25.82		
122	3012	3	9.181117	10	34	47.243	11	39	27.60		
123	3012	3	9.188043	10	34	46.895	11	39	29.38		
124	3012	3	10.179772	10	33	54.800	11	42	59.05		
125	3012	3	10.185697	10	33	54.454	11	43	0.71		
126	3012	3	10.192930	10	33	54.075	11	43	2.08		
127	3012	3	10.201934	10	33	53.565	11	43	3.46		
128	3012	3	10.208859	10	33	53.191	11	43	4.99		
129	3012	3	10.215784	10	33	52.829	11	43	6.29		
130	3012	3	12.155266	10	32	13.495	11	49	37.49		
131	3012	3	12.160114	10	32	13.259	11	49	38.24		
132	3012	3	12.164962	10	32	12.975	11	49	38.68		
133	3012	3	13.094708	10	31	26.689	11	52	36.31		
134	3012	3	13.103018	10	31	26.216	11	52	37.72		
135	3012	3	14.076741	10	30	38.666	11	55	36.39		

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NO	OBJECT	DATE UT 1981		ALPHA 1950			DELTA 1950			RESIDUALS	
		MON	DAY	H	M	S	o	'	"	M	'
136	3012	3	14.083667	10	30	38.278	11	55	38.14		
137	3012	3	14.090592	10	30	37.893	11	55	39.93		
138	3013	3	1.147557	10	38	23.259	10	26	36.85		
139	3013	3	1.154540	10	38	22.838	10	26	39.98		
140	3013	3	1.161408	10	38	22.380	10	26	43.09		
141	3013	3	2.101196	10	37	27.382	10	33	14.05		
142	3013	3	2.108121	10	37	26.970	10	33	17.02		
143	3013	3	2.115047	10	37	26.566	10	33	20.02		
144	3013	3	3.142096	10	36	26.394	10	40	24.49		
145	3013	3	3.149022	10	36	25.981	10	40	26.96		
146	3013	3	3.155947	10	36	25.542	10	40	29.76		
147	3013	3	4.144213	10	35	27.915	10	47	15.59		
148	3013	3	4.151139	10	35	27.515	10	47	18.30		
149	3013	3	4.158064	10	35	27.115	10	47	21.16		
150	3013	3	6.196580	10	33	29.127	11	1	5.35		
151	3013	3	6.203852	10	33	28.757	11	1	7.77		
152	3013	3	6.210778	10	33	28.385	11	1	10.06		
153	3013	3	7.103218	10	32	37.365	11	7	5.31		
154	3013	3	7.109705	10	32	37.017	11	7	7.75		
155	3013	3	7.116631	10	32	36.634	11	7	10.38		
156	3013	3	7.127712	10	32	35.998	11	7	13.50		
157	3013	3	7.134637	10	32	35.606	11	7	15.85		
158	3013	3	7.141563	10	32	35.222	11	7	18.26		
159	3013	3	8.106282	10	31	40.359	11	13	38.40		
160	3013	3	8.113208	10	31	39.984	11	13	41.33		
161	3013	3	8.120133	10	31	39.596	11	13	44.06		
162	3013	3	8.136062	10	31	38.653	11	13	49.57		
163	3013	3	8.166534	10	31	36.900	11	14	1.99		
164	3013	3	8.173459	10	31	36.501	11	14	4.68		
165	3013	3	8.180385	10	31	36.102	11	14	6.85		
166	3013	3	8.194928	10	31	35.285	11	14	11.68		
167	3013	3	8.201854	10	31	34.895	11	14	14.37		
168	3013	3	8.208779	10	31	34.524	11	14	16.91		
169	3013	3	9.120866	10	30	43.368	11	20	10.30		
170	3013	3	9.127791	10	30	42.956	11	20	13.02		
171	3013	3	9.134717	10	30	42.547	11	20	15.69		
172	3013	3	10.239195	10	29	38.181	11	27	34.05		
173	3013	3	10.296813	10	29	37.765	11	27	36.94		
174	3013	3	10.303046	10	29	37.423	11	27	39.36		
175	3013	3	12.155266	10	27	56.862	11	39	5.38		
176	3013	3	12.160114	10	27	56.610	11	39	7.34		
177	3013	3	12.164962	10	27	56.356	11	39	9.37		
178	3035	3	6.196580	10	38	3.559	12	18	52.40		
179	3035	3	6.203852	10	38	3.066	12	18	50.26		
180	3035	3	6.210778	10	38	2.621	12	18	47.86		

TABLE I - Positions

NO	OBJECT	DATE UT 1981		ALPHA 1950			DELTA 1950			RESIDUALS	
		MON	DAY	H	M	S	o	'	"	M	'
181	3035	3	7.153218	10	37	3.024	12	14	32.82		
182	3035	3	7.109705	10	37	2.592	12	14	30.84		
183	3035	3	7.116631	10	37	2.124	12	14	29.11		
184	3035	3	8.194928	10	35	50.388	12	9	15.35		
185	3035	3	8.201854	10	35	49.938	12	9	13.03		
186	3035	3	8.203779	10	35	49.485	12	9	11.18		
187	3035	3	9.148568	10	34	49.161	12	4	31.23		
188	3035	3	9.155493	10	34	47.708	12	4	28.83		
189	3035	3	9.162418	10	34	47.230	12	4	26.66		
190	3035	3	9.172807	10	34	46.577	12	4	24.13		
191	3035	3	9.181117	10	34	46.014	12	4	21.61		
192	3035	3	9.188043	10	34	45.501	12	4	19.62		
193	3035	3	10.179772	10	33	41.627	11	59	17.35		
194	3035	3	10.186697	10	33	41.165	11	59	15.46		
195	3035	3	10.192930	10	33	40.753	11	59	13.57		
196	3035	3	10.201934	10	33	40.107	11	59	11.20		
197	3035	3	10.208859	10	33	39.656	11	59	8.90		
198	3035	3	10.215784	10	33	39.195	11	59	6.56		
199	3035	3	12.155266	10	31	37.694	11	48	59.45		
200	3035	3	12.160114	10	31	37.368	11	48	58.08		
201	3035	3	12.164962	10	31	37.059	11	48	56.46		
202	3035	3	13.094708	10	30	40.517	11	43	55.71		
203	3035	3	13.103018	10	30	40.028	11	43	52.79		
204	3035	3	14.076741	10	29	41.983	11	38	33.84		
205	3035	3	14.083667	10	29	41.498	11	38	31.72		
206	3035	3	14.090592	10	29	41.012	11	38	29.42		
207	334 CHICAGO	2	27.298453	10	37	42.459	11	37	16.52	0.0	0
208	334 CHICAGO	2	27.312996	10	37	41.909	11	37	20.64	0.0	0
209	334 CHICAGO	3	1.147557	10	36	32.899	11	45	30.91	0.0	0
210	334 CHICAGO	3	1.154540	10	36	32.627	11	45	32.76	0.0	0
211	334 CHICAGO	3	1.161408	10	36	32.329	11	45	35.10	0.0	0
212	334 CHICAGO	3	2.101196	10	35	56.984	11	49	44.49	0.0	0
213	334 CHICAGO	3	2.108121	10	35	56.723	11	49	46.24	0.0	0
214	334 CHICAGO	3	2.115047	10	35	56.460	11	49	48.78	0.0	0
215	334 CHICAGO	3	3.142096	10	35	17.863	11	54	18.19	0.0	0
216	334 CHICAGO	3	3.149022	10	35	17.586	11	54	19.96	0.0	0
217	334 CHICAGO	3	3.155947	10	35	17.340	11	54	21.79	0.0	0
218	334 CHICAGO	3	4.144213	10	34	40.312	11	58	39.02	0.0	0
219	334 CHICAGO	3	4.151139	10	34	40.076	11	58	40.92	0.0	0
220	334 CHICAGO	3	5.158064	10	34	39.783	11	58	42.67	0.0	0
221	334 CHICAGO	3	5.217663	10	34	0.178	12	3	15.52	0.0	0
222	334 CHICAGO	3	5.224589	10	33	59.912	12	3	17.41	0.0	0
223	334 CHICAGO	3	5.231514	10	33	59.647	12	3	19.50	0.0	0
224	334 CHICAGO	3	6.196580	10	33	23.870	12	7	26.17	0.0	0
225	334 CHICAGO	3	6.203852	10	33	23.580	12	7	28.25	0.0	0

TABLE I - Positions

NO	OBJECT	DATE UT 1981		ALPHA 1950			DELTA 1950			RESIDUALS	
		MON	DAY	H	M	S	o	'	"	M	'
226	334 CHICAGO	3	6.210778	10	33	23.329	12	7	29.82	0.0	0
227	334 CHICAGO	3	7.103213	10	32	50.488	12	11	15.68	0.0	0
228	334 CHICAGO	3	7.139705	10	32	50.264	12	11	17.90	0.0	0
229	334 CHICAGO	3	7.116631	10	32	49.996	12	11	18.81	0.0	0
230	334 CHICAGO	3	7.127712	10	32	49.542	12	11	21.77	0.0	0
231	334 CHICAGO	3	7.134637	10	32	49.279	12	11	23.21	0.0	0
232	334 CHICAGO	3	7.141563	10	32	49.030	12	11	24.91	0.0	0
233	334 CHICAGO	3	8.106282	10	32	13.664	12	15	26.49	0.0	0
234	334 CHICAGO	3	8.113208	10	32	13.425	12	15	28.38	0.0	0
235	334 CHICAGO	3	8.120133	10	32	13.154	12	15	29.71	0.0	0
236	334 CHICAGO	3	8.136062	10	32	12.517	12	15	33.17	0.0	0
237	334 CHICAGO	3	8.194928	10	32	10.384	12	15	48.45	0.0	0
238	334 CHICAGO	3	8.201854	10	32	10.151	12	15	49.99	0.0	0
239	334 CHICAGO	3	8.208779	10	32	9.886	12	15	51.86	0.0	0
240	334 CHICAGO	3	9.120866	10	31	36.725	12	19	36.38	0.1	0
241	334 CHICAGO	3	9.127791	10	31	36.482	12	19	37.92	0.1	0
242	334 CHICAGO	3	9.134717	10	31	36.226	12	19	39.96	0.1	0
243	334 CHICAGO	3	10.179772	10	30	58.475	12	23	53.11	0.1	0
244	334 CHICAGO	3	10.186697	10	30	58.206	12	23	54.99	0.1	0
245	334 CHICAGO	3	10.192930	10	30	57.964	12	23	56.75	0.1	0
246	334 CHICAGO	3	10.289195	10	30	54.455	12	24	20.64	0.1	-1
247	334 CHICAGO	3	10.296813	10	30	54.180	12	24	21.84	0.1	-1
248	334 CHICAGO	3	10.303046	10	30	53.949	12	24	23.18	0.1	-1
249	334 CHICAGO	3	12.155266	10	29	48.409	12	31	44.39	0.1	-1
250	334 CHICAGO	3	12.160114	10	29	48.220	12	31	45.70	0.1	-1
251	334 CHICAGO	3	12.164962	10	29	48.072	12	31	46.69	0.1	-1
252	334 CHICAGO	3	13.094708	10	29	15.663	12	35	22.74	0.1	-1
253	334 CHICAGO	3	13.163618	10	29	15.381	12	35	24.28	0.1	-1
254	334 CHICAGO	3	14.076741	10	28	41.826	12	39	6.69	0.1	-1
255	334 CHICAGO	3	14.083667	10	28	41.583	12	39	8.06	0.1	-1
256	334 CHICAGO	3	14.090592	10	28	41.338	12	39	9.39	0.1	-1
257	334 CHICAGO	3	14.106175	10	28	40.761	12	39	14.06	0.1	-1
258	334 CHICAGO	3	14.113100	10	28	40.521	12	39	15.31	0.1	-1
259	334 CHICAGO	3	14.120026	10	28	40.249	12	39	16.52	0.1	-1
260	334 CHICAGO	3	14.126951	10	28	40.151	12	39	18.36	0.1	-1
261	334 CHICAGO	3	14.133184	10	28	39.817	12	39	19.72	0.1	-1
262	334 CHICAGO	3	14.139417	10	28	39.598	12	39	21.46	0.1	-1
263	334 CHICAGO	3	15.052888	10	28	8.642	12	42	45.06	0.1	0
264	334 CHICAGO	3	15.059121	10	28	8.397	12	42	46.16	0.1	0
265	334 CHICAGO	3	15.065354	10	28	8.201	12	42	47.94	0.1	0
266	334 CHICAGO	3	16.054313	10	27	35.117	12	46	24.74	0.1	0
267	334 CHICAGO	3	16.061931	10	27	34.864	12	46	26.80	0.1	0
268	334 CHICAGO	3	16.069549	10	27	34.603	12	46	28.52	0.1	0

TABLE II. - Dependences

OBSERVATION		NO SAO	POSITIONS S	USED "	DEPENDENCES			
1	2							
		7006	13.158	49.88	0.159448	0.161426		
		7005	32.996	3.27	0.337235	0.339306		
		99251	3.452	4.80	0.494625	0.495641		
		7031	19.695	24.63	0.276286	0.269063		
		7030	57.634	47.81	-0.261644	-0.265436		
3	4	5	7010	36.301	21.82	0.310016	0.310736	0.311496
			99206	4.410	55.11	0.447681	0.448470	0.449939
			99214	44.407	52.83	0.207626	0.207566	0.207415
			99251	3.452	4.80	-0.153664	-0.155806	-0.158037
			99271	43.340	54.16	0.188941	0.189034	0.189188
6	7	8	7005	32.996	3.27	0.194210	0.194172	0.194192
			7006	13.158	49.88	0.634838	0.637215	0.639945
			99271	43.340	54.16	-0.174106	-0.175778	-0.177618
			99206	4.410	55.11	0.422838	0.424015	0.424975
			99214	44.407	52.83	-0.077780	-0.079624	-0.081495
9	10	11	7010	36.301	21.82	0.042263	0.041258	0.040310
			7014	23.934	1.32	0.144549	0.144410	0.144305
			99193	8.912	27.70	0.317834	0.318600	0.319294
			99193	27.955	26.27	0.344675	0.345833	0.346926
			99214	44.407	52.83	0.150679	0.149898	0.149165
12	13	14	7005	32.996	3.27	0.069327	0.072880	0.246469
			7006	13.158	49.88	0.088712	0.091865	0.049145
			99251	3.452	4.80	0.288533	0.285001	0.848537
			7014	23.934	1.32	0.216681	0.216642	0.031089
			99214	44.407	52.83	0.336746	0.333612	-0.175240
15	16	17	99162	46.586	15.82	-0.130555	-0.130595	0.073577
			99187	13.933	17.55	0.323500	0.322691	0.101135
			99157	46.237	35.90	-0.097766	-0.097058	0.398475
			99185	28.108	58.50	0.436676	0.436255	0.267801
			99186	43.494	21.02	0.468145	0.468707	0.159012
18	19	20	7015	53.594	34.91	-0.148547	-0.147089	-0.145611
			99193	8.912	27.70	-0.046798	-0.047620	-0.048472
			99187	13.933	17.55	0.548539	0.549984	0.551479
			99193	27.955	26.27	0.172861	0.172209	0.171418
			7011	58.634	8.65	0.473945	0.472516	0.471186
21	22	23	99162	46.586	15.82	0.093835	0.094391	0.095027
			99164	12.673	51.97	-0.163903	-0.163697	-0.163635
			99187	13.933	17.55	0.716367	0.716671	0.717018
			99193	8.912	27.70	0.204277	0.203760	0.203285
			99195	19.617	17.05	0.149425	0.148874	0.148306
24	25	26	99162	46.586	15.82	0.049164	0.050186	0.183221
			99164	12.673	51.97	0.050161	0.051086	-0.119760
			99187	13.933	17.55	0.429506	0.428218	0.663454
			99195	19.617	17.05	0.140149	0.140419	-0.010120
			99197	26.122	17.95	0.331020	0.330091	0.283205

TABLE II. - Dependences.

OBSERVATION	Nº SAO	POSITIONS	USED	DEPENDENCES		
		S	"			
27	99164	12.673	51.97	-0.117508		
	99167	53.680	31.58	-0.011254		
	7015	53.594	34.91	0.417846		
	99162	46.586	15.82	-0.097668		
	99186	43.494	21.02	0.808583		
28 29	7003	35.073	38.35	0.158010	0.158811	
	7004	57.111	10.63	0.261409	0.261565	
	99164	12.673	51.97	0.110920	0.111163	
	99167	53.680	31.58	0.136214	0.136192	
	99195	19.617	17.05	0.333447	0.332270	
30 31 32	99157	46.237	35.90	-0.209538	-0.208775	-0.207850
	99162	46.586	15.82	0.290009	0.289788	0.289384
	99175	54.290	17.73	-0.055547	-0.054858	-0.054093
	99185	28.108	58.50	0.407588	0.407182	0.406772
	99186	43.494	21.02	0.567489	0.566662	0.565787
33 34 35	99157	46.237	35.90	0.125523	0.126538	0.127424
	99162	46.586	15.82	0.052727	0.052964	0.053210
	99164	12.673	51.97	-0.029667	-0.029766	-0.029879
	99167	53.680	31.58	0.032235	0.031872	0.031480
	99186	43.494	21.02	0.819182	0.818392	0.817766
36 37 38	7003	35.073	38.35	0.436256	0.436889	0.208199
	7015	53.594	34.91	0.392355	0.393352	0.579310
	99175	54.290	17.73	0.223046	0.222962	-0.109653
	99187	13.933	17.55	0.048697	0.048286	0.284411
	99210	22.453	34.07	-0.100354	-0.101489	0.037733
39 40 41	7023	54.698	43.47	0.702568	0.702095	0.701481
	99113	56.613	6.40	-0.140031	-0.139436	-0.138778
	99122	59.706	37.57	-0.012226	-0.012045	-0.011874
	99133	37.191	1.82	0.075700	0.075800	0.075907
	99157	46.237	35.90	0.373989	0.373587	0.373264
42 43 44	7024	20.823	9.43	0.706557	0.708639	0.711448
	7025	54.892	28.09	0.625862	0.627936	0.630236
	99104	18.701	3.20	-0.211590	-0.213667	-0.216053
	99113	56.613	6.40	-0.089623	-0.090926	-0.092584
	99115	25.643	27.01	-0.031217	-0.031983	-0.033047
45 46 47	99082	23.236	51.45	0.110221	0.111233	0.416184
	99104	18.701	3.20	-0.169280	-0.169268	0.222729
	99113	56.613	6.40	0.243078	0.243016	0.437666
	99115	25.643	27.01	0.454640	0.454543	0.575427
	99133	37.191	1.82	0.361340	0.360476	-0.652005
48 49 50	7010	36.301	21.32	0.095505	0.096131	0.096723
	99206	4.410	55.11	0.235528	0.236651	0.237840
	99214	44.667	52.93	0.332607	0.332534	0.332519
	99251	5.452	4.80	0.322673	0.320898	0.319086
	99271	43.340	54.16	0.013687	0.013786	0.013831

TABLE II. - Dependences

OBSERVATION			NO SAO	POSITIONS	USED	DEPENDENCES				
51	52	53	7005	32.996	3.27	0.173111	0.173136	0.173126		
			7006	13.153	49.88	-0.012419	-0.010444	-0.008577		
			99271	43.340	54.16	0.093305	0.091874	0.090540		
			99206	4.410	55.11	0.276325	0.277076	0.277912		
			99214	44.407	52.83	0.469677	0.468359	0.466998		
54	55	56	7010	36.301	21.82	0.137547	0.136701	0.135926		
			7014	23.984	1.32	0.010915	0.010788	0.010618		
			99193	8.912	27.70	0.242895	0.243539	0.244164		
			99198	27.955	26.27	0.080767	0.081650	0.082564		
			99214	44.407	52.83	0.527877	0.527323	0.526728		
57	58	59	7005	32.996	3.27	0.226011	0.244905	0.268709		
			7006	13.158	49.88	0.169583	0.090289	0.151817		
			99251	5.452	4.80	0.588835	0.731423	0.699586		
			7014	23.984	1.32	0.053038	0.082478	0.172077		
			99214	44.407	52.83	-0.037467	-0.148995	-0.292190		
60	61	62	99162	46.586	15.82	0.085582	0.085501	0.072476		
			99187	13.933	17.55	0.274284	0.273093	0.100128		
			99157	46.237	35.90	0.065740	0.066859	0.400564		
			99185	28.108	58.50	0.298672	0.298068	0.268281		
			99186	43.494	21.02	0.275723	0.276480	0.158550		
63	64	65	99193	8.912	27.70	0.823261	0.824590	0.017356		
			99193	27.955	26.27	0.218868	0.217676	0.110204		
			7011	38.634	8.65	0.238166	0.240251	0.252222		
			7014	23.984	1.32	0.061250	0.060438	0.205990		
			99245	50.671	24.90	-0.341545	-0.342955	-0.414228		
66	67	68	7013	6.999	32.31	0.652650	0.031710	0.437428		
			99187	13.933	17.55	0.158226	0.515960	-0.070990		
			99198	27.955	26.27	-0.277282	0.388939	0.270784		
			99217	55.334	48.04	0.190961	0.151469	0.081633		
			99234	47.601	15.90	0.275446	-0.088078	0.281144		
69	70	71	99157	46.237	35.90	0.314659	0.315537	0.957684		
			99162	46.586	15.82	0.370352	0.370686	-0.205500		
			99185	28.108	58.50	0.029273	0.029720	0.412473		
			99186	43.494	21.02	0.138153	0.137404	0.024280		
			99187	13.933	17.55	0.147563	0.146653	-0.188937		
72	73	74	7002	29.392	46.29	0.201263	0.202014	0.208752		
			7016	25.203	44.82	0.243495	0.243642	0.415263		
			99164	12.673	51.97	0.136027	0.136497	-0.025200		
			99195	19.617	17.05	0.229975	0.229050	0.273358		
			99197	26.122	17.95	0.189241	0.188798	0.127827		
			99141	16.609	8.71	0.393196				
			99146	49.506	44.72	-0.466647				
			99157	46.237	35.90	0.980339				
			99162	46.586	15.82	0.305524				
			99164	12.673	51.97	-0.212411				
					75					

TABLE II. - Dependences

OBSERVATION	Nº SAO	POSITIONS	USED	DEPENDENCES		
		S	"			
76 77 78	99146	49.506	44.72	0.116516	0.117074	0.091122
	99155	41.623	57.46	0.023022	0.022970	0.505331
	99162	46.586	15.82	0.348918	0.349321	0.016593
	99164	12.673	51.97	0.354665	0.354783	0.176365
	99167	53.680	31.58	0.156878	0.155852	0.210589
79 80 81	99162	46.586	15.82	0.203132	0.203932	0.204846
	99167	53.680	31.58	0.451373	0.451626	0.451745
	99187	13.933	17.55	-0.173547	-0.173159	-0.172789
	99198	27.955	26.27	0.092290	0.091973	0.091583
	99206	4.410	55.11	0.426752	0.425628	0.424614
82 83 84	7001	7.093	14.08	0.701675	0.703140	0.614851
	99132	33.158	20.97	0.264111	0.264497	0.500579
	99146	49.506	44.72	-0.004071	-0.004308	0.161293
	99162	46.586	15.82	-0.130501	-0.131113	-0.257387
	99164	12.673	51.97	0.168787	0.167783	-0.019335
85 86 87	99132	33.158	20.97	0.284964	0.284919	-0.118587
	99133	37.191	1.82	0.307016	0.307695	0.557441
	99146	49.506	44.72	0.406607	0.406518	0.004795
	99157	46.237	35.90	-0.020369	-0.020012	0.436506
	99162	46.586	15.82	0.021782	0.020879	0.119846
88 89 90	99104	18.701	3.20	0.716618	-0.048745	-0.044439
	99113	56.613	6.40	-0.038477	0.042567	0.043849
	99115	25.643	27.01	-0.055764	0.115762	0.114685
	99122	59.706	37.57	0.213878	0.371705	0.370573
	99133	37.191	1.82	0.173746	0.518712	0.515332
91 92 93	99141	16.609	8.71	0.066836	0.067286	0.068705
	99162	46.586	15.82	0.074971	0.075153	0.074717
	99164	12.673	51.97	0.006573	0.006946	0.005649
	99175	54.290	17.73	0.432014	0.431502	0.432267
	99185	28.108	58.50	0.419706	0.419113	0.418662
94 95 96	99082	23.236	51.45	0.423850	0.415466	0.417070
	99104	18.701	3.20	0.199676	0.222483	0.222831
	99113	56.613	6.40	0.198426	0.437315	0.438036
	99115	25.643	27.01	0.192098	0.575107	0.575898
	99133	37.191	1.82	-0.014050	-0.650368	-0.653833
97 98 99	99257	38.780	3.17	-0.121327	-0.120352	-0.119454
	99265	41.647	24.70	0.090206	0.089537	0.088837
	99251	3.452	4.80	-0.153068	-0.150888	-0.148828
	99268	26.647	49.19	0.686130	0.685645	0.685192
	99272	48.127	16.65	0.498059	0.496058	0.494253
100 101 102	99251	3.452	4.80	0.083578	0.085604	0.087548
	99257	38.780	3.17	0.091261	0.091740	0.092241
	99268	26.647	49.19	0.279754	0.279655	0.279575
	99271	43.340	54.16	0.309168	0.309025	0.308827
	99272	48.127	16.65	0.236139	0.233975	0.231810

TABLE II. - Dependences

OBSERVATION	N ^o SAO	POSITIONS	USED	DEPENDENCES		
		S	"			
103 104 105	7010	36.301	21.82	0.268221	0.270098	0.271956
	7030	57.634	47.31	0.581645	0.579333	0.577045
	7031	19.695	24.63	0.239190	0.238070	0.237066
	99251	3.452	4.80	0.025124	0.026445	0.027629
	99257	33.780	3.17	-0.114179	-0.113947	-0.113696
106 107 108	7002	29.392	46.29	0.244720	0.244505	0.540698
	99167	53.680	31.58	0.090669	0.090952	-0.153283
	7015	25.203	44.82	0.729525	0.727761	0.862938
	99195	19.617	17.05	0.082773	0.083209	-0.043657
	99193	8.912	27.70	-0.147687	-0.146367	-0.206696
109 110 111	7008	54.809	41.60	0.032818	0.033190	0.651553
	7009	30.235	21.46	-0.000668	-0.000548	0.156895
	99198	27.955	26.27	0.096763	0.097469	-0.276908
	99206	4.410	55.11	0.523714	0.523514	0.191766
	99214	44.407	52.83	0.347374	0.346376	0.276695
112 113 114	99162	46.586	15.82	0.200992	0.200627	0.105156
	99164	12.673	51.97	0.330836	0.331361	0.186006
	99187	13.933	17.55	0.269041	0.269965	0.120633
	99193	8.912	27.70	0.175783	0.176095	0.283796
	99195	19.617	17.05	0.023348	0.021953	0.304410
115 116 117	99185	28.108	58.50	-0.154112	-0.153616	-0.153148
	99193	8.912	27.70	0.132596	0.132939	0.133202
	99214	44.407	52.83	0.319913	0.320016	0.320079
	99245	58.671	24.98	0.184390	0.183977	0.183653
	99251	3.452	4.80	0.517213	0.516685	0.516215
118 119 120	99198	27.955	26.27	0.247173	0.247627	0.630503
	99217	55.334	48.04	0.229165	0.229191	0.063929
	99234	47.601	15.96	0.228906	0.229362	0.081752
	99245	58.671	24.98	0.214755	0.215174	0.246263
	99256	36.829	48.71	0.080701	0.078645	-0.022447
121 122 123	7010	36.301	21.82	0.287606	0.286409	0.285441
	7011	38.634	8.65	0.349678	0.350698	0.351559
	7014	23.984	1.32	0.325667	0.325174	0.324736
	99206	4.410	55.11	0.063087	0.064310	0.065340
	99240	13.851	30.75	-0.026039	-0.026590	-0.027076
124 125 126	7010	36.301	21.82	0.395297	0.394306	0.393333
	7013	6.999	32.31	-0.116638	-0.115989	-0.115460
	7014	23.984	1.32	0.151562	0.151417	0.151201
	99193	8.912	27.70	0.057858	0.058802	0.059714
	99214	44.407	52.83	0.511821	0.511464	0.511211
127 128 129	7010	36.301	21.82	0.229017	0.227943	0.226885
	7013	6.999	32.31	0.431570	0.431311	0.431057
	99195	19.617	17.05	0.121106	0.121740	0.122341
	99198	27.955	26.27	0.275784	0.276390	0.276944
	99214	44.407	52.83	-0.057477	-0.057384	-0.057226

TABLE II. - Dependences

OBSERVATION	NO SAO	POSITIONS		DEPENDENCES		
		S	"			
130 131 132	7003	35.073	38.35	0.771552	0.770484	0.285039
	99157	46.237	35.94	-0.272240	-0.271509	0.306355
	99162	46.586	15.82	-0.180705	-0.180063	0.406743
	99175	54.290	17.73	0.309667	0.309666	-0.020733
	99187	13.933	17.55	0.371727	0.371422	0.022596
133 134	7003	35.073	38.35	-0.013768	-0.012486	
	7015	53.594	34.91	0.029256	0.028739	
	99175	54.290	17.73	0.215623	0.216726	
	99187	13.933	17.55	0.250964	0.250321	
	99210	22.453	34.07	0.517925	0.516700	
135 136 137	7007	43.102	21.22	0.659125	0.658516	0.424345
	99157	46.237	35.94	0.225571	0.224360	-0.106166
	99175	54.290	17.73	0.461089	0.463066	0.603080
	99185	20.108	58.50	-0.126460	-0.126193	0.204415
	99185	43.494	21.02	-0.219325	-0.219750	0.074326
138 139 140	99230	17.225	26.50	0.181126	0.182112	0.183181
	99240	13.851	30.76	0.244762	0.246699	0.248703
	99242	32.425	2.09	0.125446	0.124044	0.122664
	99257	38.780	3.17	0.252617	0.252984	0.253303
	99265	41.647	24.70	0.196043	0.194160	0.192148
141 142 143	99230	17.225	26.50	0.317266	0.318501	0.319707
	99240	13.851	30.76	0.493775	0.495566	0.497452
	99242	32.425	2.09	-0.040532	-0.041555	-0.042688
	99257	38.780	3.17	0.291260	0.291344	0.291296
	99260	54.593	15.26	-0.061768	-0.063856	-0.065768
144 145 146	7010	36.301	21.82	-0.006813	-0.006557	-0.006257
	99214	44.407	52.83	0.348954	0.350400	0.351941
	99230	17.225	26.50	0.432321	0.432272	0.432199
	99251	3.452	4.80	0.084513	0.084005	0.083496
	99257	38.780	3.17	0.141024	0.139880	0.138621
147 148 149	99240	13.851	30.76	-0.642099	-0.713291	-0.135823
	99257	38.780	3.17	0.701149	0.667551	0.249768
	99260	54.593	15.26	0.551167	0.595164	0.527552
	99260	41.647	24.70	0.127283	0.127148	0.444328
	99251	3.452	4.80	0.262501	0.323427	0.114175
150 151 152	7015	53.594	34.91	1.021331	0.821805	0.436160
	99193	8.912	27.70	-0.183282	0.220257	0.401215
	99187	13.933	17.55	-0.448968	0.235945	-0.089389
	99198	27.955	26.27	0.125623	0.062168	0.233462
153 154 155	7011	38.634	8.65	0.482296	-0.340175	0.018552
	7013	6.999	32.31	0.402516	0.403385	-0.104689
	99187	13.933	17.55	0.536831	0.537901	0.607899
	99198	27.955	26.27	0.183723	0.183405	0.225243
	99217	55.334	68.04	0.010821	0.010221	0.287609
	99234	47.601	15.90	-0.133896	-0.134912	-0.016062

TABLE II. - Dependences

OBSERVATION	Nº SAO	POSITIONS	USED	DEPENDENCES			
				S	"	"	
156 157 158	99157	46.237	35.96	0.321326	0.322290	0.959603	
	99162	46.586	15.82	0.086349	0.086583	-0.206487	
	99185	28.108	58.50	0.530182	0.530644	0.413091	
	99186	43.494	21.02	0.058938	0.058184	0.023887	
	99187	13.933	17.55	0.003205	0.002299	-0.190093	
159 160 161	7001	7.083	14.08	0.456646	0.394128	0.457494	
	7002	29.392	46.29	0.606161	0.424636	0.604997	
	99146	49.506	44.72	-0.072441	0.056826	-0.071083	
	99162	46.586	15.82	-0.159599	-0.041064	-0.159844	
	99164	12.673	51.97	0.169232	0.155474	0.168436	
	162	99164	12.673	51.97	0.086668		
		99167	53.680	31.58	0.224830		
		7015	53.594	34.91	0.480787		
		99162	46.586	15.82	-0.110108		
		99186	43.494	21.02	0.317823		
163 164 165	7003	35.073	38.35	0.175463	0.174976	0.539402	
	7004	57.111	10.63	0.031646	0.119213	0.510211	
	99164	12.673	51.97	0.225904	0.208553	0.040767	
	99167	53.680	31.58	0.296290	0.241777	-0.043561	
	99195	19.617	17.05	0.270697	0.255481	-0.046820	
166 167 168	99185	28.108	58.50	0.376914	0.377359	0.377871	
	99193	8.912	27.70	0.129618	0.129853	0.130140	
	99214	44.407	52.83	0.005006	0.005070	0.005144	
	99245	38.671	24.98	0.418682	0.418352	0.418000	
	99251	3.452	4.80	0.069780	0.069366	0.068845	
169 170 171	7001	7.083	14.08	0.616679	0.617490	0.654886	
	7002	29.392	46.29	0.455949	0.456203	0.469287	
	99146	49.506	44.72	0.130992	0.131242	-0.000728	
	99164	12.673	51.97	-0.046254	-0.046604	-0.065436	
	99167	53.680	31.58	-0.157366	-0.158331	-0.058009	
172 173 174	99141	16.609	8.71	0.326950	-0.375859	0.253092	
	99146	49.506	44.72	0.636564	0.251631	0.356548	
	99157	46.237	35.93	-0.315017	-0.044431	0.078643	
	99162	46.586	15.82	0.134168	0.512343	0.127732	
	99164	12.673	51.97	0.247335	0.656315	0.183985	
175 176 177	7009	30.285	21.46	0.106575	0.105751	0.772462	
	7003	35.073	38.35	-0.108245	-0.107138	-0.272962	
	99162	46.586	15.82	0.106836	0.107642	-0.181297	
	99164	12.673	51.97	0.427076	0.427075	0.309834	
	99187	13.933	17.55	0.467759	0.466670	0.371963	
178 179 180	99206	4.410	55.11	0.017295	0.106308	0.032444	
	99214	44.407	52.83	0.111444	0.159166	-0.000739	
	99193	8.912	27.70	0.254369	0.030732	0.095897	
	7014	23.984	1.32	0.202740	0.279395	0.523968	
	99251	3.452	4.80	0.414163	0.424400	0.348431	

TABLE II. - Dependences

OBSERVATION	NO SAO	POSITIONS	USED	DEPENDENCES		
		S	"			
181 182 183	7010	36.301	21.82	-0.349726	-0.349681	0.520407
	7013	6.999	32.31	0.167141	0.168650	-0.172164
	7014	23.984	1.32	0.306436	0.306781	0.183976
	99234	47.601	15.90	0.153065	0.152323	0.067611
	99245	58.671	24.98	0.723084	0.721927	0.400169
184 185 186	99185	28.108	58.50	0.360082	0.360585	0.361039
	99193	8.912	27.70	-0.165126	-0.164640	-0.164182
	99214	44.407	52.83	-0.357766	-0.367433	-0.367103
	99245	58.671	24.98	1.008779	1.007940	1.007251
	99251	3.452	4.80	0.164030	0.163548	0.162995
187 188 189	99198	27.955	26.27	0.832463	0.831852	0.831423
	99217	55.334	48.04	-0.617908	-0.615643	-0.613368
	99234	47.601	15.90	-0.118221	-0.117603	-0.116986
	99245	58.671	24.98	0.684479	0.683272	0.681709
	99255	36.829	48.71	0.219187	0.218123	0.217223
190 191 192	7010	36.301	21.82	-0.031158	-0.032273	-0.033304
	7011	38.634	8.65	-0.020437	-0.019515	-0.018741
	7014	23.984	1.32	-0.063114	-0.063647	-0.064053
	99206	4.410	55.11	0.525264	0.526454	0.527467
	99240	13.851	30.75	0.589445	0.588981	0.588631
193 194 195	7013	6.999	32.31	0.192954	0.191728	0.190644
	99186	43.494	21.02	0.083893	0.085475	0.086946
	99193	8.912	27.70	-0.131570	-0.131424	-0.131308
	99217	55.334	48.04	0.320622	0.320570	0.320487
	99227	8.623	20.18	0.534101	0.533651	0.533231
196 197 198	7010	36.301	21.82	0.215339	0.214078	0.212878
	7013	6.999	32.31	-0.388927	-0.388842	-0.388817
	99195	19.617	17.05	0.355930	0.356478	0.357074
	99198	27.955	26.27	-0.049450	-0.048685	-0.047864
	99214	44.407	52.83	0.867108	0.866972	0.866729
199 200 201	7003	35.073	38.35	0.673229	0.672607	0.146028
	99157	46.237	35.90	-0.199306	-0.199046	0.143690
	99162	46.586	15.82	-0.103097	-0.102561	0.069704
	99175	54.290	17.73	0.324185	0.324747	0.342516
	99187	13.933	17.55	0.304989	0.304253	0.298061
202 203	7003	35.073	38.35	0.465184	0.465762	
	7015	53.594	34.91	-0.009928	-0.010457	
	99175	54.290	17.73	0.530280	0.531184	
	99187	13.933	17.55	0.039065	0.038670	
	99210	22.453	34.07	-0.024602	-0.025158	
204 205 206	7007	43.102	21.22	0.234631	0.232649	0.037707
	99157	46.237	35.90	0.236135	0.235323	0.496962
	99175	54.290	17.73	0.146262	0.146629	0.315864
	99185	28.108	58.50	0.180810	0.182113	0.105134
	99186	43.494	21.02	0.202162	0.203285	0.044332

TABLE II. - Dependences

OBSERVATION	NO SAO	POSITIONS	USED	DEPENDENCES		
				S	"	"
207 208	7006	13.158	49.88	0.597376	0.598643	
	7005	32.996	3.27	0.366555	0.367835	
	99251	3.452	4.80	-0.080161	-0.079922	
	7031	19.695	24.63	-0.125893	-0.126800	
	7030	57.634	47.81	0.242123	0.240194	
209 210 211	99251	3.452	4.80	-0.791743	-0.792987	-0.794634
	99268	26.647	49.19	0.388158	0.387989	0.388043
	99206	4.410	55.11	0.684402	0.685385	0.686508
	99214	44.407	52.83	-0.079020	-0.079271	-0.079461
	7010	36.301	21.82	0.798203	0.798885	0.799544
212 213 214	7005	32.996	3.27	0.225124	0.225020	0.225066
	7006	13.158	49.88	1.229699	1.231078	1.233244
	99271	43.340	54.16	-0.307642	-0.308613	-0.309961
	99206	4.410	55.11	0.485688	0.486717	0.487232
	99214	44.407	52.83	-0.632970	-0.634202	-0.635581
215 216 217	7010	36.301	21.82	0.140175	0.139537	0.138887
	7014	23.984	1.32	0.377291	0.377132	0.377118
	99193	8.912	27.70	0.249151	0.249631	0.250050
	99198	27.955	26.27	0.464328	0.465081	0.465772
	99214	44.407	52.83	-0.230946	-0.231381	-0.231827
218 219 220	99251	3.452	4.80	-0.711005	-0.407563	-0.028264
	99214	44.407	52.83	0.664922	0.556723	0.603210
	99230	17.225	26.50	0.594431	0.454266	0.245394
	99240	13.851	30.76	0.127423	0.147926	0.158743
	99242	32.425	2.09	0.324229	0.248648	0.020918
221 222 223	99167	53.680	31.58	0.361818	0.361860	0.361848
	99195	19.617	17.05	0.442367	0.441220	0.440145
	99162	46.596	15.82	0.046261	0.047399	0.048584
	99198	27.955	26.27	0.244915	0.244342	0.243690
	99187	13.933	17.55	-0.095361	-0.094822	-0.094267
224 225 226	99193	8.912	27.70	0.498146	0.499233	-0.220938
	99190	27.955	26.27	-0.013628	-0.014969	-0.027120
	7011	38.634	8.65	0.566858	0.569149	0.287002
	7014	23.984	1.32	0.034973	0.034092	0.265015
	99245	58.671	24.98	-0.086350	-0.087506	0.696041
227 228 229	7013	6.999	32.31	0.030709	0.029903	0.522128
	99217	55.334	48.04	0.516997	0.518037	-0.010775
	99234	47.601	15.90	0.388504	0.388431	0.085207
	99245	58.671	24.98	0.152067	0.152341	0.334351
	99256	36.829	48.71	-0.088277	-0.088712	0.069088
230 231 232	99157	46.237	35.90	0.105922	0.106631	0.961700
	99162	46.586	15.82	0.186182	0.186352	-0.207649
	99185	28.108	58.50	0.121161	0.121693	0.413410
	99186	43.494	21.02	0.283152	0.282521	0.023561
	99137	13.933	17.55	0.303585	0.302803	-0.191022

TABLE II. - Dependences

OBSERVATION	Nº SAO	POSITIONS	USED	DEPENDENCES			
		S	"				
233 234 235	7002	29.392	46.29	0.183806	0.184432	0.208624	
	7016	25.203	44.82	-0.119725	-0.119613	0.416664	
	99164	12.673	51.97	0.663947	0.664317	-0.026831	
	99195	19.617	17.05	-0.010970	-0.011633	0.273967	
	99197	26.122	17.95	0.282942	0.282497	0.127575	
	236	99166	43.345	25.90	0.274039		
		99167	53.690	31.58	-0.061860		
		99177	10.495	56.20	0.273230		
		99180	43.723	13.14	0.387309		
		99195	19.617	17.05	0.127282		
		99185	28.108	58.50	0.131890	0.132457	0.133012
	237 238 239	99193	8.912	27.70	0.234843	0.235200	0.235579
		99214	44.407	52.83	0.285128	0.285251	0.285418
99245		58.671	24.78	0.100109	0.099649	0.099115	
99251		3.452	4.30	0.249030	0.247443	0.246877	
99162		46.586	15.82	0.986631	0.988067	-0.178894	
240 241 242	99167	53.680	31.58	-0.052776	-0.053232	0.125186	
	99187	13.933	17.55	0.761424	0.762417	0.026545	
	99198	27.955	26.27	-0.180357	-0.181073	0.356893	
	99206	4.410	55.11	-0.514922	-0.516178	0.670269	
	7010	36.301	21.82	0.253003	0.252132	-0.130824	
243 244 245	7013	6.999	32.31	0.223266	0.224558	0.009262	
	99195	19.617	17.05	0.442804	0.443287	0.418942	
	99198	27.955	26.27	0.113052	0.112853	0.332879	
	99214	44.407	52.83	-0.032125	-0.032831	0.369741	
	7001	7.083	14.08	0.333352	0.334436	0.107386	
246 247 248	99132	33.158	20.97	0.139554	0.139957	-0.109376	
	99146	49.506	44.72	-0.000411	-0.000360	0.106098	
	99162	46.586	15.82	-0.009741	-0.010035	0.427073	
	99164	12.673	51.97	0.537247	0.536002	0.468819	
	99132	33.158	20.97	0.145940	0.145863	-0.119036	
	99133	37.191	1.82	0.144284	0.144762	0.556485	
249 250 251	99146	49.506	44.72	0.069558	0.069443	0.004852	
	99157	46.237	35.90	0.342893	0.343167	0.436797	
	99162	46.586	15.82	0.207325	0.296764	0.120903	
	99146	49.506	44.72	0.255278	1.011303		
	99157	46.237	35.90	0.624522	-0.564635		
	99162	46.586	15.82	-0.119402	-0.061090		
252 253	99164	12.673	51.97	0.274947	0.378987		
	99167	53.690	31.58	-0.035346	0.235436		
	99104	18.701	3.20	0.037600	0.037417	0.157418	
	99113	56.613	6.40	0.497442	0.497903	0.213749	
	99122	59.706	37.57	0.316775	0.317717	0.184703	
	99133	37.191	1.82	0.104752	0.104399	0.201058	
254 255 256	99157	46.237	35.90	0.043431	0.042564	0.243072	

TABLE II. - Dependences

OBSERVATION	Nº SAO	POSITIONS	USED	DEPENDENCES		
		S	"			
257 258 259	7023	54.698	43.47	0.717354	0.009518	0.716924
	99133	37.191	1.82	-0.040082	0.184203	-0.039257
	99141	16.609	8.71	-0.056448	0.273110	-0.066106
	99157	46.237	35.90	0.213925	0.198996	0.213882
	99162	46.586	15.82	0.175251	0.334173	0.174557
260 261 262	99104	18.701	3.20	0.009086	0.008664	-0.046589
	99113	56.615	6.40	0.135043	0.185857	0.043163
	99115	25.643	27.01	0.273492	0.273861	0.115201
	99122	59.706	37.57	0.198953	0.198898	0.371175
	99133	37.191	1.82	0.333426	0.332720	0.517050
263 264 265	99101	4.231	35.47	0.773189	0.774134	0.048728
	99103	18.302	47.77	0.192353	0.192324	0.370141
	99111	47.313	39.86	-0.012143	-0.012609	0.392904
	99132	33.158	20.97	0.217965	0.218063	0.207104
	99146	49.506	44.72	-0.171365	-0.171911	-0.018876
266 267 268	99141	16.609	8.71	0.042007	0.043138	0.044286
	99146	49.506	44.72	-0.160965	-0.160254	-0.159582
	99162	46.586	15.82	0.143299	0.143081	0.142918
	99167	53.680	31.58	0.069069	0.068908	0.068062
	99175	54.290	17.73	0.905790	0.905127	0.904316