Bull. Astron. Belgrade № 155 (1997), 3 – 25

UDC 524.3(083.8)–323.2
Original scientific paper

POSITION CATALOGUE OF 351 STARS SITUATED IN THE VICINITY OF RADIO SOURCES OBSERVED WITH THE BELGRADE MERIDIAN CIRCLE

S. Sadžakov, M. Dačić and Z. Cvetković

Astronomical Observatory, Volgina 7, 11000 Belgrade, Yugoslavia

(Received: February 19, 1997)

SUMMARY: The authors present an observational catalogue containing the positions of 351 stars situated in the vicinity of radio sources (RRS2) worked out by differential method in the FK5 system. The (O – C) corrections to the positions of 267 fundamental stars used in the determination of the instrument parameters are also presented. The star positions are derived from the observations with the Belgrade Large Meridian Circle during 1991–1993.

1. INTRODUCTION

In this paper we present the positions of the stars from the RRS2 list (Tel'ny- uk-Adamchuk *et al.* 1991). These stars belong to the CONFOR Programme (Gubanov *et al.* 1990). This programme is aimed at the establishing of a link between the optical fundamental system and the radio-astronomy one.

This list contains 1594 stars within the declination zone between -30^o do $+30^o$. The given observational zone is of special interest because through it the southern and northern hemispheres are unified into a homogeneous system. For this reason the original star list was enlarged and the Belgrade Observatory was proposed to undertake the star observations just in this zone.

Due to the frequency of star transits out of 1594 programme stars from the RRS2 List we selected 488 stars. With the 337 stars selectted from the FK5 our programme contained a total of 825 stars. For technical reasons the observations were stopped in late 1993 before the completition of the observations of the stars from the RRS2 List. Due to this the catalogues presented here contain the positions of 351 programme stars and of 267 FK5 ones, i.e. only those stars observed twice at least.

2. THE OBSERVATIONAL RESULTS

The treatment of the observations is carried out as usually (Sadžakov *et al.* 1992). First we derived the instrument parameters from the observations of the FK5 stars: $(u + m)$ and n for the right ascension and the equator point M_o for the declination. In the next step the apparent places of the programme stars are calculated and reduced to the equator and equinox J2000.0 (without proper motion). The results are presented in Catalogues 1 and 2.

Catalogue 1 contains the positions of 351 programme stars in the FK5 system for the equator and equninox J2000.0 and for the given observational epoch. Some of the observed radio stars from the RRS2 List are denoted with RS in the column containing the designation of the radio source.

In Catalogue 2 are presented the individual corrections to the right ascensions and declinations for 267 FK5 stars calculated from the (O-C) differences used with the determination of the instrument parameters.

The mean epoch of observation for the programme stars is 1992.48 . On the basis of the individual deviations from the mean value we calculated the root-mean-square error of a single observation. For the programme stars it is $\varepsilon_\alpha \cos\delta = \pm 0^s.028$ and $\varepsilon_\delta = \pm 0''.39$. For the fundamental stars the corresponding error is $\varepsilon_\alpha \cos\delta = \pm 0^s.022$ and $\varepsilon_\delta = \pm 0''.29$. The analysis of results will be published elsewhere.

Acknowledgements – This work is a part of the project "Astrometrical, Astrodynamical and Astrophysical investigations", supported by Ministry of Science and Technology of Serbia.

REFERENCES

Gubanov, V. S., Kumkova, I. I. and Tel'nyuk-Adamchuk, V. V.: 1990, *Inertial. Coordinate System on the Sky, Proc. 141st Symps. IAU, 75-76.*

Sadžakov, S., Dačić, M. and Cvetković , Z.: 1992, *Bull. Astron. Belgrade*, **146**. 1-13.

Sadžakov, S., Dačić , M. and Cvetković, Z.: 1992, *Astron. Astrophys. Suppl. Series*, to be submitted.

Tel'nyuk-Adamchuk, V. V., Kumkova, I. I., Sadzakov, S., Toma, E. and Volianska, M. Yu.: 1991, *Reference Systems*, Proc. 127th Colloq. IAU, 363-367.

КАТАЛОГ ПОЛОЖАЈА 351 ЗВЕЗДЕ У ОКОЛИНИ РАДИО-ИЗВОРА ПОСМАТРАНИХ НА БЕОГРАДСКОМ МЕРИДИЈАНСКОМ КРУГУ

С. Сацаков, М. Дачић и З. Цветковић

Астрономска опсерваторија, Волгина 7, 11000 Београд, Југославија

УДК 524.3(083.8)–323.2
Оригинални научни рад

Овај рад представља посматрачки каталог у коме се дају положаји 351 звезде (RRS2) у околини радио-извора одређени диференцијалном методом у систему FK5. Такође су приложене (O – C) поправке положаја 267 фундаменталних звезда које су коришћене за одређивање параметара инструмента. Положаји су добијени из посматрања звезда на Београдском меридијанском кругу у периоду 1991–1993. година.

CATALOGUE 1 – POSITIONS OF STARS SITUATED IN THE VICINITY OF RADIO SOURCES

Explanation:

N	–	star number in the catalogue
IAU	–	designation of radio source
m	–	visual magnitude
R.A.	–	right ascension (hour, minute and second of time) for the equator and equinox J2000.0 and for the corresponding epoch of observation
$\varepsilon_\alpha \cos\delta$	–	r.m.s. error of right ascension (second of time)
Ep	–	mean epoch of observations for right ascension
n_1	–	number of observations in right ascension
DEC	–	declination (degree, minute and second of arc) for the equator and equinox J2000.0 and for the corresponding epoch of observation
ε_δ	–	r.m.s. error of declinations (second of arc)
Ep	–	mean epoch of observations for declination
n_2	–	number of observations in declination

N	IAU	m	R.A.	$\varepsilon_\alpha \cos\delta$	E_p	n_1	DEC	ε_δ	E_p	n_2
72004	0003−066	8.4	0 04 30.132	.014	1993.82	2	−6 57 55.52	.13	1993.82	2
72006	0003−066	8.6	0 07 47.846	.019	1993.82	2	−5 29 10.31	.13	1993.82	2
72031	0019−000	7.9	0 19 16.644	.013	1993.82	2	+0 31 14.52	.13	1993.82	2
72054	0019−000	8.2	0 26 03.115	.008	1993.82	2	+0 26 15.93	.23	1993.82	2
72069	0056−001	9.0	0 56 06.467	.014	1993.82	2	−0 23 18.70	.02	1993.82	2
72077	0056−001	8.6	1 01 34.305	.017	1993.82	2	−0 19 12.59	.05	1993.82	2
72082	0106+013	8.5	1 04 48.299	.006	1993.82	2	+1 35 17.06	.18	1993.82	2
72096	0106+013	9.1	1 09 44.923	.012	1993.82	2	+1 13 29.96	.25	1993.82	2
72133	0112−017	8.1	1 18 40.899	.017	1993.82	2	−0 52 03.63	.07	1993.82	2
72141	0119+041	9.2	1 20 52.650	.004	1993.82	2	+5 01 08.09	.15	1993.82	2
72150	0119+041	9.0	1 24 07.268	.022	1993.82	2	+5 13 38.87	.22	1993.82	2
72152	RS+20	6.1	1 25 35.587	.019	1993.82	2	+23 30 39.88	.24	1993.82	2
72156	0135−247	6.5	1 34 51.583	.018	1993.82	2	−23 41 57.07	.54	1993.82	2
72164	0135−247	8.4	1 37 09.658	.010	1993.82	2	−25 00 54.62	.18	1993.82	2
72220	0202−172	7.8	2 01 56.616	.009	1993.82	2	−16 34 08.91	.01	1993.82	2
72225	0202−172	8.2	2 03 25.499	.021	1993.82	2	−17 01 57.92	.24	1993.82	2
72522	0451−282	8.6	4 50 21.710	.017	1992.16	2	−28 36 11.31	.26	1992.16	2
72525	0451−282	9.0	4 52 00.845	.018	1992.16	2	−28 03 25.92	.27	1992.16	2
72528	0451−282	9.1	4 53 26.611	.017	1992.16	2	−28 52 24.47	.16	1992.16	2
72531	0451−282	7.7	4 54 40.885	.010	1992.16	2	−28 52 49.24	.12	1992.16	2
72534	0451−282	8.1	4 55 49.835	.001	1992.16	2	−27 42 17.90	.19	1992.16	2
72537	0457+024	9.2	4 57 19.587	.005	1992.16	2	+3 03 03.47	.03	1992.16	2
72540	0458−020	7.8	4 59 05.784	.004	1992.16	2	−2 08 11.94	.11	1992.16	2
72543	0458−020	8.7	5 00 02.196	.008	1992.16	2	−2 46 20.26	.17	1992.16	2
72548	0458−020	9.0	5 01 02.719	.017	1992.16	2	−1 15 08.09	.29	1992.16	2
72554	0458−020	8.9	5 02 14.954	.001	1992.16	2	−1 43 07.43	.27	1992.16	2
72558	0458−020	9.1	5 03 15.957	.021	1992.16	2	−1 41 09.52	.28	1992.16	2
72562	0500+019	8.9	5 04 22.177	.009	1992.16	2	+1 05 43.92	.04	1992.16	2
72565	0500+019	5.9	5 05 23.707	.018	1992.16	2	+1 10 39.18	.18	1992.16	2
72567	0500+019	8.2	5 05 54.523	.021	1992.17	3	+1 51 07.70	.21	1992.17	3
72573	0528−250	9.0	5 27 27.492	.018	1992.17	3	−25 20 29.23	.21	1992.17	3
72579	0528−250	8.0	5 28 47.648	.015	1992.17	4	−24 15 40.11	.18	1992.17	4
72582	0529+075	8.7	5 30 08.661	.012	1992.17	4	+6 57 34.46	.27	1992.17	4
72589	0528−250	8.9	5 30 51.601	.010	1992.17	3	−24 58 06.32	.23	1992.17	3
72601	0529+075	9.0	5 34 55.490	.011	1992.17	3	+7 05 03.71	.28	1992.17	3
72608	0539−057	8.0	5 38 26.949	.019	1992.17	4	−5 02 40.28	.28	1992.17	4
72616	RS−20	2.0	5 40 45.506	.005	1992.17	4	−1 56 33.44	.15	1992.17	4
72623	0539−057	9.0	5 43 05.220	.012	1992.17	4	−5 48 27.04	.30	1992.17	4
72625	0539−057	7.8	5 44 25.340	.015	1992.17	4	−5 27 51.89	.19	1992.17	4
72642	0600+177	8.9	6 01 11.136	.012	1992.17	4	+18 14 04.30	.15	1992.17	4

continued

N	IAU	m	R.A.	$\varepsilon_\alpha \cos\delta$	E_p	n_1	DEC	ε_δ	E_p	n_2
72643	0600+177	8.6	6 02 20.486	.015	1992.17	4	+18 01 25.95	.25	1992.17	4
72647	0600+177	8.1	6 03 28.433	.015	1992.17	4	+18 10 59.24	.16	1992.17	4
72650	0600+177	8.8	6 04 14.283	.012	1992.17	4	+17 17 03.27	.18	1992.17	4
72654	0605−085	8.3	6 07 02.695	.020	1992.17	4	−8 15 15.53	.14	1992.17	4
72659	0607−157	7.8	6 08 06.400	.017	1992.17	4	−15 54 03.18	.21	1992.17	4
72662	0605−085	8.9	6 09 01.769	.005	1992.17	4	−8 23 44.29	.16	1992.17	4
72670	0605−085	8.7	6 10 09.973	.015	1992.17	4	−8 32 17.76	.22	1992.17	4
72673	0607−157	6.7	6 11 21.707	.014	1992.17	4	−15 47 33.86	.13	1992.17	4
72713	RS−20	6.5	6 54 12.969	.011	1992.17	4	−23 55 41.68	.26	1992.17	4
72885	0823+033	9.1	8 24 26.555	.017	1991.72	2	+3 10 50.70	.23	1991.72	2
72889	0823+033	8.3	8 25 35.793	.013	1991.72	2	+3 29 26.98	.10	1991.72	2
72898	0823+033	8.1	8 27 23.926	.023	1991.72	2	+3 41 32.39	.27	1991.72	2
72902	0827+243	8.5	8 28 30.296	.020	1991.72	2	+24 32 29.37	.16	1991.72	2
72910	0823+033	8.5	8 29 28.421	.017	1991.72	2	+3 05 39.33	.18	1991.72	2
72915	0827+243	8.7	8 30 44.714	.019	1991.72	2	+23 29 08.46	.17	1991.72	2
72921	0827+243	8.5	8 32 15.645	.016	1991.72	2	+24 08 10.84	.25	1991.72	2
72934	0827+243	8.7	8 34 10.282	.014	1991.72	2	+24 35 35.41	.11	1991.72	2
72951	0839+187	8.9	8 39 49.577	.019	1991.72	2	+18 20 52.22	.06	1991.72	2
72956	0839+187	8.7	8 41 02.963	.022	1991.72	2	+18 29 28.90	.04	1991.72	2
72958	0839+187	8.2	8 42 10.913	.022	1991.72	2	+18 56 03.22	.20	1991.72	2
72963	0839+187	9.0	8 43 38.427	.006	1991.72	2	+18 07 07.38	.18	1991.72	2
72972	0851+202	8.2	8 52 01.611	.022	1991.72	2	+19 48 28.91	.23	1991.72	2
72973	0851+202	6.8	8 53 55.300	.017	1991.72	2	+19 58 02.34	.12	1991.72	2
72977	0851+202	8.9	8 55 09.028	.019	1991.72	2	+19 51 56.48	.15	1991.72	2
72979	0851+202	8.0	8 56 40.112	.026	1991.72	2	+19 50 55.76	.19	1991.72	2
72983	0859−140	9.0	8 59 33.481	.018	1991.72	2	−13 47 36.14	.25	1991.72	2
72987	0859−140	8.2	9 00 19.136	.022	1991.72	2	−14 49 00.14	.15	1991.72	2
72991	0859−140	8.7	9 01 39.650	.006	1991.72	2	−14 25 31.47	.27	1991.72	2
72993	0859−140	8.2	9 03 07.702	.020	1991.72	2	−14 00 12.68	.00	1991.72	2
72996	0859−140	9.0	9 05 16.335	.010	1991.72	2	−14 19 21.12	.23	1991.72	2
73003	0906+015	6.4	9 06 59.983	.021	1991.72	2	+1 27 45.61	.06	1991.72	2
73006	0906+015	9.1	9 07 30.532	.003	1991.72	2	+1 11 11.02	.23	1991.72	2
73007	0906+015	9.0	9 09 06.467	.011	1991.72	2	+2 12 25.12	.10	1991.72	2
73008	0906+015	9.0	9 10 36.444	.021	1991.72	2	+1 47 13.99	.10	1991.72	2
73012	0906+015	9.0	9 11 50.185	.016	1991.72	2	+1 41 55.70	.13	1991.72	2
73045	0941−080	7.6	9 40 07.192	.015	1992.29	3	−9 05 43.79	.22	1992.29	3
73047	0941−080	8.4	9 41 11.941	.003	1992.29	3	−7 37 40.39	.17	1992.29	3
73048	0941−080	8.2	9 42 12.263	.012	1992.29	3	−7 46 11.97	.17	1992.29	3
73053	0941−080	7.6	9 45 25.240	.011	1992.29	3	−8 28 57.72	.19	1992.29	3
73056	0941−080	8.5	9 47 51.282	.013	1992.29	3	−8 29 34.11	.13	1992.29	3

continued

N	IAU	m	R.A.	$\varepsilon_\alpha \cos\delta$	E_p	n_1	DEC	ε_δ	E_p	n_2
73061	0952+179	9.0	9 52 25.496	.009	1992.29	3	+17 56 03.76	.13	1992.29	3
73063	0952+179	9.2	9 53 26.925	.010	1992.29	3	+17 39 24.60	.15	1992.29	3
73065	0952+179	8.8	9 54 16.711	.006	1992.29	3	+17 10 10.36	.17	1992.29	3
73069	0952+179	8.1	9 55 55.979	.002	1992.29	3	+17 32 30.52	.26	1992.29	3
73070	0952+179	9.0	9 57 00.781	.010	1992.29	3	+17 03 16.05	.07	1992.29	3
73076	1004+141	8.6	10 02 54.210	.018	1992.81	2	+14 07 48.91	.18	1992.81	2
73079	1004+141	8.1	10 04 26.370	.016	1992.81	2	+13 35 41.61	.04	1992.81	2
73082	1004+141	8.9	10 05 38.995	.008	1992.81	2	+12 57 42.95	.20	1992.81	2
73087	1004+141	8.5	10 10 56.493	.021	1992.81	2	+14 28 57.34	.23	1992.81	2
73089	1004+141	9.0	10 11 53.461	.014	1992.81	2	+14 04 50.68	.20	1992.81	2
73111	1032−199	8.9	10 32 00.188	.019	1992.98	3	−20 20 57.01	.25	1992.98	3
73118	1032−199	8.5	10 33 30.762	.005	1992.98	3	−20 10 53.69	.18	1992.98	3
73126	1034−293	8.7	10 34 34.453	.012	1992.98	3	−29 37 29.75	.20	1992.98	3
73130	1034−293	8.5	10 35 53.664	.014	1992.81	2	−29 07 45.57	.13	1992.81	2
73137	1034−293	8.9	10 37 10.903	.007	1992.81	2	−29 10 17.38	.13	1992.81	2
73143	1038+064	8.5	10 38 17.688	.004	1992.98	3	+6 29 05.50	.24	1992.98	3
73152	1034−293	9.0	10 40 07.843	.018	1992.81	2	−29 51 22.15	.17	1992.81	2
73161	1038+064	8.9	10 42 30.218	.010	1992.98	3	+6 40 12.95	.27	1992.98	3
73163	1038+064	8.8	10 43 43.526	.019	1992.98	3	+5 58 08.36	.17	1992.98	3
73167	1038+064	8.7	10 44 47.951	.019	1992.98	3	+6 02 15.19	.25	1992.98	3
73174	1055+018	6.9	10 56 10.506	.016	1992.82	4	+0 25 58.59	.14	1992.82	4
73176	1055+018	9.1	10 57 49.177	.022	1992.98	3	+2 38 51.25	.17	1992.98	3
73180	1055+018	8.7	10 58 59.940	.014	1992.82	4	+2 11 42.92	.24	1992.82	4
73181	1055+018	8.7	11 00 08.378	.013	1992.82	4	+2 13 34.66	.23	1992.82	4
73184	1055+018	8.2	11 02 17.956	.013	1992.82	4	+2 11 23.37	.21	1992.82	4
73193	1111+149	9.0	11 10 57.237	.013	1992.83	6	+15 15 29.57	.13	1992.83	6
73197	1111+149	8.5	11 12 05.550	.013	1992.83	6	+14 18 21.34	.17	1992.83	6
73201	1111+149	9.2	11 13 34.750	.010	1992.83	6	+15 12 20.16	.19	1992.83	6
73202	1111+149	7.6	11 15 25.530	.013	1992.74	5	+15 06 46.90	.15	1992.74	5
73203	1111+149	9.1	11 16 41.299	.014	1992.74	5	+15 02 42.85	.13	1992.74	5
73210	1116+128	6.5	11 18 20.986	.011	1992.74	5	+11 59 05.18	.20	1992.74	5
73213	1116+128	8.6	11 20 04.388	.017	1992.74	5	+12 03 25.54	.20	1992.74	5
73219	1117+146	8.9	11 22 20.732	.018	1992.84	4	+13 56 38.64	.18	1992.84	4
73223	1117+146	8.7	11 24 18.125	.013	1992.74	5	+14 10 07.51	.15	1992.74	5
73226	1127−145	7.3	11 25 42.377	.015	1992.74	5	−14 32 14.20	.15	1992.74	5
73230	1123+264	8.5	11 26 51.827	.015	1992.74	5	+25 34 48.29	.13	1992.74	5
73239	1123+264	8.7	11 29 24.419	.015	1992.84	6	+25 52 27.94	.18	1992.84	6
73244	1127−145	9.1	11 30 25.984	.021	1993.10	4	−15 19 20.53	.15	1993.10	4
73250	1127−145	9.2	11 32 33.572	.016	1993.10	4	−14 11 05.82	.25	1993.10	4
73256	1127−145	9.2	11 34 02.701	.016	1992.85	2	−14 39 23.19	.04	1992.85	2

continued

N	IAU	m	R.A.	$\varepsilon_\alpha \cos\delta$	E_p	n_1	DEC	ε_δ	E_p	n_2
73260	1130+009	8.5	11 35 47.379	.012	1992.85	4	+0 12 35.68	.14	1992.85	4
73263	1130+009	9.2	11 36 47.809	.013	1993.02	3	+0 41 40.63	.16	1993.02	3
73270	1143−245	8.2	11 43 21.171	.017	1993.02	3	−24 45 27.67	.23	1993.02	3
73278	1143−245	8.8	11 45 45.433	.014	1993.02	3	−25 05 40.92	.12	1993.02	3
73287	1148−001	9.0	11 47 15.896	.016	1992.85	4	−0 09 32.82	.07	1992.85	4
73297	1148−001	6.2	11 49 01.331	.020	1992.85	4	−0 19 06.32	.12	1992.85	4
73311	1148−001	9.1	11 52 15.356	.016	1993.02	3	+0 14 49.25	.22	1993.02	3
73312	1148−001	6.4	11 53 50.273	.021	1992.85	4	+0 33 06.83	.16	1992.85	4
73316	1155+251	7.0	11 55 24.502	.009	1992.85	4	+25 31 21.12	.13	1992.85	4
73318	1155+251	9.0	11 56 28.819	.013	1993.02	3	+24 59 16.65	.17	1993.02	3
73320	1155+251	8.8	11 57 17.321	.033	1992.85	4	+24 35 32.37	.20	1992.85	4
73324	1155+251	9.0	11 58 07.247	.010	1993.02	3	+24 29 49.35	.09	1993.02	3
73327	1155+251	9.0	12 00 52.261	.019	1993.02	3	+25 22 54.79	.18	1993.02	3
73329	1155+251	7.9	12 02 42.347	.007	1992.85	4	+24 26 47.29	.16	1992.85	4
73342	1219+285	7.5	12 18 11.265	.017	1992.76	5	+27 18 02.60	.19	1992.76	5
73345	1219+285	9.2	12 19 20.905	.019	1993.02	3	+27 55 29.25	.20	1993.02	3
73352	1222+037	8.4	12 21 00.186	.007	1992.70	3	+4 32 16.55	.14	1992.70	3
73357	1222+037	8.4	12 22 17.232	.016	1992.57	5	+3 17 52.07	.13	1992.57	5
73363	1219+285	9.1	12 24 12.668	.012	1992.57	5	+28 24 23.33	.24	1992.57	5
73366	1219+285	9.1	12 25 32.235	.012	1992.70	3	+27 07 37.11	.27	1992.70	3
73371	1226+023	8.5	12 26 33.357	.011	1992.57	5	+2 26 31.60	.21	1992.57	5
73373	1222+037	8.7	12 27 39.221	.020	1992.61	4	+4 25 03.05	.29	1992.61	4
73378	1226+023	9.0	12 28 36.851	.010	1992.63	4	+1 37 01.85	.25	1992.63	4
73386	1226+023	9.2	12 31 02.005	.005	1992.63	4	+2 17 24.61	.14	1992.63	4
73391	1228+126	8.7	12 35 06.691	.017	1992.57	5	+12 56 20.38	.19	1992.57	5
73394	1228+126	9.1	12 36 00.475	.017	1992.70	3	+12 41 06.52	.18	1992.70	3
73397	1237−101	8.6	12 37 31.159	.008	1992.57	5	−9 39 32.30	.11	1992.57	5
73399	1237−101	8.6	12 41 09.627	.018	1992.57	5	−9 49 22.20	.15	1992.57	5
73402	1237−101	9.0	12 42 54.612	.019	1992.63	4	−9 28 48.20	.22	1992.63	4
73405	1244−255	8.6	12 43 53.374	.017	1992.88	2	−25 02 28.54	.03	1992.88	2
73409	1243−072	7.3	12 44 59.757	.021	1992.70	3	−8 31 55.77	.11	1992.70	3
73413	1245−197	8.3	12 45 58.480	.006	1992.70	3	−20 04 29.21	.21	1992.70	3
73415	1245−197	8.6	12 46 56.592	.014	1992.72	3	−19 56 07.57	.12	1992.72	3
73421	1245−197	8.5	12 48 05.811	.008	1992.88	2	−19 45 10.76	.13	1992.88	2
73427	1245−197	8.7	12 49 10.452	.016	1992.88	2	−20 36 29.76	.22	1992.88	2
73436	1245−197	8.9	12 50 10.778	.017	1992.88	2	−20 21 55.63	.21	1992.88	2
73437	1252+119	9.0	12 52 40.952	.008	1992.88	2	+11 12 34.05	.09	1992.88	2
73441	1252+119	6.3	12 53 49.650	.007	1992.72	3	+12 25 06.72	.26	1992.72	3
73445	1252+119	8.6	12 54 53.251	.013	1992.88	2	+11 28 52.46	.27	1992.88	2
73451	1253−055	8.9	12 56 22.713	.011	1992.72	3	−5 24 29.18	.07	1992.72	3

continued

N	IAU	m	R.A.	$\varepsilon_\alpha \cos\delta$	E_p	n_1	DEC	ε_δ	E_p	n_2
73456	1253−055	9.0	12 57 37.294	.013	1992.88	2	−5 56 34.78	.14	1992.88	2
73461	1253−055	7.3	12 59 00.139	.014	1992.72	3	−6 05 27.00	.12	1992.72	3
73468	1302−102	8.7	13 01 40.847	.016	1992.72	3	−9 38 26.59	.08	1992.72	3
73470	1302−102	8.9	13 03 56.117	.015	1992.72	3	−10 57 59.95	.04	1992.72	3
73472	1302−102	8.9	13 05 41.689	.019	1992.72	3	−10 30 06.55	.16	1992.72	3
73473	1302−102	8.9	13 06 02.568	.012	1992.88	2	−11 01 41.09	.20	1992.88	2
73477	1302−102	9.1	13 07 33.846	.015	1992.72	3	−11 23 24.08	.22	1992.72	3
73514	1328+254	9.0	13 26 13.429	.002	1992.40	2	+24 48 14.68	.21	1992.40	2
73545	1334−127	8.3	13 38 27.860	.013	1992.40	2	−13 33 21.76	.00	1992.40	2
73555	1345+125	8.8	13 44 12.233	.000	1992.40	2	+12 04 44.13	.06	1992.40	2
73561	1345+125	8.3	13 46 38.485	.015	1992.40	2	+12 39 19.21	.26	1992.40	2
73571	1345+125	8.8	13 49 14.157	.006	1992.40	2	+12 53 27.70	.18	1992.40	2
73574	1345+125	8.3	13 50 55.906	.018	1992.40	2	+11 34 47.90	.07	1992.40	2
73596	1354+195	9.1	13 56 38.867	.015	1992.40	2	+17 41 28.01	.05	1992.40	2
73600	1354−152	8.8	13 58 46.442	.016	1992.40	2	−15 54 16.97	.02	1992.40	2
73605	1404+286	9.0	14 03 18.411	.016	1992.40	2	+27 48 23.90	.21	1992.40	2
73612	1404+286	9.0	14 08 26.923	.013	1992.09	3	+29 09 40.76	.16	1992.09	3
73648	1442+101	8.8	14 43 59.358	.010	1991.82	3	+10 02 23.81	.26	1991.82	3
73658	1442+101	8.8	15 01 59.655	.012	1991.99	4	+10 47 45.74	.16	1991.99	4
73662	1442+101	8.7	15 02 52.976	.016	1991.99	4	+10 40 03.17	.17	1991.99	4
73664	1504−166	9.2	15 03 45.012	.021	1992.50	2	−16 20 49.26	.17	1992.50	2
73666	1442+101	9.1	15 04 09.149	.014	1991.99	4	+10 56 38.26	.18	1991.99	4
73667	1504−166	9.0	15 06 27.402	.016	1991.99	4	−17 03 49.83	.27	1991.99	4
73673	1504−166	9.4	15 07 29.203	.010	1991.99	4	−17 21 58.52	.23	1991.99	4
73678	1504−166	8.7	15 08 14.718	.010	1991.99	4	−17 05 33.74	.31	1991.99	4
73681	1504−166	9.0	15 09 36.183	.021	1991.99	4	−17 23 30.79	.28	1991.99	4
73686	1511+238	8.5	15 10 39.674	.011	1991.99	4	+22 38 55.91	.22	1991.99	4
73689	1511+238	8.6	15 11 49.292	.018	1992.16	3	+23 02 04.10	.25	1992.16	3
73690	1510−089	8.6	15 13 04.534	.019	1992.16	3	−9 49 40.84	.16	1992.16	3
73695	1510−089	8.9	15 14 04.189	.005	1992.16	3	−8 45 59.37	.16	1992.16	3
73700	1511+238	8.2	15 16 29.923	.018	1991.99	4	+23 32 42.13	.07	1991.99	4
73702	1519−273	8.0	15 20 35.579	.010	1991.99	4	−27 01 22.80	.15	1991.99	4
73705	1519−273	7.8	15 22 11.348	.021	1991.99	4	−27 00 15.35	.16	1991.99	4
73709	1519−273	8.6	15 23 43.837	.006	1991.99	4	−27 57 07.03	.19	1991.99	4
73710	1519−273	7.7	15 25 40.598	.016	1991.99	4	−28 05 43.39	.30	1991.99	4
73713	1546+027	8.9	15 47 13.933	.014	1991.75	4	+3 12 10.77	.15	1991.75	4
73716	1546+027	8.3	15 48 07.878	.010	1991.75	4	+3 26 34.53	.22	1991.75	4
73720	1546+027	7.6	15 49 51.649	.017	1991.75	4	+2 30 02.80	.20	1991.75	4
73726	1546+027	8.9	15 50 59.084	.019	1991.75	4	+2 53 01.83	.22	1991.75	4
73736	1555+001	8.5	15 57 40.220	.016	1991.75	4	−0 05 30.78	.52	1991.75	4

continued

N	IAU	m	R.A.	$\varepsilon_\alpha \cos\delta$	E_p	n_1	DEC	ε_δ	E_p	n_2
73739	1555+001	9.3	15 59 00.422	.013	1991.75	4	+0 33 50.03	.15	1991.75	4
73742	1555+001	7.5	16 00 02.214	.016	1991.75	4	+0 37 24.45	.21	1991.75	4
73747	1607+268	8.9	16 05 14.070	.012	1991.51	4	+26 43 30.89	.17	1991.51	4
73748	1607+268	9.2	16 06 55.492	.010	1991.51	4	+26 15 10.54	.21	1991.51	4
73749	1607+268	9.0	16 09 05.485	.014	1991.72	5	+26 49 37.96	.12	1991.72	5
73752	1607+268	7.5	16 09 48.089	.017	1991.79	4	+25 59 52.21	.20	1991.79	4
73757	1607+268	8.1	16 10 57.291	.019	1991.72	5	+26 23 54.69	.17	1991.72	5
73761	1607+268	8.1	16 12 25.318	.021	1991.72	5	+26 25 53.05	.13	1991.72	5
73818	1656+053	8.9	16 53 19.300	.017	1992.04	4	+5 51 11.01	.28	1992.04	4
73822	1656+053	8.8	16 56 02.010	.011	1992.04	4	+5 52 49.02	.12	1992.04	4
73825	1657−261	8.6	16 57 27.404	.009	1992.30	4	−26 41 01.20	.21	1992.30	4
73833	1657−261	8.8	16 58 28.419	.014	1992.21	3	−26 21 22.30	.14	1992.21	3
73837	1657−261	8.1	16 59 27.543	.014	1992.30	4	−26 22 24.64	.29	1992.30	4
73840	1656+053	9.0	17 00 12.620	.009	1991.89	3	+5 38 24.36	.30	1991.89	3
73842	1657−261	8.9	17 01 23.772	.019	1992.54	3	−25 44 24.13	.30	1992.54	3
73845	1656+053	9.0	17 01 54.088	.013	1992.20	3	+5 00 48.91	.05	1992.20	3
73846	1657−261	8.5	17 03 14.027	.015	1992.53	2	−26 57 02.98	.21	1992.53	2
73849	1657−261	6.7	17 04 00.767	.012	1992.29	4	−25 41 52.86	.24	1992.29	4
73851	1717+178	8.3	17 16 03.962	.007	1992.14	5	+17 12 53.74	.17	1992.14	5
73853	1717+178	7.2	17 17 58.404	.012	1992.04	4	+17 07 27.51	.26	1992.04	4
73856	1717+178	9.0	17 18 59.328	.009	1992.14	5	+17 32 33.62	.24	1992.14	5
73858	1717+178	8.8	17 20 06.117	.015	1992.04	4	+17 19 25.52	.09	1992.04	4
73860	1717+178	8.1	17 20 45.905	.011	1992.04	4	+17 02 23.57	.05	1992.04	4
73861	1730−130	8.9	17 30 43.315	.014	1992.54	3	−13 20 50.47	.20	1992.54	3
73865	1730−130	8.3	17 32 00.353	.012	1992.54	3	−12 31 25.12	.19	1992.54	3
73869	1730−130	8.7	17 33 17.250	.012	1992.54	3	−12 34 27.84	.17	1992.54	3
73873	1730−130	8.7	17 34 52.896	.017	1992.54	3	−13 46 36.70	.12	1992.54	3
73893	1741−038	8.7	17 41 57.642	.007	1992.54	3	−3 50 27.48	.16	1992.54	3
73896	1741−038	8.7	17 42 36.200	.013	1992.54	3	−3 49 01.02	.24	1992.54	3
73901	1741−038	8.6	17 43 37.805	.007	1992.54	3	−3 12 49.28	.09	1992.54	3
73911	1741−038	9.0	17 44 55.257	.003	1992.53	2	−4 56 58.78	.24	1992.53	2
73916	1741−038	8.4	17 46 41.847	.015	1992.54	3	−4 03 11.95	.23	1992.54	3
73918	1741−038	8.5	17 47 42.336	.010	1992.53	2	−3 38 37.53	.13	1992.53	2
73920	1748−253	8.5	17 49 00.398	.010	1992.33	4	−25 44 56.75	.14	1992.33	4
73923	1748−253	8.9	17 50 16.799	.012	1992.25	3	−25 25 56.18	.26	1992.25	3
73931	1748−253	8.0	17 51 55.108	.012	1992.10	4	−25 46 23.05	.16	1992.10	4
73938	1748−253	9.0	17 52 57.688	.013	1992.33	4	−26 03 04.07	.10	1992.33	4
73950	1749+096	8.5	17 53 54.389	.017	1992.10	4	+9 47 07.01	.18	1992.10	4
73957	1751+288	9.0	17 56 46.116	.016	1992.02	5	+29 25 00.21	.13	1992.02	5
73966	RS−20	5.9	18 03 52.430	.014	1991.68	4	−24 21 37.88	.30	1991.68	4

continued

N	IAU	m	R.A.	$\varepsilon_\alpha \cos\delta$	E_p	n_1	DEC	ε_δ	E_p	n_2
73983	1821+107	8.8	18 22 46.897	.008	1991.68	4	+11 19 07.27	.29	1991.68	4
73985	1821+107	8.8	18 23 57.545	.019	1991.68	4	+10 52 58.28	.10	1991.68	4
73991	1821+107	8.6	18 25 18.469	.012	1991.68	4	+11 05 52.84	.15	1991.68	4
73995	1908−202	8.5	19 08 52.749	.015	1991.68	4	−19 48 55.29	.28	1991.68	4
73998	1908−202	8.6	19 10 57.259	.013	1991.68	4	−19 58 24.07	.09	1991.68	4
74001	1908−202	8.9	19 11 57.657	.012	1991.68	3	−20 14 46.74	.27	1991.71	4
74003	1908−202	8.5	19 13 02.492	.005	1991.71	4	−20 11 23.58	.14	1991.71	4
74006	1921−293	9.1	19 22 25.914	.018	1991.71	4	−28 57 17.39	.10	1991.71	4
74009	1921−293	7.3	19 22 56.771	.010	1991.71	4	−29 03 51.97	.21	1991.71	4
74012	1921−293	8.2	19 24 32.865	.015	1991.71	4	−28 36 50.26	.17	1991.71	4
74013	1921−293	9.1	19 25 45.173	.011	1991.71	4	−28 40 52.63	.16	1991.71	4
74039	1936−155	6.8	19 39 52.310	.015	1991.71	4	−15 10 02.47	.12	1991.71	4
74042	1936−155	9.0	19 40 35.201	.012	1991.71	4	−15 32 51.65	.16	1991.71	4
74046	1936−155	8.6	19 42 17.128	.014	1991.71	4	−14 58 13.39	.15	1991.71	4
74049	1936−155	8.8	19 43 10.184	.010	1991.71	4	−15 10 20.88	.24	1991.71	4
74053	1947+079	8.5	19 49 09.565	.013	1991.71	4	+8 16 37.28	.12	1991.71	4
74056	1947+079	8.5	19 49 54.459	.011	1991.71	4	+8 01 43.10	.20	1991.71	4
74064	1947+079	7.8	19 51 46.929	.019	1991.71	4	+8 04 16.89	.27	1991.71	4
74067	1958−179	8.5	19 59 03.037	.019	1991.71	4	−17 57 31.88	.17	1991.71	4
74070	1958−179	8.5	20 00 42.332	.017	1991.71	4	−18 17 20.61	.21	1991.71	4
74072	1958−179	8.3	20 01 51.700	.009	1991.71	4	−17 32 59.66	.14	1991.71	4
74076	1958−179	7.3	20 02 54.851	.016	1991.71	4	−18 32 46.04	.09	1991.71	4
74082	2008−068	8.2	20 08 42.964	.008	1992.46	4	−7 01 13.46	.27	1992.46	4
74083	2008−068	7.8	20 10 29.661	.010	1992.46	4	−6 09 49.03	.20	1992.46	4
74087	2008−068	8.1	20 11 23.615	.017	1992.46	4	−7 12 55.52	.29	1992.46	4
74091	2008−068	9.0	20 12 04.010	.013	1992.46	4	−6 57 16.37	.20	1992.46	4
74112	2029+121	8.5	20 28 47.911	.012	1992.46	4	+12 04 40.74	.14	1992.46	4
74116	2029+121	8.2	20 30 44.513	.012	1992.46	4	+12 05 27.36	.14	1992.46	4
74121	2029+121	8.6	20 32 25.133	.016	1992.46	4	+11 50 14.94	.19	1992.46	4
74127	2029+121	8.5	20 33 56.483	.020	1992.46	4	+11 58 22.70	.10	1992.46	4
74158	2113+293	8.7	21 14 21.403	.012	1992.69	4	+29 35 02.22	.21	1992.69	4
74160	2113+293	8.5	21 15 13.407	.008	1992.69	4	+29 29 35.33	.22	1992.69	4
74161	2113+293	8.8	21 17 30.130	.007	1992.69	4	+29 39 21.90	.28	1992.69	4
74164	2113+293	8.6	21 18 25.682	.014	1992.69	4	+29 39 38.90	.25	1992.69	4
74168	2128−123	8.6	21 29 23.252	.010	1992.69	4	−12 46 17.07	.20	1992.69	4
74173	2128+048	8.5	21 30 08.978	.013	1992.69	4	+5 25 28.02	.26	1992.69	4
74175	2128+048	8.8	21 30 45.602	.021	1992.69	4	+5 22 38.61	.18	1992.69	4
74179	2128−123	8.2	21 31 34.889	.019	1992.69	3	−12 30 51.23	.22	1992.69	3
74187	2131−021	8.3	21 32 40.460	.014	1992.69	4	−1 36 29.62	.21	1992.69	4
74194	2134+004	8.3	21 33 55.465	.014	1992.69	4	+0 13 27.40	.29	1992.69	4

continued

N	IAU	m	R.A.	$\varepsilon_\alpha \cos\delta$	E_p	n_1	DEC	ε_δ	E_p	n_2
74199	2134+004	7.4	21 35 23.273	.012	1992.69	4	+0 58 32.86	.19	1992.69	4
74202	2131−021	8.9	21 36 41.111	.015	1992.70	3	−2 36 53.48	.08	1992.70	3
74206	2134+004	8.6	21 37 38.680	.007	1992.69	4	+1 15 54.00	.16	1992.69	4
74212	2136+141	9.1	21 38 59.694	.014	1992.69	4	+13 52 52.57	.20	1992.69	4
74215	2134+004	8.5	21 40 07.044	.011	1992.69	4	+1 10 28.57	.03	1992.69	4
74218	2136+141	7.6	21 41 41.726	.015	1992.69	4	+15 02 32.28	.20	1992.69	4
74220	2144+092	8.9	21 44 04.661	.015	1992.69	4	+9 54 19.57	.14	1992.69	4
74223	2145+067	8.5	21 44 51.834	.016	1992.69	4	+6 25 57.41	.18	1992.69	4
74225	2145+067	8.9	21 46 06.281	.012	1992.69	4	+6 57 14.31	.11	1992.69	4
74230	2145+067	8.3	21 46 58.866	.015	1992.69	4	+7 10 31.52	.16	1992.69	4
74233	2145+067	8.6	21 48 13.868	.012	1992.69	4	+7 01 55.27	.16	1992.69	4
74238	2144+092	8.9	21 49 15.742	.008	1992.69	4	+9 52 20.16	.14	1992.69	4
74245	2149+056	8.5	21 50 47.232	.013	1992.70	3	+5 46 24.53	.24	1992.70	3
74250	2149+056	8.6	21 51 50.618	.018	1992.69	4	+6 16 49.43	.12	1992.69	4
74255	2150+173	7.9	21 53 03.949	.015	1992.69	4	+17 54 14.16	.24	1992.69	4
74259	2150+173	8.3	21 54 03.627	.017	1992.69	4	+18 04 25.84	.08	1992.69	4
74264	2150+173	8.7	21 55 14.922	.016	1992.69	4	+18 00 08.54	.19	1992.69	4
74268	2155−152	9.0	21 58 11.902	.007	1992.76	4	−15 05 28.65	.15	1992.76	4
74270	2155−152	9.0	21 59 07.376	.014	1992.76	4	−15 08 36.52	.17	1992.76	4
74274	2155−152	9.1	22 00 12.936	.005	1992.76	4	−16 23 35.81	.27	1992.76	4
74286	2203−188	8.3	22 04 11.093	.013	1992.76	4	−17 48 43.53	.24	1992.76	4
74294	2203−188	9.1	22 05 13.107	.015	1992.76	4	−18 50 01.10	.18	1992.76	4
74297	2203−188	9.0	22 05 54.554	.013	1992.76	4	−18 55 50.11	.12	1992.76	4
74305	2203−188	8.8	22 08 20.995	.018	1992.76	4	−19 05 02.68	.30	1992.76	4
74309	2203−188	8.7	22 09 28.233	.034	1992.76	4	−18 27 01.99	.16	1992.76	4
74313	2210−257	9.4	22 12 14.504	.014	1992.76	4	−25 13 15.09	.16	1992.76	4
74315	2210−257	5.6	22 13 44.418	.021	1992.76	4	−25 10 50.73	.30	1992.76	4
74317	2210−257	7.6	22 15 07.692	.008	1992.76	4	−25 38 54.21	.23	1992.76	4
74321	2210−257	8.5	22 16 02.369	.008	1992.76	4	−25 22 34.83	.04	1992.76	4
74325	2216−038	8.7	22 17 43.860	.013	1992.76	4	−3 20 35.51	.16	1992.76	4
74329	2216−038	8.9	22 20 26.951	.019	1992.78	3	−4 28 22.64	.20	1992.78	3
74331	2216−038	8.3	22 22 02.890	.019	1992.76	4	−3 48 08.33	.11	1992.76	4
74335	2227−088	8.8	22 25 53.768	.010	1992.76	4	−8 57 32.92	.29	1992.76	4
74339	2227−088	9.0	22 27 40.800	.016	1992.76	4	−8 13 58.23	.20	1992.76	4
74347	2227−088	9.3	22 30 32.461	.016	1992.76	4	−7 43 14.41	.17	1992.76	4
74353	2227−088	9.1	22 32 26.118	.015	1992.76	4	−8 16 52.32	.17	1992.76	4
74359	2230+114	8.7	22 34 02.561	.017	1992.76	4	+11 18 26.50	.07	1992.76	4
74365	2230+114	8.1	22 35 05.860	.009	1992.76	4	+11 52 55.42	.30	1992.76	4
74369	2234+282	8.6	22 37 05.309	.016	1992.76	4	+28 22 37.24	.27	1992.76	4
74373	2234+282	8.7	22 38 28.238	.013	1992.76	4	+28 32 16.27	.24	1992.76	4

continued

N	IAU	m	R.A.	$\varepsilon_\alpha \cos\delta$	E_p	n_1	DEC	ε_δ	E_p	n_2
74374	2234+282	9.0	22 39 01.356	.019	1992.76	4	+28 10 09.40	.23	1992.76	4
74376	2243−123	8.5	22 43 01.143	.019	1992.76	4	−12 19 59.62	.13	1992.76	4
74378	2243−123	8.6	22 44 03.112	.004	1992.76	4	−12 41 09.11	.21	1992.76	4
74383	2243−123	8.5	22 46 07.261	.012	1992.76	4	−11 32 18.53	.14	1992.76	4
74392	2243−123	8.5	22 48 46.547	.008	1992.76	4	−11 49 40.23	.09	1992.76	4
74399	2251+158	8.5	22 52 18.280	.014	1992.76	4	+16 18 30.64	.28	1992.76	4
74404	2251+158	8.3	22 53 25.415	.013	1992.76	4	+15 44 36.52	.21	1992.76	4
74417	2255−282	8.3	22 56 02.390	.019	1992.76	4	−28 01 26.43	.21	1992.76	4
74426	2255−282	9.2	22 57 09.955	.019	1992.76	4	−27 45 35.11	.49	1992.76	4
74429	2255−282	9.2	22 57 58.121	.009	1992.76	4	−27 22 04.02	.21	1992.76	4
74437	2254+074	8.6	22 59 47.771	.013	1992.76	4	+7 21 21.11	.21	1992.76	4
74448	2320−035	9.0	23 19 52.943	.009	1993.04	4	−3 05 11.50	.22	1993.04	4
74456	2318+049	9.1	23 20 39.716	.005	1993.05	4	+4 29 47.98	.28	1993.05	4
74461	2318+049	8.7	23 22 03.132	.016	1993.04	4	+5 30 22.07	.17	1993.04	4
74467	2320−035	8.3	23 23 23.131	.014	1993.05	4	−3 12 55.16	.29	1993.05	4
74471	2320−035	9.0	23 25 02.259	.011	1993.04	4	−3 06 40.53	.17	1993.04	4
74476	2320−035	9.0	23 26 53.850	.014	1993.05	4	−2 54 35.94	.20	1993.05	4
74481	2328+107	8.7	23 28 47.072	.021	1993.05	4	+10 45 10.48	.21	1993.05	4
74484	2328+107	8.5	23 29 52.063	.010	1993.04	4	+11 40 44.06	.16	1993.04	4
74492	2329−162	9.0	23 30 58.704	.016	1993.05	4	−15 16 05.98	.28	1993.05	4
74499	2329−162	8.5	23 31 56.225	.011	1993.04	4	−14 56 12.59	.22	1993.04	4
74512	2329−162	8.6	23 33 52.328	.019	1993.05	4	−16 18 49.47	.11	1993.05	4
74523	2337+264	9.0	23 37 15.511	.013	1993.05	4	+26 11 29.85	.24	1993.05	4
74525	2337+264	8.5	23 38 48.014	.016	1993.04	4	+25 56 47.45	.22	1993.04	4
74526	2337+264	9.0	23 39 59.175	.015	1993.05	4	+26 15 24.95	.19	1993.05	4
74530	2337+264	8.5	23 42 03.513	.011	1993.04	4	+25 53 07.77	.13	1993.04	4
74531	2337+264	9.2	23 43 50.121	.019	1993.05	4	+26 06 22.92	.22	1993.05	4
74536	2344+092	8.3	23 45 13.980	.016	1993.04	4	+10 06 18.52	.24	1993.04	4
74540	2344+092	7.9	23 46 18.278	.012	1993.05	4	+9 47 06.06	.08	1993.05	4
74546	2345−167	9.0	23 48 41.513	.019	1993.05	4	−16 16 10.60	.13	1993.05	4
74565	RS+20	7.3	23 55 03.729	.008	1993.20	5	+28 38 00.68	.23	1993.20	5

CATALOGUE 2 – CORRECTIONS TO THE POSITIONS OF THE FUNDAMENTAL STARS

Explanation:

N FK5	–	FK5 number
$\Delta\alpha$	–	correction to right ascension (second of time)
$\varepsilon_\alpha \cos\delta$	–	r.m.s. error of right ascensions (second of time)
Ep	–	mean epoch of observations for right ascension
n_1	–	number of observations in right ascension
$\Delta\delta$	–	correction to declination (second of arc)
ε_δ	–	r.m.s. error of declinations (second of arc)
Ep	–	mean epoch of observations for declination
n_2	–	number of observations in declination

N FK5	$\Delta\alpha$	$\varepsilon_\alpha \cos\delta$	E_p	n_1	$\Delta\delta$	ε_δ	E_p	n_2
13	+.001	.015	1993.82	2	−.20	.16	1993.82	2
1013	−.001	.004	1993.82	2	−.08	.09	1993.82	2
18	−.022	.004	1993.82	2	+.10	.12	1993.82	2
19	−.012	.012	1993.82	2	+.06	.09	1993.82	2
22	+.018	.016	1993.82	2	+.17	.10	1993.82	2
30	+.002	.004	1993.82	2	+.12	.38	1993.82	2
1022	+.021	.019	1993.82	2	−.16	.18	1993.82	2
61	+.002	.002	1993.82	2	+.12	.26	1993.82	2
1050	+.010	.000	1993.82	2	−.05	.24	1993.82	2
71	−.016	.017	1993.82	2	−.47	.06	1993.82	2
1058	+.002	.005	1993.82	2	−.19	.17	1993.82	2
188	−.018	.004	1992.17	3	−.14	.10	1992.17	3
1142	+.026	.013	1992.17	3	+.06	.23	1992.17	3
1144	−.011	.010	1992.17	3	+.43	.05	1992.17	3
194	+.009	.010	1992.17	4	−.27	.06	1992.17	4
195	+.013	.010	1992.17	4	+.11	.12	1992.17	4
198	−.010	.009	1992.17	4	−.13	.24	1992.17	4
1147	+.013	.011	1992.17	4	+.09	.16	1992.17	4
201	+.003	.021	1992.17	4	+.19	.15	1992.17	4
202	−.016	.010	1992.17	4	−.36	.07	1992.17	4
206	+.003	.004	1992.16	2	+.09	.25	1992.16	2
207	+.011	.013	1992.17	3	+.07	.18	1992.17	3
210	+.011	.008	1992.17	3	+.01	.10	1992.17	3
219	−.007	.006	1992.17	4	+.16	.14	1992.17	4
1155	+.005	.018	1992.17	4	+.07	.12	1992.17	4
222	+.008	.008	1992.17	4	−.10	.08	1992.17	4
1158	−.019	.010	1992.17	4	+.06	.12	1992.17	4
224	−.002	.015	1992.17	4	−.39	.09	1992.17	4
226	−.006	.016	1992.17	4	+.09	.15	1992.17	4
1161	−.006	.008	1992.17	4	−.17	.09	1992.17	4
1164	−.016	.010	1992.17	4	+.03	.20	1992.17	4
1168	+.010	.004	1992.17	4	−.22	.23	1992.17	4
1170	+.003	.014	1992.17	4	+.07	.19	1992.17	4
243	+.015	.012	1992.17	4	+.08	.11	1992.17	4
1171	−.001	.006	1992.17	4	−.24	.20	1992.17	4
246	+.005	.011	1992.17	4	−.09	.18	1992.17	4
1174	−.008	.017	1992.17	4	+.34	.16	1992.17	4
249	+.020	.009	1992.17	4	−.10	.14	1992.17	4
251	−.021	.010	1992.17	4	+.04	.13	1992.17	4
254	−.010	.013	1992.17	4	+.01	.14	1992.17	4

continued

N FK5	$\Delta\alpha$	$\varepsilon_\alpha \cos\delta$	E_p	n_1	$\Delta\delta$	ε_δ	E_p	n_2
256	+.002	.010	1992.17	4	+.25	.13	1992.17	4
1177	−.020	.008	1992.17	4	−.09	.06	1992.17	4
1179	+.012	.010	1992.17	4	+.12	.14	1992.17	4
261	−.010	.004	1992.17	4	+.15	.09	1992.17	4
268	−.001	.014	1992.17	4	+.12	.12	1992.17	4
1181	+.007	.015	1992.17	4	−.25	.09	1992.17	4
1207	−.018	.002	1991.72	2	+.36	.13	1991.72	2
1208	+.017	.011	1991.72	2	+.14	.08	1991.72	2
304	−.021	.007	1991.72	2	+.10	.06	1991.72	2
1213	+.014	.008	1991.72	2	+.28	.14	1991.72	2
305	−.006	.006	1991.72	2	−.14	.20	1991.72	2
308	+.013	.007	1991.72	2	+.35	.02	1991.72	2
311	−.001	.029	1991.72	2	+.03	.31	1991.72	2
312	−.012	.007	1991.72	2	−.10	.23	1991.72	2
1216	+.007	.012	1991.72	2	+.08	.33	1991.72	2
1218	+.013	.025	1991.72	2	−.17	.28	1991.72	2
1219	−.007	.019	1991.72	2	−.18	.22	1991.72	2
1220	−.004	.022	1991.72	2	−.04	.38	1991.72	2
1223	−.007	.004	1991.72	2	−.36	.20	1991.72	2
1224	+.028	.023	1991.72	2	−.02	.35	1991.72	2
1229	−.012	.012	1991.72	2	+.06	.06	1991.72	2
328	−.015	.024	1991.72	2	+.20	.32	1991.72	2
1230	−.007	.028	1991.72	2	−.11	.18	1991.72	2
332	−.009	.000	1991.72	2	+.26	.13	1991.72	2
337	−.010	.004	1991.72	2	−.23	.12	1991.72	2
347	+.018	.010	1991.72	2	−.15	.23	1991.72	2
1245	−.006	.023	1991.78	2	+.43	.06	1991.78	2
1246	−.025	.011	1992.29	3	−.10	.15	1992.29	3
1247	+.015	.019	1992.29	3	−.33	.09	1992.29	3
1248	−.001	.011	1992.29	3	−.25	.21	1992.29	3
1249	−.013	.004	1992.29	3	+.16	.23	1992.29	3
1252	+.005	.007	1992.29	3	−.20	.10	1992.29	3
370	+.022	.008	1992.29	3	−.11	.24	1992.29	3
378	−.011	.027	1992.81	2	+.09	.12	1992.29	3
379	+.010	.005	1992.81	2	+.16	.07	1992.81	2
380	−.013	.010	1992.81	2	+.02	.20	1992.81	2
384	−.028	.017	1992.81	2	−.32	.21	1992.81	2
1265	+.001	.010	1992.81	2	−.40	.03	1992.81	2
1266	+.004	.015	1992.81	2	+.14	.14	1992.81	2
1267	+.008	.007	1992.81	2	+.23	.35	1992.81	2

continued

N FK5	$\Delta\alpha$	$\varepsilon_\alpha \cos\delta$	E_p	n_1	$\Delta\delta$	ε_δ	E_p	n_2
389	+.019	.010	1992.81	2	+.06	.02	1992.81	2
392	−.033	.014	1992.81	2	+.29	.11	1992.81	2
1270	−.017	.011	1992.98	3	+.09	.13	1992.98	3
404	+.030	.017	1992.83	2	+.32	.14	1992.83	2
1278	−.004	.013	1992.82	4	+.08	.21	1992.82	4
409	+.007	.011	1992.82	4	+.10	.18	1992.82	4
1281	+.007	.016	1992.82	4	−.07	.14	1992.82	4
412	−.008	.008	1992.82	4	+.18	.08	1992.82	4
1284	+.007	.002	1992.98	3	−.13	.05	1992.98	3
418	+.006	.010	1992.93	5	−.01	.16	1992.93	5
1287	+.018	.009	1992.83	6	+.07	.16	1992.83	6
423	−.009	.008	1992.93	5	−.20	.18	1992.93	5
427	−.024	.012	1992.84	4	−.09	.19	1992.84	4
1297	+.001	.013	1992.94	5	+.09	.16	1992.94	5
434	−.001	.004	1992.85	4	−.07	.15	1992.85	4
439	+.000	.011	1993.36	2	−.15	.14	1993.36	2
1300	−.005	.012	1992.85	4	+.03	.14	1992.85	4
1301	−.001	.015	1993.02	3	+.07	.21	1993.02	3
1304	+.021	.004	1993.02	3	−.09	.11	1993.02	3
445	−.011	.012	1993.02	3	−.39	.10	1993.02	3
450	+.009	.016	1992.85	4	+.05	.16	1992.85	4
453	−.001	.005	1992.85	4	+.00	.09	1992.85	4
1313	+.003	.010	1992.76	5	+.21	.07	1992.76	5
457	−.008	.010	1992.76	5	+.00	.05	1992.76	5
460	+.005	.017	1992.87	4	+.12	.17	1992.87	4
466	+.009	.014	1992.70	3	+.04	.09	1992.70	3
1321	+.013	.006	1992.57	5	−.16	.11	1992.57	5
475	−.016	.008	1992.57	5	+.17	.12	1992.57	5
1326	−.004	.018	1992.61	4	−.08	.19	1992.61	4
1332	+.002	.018	1992.72	3	−.04	.03	1992.72	3
1336	+.011	.020	1992.88	2	−.17	.14	1992.88	2
490	−.014	.008	1992.72	3	+.15	.19	1992.72	3
1341	+.010	.004	1992.72	3	+.01	.28	1992.72	3
1342	+.010	.012	1992.72	3	−.03	.23	1992.72	3
1345	−.006	.028	1992.40	2	−.01	.46	1992.40	2
498	−.010	.028	1992.40	2	−.20	.12	1992.40	2
1354	+.004	.011	1992.40	2	−.17	.26	1992.40	2
513	−.017	.008	1992.40	2	−.21	.07	1992.40	2
1365	+.023	.005	1991.94	2	+.30	.05	1991.94	2
1366	+.006	.008	1992.09	3	−.32	.12	1992.09	3

continued

N FK5	$\Delta\alpha$	$\varepsilon_\alpha \cos\delta$	E_p	n_1	$\Delta\delta$	ε_δ	E_p	n_2
522	−.015	.006	1992.09	3	−.12	.22	1992.09	3
523	+.004	.023	1992.09	3	−.01	.19	1992.09	3
526	+.003	.000	1992.09	3	+.08	.22	1992.09	3
1369	+.008	.007	1992.09	3	+.12	.13	1992.09	3
1382	−.018	.007	1991.82	3	−.22	.13	1991.82	3
545	−.005	.013	1991.82	3	+.02	.25	1991.82	3
547	+.016	.017	1991.47	2	+.15	.16	1991.47	2
1385	+.006	.014	1991.82	3	+.15	.12	1991.82	3
1387	−.023	.012	1991.82	3	−.10	.25	1991.82	3
1388	+.003	.015	1991.99	4	+.11	.09	1991.99	4
1389	−.029	.010	1992.50	2	−.09	.15	1992.50	2
1390	+.014	.011	1991.99	4	−.09	.15	1991.99	4
1393	+.005	.010	1991.99	4	−.12	.07	1991.99	4
1394	−.009	.018	1992.16	3	−.08	.21	1992.16	3
1401	+.017	.004	1991.99	4	−.01	.10	1991.99	4
1405	+.000	.009	1992.16	3	−.23	.20	1992.16	3
1407	+.002	.006	1991.99	4	−.05	.16	1991.99	4
1408	+.019	.008	1991.99	4	+.17	.15	1991.99	4
576	+.009	.007	1991.90	5	+.17	.17	1991.90	5
1409	−.003	.003	1991.99	4	+.08	.20	1991.90	5
577	−.010	.012	1991.99	4	+.05	.09	1991.99	4
579	−.004	.005	1991.99	4	+.21	.13	1991.99	4
1413	+.026	.008	1991.75	4	+.03	.18	1991.75	4
582	−.025	.008	1991.75	4	+.02	.17	1991.75	4
583	+.019	.014	1991.84	3	−.13	.24	1991.84	3
1415	+.025	.010	1991.75	4	−.01	.10	1991.75	4
591	−.006	.010	1991.75	4	−.15	.09	1991.75	4
1420	−.027	.008	1991.75	4	+.07	.11	1991.75	4
1421	+.013	.003	1991.77	4	+.10	.17	1991.77	4
603	+.002	.014	1991.93	5	−.31	.08	1991.93	5
1425	−.012	.009	1991.93	5	+.10	.13	1991.93	5
605	+.016	.011	1991.93	5	−.01	.14	1991.93	5
1426	+.009	.015	1992.04	4	+.03	.07	1992.04	4
607	+.007	.011	1991.93	5	+.27	.11	1991.93	5
1427	+.002	.008	1991.93	5	−.03	.12	1991.93	5
1429	+.013	.006	1991.93	5	+.20	.17	1991.93	5
613	−.007	.016	1991.93	5	+.24	.09	1991.93	5
616	−.003	.013	1991.93	5	−.28	.07	1991.93	5
1431	+.012	.006	1992.53	2	+.07	.18	1992.53	2
620	+.005	.011	1991.93	5	+.16	.13	1991.93	5

:ontinued

N FK5	$\Delta\alpha$	$\varepsilon_\alpha \cos\delta$	E_p	n_1	$\Delta\delta$	ε_δ	E_p	n_2
622	+.007	.009	1991.93	5	+.15	.16	1991.93	5
1436	−.007	.008	1992.14	5	−.05	.08	1992.14	5
1437	−.002	.006	1992.14	5	−.08	.10	1992.14	5
1438	−.019	.007	1992.04	4	−.27	.19	1992.04	4
1440	+.006	.009	1992.14	5	−.04	.15	1992.14	5
1442	−.005	.008	1992.29	4	+.02	.24	1992.29	4
633	−.026	.008	1992.54	3	−.05	.07	1992.54	3
635	−.010	.011	1992.04	4	−.15	.09	1992.04	4
1447	−.007	.010	1992.21	3	−.05	.10	1992.04	4
1449	+.011	.010	1992.30	4	−.10	.18	1992.30	4
1450	−.001	.014	1992.04	4	+.01	.08	1992.04	4
1451	−.010	.011	1992.14	5	+.16	.12	1992.14	5
641	+.003	.009	1992.04	4	−.11	.14	1992.04	4
1452	+.000	.016	1992.54	3	−.09	.12	1992.54	3
644	+.010	.013	1992.06	4	−.21	.17	1992.06	4
1458	−.010	.004	1992.14	5	+.20	.14	1992.14	5
646	+.006	.014	1992.14	5	−.15	.11	1992.14	5
658	−.022	.013	1992.54	3	+.15	.12	1992.54	3
1467	−.004	.010	1992.19	5	−.05	.12	1992.19	5
674	+.006	.007	1992.02	5	−.13	.11	1992.02	5
673	−.003	.012	1991.88	4	−.04	.19	1991.88	4
1469	−.016	.009	1991.88	4	−.32	.13	1991.88	4
1470	+.010	.011	1991.88	4	+.09	.08	1991.88	4
679	−.008	.012	1991.68	4	+.22	.13	1991.68	4
680	+.007	.013	1991.68	4	−.14	.20	1991.68	4
1472	+.016	.008	1991.68	4	−.04	.12	1991.68	4
682	−.001	.014	1991.68	4	−.19	.11	1991.68	4
1475	−.002	.007	1991.68	4	+.36	.05	1991.68	4
687	+.028	.007	1991.68	4	−.15	.16	1991.68	4
1479	−.015	.006	1991.68	4	−.40	.04	1991.68	4
696	−.009	.016	1991.68	4	+.13	.12	1991.68	4
1481	+.009	.010	1991.68	4	−.10	.24	1991.68	4
1482	+.008	.003	1991.68	4	+.28	.10	1991.68	4
1484	+.016	.004	1991.68	3	+.02	.10	1991.68	3
1485	−.017	.020	1991.68	3	−.08	.15	1991.68	3
1486	+.010	.013	1991.68	4	+.02	.12	1991.68	4
702	−.007	.013	1991.68	4	−.21	.10	1991.68	4
1487	+.003	.010	1991.68	4	+.22	.19	1991.68	4
1491	−.001	.012	1991.68	4	−.01	.12	1991.68	4
705	−.015	.015	1991.68	4	+.09	.10	1991.68	4

continued

N FK5	$\Delta\alpha$	$\varepsilon_\alpha \cos\delta$	E_p	n_1	$\Delta\delta$	ε_δ	E_p	n_2
706	−.009	.003	1991.68	4	−.07	.13	1991.68	4
709	−.006	.011	1991.68	4	+.04	.18	1991.68	4
710	−.016	.010	1991.68	4	+.10	.12	1991.68	4
713	+.017	.011	1991.68	4	+.09	.17	1991.68	4
716	+.012	.019	1991.68	4	+.07	.21	1991.68	4
717	+.010	.009	1991.68	4	+.13	.10	1991.68	4
722	−.021	.009	1991.70	5	+.05	.09	1991.70	5
731	−.007	.012	1991.71	4	+.07	.13	1991.71	4
1508	+.010	.005	1991.71	4	+.26	.23	1991.71	4
1509	−.008	.017	1991.71	4	−.13	.03	1991.71	4
1510	+.014	.008	1991.71	4	+.06	.18	1991.71	4
736	−.003	.006	1991.71	4	−.27	.08	1991.71	4
1516	−.001	.012	1991.71	4	+.24	.19	1991.71	4
743	−.017	.010	1991.71	4	+.03	.17	1991.71	4
745	−.007	.016	1991.71	4	−.17	.12	1991.71	4
1519	+.014	.010	1991.71	4	−.13	.12	1991.71	4
749	−.002	.008	1991.71	4	+.42	.08	1991.71	4
1522	+.003	.004	1991.71	4	−.34	.02	1991.71	4
1524	−.005	.004	1992.20	6	−.04	.17	1992.20	6
1526	+.016	.009	1992.46	4	−.14	.09	1992.46	4
760	−.004	.010	1992.46	4	+.12	.10	1992.46	4
1529	−.025	.006	1992.46	4	+.00	.15	1992.46	4
762	+.014	.010	1992.46	4	+.11	.19	1992.46	4
1531	−.019	.006	1992.46	4	+.11	.11	1992.46	4
1532	+.016	.011	1992.46	4	+.05	.17	1992.46	4
1533	−.012	.009	1992.46	4	−.16	.06	1992.46	4
1539	+.025	.005	1992.46	4	+.08	.13	1992.46	4
773	−.007	.004	1992.46	4	+.01	.13	1992.46	4
778	+.019	.009	1992.46	4	+.25	.12	1992.46	4
779	+.001	.010	1992.46	4	+.08	.11	1992.46	4
781	−.001	.011	1992.46	4	−.07	.19	1992.46	4
1545	−.003	.010	1992.46	4	−.13	.23	1992.46	4
1546	+.000	.008	1992.46	4	−.07	.11	1992.46	4
786	−.006	.012	1992.46	4	+.08	.21	1992.46	4
1548	+.007	.010	1992.51	5	−.11	.12	1992.51	5
789	+.011	.012	1992.51	5	−.00	.16	1992.51	5
1552	+.001	.009	1992.69	4	−.10	.10	1992.69	4
791	−.002	.007	1992.69	4	+.00	.18	1992.69	4
794	+.005	.007	1992.69	5	−.04	.17	1992.69	5
1556	+.000	.008	1992.69	5	+.01	.11	1992.69	5

continued

N FK5	$\Delta\alpha$	$\varepsilon_\alpha \cos\delta$	E_p	n_1	$\Delta\delta$	ε_δ	E_p	n_2
800	−.012	.015	1992.69	4	−.20	.17	1992.69	4
804	+.002	.011	1992.69	4	+.12	.16	1992.69	4
1562	−.026	.009	1992.69	4	−.23	.13	1992.69	4
806	+.023	.010	1992.69	4	+.11	.17	1992.69	4
1564	−.002	.019	1992.69	4	−.03	.11	1992.69	4
1579	+.009	.012	1992.70	5	−.04	.09	1992.70	5
831	+.003	.011	1992.76	4	−.38	.08	1992.76	4
834	+.004	.009	1992.76	4	−.05	.03	1992.76	4
1585	+.002	.018	1992.76	4	+.36	.07	1992.76	4
1588	−.016	.004	1992.76	4	−.10	.09	1992.76	4
855	+.000	.017	1992.76	4	+.12	.13	1992.76	4
1598	+.005	.008	1992.76	4	−.19	.14	1992.76	4
866	−.009	.017	1992.76	4	+.20	.18	1992.76	4
870	+.008	.005	1992.76	4	−.02	.06	1992.76	4
871	−.002	.018	1992.76	4	+.29	.15	1992.76	4
1603	+.002	.013	1992.76	4	+.07	.15	1992.76	4
1606	−.007	.010	1992.76	4	+.09	.16	1992.76	4
1607	+.000	.016	1992.76	4	+.22	.08	1992.76	4
1608	+.010	.006	1992.76	4	+.09	.12	1992.76	4
879	+.000	.012	1992.76	4	−.08	.03	1992.76	4
1614	+.006	.012	1993.04	4	−.21	.11	1993.04	4
888	+.008	.012	1993.20	5	+.28	.10	1993.20	5
897	−.007	.014	1993.32	4	+.07	.12	1993.32	4
898	−.007	.012	1993.20	5	−.09	.13	1993.20	5
1628	−.012	.008	1993.04	4	+.02	.25	1993.04	4
1629	+.014	.010	1993.05	4	−.10	.18	1993.05	4
900	−.004	.007	1993.20	5	−.08	.19	1993.20	5