

3447颗恒星平位置表

系统

FK₅

历元

J 2000.0年

陕西省第四测绘大队

一九八六年五月

3447 颗恒星平位置表说明

- 一、本星表为专供天文纬度测量计算用,其恒星坐标数据为归算的FK5系统,历元为J2000.0年,编算纬度区域为 $0^{\circ}00'$ 至 $55^{\circ}00'$ 。
- 二、本星表计算程序在西门子7760机上,用FORTRAN语言编制,采用双精度进行计算(16位有效数字),精度完全符合要求。
- 三、采用公式:

1. 历元J2000.0年(归算的FK5系统)的恒星坐标,自行的计算,系采用精密的球面公式,所算坐标,自行中已顾及由于恒星自行较大,视差较大而产生视向速度的附加项。

对于双星“cg”者,则附有双星对平位置的改正数表于后页。因本恒星平位置表内所列值为双星之重心平位置,改正数则为各年由重心平位置化至亮星平位置的改正数。其部分双星根数是紫金山天文台提供的。

双星改正数计算公式略。

2. 历元J2000.0年(归算的FK5系统)的赤经年变,赤纬年变,

$\frac{1}{2}$ 长期变的计算公式:

$$\frac{d\alpha}{dT} = m + \frac{1}{15} n \sin \alpha \operatorname{tg} \delta + \mu$$

$$\frac{d\delta}{dT} = n \cos \alpha + \mu'$$

$$\frac{1}{2} \frac{d^2\delta}{dT^2} = \frac{1}{2} n' \cos \alpha - \frac{15}{2} \operatorname{arc} 1'' m n \sin \alpha - \frac{1}{2} \operatorname{arc} 1'' n^2 \sin^2 \alpha \operatorname{tg} \delta$$

$$- 15 \operatorname{arc} 1'' n \mu \sin \alpha - \frac{225}{4} \operatorname{arc} 1'' \mu^2 \sin 2\delta - 0.0001024 \mu' \sqrt{\pi}$$

$$m = 307.49575 + 0.186208T - 0.0000185T^2$$

$$n = 2004.3109 - 0.8533T - 0.000217T^2$$

$$n' = -0.8533 - 0.000434T$$

$$(T = \frac{J2000.0 - J2000.0}{100} = 0)$$

3. 赤纬的恒星常数计算公式:

$$a' = \cos \alpha$$

$$b' = -\sin \alpha$$

$$c' = \operatorname{tg} \varepsilon \cos \delta - \sin \alpha \sin \delta$$

$$d' = \cos \alpha \sin \delta$$

$$\Delta a' = -\sin \alpha \Delta \alpha'' \operatorname{arc} 1''$$

$$\Delta b' = -\cos \alpha \Delta \alpha'' \operatorname{arc} 1''$$

$$\Delta c' = (-\operatorname{tg} \varepsilon \sin \delta \Delta \delta'' - \sin \alpha \cos \delta \Delta \delta'' - \cos \alpha \sin \delta \Delta \alpha'') \operatorname{arc} 1''$$

$$\Delta d' = (\cos \alpha \cos \delta \Delta \delta'' - \sin \alpha \sin \delta \Delta \alpha'') \text{arc1}''$$

$$\text{其中 } \varepsilon = 23^\circ 26' 21.448'' - 46.8150 T - 0.00059 T^2 + 0.001813 T^3$$

(J2000.0年平黄赤交角)

α, δ 为 J2000.0 年平位置

$\Delta \alpha'', \Delta \delta''$ 为 J2000.0 年赤经, 赤纬之年变 $\frac{d\alpha}{dT}, \frac{d\delta}{dT}$

$$\text{arc1}'' = 4848 \times 10^{-9}$$

对于视差较大者, 已在 c', d' 中顾及此项改正。

视差改正公式:

$$\Delta C'' = +0.0532 \pi d'$$

$$\Delta d'' = -0.0448 \pi c'$$

四. 恒星平位置及视位置计算公式:

$$\alpha_{t.0} = \alpha_{2000.0} + (t.0 - 2000.0) \times \text{年变}$$

$$\delta_{t.0} = \delta_{2000.0} + (t.0 - 2000.0) \times \text{年变} + \frac{(t.0 - 2000.0)^2}{100} \times \frac{1}{2} \text{长期变}$$

$$\delta_{\text{视}} = \delta_{t.0} + (A+A')a' + (B+B')b' + Cc' + Dd' + \tau \mu'$$

式中: $A+A', B+B', C, D, \tau$ 为伯塞尔日数, 载于各年之天文年历中

示例:

设于 1985.11 月 $\frac{1}{2}$ 日在西安 ($\lambda = 7^h 15^m 8^s$) 观测 N. 138, 148

恒星, 求两星平均视赤纬。

$$N. 138: \alpha_{85.0} = 0^h 56^m 42.5^s + [(-15) \times (+3.66)] = 0^h 55^m 47.6^s$$

$$\begin{aligned} \delta_{86.0} &= 60^\circ 43' 00.20'' + [(-14) \times (+19.428)] + [(+1.96) \times (-0.070)] \\ &= 60^\circ 38' 28.07'' \end{aligned}$$

$$a'_{86.0} = +0.9695 + [(-14) \times (-0.7)] = +0.9705$$

同样得如下:

星号	$\alpha_{85.0}$	$\delta_{86.0}$	a'	b'	c'	d'	μ'
138	$0^h 55^m 47.6^s$	$60^\circ 38' 28.07''$	+0.9705	-0.2413	+0.0038	+0.8457	-0.005
148	$1^h 02^m 09.8^s$	$7^\circ 48' 53.85''$	+0.9633	-0.2681	+0.3932	+0.1305	+0.024
中数	$0^h 58^m 58.7^s$	$34^\circ 13' 40.96''$	+0.9669	-0.2547	+0.1985	+0.4881	+0.010

利用 1985 年天文年历查得

$$\text{内插因子: } n = (\alpha - \lambda - S_0) \times \mu / 24 = +0.625$$

$A + A'$	$B + B'$	C	D	τ
- 8.164	- 7.140	+ 14.507	+ 13.272	- 0.1653

即得平均视位置:

$$\delta_{\text{视}} = 34^\circ 13' 40.96'' + 3.28 = 34^\circ 13' 44.24''$$

星号	星等	赤 经 (J2000.0)	年 变	赤 纬 (J2000.0)	年 变	长期变 0.001	年自行 0.001	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
1	5.7	0 1 37.0	3.09	61 13 22.82	20.049	-6	6	1.0000	0.0	-0.0071	-2.2	0.2025	-2.3	0.8765	0.5
2	5.2	0 1 49.4	3.08	-3 1 39.10	20.033	-6	-9	1.0000	0.0	-0.0080	-2.2	0.4334	0.1	-0.0528	1.0
3	4.7	0 1 57.6	3.08	-6 0 50.61	20.002	-6	-40	1.0000	0.0	-0.0086	-2.2	0.4318	0.3	-0.1056	1.0
4	5.0	0 2 20.0	3.07	-29 43 14.07	20.048	-7	5	0.9999	0.0	-0.0102	-2.2	0.3816	1.3	-0.4957	0.9
5	5.8	0 2 29.7	3.07	8 29 7.92	19.996	-7	-46	0.9999	0.0	-0.0109	-2.2	0.4272	-0.4	0.1476	1.0
6	6.0	0 2 36.1	3.11	66 5 56.45	20.043	-7	1	0.9999	0.0	-0.0114	-2.3	0.1653	-2.5	0.9142	0.4
7	4.6	0 3 44.4	3.07	-17 20 9.49	20.032	-8	-8	0.9999	0.0	-0.0163	-2.2	0.4187	0.8	-0.2979	0.9
8	6.0	0 4 13.7	3.12	62 17 16.30	20.047	-8	7	0.9998	0.0	-0.0184	-2.3	0.1853	-2.4	0.8851	0.4
9	5.2	0 4 30.1	3.07	-10 30 33.99	20.031	-9	-8	0.9998	0.0	-0.0196	-2.2	0.4297	0.5	-0.1826	1.0
10	5.8	0 4 42.0	3.16	67 9 59.94	20.071	-9	32	0.9998	0.0	-0.0205	-2.3	0.1500	-2.5	0.9214	0.3
11	6.2	0 4 53.9	3.16	34 39 35.35	20.133	-9	94	0.9998	0.0	-0.0214	-2.3	0.3455	-1.6	0.5680	0.8
12	5.9	0 5 6.2	3.13	61 18 50.63	20.044	-9	6	0.9998	-0.1	-0.0223	-2.3	0.1886	-2.4	0.8770	0.4
13	4.7	0 5 20.1	3.07	-5 42 27.33	20.127	-9	89	0.9997	-0.1	-0.0233	-2.2	0.4337	0.2	-0.0994	1.0
14	5.7	0 5 42.0	3.09	13 23 46.74	20.030	-10	-7	0.9997	-0.1	-0.0249	-2.2	0.4160	-0.6	0.2316	0.9
15	5.5	0 6 26.5	3.15	64 11 46.64	20.038	-11	3	0.9996	-0.1	-0.0281	-2.3	0.1634	-2.5	0.8999	0.4
16	6.2	0 6 36.7	3.13	29 1 17.61	19.858	-11	-177	0.9996	-0.1	-0.0288	-2.3	0.3669	-1.3	0.4838	0.8
17	6.1	0 6 50.1	3.07	-23 6 26.94	19.991	-11	-43	0.9996	-0.1	-0.0298	-2.2	0.4105	1.0	-0.3923	0.9
18	5.7	0 8 3.5	3.04	-33 31 45.48	20.032	-12	2	0.9994	-0.1	-0.0352	-2.2	0.3808	1.4	-0.5520	0.9
19	6.3	0 8 12.1	3.07	-2 26 52.30	20.020	-12	-10	0.9994	-0.1	-0.0358	-2.2	0.4347	0.1	-0.0427	1.0
20	2.2	0 8 23.3	3.11	29 5 25.63	19.867	-13	-163	0.9993	-0.1	-0.0366	-2.3	0.3617	-1.3	0.4855	0.8
21	5.7	0 9 2.4	3.10	18 12 42.95	20.002	-13	-25	0.9992	-0.1	-0.0394	-2.3	0.3995	-0.9	0.3123	0.9
22	2.4	0 9 10.7	3.23	59 8 59.11	19.846	-14	-181	0.9992	-0.1	-0.0400	-2.3	0.1912	-2.4	0.8572	0.4
23	6.2	0 9 20.2	3.41	79 42 53.41	20.000	-15	-26	0.9992	-0.1	-0.0407	-2.5	0.0373	-2.9	0.9831	0.1
24	5.5	0 10 2.2	3.09	11 8 44.66	20.022	-14	-2	0.9990	-0.1	-0.0438	-2.2	0.4169	-0.6	0.1931	0.9
25	5.1	0 10 19.3	3.14	46 4 20.23	20.023	-15	0	0.9990	-0.1	-0.0450	-2.3	0.2684	-2.0	0.7195	0.6
26	5.9	0 10 42.9	3.07	-12 34 47.94	19.980	-15	-41	0.9989	-0.1	-0.0467	-2.2	0.4333	0.5	-0.2176	1.0
27	5.0	0 11 15.9	3.05	-15 28 4.58	19.751	-15	-268	0.9988	-0.1	-0.0491	-2.2	0.4301	0.7	-0.2675	1.0
28	5.6	0 11 34.5	3.04	-27 47 59.17	20.034	-15	16	0.9987	-0.1	-0.0505	-2.2	0.4071	1.2	-0.4658	0.9
29	5.2	0 11 44.0	3.04	-35 7 58.93	20.139	-16	122	0.9987	-0.1	-0.0512	-2.2	0.3832	1.5	-0.5752	0.9
30	2.9	0 13 14.2	3.10	15 11 0.82	19.998	-17	-12	0.9983	-0.1	-0.0577	-2.2	0.4033	-0.8	0.2615	0.9
31	5.7	0 13 30.8	3.13	41 2 6.85	19.856	-18	-152	0.9983	-0.1	-0.0589	-2.3	0.2892	-1.8	0.6551	0.6
32	6.1	0 14 2.3	3.13	33 12 22.54	19.998	-18	-8	0.9981	-0.1	-0.0612	-2.3	0.3292	-1.5	0.5466	0.7
33	5.4	0 14 27.6	3.07	-7 46 50.43	20.007	-18	4	0.9980	-0.1	-0.0631	-2.2	0.4381	0.3	-0.1352	1.0
34	4.9	0 14 36.2	3.11	20 12 24.12	20.003	-19	0	0.9980	-0.1	-0.0637	-2.3	0.3849	-1.0	0.3447	0.9
35	4.7	0 14 38.4	3.04	-18 55 57.70	19.934	-18	-68	0.9980	-0.1	-0.0638	-2.2	0.4304	0.8	-0.3243	1.0
36	6.0	0 14 56.1	3.12	22 17 3.23	19.989	-19	-11	0.9979	-0.1	-0.0651	-2.3	0.3765	-1.1	0.3784	0.8
37	5.9	0 14 58.8	3.10	8 49 14.99	19.969	-19	-31	0.9979	-0.1	-0.0653	-2.2	0.4184	-0.5	0.1530	0.9
38	6.1	0 15 10.6	3.12	27 16 58.81	19.970	-19	-29	0.9978	-0.2	-0.0662	-2.3	0.3551	-1.3	0.4573	0.8
39	6.2	0 16 14.0	3.49	76 57 3.23	19.993	-22	0	0.9975	-0.2	-0.0708	-2.5	0.0289	-2.9	0.9717	0.0
40	5.7	0 16 9.0	3.03	-31 26 47.17	19.964	-20	-29	0.9975	-0.2	-0.0704	-2.2	0.4066	1.3	-0.5204	0.9

星号	星等	赤经 (J2000.0)	年变	赤纬 (J2000.0)	年变	长期变 0%001	年自行 0%001	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
41	6.2	0 16 34.0	3.09	8 14 24.02	19.967	-20	-24	0.9974	-0.2	-0.0722	-2.2	0.4187	-0.5	0.1429	0.9
42	4.4	0 17 5.5	3.15	38 40 53.76	19.969	-21	-18	0.9972	-0.2	-0.0745	-2.3	0.2924	-1.7	0.6230	0.6
43	5.8	0 17 9.0	3.19	47 56 50.40	19.983	-22	-4	0.9972	-0.2	-0.0748	-2.3	0.2349	-2.1	0.7405	0.5
44	4.5	0 18 19.7	3.15	36 47 7.10	19.940	-23	-39	0.9968	-0.2	-0.0799	-2.3	0.2999	-1.7	0.5967	0.7
45	5.8	0 18 38.3	3.15	31 31 2.09	19.972	-23	-5	0.9967	-0.2	-0.0812	-2.3	0.3271	-1.5	0.5210	0.7
46	6.0	0 18 42.2	3.18	43 47 27.84	19.971	-23	-5	0.9967	-0.2	-0.0815	-2.3	0.2566	-1.9	0.6897	0.6
47	3.8	0 19 25.7	3.06	-8 49 25.99	19.936	-23	-35	0.9964	-0.2	-0.0847	-2.2	0.4413	0.3	-0.1530	1.0
48	5.8	0 20 24.4	3.15	30 56 9.08	19.968	-25	4	0.9960	-0.2	-0.0889	-2.3	0.3262	-1.5	0.5120	0.7
49	5.6	0 20 35.9	3.09	8 11 24.93	19.971	-24	9	0.9960	-0.2	-0.0898	-2.2	0.4163	-0.5	0.1419	0.9
50	6.0	0 20 45.5	3.15	32 54 40.68	19.947	-25	-14	0.9959	-0.2	-0.0905	-2.3	0.3148	-1.5	0.5411	0.7
51	5.2	0 21 7.3	3.18	37 58 7.11	19.920	-26	-38	0.9958	-0.2	-0.0920	-2.3	0.2857	-1.7	0.6124	0.6
52	5.4	0 21 31.2	3.01	-28 58 53.17	19.885	-25	-70	0.9956	-0.2	-0.0938	-2.2	0.4242	1.2	-0.4828	0.9
53	5.4	0 24 15.7	3.26	52 1 11.88	19.929	-29	-2	0.9944	-0.3	-0.1057	-2.4	0.1835	-2.2	0.7838	0.4
54	6.3	0 24 29.7	3.07	-2 13 8.73	19.885	-28	-44	0.9943	-0.2	-0.1067	-2.2	0.4374	-0.0	-0.0385	1.0
55	5.4	0 24 47.5	3.35	61 49 52.03	19.926	-31	0	0.9942	-0.3	-0.1080	-2.4	0.1101	-2.6	0.8763	0.2
56	5.7	0 25 6.4	3.27	53 2 48.65	19.921	-30	-2	0.9940	-0.3	-0.1093	-2.4	0.1733	-2.3	0.7943	0.4
57	6.0	0 25 24.2	3.08	1 56 22.63	19.904	-29	-16	0.9939	-0.2	-0.1106	-2.2	0.4296	-0.2	0.0336	1.0
58	6.0	0 27 14.7	3.00	-25 32 49.85	19.885	-30	-17	0.9929	-0.3	-0.1186	-2.2	0.4423	1.0	-0.4282	1.0
59	5.0	0 27 55.7	2.97	-33 0 25.29	19.851	-31	-44	0.9926	-0.3	-0.1216	-2.1	0.4298	1.3	-0.5407	0.9
60	5.3	0 28 2.9	3.14	17 53 35.20	19.913	-32	20	0.9925	-0.3	-0.1221	-2.3	0.3753	-0.9	0.3047	0.8
61	5.2	0 28 13.6	3.24	44 23 39.74	19.876	-33	-15	0.9924	-0.3	-0.1229	-2.3	0.2238	-2.0	0.6943	0.5
62	6.0	0 28 20.0	3.11	10 11 24.76	19.699	-32	-192	0.9924	-0.3	-0.1233	-2.2	0.4052	-0.6	0.1750	0.9
63	6.2	0 29 51.9	3.04	-14 51 51.30	19.835	-33	-38	0.9915	-0.3	-0.1299	-2.2	0.4524	0.5	-0.2544	1.0
64	6.0	0 30 2.4	3.06	-3 57 26.33	19.859	-33	-12	0.9914	-0.3	-0.1307	-2.2	0.4415	0.1	-0.0684	1.0
65	5.3	0 30 7.4	3.18	29 45 5.63	19.813	-35	-58	0.9914	-0.3	-0.1311	-2.3	0.3114	-1.5	0.4920	0.7
66	5.9	0 30 20.0	3.38	59 58 38.85	19.857	-37	-11	0.9913	-0.3	-0.1320	-2.4	0.1027	-2.5	0.8583	0.2
67	5.2	0 30 22.7	3.00	-23 47 15.54	19.882	-33	14	0.9912	-0.3	-0.1322	-2.2	0.4498	0.9	-0.4001	1.0
68	6.3	0 30 55.0	3.95	77 1 10.22	19.830	-44	-31	0.9909	-0.4	-0.1345	-2.8	-0.0326	-3.2	0.9656	-0.2
69	6.1	0 31 25.6	3.20	33 34 53.54	19.835	-36	-20	0.9906	-0.3	-0.1367	-2.3	0.2856	-1.6	0.5479	0.6
70	5.7	0 31 41.2	3.31	52 50 21.75	19.832	-37	-19	0.9905	-0.3	-0.1378	-2.4	0.1523	-2.3	0.7893	0.3
71	4.9	0 31 46.4	3.34	54 31 20.22	19.841	-38	-10	0.9904	-0.3	-0.1382	-2.4	0.1403	-2.4	0.8064	0.3
72	5.7	0 32 23.8	3.10	6 57 19.35	19.843	-36	0	0.9900	-0.3	-0.1409	-2.2	0.4133	-0.5	0.1199	0.9
73	5.5	0 32 35.5	3.16	20 17 39.67	19.794	-37	-46	0.9899	-0.3	-0.1417	-2.3	0.3575	-1.1	0.3433	0.8
74	4.2	0 32 60.0	3.45	62 55 54.53	19.834	-40	-1	0.9897	-0.4	-0.1435	-2.5	0.0695	-2.6	0.8813	0.1
75	5.6	0 33 41.1	2.96	-29 33 30.35	19.793	-36	-34	0.9892	-0.3	-0.1464	-2.1	0.4494	1.1	-0.4880	1.0
76	5.4	0 35 14.9	3.09	-3 35 34.10	19.782	-39	-25	0.9882	-0.3	-0.1532	-2.2	0.4421	0.0	-0.0631	1.0
77	5.9	0 35 32.8	3.08	-0 30 20.01	19.742	-39	-61	0.9880	-0.3	-0.1545	-2.2	0.4349	-0.1	-0.0087	0.9
78	5.1	0 36 8.3	3.37	54 10 6.55	19.795	-43	0	0.9876	-0.4	-0.1570	-2.4	0.1265	-2.4	0.8007	0.2
79	6.1	0 36 6.8	2.98	-22 50 31.69	19.752	-38	-43	0.9876	-0.3	-0.1569	-2.1	0.4605	0.9	-0.3834	1.0
80	5.8	0 36 27.3	3.45	60 19 34.61	19.789	-44	-1	0.9874	-0.4	-0.1584	-2.5	0.0770	-2.6	0.8579	0.1

星号	星等	赤 经 (J2000.0)	年 变	赤 纬 (J2000.0)	年 变	长期变 0 ^h 00 ^m 1 ^s	年自行 0 ^h 00 ^m 1 ^s	a'	$\Delta a'$	b'	$\Delta b'$	o'	$\Delta o'$	d'	$\Delta d'$
81	5.4	0 36 46.5	3.28	44 29 19.14	19.820	-42	34	0.9872	-0.4	-0.1598	-2.4	0.1975	-2.1	0.6917	0.4
82	5.9	0 36 47.3	3.13	15 13 53.98	19.769	-41	-16	0.9871	-0.4	-0.1598	-2.2	0.3763	-0.8	0.2593	0.8
83	4.5	0 36 52.9	3.22	33 43 9.60	19.780	-42	-4	0.9871	-0.4	-0.1602	-2.3	0.2717	-1.6	0.5480	0.6
84	3.7	0 36 58.3	3.37	53 53 48.91	19.774	-44	-9	0.9870	-0.4	-0.1606	-2.4	0.1257	-2.4	0.7975	0.2
85	5.6	0 37 21.2	3.23	35 23 58.13	19.773	-42	-5	0.9867	-0.4	-0.1623	-2.3	0.2594	-1.7	0.5716	0.6
86	5.7	0 37 20.7	3.08	-24 46 2.28	19.764	-42	-13	0.9868	-0.4	-0.1622	-2.2	0.4601	1.0	-0.4148	1.0
87	4.5	0 38 33.4	3.18	29 18 42.38	19.507	-43	-253	0.9859	-0.4	-0.1674	-2.3	0.2969	-1.5	0.4822	0.6
88	5.7	0 39 9.9	3.34	49 21 16.67	19.748	-46	-3	0.9854	-0.4	-0.1701	-2.4	0.1534	-2.2	0.7477	0.3
89	3.5	0 39 19.7	3.22	30 51 39.76	19.661	-44	-88	0.9853	-0.4	-0.1708	-2.3	0.2852	-1.5	0.5051	0.6
90	6.1	0 39 21.8	3.13	21 15 1.62	19.377	-43	-371	0.9853	-0.4	-0.1709	-2.2	0.3440	-1.1	0.3556	0.7
91	5.6	0 39 55.6	3.17	21 26 18.01	19.706	-44	-34	0.9849	-0.4	-0.1733	-2.3	0.3403	-1.1	0.3599	0.7
92	2.5	0 40 30.5	3.44	56 32 14.48	19.699	-48	-31	0.9844	-0.4	-0.1758	-2.5	0.0924	-2.5	0.8212	0.2
93	6.1	0 40 42.4	3.06	-4 21 6.89	19.711	-44	-17	0.9843	-0.4	-0.1767	-2.2	0.4457	0.0	-0.0747	1.0
94	5.4	0 41 7.2	3.27	39 27 30.98	19.715	-47	-7	0.9839	-0.4	-0.1785	-2.3	0.2213	-1.9	0.6253	0.5
95	6.0	0 41 36.0	3.19	24 37 44.92	19.700	-46	-14	0.9836	-0.4	-0.1805	-2.3	0.3189	-1.3	0.4099	0.7
96	5.9	0 42 3.4	3.62	66 8 51.97	19.704	-52	-3	0.9832	-0.5	-0.1825	-2.6	0.0084	-2.8	0.8992	-0.1
97	4.8	0 42 3.9	3.37	50 30 45.57	19.705	-49	-2	0.9832	-0.4	-0.1825	-2.4	0.1348	-2.3	0.7588	0.3
98	6.1	0 42 31.0	3.48	58 45 11.89	19.687	-51	-12	0.9828	-0.5	-0.1845	-2.5	0.0672	-2.6	0.8403	0.1
99	6.1	0 42 42.9	2.88	-38 27 48.63	19.683	-43	-13	0.9827	-0.4	-0.1853	-2.1	0.4547	1.4	-0.6112	1.0
100	5.0	0 43 28.1	3.34	47 1 28.50	19.650	-50	-34	0.9821	-0.5	-0.1885	-2.4	0.1584	-2.2	0.7184	0.3
101	2.2	0 43 35.4	3.01	-17 59 11.83	19.714	-46	32	0.9820	-0.4	-0.1891	-2.1	0.4698	0.6	-0.3044	1.0
102	4.9	0 44 11.4	3.03	-10 36 34.10	19.562	-46	-110	0.9815	-0.4	-0.1916	-2.2	0.4612	0.3	-0.1811	1.0
103	6.0	0 44 12.1	2.89	-38 25 18.01	19.788	-45	116	0.9815	-0.4	-0.1917	-2.1	0.4588	1.4	-0.6099	1.0
104	5.6	0 44 26.2	3.36	47 51 50.03	19.674	-51	6	0.9813	-0.5	-0.1927	-2.4	0.1480	-2.2	0.7277	0.3
105	4.7	0 44 43.5	3.37	48 17 3.82	19.656	-52	-7	0.9810	-0.5	-0.1939	-2.4	0.1438	-2.2	0.7323	0.3
106	5.5	0 45 17.2	3.45	55 13 17.55	19.656	-53	3	0.9805	-0.5	-0.1963	-2.5	0.0865	-2.5	0.8053	0.1
107	5.6	0 45 39.0	4.06	74 59 17.04	19.623	-63	-24	0.9802	-0.6	-0.1979	-2.9	-0.0788	-3.2	0.9468	-0.3
108	5.6	0 46 33.0	3.15	15 28 32.01	19.587	-50	-44	0.9794	-0.5	-0.2017	-2.2	0.3642	-0.9	0.2611	0.8
109	5.7	0 47 1.5	3.14	11 58 25.63	19.584	-51	-38	0.9790	-0.5	-0.2037	-2.2	0.3819	-0.7	0.2031	0.8
110	6.1	0 47 13.6	3.18	19 34 43.71	19.631	-52	12	0.9788	-0.5	-0.2046	-2.3	0.3399	-1.1	0.3280	0.7
111	4.3	0 47 20.3	3.19	24 16 1.87	19.535	-52	-82	0.9787	-0.5	-0.2051	-2.3	0.3116	-1.3	0.4018	0.6
112	6.2	0 47 23.7	3.11	6 44 27.29	19.600	-51	-16	0.9787	-0.5	-0.2053	-2.2	0.4065	-0.5	0.1149	0.9
113	5.4	0 47 46.1	4.10	74 50 51.32	19.603	-66	-7	0.9784	-0.6	-0.2069	-2.9	-0.0864	-3.3	0.9443	-0.4
114	6.0	0 48 9.1	4.00	72 40 28.72	19.629	-65	27	0.9780	-0.6	-0.2086	-2.8	-0.0700	-3.2	0.9336	-0.3
115	5.4	0 48 1.1	2.97	-21 43 21.04	19.594	-49	-11	0.9781	-0.4	-0.2080	-2.1	0.4797	0.7	-0.3620	1.0
116	6.1	0 48 17.4	3.12	7 17 59.73	19.606	-52	6	0.9779	-0.5	-0.2091	-2.2	0.4035	-0.5	0.1243	0.9
117	5.8	0 48 23.0	3.15	5 16 49.74	18.451	-53	-1147	0.9778	-0.5	-0.2095	-2.2	0.4131	-0.4	0.0873	0.8
118	4.6	0 48 41.0	3.12	7 35 6.31	19.542	-52	-50	0.9775	-0.5	-0.2108	-2.2	0.4020	-0.5	0.1287	0.9
119	5.0	0 48 50.1	3.43	50 58 5.59	19.585	-57	-5	0.9774	-0.5	-0.2115	-2.4	0.1088	-2.3	0.7592	0.2
cg 120	3.6	0 49 5.8	3.66	57 48 58.53	19.068	-63	-517	0.9771	-0.6	-0.2126	-2.6	0.0590	-2.6	0.8266	0.0

星号	星等	赤 经 (J2000.0)	年 变	赤 纬 (J2000.0)	年 变	长期变 0% 001	年自行 0% 001	α'	$\Delta \alpha'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
121	5.2	0 48 58.7	3.16	16 56 26.10	19.383	-53	-205	0.9773	-0.5	-0.2121	-2.2	0.3536	-1.0	0.2840	0.7
122	5.8	0 49 25.6	3.01	-13 33 40.55	19.475	-51	-103	0.9768	-0.5	-0.2140	-2.1	0.4716	0.4	-0.2291	1.0
123	4.4	0 49 48.8	3.33	41 4 43.97	19.551	-56	-20	0.9765	-0.5	-0.2156	-2.4	0.1851	-2.0	0.6416	0.4
124	6.3	0 49 52.9	3.23	27 42 39.23	19.562	-55	-8	0.9764	-0.5	-0.2159	-2.3	0.2836	-1.4	0.4540	0.6
125	5.2	0 50 7.6	3.01	-10 38 39.36	19.338	-51	-227	0.9762	-0.5	-0.2170	-2.1	0.4656	0.3	-0.1815	1.0
126	6.1	0 50 18.3	3.37	45 0 8.34	19.571	-58	9	0.9760	-0.5	-0.2177	-2.4	0.1526	-2.1	0.6902	0.3
127	5.4	0 50 43.6	3.69	64 14 51.24	19.543	-63	-11	0.9756	-0.6	-0.2195	-2.6	-0.0094	-2.8	0.8787	-0.1
128	4.9	0 53 4.2	3.62	61 7 26.77	19.682	-65	174	0.9733	-0.6	-0.2295	-2.6	0.0112	-2.7	0.8523	-0.1
129	4.9	0 53 0.5	3.07	-1 8 39.51	19.492	-55	-17	0.9734	-0.5	-0.2292	-2.2	0.4380	-0.2	-0.0194	0.9
130	6.1	0 53 28.2	3.31	37 25 5.16	19.454	-60	-46	0.9729	-0.6	-0.2312	-2.3	0.2039	-1.8	0.5912	0.4
131	5.8	0 54 35.3	3.19	19 11 17.78	19.463	-59	-14	0.9718	-0.5	-0.2359	-2.3	0.3320	-1.1	0.3193	0.7
132	5.0	0 55 0.2	3.60	58 58 21.72	19.426	-66	-43	0.9713	-0.6	-0.2377	-2.5	0.0201	-2.6	0.8324	-0.1
133	5.6	0 54 58.1	3.22	23 37 42.27	19.439	-60	-30	0.9714	-0.6	-0.2376	-2.3	0.3020	-1.3	0.3893	0.6
134	6.0	0 55 42.4	3.03	-7 20 50.23	19.407	-57	-47	0.9706	-0.5	-0.2407	-2.1	0.4608	0.1	-0.1241	1.0
135	5.9	0 55 58.5	3.24	27 12 33.50	19.456	-61	8	0.9703	-0.6	-0.2418	-2.3	0.2750	-1.4	0.4437	0.6
136	5.5	0 56 1.5	3.01	-11 15 59.65	19.439	-57	-9	0.9703	-0.5	-0.2420	-2.1	0.4725	0.3	-0.1896	1.0
137	4.8	0 56 39.9	3.61	59 10 51.78	19.388	-68	-46	0.9696	-0.6	-0.2447	-2.5	0.0137	-2.7	0.8327	-0.1
138	2.8	0 56 42.5	3.66	60 43 0.20	19.428	-70	-5	0.9695	-0.7	-0.2449	-2.6	0.0000	-2.7	0.8456	-0.1
139	5.5	0 56 47.1	3.66	60 21 46.14	19.425	-70	-6	0.9695	-0.7	-0.2452	-2.6	0.0012	-2.7	0.8426	-0.1
140	3.9	0 56 45.2	3.35	38 29 57.60	19.464	-64	33	0.9695	-0.6	-0.2451	-2.4	0.1877	-1.9	0.6032	0.3
141	4.6	0 57 12.4	3.21	23 25 3.70	19.378	-62	-44	0.9690	-0.6	-0.2470	-2.3	0.2997	-1.3	0.3851	0.6
142	5.6	0 57 50.2	3.26	28 59 31.85	19.399	-63	-9	0.9683	-0.6	-0.2497	-2.3	0.2582	-1.5	0.4693	0.5
143	6.2	0 58 14.2	3.30	33 57 2.27	19.316	-65	-84	0.9679	-0.6	-0.2514	-2.3	0.2192	-1.7	0.5405	0.4
144	4.4	0 58 36.4	2.89	-29 21 27.23	19.392	-57	0	0.9675	-0.5	-0.2529	-2.0	0.5019	1.0	-0.4743	1.1
145	5.6	1 1 18.3	2.80	-38 54 59.15	19.383	-58	52	0.9644	-0.5	-0.2643	-2.0	0.5034	1.3	-0.6058	1.0
146	5.5	1 2 26.4	2.86	-31 33 7.38	19.316	-60	12	0.9631	-0.6	-0.2691	-2.0	0.5103	1.0	-0.5040	1.1
147	5.5	1 2 49.1	3.30	31 48 15.80	19.268	-69	-27	0.9627	-0.6	-0.2707	-2.3	0.2258	-1.6	0.5073	0.4
148	4.4	1 2 56.6	3.12	7 53 24.40	19.316	-66	24	0.9625	-0.6	-0.2712	-2.2	0.3924	-0.6	0.1316	0.8
149	5.7	1 3 2.5	3.04	-4 50 12.39	19.183	-64	-106	0.9624	-0.6	-0.2716	-2.1	0.4549	-0.0	-0.0811	0.9
150	6.2	1 3 49.0	3.09	1 22 0.47	19.229	-66	-42	0.9615	-0.6	-0.2749	-2.2	0.4269	-0.3	0.0229	0.9
151	6.3	1 4 2.5	3.56	52 30 7.20	19.198	-76	-67	0.9612	-0.7	-0.2758	-2.5	0.0451	-2.4	0.7626	0.0
152	5.9	1 4 19.6	3.75	61 34 49.24	19.239	-80	-20	0.9609	-0.8	-0.2770	-2.6	-0.0373	-2.8	0.8451	-0.2
153	6.1	1 4 27.6	3.29	29 39 32.31	19.150	-71	-106	0.9607	-0.7	-0.2776	-2.3	0.2394	-1.6	0.4754	0.4
154	5.6	1 5 5.4	3.18	14 56 46.08	19.295	-69	55	0.9599	-0.6	-0.2802	-2.2	0.3466	-0.9	0.2476	0.7
155	5.6	1 5 41.0	3.23	21 28 23.56	19.210	-71	-15	0.9592	-0.7	-0.2827	-2.3	0.3000	-1.2	0.3511	0.6
156	6.3	1 6 7.7	2.90	-23 59 33.42	19.169	-64	-45	0.9587	-0.6	-0.2846	-2.0	0.5118	0.7	-0.3898	1.1
157	6.2	1 6 33.6	3.16	12 57 21.50	19.226	-70	22	0.9581	-0.7	-0.2864	-2.2	0.3583	-0.8	0.2148	0.7
158	5.9	1 7 46.2	3.02	-9 47 8.37	19.186	-68	13	0.9566	-0.6	-0.2914	-2.1	0.4768	0.2	-0.1626	1.0
159	5.2	1 8 0.9	3.47	43 56 30.61	19.096	-78	-71	0.9563	-0.7	-0.2924	-2.4	0.1102	-2.1	0.6635	0.1
160	5.6	1 7 57.2	3.23	20 44 20.19	19.064	-73	-105	0.9564	-0.7	-0.2922	-2.2	0.3020	-1.2	0.3387	0.6

星号	星等	赤 经 (J2000.0)			年 变	赤 纬 (J2000.0)			年 变	长期变 0 ^s .001	年自行 0 ^s .001	a'	Δ a'	b'	Δ b'	c'	Δ c'	d'	Δ d'
161	6.3	1	8	1.3	3.34	32	0	43.59	19.137	-76	-30	0.9563	-0.7	-0.2925	-2.3	0.2126	-1.7	0.5069	0.4
162	5.3	1	8	16.4	4.03	54	55	13.59	17.566	-105	-1594	0.9560	-0.9	-0.2935	-2.8	0.0146	-2.7	0.7823	-0.2
163	5.7	1	8	22.2	3.10	5	38	59.44	18.980	-70	-178	0.9558	-0.7	-0.2939	-2.2	0.4027	-0.5	0.0935	0.8
164	3.6	1	8	35.4	3.02	-10	10	56.01	19.015	-69	-137	0.9555	-0.6	-0.2948	-2.1	0.4786	0.2	-0.1696	1.0
165	4.3	1	9	30.2	3.51	47	14	30.51	19.119	-80	-9	0.9544	-0.8	-0.2986	-2.4	0.0751	-2.3	0.7007	0.0
166	2.4	1	9	43.9	3.38	35	37	13.92	19.008	-78	-114	0.9541	-0.7	-0.2996	-2.3	0.1792	-1.8	0.5553	0.3
167	5.6	1	9	49.2	3.22	19	39	29.94	19.129	-74	9	0.9540	-0.7	-0.3000	-2.2	0.3074	-1.1	0.3209	0.6
168	5.7	1	10	18.8	3.43	42	4	52.67	19.059	-79	-48	0.9533	-0.8	-0.3020	-2.4	0.1194	-2.1	0.6389	0.1
169	6.1	1	10	19.5	3.27	25	27	28.02	18.994	-76	-113	0.9533	-0.7	-0.3021	-2.3	0.2616	-1.4	0.4098	0.5
170	5.3	1	10	39.3	4.13	68	46	43.58	19.075	-95	-23	0.9529	-0.9	-0.3034	-2.9	-0.1253	-3.1	0.8883	-0.5
171	4.5	1	11	6.2	3.69	55	8	59.43	19.065	-87	-21	0.9523	-0.8	-0.3053	-2.6	-0.0026	-2.6	0.7815	-0.2
172	5.0	1	11	6.8	3.32	31	25	29.53	19.078	-78	-8	0.9522	-0.7	-0.3053	-2.3	0.2108	-1.6	0.4965	0.4
173	5.5	1	11	25.6	3.93	64	12	10.40	19.066	-92	-12	0.9518	-0.9	-0.3066	-2.7	-0.0874	-2.9	0.8570	-0.4
174	5.5	1	11	41.3	3.96	65	1	7.85	19.057	-93	-14	0.9515	-0.9	-0.3077	-2.7	-0.0958	-3.0	0.8625	-0.4
175	4.9	1	11	27.2	3.24	21	2	4.78	19.067	-76	-10	0.9518	-0.7	-0.3067	-2.2	0.2948	-1.2	0.3415	0.6
176	5.7	1	12	16.7	5.38	79	40	26.59	19.053	-127	-2	0.9507	-1.2	-0.3102	-3.7	-0.2274	-4.1	0.9353	-1.0
177	4.7	1	11	39.6	3.32	30	5	22.64	19.035	-79	-36	0.9515	-0.7	-0.3076	-2.3	0.2218	-1.6	0.4767	0.4
178	5.9	1	12	45.4	2.76	-37	51	23.49	19.008	-67	-33	0.9500	-0.6	-0.3122	-1.9	0.5339	1.2	-0.5830	1.1
179	4.6	1	13	45.0	3.27	24	35	1.55	18.992	-79	-22	0.9487	-0.8	-0.3163	-2.3	0.2627	-1.4	0.3947	0.5
180	5.6	1	13	43.9	3.14	7	34	31.23	18.960	-77	-55	0.9487	-0.7	-0.3162	-2.2	0.3882	-0.6	0.1247	0.8
181	5.8	1	14	7.6	3.20	16	8	0.71	18.979	-78	-25	0.9481	-0.7	-0.3178	-2.2	0.3282	-1.0	0.2635	0.6
182	5.2	1	14	24.0	3.02	-7	55	22.60	19.269	-75	273	0.9478	-0.7	-0.3190	-2.1	0.4730	0.0	-0.1317	1.0
183	5.8	1	14	49.2	3.07	-0	58	26.10	19.184	-76	199	0.9472	-0.7	-0.3207	-2.1	0.4389	-0.3	-0.0166	0.9
184	5.5	1	16	36.2	3.05	-2	30	1.14	18.871	-77	-63	0.9447	-0.7	-0.3281	-2.1	0.4474	-0.2	-0.0415	0.9
185	5.3	1	17	47.9	3.10	3	36	51.99	18.876	-79	-24	0.9429	-0.8	-0.3330	-2.1	0.4117	-0.5	0.0593	0.8
186	4.7	1	19	28.0	3.31	27	15	50.78	18.840	-86	-10	0.9405	-0.8	-0.3398	-2.3	0.2300	-1.5	0.4307	0.4
187	6.0	1	19	48.3	3.07	0	30	31.83	18.827	-80	-13	0.9400	-0.8	-0.3412	-2.1	0.4366	-0.3	-0.0083	0.9
188	5.2	1	20	4.9	3.81	58	13	53.60	18.829	-99	-3	0.9396	-0.9	-0.3424	-2.6	-0.0628	-2.7	0.7988	-0.4
189	6.3	1	20	27.8	2.98	-11	14	19.72	18.756	-79	-64	0.9390	-0.7	-0.3439	-2.0	0.4923	0.2	-0.1830	1.0
190	5.6	1	21	7.4	3.33	28	44	18.14	18.731	-88	-70	0.9380	-0.8	-0.3466	-2.3	0.2135	-1.6	0.4510	0.3
191	5.0	1	22	20.4	3.56	45	31	43.59	18.772	-95	8	0.9362	-0.9	-0.3516	-2.4	0.0537	-2.2	0.6680	-0.1
192	6.1	1	23	46.8	5.47	78	43	33.30	18.717	-146	-2	0.9339	-1.4	-0.3575	-3.7	-0.2658	-4.1	0.9159	-1.2
193	5.5	1	23	40.6	3.45	37	42	53.25	18.696	-94	-26	0.9341	-0.9	-0.3571	-2.3	0.1245	-1.9	0.5714	0.1
194	5.8	1	23	31.0	2.79	-30	56	44.26	18.682	-76	-45	0.9343	-0.7	-0.3564	-1.9	0.5551	0.9	-0.4805	1.1
195	3.8	1	24	1.4	3.00	-8	11	0.57	18.490	-82	-222	0.9335	-0.8	-0.3585	-2.0	0.4799	0.0	-0.1336	0.9
196	6.0	1	24	20.6	3.02	-6	54	52.90	18.703	-83	2	0.9330	-0.8	-0.3598	-2.0	0.4737	0.0	-0.1123	0.9
197	2.8	1	25	49.0	3.97	60	14	7.05	18.605	-111	-50	0.9307	-1.1	-0.3658	-2.7	-0.1010	-2.8	0.8081	-0.5
198	6.1	1	25	35.7	3.29	23	30	41.88	18.646	-91	-15	0.9311	-0.9	-0.3649	-2.2	0.2520	-1.3	0.3714	0.4
199	5.0	1	25	56.0	4.31	68	7	48.13	18.678	-119	27	0.9305	-1.1	-0.3662	-2.9	-0.1778	-3.2	0.8637	-0.8
200	5.2	1	25	37.2	2.95	-14	35	55.93	18.642	-83	-19	0.9310	-0.8	-0.3650	-2.0	0.5115	0.3	-0.2347	1.0

星号	星等	赤 经 (J2000.0)	年 变	赤 纬 (J2000.0)	年 变	长期变 0.001	年自行 0.001	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
201	5.6	1 26 41.7	3.25	19 14 25.51	18.566	-92	-60	0.9293	-0.9	-0.3693	-2.2	0.2879	-1.2	0.3061	0.5
202	5.7	1 26 51.6	2.96	-13 3 23.77	18.627	-84	6	0.9290	-0.8	-0.3700	-2.0	0.5059	0.2	-0.2099	1.0
203	5.0	1 27 39.3	3.61	45 24 24.37	18.490	-103	-105	0.9277	-1.0	-0.3732	-2.4	0.0395	-2.2	0.6606	-0.1
204	5.1	1 29 36.1	2.88	-21 37 45.54	18.537	-84	6	0.9245	-0.8	-0.3811	-1.9	0.5431	0.5	-0.3413	1.1
205	5.3	1 30 6.2	3.62	47 0 26.05	18.470	-105	-44	0.9237	-1.0	-0.3831	-2.4	0.0160	-2.3	0.6756	-0.2
206	5.1	1 30 11.1	3.15	6 8 38.00	18.468	-92	-44	0.9236	-0.9	-0.3834	-2.1	0.3901	-0.6	0.0985	0.7
207	6.0	1 30 22.9	2.83	-26 12 28.41	18.505	-83	0	0.9232	-0.8	-0.3842	-1.9	0.5587	0.7	-0.4077	1.1
208	6.0	1 31 13.8	4.55	70 15 52.72	18.401	-133	-75	0.9218	-1.3	-0.3876	-3.0	-0.2168	-3.3	0.8680	-0.9
209	3.7	1 31 29.0	3.22	15 20 44.75	18.461	-95	-6	0.9214	-0.9	-0.3887	-2.2	0.3152	-1.0	0.2438	0.6
210	6.3	1 32 7.5	3.44	34 48 0.41	18.448	-102	2	0.9203	-1.0	-0.3912	-2.3	0.1327	-1.8	0.5252	0.1
211	5.5	1 32 56.0	2.68	-36 51 55.01	18.394	-81	-24	0.9189	-0.8	-0.3945	-1.8	0.5835	1.0	-0.5513	1.1
212	6.0	1 33 25.8	3.93	58 19 39.17	18.404	-118	3	0.9180	-1.1	-0.3965	-2.6	-0.1098	-2.8	0.7813	-0.5
213	4.9	1 33 55.9	3.96	59 13 55.51	18.363	-119	-20	0.9172	-1.1	-0.3985	-2.6	-0.1198	-2.8	0.7882	-0.6
214	5.9	1 33 42.9	3.02	-7 1 30.83	18.312	-92	-78	0.9176	-0.9	-0.3976	-2.0	0.4789	-0.1	-0.1122	0.9
215	5.8	1 34 16.6	3.48	37 14 14.04	18.357	-105	-14	0.9166	-1.0	-0.3999	-2.3	0.1036	-1.9	0.5546	0.0
216	6.0	1 34 49.1	3.26	18 27 37.45	18.283	-99	-69	0.9156	-1.0	-0.4020	-2.2	0.2839	-1.1	0.2899	0.5
217	6.2	1 35 46.4	3.22	14 39 41.36	18.312	-99	-6	0.9139	-0.9	-0.4058	-2.1	0.3167	-1.0	0.2313	0.5
218	5.9	1 35 54.8	3.26	17 26 2.17	18.338	-101	25	0.9137	-1.0	-0.4064	-2.2	0.2919	-1.1	0.2737	0.5
219	5.5	1 35 58.9	2.93	-15 24 1.03	18.319	-91	8	0.9136	-0.9	-0.4067	-1.9	0.5260	0.3	-0.2426	1.0
220	5.7	1 36 8.5	2.77	-29 54 27.28	18.339	-86	34	0.9133	-0.8	-0.4073	-1.8	0.5789	0.8	-0.4554	1.1
221	6.2	1 36 27.1	3.69	48 43 22.29	18.279	-114	-15	0.9127	-1.1	-0.4085	-2.5	-0.0210	-2.4	0.6859	-0.3
222	4.2	1 36 47.8	3.54	41 24 19.59	17.899	-109	-383	0.9121	-1.1	-0.4099	-2.3	0.0561	-2.1	0.6031	-0.1
223	5.6	1 37 5.9	3.19	12 8 29.80	18.315	-99	44	0.9116	-1.0	-0.4111	-2.1	0.3374	-0.9	0.1917	0.6
224	3.8	1 37 59.6	3.71	48 37 41.62	18.126	-116	-112	0.9100	-1.1	-0.4147	-2.5	-0.0239	-2.4	0.6829	-0.3
225	5.7	1 38 7.6	3.96	57 58 39.21	18.223	-124	-11	0.9097	-1.2	-0.4152	-2.6	-0.1221	-2.7	0.7713	-0.6
226	5.5	1 38 30.9	4.90	73 2 24.24	18.207	-153	-13	0.9090	-1.5	-0.4167	-3.2	-0.2713	-3.6	0.8697	-1.2
227	5.7	1 38 51.8	2.87	-21 16 30.92	18.249	-92	42	0.9084	-0.9	-0.4181	-1.9	0.5557	0.5	-0.3296	1.1
228	5.2	1 39 21.0	3.62	44 23 10.12	18.201	-115	12	0.9075	-1.1	-0.4200	-2.4	0.0160	-2.2	0.6348	-0.2
229	4.9	1 40 34.8	3.56	40 34 37.32	18.119	-114	-24	0.9052	-1.1	-0.4249	-2.3	0.0529	-2.1	0.5888	-0.1
230	5.5	1 40 39.8	3.62	43 17 51.91	18.105	-116	-35	0.9051	-1.1	-0.4252	-2.4	0.0239	-2.2	0.6207	-0.2
231	6.3	1 41 18.4	3.36	25 44 45.07	18.079	-109	-37	0.9039	-1.0	-0.4278	-2.2	0.2051	-1.5	0.3924	0.3
232	4.7	1 41 25.9	3.13	5 29 15.37	18.114	-101	2	0.9037	-1.0	-0.4283	-2.1	0.3908	-0.6	0.0858	0.7
233	5.1	1 41 47.2	3.68	42 36 48.34	17.946	-121	-152	0.9030	-1.1	-0.4297	-2.4	0.0310	-2.2	0.6113	-0.2
234	5.5	1 42 20.5	4.52	68 2 35.06	18.070	-146	-7	0.9019	-1.4	-0.4319	-3.0	-0.2384	-3.2	0.8365	-1.0
235	5.4	1 42 3.5	3.49	35 14 44.15	18.058	-113	-31	0.9025	-1.1	-0.4307	-2.3	0.1055	-1.8	0.5208	0.0
236	5.6	1 42 2.9	2.64	-36 49 56.92	18.064	-87	-24	0.9025	-0.8	-0.4307	-1.7	0.6052	1.0	-0.5410	1.1
237	5.3	1 42 8.6	2.70	-32 19 37.12	18.059	-89	-26	0.9023	-0.8	-0.4311	-1.8	0.5969	0.8	-0.4825	1.1
238	5.3	1 42 55.9	4.74	70 37 21.50	18.045	-154	-10	0.9008	-1.5	-0.4342	-3.1	-0.2656	-3.4	0.8498	-1.2
239	5.3	1 42 29.8	3.27	20 16 6.67	17.400	-106	-672	0.9017	-1.0	-0.4325	-2.1	0.2591	-1.2	0.3108	0.4
240	5.3	1 42 43.5	3.04	-3 41 24.92	18.029	-100	-34	0.9012	-1.0	-0.4334	-2.0	0.4605	-0.2	-0.0580	0.8

星号	星等	赤经 (J2000.0)	年变	赤纬 (J2000.0)	年变	长期变 0 ^h 00 ^m 1 ^s	年自行 0 ^h 00 ^m 1 ^s	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
241	5.8	1 43 19.7	4.11	60 33 4.47	18.022	-134	-18	0.9001	-1.3	-0.4357	-2.7	-0.1663	-2.9	0.7838	-0.7
242	4.2	1 43 39.6	3.79	50 41 19.42	18.013	-125	-15	0.8994	-1.2	-0.4370	-2.5	-0.0628	-2.5	0.6960	-0.4
243	6.1	1 44 17.9	4.00	57 32 10.80	17.965	-132	-38	0.8982	-1.3	-0.4395	-2.6	-0.1381	-2.7	0.7579	-0.7
244	3.6	1 44 4.1	2.79	-15 56 14.65	18.871	-89	859	0.8987	-0.9	-0.4386	-1.8	0.5337	0.2	-0.2534	1.0
245	4.5	1 45 23.6	3.18	9 9 27.69	18.008	-107	48	0.8961	-1.0	-0.4438	-2.1	0.3575	-0.8	0.1423	0.6
246	5.4	1 45 38.8	2.81	-25 3 9.57	17.891	-95	-60	0.8956	-0.9	-0.4448	-1.8	0.5805	0.6	-0.3800	1.1
247	5.5	1 45 59.2	3.01	-5 43 59.91	17.909	-102	-29	0.8950	-1.0	-0.4461	-2.0	0.4760	-0.2	-0.0894	0.9
248	5.7	1 47 44.8	4.40	63 51 9.12	17.623	-152	-245	0.8915	-1.4	-0.4530	-2.8	-0.2109	-3.1	0.8013	-1.0
249	6.3	1 47 48.0	3.71	46 13 46.86	17.810	-126	-57	0.8914	-1.2	-0.4532	-2.4	-0.0274	-2.3	0.6437	-0.4
250	5.7	1 48 10.9	3.26	16 57 20.01	17.816	-112	-35	0.8906	-1.1	-0.4547	-2.1	0.2821	-1.1	0.2597	0.4
251	6.0	1 48 26.0	3.11	3 41 7.66	17.861	-107	20	0.8901	-1.0	-0.4557	-2.0	0.4034	-0.5	0.0572	0.7
252	5.8	1 48 41.5	3.45	32 41 25.31	18.134	-118	303	0.8896	-1.1	-0.4567	-2.2	0.1191	-1.8	0.4803	0.0
253	4.8	1 49 35.1	2.95	-10 41 11.23	17.700	-102	-95	0.8878	-1.0	-0.4601	-1.9	0.5110	0.0	-0.1656	0.9
254	5.9	1 50 52.0	3.19	11 2 36.36	17.717	-112	-26	0.8853	-1.1	-0.4651	-2.1	0.3364	-0.9	0.1696	0.5
255	3.9	1 51 27.6	2.96	-10 20 6.26	17.679	-105	-40	0.8841	-1.0	-0.4674	-1.9	0.5101	0.0	-0.1595	0.9
256	5.5	1 51 59.4	3.98	55 8 50.43	17.687	-140	-10	0.8830	-1.4	-0.4694	-2.6	-0.1375	-2.6	0.7246	-0.7
257	5.6	1 52 9.3	3.85	50 47 34.29	17.665	-136	-25	0.8826	-1.3	-0.4701	-2.5	-0.0902	-2.5	0.6839	-0.5
258	5.7	1 52 52.1	2.89	-16 55 45.29	17.610	-103	-52	0.8812	-1.0	-0.4728	-1.8	0.5524	0.3	-0.2566	1.0
259	3.6	1 53 4.9	3.44	29 34 43.99	17.419	-122	-233	0.8807	-1.2	-0.4736	-2.2	0.1444	-1.6	0.4344	0.1
260	5.6	1 53 17.3	3.62	40 43 47.04	17.639	-129	-5	0.8803	-1.2	-0.4744	-2.3	0.0190	-2.1	0.5744	-0.2
261	4.8	1 53 31.8	3.30	19 17 37.60	17.533	-118	-101	0.8798	-1.1	-0.4754	-2.1	0.2524	-1.2	0.2905	0.3
262	4.8	1 53 33.3	3.11	3 11 15.11	17.657	-112	24	0.8797	-1.1	-0.4755	-2.0	0.4064	-0.5	0.0489	0.7
263	6.1	1 53 23.2	2.58	-38 35 40.75	17.667	-93	27	0.8801	-0.9	-0.4748	-1.7	0.6350	0.9	-0.5490	1.1
264	3.4	1 54 23.7	4.37	63 40 12.41	17.579	-156	-19	0.8780	-1.5	-0.4787	-2.8	-0.2367	-3.0	0.7869	-1.0
265	2.7	1 54 38.4	3.33	20 48 28.78	17.476	-120	-112	0.8775	-1.2	-0.4796	-2.1	0.2359	-1.3	0.3111	0.3
266	5.0	1 55 60.0	4.74	68 41 6.97	17.521	-171	-9	0.8746	-1.7	-0.4848	-3.0	-0.2941	-3.3	0.8148	-1.3
267	5.7	1 55 51.1	3.36	23 34 37.89	17.522	-122	-14	0.8749	-1.2	-0.4842	-2.1	0.2037	-1.4	0.3500	0.2
268	5.8	1 56 9.4	3.58	37 15 6.32	17.530	-131	6	0.8743	-1.3	-0.4854	-2.3	0.0513	-1.9	0.5292	-0.2
269	5.2	1 56 40.2	2.81	-22 31 36.15	17.478	-104	-23	0.8732	-1.0	-0.4874	-1.8	0.5872	0.4	-0.3345	1.1
270	5.2	1 57 21.1	3.29	17 49 3.05	17.452	-121	-20	0.8717	-1.2	-0.4900	-2.1	0.2628	-1.1	0.2667	0.3
271	6.0	1 57 43.8	3.42	27 48 15.85	17.400	-126	-56	0.8709	-1.2	-0.4914	-2.2	0.1543	-1.5	0.4063	0.1
272	4.8	1 57 55.7	3.36	23 35 45.91	17.434	-124	-14	0.8705	-1.2	-0.4922	-2.1	0.2008	-1.4	0.3482	0.2
273	5.8	1 58 33.5	3.84	49 12 15.34	17.459	-142	38	0.8692	-1.4	-0.4945	-2.4	-0.0911	-2.4	0.6580	-0.6
274	5.2	1 59 38.0	4.48	64 37 17.67	17.356	-167	-18	0.8668	-1.6	-0.4986	-2.8	-0.2647	-3.1	0.7832	-1.2
275	6.1	1 59 25.9	3.22	12 17 41.46	17.342	-121	-41	0.8673	-1.2	-0.4979	-2.0	0.3176	-0.9	0.1847	0.5
276	4.2	2 0 0.3	2.83	-21 4 40.23	17.333	-107	-24	0.8660	-1.0	-0.5000	-1.8	0.5844	0.4	-0.3114	1.0
277	5.8	2 0 9.1	3.13	3 5 49.10	17.096	-118	-255	0.8657	-1.1	-0.5006	-2.0	0.4060	-0.5	0.0461	0.7
278	5.7	2 0 26.8	2.98	-8 31 26.52	17.312	-113	-26	0.8650	-1.1	-0.5017	-1.9	0.5031	-0.1	-0.1282	0.9
279	4.6	2 1 57.4	5.02	70 54 25.66	17.278	-189	6	0.8617	-1.9	-0.5074	-3.1	-0.3366	-3.5	0.8147	-1.5
280	5.0	2 2 18.1	4.03	54 29 15.33	17.255	-153	-1	0.8610	-1.5	-0.5087	-2.5	-0.1622	-2.6	0.7008	-0.8

星号	星等	赤经 (J2000.0)			年变	赤纬 (J2000.0)			年变	长期变 0.001	年自行 0.001	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
281	4.3	2	2	2.8	3.11	2	45	49.40	17.266	-119	-2	0.8615	-1.1	-0.5077	-1.9	0.4086	-0.5	0.0415	-0.7
282	6.2	2	3	10.5	5.43	73	51	1.84	17.215	-206	-3	0.8590	-2.0	-0.5119	-3.4	-0.3712	-3.7	0.8251	-1.7
283	5.6	2	3	0.1	4.50	64	23	24.01	17.222	-171	-3	0.8594	-1.7	-0.5113	-2.8	-0.2737	-3.0	0.7750	-1.2
284	4.1	2	3	26.1	5.23	72	25	17.01	17.232	-199	26	0.8584	-2.0	-0.5129	-3.3	-0.3580	-3.6	0.8183	-1.6
285	5.4	2	2	58.0	3.52	33	17	2.41	17.213	-135	-13	0.8595	-1.3	-0.5112	-2.2	0.0821	-1.8	0.4716	-0.1
286	5.9	2	2	58.6	2.89	-15	18	20.63	17.243	-111	16	0.8595	-1.1	-0.5112	-1.8	0.5531	0.2	-0.2269	1.0
287	5.6	2	3	11.6	3.08	0	7	42.56	17.235	-119	19	0.8590	-1.1	-0.5120	-1.9	0.4324	-0.4	0.0019	0.7
288	5.7	2	3	39.3	3.42	25	56	8.26	17.219	-132	23	0.8579	-1.3	-0.5138	-2.1	0.1657	-1.5	0.3751	0.1
289	2.3	2	3	54.0	3.71	42	19	47.03	17.133	-143	-51	0.8574	-1.4	-0.5147	-2.3	-0.0261	-2.1	0.5774	-0.4
290	5.9	2	3	40.5	3.03	-4	6	12.52	17.134	-117	-60	0.8579	-1.1	-0.5138	-1.9	0.4692	-0.3	-0.0614	0.8
291	5.4	2	5	7.4	6.19	77	16	52.62	17.072	-239	-57	0.8546	-2.3	-0.5192	-3.8	-0.4110	-4.2	0.8337	-2.1
292	5.3	2	5	31.4	5.88	76	6	54.63	17.093	-227	-18	0.8537	-2.2	-0.5207	-3.7	-0.4006	-4.0	0.8291	-2.0
293	4.7	2	4	29.5	2.69	-29	17	48.79	17.165	-105	6	0.8561	-1.0	-0.5169	-1.7	0.6310	0.6	-0.4189	1.1
294	5.1	2	6	33.9	3.37	22	38	54.03	17.028	-132	-35	0.8513	-1.3	-0.5246	-2.1	0.1981	-1.3	0.3278	0.2
295	2.2	2	7	10.4	3.39	23	27	44.70	16.888	-134	-148	0.8500	-1.3	-0.5269	-2.1	0.1887	-1.4	0.3380	0.1
296	6.0	2	9	25.2	7.73	81	17	45.97	16.943	-304	12	0.8447	-3.0	-0.5352	-4.7	-0.4634	-5.1	0.8350	-2.9
297	5.9	2	8	40.5	4.23	58	25	25.51	16.971	-168	5	0.8465	-1.6	-0.5324	-2.6	-0.2266	-2.8	0.7212	-1.0
298	4.8	2	8	29.3	3.64	37	51	33.19	16.937	-145	-38	0.8469	-1.4	-0.5317	-2.2	0.0160	-1.9	0.5198	-0.3
299	5.1	2	9	25.3	3.43	25	56	23.52	16.894	-138	-37	0.8447	-1.3	-0.5352	-2.1	0.1558	-1.5	0.3695	0.0
300	3.1	2	9	32.6	3.59	34	59	14.14	16.884	-144	-42	0.8445	-1.4	-0.5356	-2.2	0.0484	-1.8	0.4842	-0.2
301	5.9	2	10	37.6	3.34	19	30	1.20	16.846	-135	-28	0.8419	-1.3	-0.5396	-2.0	0.2286	-1.2	0.2810	0.2
302	6.0	2	10	52.9	3.66	39	2	21.63	16.840	-148	-22	0.8413	-1.4	-0.5405	-2.2	-0.0037	-2.0	0.5299	-0.4
303	6.2	2	11	25.2	3.52	31	31	34.24	16.819	-143	-18	0.8400	-1.4	-0.5425	-2.2	0.0859	-1.7	0.4393	-0.1
304	5.7	2	11	21.1	3.17	8	34	11.82	16.732	-129	-108	0.8402	-1.3	-0.5423	-1.9	0.3481	-0.8	0.1247	0.5
305	6.1	2	11	22.2	2.94	-10	3	8.35	16.663	-120	-177	0.8402	-1.2	-0.5423	-1.8	0.5216	-0.1	-0.1466	0.9
306	6.0	2	11	35.8	3.05	-1	49	31.35	16.799	-124	-30	0.8396	-1.2	-0.5432	-1.9	0.4506	-0.4	-0.0267	0.7
307	5.4	2	12	22.3	3.50	30	18	10.82	16.730	-143	-62	0.8378	-1.4	-0.5460	-2.1	0.0989	-1.6	0.4227	-0.1
308	6.2	2	13	21.0	5.65	74	1	40.11	16.710	-230	-35	0.8354	-2.3	-0.5496	-3.4	-0.4091	-3.8	0.8032	-2.0
309	6.2	2	12	37.5	3.41	24	10	3.82	16.773	-139	-7	0.8372	-1.4	-0.5469	-2.1	0.1716	-1.4	0.3427	0.1
310	5.4	2	12	48.1	3.37	21	12	39.29	16.774	-139	2	0.8368	-1.3	-0.5476	-2.1	0.2061	-1.3	0.3027	0.1
311	5.7	2	12	47.5	3.07	-2	23	37.29	16.703	-127	-69	0.8368	-1.2	-0.5475	-1.9	0.4560	-0.4	-0.0358	0.7
312	4.5	2	12	60.0	3.19	8	50	48.33	16.755	-131	-7	0.8363	-1.3	-0.5483	-1.9	0.3442	-0.8	0.1284	0.5
313	6.0	2	13	3.3	3.28	15	16	47.41	16.736	-135	-23	0.8362	-1.3	-0.5485	-2.0	0.2737	-1.0	0.2204	0.3
314	5.1	2	13	13.3	3.79	44	13	54.13	16.738	-155	-13	0.8358	-1.5	-0.5491	-2.3	-0.0724	-2.2	0.5830	-0.6
315	5.2	2	12	54.5	2.64	-30	43	25.87	16.772	-109	6	0.8365	-1.1	-0.5480	-1.6	0.6513	0.6	-0.4291	1.1
316	5.4	2	13	36.3	4.02	51	3	57.11	16.562	-166	-170	0.8348	-1.6	-0.5505	-2.4	-0.1558	-2.4	0.6494	-0.8
317	6.2	2	14	29.0	4.78	66	31	28.27	16.688	-196	-3	0.8327	-1.9	-0.5537	-2.9	-0.3352	-3.2	0.7638	-1.5
318	5.6	2	15	42.8	3.42	25	2	35.23	16.546	-142	-85	0.8297	-1.4	-0.5582	-2.1	0.1565	-1.4	0.3512	0.0
319	5.8	2	15	46.0	3.45	25	46	58.85	16.566	-144	-62	0.8296	-1.4	-0.5584	-2.1	0.1475	-1.5	0.3608	0.0
320	5.3	2	15	56.3	3.57	33	21	31.46	16.581	-149	-38	0.8292	-1.4	-0.5590	-2.1	0.0548	-1.7	0.4560	-0.2

星号	星等	赤 经 (J2000.0)		年 变	赤 纬 (J2000.0)		年 变	长期变 0% 001	年自行 0% 001	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
321	5.1	2 17	3.2	3.68	34 13	27.57	16.321	-159	-243	0.8265	-1.5	-0.5630	-2.2	0.0441	-1.8	0.4647	-0.3
322	5.7	2 16	59.0	3.00	-6 25	19.77	16.460	-127	-108	0.8266	-1.2	-0.5627	-1.8	0.4938	-0.2	-0.0925	0.8
323	4.1	2 17	18.9	3.58	33 50	50.19	16.503	-151	-49	0.8258	-1.5	-0.5639	-2.2	0.0469	-1.8	0.4599	-0.3
324	6.1	2 17	59.9	4.29	57 53	59.23	16.520	-181	2	0.8241	-1.8	-0.5664	-2.6	-0.2494	-2.7	0.6981	-1.1
325	5.8	2 18	1.4	3.12	1 45	28.16	16.888	-133	371	0.8241	-1.3	-0.5665	-1.9	0.4160	-0.5	0.0246	0.6
326	5.7	2 18	7.5	3.35	19 54	4.21	16.511	-142	-1	0.8238	-1.4	-0.5669	-2.0	0.2147	-1.2	0.2804	0.2
327	5.3	2 18	57.0	3.49	28 38	33.06	16.465	-148	-5	0.8218	-1.4	-0.5698	-2.1	0.1074	-1.6	0.3939	-0.1
328	5.1	2 19	16.8	3.90	47 22	48.01	16.448	-165	-7	0.8210	-1.6	-0.5710	-2.3	-0.1262	-2.3	0.6042	-0.7
329	5.6	2 20	58.2	4.00	50 9	5.55	16.343	-172	-27	0.8167	-1.7	-0.5770	-2.4	-0.1652	-2.4	0.6270	-0.9
330	5.6	2 21	56.6	3.08	0 23	44.41	16.314	-134	-6	0.8143	-1.3	-0.5805	-1.8	0.4295	-0.5	0.0056	0.6
331	5.2	2 22	21.4	4.22	55 50	43.93	16.293	-183	-7	0.8132	-1.8	-0.5820	-2.5	-0.2382	-2.6	0.6730	-1.1
332	5.6	2 22	1.4	2.94	-10 46	39.60	16.231	-128	-86	0.8141	-1.2	-0.5808	-1.7	0.5345	-0.1	-0.1522	0.9
333	6.0	2 22	5.0	2.83	-17 39	44.07	16.252	-123	-61	0.8139	-1.2	-0.5810	-1.7	0.5894	0.2	-0.2469	1.0
334	5.6	2 22	12.4	3.06	-0 53	6.11	16.252	-133	-55	0.8136	-1.3	-0.5814	-1.8	0.4425	-0.4	-0.0126	0.7
335	5.9	2 22	50.3	3.76	41 23	46.23	16.171	-163	-104	0.8120	-1.6	-0.5837	-2.2	-0.0607	-2.0	0.5369	-0.6
336	5.4	2 22	32.6	2.75	-23 48	59.13	16.229	-121	-60	0.8127	-1.2	-0.5826	-1.6	0.6307	0.4	-0.3302	1.1
337	5.5	2 24	24.9	4.02	50 0	23.48	16.155	-176	-39	0.8080	-1.7	-0.5893	-2.4	-0.1728	-2.4	0.6190	-0.9
338	5.5	2 24	49.1	3.22	10 36	38.51	16.161	-142	-12	0.8069	-1.4	-0.5907	-1.9	0.3174	-0.9	0.1486	0.4
339	4.9	2 25	37.4	4.03	50 16	42.91	16.115	-178	-16	0.8048	-1.7	-0.5935	-2.4	-0.1794	-2.4	0.6190	-0.9
340	4.9	2 25	57.0	2.90	-12 17	25.77	16.104	-129	-10	0.8040	-1.3	-0.5946	-1.7	0.5500	0.0	-0.1717	0.9
341	6.1	2 26	35.2	2.79	-20 2	34.19	16.173	-125	92	0.8023	-1.2	-0.5969	-1.6	0.6119	0.2	-0.2750	1.0
342	5.8	2 27	27.7	3.57	31 48	4.72	16.007	-159	-28	0.8000	-1.6	-0.5999	-2.1	0.0523	-1.7	0.4216	-0.3
343	6.3	2 27	51.8	4.06	50 34	12.24	15.928	-181	-86	0.7990	-1.8	-0.6013	-2.4	-0.1891	-2.4	0.6171	-1.0
344	5.4	2 28	10.0	3.53	29 40	9.68	15.912	-158	-86	0.7982	-1.5	-0.6024	-2.1	0.0785	-1.6	0.3951	-0.2
345	4.3	2 28	9.5	3.20	8 27	36.27	15.991	-144	-8	0.7982	-1.4	-0.6024	-1.9	0.3404	-0.8	0.1171	0.4
346	5.2	2 28	1.7	2.54	-33 48	40.49	16.002	-115	-3	0.7986	-1.1	-0.6019	-1.5	0.6952	0.6	-0.4444	1.1
347	4.6	2 29	4.0	5.02	67 24	8.80	15.964	-225	13	0.7958	-2.2	-0.6055	-2.9	-0.3916	-3.2	0.7351	-1.8
348	5.9	2 30	32.3	3.46	25 14	6.03	15.796	-158	-77	0.7919	-1.5	-0.6106	-2.0	0.1318	-1.4	0.3376	-0.1
349	6.1	2 30	38.4	3.38	19 51	18.93	15.831	-154	-36	0.7917	-1.5	-0.6110	-1.9	0.2003	-1.2	0.2689	0.1
350	6.0	2 30	45.2	3.08	0 15	20.18	15.802	-140	-59	0.7913	-1.4	-0.6114	-1.8	0.4308	-0.5	0.0035	0.6
351	5.4	2 31	30.1	3.11	2 16	1.47	15.808	-143	-13	0.7893	-1.4	-0.6139	-1.8	0.4090	-0.6	0.0306	0.5
352	5.4	2 32	6.2	3.68	36 8	50.26	15.802	-169	13	0.7877	-1.6	-0.6160	-2.1	-0.0133	-1.8	0.4647	-0.5
353	5.5	2 32	9.4	3.06	-1 2	5.75	15.754	-141	-32	0.7876	-1.4	-0.6162	-1.8	0.4446	-0.4	-0.0142	0.6
354	4.8	2 32	5.2	2.85	-15 14	40.64	15.669	-131	-120	0.7878	-1.3	-0.6160	-1.6	0.5800	0.1	-0.2077	0.9
355	6.1	2 32	54.1	3.30	15 2	5.52	15.794	-152	49	0.7856	-1.5	-0.6188	-1.9	0.2582	-1.0	0.2038	0.2
356	5.9	2 33	7.0	2.50	-34 38	60.00	15.715	-116	-19	0.7850	-1.1	-0.6195	-1.4	0.7089	0.6	-0.4463	1.1
357	5.0	2 33	50.7	2.63	-28 13	57.16	15.683	-122	-12	0.7830	-1.2	-0.6220	-1.5	0.6762	0.4	-0.3704	1.1
358	5.9	2 35	38.8	3.71	37 18	44.47	15.587	-173	-9	0.7781	-1.7	-0.6281	-2.1	-0.0359	-1.9	0.4717	-0.6
359	5.6	2 35	46.8	3.66	34 41	15.23	15.540	-171	-49	0.7777	-1.7	-0.6286	-2.1	-0.0009	-1.8	0.4426	-0.5
360	5.0	2 35	52.4	3.16	5 35	35.62	15.559	-148	-24	0.7775	-1.4	-0.6289	-1.8	0.3702	-0.7	0.0758	0.4

星号	星等	赤 经 (J2000.0)		年 变	赤 纬 (J2000.0)		年 变	长期变 0.001	自行 0.001	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
361	5.9	2 36	4.9	3.30	6 53	13.03	17.024	-161	1452	0.7769	-1.5	-0.6296	-1.9	0.3557	-0.8	0.0908	0.5
362	5.7	2 36	0.0	2.96	-7 49	53.90	15.516	-139	-60	0.7771	-1.4	-0.6293	-1.7	0.5153	-0.2	-0.1059	0.8
363	5.8	2 36	9.3	2.59	-30 2	42.13	15.559	-122	-9	0.7767	-1.2	-0.6298	-1.5	0.6906	0.5	-0.3889	1.1
364	6.0	2 36	35.1	3.19	7 43	46.83	15.514	-150	-30	0.7755	-1.5	-0.6313	-1.8	0.3447	-0.8	0.1043	0.4
365	5.7	2 36	37.9	3.28	12 26	51.59	15.455	-155	-86	0.7754	-1.5	-0.6315	-1.8	0.2875	-0.9	0.1667	0.2
366	6.1	2 37	36.0	4.96	65 44	43.19	15.477	-233	-11	0.7727	-2.3	-0.6347	-2.8	-0.4006	-3.0	0.7045	-1.9
367	5.3	2 38	2.0	5.82	72 49	6.11	15.484	-273	20	0.7715	-2.7	-0.6362	-3.3	-0.4793	-3.6	0.7373	-2.4
368	5.8	2 36	58.6	2.49	-34 34	40.24	15.267	-118	-255	0.7745	-1.1	-0.6326	-1.4	0.7149	0.6	-0.4411	1.1
369	5.8	2 37	41.8	3.03	-3 23	46.35	15.437	-143	-45	0.7725	-1.4	-0.6351	-1.7	0.4704	-0.4	-0.0458	0.7
370	5.8	2 38	18.7	2.59	-30 11	38.09	15.379	-124	-69	0.7708	-1.2	-0.6371	-1.5	0.6952	0.5	-0.3876	1.1
371	5.4	2 38	49.0	3.42	21 57	40.97	15.403	-162	-18	0.7694	-1.6	-0.6388	-1.9	0.1632	-1.3	0.2877	-0.1
372	4.0	2 39	28.9	3.08	0 19	42.70	15.380	-147	-3	0.7675	-1.4	-0.6411	-1.7	0.4299	-0.5	0.0044	0.6
373	5.0	2 39	33.8	2.90	-11 52	19.66	15.142	-139	-236	0.7673	-1.4	-0.6413	-1.6	0.5557	-0.1	-0.1593	0.8
374	5.9	2 40	12.3	2.92	-9 27	11.31	15.256	-140	-87	0.7655	-1.4	-0.6435	-1.6	0.5334	-0.1	-0.1257	0.8
375	5.4	2 40	41.1	3.52	27 3	39.28	15.286	-169	-29	0.7641	-1.7	-0.6451	-2.0	0.0926	-1.5	0.3476	-0.2
376	4.1	2 40	40.0	2.37	-39 51	19.33	15.288	-115	-29	0.7642	-1.1	-0.6450	-1.3	0.7454	0.7	-0.4907	1.1
377	5.0	2 42	14.9	3.81	40 11	38.07	15.042	-184	-185	0.7597	-1.8	-0.6503	-2.1	-0.0875	-1.9	0.4905	-0.7
378	5.7	2 42	22.0	3.39	20 0	41.40	15.177	-164	-43	0.7594	-1.6	-0.6507	-1.9	0.1847	-1.2	0.2599	0.0
379	5.9	2 42	6.6	2.39	-38 23	1.43	15.245	-116	10	0.7601	-1.1	-0.6498	-1.3	0.7433	0.6	-0.4720	1.1
380	6.1	2 42	59.6	4.26	53 31	34.05	15.155	-206	-29	0.7576	-2.0	-0.6527	-2.3	-0.2672	-2.4	0.6092	-1.3
381	5.7	2 43	2.8	4.33	55 6	21.51	15.159	-209	-23	0.7574	-2.1	-0.6529	-2.4	-0.2875	-2.5	0.6213	-1.4
382	3.6	2 43	18.0	3.11	3 14	8.65	15.016	-151	-151	0.7567	-1.5	-0.6538	-1.7	0.3961	-0.6	0.0419	0.5
383	4.6	2 43	27.1	3.53	27 42	25.86	15.148	-172	-10	0.7563	-1.7	-0.6543	-1.9	0.0796	-1.5	0.3516	-0.3
384	5.6	2 44	5.1	3.93	44 17	49.31	15.114	-191	-7	0.7545	-1.9	-0.6563	-2.2	-0.1481	-2.1	0.5269	-0.9
385	4.2	2 44	12.0	4.13	49 13	42.63	15.027	-202	-88	0.7541	-2.0	-0.6567	-2.3	-0.2119	-2.3	0.5719	-1.1
386	5.8	2 44	49.7	5.24	67 49	28.82	15.048	-255	-31	0.7523	-2.5	-0.6588	-2.9	-0.4464	-3.1	0.6967	-2.1
387	4.4	2 44	7.3	2.86	-13 51	31.41	15.103	-140	-16	0.7544	-1.4	-0.6565	-1.6	0.5782	0.0	-0.1807	0.9
388	4.4	2 44	56.5	3.25	10 6	50.90	15.038	-160	-34	0.7520	-1.6	-0.6592	-1.8	0.3113	-0.8	0.1315	0.3
389	5.2	2 44	57.6	3.28	12 26	45.24	14.989	-161	-83	0.7520	-1.6	-0.6592	-1.8	0.2815	-0.9	0.1618	0.2
390	4.6	2 45	6.2	2.80	-18 34	20.84	15.101	-139	38	0.7515	-1.3	-0.6597	-1.5	0.6202	0.1	-0.2412	0.9
391	5.9	2 47	47.7	9.02	81 26	54.81	14.835	-443	-72	0.7437	-4.4	-0.6685	-4.9	-0.5961	-5.2	0.7358	-4.3
392	4.6	2 47	54.6	3.59	29 14	50.23	14.781	-179	-119	0.7434	-1.7	-0.6688	-1.9	0.0520	-1.5	0.3632	-0.4
393	6.0	2 48	32.1	3.37	18 17	1.70	14.831	-168	-33	0.7416	-1.6	-0.6709	-1.8	0.2012	-1.1	0.2327	0.0
394	5.3	2 49	17.5	3.36	17 27	51.42	14.804	-168	-15	0.7394	-1.6	-0.6733	-1.8	0.2115	-1.1	0.2219	0.0
395	4.5	2 49	5.5	2.51	-32 24	21.47	14.986	-127	155	0.7400	-1.2	-0.6727	-1.4	0.7261	0.5	-0.3971	1.1
396	3.7	2 49	59.0	3.55	27 15	38.00	14.663	-178	-116	0.7373	-1.7	-0.6755	-1.9	0.0765	-1.4	0.3376	-0.3
397	4.0	2 50	41.8	4.41	55 53	43.79	14.722	-221	-14	0.7352	-2.2	-0.6778	-2.4	-0.3182	-2.5	0.6088	-1.5
398	4.3	2 50	35.1	3.81	38 19	6.24	14.625	-192	-117	0.7356	-1.9	-0.6775	-2.0	-0.0794	-1.8	0.4561	-0.8
399	4.8	2 51	2.3	2.72	-21 0	14.59	14.695	-138	-21	0.7342	-1.3	-0.6789	-1.5	0.6478	0.2	-0.2639	1.0
400	6.0	2 51	58.7	5.43	68 53	18.89	14.656	-273	-4	0.7314	-2.7	-0.6819	-2.9	-0.4800	-3.2	0.6823	-2.3

星号	星等	赤 经 (J2000.0)		年 变	赤 纬 (J2000.0)		年 变	长期变 0.001	年自行 0.001	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
401	6.3	2 51 45.8	4.54	58 18 51.61	14.672	-229	0	0.7321	-2.3	-0.6812	-2.4	-0.3520	-2.6	0.6229	-1.6		
402	4.7	2 51 30.8	3.71	35 3 35.64	14.631	-187	-57	0.7328	-1.8	-0.6804	-2.0	-0.0360	-1.7	0.4209	-0.6		
403	6.0	2 51 41.7	4.04	46 50 30.56	14.646	-204	-31	0.7323	-2.0	-0.6810	-2.2	-0.2002	-2.1	0.5342	-1.1		
404	5.5	2 51 29.6	3.32	15 4 55.29	14.662	-168	-27	0.7329	-1.6	-0.6804	-1.8	0.2416	-1.0	0.1907	0.1		
405	5.9	2 53 34.4	2.35	-38 26 12.46	14.606	-121	42	0.7267	-1.2	-0.6870	-1.2	0.7667	0.6	-0.4517	1.1		
406	4.1	2 54 15.5	4.29	52 45 45.04	14.519	-218	-5	0.7246	-2.1	-0.6892	-2.3	-0.2860	-2.3	0.5770	-1.4		
407	5.6	2 55 56.9	4.81	61 31 16.14	14.452	-247	31	0.7195	-2.4	-0.6945	-2.5	-0.4037	-2.7	0.6324	-1.9		
408	6.1	2 56 13.8	3.22	8 22 53.40	14.312	-166	-92	0.7186	-1.6	-0.6954	-1.7	0.3276	-0.8	0.1048	0.3		
409	5.6	2 56 26.1	3.40	18 1 23.53	14.182	-176	-210	0.7180	-1.7	-0.6960	-1.8	0.1973	-1.1	0.2218	-0.1		
410	4.0	2 56 25.6	2.93	-8 53 53.46	14.171	-152	-220	0.7180	-1.5	-0.6960	-1.5	0.5358	-0.2	-0.1117	0.7		
411	5.3	2 56 37.4	3.01	-3 42 44.26	14.337	-156	-43	0.7174	-1.5	-0.6966	-1.6	0.4777	-0.4	-0.0469	0.6		
412	6.3	2 57 4.5	3.15	4 30 3.90	14.378	-163	25	0.7161	-1.6	-0.6980	-1.6	0.3774	-0.6	0.0562	0.4		
413	5.2	2 57 17.3	3.66	31 56 2.90	14.307	-189	-33	0.7154	-1.9	-0.6987	-1.9	-0.0016	-1.6	0.3784	-0.6		
414	5.8	2 58 5.2	3.45	20 40 7.50	14.260	-180	-31	0.7130	-1.8	-0.7012	-1.8	0.1586	-1.2	0.2514	-0.2		
415	4.6	2 58 45.7	3.86	39 39 46.01	14.209	-201	-40	0.7109	-2.0	-0.7033	-2.0	-0.1151	-1.8	0.4538	-0.9		
416	5.2	2 58 42.0	3.03	-2 46 57.84	14.196	-158	-56	0.7111	-1.5	-0.7031	-1.6	0.4672	-0.4	-0.0348	0.6		
417	5.0	2 59 3.7	3.73	35 10 59.32	14.237	-194	7	0.7100	-1.9	-0.7042	-1.9	-0.0514	-1.7	0.4091	-0.7		
418	4.6	2 59 12.7	3.44	21 20 25.13	14.216	-180	-5	0.7095	-1.8	-0.7047	-1.8	0.1474	-1.2	0.2582	-0.2		
419	6.1	2 59 39.9	3.90	41 1 58.99	14.154	-204	-39	0.7081	-2.0	-0.7061	-2.0	-0.1365	-1.9	0.4649	-0.9		
420	5.6	2 59 49.8	4.10	47 13 14.06	14.197	-214	14	0.7076	-2.1	-0.7066	-2.1	-0.2242	-2.1	0.5194	-1.2		
421	4.7	2 59 42.9	3.22	8 54 26.59	14.177	-169	-13	0.7080	-1.7	-0.7062	-1.7	0.3190	-0.8	0.1096	0.2		
422	5.5	2 59 41.1	3.03	-2 27 53.89	14.168	-159	-24	0.7081	-1.6	-0.7061	-1.6	0.4635	-0.4	-0.0305	0.6		
423	5.6	2 59 36.2	2.64	-25 16 26.75	14.284	-140	87	0.7083	-1.4	-0.7059	-1.4	0.6931	0.3	-0.3031	1.0		
424	5.4	3 0 52.2	4.31	52 21 6.17	14.093	-226	-26	0.7044	-2.2	-0.7098	-2.2	-0.2972	-2.3	0.5577	-1.5		
425	6.2	3 0 44.1	3.26	10 52 14.27	14.103	-172	-24	0.7048	-1.7	-0.7094	-1.7	0.2920	-0.8	0.1329	0.2		
426	5.9	3 1 54.1	3.55	26 27 44.85	14.063	-187	8	0.7012	-1.8	-0.7129	-1.8	0.0704	-1.4	0.3125	-0.4		
427	5.9	3 1 37.6	2.59	-28 5 28.96	13.644	-138	-428	0.7021	-1.3	-0.7121	-1.3	0.7173	0.3	-0.3316	1.0		
428	6.0	3 1 56.2	2.91	-9 57 41.16	14.048	-154	-4	0.7011	-1.5	-0.7131	-1.5	0.5504	-0.2	-0.1213	0.7		
429	2.8	3 2 16.8	3.14	4 5 22.99	13.954	-166	-77	0.7000	-1.6	-0.7141	-1.6	0.3815	-0.6	0.0499	0.4		
430	5.6	3 2 22.5	3.15	4 21 10.13	14.031	-167	6	0.6997	-1.6	-0.7144	-1.6	0.3781	-0.6	0.0531	0.4		
431	4.2	3 2 23.5	2.65	-23 37 27.92	13.971	-140	-53	0.6997	-1.4	-0.7144	-1.3	0.6828	0.2	-0.2820	1.0		
432	5.4	3 4 16.4	2.95	-7 36 3.51	13.918	-158	12	0.6938	-1.5	-0.7202	-1.5	0.5249	-0.2	-0.0922	0.7		
433	3.1	3 4 47.8	4.38	53 30 23.28	13.868	-233	-5	0.6922	-2.3	-0.7217	-2.2	-0.3221	-2.3	0.5566	-1.6		
434	5.7	3 6 7.8	8.25	79 25 6.75	13.798	-439	10	0.6879	-4.4	-0.7258	-4.1	-0.6338	-4.4	0.6762	-4.2		
435	6.0	3 4 38.0	3.11	1 51 49.25	13.887	-166	3	0.6927	-1.6	-0.7213	-1.6	0.4099	-0.5	0.0225	0.4		
436	3.3	3 5 10.6	3.86	38 50 25.02	13.743	-207	-106	0.6910	-2.0	-0.7229	-1.9	-0.1157	-1.8	0.4333	-0.9		
437	5.1	3 5 32.3	4.54	56 42 20.45	13.893	-243	67	0.6898	-2.4	-0.7240	-2.3	-0.3672	-2.4	0.5766	-1.7		
438	5.4	3 5 26.7	3.53	25 15 19.02	13.825	-189	-7	0.6901	-1.9	-0.7237	-1.8	0.0833	-1.3	0.2944	-0.4		
439	5.8	3 6 23.7	3.30	13 11 14.45	13.712	-178	-59	0.6871	-1.7	-0.7266	-1.7	0.2564	-0.9	0.1568	0.0		
440	5.6	3 6 33.5	2.97	-6 5 18.52	13.758	-160	-3	0.6866	-1.6	-0.7271	-1.5	0.5082	-0.3	-0.0728	0.6		

星号	星等	赤 经 (J2000.0)			年 变	赤 纬 (J2000.0)			年 变	长期变 0% 001	年自行 0% 001	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
441	5.8	3	7	18.9	5.08	64	3	26.76	13.709	-273	-4	0.6842	-2.7	-0.7293	-2.5	-0.4662	-2.7	0.6152	-2.2
442	2.2	3	8	10.1	3.92	40	57	20.48	13.658	-212	-1	0.6815	-2.1	-0.7319	-1.9	-0.1516	-1.8	0.4469	-1.0
443	4.2	3	9	4.0	4.36	49	36	48.11	13.512	-244	-89	0.6786	-2.3	-0.7345	-2.2	-0.2762	-2.2	0.5179	-1.5
444	4.0	3	9	29.8	4.07	44	51	26.17	13.417	-222	-156	0.6772	-2.2	-0.7358	-2.0	-0.2109	-2.0	0.4779	-1.2
445	5.6	3	9	36.7	3.62	29	4	37.56	13.553	-197	-13	0.6768	-1.9	-0.7361	-1.8	0.0212	-1.4	0.3289	-0.6
446	5.9	3	11	42.5	9.67	81	28	14.27	13.425	-524	-6	0.6701	-5.2	-0.7423	-4.7	-0.6692	-5.0	0.6631	-5.1
447	4.9	3	11	56.3	6.63	74	23	37.12	13.326	-362	-89	0.6693	-3.6	-0.7430	-3.2	-0.5979	-3.5	0.6454	-3.3
448	6.3	3	11	18.7	3.01	-3	48	41.38	13.444	-165	-12	0.6714	-1.6	-0.7411	-1.5	0.4819	-0.4	-0.0446	0.5
449	4.5	3	11	37.8	3.44	19	43	36.14	13.425	-190	-10	0.6703	-1.9	-0.7421	-1.7	0.1579	-1.1	0.2261	-0.2
450	6.0	3	12	9.6	3.98	42	22	32.88	13.378	-219	-23	0.6686	-2.2	-0.7436	-1.9	-0.1809	-1.9	0.4506	-1.1
451	4.0	3	12	4.3	2.55	-28	59	13.37	14.047	-142	640	0.6689	-1.4	-0.7434	-1.2	0.7383	0.3	-0.3265	1.1
452	5.8	3	12	26.3	3.19	6	39	38.99	13.379	-176	-4	0.6677	-1.7	-0.7444	-1.5	0.3443	-0.7	0.0774	0.2
453	5.1	3	12	46.4	3.07	-1	11	45.82	13.295	-170	-66	0.6666	-1.7	-0.7454	-1.5	0.4490	-0.4	-0.0149	0.5
454	5.0	3	14	54.1	3.46	21	2	40.04	13.148	-192	-74	0.6597	-1.9	-0.7516	-1.7	0.1349	-1.1	0.2368	-0.3
455	5.5	3	15	20.5	3.67	30	33	24.28	13.200	-204	7	0.6582	-2.0	-0.7528	-1.8	-0.0094	-1.4	0.3346	-0.7
456	5.9	3	15	48.0	4.63	57	8	25.55	13.153	-258	-9	0.6567	-2.5	-0.7541	-2.2	-0.3982	-2.4	0.5516	-1.9
457	5.3	3	16	12.2	4.32	50	56	15.37	13.114	-240	-22	0.6554	-2.4	-0.7553	-2.1	-0.3129	-2.1	0.5090	-1.6
458	4.9	3	15	50.0	2.92	-8	49	11.04	13.206	-163	46	0.6566	-1.6	-0.7542	-1.4	0.5440	-0.2	-0.1012	0.7
459	5.4	3	17	47.4	4.06	44	1	29.67	13.002	-228	-28	0.6501	-2.2	-0.7598	-1.9	-0.2163	-1.9	0.4518	-1.3
460	6.0	3	17	45.7	3.91	39	17	0.31	13.017	-219	-15	0.6502	-2.2	-0.7597	-1.8	-0.1454	-1.7	0.4117	-1.0
461	5.3	3	18	37.8	4.30	50	13	19.77	12.949	-242	-26	0.6474	-2.4	-0.7622	-2.0	-0.3084	-2.1	0.4975	-1.6
462	5.6	3	18	22.4	3.08	-0	55	48.91	12.940	-174	-52	0.6482	-1.7	-0.7615	-1.4	0.4459	-0.4	-0.0106	0.4
463	4.9	3	18	43.8	3.77	34	13	21.94	12.963	-212	-5	0.6470	-2.1	-0.7625	-1.8	-0.0701	-1.5	0.3639	-0.8
464	5.0	3	18	22.2	2.65	-22	30	40.58	13.003	-150	10	0.6482	-1.5	-0.7615	-1.3	0.6917	0.1	-0.2489	0.9
465	5.5	3	20	19.8	7.81	77	44	5.32	12.803	-440	-59	0.6417	-4.4	-0.7670	-3.6	-0.6570	-3.9	0.6274	-4.2
466	5.9	3	18	41.1	2.74	-18	33	35.19	12.910	-156	-62	0.6472	-1.5	-0.7623	-1.3	0.6534	0.0	-0.2066	0.9
467	4.8	3	19	59.3	5.34	65	39	8.56	12.873	-301	-11	0.6428	-3.0	-0.7660	-2.5	-0.5189	-2.7	0.5859	-2.5
468	5.0	3	19	21.7	3.15	3	22	12.75	13.020	-179	94	0.6449	-1.8	-0.7643	-1.5	0.3881	-0.6	0.0361	0.3
469	4.0	3	19	31.0	2.67	-21	45	28.31	12.949	-152	33	0.6444	-1.5	-0.7647	-1.3	0.6861	0.1	-0.2389	0.9
470	4.7	3	20	20.4	3.64	29	2	55.03	12.851	-206	-9	0.6417	-2.0	-0.7670	-1.7	0.0066	-1.4	0.3116	-0.6
471	5.8	3	21	6.8	3.14	3	40	31.99	12.785	-179	-24	0.6391	-1.8	-0.7692	-1.5	0.3834	-0.6	0.0410	0.3
472	5.2	3	21	13.6	3.47	21	8	49.18	12.775	-198	-26	0.6387	-1.9	-0.7695	-1.6	0.1268	-1.1	0.2304	-0.3
473	5.0	3	21	26.6	4.04	43	19	46.74	12.784	-229	-2	0.6379	-2.3	-0.7701	-1.9	-0.2126	-1.8	0.4380	-1.3
474	5.6	3	22	11.9	3.62	27	36	26.94	12.723	-206	-13	0.6354	-2.0	-0.7722	-1.7	0.0264	-1.3	0.2945	-0.6
475	5.2	3	22	45.3	3.46	20	44	31.11	12.676	-198	-22	0.6335	-1.9	-0.7737	-1.6	0.1315	-1.1	0.2243	-0.3
476	6.3	3	23	17.7	2.93	-7	47	39.33	12.437	-168	-225	0.6317	-1.7	-0.7752	-1.3	0.5345	-0.2	-0.0864	0.6
477	1.9	3	24	19.4	4.31	49	51	40.36	12.567	-247	-24	0.6282	-2.4	-0.7780	-2.0	-0.3146	-2.0	0.4807	-1.6
478	5.6	3	24	40.5	5.26	64	35	9.94	12.572	-302	4	0.6270	-3.0	-0.7790	-2.4	-0.5176	-2.6	0.5663	-2.5
479	6.2	3	24	10.1	3.31	12	37	46.58	12.581	-190	-21	0.6287	-1.9	-0.7776	-1.5	0.2530	-0.9	0.1375	0.0
480	5.7	3	24	18.5	3.56	24	43	26.74	12.546	-204	-47	0.6283	-2.0	-0.7780	-1.6	0.0684	-1.2	0.2628	-0.5

星号	星等	赤 经 (J2000.0)		年 变	赤 纬 (J2000.0)		年 变	长期变 0 ^h 00 ^m 1 ^s	年自行 0 ^h 00 ^m 1 ^s	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
481	3.8	3 24	48.8	3.24	9 1	43.92	12.481	-186	-77	0.6266	-1.8	-0.7794	-1.5	0.3059	-0.7	0.0982	0.1
482	3.8	3 27	10.2	3.26	9 43	57.85	12.359	-189	-37	0.6185	-1.9	-0.7858	-1.5	0.2945	-0.8	0.1046	0.1
483	4.9	3 28	3.1	4.29	49 3	46.33	12.308	-249	-28	0.6155	-2.5	-0.7881	-1.9	-0.3113	-2.0	0.4650	-1.6
484	5.7	3 27	33.4	2.33	-35 40	53.75	12.362	-136	-8	0.6172	-1.3	-0.7868	-1.0	0.8111	0.4	-0.3600	1.1
485	5.8	3 28	1.0	2.87	-11 17	12.04	12.289	-167	-50	0.6156	-1.6	-0.7881	-1.3	0.5794	-0.2	-0.1205	0.7
486	4.4	3 29	4.2	4.90	59 56	25.03	12.262	-285	-4	0.6120	-2.8	-0.7909	-2.2	-0.4673	-2.3	0.5297	-2.3
487	4.7	3 29	22.1	4.32	49 30	31.80	12.218	-252	-27	0.6109	-2.5	-0.7917	-1.9	-0.3203	-2.0	0.4648	-1.7
488	4.8	3 29	54.8	4.83	58 52	43.71	12.207	-282	0	0.6091	-2.8	-0.7931	-2.1	-0.4549	-2.3	0.5214	-2.2
489	5.0	3 30	0.2	4.61	55 27	7.03	12.194	-269	-8	0.6087	-2.7	-0.7934	-2.0	-0.4071	-2.2	0.5017	-2.0
490	5.6	3 29	36.0	2.84	-12 40	29.29	12.230	-166	1	0.6101	-1.6	-0.7923	-1.3	0.5968	-0.1	-0.1339	0.7
491	4.6	3 30	34.5	4.25	47 59	42.96	12.182	-249	20	0.6068	-2.5	-0.7949	-1.9	-0.3005	-1.9	0.4509	-1.6
492	5.1	3 30	24.5	3.29	11 20	10.85	12.152	-193	-21	0.6073	-1.9	-0.7944	-1.5	0.2689	-0.8	0.1194	0.0
493	4.8	3 30	37.0	2.98	-5 4	30.46	12.166	-175	7	0.6066	-1.7	-0.7950	-1.3	0.5022	-0.3	-0.0537	0.5
494	6.1	3 30	45.4	3.19	6 11	19.02	12.127	-188	-22	0.6061	-1.8	-0.7954	-1.4	0.3453	-0.6	0.0653	0.2
495	4.3	3 30	52.4	3.32	12 56	12.15	12.140	-195	0	0.6057	-1.9	-0.7957	-1.5	0.2444	-0.8	0.1356	-0.1
496	5.5	3 32	8.6	4.26	48 1	24.48	12.027	-251	-25	0.6013	-2.5	-0.7990	-1.9	-0.3040	-1.9	0.4470	-1.6
497	5.3	3 32	26.3	4.18	46 3	24.90	11.959	-246	-73	0.6003	-2.4	-0.7998	-1.8	-0.2744	-1.8	0.4326	-1.5
498	5.8	3 32	40.0	3.84	35 27	41.98	12.014	-226	-2	0.5995	-2.2	-0.8004	-1.7	-0.1112	-1.5	0.3478	-1.0
499	5.6	3 32	35.9	3.25	9 22	25.05	11.980	-192	-41	0.5997	-1.9	-0.8002	-1.4	0.2974	-0.7	0.0977	0.0
500	3.8	3 32	55.8	2.83	-9 27	29.71	12.018	-164	21	0.5986	-1.6	-0.8011	-1.2	0.5577	-0.2	-0.1060	0.6
501	5.8	3 33	35.0	3.97	39 53	59.21	11.917	-235	-34	0.5963	-2.3	-0.8028	-1.7	-0.1823	-1.6	0.3825	-1.2
502	4.3	3 33	47.3	2.65	-21 37	58.38	11.910	-158	-27	0.5956	-1.5	-0.8033	-1.1	0.6992	0.1	-0.2196	0.9
503	4.3	3 36	29.4	4.29	48 11	33.60	11.720	-256	-26	0.5861	-2.5	-0.8103	-1.8	-0.3150	-1.9	0.4368	-1.7
504	5.3	3 36	17.4	2.74	-17 28	1.42	11.751	-164	-10	0.5868	-1.6	-0.8098	-1.2	0.6566	-0.0	-0.1761	0.8
505	4.4	3 36	52.4	3.07	0 24	5.95	11.237	-183	-482	0.5847	-1.8	-0.8112	-1.3	0.4279	-0.5	0.0031	0.3
506	6.1	3 38	47.7	2.50	-27 56	34.73	11.610	-151	27	0.5779	-1.5	-0.8161	-1.0	0.7654	0.2	-0.2708	1.0
507	6.0	3 39	1.1	2.97	-5 37	34.41	11.358	-179	-209	0.5771	-1.8	-0.8167	-1.2	0.5115	-0.3	-0.0571	0.5
508	6.3	3 39	25.8	3.40	16 32	11.93	11.503	-205	-34	0.5756	-2.0	-0.8177	-1.4	0.1829	-0.9	0.1638	-0.3
509	5.8	3 39	51.1	3.13	3 24	32.1	11.512	-189	5	0.5741	-1.9	-0.8188	-1.3	0.3893	-0.5	0.0306	0.2
510	6.2	3 40	46.3	3.59	25 19	46.51	11.428	-218	-12	0.5708	-2.1	-0.8211	-1.5	0.0406	-1.2	0.2442	-0.6
511	5.5	3 40	38.3	2.97	-5 12	38.55	11.445	-180	-5	0.5713	-1.8	-0.8207	-1.2	0.5063	-0.3	-0.0519	0.5
512	5.6	3 41	7.9	3.92	37 34	48.54	11.385	-237	-30	0.5695	-2.3	-0.8220	-1.6	-0.1577	-1.5	0.3473	-1.2
513	5.3	3 42	9.3	5.25	63 13	0.51	11.359	-318	18	0.5658	-3.2	-0.8245	-2.2	-0.5407	-2.3	0.5051	-2.7
514	6.0	3 42	42.7	4.98	59 58	9.83	11.304	-302	3	0.5638	-3.0	-0.8259	-2.0	-0.4980	-2.2	0.4882	-2.4
515	5.0	3 42	22.6	3.82	33 57	53.63	11.315	-232	-10	0.5651	-2.3	-0.8251	-1.6	-0.1014	-1.4	0.3157	-1.0
516	5.5	3 42	19.0	3.47	19 42	0.97	11.317	-211	-13	0.5653	-2.1	-0.8249	-1.4	0.1301	-1.0	0.1906	-0.4
517	4.9	3 42	14.9	2.39	-31 56	18.08	11.350	-146	15	0.5655	-1.4	-0.8247	-1.0	0.8042	0.3	-0.2992	1.0
518	3.1	3 42	55.5	4.29	47 47	15.23	11.251	-261	-35	0.5631	-2.6	-0.8264	-1.8	-0.3208	-1.8	0.4170	-1.7
519	4.6	3 42	50.1	2.23	-37 18	48.53	11.221	-136	-71	0.5634	-1.3	-0.8262	-0.9	0.8452	0.3	-0.3423	1.1
520	3.7	3 43	14.9	2.88	-9 45	48.28	12.006	-176	744	0.5619	-1.7	-0.8272	-1.2	0.5670	-0.2	-0.0981	0.6

星号	星等	赤 经 (J2000.0)		年 变	赤 纬 (J2000.0)		年 变	长期变 0.001	年自行 0.001	a'	$\Delta a'$	b'	$\Delta b'$	c'	$\Delta c'$	d'	$\Delta d'$
521	5.7	3 43	33.8	2.87	-10 29	7.99	11.226	-175	-14	0.5608	-1.7	-0.8280	-1.2	0.5770	-0.2	-0.1021	0.6
522	3.9	3 44	19.1	3.78	32 17	17.79	11.174	-231	-11	0.5580	-2.3	-0.8298	-1.5	-0.0765	-1.3	0.2981	-1.0
523	5.6	3 44	31.4	3.90	36 27	36.38	11.131	-239	-39	0.5573	-2.4	-0.8303	-1.6	-0.1447	-1.4	0.3312	-1.2
524	6.1	3 44	40.9	4.23	46 5	59.54	11.137	-258	-21	0.5567	-2.6	-0.8307	-1.7	-0.2979	-1.7	0.4011	-1.6
525	5.1	3 44	30.5	3.05	-1 9	47.09	11.166	-187	-5	0.5574	-1.8	-0.8303	-1.2	0.4503	-0.4	-0.0113	0.3
526	3.8	3 44	52.5	3.57	24 6	48.21	11.109	-219	-44	0.5560	-2.2	-0.8312	-1.4	0.0564	-1.1	0.2271	-0.6
527	3.9	3 45	11.6	4.10	42 34	42.68	11.119	-251	-2	0.5549	-2.5	-0.8319	-1.7	-0.2434	-1.6	0.3756	-1.5
528	5.8	3 44	56.5	3.07	-0 17	48.14	11.139	-189	0	0.5558	-1.9	-0.8313	-1.2	0.4379	-0.4	-0.0029	0.3
529	5.8	3 46	0.9	5.74	67 12	5.47	10.944	-352	-117	0.5519	-3.5	-0.8339	-2.3	-0.6008	-2.5	0.5088	-3.1
530	5.0	3 46	2.3	5.29	63 20	42.33	11.048	-324	-12	0.5518	-3.2	-0.8340	-2.1	-0.5508	-2.3	0.4932	-2.7
531	5.6	3 45	59.3	4.22	45 40	54.83	11.045	-259	-18	0.5520	-2.6	-0.8339	-1.7	-0.2937	-1.7	0.3949	-1.6
532	5.4	3 45	40.4	3.19	6 3	0.26	11.077	-196	-9	0.5531	-1.9	-0.8331	-1.3	0.3433	-0.6	0.0583	0.1
533	4.0	3 45	49.6	3.58	24 22	3.87	11.030	-220	-46	0.5526	-2.2	-0.8335	-1.4	0.0510	-1.1	0.2280	-0.6
534	6.1	3 46	9.3	3.21	6 48	14.49	11.024	-197	-27	0.5514	-1.9	-0.8343	-1.3	0.3317	-0.6	0.0653	0.1
535	4.2	3 46	19.6	3.57	23 56	53.82	10.994	-220	-45	0.5507	-2.2	-0.8347	-1.4	0.0574	-1.1	0.2236	-0.6
536	4.6	3 46	8.5	2.84	-12 6	6.13	11.109	-175	56	0.5514	-1.7	-0.8342	-1.1	0.5988	-0.2	-0.1156	0.7
537	4.3	3 46	50.9	2.58	-23 14	58.90	10.472	-159	-529	0.5488	-1.6	-0.8359	-1.0	0.7277	0.1	-0.2184	0.9
538	3.0	3 47	29.1	3.58	24 6	18.40	10.908	-221	-46	0.5465	-2.2	-0.8374	-1.4	0.0537	-1.1	0.2232	-0.6
539	5.0	3 47	39.6	2.58	-23 52	28.83	10.990	-160	49	0.5459	-1.6	-0.8379	-1.0	0.7355	0.1	-0.2212	0.9
540	5.6	3 47	56.1	2.43	-30 10	4.65	10.685	-151	-236	0.5449	-1.5	-0.8385	-1.0	0.7962	0.2	-0.2738	1.0
541	5.4	3 49	13.8	6.32	70 52	15.97	10.763	-390	-63	0.5401	-3.9	-0.8416	-2.5	-0.6527	-2.7	0.5107	-3.6
542	5.5	3 48	20.9	3.56	23 25	16.26	10.841	-220	-50	0.5434	-2.2	-0.8395	-1.4	0.0641	-1.1	0.2160	-0.6
543	5.0	3 48	16.3	3.30	11 8	36.03	10.872	-204	-24	0.5436	-2.0	-0.8393	-1.3	0.2632	-0.7	0.1051	-0.1
544	6.1	3 48	39.0	3.08	0 13	40.18	10.862	-191	-6	0.5423	-1.9	-0.8402	-1.2	0.4302	-0.4	0.0022	0.3
545	4.7	3 49	31.2	5.55	65 31	33.78	10.794	-343	-11	0.5391	-3.4	-0.8423	-2.2	-0.5867	-2.4	0.4909	-3.0
546	6.1	3 48	35.7	2.64	-20 54	10.52	10.858	-164	-15	0.5425	-1.6	-0.8401	-1.0	0.7047	0.0	-0.1935	0.8
547	4.9	3 48	35.9	2.22	-37 37	13.91	10.847	-138	-25	0.5424	-1.4	-0.8401	-0.9	0.8559	0.3	-0.3318	1.1
548	3.8	3 49	9.7	3.58	24 3	12.41	10.786	-222	-45	0.5404	-2.2	-0.8414	-1.4	0.0530	-1.1	0.2203	-0.6
549	4.7	3 50	21.5	6.42	71 19	56.36	10.703	-397	-40	0.5360	-3.9	-0.8442	-2.5	-0.6610	-2.7	0.5078	-3.6
550	5.1	3 49	32.7	3.81	33 5	28.57	10.802	-236	-1	0.5390	-2.3	-0.8423	-1.5	-0.0967	-1.3	0.2943	-1.0
551	5.8	3 50	4.5	4.20	44 58	4.05	10.736	-260	-28	0.5370	-2.6	-0.8436	-1.6	-0.2894	-1.6	0.3795	-1.6
552	4.2	3 49	27.3	2.25	-36 12	0.85	10.758	-140	-51	0.5393	-1.4	-0.8421	-0.9	0.8469	0.3	-0.3192	1.0
553	5.4	3 50	18.9	3.62	25 34	45.68	10.637	-225	-109	0.5361	-2.2	-0.8441	-1.4	0.0266	-1.1	0.2315	-0.7
554	5.6	3 52	0.2	3.21	6 32	4.93	10.609	-200	-12	0.5299	-2.0	-0.8481	-1.2	0.3342	-0.6	0.0603	0.0
555	6.0	3 53	10.1	3.44	17 19	37.51	10.505	-216	-30	0.5256	-2.1	-0.8507	-1.3	0.1607	-0.9	0.1564	-0.4
556	5.8	3 53	43.3	4.91	57 58	30.43	10.397	-307	-96	0.5235	-3.0	-0.8520	-1.9	-0.4924	-2.0	0.4439	-2.4
557	4.8	3 53	42.6	2.56	-24 36	45.21	10.477	-161	-17	0.5236	-1.6	-0.8520	-1.0	0.7490	0.1	-0.2181	0.9
558	2.9	3 54	7.9	3.78	31 53	0.95	10.452	-237	-11	0.5220	-2.3	-0.8529	-1.4	-0.0824	-1.2	0.2757	-1.0
559	5.1	3 53	39.0	2.29	-34 43	57.05	10.486	-144	-12	0.5238	-1.4	-0.8518	-0.9	0.8416	0.3	-0.2984	1.0
560	5.0	3 54	17.5	3.02	-2 57	16.98	10.453	-190	2	0.5214	-1.9	-0.8533	-1.1	0.4770	-0.4	-0.0269	0.4