Matematisk-fysiske Skrifter
udgivet af
Det Kongelige Danske Videnskabernes Selskab
Bind **3**, nr. 6

Mat. Fys. Skr. Dan. Vid. Selsk. **3**, no. 6 (1968)

MERIDIAN OBSERVATIONS

MADE IN

BRORFELDE

(COPENHAGEN UNIVERSITY OBSERVATORY)

1964-1967

POSITIONS OF 972 STARS
BRIGHTER THAN 11.0 VIS. MAG.

BY

SVEND LAUSTSEN

København 1968
Kommissionær: Munksgaard

DET KONGELIGE DANSKE VIDENSKABERNES SELSKAB udgiver følgende publikationsrækker:

THE ROYAL DANISH ACADEMY OF SCIENCES AND LETTERS *issues the following series of publications:*

	Bibliographical Abbreviation
Oversigt over Selskabets Virksomhed (8°) *(Annual in Danish)*	Overs. Dan. Vid. Selsk.
Historisk-filosofiske Meddelelser (8°)	Hist. Filos. Medd. Dan. Vid. Selsk.
Historisk-filosofiske Skrifter (4°) *(History, Philology, Philosophy, Archeology, Art History)*	Hist. Filos. Skr. Dan. Vid. Selsk.
Matematisk-fysiske Meddelelser (8°)	Mat. Fys. Medd. Dan. Vid. Selsk.
Matematisk-fysiske Skrifter (4°) *(Mathematics, Physics, Chemistry, Astronomy, Geology)*	Mat. Fys. Skr. Dan. Vid. Selsk.
Biologiske Meddelelser (8°)	Biol. Medd. Dan. Vid. Selsk.
Biologiske Skrifter (4°) *(Botany, Zoology, General Biology)*	Biol. Skr. Dan. Vid. Selsk.

Selskabets sekretariat og postadresse: Dantes Plads 5, København V.

The address of the secretariate of the Academy is:

Det Kongelige Danske Videnskabernes Selskab,
Dantes Plads 5, København V, Denmark.

Selskabets kommissionær: MUNKSGAARD's Forlag, Prags Boulevard 47, København S.

The publications are sold by the agent of the Academy:

MUNKSGAARD, *Publishers,*
47 Prags Boulevard, København S, Denmark.

Matematisk-fysiske Skrifter
udgivet af
Det Kongelige Danske Videnskabernes Selskab
Bind **3,** nr. 6

Mat. Fys. Skr. Dan. Vid. Selsk. **3,** no. 6 (1968)

MERIDIAN OBSERVATIONS

MADE IN

BRORFELDE

(COPENHAGEN UNIVERSITY OBSERVATORY)

1964-1967

POSITIONS OF 972 STARS
BRIGHTER THAN 11.0 VIS. MAG.

BY

SVEND LAUSTSEN

København 1968
Kommissionær: Munksgaard

CONTENTS

PRINTED IN DENMARK
BIANCO LUNOS BOGTRYKKERI A/S

1. Introduction

This is the first catalogue of observations made with the Copenhagen University Observatory transit circle in Brorfelde. It contains 972 program stars, the positions of which have been determined relative to FK4 stars by using the impersonal photographic micrometer, as described by LAUSTSEN (1967). The observations were commenced on August 21, 1964 and the latest observations included in the catalogue are from January 14, 1967. The stars in the visual magnitude range from 3.0 to 11.0 are in the declination interval from -8° to $+65^\circ$. Most stars were observed four times, but all program stars observed at least two times in right ascension and declination were included in the catalogue.

2. Program

The catalogue includes stars from various lists which are being observed at the present time. The numerals 1 to 6, defined below, in the right hand column of the catalogue indicate the observing list or lists, from which the star originates. The number of observed stars is given for each list.

1. FK4 Supp. stars (FRICKE 1963). 189 stars observed.
2. O and B type stars and Cepheids according to BLAAUW's list (1955). 244 stars observed.
3. Stars nearer than 20 parsec according to the catalogue of GLIESE (1957). Preference was given to the fainter stars to the limiting magnitude 11.0. 76 stars observed.
4. High velocity stars from the catalogues of ROMAN (1955) and EGGEN (1964) and the list of subdwarfs given by EGGEN and SANDAGE (1959). The aim of this program is to improve the proper motions, on which investigations of group motions can be founded. 139 stars observed.
5. Brighter G and K type stars in the photoelectric classification program in progress at the Brorfelde and Lowell observatories, under the leadership of K. GYLDENKERNE. 201 stars observed.
6. Variable stars and double stars from unpublished lists according to selections made by G. VAN HERK. 203 stars observed.

In addition 58 miscellaneous stars have been observed. Several of these are fainter components of double stars, for which the main component is included in one of the lists mentioned above.

3. Instrument and Accessories

The seven-inch transit circle, which was delivered by GRUBB PARSONS in 1953, and its accessories have recently been described (LAUSTSEN 1967) and shall, therefore, only be touched shortly on here.

The telescope has a clear aperture of 178 mm and a focal length of 2665 mm, the scale value being 77″.4 per mm.

In the photographic micrometer the transits of the stars are recorded together with reference marks on the photographic plate, which moves in the focal plane of the telescope in accordance with the velocity of the star under observation. For most of the catalogue stars an exposure time of 20 seconds was used, but for the faintest stars the exposure time was 40 seconds. A series of neutral glass filters was used for reducing the light of the brigther stars. The plate material was Kodak 0a-D or I-D, which was used in combination with a GG 14 glass filter.

The glass circle of the instrument was read through six microscopes by an impersonal method. Until December 1965 a photographic registration of the circle setting was used, and the films were measured by the automatic photoelectric measuring engine, which was built at the observatory (NAUR 1958). From December 1965 a photoelectric technique of direct recording of the circle position has been in use (LAUSTSEN 1967).

4. Observing Plan and Plate Measuring

A photographic plate, 6 cm × 9 cm, holds about 70 observations together with collimation exposures. The stars in the observing lists are, accordingly, being arranged in so-called plate-programs corresponding to the plate capacity, and during the night the observer follows strictly these plate-programs, in which time is also available for collimation measurement, recording of meteorological data, etc. Only one observer is needed at the instrument. The observing time for a plate-program is about one and a half hours, and usually the declination range for the program stars has been less than 30°. Collimation is determined photographically at least every two hours during the night.

The photographic plates have been measured by means of a two-coordinate precision measuring instrument from the David W. Mann Company. The two directions, X and Y, which are approximately perpendicular, respectively parallel to the celestial meridian (on the plate) are measured simultaneously, and the measurements are repeated in the opposite directions, -X and -Y, after an accurate rotation through 180° of the plate by means of the rotary table. The measuring instrument has been improved by introducing a front surface projection screen and digitization of both screws. These improvements have speeded up plate measuring to 20 stars per hour.

The measurings of the plates are reduced by means of the GIER computer, and in the reduction are introduced corrections for an inaccurate orientation of the photographic plate in the measuring instrument and for the micrometer position angle V. The reduction of an observation, therefore, results in two values Δc and Δz, which are distances from the micrometer center to the star, measured perpendicular respectively parallel to the celestial meridian. The micrometer center is defined as the center of the four reference marks on the photographic plate at the time corresponding to the mean value of the two reference mark flashing moments, which is coinciding with the time of mid-exposure. Δc and Δz are usually less than 1 mm. The scale value for Δc including the horizontal scale reduction owing to atmospheric refraction is $5^{s}_{.}1588$ per mm, and the scale value for Δz without any reduction for refraction is $77''_{.}360$ per mm.

5. Right Ascension

The right ascension of the catalogue stars has been determined by means of the following expression:

$$\alpha = \theta + u_0 + u_1 (\theta - \theta_0) + (c_0 + c_1 (\theta - \theta_0) + \Delta c - 0^{s}_{.}012) \cdot \sec \delta$$
$$+ m_0 + m_1 (\theta - \theta_0) + (n_0 + n_1 (\theta - \theta_0)) \cdot \operatorname{tg} \delta$$
$$+ (C_0 + C_1 (\theta - \theta_0) + C_2 (\delta - \delta_0)) \cdot \sec \delta$$

θ is the mean of the two reference mark flashing moments according to the sidereal clock (always an integral and even second). θ_0 and δ_0 are selected mean values of θ and δ for the plate-program. u_0 and u_1 are the clock correction at the time θ_0 and the clock rate; both are determined from comparisons with radio time signals. c_0 is the collimation error at the time θ_0 and c_1 is its linear change with time; both values are determined by means of the collimators. Δc is the plate-contribution in the α-direction as earlier mentioned, and $0^{s}_{.}012$ is subtracted in order to correct for diurnal aberration.

m_0 and n_0 are the Besselian constants at the time θ_0, and m_1 and n_1 their linear change with time. These four values are determined by means of two least squares solutions based on the individual determinations of the Besselian constants from pairs of clock and polar stars. Usually three pairs of clock and polar stars are observed per hour.

C_0, C_1, and C_2 are determined from a least squares solution based on the residuals of the FK4 stars in and near the area of the program stars after the Besselian constants have been applied for correcting these stars. Usually 10–15 stars have been used for this determination, the aim of which has been to tie the program stars as closely as possible to the FK4 fundamental system.

6. Declination

The declination of the catalogue stars has been determined by means of the following expression, valid for upper culmination:

$$\delta = \varphi - (z + \Delta z) - r$$
$$+ D_0 + D_1 (\theta - \theta_0) + D_2 (\delta - \delta_0)$$

Here θ, θ_0, and δ_0 are the same quantities as in the preceding section. The latitude φ was determined in 1959 by S. Laustsen, V. Mejdahl, and H. Schnedler Nielsen; its value is:

$$\varphi = + 55^\circ 37' 19''.3 \pm 0''.3 \ (m.e.)$$

z is the zenith distance of the instrument as determined from the circle reading; the diameter corrections applied were determined by H. Schnedler Nielsen in 1962 (Einicke, Laustsen, and Schnedler Nielsen). Δz is the plate-contribution in the δ-direction, and r is the correction for refraction according to the Pulkovo tables (Orlov 1956).

D_0, D_1, and D_2 are determined from a least squares solution based on the residuals of the FK4 stars in and near the area of the program stars. Usually 10–15 stars have been used for this determination, the aim of which has been to tie the program stars as closely as possible to the FK4 fundamental system.

7. Internal Mean Errors

Estimates of the mean errors of a single observation in right ascension and declination were obtained from night-to-night comparisons of all program stars. Taking all observations included in the catalogue into account the following mean errors were found:

$$\varepsilon_\alpha \cdot \cos\delta = 0^s.0152 \pm 0^s.0002; \qquad \varepsilon_\delta = 0''.219 \pm 0''.003;$$

The mean errors are somewhat varying with declination as shown in Fig. 1, where mean errors for 10° zones have been plotted. From a declination of + 30° the errors are increasing downwards probably due to an increase of the low-frequency atmospheric agitation (seeing) with the zenith distance. The increase of $\varepsilon_\alpha \cdot \cos\delta$ at declinations exceeding 40° seems to be caused by instrumental effects. The plate motion has, however, been investigated at an early date (Laustsen 1967), and the deviation from a uniform rate was then found negligible. But the possibility cannot be excluded that temperature effects and the state of lubrication of the micrometer has from time to time influenced the plate motion causing perceptible unevenness at lower speeds.

The dependence on magnitude of the internal errors has been investigated with the result, that the increase of the mean errors for fainter stars which was found from

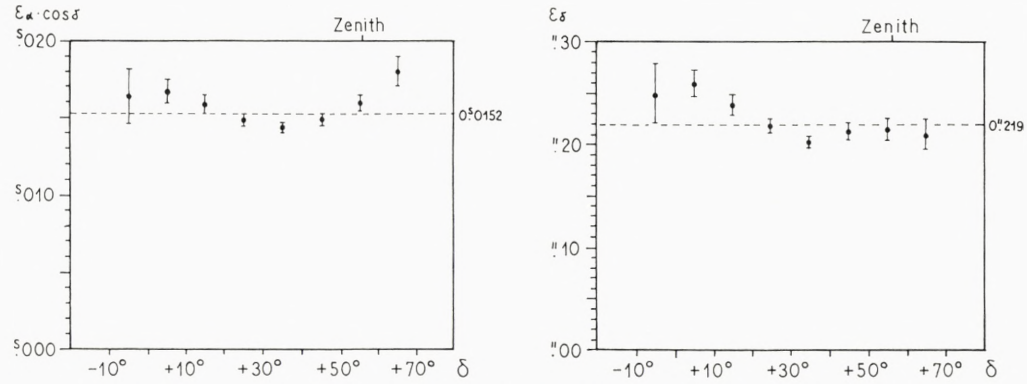

Fig. 1. The variation with declination of the mean errors of a single observation.

an early examination (LAUSTSEN 1967) has been found negligibly small for this larger material. The internal mean errors for the observations of more than 200 stars with $m_V \geq 9.0$ is stated here for comparison with the corresponding figures above:

$$\varepsilon_\alpha \cdot \cos\delta = 0^s.0154 \pm 0^s.0004; \qquad \varepsilon_\delta = 0''.227 \pm 0''.007;$$

8. Explanation of the Catalogue

In the catalogue the first column gives the number of the star, according to right ascension.

The second column gives the BD number where available.

The following two columns give the visual magnitudes and spectral types, essentially on the basis of the HENRY DRAPER Catalogue. For variable stars the magnitude and spectral type at maximum according to KUKARKIN et al. (1958) are frequently given. For several of the fainter stars the magnitudes and spectral types given in the catalogue are uncertain.

The following six columns give the right ascension, the number of observations, and mean epoch of right ascension and corresponding data for declination. The positions are for the epoch of observation, and are referred to the equinox of 1950.0. All star observations were reduced to the mean place at the nearest beginning of a year by means of Besselian Day Numbers of The Astronomical Ephemeris, and rigorous reduction to 1950.0 were made on the basis of NEWCOMB's constant of precession.

No corrections for parallax have been applied. In most cases the epoch in the year is equal to the decimal fraction of the epoch as given in the catalogue; otherwise an asterisk indicates, that the epoch in the year is to be found in the table following the catalogue.

In the last column references are given to the observing lists mentioned in Section 2. Here an asterisk refers to the list of notes on page 30, where references to

AITKEN's catalogue of double stars (1932) and to the catalogue of variable stars given by KUKARKIN et al. (1958) are given.

Comparisons with GC are given on the pages 32–36 for each star in common with this catalogue. The comparison is for the epoch of observation, the GC position being reduced to this epoch by means of GC proper motions.

The catalogue is available in machine readable form, also, and copies on paper tape will be made in response to requests from users of the catalogue.

Acknowledgments

The work on this catalogue was carried out by the author together with the staff members and assistants mentioned below. Mrs. B. JENSEN and MESSRS. O. H. EINICKE, P. JENSEN, T. KNUDSEN, and J. SØRENSEN assisted with the observations, the measuring of plates and films, and reductions in various steps. Most of the reduction programs for the GIER computer were written in the ALGOL language by Miss K. T. JOHANSEN and Mr. O. H. EINICKE. In the formation of the catalogue and the catalogue comparisons I have been helped by Messrs. O. H. EINICKE and H. J. FOGH OLSEN.

The author is grateful to all the above mentioned for their outstanding cooperation. I also want to thank the Director of the Copenhagen and Brorfelde observatories, Professor A. REIZ, for his constant support during this work.

The GIER computer, being extensively used in this work, was made available to the Copenhagen observatory by the Carlsberg Foundation.

References

AITKEN, R. G.: 1932, New General Catalogue of Double Stars.

BLAAUW, A.: 1955, IAU Symposium Nr. 1. Ed. A. Blaauw. Cambridge University Press. p. 52.

EGGEN, O. J.: 1964, R. Obs. Bull. (Greenwich) Nr. 84.

EGGEN, O. J., SANDAGE, A. R.: 1959, M.N.R.A.S., **119**, 255.

EINICKE, O. H., LAUSTSEN, S., SCHNEDLER NIELSEN, H.: Precision of Circle Reading and Determination of Diameter Corrections. In preparation.

FRICKE, W.: 1963, Veröff. astr. Rechen Inst. Heidelberg, Nr. 11.

GLIESE, W.: 1957, Astr. Rechen-Inst. Heidelberg, Mitt. A., Nr. 8.

KUKARKIN, B. V., PARENAGO, P. P., EFREMOV, Y. I., KHOLOPOV, P. N.: 1958. Variable Star Catalogue.

LAUSTSEN, S.: 1967, Mat. Fys. Skr. Dan. Vid. Selsk. 3, no. 3 (also in Publ. mind. Medd. Kbh. Obs., Nr. 190).

NAUR, P.: 1958, Publ. mind. Medd. Kbh. Obs., Nr. 174.

ORLOV, B. A.: 1956, Refraction Tables of Pulkovo Observatory.

ROMAN, N. G.: 1955, Ap. J. Suppl., **2**, 195.

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
1	32 4756	8.8	F0	00 00 43.953	4	66.66	32 34 03.49	4	66.66	6*
2	54 3103	7.6	B2	00 00 52.482	4	66.83	55 16 21.38	2	66.74	2
3	53 3280	7.6	B3	00 01 46.268	4	66.83	53 59 46.75	2	66.74	2
4	33 4828	6.2	G0	00 02 17.153	4	65.61	34 22 49.89	4	65.61	1,4,5
5	42 4831	8.6	B2	00 03 02.419	2	66.64	43 07 23.60	3	66.64	2
6	45 4408p	9.3	K2	00 03 03.172	4	66.83	45 32 06.82	2	66.74	3*
7	45 4408s	9.3	M0	00 03 03.277	4	66.83	45 32 01.35	2	66.74	3*
8	63 2107	5.5	B8	00 03 49.633	4	66.83	63 55 04.80	2	66.74	1
9	62 3	9.1		00 05 08.820	4	66.83	63 04 47.87	2	66.74	6*
10	32 11	7.2	K5	00 07 56.955	4	66.66	32 51 10.22	4	66.66	4
11	47 21	6.3	K0	00 09 21.673	4	66.83	47 52 27.29	2	66.74	5
12	36 12	6.6	B3	00 10 13.900	4	66.66	37 24 56.67	4	66.66	2
13	42 28	10.7	A0	00 10 39.317	4	66.83	43 26 01.45	2	66.74	6*
14	32 21	6.1	A0	00 11 26.133	4	66.66	32 55 42.07	4	66.66	1
15	52 28	8.9		00 12 13.216	4	66.83	52 58 22.88	2	66.74	6*
16	30 26	6.6	K5	00 12 30.650	4	66.66	31 15 28.71	4	66.66	5
17		9.2		00 13 28.833	2	66.68	18 46 07.74	2	66.68	6*
18	40 45	9.0	M0	00 14 26.987	4	66.66	40 40 11.48	4	66.66	3
19	47 50	5.8	B9	00 14 30.179	4	66.83	47 40 11.33	2	66.74	1
20	60 25	7.9	B0	00 15 34.857	4	66.83	61 26 58.34	2	66.74	2
21	58 30	7.3	A0	00 16 36.131	4	66.83	58 51 42.05	2	66.74	6*
22	39 56	6.4	K0	00 17 03.297	4	66.66	40 27 07.97	4	66.66	5
23	61 38	8.0	B2	00 17 21.558	4	66.83	61 47 20.21	2	66.74	2
24	25 37	8.2	K0	00 18 08.861	4	66.66	26 14 09.93	4	66.66	4
25	39 65	9.1		00 19 18.818	4	66.66	40 16 01.76	4	66.66	6*
26	61 50p	8.2	B3	00 20 07.770	4	66.83	61 57 51.46	2	66.74	2*
27	44 76	7.7	G5	00 21 02.853	4	66.66	44 48 43.06	4	66.66	4
28	51 62	5.4	B3	00 21 33.360	4	66.83	51 44 34.75	2	66.74	2*
29	33 39	8.3	G5	00 22 57.786	4	66.66	33 50 26.35	4	66.66	4
30	50 72	6.9	F3	00 23 36.676	4	66.83	51 00 13.19	2	66.74	2,6*
31	24 52	6.7	F5	00 24 27.083	4	66.66	24 45 56.47	4	66.66	1
32	57 85	7.2	B3	00 24 54.291	4	66.83	58 16 38.40	2	66.74	2
33	28 72	7.8	K0	00 26 42.542	4	66.66	28 33 05.35	4	66.66	4
34	61 101	7.3	B3	00 27 51.705	4	66.83	62 04 40.78	2	66.74	2
35	52 92	5.7	K0	00 28 56.029	4	66.83	52 33 49.58	2	66.74	4
36	19 79	5.5	G5	00 29 58.063	4	66.66	20 01 08.43	4	66.66	1,5*
37	29 105p	8.6	F8	00 33 22.358	4	66.66	29 43 18.18	4	66.66	4*
38	29 105s	9.3		00 33 22.558	3	66.67	29 43 23.65	3	66.67	4*
39	34 86	5.6	G5	00 34 40.085	3	66.66	35 07 28.78	3	66.66	5
40	48 185	9.1		00 35 01.618	4	66.83	48 57 48.12	2	66.74	6*
41	59 92	6.7	A0	00 35 56.874	4	66.83	59 33 05.72	2	66.74	1
42	20 85	6.1	K0	00 36 44.886	4	66.66	20 58 45.87	4	66.66	3,5
43	38 91	8.2	B3	00 38 28.888	4	66.66	39 19 47.23	4	66.66	2
44	49 164	4.9	B3	00 39 15.842	4	66.83	50 14 18.89	2	66.74	1,2
45	39 159	9.0		00 39 33.668	4	66.66	39 58 37.01	4	66.66	6*
46	45 181	7.4	K5	00 40 02.952	4	66.83	45 39 21.07	2	66.74	4
47	33 99	8.8	K5	00 40 51.487	4	66.66	33 34 27.61	3	66.67	3
48	47 181	5.6	B3	00 41 38.832	4	66.83	47 35 25.85	2	66.74	2,4
49	39 167	7.5	Ma	00 41 52.684	4	66.66	40 24 22.13	4	66.66	4
50	47 201	8.2	B	00 44 30.684	4	66.83	47 31 58.84	2	66.74	2

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
51	63 97	8.4	F8	00 46 50.193	4	66.83	64 21 56.49	2	66.74	2
52	33 116	8.4	S7	00 48 27.156	4	66.66	34 00 08.70	4	66.66	4*
53	24 128	7.7	K0	00 49 42.174	4	66.66	25 30 32.87	4	66.66	4
54	36 148	6.1	K0	00 50 42.947	4	66.66	37 08 50.96	4	66.66	5
55	53 172	9.9		00 51 07.195	4	66.83	54 14 45.41	2	66.74	6*
56	23 123	8.8	R	00 51 32.718	4	66.66	23 47 46.53	4	66.66	
57	58 134	5.0	K0	00 52 00.988	4	66.83	58 42 08.37	2	66.74	5*
58	26 151	5.9	A2	00 53 16.726	4	66.66	26 56 19.79	4	66.66	1
59	25 136	8.2	Ma	00 54 02.723	4	66.66	26 04 10.82	4	66.66	4
60	55 216	7.8	B	00 55 10.012	4	66.83	55 33 16.44	2	66.74	2
61	55 217	9.4		00 55 10.024	4	66.83	55 32 42.07	2	66.74	
62	33 140	6.2	K0	00 55 29.370	4	66.66	33 40 54.18	4	66.66	1,5
63	28 166	9.0	G5	00 58 18.939	4	66.66	28 43 44.34	4	66.66	4
64	44 215	7.0	F5	00 58 27.511	4	66.83	45 11 00.46	2	66.74	4
65	61 195	9.6	M2	00 59 28.299	4	66.83	62 04 32.62	2	66.74	3
66	46 245	6.7	B8	01 01 00.001	4	66.83	47 22 27.48	2	66.74	2
67	50 212	6.5	B3	01 01 50.582	4	66.83	50 44 31.48	2	66.74	2
68	56 191	7.1	B5	01 03 00.909	4	66.83	57 29 21.05	2	66.74	2
69	31 185	6.3	F2	01 05 15.119	4	66.66	31 44 44.49	4	66.66	1,4
70	60 169	10.1		01 05 50.960	3	66.82	61 12 15.96	2	66.74	6*
71	44 250	9.0		01 06 30.179	4	66.66	44 37 43.01	4	66.66	6*
72	53 236	7.1	K0	01 06 50.791	4	66.83	54 28 21.65	2	66.74	4
73	24 186	6.1	K5	01 07 36.317	4	66.66	25 11 34.79	4	66.66	5
74	44 261	6.6	K5	01 09 39.719	4	66.83	45 04 20.37	2	66.74	5
75	28 202	8.9	G0	01 10 23.553	3	66.67	29 26 06.65	3	66.67	6*
76	23 159	9.8	A3	01 11 42.596	3	66.67	24 09 06.45	3	66.67	6*
77	32 223	6.3	K0	01 13 31.164	3	66.67	32 51 05.30	3	66.67	5
78	56 240	7.6	B1	01 14 18.432	4	66.83	57 22 07.94	2	66.74	2
79		10.5	A3	01 14 35.989	3	66.67	38 41 15.87	3	66.67	4*
80	27 215	5.6	K0	01 18 21.115	4	66.66	28 28 38.11	4	66.66	1,5
81	17 197	8.0	F8	01 19 35.047	4	66.66	18 25 17.41	4	66.66	4
82	33 220	6.3	G5	01 20 47.204	4	66.66	33 59 02.78	4	66.66	5
83	22 226	6.1	F5	01 22 51.457	3	66.67	23 15 07.20	2	66.68	1
84	59 251s	8.3	B2	01 24 10.031	3	66.86	60 01 31.76	2	66.74	2*
85	54 295	9.0		01 25 28.362	4	66.83	54 55 11.87	2	66.74	6*
86	60 246	10.0	B4	01 26 16.045	4	66.83	60 42 36.12	2	66.74	6*
87	61 284	8.2	M2	01 28 37.852	4	66.83	62 04 20.08	2	66.74	6*
88	59 271p	7.3	B3	01 29 54.199	4	66.83	60 25 48.95	2	66.74	2*
89	59 271s	10.1	B3	01 29 55.361	3	66.82	60 25 37.83	2	66.74	*
90	58 260	4.9	K0	01 30 38.536	4	66.83	58 58 34.83	2	66.74	5
91	52 382	6.8	B8	01 32 14.769	4	66.83	53 05 25.41	2	66.74	1
92	47 460	6.2	K0	01 33 23.012	4	66.83	48 28 05.80	2	66.74	5
93	57 349	5.7	K0	01 34 50.349	4	66.83	57 43 25.57	2	66.74	1,5
94	49 427	8.9	A0	01 36 25.987	4	66.83	50 14 26.98	2	66.74	6*
95	49 435	8.9		01 37 44.596	4	66.83	49 37 22.32	2	66.74	6*
96	49 435	9.5		01 37 45.216	4	66.83	49 37 21.65	2	66.74	6*
97	60 486	9.0		02 25 47.675	4	66.86	60 26 01.16	2	66.70	*
98	60 487	8.2	B3	02 25 52.888	4	66.86	60 26 05.84	2	66.70	2*
99	60 488	8.4	B	02 25 58.598	4	66.86	60 27 18.36	2	66.70	2
100	60 493	8.4	B2	02 27 04.473	4	66.86	60 57 22.71	2	66.70	2

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
101	62 411	8.2	B0	02 27 53.240	4	66.86	63 11 47.68	2	66.71	2
102	56 656	7.7	B3	02 29 54.713	2	66.70	57 19 04.79	2	66.70	2*
103	56 657	9.5		02 29 55.706	2	66.70	57 19 27.20	2	66.70	*
104	59 513	8.4	B	02 31 01.367	3	66.82	60 20 00.71	2	66.70	2
105	62 424	8.4	B0	02 32 23.236	3	66.82	62 43 50.29	2	66.70	2
106	57 602	8.5	B2	02 34 57.509	4	66.86	57 36 05.28	2	66.70	2
107	56 693	8.4	O6	02 39 12.293	4	66.86	56 41 32.15	2	66.70	2
108	57 632	7.5	B5	02 43 08.206	3	66.82	57 31 28.61	2	66.70	2
109	26 465	8.2	K0	02 45 12.123	4	66.86	26 51 42.78	3	66.80	3
110	56 721	9.0	A	02 46 25.160	4	66.86	56 27 47.36	3	66.80	6*
111	59 552	7.1	B0	02 47 15.408	4	66.86	60 12 42.76	3	66.80	2*
112	59 553	8.7	B	02 47 21.831	3	66.82	60 10 49.06	2	66.70	*
113	46 648	6.0	G5	02 48 20.094	4	66.86	46 38 13.20	3	66.80	1,5
114	47 723	6.5	K0	02 49 55.951	4	66.86	48 21 58.37	3	66.80	5*
115	60 591	5.6	F5	02 51 58.071	4	66.86	61 19 08.22	3	66.80	1
116	50 665	6.5	K5	02 53 19.510	4	66.86	51 03 38.04	3	66.80	5
117	38 599	6.1	K0	02 54 51.571	4	66.86	38 24 54.93	3	66.80	5
118	57 681	9.2	O8	02 58 49.717	4	66.86	57 25 00.10	3	66.80	2
119	63 390	5.8	B9	03 03 06.417	4	66.86	63 51 55.25	3	66.80	1
120	51 681	6.2	B5	03 04 27.656	4	66.86	52 01 20.72	3	66.80	2
121	50 710	9.7	A0	03 06 51.214	4	66.86	50 44 33.25	3	66.80	6*
122	47 782	6.0	G5	03 09 54.834	4	66.86	47 59 26.06	3	66.80	5
123	48 870	7.9	B9	03 11 24.974	4	66.86	48 30 38.16	3	66.80	2
124	44 648	6.4	Ma	03 12 40.067	4	66.86	45 09 44.49	3	66.80	4
125	48 899	5.3	B3	03 19 39.916	4	66.86	49 02 09.25	3	66.80	2
126	59 648	7.7	B8	03 21 11.393	2	66.70	60 18 28.33	2	66.70	2*
127	43 726	8.2	R4	03 24 18.042	3	66.80	44 00 12.38	3	66.80	6*
128	49 945	4.7	B5	03 25 46.840	3	66.92	49 20 14.82	2	66.85	2*
129	45 778	5.4	F0	03 28 57.720	4	66.86	45 53 19.82	3	66.80	1
130	57 730	6.4	F5	03 29 42.865	4	66.86	57 42 01.99	3	66.80	1
131	34 682	8.7	G5	03 31 30.932	4	66.86	35 11 16.31	3	66.80	
132	56 824	6.8	B0	03 33 48.334	4	66.86	56 34 32.10	3	66.80	2
133	35 730	9.0		03 36 20.581	4	66.86	35 38 44.40	2	66.70	
134	33 698s	5.0	B2	03 39 12.051	4	66.86	33 48 22.21	3	66.80	2*
135	42 812	7.4	G0	03 40 22.353	4	66.86	42 26 53.53	3	66.80	4
136	31 643p	8.4	A5	03 41 25.819	4	66.86	32 00 22.69	3	66.80	2*
137	41 750	8.2	G5	03 43 37.646	4	66.86	41 17 03.87	3	66.80	4*
138	41 750a	8.8	K2	03 43 38.181	4	66.86	41 17 08.53	3	66.80	*
139	33 717	6.4	B3	03 44 41.993	4	66.86	33 26 48.03	3	66.80	2*
140	52 715	6.9	B2	03 46 38.466	4	66.86	52 19 51.27	3	66.80	1,2
141	33 728	5.7	B3	03 48 41.523	4	66.86	34 12 35.71	3	66.80	2
142	51 798	7.8	G0	03 51 03.445	3	66.91	52 16 29.10	2	66.70	4
143	44 816	7.8	B3	03 52 49.822	4	66.86	44 47 33.79	3	66.80	2
144	53 723	8.5	B3	03 58 23.237	4	66.86	53 36 52.16	3	66.80	2
145	34 796	8.6	G5	03 59 55.566	3	66.82	35 08 53.96	2	66.70	3,4
146	52 752	8.2	B	04 00 29.934	4	66.86	53 11 32.65	3	66.80	2
147	61 669	6.8	B2	04 01 44.322	4	66.86	61 58 00.90	3	66.80	2
148	51 861	7.5	B3	04 03 57.906	4	66.86	51 19 11.54	3	66.80	2
149	52 778	8.9		04 06 24.095	3	66.92	53 02 23.88	2	66.85	6*
150	29 1327	5.5	K0	06 41 35.363	3	65.15	29 01 23.67	3	65.15	1,5

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
151	32 1414	5.8	K0	06 46 25.814	4	65.14	32 39 54.82	4	65.14	1,5
152	41 1536	5.0	K0	06 47 13.893	4	65.14	41 50 29.88	4	65.14	1,4,5
153	23 1518	5.8	K5	06 48 57.823	4	65.14	23 39 45.70	4	65.14	5
154	35 1511	6.2	G5	06 49 42.785	3	65.13	35 50 59.66	3	65.13	5
155	33 1427	9.4	F0	06 50 48.204	4	65.14	33 45 27.63	4	65.14	6*
156	25 1496	5.8	G0	06 52 14.152	4	65.14	25 26 24.72	4	65.14	3,5
157	33 1433	6.0	G0	06 53 43.536	4	65.14	33 44 51.39	3	65.15	5
158	21 1443	9.2	F5	06 54 40.042	3	65.13	20 57 35.94	3	65.13	6*
159	36 1547	9.5		06 57 50.201	4	65.14	36 25 06.55	3	65.13	6*
160	29 1441	6.0	F8	07 00 20.042	4	65.14	29 25 09.63	4	65.14	3
161	24 1521	9.2		07 02 23.046	4	65.14	24 48 16.80	4	65.14	6*
162	42 1659	9.2	F2	07 04 05.491	3	65.13	42 49 08.71	4	65.14	6*
163	37 1660	6.3	K0	07 05 13.454	4	65.14	37 31 31.03	4	65.14	5
164	21 1528	6.5	G5	07 07 08.489	4	65.14	21 20 01.26	4	65.14	5
165	17 1525	9.0		07 10 17.998	4	65.14	17 01 28.35	4	65.14	6*
166	25 1618	6.0	K0	07 11 38.603	4	65.14	24 58 23.65	4	65.14	4,5*
167	26 1510	7.4	K0	07 14 10.530	3	65.15	26 27 14.65	3	65.15	4
168	31 1529	6.0	B9	07 14 52.427	3	65.15	31 02 50.11	3	65.15	1
169	20 1775	5.2	K2	07 18 59.812	4	65.14	20 32 22.64	4	65.14	5*
170	25 1660	5.1	G5	07 20 25.612	4	65.14	25 08 53.79	4	65.14	5
171	27 1389	8.1	K0	07 24 43.138	4	65.14	27 23 44.79	4	65.14	4
172	17 1596	5.6	K0	07 28 55.523	4	65.14	17 11 37.25	4	65.14	1,5
173	25 1709	8.0	G0	07 31 47.695	4	65.14	25 04 05.20	4	65.14	4
174	40 1903	6.6	Ma	07 33 52.691	4	65.14	40 08 18.99	4	65.14	1
175	35 1662	5.6	G5	07 35 16.157	4	65.14	35 09 44.92	4	65.14	5*
176	38 1803	5.9	K5	07 36 52.920	4	65.14	38 27 38.23	4	65.14	5*
177	23 1780	6.2	K5	07 37 58.965	4	65.14	23 08 08.42	4	65.14	1,5
178	26 1633	5.4	K5	07 41 04.027	4	65.14	25 54 17.29	4	65.14	5
179	25 1763	9.0	A0	07 44 32.441	4	65.14	25 35 36.52	4	65.14	6*
180	31 1684	8.2	G0	07 50 22.445	4	65.14	30 45 12.43	4	65.14	4
181	35 1705	6.1	A0	07 52 25.409	4	65.14	35 32 44.77	4	65.14	1
182	29 1664	6.9	G0	07 57 26.284	4	65.14	29 21 42.33	4	65.14	3,4
183	35 1731	6.3	K0	07 58 40.291	4	65.14	35 33 09.36	4	65.14	5
184	15 1733	8.7	K4	07 59 41.476	4	65.14	15 19 07.36	4	65.14	6*
185	43 1770	6.2	A0	08 03 42.404	4	65.14	43 24 19.80	4	65.14	1
186	22 1862	5.4	G0	08 04 49.468	4	65.14	21 43 41.63	4	65.14	1,5
187	42 1819	6.4	K2	08 05 57.366	4	65.14	42 34 42.46	4	65.14	5
188	30 1664	5.6	A0	08 10 03.111	4	65.14	29 48 28.62	4	65.14	1
189	25 1880	8.9	M8	08 11 43.992	4	65.14	24 53 15.98	4	65.14	6*
190		8.8	M6	08 13 26.174	4	65.14	40 17 10.59	4	65.14	6*
191	43 1811	9.2		08 18 25.917	4	65.14	43 24 31.85	4	65.14	6*
192	42 1859	6.2	K5	08 21 20.003	4	65.14	42 10 03.91	4	65.14	5
193	27 1706	9.4		08 58 57.958	3	65.47*	26 53 14.51	3	65.47*	6*
194	33 1800	7.1	F5	09 00 12.733	4	65.67*	33 04 47.14	4	65.67*	4
195	21 1966	9.3	M0	09 01 09.307	4	65.67*	21 08 51.77	4	65.67*	6*
196	26 1895	7.9	K2	09 02 08.099	5	65.56*	26 21 53.99	5	65.56*	4
197	11 1978	9.0		09 02 22.302	3	65.79*	10 41 24.03	2	65.18	6*
198	5 2116	5.4	K0	09 03 20.455	4	65.63*	05 17 35.62	3	65.17	1,5
199	30 1817	5.4	G5	09 05 00.155	5	65.56*	29 51 23.50	5	65.56*	1,5
200	27 1722	9.0		09 09 27.005	5	65.56*	27 05 05.52	5	65.56*	6*

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
201	15 2003	6.4	G5	09 09 32.922	4	65.63*	15 11 58.64	3	65.17	3,5
202	26 1912	9.2	F5	09 10 42.399	5	65.56*	25 38 26.36	5	65.56*	6*
203	15 2009	5.6	K0	09 12 28.292	3	65.79*	15 08 59.61	2	65.18	1,5
204	41 1942	9.1		09 13 52.077	5	65.56*	40 52 54.82	5	65.56*	6*
205	21 2003	9.1		09 14 07.403	3	65.79*	20 42 35.61	2	65.18	6*
206	3 2185	9.0		09 15 32.193	4	65.63*	02 57 26.81	3	65.17	6*
207	5 2158	6.5	A5	09 17 13.489	4	65.63*	05 25 41.69	3	65.17	1
208	33 1848	6.2	K0	09 18 25.495	5	65.56*	33 06 55.68	4	65.40*	5
209	25 2088	6.5	G5	09 20 38.274	5	65.56*	25 23 51.40	4	65.40*	5
210	20 2318	6.7	G5	09 21 56.560	4	65.63*	20 00 13.07	3	65.17	4
211	17 2078	6.3	K0	09 22 46.369	7	65.59*	16 48 08.15	6	65.52*	1,5
212	- 0 2195	6.1	K0	09 23 49.552	4	65.63*	-01 14 48.97	3	65.17	5
213	8 2226	5.9	K0	09 25 49.475	4	65.63*	08 24 26.20	3	65.17	1*
214	6 2182	7.4	K5	09 27 18.089	4	65.63*	05 52 26.04	3	65.17	3
215	34 1999	6.0	K0	09 27 42.206	5	65.56*	33 52 34.92	5	65.56*	1,5
216	20 2332	7.4	K0	09 28 55.494	5	65.56*	20 13 39.18	4	65.40*	4
217	2 2217	6.2	F5	09 30 06.312	4	65.63*	02 05 10.80	3	65.17	1
218	29 1913	6.4	A2	09 30 22.828	5	65.56*	28 35 25.47	5	65.56*	1*
219	31 2011	5.7	Ma	09 33 45.147	3	65.86*	31 23 12.36	3	65.86*	1
220	17 2109	5.9	K0	09 34 17.181	4	65.63*	16 39 46.81	3	65.17	1,5
221	26 1990	7.9	K0	09 37 41.565	5	65.56*	26 13 54.27	5	65.56*	4
222	40 2241	5.5	K0	09 38 54.841	5	65.56*	39 59 11.83	5	65.56*	1,5
223	35 2042	6.0	F2	09 39 42.227	4	65.40*	35 19 21.69	4	65.40*	1
224	19 2251	6.6	K0	09 41 43.376	5	65.56*	19 05 38.95	5	65.56*	5
225		10.3	A0	09 42 35.037	5	65.60*	20 08 11.06	4	65.45*	6*
226	7 2181	6.0	Ma	09 43 31.848	4	65.63*	06 56 24.20	3	65.17	1
227	12 2096	5.4	M7	09 44 52.234	3	65.17	11 39 41.11	3	65.17	6*
228		10.2	A0	09 45 30.557	3	65.86*	33 31 18.05	3	65.86*	6*
229	14 2151	8.1	F0	09 46 12.449	3	65.17	13 59 05.68	3	65.17	4
230	21 2113	6.0	F0	09 47 02.320	5	65.56*	21 24 47.78	5	65.56*	1
231	13 2164	6.7	K5	09 48 19.772	4	65.63*	13 18 03.03	3	65.17	5
232	3 2279	9.0	K5	09 49 36.520	4	65.63*	03 27 25.15	3	65.17	3
233		7.9	M4	09 50 44.627	3	65.86*	35 09 46.03	3	65.86*	6*
234	16 2045	9.5		09 50 48.174	4	65.63*	16 16 15.87	3	65.17	6*
235		10.0	M6	09 51 39.224	2	66.23	36 19 36.53	2	66.23	6*
236	18 2297	9.1	F5	09 55 27.803	5	65.56*	18 31 49.05	5	65.56*	6*
237	13 2183	5.2	A0	09 55 32.070	4	65.63*	12 41 02.89	3	65.17	1
238	30 1946	5.9	K0	09 56 43.352	5	65.56*	29 53 08.00	5	65.56*	1,5
239	18 2307	9.4		09 58 56.028	5	65.56*	17 39 03.16	4	65.40*	6*
240	15 2156	7.9	A0	09 59 46.802	4	65.63*	14 48 02.93	3	65.17	4
241	22 2164	5.6	B3	10 00 01.863	2	65.69*	22 11 28.58	2	65.69*	1,2
242	6 2259	6.3	G5	10 04 10.535	4	65.63*	05 51 21.54	3	65.17	1,5
243	35 2110	4.5	A5	10 04 29.223	3	65.12	35 29 21.40	3	65.12	1
244	20 2437	9.1	M3	10 05 34.685	2	65.11	20 14 56.23	2	65.12	6*
245	42 2090	9.0		10 06 28.977	4	65.40*	41 41 13.36	4	65.40*	6*
246	41 2063	6.5	K0	10 07 58.510	4	65.40*	40 54 29.51	4	65.40*	5
247	16 2092	8.9	F	10 08 26.633	2	65.16	15 46 07.11	2	65.16	6*
248	24 2193	8.6	G0	10 09 01.681	4	65.40*	24 00 06.09	4	65.40*	4
249	22 2190	9.0	F8	10 09 19.358	4	65.63*	21 32 46.58	3	65.17	6*
250	5 2301	5.9	K0	10 10 12.217	4	65.63*	04 51 44.86	3	65.17	5

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
251	32 2005	6.6	G5	10 12 14.306	5	65.56*	31 43 01.46	4	65.40*	5
252	12 2176	9.0		10 12 30.312	4	65.63*	12 07 42.27	3	65.17	6*
253	29 2021	6.5	G0	10 13 38.279	4	65.40*	28 55 59.02	4	65.40*	5
254	24 2207	5.9	G0	10 13 46.146	4	65.63*	23 45 09.49	3	65.17	5
255	8 2340	9.2		10 15 31.609	4	65.63*	08 20 08.99	3	65.17	6*
256	15 2188	8.5	K5	10 16 35.457	4	65.63*	14 55 10.26	3	65.17	4
257	20 2465	10.0	M4	10 16 53.328	5	65.56*	20 07 18.45	5	65.56*	3
258	9 2351	5.9	Ma	10 22 37.168	4	65.63*	09 02 21.95	3	65.17	1
259	20 2487	6.3	K0	10 24 17.431	9	65.59*	19 37 10.80	7	65.30*	1,5
260	0 2663	5.0	B5	10 27 44.044	4	65.63*	-00 22 48.38	3	65.17	1
261	37 2090	9.0		10 28 21.193	4	65.67*	37 22 52.75	4	65.67*	6*
262	25 2260	7.2	F0	10 29 32.128	5	65.56*	24 41 59.50	5	65.56*	1
263	41 2101	4.8	A5	10 30 19.093	4	65.67*	40 41 00.52	4	65.67*	1*
264	7 2330	5.2	K0	10 32 11.448	4	65.63*	07 12 43.07	3	65.17	1,4,5
265	32 2055	9.6	F5	10 33 03.702	5	65.56*	32 02 13.02	5	65.56*	6*
266	44 2051	8.8	M1	11 02 53.166	4	66.27	43 47 17.08	4	66.27	3,4
267	25 2344	5.6	A2	11 06 08.321	4	66.27	24 55 46.26	4	66.27	1*
268		10.2	M2	11 08 18.612	3	66.28	30 43 06.33	3	66.28	3*
269	31 2240	8.8	K5	11 08 21.290	4	66.27	30 43 10.38	4	66.27	3*
270	32 2125	9.0	K0	11 13 33.203	4	66.27	31 52 40.83	4	66.27	6*
271	31 2249	9.7	F5	11 14 45.072	4	66.27	31 22 59.58	4	66.27	
272	31 2254	8.9	G5	11 16 57.734	4	66.27	30 47 35.82	4	66.27	
273	33 2101	9.4		11 18 27.169	4	66.27	32 52 50.20	3	66.26	
274	44 2083	5.1	G5	11 20 05.274	3	66.28	43 45 25.88	3	66.28	1,5
275	45 1924	6.4	M5	11 25 06.800	4	66.27	45 27 38.30	3	66.30	6*
276	30 2162	9.5	A8	11 27 09.608	4	66.27	30 20 36.64	2	66.32	6*
277	29 2179	7.8	F5	11 29 47.139	4	66.27	29 19 20.39	3	66.30	
278	37 2195	6.3	K0	11 31 16.889	4	66.27	37 05 32.42	3	66.30	1,4
279	21 2331	6.4	K0	11 32 27.283	3	66.28	20 43 05.04	2	66.32	5
280	31 2281	8.6	G5	11 33 27.646	3	66.28	30 59 50.89	2	66.32	
281	34 2242	6.4	K2	11 35 54.181	3	66.28	33 54 10.15	2	66.32	5
282	38 2264	9.0	G5	11 37 00.717	4	66.27	37 29 46.65	3	66.30	
283	38 2271	9.0	G0	11 40 29.579	4	66.27	37 31 22.89	3	66.30	6*
284	31 2290	9.0	K8	11 42 04.355	3	66.28	31 14 25.80	2	66.32	3
285	36 2216	7.2	Mb	11 42 58.041	3	66.30	36 10 18.37	3	66.30	5
286	33 2152	9.1		11 43 43.792	3	66.30	33 20 10.61	3	66.30	6*
287	45 1964	9.5	K	11 47 08.315	3	66.30	44 48 56.67	3	66.30	
288	36 2219	9.8	M2	11 48 32.218	3	66.30	35 32 51.84	3	66.30	3
289	37 2230	6.5	Mb	11 52 39.135	4	66.27	37 02 05.95	4	66.27	4
290	41 2253	6.5	F5	11 54 40.271	3	66.26	40 37 21.30	3	66.26	1
291	47 1919	8.8		11 57 00.358	4	66.27	46 52 39.75	4	66.27	*
292	43 2182	6.8	K0	11 59 56.557	4	66.27	43 22 01.57	4	66.27	4
293	25 2453	9.0	G5	12 01 10.998	4	66.27	25 23 04.13	4	66.27	6*
294	42 2273	8.8	G5	12 04 29.183	4	66.27	41 54 23.16	4	66.27	
295	43 2191	8.8	F8	12 05 27.337	4	66.27	42 58 39.15	4	66.27	6*
296	22 2442	9.5	G5	12 06 22.774	4	66.27	22 03 59.73	4	66.27	4
297	26 2316	5.8	K0	12 09 19.029	4	66.28	26 08 54.87	4	66.28	1
298	32 2229	7.7	F5	12 10 20.235	4	66.27	32 04 28.11	4	66.27	
299	33 2205	6.8	K0	12 11 35.488	4	66.27	33 03 43.69	4	66.27	4
300	33 2206	8.8	F8	12 11 37.634	2	66.29	33 03 44.78	2	66.29	4

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
301	40 2518	8.9		12 14 44.394	4	66.27	40 06 22.00	4	66.27	
302	31 2350	6.1	A7	12 16 00.600	4	66.27	30 31 39.63	4	66.27	1
303	26 2329	6.1	A5	12 17 47.063	4	66.27	26 16 44.46	4	66.27	3
304	42 2296	9.4	M0	12 19 25.248	4	66.27	42 24 57.34	4	66.27	3
305	43 2218	6.0	F0	12 21 19.544	4	66.27	42 49 10.59	4	66.27	1
306	39 2519	8.1	G0	12 22 19.254	4	66.27	38 35 42.03	4	66.27	4
307	29 2288	4.6	K0	12 24 26.763	4	66.27	28 32 44.61	4	66.27	1,5
308	27 2138	6.5	A3	12 26 08.378	4	66.27	26 30 12.27	4	66.27	
309	23 2471	9.0		12 30 15.225	2	66.26	23 17 09.22	2	66.26	6*
310	33 2258	8.6	F0	12 35 20.291	4	66.27	32 48 26.80	4	66.27	
311	40 2558	7.4	A0	12 36 23.134	4	66.27	39 35 04.87	4	66.27	4
312	30 2311	9.5		12 37 46.635	4	66.27	29 52 07.91	4	66.27	
313	34 2344	6.6	K0	12 39 52.556	3	66.28	33 57 48.42	3	66.28	1
314	36 2304	8.9		12 41 13.303	4	66.27	35 35 01.80	4	66.27	
315	49 2161	9.3		12 44 06.597	3	66.26	49 07 55.40	3	66.26	
316	25 2568	6.4	G5	12 46 20.513	4	66.27	25 06 48.48	4	66.27	1,5
317	39 2570	8.8		12 47 59.990	3	66.26	39 03 04.67	3	66.26	*
318	29 2416	9.2		13 27 28.542	4	66.30	28 54 15.07	4	66.30	
319	42 2405	6.2	K0	13 29 05.540	4	66.30	42 21 46.53	3	66.30	5
320	25 2643	6.2	G5	13 30 26.108	4	66.30	24 36 17.75	4	66.30	4*
321	36 2393	9.6	M2	13 35 13.825	4	66.30	35 58 20.69	4	66.30	3
322	22 2612	9.0		13 36 33.549	4	66.30	21 41 58.12	3	66.30	6*
323	38 2467	9.0		13 37 47.279	4	66.30	38 13 52.99	4	66.30	6*
324	23 2600	5.8	G5	13 38 40.363	4	66.30	22 44 54.04	4	66.30	5
325	24 2624	7.5	Ma	13 40 12.729	3	66.30	23 34 14.87	3	66.30	4
326	39 2675	9.2	K8	13 41 12.719	4	66.30	39 30 03.63	4	66.30	3
327	23 2621	8.8		13 48 29.528	4	66.30	23 23 36.68	4	66.30	
328	35 2496	5.0	Ma	13 49 35.132	4	66.30	34 41 27.49	4	66.30	1
329	29 2464	5.8	A5	13 50 54.060	4	66.30	28 53 36.96	4	66.30	1
330	41 2438	8.7		13 52 19.169	4	66.30	41 27 06.35	4	66.30	
331	34 2476	10.2	A4	13 56 57.670	4	66.30	34 06 25.81	4	66.30	4
332	29 2482	9.0		13 57 57.753	4	66.30	28 40 35.16	4	66.30	6*
333	46 1922	6.5	K5	14 00 13.090	4	66.30	45 59 40.06	4	66.30	1,5
334	43 2375	9.0		14 01 58.398	3	66.30	43 28 05.88	3	66.30	6*
335	40 2726	8.8		14 03 19.345	4	66.30	40 32 14.32	4	66.30	
336	38 2514	10.0	A6	14 04 21.377	4	66.30	38 03 57.87	4	66.30	6*
337	32 2443	6.2	K2	14 09 04.231	3	66.32	32 31 48.47	3	66.32	5
338	- 2 3801	9.3	G5	14 09 09.893	4	66.34	-02 38 29.76	4	66.34	6*
339	- 0 2796	5.8	F5	14 11 06.100	4	66.34	-00 36 39.17	4	66.34	4
340	4 2841	6.6	Ma	14 12 21.592	4	66.34	03 34 06.52	4	66.34	4
341	22 2678	6.4	A2	14 12 21.957	4	66.30	22 06 21.13	4	66.30	1
342		10.5	B9	14 14 36.966	3	66.30	42 35 28.58	3	66.30	4*
343	- 6 3964	6.5	G0	14 15 21.466	4	66.34	-07 18 35.16	4	66.34	5
344	39 2749	6.5	G5	14 16 52.406	4	66.30	38 59 47.80	4	66.30	5
345	20 2970	8.8	K0	14 19 41.814	4	66.34	20 01 58.34	4	66.34	6*
346	30 2512	8.6	M0	14 19 47.104	4	66.30	29 51 35.95	4	66.30	3
347	1 2920	6.3	G0	14 20 41.942	4	66.34	01 28 21.35	4	66.34	3,5
348	25 2770	6.2	F2	14 20 51.893	4	66.30	25 33 51.05	4	66.30	1
349	8 2858	6.2	K2	14 21 50.401	3	66.33	08 18 41.01	3	66.33	4,5
350	24 2733	9.4	M0	14 23 25.086	3	66.30	23 51 08.42	4	66.30	3

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
351		9.4	K7	14 23 28.266	3	66.32	23 51 20.53	3	66.32	3
352	29 2535	8.1	K0	14 24 41.956	4	66.30	28 48 51.56	4	66.30	4
353	16 2659	7.4	K5	14 27 31.844	4	66.34	16 25 50.45	4	66.34	4
354	5 2886	6.1	K2	14 28 15.087	4	66.34	04 59 36.81	4	66.34	1,5
355	36 2500	8.2	G5	14 28 41.565	4	66.30	35 40 23.09	4	66.30	3
356	3 2900	9.2	F8	14 30 01.104	4	66.34	03 21 20.06	4	66.34	6 *
357	10 2703	8.9	G5	14 31 07.639	4	66.34	09 33 29.86	4	66.34	4
358	34 2541	9.5	M0	14 32 53.854	4	66.30	33 57 44.33	4	66.30	3
359	23 2710	6.5	K0	14 33 51.182	4	66.30	23 28 01.78	4	66.30	1,5
360	18 2906	6.0	K0	14 35 54.360	4	66.34	18 30 51.99	4	66.34	1,5
361	18 2908	9.1		14 37 04.179	3	66.33	17 42 01.25	2	66.33	
362	13 2828	9.2	G0	14 38 08.710	4	66.34	13 28 24.11	4	66.34	
363	32 2504	7.6	M5	14 39 06.163	4	66.30	31 47 06.53	4	66.30	6 *
364	27 2411	9.5	G5	14 41 08.111	4	66.30	26 57 40.02	4	66.30	3
365	17 2780	4.7	K0	14 42 54.285	4	66.34	17 10 28.92	3	66.34	5
366	17 2785	8.9	M0	14 44 02.926	4	66.34	16 42 51.97	3	66.34	3,4
367	31 2657	8.8		14 44 25.359	4	66.30	31 21 56.09	4	66.30	
368	10 2746	9.5	K2	14 45 43.742	4	66.34	09 41 51.26	4	66.34	6 *
369	26 2606	9.8	F0	14 46 50.238	4	66.30	25 54 45.64	4	66.30	4
370	10 2748	6.8	K0	14 47 00.521	4	66.34	10 15 05.66	4	66.34	1
371	7 2850	9.4	K0	14 47 54.039	4	66.34	07 01 17.16	4	66.34	4
372	24 2786	5.8	G0	14 48 01.719	3	66.30	24 07 02.92	3	66.30	1,3
373	19 2874	8.0	K0	14 50 11.823	4	66.34	18 56 28.99	4	66.34	4
374	19 2881	6.0	K0	14 51 06.993	4	66.34	19 21 14.86	4	66.34	3
375	23 2751	8.8	K2	14 51 29.644	4	66.30	23 32 53.19	4	66.30	4
376	0 3273	9.0	F8	14 52 50.095	4	66.34	00 21 54.17	4	66.34	6 *
377	23 2755	9.1		14 56 38.841	4	66.30	22 49 50.86	4	66.30	6 *
378	39 2820	5.6	F2	14 57 41.785	4	66.30	39 27 46.40	3	66.30	1
379	45 2247	9.2	M0	14 59 09.137	4	66.30	45 37 11.63	3	66.30	3
380	16 2722	8.5	K2	14 59 09.514	4	66.34	16 04 03.52	4	66.34	3
381	2 2905	4.6	K0	15 00 22.213	2	66.33	02 17 11.55	2	66.33	1,5
382	35 2642	5.7	K0	15 01 06.132	4	66.30	35 24 02.35	3	66.30	1,5
383	20 3054	9.1		15 01 29.551	4	66.34	20 18 04.33	4	66.34	6 *
384	6 2986	9.9	K5	15 02 25.952	4	66.34	05 50 11.10	4	66.34	3
385	30 2611	8.8	G2	15 04 48.098	4	66.30	30 12 07.32	3	66.30	4
386	9 3001	8.4	G0	15 05 21.588	4	66.34	09 04 16.88	4	66.34	4
387	13 2901	6.1	K0	15 06 31.422	4	66.34	13 25 28.86	4	66.34	5
388	10 2800	9.3		15 07 38.574	3	66.33	10 14 47.48	3	66.33	
389	19 2939p	6.8	G5	15 10 28.573	4	66.34	19 28 11.32	4	66.34	4*
390	19 2939s	7.6	G6	15 10 28.866	4	66.34	19 28 34.89	4	66.34	4
391	0 3337	6.0	K5	15 15 52.052	4	66.34	-00 16 46.84	4	66.34	5
392	2 2944	5.2	G0	15 16 45.837	3	66.33	01 57 03.39	3	66.33	4*
393	- 1 3047	6.5	K2	15 18 11.771	3	66.34	-02 13 56.37	3	66.34	5
394	18 3008	7.6	K0	15 19 27.220	4	66.34	18 37 03.21	4	66.34	4
395	18 3022	9.1	G0	15 24 54.298	4	66.34	18 14 34.05	4	66.34	6*
396	2 2965	5.1	A5	15 26 06.422	4	66.34	02 00 51.69	4	66.34	1
397	11 2813	9.4		15 27 00.942	2	66.34	11 33 36.98	2	66.34	
398	- 0 2982	5.8	K0	15 30 23.172	4	66.34	-01 01 05.47	4	66.34	1,5
399	18 3044	6.1	K0	15 33 16.845	4	66.34	17 49 14.90	4	66.34	1,5
400	10 2886	7.0	F8	15 35 34.996	4	66.34	10 24 21.28	4	66.34	4

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
401	13 2982	5.3	A0	15 39 26.141	4	66.34	13 00 23.59	4	66.34	1
402	1 3125	6.5	K0	15 43 06.642	3	66.45	01 02 46.73	3	66.45	5
403	14 2940	6.1	K0	15 45 53.356	4	66.44	13 56 33.11	4	66.44	5
404	11 2874	9.4	M0	15 49 46.013	4	66.44	11 01 31.13	3	66.44	3
405	13 3024	6.2	G0	15 50 52.044	4	66.44	13 20 57.78	4	66.44	1,4
406	20 3166	5.8	K5	15 52 22.158	4	66.35	20 27 23.46	4	66.35	1,4,5
407	5 3113	8.7	F0	15 52 34.812	4	66.44	05 12 55.44	4	66.44	4
408	38 2712	5.5	F2	15 53 58.362	4	66.35	38 05 26.45	4	66.35	1
409	14 2969	5.7	K0	15 54 55.890	4	66.44	14 33 25.03	4	66.44	4,5
410	29 2748	7.2	K0	15 57 04.612	4	66.35	29 34 23.74	4	66.35	4
411	26 2765			15 57 24.516	4	66.44	26 03 39.26	4	66.44	6*
412	4 3096	5.9	K0	15 58 22.008	3	66.44	04 33 58.98	3	66.44	1,5
413	33 2663	5.4	F8	15 59 07.561	4	66.35	33 26 59.31	4	66.35	4
414		9.5		15 59 48.364	2	66.44	17 37 07.99	2	66.44	6*
415	23 2886	4.8	A2	16 00 08.379	4	66.35	22 56 31.24	3	66.36	1
416	5 3131	6.2	K0	16 01 17.139	4	66.44	05 07 23.73	4	66.44	5
417	39 2947	6.8	G5	16 03 12.359	4	66.35	39 17 26.89	4	66.35	3
418	11 2910	8.5	G5	16 03 31.905	4	66.44	10 49 10.83	4	66.44	4
419	39 2950	8.6	G5	16 04 42.154	4	66.35	38 46 13.70	4	66.35	3,4
420	44 2549	6.5	K0	16 08 47.054	4	66.35	43 56 57.61	4	66.35	3
421	17 2982	5.9	A0	16 09 12.786	4	66.44	16 47 37.96	4	66.44	1
422	42 2683	6.0	K5	16 10 08.155	4	66.35	42 30 06.53	4	66.35	1*
423	5 3165	5.6	K0	16 10 46.870	4	66.44	05 08 51.19	4	66.44	1,5
424	21 2886	6.6	A2	16 10 57.881	4	66.35	21 41 32.54	4	66.35	1
425	6 3184	6.4	G5	16 11 45.963	3	66.43	06 01 38.38	3	66.43	5
426	- 0 3084	9.8	G5	16 12 40.442	3	66.43	-00 40 18.95	3	66.43	6*
427	32 2697	8.5	K2	16 13 18.984	4	66.35	32 16 16.25	4	66.35	4
428	49 2489	8.9		16 16 21.370	4	66.35	49 25 05.38	4	66.35	6*
429	41 2695	9.3	M0	16 19 11.670	3	66.36	41 04 40.51	4	66.35	3
430	31 2845	4.7	K0	16 20 08.681	4	66.35	31 00 26.49	4	66.35	1,5
431	4 3170	8.7	K0	16 20 43.176	3	66.43	04 25 37.80	3	66.43	
432	37 2750	5.5	A3	16 23 37.160	4	66.35	37 30 24.30	4	66.35	1
433	2 3106	6.2	G5	16 24 18.802	3	66.45	02 27 34.48	3	66.45	5
434	27 2646	9.2	K0	16 25 15.960	3	66.35	26 59 47.45	3	66.35	6*
435	7 3180	8.8	K8	16 25 31.624	4	66.44	07 25 05.17	4	66.44	3
436	18 3182	7.0	K0	16 26 40.257	4	66.44	18 31 09.81	4	66.44	3*
437	42 2714	5.0	M0	16 26 59.904	4	66.35	41 59 26.17	4	66.35	1,6*
438	4 3195	7.5	G0	16 28 00.242	2	66.43	04 17 54.90	2	66.43	4
439	22 2983	6.0	K5	16 29 04.941	4	66.44	22 18 06.46	4	66.44	5
440	35 2828	6.5	K5	16 29 12.697	4	66.35	35 19 53.63	4	66.35	1,5
441	39 3010	9.0	M4	16 30 12.523	4	66.35	38 57 48.83	3	66.35	6*
442	11 3008	4.9	K5	16 30 15.564	4	66.44	11 35 37.33	4	66.44	1,4,5
443	17 3053	6.3	A0	16 33 11.678	4	66.44	17 09 32.63	4	66.44	1
444	36 2756	7.4	Ma	16 34 43.369	4	66.35	36 08 25.14	4	66.35	4
445	13 3177	6.2	F2	16 35 29.564	4	66.44	13 47 11.74	4	66.44	1
446	27 2661	7.1	Ma	16 35 47.178	4	66.35	27 08 34.95	4	66.35	1
447	1 3277	9.5		16 37 06.962	4	66.44	01 16 10.09	4	66.44	
448	49 2533	9.2	F8	16 38 29.662	4	66.35	49 20 01.11	4	66.35	
449	25 3115	6.2	K2	16 38 56.035	3	66.45	24 57 14.22	3	66.45	1,5
450	31 2884	3.0	G0	16 39 23.379	4	66.35	31 41 37.81	4	66.35	3*

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
451	22 3010	8.1	K2	16 41 53.317	4	66.44	22 28 34.59	4	66.44	
452	34 2830	5.9	F2	16 42 00.796	4	66.35	34 07 48.31	4	66.35	1
453	33 2777	8.6	K5	16 43 14.586	4	66.35	33 35 45.92	4	66.35	3
454	8 3271	5.4	K2	16 43 25.705	4	66.44	08 40 20.42	4	66.44	1,5
455	42 2749	6.2	Mb	16 45 43.609	4	66.35	42 19 36.62	4	66.35	1
456	13 3224	9.6		16 45 45.932	4	66.44	13 20 56.61	4	66.44	
457	37 2804	8.2	K0	16 46 49.855	4	66.35	37 06 11.16	3	66.35	3
458	19 3174	8.9	K5	16 47 53.456	4	66.44	18 59 09.49	4	66.44	3
459	43 2654	6.4	K0	16 48 07.118	4	66.35	43 30 55.73	4	66.35	5
460	0 3593	6.8	G5	16 50 26.649	4	66.44	00 04 08.92	4	66.44	3,4
461	21 3002	5.5	K0	16 52 45.843	4	66.35	21 02 15.89	4	66.35	1,5
462	18 3266	5.6	K2	16 53 10.056	4	66.44	18 30 42.78	4	66.44	4
463	37 2824	9.2		16 54 44.527	2	66.37	37 43 56.50	2	66.37	6 *
464		10.6	M0	16 55 27.444	2	66.43	13 22 01.32	2	66.43	3
465	25 3173	9.7	M2	16 56 06.420	4	66.35	25 49 27.72	4	66.35	3
466	6 3332	6.4	A5	16 58 03.003	4	66.44	06 39 25.45	4	66.44	1
467	22 3048	9.3	M3	16 59 22.216	4	66.44	22 32 57.23	4	66.44	6 *
468	32 2835	6.6	K0	17 00 23.514	4	66.35	31 57 15.93	4	66.35	5
469	14 3179	5.1	Ma	17 00 50.306	4	66.44	14 09 43.82	4	66.44	4
470	47 2426	8.1	K0	17 03 41.294	4	66.35	47 02 03.21	4	66.35	4
471	7 3302	9.1	G0	17 04 14.111	4	66.44	07 50 54.01	4	66.44	6 *
472	26 2952	9.1	G5	17 04 16.537	4	66.35	26 35 01.61	4	66.35	6 *
473	10 3147	9.5	G5	17 06 14.726	4	66.44	09 54 48.55	4	66.44	6 *
474	40 3109	5.1	K0	17 07 55.828	4	66.35	40 50 19.52	4	66.35	1
475	46 2272	9.0		17 09 04.553	4	66.35	46 48 40.52	4	66.35	6 *
476	45 2505	9.6	K5	17 10 40.201	4	66.35	45 44 20.71	4	66.35	3
477	33 2864	4.6	B3	17 15 28.591	4	66.35	33 09 10.03	4	66.35	6 *
478	38 2910	6.0	K0	17 16 42.389	4	66.35	38 51 43.17	4	66.35	1,5
479		9.0	M5	17 19 38.268	2	66.34	24 48 54.77	2	66.34	6 *
480	23 3100	5.7	A3	17 22 00.878	4	66.35	23 00 18.99	4	66.35	1
481	34 2962	9.0		17 23 15.290	4	66.35	34 46 31.42	4	66.35	6 *
482	27 2809	6.4	A5	17 24 00.564	4	66.35	26 55 15.14	4	66.35	1
483	29 3028	9.3	A3	17 27 20.655	4	66.35	29 26 20.27	4	66.35	
484	29 3029	9.7	M0	17 27 24.071	4	66.35	29 25 58.24	4	66.35	3,6 *
485	4 3509	9.0	K0	17 45 45.320	3	66.52	04 57 28.50	3	66.52	4
486	15 3285	7.7	B5	17 47 52.326	3	66.52	15 30 30.99	2	66.54	2
487	1 3528	6.2	K5	17 50 03.276	3	66.52	01 18 56.39	3	66.52	5
488	21 3245	8.6	K5	17 51 22.410	3	66.52	21 20 02.43	3	66.52	3
489	0 3813	5.7	B3	17 53 45.404	3	66.52	00 40 34.98	3	66.52	2
490		9.7	M5	17 55 21.845	3	66.52	04 36 05.77	3	66.52	3 *
491	4 3570	4.8	B3	17 57 47.100	3	66.52	04 22 11.63	3	66.52	2
492	15 3327	6.3	G5	17 58 41.613	3	66.52	15 05 40.80	3	66.52	5
493	20 3649	5.1	B3	18 00 14.681	3	66.52	20 49 55.73	3	66.52	2
494	4 3581	9.1	G5	18 00 55.150	3	66.52	04 46 33.71	3	66.52	6 *
495	1 3578	6.1	B3	18 02 05.801	3	66.52	01 54 53.54	3	66.52	2
496	4 3589	6.8	G0	18 03 09.183	3	66.52	04 39 17.02	3	66.52	4
497	15 3364	8.3	G0	18 05 04.033	3	66.52	15 56 24.59	3	66.52	3
498	15 3365	6.8	K0	18 05 06.468	3	66.52	15 54 36.98	3	66.52	4
499	15 3367	8.2	K2	18 05 09.472	3	66.52	15 56 56.01	3	66.52	3
500	14 3427	6.3	A2	18 06 16.958	3	66.52	14 16 32.46	3	66.52	1

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
501	3 3620	5.7	K0	18 08 10.336	3	66.52	03 18 46.38	3	66.52	1,5
502	18 3586	8.5	A0	18 09 22.011	3	66.52	18 18 41.18	3	66.52	6*
503	17 3482	9.2		18 10 27.864	3	66.52	17 01 47.90	3	66.52	
504	0 3885	9.2	A0	18 11 27.459	2	66.51	00 11 02.71	2	66.51	4
505	18 3606	9.7	M1	18 13 06.661	3	66.52	18 28 55.89	3	66.52	3
506	13 3593	6.3	B5	18 15 45.486	2	66.51	13 45 23.68	2	66.51	1
507	24 3381	5.5	K5	18 17 07.136	3	66.52	24 25 26.42	3	66.52	1
508		10.0	F2	18 22 10.313	2	66.54	25 03 09.91	2	66.54	6*
509	26 3257	6.9	B3	18 24 28.450	3	66.52	26 25 48.76	3	66.52	2
510	26 3259	6.4	B3	18 24 40.155	3	66.52	26 25 06.00	3	66.52	6*
511	3 3716	6.1	K2	18 25 20.876	3	66.52	03 42 58.94	3	66.52	5
512	3 3727	6.5	B5	18 27 36.031	3	66.52	04 01 49.55	3	66.52	1
513	13 3683	10.6	F5	18 30 58.581	2	66.51	13 07 14.90	2	66.51	4
514	20 3847	6.4	A2	18 32 10.407	3	66.52	20 25 34.61	3	66.52	1
515	24 3463	9.0		18 33 59.921	3	66.52	24 49 17.04	3	66.52	6*
516	16 3563	6.4	K0	18 34 54.382	3	66.52	16 09 15.18	3	66.52	5
517	14 3603	6.9	A0	18 36 18.353	3	66.52	15 02 17.99	3	66.52	1
518	7 3798	6.4	K0	18 37 26.297	3	66.52	07 18 43.97	3	66.52	5*
519	6 3898	9.1	S0	18 39 31.176	3	66.52	06 46 10.04	3	66.52	6*
520	20 3919	9.0		18 42 09.774	2	66.51	20 49 10.26	2	66.51	6*
521	4 3884	6.3	K5	18 45 33.706	3	66.52	04 11 04.77	3	66.52	1,5
522	7 3861	9.0	K0	18 47 52.258	3	66.52	08 03 45.27	3	66.52	6*
523	10 3720	6.6	K0	18 52 00.489	3	66.52	10 44 38.92	3	66.52	1
524		10.1	M2	18 53 02.982	3	66.52	08 20 16.16	3	66.52	3
525	19 3848	8.0	B3	18 54 08.236	3	66.52	19 46 52.90	3	66.52	2
526	5 3993	9.7	K5	18 55 33.496	3	66.52	05 51 03.98	3	66.52	3,4
527	8 3951	6.6	K2	18 59 57.210	3	66.52	08 18 00.04	2	66.50	5
528	5 4040	5.4	F2	19 06 32.880	3	66.52	05 59 33.81	3	66.52	1
529	34 3436	8.2		19 06 54.582	3	65.62	34 40 44.53	3	65.62	*
530	34 3437	6.6	B3	19 06 55.679	4	65.62	34 40 44.75	4	65.62	2*
531	15 3715	9.0	B9	19 07 56.504	4	65.62	16 01 21.96	4	65.62	6*
532	38 3466	8.7	K0	19 09 25.890	4	65.62	38 41 49.65	4	65.62	*
533	38 3466	8.3	G5	19 09 26.066	4	65.62	38 41 53.51	4	65.62	4,6*
534	38 3490	4.5	B3	19 12 03.267	3	65.62	39 03 31.79	3	65.62	2*
535	24 3692	9.5		19 13 13.829	3	65.62	24 48 22.99	3	65.62	3
536	33 3409	6.3	B3	19 17 11.392	4	65.62	33 17 45.88	4	65.62	2
537	34 3503	6.3	B8	19 18 43.459	3	65.62	35 05 28.15	3	65.62	1
538	25 3803	7.0	B3	19 19 35.269	4	65.62	25 28 44.12	4	65.62	2,6*
539	33 3433	9.5	K6	19 20 29.803	4	65.62	33 46 52.63	4	65.62	4
540	32 3411	6.5	K0	19 21 40.865	4	65.62	33 07 20.04	4	65.62	3,5
541	19 4010	5.3	K0	19 23 16.983	4	65.62	19 41 55.77	4	65.62	5*
542	36 3557	5.2	A0	19 24 20.987	4	65.62	36 12 59.79	4	65.62	1
543	13 4020	6.3	B5	19 25 15.862	4	66.63	14 10 48.05	4	66.63	1
544	37 3465	6.4	B2	19 25 50.907	3	65.62	37 50 18.28	3	65.62	2
545	12 3917	8.8	K8	19 25 55.477	4	66.69	12 25 59.24	4	66.69	3*
546	- 0 3760	6.5	K2	19 26 44.425	4	66.63	00 08 30.21	4	66.63	5
547	14 3936	5.7	K0	19 27 04.321	4	66.69	14 29 30.39	3	66.68	5
548	26 3566	8.0	B8	19 27 11.963	3	65.62	26 36 44.81	3	65.62	2
549	17 3992	8.2	G0	19 29 23.759	4	66.63	17 40 36.64	4	66.63	4
550	20 4179	7.4	A3	19 31 06.033	3	65.62	20 18 17.00	3	65.62	4*

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
551	20 4179	9.0	F5	19 31 06.205	2	65.63	20 18 12.54	2	65.63	4*
552	3 4065	6.8	B5	19 31 07.130	4	66.69	03 39 08.37	4	66.69	2
553	15 3866	6.8	B3	19 32 02.746	4	66.69	16 09 18.02	4	66.69	2
554	26 3590	9.4		19 32 25.120	4	65.62	26 13 55.52	4	65.62	6*
555	- 0 3786	9.1	G0	19 33 10.976	4	66.69	-00 20 55.16	4	66.69	4
556	30 3645	7.6	B2	19 33 35.286	4	65.62	31 09 54.18	4	65.62	2
557	14 3974	6.5	K0	19 33 57.503	3	66.63	14 16 44.95	3	66.63	5
558	20 4200	7.7	G5	19 34 26.508	4	65.62	20 13 12.91	4	65.62	2,6*
559	10 3984	6.2	G5	19 34 30.779	4	66.69	11 09 37.38	3	66.68	5
560	16 3918	5.7	K0	19 35 01.540	4	66.63	16 20 57.33	4	66.63	5*
561	16 3924	8.9		19 35 56.603	3	66.68	16 41 35.20	3	66.68	4
562	20 4210	6.5	K0	19 36 07.060	4	65.62	20 40 08.87	4	65.62	5
563	16 3928	7.4	B3	19 36 12.540	4	66.63	17 08 33.31	4	66.63	2*
564	5 4225	5.2	B3	19 36 43.541	3	66.68	05 16 57.14	3	66.68	2*
565	40 3824	7.5	B2	19 37 25.794	4	65.62	40 30 39.91	4	65.62	2
566	17 4042	4.4	G0	19 37 51.630	4	66.63	17 53 51.06	4	66.63	5*
567	15 3906	9.0		19 39 50.670	3	66.71	15 25 42.82	3	66.71	6*
568	17 4059	7.9	B3	19 40 34.008	4	66.63	17 50 55.88	4	66.63	2
569	22 3784	6.5	B3	19 41 16.148	4	65.62	22 22 29.47	4	65.62	2
570	22 3790	9.3		19 41 40.293	4	66.63	22 30 41.97	4	66.63	6*
571	3 4133	9.0	K2	19 42 04.247	3	66.68	03 42 31.61	3	66.68	6*
572	23 3767	8.2	G5	19 43 47.083	4	65.62	23 58 24.61	4	65.62	2
573	18 4232	9.4		19 44 01.620	4	66.63	18 14 06.07	4	66.63	6*
574	- 2 5115	8.9	A2	19 44 48.222	4	66.63	-01 55 55.73	4	66.63	6*
575	19 4162	7.6	B2	19 46 31.685	4	66.63	19 32 06.38	4	66.63	2
576	33 3602	6.4	B0	19 46 56.045	4	65.62	33 18 39.84	4	65.62	2
577	- 1 3834	8.7	B0	19 46 58.482	4	66.69	-01 13 38.90	4	66.69	2
578	7 4252	6.4	B3	19 47 51.856	3	66.63	07 46 29.78	3	66.63	2
579	40 3902	5.6	B2	19 48 54.234	4	65.62	40 28 17.63	4	65.62	1,2,6*
580	22 3833	4.9	B3	19 48 54.864	4	66.63	22 28 53.96	4	66.63	1,2
581	11 4019	6.2	G0	19 49 42.558	4	66.69	11 30 07.34	4	66.69	4,5
582	18 4276	6.3	Oe	19 50 07.886	3	65.62	18 32 31.53	3	65.62	2
583	8 4261	4.9	K0	19 51 49.547	2	66.64	08 19 49.24	2	66.64	5
584	40 3931	6.8	B3	19 51 56.412	4	65.62	41 13 27.74	4	65.62	2
585	10 4091	8.7	G5	19 52 47.059	3	66.68	10 36 19.90	3	66.68	4
586	36 3766	5.8	G5	19 52 58.584	4	65.62	36 51 46.51	4	65.62	5
587	16 4067	5.4	G0	19 53 44.915	7	66.65	16 30 03.88	7	66.65	2,6*
588		8.4	M6	19 55 00.332	4	66.63	-02 01 16.76	4	66.63	6*
589	39 3968	5.4	B3	19 55 29.579	2	65.58	40 13 57.00	2	65.58	1,2
590	30 3837	5.4	B8	19 56 38.978	2	65.59	30 50 49.26	2	65.59	1
591	26 3753	9.0		19 57 20.420	3	65.62	26 27 17.49	3	65.62	6*
592	3 4222	9.0	A2	19 57 36.341	4	66.63	03 29 56.60	4	66.63	6*
593	19 4236	8.5	B2	19 57 42.888	4	65.56	19 45 05.67	4	65.56	2
594	36 3806	5.2	B3	19 58 05.083	7	65.08*	36 54 17.12	3	65.59	1,2
595	8 4300	6.1	K2	19 58 33.809	4	66.63	08 25 08.30	4	66.63	5
596	41 3569	7.7	B3	19 59 18.170	4	65.62	41 52 09.24	4	65.62	2
597	21 4027	6.6	B0	20 00 11.738	3	65.59	22 00 39.67	3	65.59	2
598	2 4076	7.8	K2	20 00 16.739	4	66.63	03 11 03.45	4	66.63	3
599	45 3044	8.3	B3	20 01 21.195	4	66.69	45 50 43.92	4	66.69	2
600	29 3872	5.7	K0	20 01 34.774	5	65.39*	29 45 35.59	4	65.56	4,5

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
601	22 3908	7.2	K0	20 01 45.559	3	65.62	23 12 26.05	3	65.62	3,4
602	36 3841	8.0	B2	20 01 50.113	6	65.14*	36 17 00.76	3	65.59	2
603	33 3718	9.2	G4	20 02 31.529	4	66.69	33 58 10.32	4	66.69	6*
604	31 3925	5.7	B0	20 02 38.427	6	65.26*	32 04 32.61	4	65.56	2*
605	19 4277	5.3	K0	20 02 56.371	4	65.62	19 50 48.82	4	65.62	1,5
606	35 3949	8.2	B	20 03 46.861	8	65.15*	35 27 49.64	4	65.60	2*
607	35 3952	7.3	B1	20 04 03.339	4	66.69	35 31 40.11	4	66.69	2
608	35 3953s	7.0	Op	20 04 04.601	4	65.62	35 38 38.47	4	65.62	2*
609	35 3955	8.0	O8	20 04 06.023	4	65.62	35 39 10.12	4	65.62	2*
610	35 3956	8.9	B5	20 04 07.214	3	65.62	35 37 04.75	3	65.62	*
611	35 3957	7.2		20 04 08.613	4	65.62	35 37 16.11	4	65.62	2*
612	35 3962	7.2	K0	20 04 37.026	8	65.15*	36 04 57.40	4	65.60	4
613	35 3966	8.1	B5	20 05 05.706	7	65.17*	36 15 04.26	4	65.56	2
614	35 3970	7.1	B0	20 05 30.707	4	65.62	35 34 20.89	4	65.62	2*
615	34 3881	6.1	B8	20 05 46.508	7	65.09*	34 16 36.52	3	65.60	1
616	10 4189	6.2	B5	20 06 15.159	4	66.63	10 34 44.36	4	66.63	1,2
617	39 4049	8.5	B2	20 06 21.107	7	65.17*	39 36 15.25	4	65.56	2
618	42 3599	7.9	B	20 06 25.421	4	66.69	42 27 34.04	4	66.69	2
619	25 4116	7.8	B3	20 06 37.295	4	65.62	26 07 39.87	4	65.62	2
620	36 3896	8.5	B3	20 06 44.334	4	65.60	36 31 29.80	4	65.60	2
621	25 4124	7.9	K0	20 07 50.496	4	66.63	25 23 16.34	4	66.63	
622	28 3645	6.9	B3	20 08 28.489	4	66.69	28 17 07.01	4	66.69	2
623	26 3825	5.8	K2	20 09 42.528	4	66.69	26 39 31.67	4	66.69	5
624	35 4013	7.9	Oa	20 10 00.768	6	65.10*	36 02 48.88	3	65.55	2
625	37 3821	7.4	Ob	20 10 17.112	8	65.15*	38 12 15.08	4	65.60	2
626	- 1 3920	5.6	K2	20 10 38.980	4	66.63	-01 09 38.27	4	66.63	5
627	39 4082	7.5	B3	20 10 46.724	4	65.62	40 07 01.03	4	65.62	2
628	28 3668	9.3		20 10 52.671	3	66.71	29 03 26.69	3	66.71	6*
629	38 3956	7.1	B2	20 11 33.524	7	65.17*	38 36 48.25	4	65.56	2
630	38 3958	8.2	B	20 11 39.579	4	65.62	38 19 38.53	4	65.62	2
631	35 4026	7.1	B3	20 11 40.220	8	65.15*	36 10 34.37	4	65.60	2
632	29 3948	6.9	B3	20 12 17.165	4	66.69	30 01 27.82	4	66.69	2
633	36 3958	7.0	O5	20 12 39.122	7	65.17*	37 12 02.42	4	65.56	2
634	36 3956	7.9	Oa	20 12 39.402	8	65.15*	36 30 28.43	4	65.60	2
635	39 4096	7.7	B3	20 12 39.553	4	65.62	40 10 33.88	4	65.62	2
636	25 4165	4.8	B3	20 13 08.659	4	66.63	25 26 17.46	4	66.63	2*
637	34 3938	9.7	A3	20 13 16.662	2	66.69	34 21 34.83	2	66.69	6*
638	41 3675	8.5		20 13 40.407	7	65.17*	42 14 48.81	4	65.56	2
639	27 3666	4.7	K5	20 13 41.684	7	65.22*	27 39 35.37	4	65.60	5
640	21 4130	6.2	K0	20 14 07.875	4	65.62	21 26 38.61	4	65.62	5
641	37 3860	8.0	B	20 14 40.262	4	66.69	37 29 12.74	4	66.69	2*
642	37 3862	9.2		20 14 41.338	3	66.71	37 29 23.85	3	66.71	*
643	37 3867	7.1	B2	20 15 32.447	4	66.69	38 04 46.82	4	66.69	2
644	42 3670	6.5	K2	20 15 46.190	8	65.15*	42 33 57.02	4	65.60	5
645	37 3871	4.9	B1	20 15 56.522	7	65.17*	37 52 35.27	4	65.56	2,6*
646	0 4475	6.9	A3	20 16 04.095	4	66.63	00 29 02.67	4	66.63	1
647	25 4189	6.8	B3	20 16 09.677	3	65.62	25 29 28.94	3	65.62	2*
648	30 3980	8.2		20 16 25.433	7	65.09*	30 39 51.41	3	65.60	2
649	37 3879	7.7	B1	20 17 01.274	7	65.17*	38 07 19.45	4	65.56	2,6*
650	45 3139	6.3	B1	20 17 13.399	4	66.69	46 09 52.82	4	66.69	2

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
651	38 4006	7.3	B2	20 17 19.589	4	65.62	39 06 55.99	4	65.62	2
652	38 4010	8.0	Ob	20 17 42.594	6	65.16*	38 34 24.43	3	65.60	2,6*
653	5 4481	10.0	G4	20 17 56.442	3	66.63	05 52 33.10	3	66.63	4
654	37 3892	7.6	B8	20 17 58.711	7	65.17*	38 11 03.47	4	65.56	2
655	43 3571	6.8	Oa	20 18 46.711	6	65.31*	43 41 43.06	4	65.60	2
656	38 4032	8.0	B8	20 19 17.972	7	65.17*	38 52 18.62	4	65.56	2
657	30 3994	8.9		20 19 17.972	4	65.62	30 26 27.38	4	65.62	6*
658	40 4132	8.4	B	20 19 39.728	8	65.15*	41 02 03.17	4	65.60	2
659	14 4275	6.2	F5	20 20 32.448	3	66.63	14 23 23.42	3	66.63	3
660	40 4150	7.1	B0	20 21 31.053	4	65.62	40 35 49.48	4	65.62	2
661	38 4057	9.1	B	20 21 36.287	7	65.17*	38 46 37.45	4	65.56	2
662	31 4062	4.6	K2	20 21 51.770	8	65.15*	32 01 39.79	4	65.60	1,4,5
663	37 3916	5.7	B3	20 21 52.061	4	66.69	37 18 50.65	4	66.69	2
664	12 4320	9.2		20 22 34.844	4	66.63	12 59 10.09	4	66.63	6*
665	41 3735	9.1		20 22 50.349	7	65.17*	41 20 19.47	4	65.56	
666	26 3896	9.9	A0	20 23 27.716	4	66.69	27 12 18.64	4	66.69	6*
667	20 4559	5.8	K0	20 23 27.789	4	65.62	21 14 43.85	4	65.62	1,5
668	16 4259	6.2	K0	20 24 06.062	4	66.63	17 09 02.85	4	66.63	1,5
669	40 4164	7.7		20 24 08.555	8	65.15*	41 10 19.23	4	65.60	2
670	39 4189	9.3	B2	20 24 31.628	4	65.62	39 30 16.47	4	65.62	6*
671	40 4165	7.5	B	20 24 35.019	7	65.17*	41 12 51.61	4	65.56	2
672	7 4477	6.3	K0	20 25 41.531	4	66.63	08 16 14.92	4	66.63	1,5
673	30 4040	9.2	F4	20 25 50.289	4	65.62	30 37 29.10	4	65.62	6*
674	46 2940	8.9		20 25 50.542	4	66.69	47 16 56.13	4	66.69	6*
675	41 3758	7.2	B3	20 25 51.149	7	65.17*	41 52 09.19	4	65.56	2
676	41 3765	7.7	B	20 26 44.428	8	65.15*	41 50 33.83	4	65.60	2
677	45 3196	6.6	K0	20 28 20.638	8	65.15*	45 45 30.56	4	65.60	4,5
678	48 3142	4.9	B3	20 28 30.565	4	66.69	48 46 58.17	4	66.69	1,2*
679	43 3630	7.2	B	20 28 52.840	6	65.26*	44 08 45.72	4	65.56	2
680	13 4434	9.3		20 30 32.442	2	66.63	13 47 49.49	2	66.63	6*
681	13 4435	8.3		20 30 34.382	3	66.63	13 46 25.42	3	66.63	6*
682	31 4126	7.6	B	20 31 03.672	7	65.17*	31 29 08.46	4	65.56	2
683	42 3778	6.4	B3	20 31 07.804	4	65.62	43 01 12.88	4	65.62	1,2
684	20 4629	6.3	B3	20 31 56.205	3	65.62	20 48 46.25	3	65.62	2
685	43 3662	7.2	F0	20 33 31.707	3	66.68	44 14 09.37	3	66.68	
686	24 4182	9.9		20 33 32.768	3	65.55	25 12 19.20	4	65.56	4
687	23 4074	9.0		20 34 18.564	3	66.64	23 31 17.12	3	66.64	6*
688	25 4302	5.5	B9	20 34 56.588	8	65.61	26 17 12.76	8	65.61	1
689	34 4095	8.2	B9	20 35 23.127	4	66.69	35 15 39.24	4	66.69	6*
690	17 4367	9.4	G5	20 35 23.345	4	66.63	18 06 31.21	4	66.63	6*
691	37 4002	6.3	K0	20 35 30.597	7	65.17*	38 09 12.47	4	65.56	5
692	23 4084	5.0	B5	20 36 21.122	4	65.62	23 56 22.21	4	65.62	2
693	29 4121	5.9	K0	20 36 55.878	7	65.17*	30 09 28.20	4	65.56	5
694	25 4312	7.0	K5	20 37 11.747	8	65.15*	25 53 28.62	4	65.60	4
695	45 3233	6.5	B3	20 37 41.829	4	66.69	45 29 21.26	4	66.69	2
696	42 3818	6.2	K0	20 38 18.086	7	65.21*	43 16 52.58	4	65.60	5
697	19 4484	6.4	G5	20 38 29.561	4	65.62	19 45 14.31	4	65.62	3,5
698	38 4187	6.4	B9	20 39 07.986	7	65.21*	38 54 12.06	4	65.60	1
699	17 4382	6.3	K0	20 39 40.371	4	66.63	17 20 28.89	4	66.63	5
700	41 3856	5.6	B8	20 40 07.998	4	65.62	41 32 13.16	4	65.62	1

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
701	34 4127	6.5	B3	20 40 24.678	7	65.21*	35 16 33.72	4	65.60	2
702	49 3352	8.1	B	20 40 36.205	4	66.69	49 33 17.06	4	66.69	2
703	35 4229	8.6	B2	20 40 44.663	7	65.17*	36 12 01.49	3	65.55	2
704	35 4234	6.4	G0	20 41 26.605	12	65.32*	35 24 24.12	8	65.61	2,6*
705	47 3177	9.2		20 42 05.951	4	66.69	47 21 45.26	4	66.69	6*
706	31 4204	8.0	B3	20 42 23.907	7	65.17*	31 30 49.36	4	65.56	2
707	33 4011	9.1		20 42 30.910	4	65.62	33 58 11.15	4	65.62	6*
708	24 4229	5.1	K2	20 42 42.535	4	65.60	25 05 23.79	4	65.60	1,4
709	17 4401	5.6	Mb	20 43 10.788	4	66.63	17 54 25.46	4	66.63	6*
710	43 3709	8.9		20 43 43.753	4	65.62	43 27 08.38	4	65.62	6*
711	45 3275	6.7	K5	20 45 37.782	8	65.15*	45 23 42.84	4	65.60	5*
712	47 3188	5.7	K0	20 46 10.405	4	66.69	47 38 48.40	4	66.69	1*
713	45 3291	4.9	B2	20 47 13.954	4	66.69	45 55 40.37	4	66.69	2*
714	3 4437	9.2	G	20 47 42.006	4	66.63	03 27 55.16	4	66.63	6*
715	46 3067	6.5	B3	20 48 13.075	8	65.15*	46 28 26.98	4	65.60	2*
716	43 3739	5.1	A5	20 48 18.393	7	65.17*	43 52 14.81	4	65.56	1
717	27 3890	5.9	F8	20 49 20.761	7	65.17*	28 03 43.57	4	65.56	2,6*
718	8 4553	7.2	K5	20 49 29.644	3	66.63	08 35 02.70	3	66.63	
719	32 3974	6.4	B5	20 49 58.173	7	65.08*	32 39 36.24	3	65.59	2
720	34 4184	7.0	B2	20 50 03.576	4	65.62	34 28 07.27	4	65.62	2,6*
721	15 4281	7.5	A2	20 50 53.971	4	66.63	16 09 06.46	4	66.63	
722	29 4221	6.4	K2	20 51 01.299	7	65.17*	29 27 35.14	4	65.56	5
723	42 3894	8.5	B3	20 51 04.227	8	65.15*	42 25 04.81	4	65.60	2
724	38 4262	9.5		20 51 12.140	3	66.71	38 38 16.87	3	66.71	6*
725	43 3755	4.7	B3	20 51 28.515	4	65.62	44 11 49.44	4	65.62	2
726	10 4404	7.5	K0	20 52 10.591	4	66.63	11 15 04.37	4	66.63	
727	27 3909	6.4	B3	20 52 14.924	4	65.60	28 19 51.92	4	65.60	2
728	13 4572	5.4	K0	20 53 14.605	4	66.63	13 31 46.85	4	66.63	1,5
729	39 4368	7.0	B0	20 53 30.202	7	65.17*	40 06 29.08	4	65.56	2
730	46 3111	5.8	B8	20 54 08.372	4	65.60	47 13 30.83	4	65.60	2
731	4 4584	8.2	A0	20 54 43.220	4	66.63	04 53 13.49	4	66.63	6*
732	44 3639	6.0	O5	20 54 48.842	4	66.69	44 43 54.09	4	66.69	2
733	34 4217	9.4	F2	20 56 13.220	3	66.71	34 58 50.78	3	66.71	6*
734	43 3777	5.8	K0	20 56 32.086	7	65.21*	44 16 35.35	4	65.60	5
735	35 4357	6.1	K0	20 59 13.283	4	65.56	35 49 44.70	4	65.56	1
736	45 3364	5.2	B3	20 59 26.062	4	65.60	45 57 31.42	4	65.60	2*
737	27 3952	7.2	G0	21 00 16.572	4	66.69	27 36 33.54	4	66.69	6*
738	38 4325	6.2	K0	21 01 08.308	7	65.17*	38 27 31.73	4	65.56	5
739	46 3159	6.3	A5	21 01 59.413	4	66.69	46 39 52.27	4	66.69	
740	45 3384	8.1	B8	21 02 08.667	4	65.60	46 07 52.16	4	65.60	2
741	38 4344	6.0	K7	21 04 46.043	7	65.18*	38 30 37.31	4	65.56	3,4*
742	32 4060	7.8	B0	21 05 51.709	7	65.17*	33 11 39.99	4	65.56	2
743	26 4091	8.0	K2	21 07 48.238	3	65.60	26 24 38.43	3	65.60	4
744	38 4372	7.8	B3	21 08 41.175	8	65.15*	38 45 22.96	4	65.60	2
745	35 4426	6.4	B1	21 09 03.016	7	65.17*	36 05 39.41	4	65.56	2*
746	40 4432	7.3	B5	21 09 27.415	8	65.15*	40 58 46.87	4	65.60	2
747	43 3842	7.8	B	21 10 38.528	4	65.56	44 19 31.03	4	65.56	2
748	45 3456	7.5	B5	21 11 53.401	4	65.60	45 24 14.36	4	65.60	2
749	37 4235	7.3	B3	21 12 06.023	7	65.17*	37 34 26.09	4	65.56	2
750	39 4493	9.1		21 13 22.298	7	65.21*	40 03 50.53	4	65.60	6*

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
751	41 4067	6.5	K2	21 14 35.589	7	65.17*	42 02 31.87	3	65.55	5
752	43 3877	5.1	O5	21 16 35.157	4	65.56	43 44 05.12	4	65.56	1,2
753	33 4223	9.0	F5	21 16 38.028	8	65.15*	33 35 03.39	4	65.60	6*
754	23 4294	5.8	K0	21 18 48.895	8	65.15*	23 38 38.45	4	65.60	1,4,5
755	29 4397	6.3	K0	21 20 32.962	7	65.17*	30 05 43.23	4	65.56	5
756	40 4503	7.4	B5	21 20 53.792	8	65.15*	40 28 57.10	4	65.60	2
757	36 4543	6.6	K5	21 21 46.805	7	65.17*	37 08 10.18	4	65.56	5
758	23 4305	6.4	K0	21 22 08.434	7	65.21*	24 18 45.78	4	65.60	5
759	36 4557	5.8	B0	21 23 44.279	7	65.17*	36 27 02.36	4	65.56	2*
760	38 4497	9.0		21 24 24.312	4	65.60	38 55 36.56	4	65.60	6*
761	36 4568	5.2	B3	21 25 18.864	14	65.14*	36 53 55.47	7	65.58	1,2
762	27 4076	6.8	K2	21 27 03.992	7	65.17*	28 21 53.68	4	65.56	4
763	43 3941	7.5	B2	21 27 21.023	8	65.15*	44 07 06.68	4	65.60	2
764	56 2589	7.4	B0	21 30 07.883	4	66.63	57 16 52.15	4	66.63	2
765	23 4333	9.3	F8	21 30 19.561	3	66.71	23 58 43.98	3	66.71	
766	37 4359	5.0	K0	21 32 43.993	7	65.17*	38 18 34.48	4	65.56	1,4,5
767	33 4304	9.3	A5	21 32 56.683	6	65.15*	34 20 46.71	3	65.60	6*
768	55 2604	9.0		21 33 00.513	5	66.64	56 19 22.81	4	66.64	6*
769	29 4453	8.4	B	21 33 33.211	7	65.17*	29 31 16.97	4	65.56	2
770	27 4120	9.8	M0	21 35 45.825	7	65.17*	27 29 55.26	4	65.56	3
771	61 2166	7.7	K0	21 35 50.636	3	66.65	62 04 39.40	2	66.66	4
772	24 4445	6.3	G5	21 36 29.828	4	66.69	25 16 20.85	3	66.71	5
773	56 2614	8.1	B9	21 36 52.052	5	66.64	56 44 50.82	5	66.64	2*
774	37 4388	9.0		21 37 44.820	4	66.69	37 35 47.46	3	66.71	6*
775	47 3518	9.6	B3	21 37 56.232	5	66.64	48 18 46.21	5	66.64	6*
776	42 4177	5.4	K5	21 38 13.236	4	65.56	43 02 46.66	4	65.56	1*
777	54 2595	6.2	K0	21 39 03.792	5	66.64	54 38 39.09	5	66.64	1,5
778	34 4500	6.4	Nb	21 39 54.333	4	66.69	35 16 53.25	3	66.71	6*
779	50 3410	4.8	B3	21 40 18.954	5	66.64	50 57 38.92	5	66.64	1,2
780	42 4189	8.8		21 40 36.722	4	65.56	43 01 57.45	4	65.56	
781	31 4534	9.3	K0	21 40 56.764	4	66.69	31 35 09.27	3	66.71	6*
782	24 4460	9.1		21 41 54.824	4	65.56	25 06 23.04	4	65.56	4
783	62 1973	8.3	B	21 42 24.046	5	66.64	62 32 29.10	5	66.64	2
784	38 4595	9.1		21 42 25.381	4	66.69	39 18 02.66	3	66.71	6*
785	51 3144	7.5	B2	21 44 47.917	5	66.64	51 53 32.21	5	66.64	2
786	35 4643	6.6	K5	21 46 01.725	4	66.69	36 20 51.55	3	66.71	5
787	59 2420	7.0	B3	21 46 08.427	3	66.65	59 28 03.84	3	66.65	2
788	19 4793	6.2	B3	21 47 06.538	4	66.69	20 13 43.45	3	66.71	1,2
789	52 3043	6.6	B2	21 48 15.890	5	66.64	52 27 47.40	5	66.64	2
790	28 4210	9.3	K0	21 48 47.768	4	66.69	28 56 22.19	3	66.71	6*
791	61 2209	8.1	B3	21 50 20.373	5	66.64	61 42 27.04	5	66.64	2
792	62 1994	6.8	B1	21 51 09.727	5	66.64	62 28 34.47	5	66.64	2
793	61 2216	7.1	B3	21 52 21.779	4	66.64	62 22 39.85	5	66.64	2*
794	61 2217	8.0		21 52 26.960	4	66.64	62 21 48.51	3	66.65	*
795	31 4574	7.6	K0	21 52 32.761	4	66.69	32 05 36.91	3	66.71	3
796	55 2644	6.0	B9	21 53 12.092	5	66.64	56 22 26.13	5	66.64	1,2
797	60 2320	6.9	B3	21 55 46.207	4	66.64	61 03 23.27	4	66.64	2,6*
798	38 4643	7.6	B8	21 56 00.036	4	66.69	38 41 15.55	3	66.71	
799	32 4310	7.8	B3	21 57 00.163	4	66.69	33 23 27.39	3	66.71	2
800	59 2443	8.0	B8	21 57 44.806	5	66.64	60 03 27.08	5	66.64	2

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
801	61 2233	6.5	B0	21 59 09.313	5	66.64	62 14 48.64	5	66.64	2
802	26 4333	9.1		21 59 43.691	4	66.69	26 36 17.56	3	66.71	6*
803	57 2441	5.5	B0	22 00 23.500	5	66.64	57 45 30.91	4	66.63	2
804	27 4243	7.0	M7	22 01 43.240	4	66.69	28 06 20.54	3	66.71	6*
805	52 3088	8.4	B	22 01 51.100	5	66.64	52 58 11.56	5	66.64	2
806	52 3112	7.9	K0	22 04 52.397	5	66.64	52 53 21.54	5	66.64	4
807	21 4695	5.7	B8	22 05 29.180	4	66.69	21 27 30.99	3	66.71	4
808	60 2348	7.4	B8	22 07 08.194	4	66.64	60 46 36.41	4	66.64	2
809	39 4772	9.0		22 08 05.714	4	66.64	39 49 24.13	4	66.64	6*
810	22 4567	9.1	K5	22 08 11.979	3	66.70	22 33 03.77	2	66.73	4
811	35 4725	7.3	K0	22 09 00.578	7	65.20*	36 00 42.26	4	65.61	3
812	51 3281	7.7	B2	22 09 44.520	5	66.64	52 10 57.69	5	66.64	2
813	24 4548	6.1	K0	22 09 48.459	2	66.70	24 42 11.42	2	66.70	5
814	56 2727	5.4	F8	22 10 00.602	4	65.67	56 35 26.72	4	65.67	1
815	33 4456	5.4	K0	22 10 34.877	5	65.42*	34 21 25.99	4	65.61	1
816	36 4787	9.1		22 10 53.089	4	66.69	36 38 19.07	3	66.71	6*
817	50 3611	9.2		22 10 53.415	3	65.69	50 43 21.22	3	65.69	6*
818	42 4333	5.7	A0	22 12 38.164	6	65.13*	42 42 18.76	3	65.61	1
819	37 4526	4.2	K0	22 13 47.168	10	65.76*	37 29 57.08	6	66.16*	5
820	56 2746	6.1	K0	22 14 38.044	5	66.64	56 58 13.16	5	66.64	5
821	26 4399	6.8	K5	22 15 28.311	4	66.69	26 41 09.94	3	66.71	1
822	62 2060	8.8		22 16 48.137	5	66.64	62 58 08.45	5	66.64	
823	62 2061	7.4	B8	22 16 50.895	5	66.64	62 58 18.76	5	66.64	2
824	45 3879	8.5	B	22 16 55.920	8	65.19*	45 33 04.10	4	65.67	2
825	23 4509	9.0		22 17 31.552	3	66.71	23 43 01.40	3	66.71	
826	51 3335	9.0		22 17 56.653	2	66.66	52 02 14.79	2	66.66	6*
827	51 3341	7.1	B2	22 18 24.924	4	65.67	51 36 32.57	4	65.67	2
828	50 3673	6.6	K2	22 18 40.545	4	66.64	50 43 43.32	4	66.64	5
829	52 3189	9.0		22 19 29.351	8	65.19*	53 09 15.82	4	65.67	6*
830	20 5135	9.0		22 19 57.418	4	66.69	21 15 50.05	3	66.71	6*
831	59 2511	9.0		22 20 25.198	4	65.67	59 43 54.47	4	65.67	6*
832	35 4785	6.6	K0	22 20 37.084	8	65.13*	36 24 19.37	4	65.61	1
833	18 4984	9.0		22 22 20.366	4	66.69	18 58 20.15	3	66.71	6*
834	41 4492	8.9		22 23 23.470	8	65.13*	42 11 54.25	4	65.61	6*
835	36 4835	6.4	B3	22 24 32.169	8	65.13*	37 11 19.51	4	65.61	2*
836	62 2081	8.5	B	22 25 12.186	5	66.64	63 27 46.56	5	66.64	2*
837	39 4841	6.1	B3	22 25 14.748	8	65.19*	39 33 16.87	4	65.67	2
838	31 4701	6.3	K2	22 25 28.695	8	66.15*	31 35 03.06	7	66.14*	5
839	56 2783	9.8	M3	22 26 10.748	4	66.65	57 26 37.31	4	66.65	3*
840	63 1852	6.4	K0	22 26 39.331	4	65.67	63 49 46.34	4	65.67	5
841	53 2897	6.6	B3	22 27 24.506	5	66.64	53 59 22.29	5	66.64	2
842	48 3747	6.5	K0	22 28 02.764	7	65.13*	49 05 59.60	3	65.69	5
843	42 4420	4.5	B3	22 28 19.487	4	65.61	42 51 59.45	4	65.61	1,2
844	48 3755	9.3	G8	22 29 42.602	5	66.64	49 26 41.64	4	66.65	4
845	19 4949	6.3	F0	22 30 10.534	4	66.69	19 58 18.93	3	66.71	1
846	39 4871	5.8	A3	22 30 13.480	8	65.13*	39 31 19.22	4	65.61	1
847	53 2910	6.5	K0	22 30 19.409	8	65.19*	53 46 44.96	4	65.67	5
848	53 2911	10.7	M1	22 30 51.856	5	66.64	53 32 08.28	5	66.64	4
849	21 4781	9.5		22 31 18.243	3	66.71	22 01 53.30	3	66.71	6*
850	61 2314	6.5	A2	22 32 05.137	4	65.67	61 31 10.09	4	65.67	1

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	°	m		h m s			° ' "			
851	40 4854	7.0	B5	22 32 17.572	7	65.20*	40 30 58.11	4	65.61	2
852	38 4808	6.6	B5	22 33 38.334	8	65.13*	39 22 08.08	4	65.61	2*
853	38 4808	5.8	B3	22 33 38.528	8	65.13*	39 22 30.26	4	65.61	2*
854	49 3903	6.2	B3	22 33 48.427	5	66.64	49 48 41.10	5	66.64	2
855	34 4728	6.2	K0	22 33 51.346	4	66.69	35 19 07.08	3	66.71	5
856	37 4631	6.8	B3	22 34 07.232	8	65.19*	37 34 57.80	4	65.67	2
857	36 4887	9.0		22 34 50.752	7	65.25*	36 56 40.00	4	65.67	6*
858	56 2818	9.2	N6	22 34 56.787	5	66.64	56 38 45.85	5	66.64	6*
859	23 4576	6.9	A3	22 35 10.202	4	66.69	23 44 29.44	3	66.71	1
860	38 4817	8.1	B3	22 35 14.480	8	65.13*	39 10 44.12	4	65.61	2
861	36 4898	6.7	B3	22 36 48.623	8	65.13*	37 06 53.16	4	65.61	2*
862	53 2950	6.1	K0	22 38 15.999	5	66.64	53 35 05.36	5	66.64	5
863	42 4471	9.4	K8	22 38 17.611	8	65.13*	42 45 11.38	4	65.61	3
864	43 4266	4.6	K0	22 38 19.104	8	65.19*	44 00 53.45	4	65.67	5
865	23 4592	7.3	B3	22 39 02.006	4	66.69	23 35 06.48	3	66.71	2
866	39 4912	5.2	B2	22 39 14.036	7	65.13*	39 57 49.72	3	65.68	2
867	40 4885	6.1	K0	22 39 21.901	2	66.66	41 17 12.52	2	66.66	5
868	53 2960	6.3	K2	22 40 17.741	7	65.25*	53 38 48.20	4	65.67	1,5
869	37 4670	6.2	B3	22 40 38.929	8	65.13*	37 32 25.92	4	65.61	2
870	38 4855	6.1	K5	22 41 49.470	4	66.69	39 12 10.46	3	66.71	5*
871	51 3460	6.7	K2	22 42 43.668	8	65.19*	52 15 14.54	4	65.67	5
872	57 2595	6.5	F5	22 43 04.923	5	66.64	57 53 06.51	5	66.64	1
873	29 4753	6.5	K0	22 43 14.023	4	65.61	30 10 57.19	4	65.61	4*
874	56 2857	10.4	A0	22 44 28.689	6	65.21*	56 33 42.58	3	65.69	6*
875	57 2613	9.2		22 45 31.407	4	66.65	58 16 56.55	4	66.65	6*
876	36 4934	6.0	K0	22 45 53.302	8	65.13*	37 09 10.29	4	65.61	5
877	26 4507	8.8	M6	22 46 41.429	4	66.69	27 05 35.74	3	66.71	6*
878	62 2115	6.2	K0	22 46 50.686	4	66.64	62 40 27.37	4	66.64	5
879	47 3931	8.1	B5	22 47 06.652	7	65.27*	47 39 55.20	4	65.67	2
880	49 3954	6.4	K0	22 48 01.019	5	66.64	50 24 42.30	5	66.64	5
881	41 4623	5.8	B5	22 48 06.152	7	65.26*	41 41 17.74	4	65.67	2
882	32 4529	7.1	A2	22 49 13.039	12	65.65	32 33 00.29	7	66.06*	1
883	58 2492	7.2	B0	22 49 33.037	5	66.64	58 44 34.59	5	66.64	2
884	42 4521	5.2	K5	22 49 46.532	7	65.13*	43 02 46.82	3	65.69	5*
885	21 2356	8.0	B3	22 50 34.246	5	66.64	62 10 28.49	5	66.64	2
886	49 3965	8.0	B5	22 50 47.925	8	65.19*	49 35 55.29	4	65.67	2
887	37 4717	9.0	G5	22 51 22.684	8	65.13*	37 40 19.33	4	65.61	6*
888	39 4964	5.9	K2	22 51 49.234	5	66.64	40 06 36.37	5	66.64	5
889	42 4529	7.8	B5	22 52 05.589	8	65.19*	43 15 42.77	4	65.67	2
890	50 3872	9.0		22 52 49.517	4	65.67	51 15 31.44	4	65.67	6*
891	40 4949	5.5	B3	22 54 06.312	5	66.64	41 20 11.97	5	66.64	2,6*
892	47 3985	5.2	B3	22 54 51.540	5	66.64	48 24 59.79	5	66.64	1,2,6*
893	38 4904	6.1	B3	22 55 21.848	12	65.65	39 02 28.01	7	66.06*	1,2
894	46 3890	9.0		22 55 33.689	8	65.19*	46 57 24.40	4	65.67	6*
895	43 4355	7.0	B3	22 56 29.118	4	65.61	43 34 14.51	4	65.61	2
896	62 2146	7.4	B5	22 56 35.621	5	66.64	63 26 19.28	5	66.64	2
897	51 3514	6.4	K2	22 56 59.922	8	65.19*	52 23 09.74	4	65.67	1,5
898	56 2923	5.5	G0	22 57 58.168	5	66.64	56 40 36.73	5	66.64	1
899	34 4818	9.0		22 58 33.997	8	65.19*	35 05 51.43	4	65.67	6*
900	37 4744	6.4	B3	22 58 34.830	8	65.13*	38 26 20.95	4	65.61	2

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
901	43 4378	6.3	B3	23 00 27.582	8	65.19*	43 47 22.28	4	65.67	2*
902	62 2161	8.1	B	23 01 01.326	5	66.64	63 25 43.27	5	66.64	2
903	49 4028	4.9	K0	23 01 56.162	5	66.64	49 46 50.94	5	66.64	5
904	28 4518	7.4	K5	23 03 04.678	8	65.13*	28 43 06.58	4	65.61	4
905	57 2689	8.1	B3	23 03 05.076	4	65.67	57 58 17.22	4	65.67	2,6*
906	62 2170	7.5	B5	23 04 06.390	3	66.65	62 56 32.69	3	66.65	2
907	46 3931	8.0	B3	23 04 15.981	8	65.19*	46 39 11.61	4	65.67	2
908	34 4847	6.5	K0	23 04 42.258	8	65.13*	35 21 56.34	4	65.61	1
909	45 4147	6.6	B5	23 05 00.300	5	66.64	45 47 50.94	4	66.64	2
910	63 1931	6.4	K0	23 05 54.947	4	66.64	63 57 05.69	4	66.64	1,5
911	48 3950	6.5	B3	23 07 00.523	7	65.26*	49 22 45.87	4	65.67	2
912	58 2554	9.3	B8	23 07 53.436	4	65.67	58 55 49.14	4	65.67	6*
913	42 4592	5.9	F5	23 08 07.926	8	65.13*	43 16 28.27	4	65.61	1,4
914	52 3383	7.1	B0	23 08 52.307	7	65.26*	52 47 11.76	4	65.67	2
915	36 5017	8.9	G5	23 09 08.734	6	65.13*	36 37 18.79	3	65.60	6*
916	28 4548	6.3	K0	23 10 38.118	8	65.13*	29 10 10.86	4	65.61	5
917	49 4070	9.0		23 11 52.076	8	65.19*	49 43 31.52	4	65.67	6*
918	58 2565	8.5	B	23 11 52.659	5	66.64	59 06 08.32	5	66.64	2
919	40 5026	8.8	M5	23 12 21.988	8	65.13*	40 31 18.03	4	65.61	6*
920	27 4521	6.5	G5	23 13 19.516	8	65.13*	27 58 30.22	4	65.61	1,5
921	52 3410	5.6	F8	23 14 25.218	7	65.13*	52 56 33.51	3	65.69	1
922	44 4368	6.6	K2	23 14 55.309	8	65.13*	44 53 29.42	4	65.61	5
923	63 1964	8.6	B5	23 15 13.770	4	65.67	63 50 52.67	4	65.67	2
924	40 5043	5.9	A3	23 16 00.595	8	65.13*	41 30 01.13	4	65.61	6*
925	46 4004	9.3		23 16 42.315	4	66.64	47 09 47.76	2	66.63	6*
926	47 4114	6.4	K0	23 17 20.534	8	65.19*	48 06 24.83	4	65.67	4,5
927	28 4562	8.8	K	23 17 29.108	8	65.13*	28 35 41.18	4	65.61	4
928	41 4752	6.0	K2	23 17 29.279	4	66.63	41 48 15.08	3	66.63	1,5
929	20 5317	6.2	A0	23 20 10.918	4	65.61	20 33 15.98	4	65.61	1
930	59 2710	5.9	K5	23 20 18.124	7	65.27*	59 51 32.77	4	65.67	1,5
931	56 2999	6.8	B5	23 21 50.921	7	65.27*	57 15 38.92	4	65.67	2,6*
932	35 5024	6.8	B3	23 22 17.373	8	65.13*	36 05 14.38	4	65.61	2
933	59 2723	9.5	F0	23 24 14.684	3	65.69	60 21 10.96	3	65.69	4
934	42 4685	9.1		23 26 39.758	6	65.21*	43 07 18.34	3	65.69	6*
935	29 4940	8.2	K0	23 27 00.480	7	65.20*	30 09 27.14	4	65.61	4
936	48 4070	6.4	K2	23 27 43.932	7	65.27*	48 51 26.59	4	65.67	1,5
937	37 4856	6.2	K0	23 28 12.783	8	65.13*	38 23 10.15	4	65.61	5
938	38 5023	5.3	K0	23 28 49.864	7	65.27*	38 57 39.84	4	65.67	5
939	27 4566	6.7	K0	23 29 01.026	8	65.13*	28 23 25.05	4	65.61	1
940	49 4147	9.0		23 30 11.886	8	65.19*	49 32 38.57	4	65.67	6*
941	48 4093	8.0	M0	23 31 15.297	4	65.67	48 32 31.38	4	65.67	6*
942	44 4441	6.3	G5	23 31 17.210	8	65.13*	44 46 53.78	4	65.61	5
943	30 4982	6.7	G0	23 32 58.164	8	65.13*	30 44 17.14	4	65.61	4
944	23 4769	6.6	Ma	23 33 25.546	4	66.66	24 17 03.38	4	66.66	1
945	45 4288	6.6	G5	23 35 30.588	4	65.67	45 55 21.71	4	65.67	5
946	35 5074	6.3	F5	23 38 10.644	7	65.20*	36 26 35.91	4	65.61	1
947	44 4473	6.7	K5	23 39 46.462	8	65.19*	44 42 52.35	4	65.67	5
948		11.0		23 40 02.190	3	66.67	42 44 14.86	4	66.66	4*
949	51 3693	9.2		23 40 37.509	6	65.02*	51 58 10.51	2	65.64	6*
950	55 3010	6.6	G5	23 42 21.475	7	65.26*	55 31 19.75	4	65.67	5

No.	BD No.	Mag.	Sp.	R.A. 1950.0	N	Epoch 1900+	Decl. 1950.0	N	Epoch 1900+	Ref.
	o	m		h m s			o ' "			
951	28 4634	8.9	K0	23 42 36.423	4	66.66	29 17 03.64	4	66.66	4
952		9.9	M0	23 43 18.036	7	65.20*	35 58 36.63	4	65.61	3
953	39 5161	9.1		23 44 20.954	4	66.66	40 15 35.80	4	66.66	6*
954	25 5003	9.1		23 44 36.842	2	65.61	26 17 20.54	2	65.61	6*
955	46 4169	5.8	B3	23 45 03.511	8	65.19*	46 33 17.45	4	65.67	2,6*
956	61 2533	5.6	A2	23 46 23.178	4	65.67	61 56 11.96	4	65.67	2*
957	28 4649	5.9	A3	23 47 07.334	4	66.66	28 33 51.20	4	66.66	1
958	35 5110	5.9	G5	23 47 09.673	7	65.07*	36 08 51.90	3	65.61	1,5
959	61 2537	8.2	B3	23 47 25.580	3	65.69	61 56 10.45	3	65.69	2
960	39 5174	6.7	F8	23 48 46.755	16	65.16*	39 55 16.28	8	65.64	1
961	25 5034	7.7	K0	23 50 34.476	4	66.66	25 43 15.39	4	66.66	4
962	28 4660	9.8	M0	23 50 36.353	7	65.20*	28 44 22.96	4	65.61	3
963	56 3106	8.0	B2	23 51 06.148	8	65.19*	56 32 30.62	4	65.67	2
964	25 5042	6.7	K5	23 52 50.111	3	65.61	25 40 36.79	3	65.61	5
965	46 4214	6.1	K0	23 53 01.560	7	65.27*	47 04 39.56	4	65.67	5
966	56 3115	6.1	B0	23 53 02.675	4	66.83	57 08 02.12	2	66.74	2
967	58 2676	7.8	B1	23 55 15.666	4	66.83	59 26 30.90	2	66.74	2
968	29 5034	8.7	K0	23 55 32.736	4	66.66	29 41 55.63	4	66.66	4
969	19 5184	9.5	M7	23 57 33.295	4	65.61	19 57 33.24	4	65.61	6*
970	17 5020	9.5		23 57 33.658	3	66.67	18 27 18.07	3	66.67	6*
971	60 2656	7.4	B5	23 58 47.778	4	66.83	60 33 39.45	2	66.74	2
972	26 4734	5.9	G0	23 59 34.147	3	65.61	26 48 47.47	3	65.61	3,4*

Epoch in the Year

If the epoch for α and/or δ is not stated below, the epoch of the year is equal to the decimal fraction of the epoch as given in the catalogue.

nr.	α	δ	nr.	α	δ	nr.	α	δ	nr.	α	δ
193	.14	.14	239	.16	.15	648	.67		751	.61	
194	.17	.17	240	.14		649	.61		753	.66	
195	.17	.17	241	.20	.20	652	.67		754	.66	
196	.16	.16	242	.14		654	.61		755	.61	
197	.13		245	.15	.15	655	.62		756	.66	
198	.14		246	.15	.15	656	.61		757	.61	
199	.16	.16	248	.15	.15	658	.66		758	.65	
200	.16	.16	249	.14		661	.61		759	.61	
201	.14		250	.14		662	.66		761	.64	
202	.16	.16	251	.16	.15	665	.61		762	.61	
203	.13		252	.14		669	.66		763	.66	
204	.16	.16	253	.15	.15	671	.61		766	.61	
205	.13		254	.14		675	.61		767	.67	
206	.14		255	.14		676	.66		769	.61	
207	.14		256	.14		677	.66		770	.61	
208	.16	.15	257	.16	.16	679	.60		811	.63	
209	.16	.15	258	.14		682	.61		815	.62	
210	.14		259	.15	.16	691	.61		818	.63	
211	.15	.17	260	.14		693	.61		819	.65	.66
212	.14		261	.18	.18	694	.66		824	.69	
213	.14		262	.16	.16	696	.65		829	.69	
214	.14		263	.18	.18	698	.65		832	.63	
215	.16	.16	264	.14		701	.65		834	.63	
216	.16	.15	265	.16	.16	703	.61		835	.63	
217	.14		594	.67		704	.64		837	.69	
218	.16	.16	600	.59		706	.61		838	.65	.65
219	.19	.19	602	.66		711	.66		842	.70	
220	.14		604	.60		715	.66		846	.63	
221	.16	.16	606	.66		716	.61		847	.69	
222	.16	.16	612	.66		717	.61		851	.63	
223	.15	.15	613	.61		719	.67		852	.63	
224	.16	.16	615	.67		722	.61		853	.63	
225	.20	.20	617	.61		723	.66		856	.69	
226	.14		624	.61		729	.61		857	.68	
228	.19	.19	625	.66		734	.65		860	.63	
230	.16	.16	629	.61		738	.61		861	.63	
231	.14		631	.66		741	.61		863	.63	
232	.14		633	.61		742	.61		864	.69	
233	.19	.19	634	.66		744	.66		866	.70	
234	.14		638	.61		745	.61		868	.68	
236	.16	.16	639	.66		746	.66		869	.63	
237	.14		644	.66		749	.61		871	.69	
238	.16	.16	645	.61		750	.65		874	.71	

(continued)

nr.	α	δ
876	.63	
879	.69	
881	.69	
882		.65
884	.70	
886	.69	
887	.63	
889	.69	
893		.65
894	.69	
897	.69	
899	.69	
900	.63	
901	.69	

nr.	α	δ
904	.63	
907	.69	
908	.63	
911	.69	
913	.63	
914	.69	
915	.63	
916	.63	
917	.69	
919	.63	
920	.63	
921	.70	
922	.63	

nr.	α	δ
924	.63	
926	.69	
927	.63	
930	.69	
931	.69	
932	.63	
934	.71	
935	.63	
936	.69	
937	.63	
938	.69	
939	.63	
940	.69	

nr.	α	δ
942	.63	
943	.63	
946	.63	
947	.69	
949	.69	
950	.69	
952	.63	
955	.69	
958	.64	
960	.66	
962	.63	
963	.69	
965	.69	

Notes

1	TW And
6	A 48 A
7	A 48 B
9	A 85 AB
13	SY And
15	A 186 AB
17	A 210 AB
21	TV Cas
25	A 301 AB
26	A 307 A
28	A 328 AB
30	TU Cas
36	A 452 A
37	A 497 A
38	A 497 B
40	A 522 AB
52	RR And
55	KR Cas
57	A 748 A
70	OX Cas
71	A 938 AB
75	A 993 AB
76	RU Psc
79	XX And
84	A 1145 A
85	A 1165 AB
86	XX Cas
87	IM Cas
88	A 1209 A
89	A 1209 B
94	A 1292 AB
95	A 1315 AB
96	A 1315 C
97	A 1877 A′
98	A 1877 A
102	A 1937 A
103	A 1937 B
110	A 2147 AB
111	A 2161 AB
112	A 2165 AB
114	A 2192 A
121	AY Per
126	A 2510 A
127	Y Per
128	A 2558 A
134	A 2699 A
136	A 2730 AB
137	A 2757 A
138	A 2757 B
139	A 2772 A
149	A 3025 AB
155	A 5544 AB
158	AL Gem
159	A 5675 AB
161	A 5763 AB
162	A 5791 AB
165	A 5885 AB
166	A 5909 A
169	A 6016 A
175	A 6229 A
179	A 6365 AB
184	UU Cnc
189	RX Cnc
190	W Lyn
191	A 6755 AB
193	WY Cnc
195	TZ Cnc
197	A 7169 AB
200	A 7231 AB
202	A 7244 AB
204	A 7273 AB
205	A 7278 AB
206	A 7289 AB
213	A 7391 A
218	A 7426 A
225	RT Leo
227	R Leo
228	T LMi
233	S LMi
234	AG Leo
235	U LMi
236	AL Leo
239	XY Leo
244	YY Leo
245	A 7660 AB
247	A 7673 AB
249	A 7677 AB

(*continued*)

252	A 7696 AB
255	A 7718 AB
261	A 7807 AB
263	A 7826 A
265	A 7840 AB
267	A 8071 A
268	A 8083 B
269	A 8083 A
270	A 8109 AB
275	ST UMa
276	TU UMa
283	A 8276 AB
286	A 8297 AB
291	A 8377 A
293	A 8404 AB
295	A 8433 AB
309	A 8593 AB
317	A 8679 A
320	A 8937 A
322	A 8986 AB
323	A 8988 AB
332	A 9080 AB
334	A 9099 AB
336	W CVn
338	A 9148 AB
342	TV Boo
345	Y Boo
356	A 9299 AB
363	RW Boo
368	A 9388 AB
376	A 9436 AB
377	A 9462 AB
383	A 9491 A
389	A 9535 A
392	A 9584 A
395	A 9642 AB
411	T CrB
414	LS Her
422	A 9962 A
426	A 9978 AB
428	A 9994 AB
434	A 10066 AB
436	A 10075 AB
437	g Her
441	GN Her
450	A 10157 AB
463	359 Her
467	SY Her
471	WZ Oph
472	A 10346 AB
473	A 10362 AB
475	A 10387 AB
477	u Her
479	350 Her
481	A 10542 AB
484	A 10585 AB
490	Barnards star
494	A 11007 AB
502	NQ Her
508	342 Her
510	A 11356 A
515	A 11493 AB
518	A 11555 A
519	679 Oph
520	A 11628 AB
522	A 11736 AB
529	A 12093 B
530	A 12093 A
531	A 12117 AB
532	A 12145 BC
533	A 12145 A
534	A 12197 A
538	A 12352 A, Z Vul
541	A 12425 A
545	A 12481 A
550	A 12594 A
551	A 12594 B
554	A 12620 AB
558	U Vul
560	A 12693 A
563	A 12723 A
564	A 12737 A
566	A 12766 A
567	A 12800 AB
570	A 12843 AB
571	A 12854 AB
573	A 12901 AB
574	A 12924 AB
579	380 Cyg
587	S Sge
588	RR Aql
591	A 13213 AB
592	A 13220 AB
603	CD Cyg
604	A 13335 A
606	A 13361 A
608	A 13374 A
609	A 13374 F
610	A 13376 D
611	A 13376 A
614	A 13405 AB
628	A 13530 A
636	A 13589 AB
637	VW Cyg
641	A 13626 B
642	A 13626 C
645	P Cyg
647	A 13666 A
649	A 13686 AB
652	444 Cyg
657	A 13745 AB
664	A 13827 AB
666	BE Vul
670	455 Cyg
673	442 Cyg
674	A 13881 AB
678	A 13932 A
680	A 13987 AB
681	A 13986 AB
687	A 14056 AB
689	GO Cyg
690	W Del
704	X Cyg
705	A 14222 AB
707	A 14232 AB
709	U Del
710	A 14263 AB
711	A 14298 A
712	A 14318 A
713	A 14337 A
714	TX Del
715	A 14350 A
717	T Vul
720	Y Cyg
724	WZ Cyg
731	S Equ
733	CG Cyg
736	A 14549 AB
737	ER Vul
741	A 14636 B
745	A 14724 A
750	A 14794 AB
753	A 14843 AB
759	A 14969 A
760	A 14979 AB
767	DK Cyg
768	A 15111 AB

(*continued*)

773	A 15174 A	835	A 15942 A	901	A 16472 A
774	A 15193 AB	836	A 15954 AB	905	A 16503 AB
775	DL Cyg	839	A 15972 AB	912	PV Cas
776	A 15208 A	849	A 16052 AB	915	AB And
778	460 Cyg	852	A 16095 B	917	A 16616 AB
781	A 15255 AB	853	A 16095 A	919	TY And
784	A 15280 AB	857	A 16112 AB	924	AN And
790	A 15378 AB	858	CQ Cep	925	A 16674 AB
793	A 15434 A	861	A 16143 A	931	A 16731 AB
794	A 15434 B	870	A 16228 A	934	A 16783 AB
797	A 15499 AB	873	A 16248 A	940	A 16823 AB
802	A 15564 AB	874	CO Lac	941	Z And
804	TW Peg	875	A 16274 AB	948	AT And
809	A 15693 AB	877	ST Peg	949	A 16950 AB
816	A 15744 AB	884	A 16325 A	953	A 16992 AB
817	A 15746 AB	887	SW Lac	954	BK Peg
826	A 15844 AB	890	A 16368 AB	955	A 17006 AB
829	A 15871 AB	891	EN Lac	956	A 17022 AB
830	A 15878 AB	892	EW Lac	969	EP Peg
831	A 15885 AB	894	A 16406 AB	970	DM Peg
833	A 15899 AB	899	A 16448 AB	972	A 17175 AB
834	A 15929 AB				

Comparison with General Catalogue

Units: $\Delta\alpha$: $0^s.001$; $\Delta\delta$: $0''.01$;

Cat. No.	GC No.	Cat.–GC $\Delta\alpha$	Cat.–GC $\Delta\delta$	Cat. No.	GC No.	Cat.–GC $\Delta\alpha$	Cat.–GC $\Delta\delta$	Cat. No.	GC No.	Cat.–GC $\Delta\alpha$	Cat.–GC $\Delta\delta$
2	19	− 171	+ 69	39	738	+ 54	+ 16	74	1451	+ 79	− 32
4	44	+ 107	− 50	41	762	− 137	+ 14	77	1521	+ 72	+ 10
6	71	+ 92	− 21	42	778	+ 36	+ 30	78	1540	− 6	+ 60
7	72	− 94	+ 148	44	828	+ 9	− 2	80	1630	+ 8	− 23
8	94	− 56	+ 14	46	843	+ 101	− 110	81	1648	+ 66	+ 67
10	178	+ 83	+ 273	48	874	− 112	− 7	82	1680	+ 12	+ 35
11	204	+ 33	− 46	49	880	− 13	− 17	83	1722	+ 56	+ 171
12	228	− 106	+ 77	54	1060	− 10	+ 61	88	1865	+ 27	+ 247
14	256	+ 40	+ 77	57	1086	+ 25	+ 8	90	1879	− 79	+ 49
16	290	+ 14	+ 34	58	1105	− 9	+ 42	91	1910	− 17	+ 68
19	335	− 43	− 95	59	1124	+ 17	+ 7	92	1938	− 7	+ 53
22	394	+ 30	− 23	62	1159	− 89	− 118	93	1965	+ 110	+ 27
26	448	+ 45	− 28	64	1220	− 35	+ 17	98	2966	+ 132	+ 334
28	476	+ 32	− 3	66	1271	− 23	+ 12	109	3359	+ 24	− 31
31	527	− 95	+ 47	67	1293	− 20	− 6	111	3398	− 92	+ 148
32	533	− 34	+ 28	68	1311	+ 60	+ 87	113	3418	+ 10	− 1
35	614	− 30	+ 60	69	1368	− 3	+ 29	114	3446	− 71	+ 138
36	641	+ 32	+ 23	72	1399	− 75	+ 16	115	3487	− 84	− 12
37	709	+ 37	− 4	73	1415	+ 26	+ 15	116	3525	+ 51	+ 101

(*continued*)

Cat. No.	GC No.	Cat.–GC $\Delta\delta$	Cat.–GC $\Delta\alpha$
117	3556	− 35	− 1
119	3705	− 28	− 39
120	3725	− 66	+ 65
122	3830	− 103	+ 18
124	3884	− 149	+ 68
125	4024	− 26	− 29
128	4133	− 54	+ 34
129	4210	− 7	− 25
130	4226	+ 141	+ 235
132	4300	+ 98	− 21
134	4420	+ 47	+ 13
135	4442	− 1	− 43
136	4465	+ 11	+ 9
137	4519	+ 73	− 64
139	4548	+ 21	+ 17
140	4598	− 43	+ 72
141	4649	− 39	+ 34
142	4690	− 30	+ 39
145	4849	− 41	− 69
147	4898	+ 29	+ 6
150	8799	− 22	+ 1
151	8915	− 24	− 31
152	8931	− 32	− 29
153	8976	− 45	+ 48
154	8995	+ 38	− 105
156	9064	− 38	+ 33
157	9101	− 69	+ 27
160	9292	− 20	− 17
163	9412	− 53	− 10
164	9462	− 97	+ 19
166	9585	− 38	+ 26
168	9688	+ 58	− 57
169	9808	− 33	+ 38
170	9843	− 50	− 13
171	9956	− 22	− 40
172	10073	− 37	+ 27
173	10130	− 86	+ 62
174	10193	− 80	− 72
175	10237	− 51	− 1
176	10288	+ 5	− 21
177	10318	− 12	− 67
178	10392	− 12	− 35
180	10650	− 97	+ 32
181	10701	− 5	− 86
182	10821	− 122	+ 7
183	10869	+ 25	+ 5
185	10995	− 75	− 42
186	11021	− 5	+ 50
187	11049	− 78	− 4
188	11163	− 63	+ 30
192	11456	− 78	+ 35
194	12504	− 66	− 30
198	12564	− 35	+ 11
199	12593	− 40	+ 35
201	12693	− 49	+ 1
203	12758	− 35	− 16
207	12863	− 66	+ 15
208	12892	− 73	+ 48
209	12940	− 25	− 39
210	12978	− 26	+ 73
211	12990	− 2	− 25
212	13010	− 12	− 56
213	13063	+ 11	+ 22
215	13112	− 46	− 9
216	13144	− 12	+ 139
217	13172	− 31	− 8
218	13182	+ 33	+ 35
219	13265	− 28	+ 10
220	13277	− 29	+ 46
222	13372	+ 5	− 18
223	13388	− 40	0
224	13422	+ 42	+ 9
226	13452	− 18	+ 22
227	13489	− 18	+ 10
229	13512	− 31	+ 101
230	13528	− 14	+ 9
231	13554	− 50	+ 27
232	13581	+ 8	− 29
237	13724	− 11	+ 44
238	13742	− 44	+ 19
240	13790	− 2	+ 120
241	13796	+ 20	+ 67
242	13888	− 29	+ 23
243	13896	− 30	+ 17
246	13976	+ 4	+ 43
248	14001	+ 17	+ 45
250	14022	+ 5	+ 11
251	14068	− 25	+ 36
253	14091	− 36	+ 52
254	14096	+ 8	+ 78
257	14167	− 56	+ 19
258	14301	− 3	− 11
259	14340	− 18	+ 20
260	14431	− 33	− 12
262	14469	− 36	− 63
263	14491	− 19	+ 57
264	14533	0	− 5
266	15252	+ 68	+ 17
267	15319	− 8	+ 23
269	15366	+ 80	+ 81
274	15625	− 45	− 1
275	15723	− 105	+ 166
278	15857	− 18	+ 40
279	15879	− 19	+ 56
281	15972	+ 34	+ 57
285	16127	+ 30	+ 24
289	16299	− 65	+ 25
290	16347	+ 8	+ 47
292	16453	+ 36	+ 4
297	16659	+ 25	− 1
299	16708	− 21	+ 41
302	16789	− 89	+ 50
303	16827	− 4	− 14
305	16899	− 51	+ 67
307	16964	− 19	+ 15
308	17005	− 4	+ 70
313	17285	− 6	+ 52
316	17400	− 20	+ 15
319	18283	− 45	+ 58
320	18313	+ 29	+ 136
324	18399	− 4	+ 42
325	18535	− 129	+ 34
328	18741	− 21	− 5
329	18769	− 28	+ 38
333	18969	+ 67	− 14
337	19143	− 17	+ 118
339	19188	+ 11	+ 81
340	19223	− 1	− 30
341	19224	+ 2	+ 16
343	19289	+ 54	+ 113
344	19320	− 16	+ 12
345	19370	+ 41	− 18
346	19374	+ 103	+ 59
347	19397	− 6	− 7
348	19400	+ 23	+ 25
349	19433	− 44	− 60
350	19463	− 25	+ 91
351	19465	− 48	+ 27

(*continued*)

Cat. No.	GC No.	Cat.–GC $\Delta\alpha$	Cat.–GC $\Delta\delta$
354	19572	+ 24	+ 57
357	19632	− 57	+ 71
359	19687	− 9	+ 64
360	19726	− 9	+ 73
365	19858	− 29	+ 5
366	19890	+ 38	+ 52
370	19946	− 39	− 3
371	19968	− 87	− 94
372	19974	− 33	+ 66
373	20013	− 34	+ 25
374	20037	+ 33	+ 60
375	20049	+ 31	− 35
378	20183	− 43	+ 64
380	20210	+ 46	+ 166
381	20237	− 11	+ 51
382	20252	− 29	+ 18
386	20352	− 34	− 3
387	20373	+ 58	+ 96
389	20457	− 26	+ 77
390	20458	+ 44	+ 59
391	20570	− 67	+ 109
392	20591	− 10	+ 29
393	20626	− 33	+ 62
396	20805	+ 3	+ 77
398	20896	− 37	− 9
399	20962	− 6	+ 37
400	21020	− 30	+ 76
401	21105	− 12	+ 56
402	21181	− 128	− 48
403	21245	0	+ 134
405	21337	− 6	+ 28
406	21368	− 30	+ 28
407	21372	+ 12	+ 16
408	21402	− 82	+ 28
409	21428	+ 7	+ 74
410	21484	+ 73	− 16
411	21491	+ 10	+ 49
412	21508	+ 19	+ 72
413	21527	− 25	+ 20
415	21552	− 52	+ 40
416	21582	+ 15	+ 94
417	21623	− 28	+ 21
418	21630	− 69	+ 67
419	21663	− 71	+ 66
420	21761	+ 4	+ 51
421	21777	− 11	+ 76
422	21802	+ 3	+ 47
423	21815	− 30	+ 84
424	21820	− 130	+ 34
425	21841	+ 71	− 17
430	22020	− 22	+ 17
432	22108	+ 7	+ 27
433	22123	− 11	+ 135
436	22166	− 56	− 50
437	22172	+ 6	− 7
438	22190	+ 1	+ 62
439	22216	+ 21	+ 96
440	22224	− 101	+ 83
442	22250	− 5	+ 57
443	22314	− 19	+ 63
444	22343	− 158	+ 70
445	22361	− 14	− 2
446	22369	+ 5	+ 80
449	22452	− 33	+ 9
450	22464	− 26	− 11
452	22522	− 1	+ 71
454	22560	− 10	+ 22
455	22611	− 10	+ 26
457	22636	+ 13	+ 138
459	22671	+ 20	+ 44
460	22728	+ 14	+ 197
461	22802	+ 2	+ 54
462	22816	− 39	+ 36
466	22927	+ 27	+ 34
468	22990	− 98	− 48
469	23002	+ 10	+ 48
474	23172	+ 39	+ 68
477	23359	− 3	+ 48
478	23390	+ 1	+ 51
480	23546	− 14	+ 57
482	23619	+ 3	+ 43
487	24295	+ 56	+ 37
489	24393	+ 1	+ 28
491	24500	− 4	+ 58
492	24522	+ 41	+ 113
493	24563	− 36	+ 66
495	24617	+ 6	− 8
496	24647	− 30	− 35
497	24698	− 31	+ 115
498	24699	+ 7	+ 35
500	24734	+ 18	+ 162
501	24783	− 24	+ 14
506	24977	+ 13	+ 129
507	25003	− 11	+ 75
509	25172	+ 84	− 4
510	25178	+ 47	+ 74
511	25194	+ 23	− 20
512	25256	+ 46	+ 113
514	25371	+ 12	+ 38
516	25449	+ 56	+ 42
517	25497	+ 2	− 133
518	25527	− 9	+ 77
521	25756	− 39	+ 80
523	25937	− 16	− 99
526	26042	+ 42	+ 20
527	26179	− 34	− 128
528	26379	− 8	+ 2
530	26392	− 56	− 34
534	26507	− 30	− 9
536	26647	− 39	+ 26
537	26690	− 6	− 27
540	26774	+ 17	+ 12
541	26821	+ 11	− 13
542	26846	− 6	+ 56
543	26875	+ 118	+ 86
544	26887	− 92	+ 78
546	26907	+ 24	− 40
547	26919	+ 20	+ 79
549	26971	− 51	+ 124
550	27015	− 38	+ 64
552	27016	− 68	+ 76
553	27041	+ 5	+ 29
555	27076	− 24	+ 200
557	27096	− 76	− 153
558	27119	+ 42	+ 104
559	27120	+ 12	+ 12
560	27139	+ 8	+ 31
562	27168	+ 181	+ 157
564	27185	+ 30	+ 50
566	27215	+ 12	+ 50
568	27286	− 37	+ 5
569	27299	+ 121	+ 174
576	27433	− 17	+ 29
578	27458	− 28	+ 21
579	27492	− 10	+ 50
580	27493	+ 10	+ 54
581	27510	− 11	− 34
582	27523	+ 21	+ 1

(*continued*)

Cat. No.	GC No.	Cat.–GC $\Delta\alpha$	Cat.–GC $\Delta\delta$
583	27558	+ 10	+ 23
584	27564	− 17	+ 40
586	27589	− 2	− 56
587	27601	+ 4	+ 26
589	27649	+ 3	+ 70
590	27677	+ 42	+ 44
594	27724	+ 12	+ 2
595	27739	+ 44	− 9
597	27776	− 37	− 46
598	27782	+ 26	+ 78
600	27820	+ 24	+ 18
601	27828	+ 40	+ 78
604	27858	+ 38	+ 34
605	27868	+ 1	+ 29
608	27892	+ 10	+ 48
615	27938	+ 76	+ 112
616	27951	+ 29	+ 118
619	27958	+ 67	+ 25
622	28000	− 54	+ 6
623	28037	+ 3	+ 49
625	28056	+ 77	+ 95
626	28068	+ 19	+ 24
629	28086	+ 91	+ 15
631	28088	+ 106	0
632	28110	− 46	+ 67
635	28125	− 61	− 17
636	28140	− 8	+ 51
639	28152	+ 26	+ 23
640	28166	+ 35	+ 49
643	28210	+ 68	− 3
644	28214	− 26	+ 63
645	28218	+ 28	+ 1
646	28220	− 12	− 76
647	28221	+ 85	− 83
650	28261	+ 28	− 45
655	28303	− 27	+ 55
659	28343	+ 26	− 6
662	28378	+ 42	+ 20
663	28379	+ 18	+ 72
667	28418	− 15	+ 18
668	28435	− 9	+ 101
672	28466	+ 16	+ 30
675	28475	− 40	+ 125
676	28498	+ 86	+ 3
677	28535	+ 70	+ 18
678	28537	+ 8	+ 36
679	28546	+ 49	+ 95
683	28604	− 30	+ 9
684	28629	− 23	+ 32
685	28671	+ 154	+ 157
688	28702	+ 14	+ 9
691	28714	− 5	+ 2
692	28741	0	+ 4
693	28764	+ 31	− 32
694	28775	+ 132	− 29
695	28793	− 12	− 3
696	28809	+ 2	+ 64
697	28814	− 10	+ 75
698	28830	+ 39	-- 31
699	28843	+ 11	+ 28
700	28854	− 58	− 4
701	28861	+ 84	+ 35
704	28886	+ 16	+ 47
708	28920	+ 15	+ 16
709	28930	+ 33	− 84
711	28997	+ 5	+ 48
712	29012	− 108	+ 129
713	29036	− 37	+ 18
715	29065	− 19	+ 85
716	29066	− 21	+ 33
717	29089	+ 14	+ 2
718	29093	+ 67	− 95
719	29111	+ 49	− 28
720	29114	− 69	− 68
721	29132	+ 58	+ 74
722	29136	− 3	− 69
725	29150	− 29	− 13
726	29170	− 40	− 26
727	29171	+ 6	+ 51
728	29201	+ 31	+ 41
730	29219	− 7	+ 13
732	29241	+ 40	− 17
734	29274	− 21	+ 21
735	29350	+ 48	− 51
736	29354	− 14	+ 19
738	29408	+ 16	+ 20
739	29427	+ 95	+ 335
741	29509	+ 85	+ 47
745	29616	− 93	+ 120
746	29627	− 88	+ 63
751	29766	− 23	+ 103
752	29823	+ 22	+ 23
754	29884	+ 12	+ 97
755	29933	+ 130	+ 31
757	29966	+ 33	+ 18
758	29973	+ 26	− 87
759	30016	+ 12	+ 20
761	30044	− 8	+ 26
762	30091	− 56	− 80
763	30100	+ 50	+ 21
764	30162	+ 9	+ 4
766	30219	− 11	+ 29
772	30298	+ 89	− 21
776	30338	+ 6	+ 36
777	30362	− 5	+ 53
778	30384	− 33	+ 25
779	30391	− 11	− 1
786	30527	+ 20	− 22
787	30530	+ 9	− 83
788	30555	+ 62	− 4
789	30579	− 17	+ 106
792	30645	− 85	− 99
793	30671	− 64	− 72
796	30691	+ 7	+ 21
797	30744	+ 68	+ 40
801	30812	− 44	− 58
803	30837	− 32	− 8
806	30939	+ 67	+ 3
807	30956	+ 21	+ 68
810	31027	+ 9	+ 48
811	31039	− 19	− 84
813	31064	+ 100	+ 172
814	31070	− 25	+ 40
815	31081	− 25	− 1
818	31127	− 13	+ 5
819	31143	− 31	+ 14
820	31167	+ 30	+ 24
821	31191	+ 104	− 22
823	31212	+ 1	− 4
828	31243	− 74	+ 30
832	31287	+ 4	− 35
835	31360	− 59	+ 9
837	31375	− 1	+ 74
838	31381	+ 38	− 16
840	31410	− 136	− 94
841	31424	+ 33	+ 14
842	31442	− 10	+ 90
843	31449	+ 14	− 21

(*continued*)

Cat. No.	GC No.	Cat.–GC $\Delta\alpha$	Cat.–GC $\Delta\delta$
845	31486	+ 33	+ 30
846	31488	– 8	– 29
847	31489	– 57	– 63
850	31519	– 43	– 17
851	31522	+ 101	+ 25
852	31550	+ 18	+ 36
853	41551	– 31	+ 27
854	31556	– 12	– 31
855	31558	+ 33	+ 79
856	31564	+ 13	– 43
859	31582	+ 39	+ 24
861	31617	+ 62	+ 9
862	31650	+ 20	– 4
864	31652	– 1	– 1
866	31670	+ 39	+ 10
867	31672	– 40	– 41
868	31690	– 40	– 24
869	31704	– 47	+ 43
870	31731	+ 8	– 7
871	31749	– 28	– 8
872	31755	+ 5	+ 37
873	31759	+ 80	+ 44
876	31824	+ 71	– 13
878	31834	+ 40	+ 43
880	31858	– 67	– 15
881	31861	– 1	+ 5
882	31879	– 3	+ 42
883	31887	+ 53	– 74
884	31896	+ 2	– 29
888	31940	+ 2	– 2
891	31987	+ 17	+ 17
892	31998	– 46	+ 19
893	32010	+ 38	– 19
895	32029	– 82	– 54
896	32032	– 147	– 6
897	32039	+ 36	+ 67
898	32063	– 36	– 39
900	32073	+ 26	– 29
901	32114	– 17	+ 3
903	32144	+ 22	+ 43
904	32171	+ 52	– 84
906	32185	– 195	– 83
908	32202	+ 28	+ 35
909	32208	– 31	+ 26
910	32232	– 9	– 21
911	32253	– 74	+ 34
913	32288	+ 18	– 15
916	32320	+ 8	+ 3
920	32375	+ 23	+ 28
921	32409	– 32	+ 37
922	32418	+ 33	+ 35
924	32447	– 29	+ 44
926	32482	– 7	+ 32
927	32484	+ 34	– 75
928	32485	+ 70	+ 31
929	32535	+ 12	+ 70
930	32538	+ 10	+ 26
931	32571	– 57	+ 44
932	32576	+ 71	– 67
936	32684	– 21	+ 90
937	32692	– 41	+ 38
938	32703	+ 9	+ 12
939	32710	+ 44	+ 50
942	32766	+ 189	– 19
943	32800	+ 8	– 46
944	32814	– 49	+ 6
945	32845	– 45	– 21
946	32892	+ 21	– 12
947	32924	– 49	– 28
950	32971	+ 7	+ 46
951	32973	+ 59	– 45
955	33021	– 61	+ 26
956	33051	– 63	+ 19
957	33062	+ 15	+ 35
958	33063	+ 47	+ 45
959	33069	– 31	+ 33
960	33093	– 75	– 61
964	33178	+ 78	+ 25
965	33183	– 20	+ 24
966	33184	+ 44	+ 23
971	33314	– 115	– 22
972	33334	– 9	+ 11

Indleveret til Selskabet den 15. december 1967.
Færdig fra trykkeriet den 17. maj 1968.

Det Kongelige Danske Videnskabernes Selskab

Matematisk-fysiske Skrifter

Mat. Fys. Skr. Dan. Vid. Selsk.

Bind **1** (kr. 141.–)

kr. ø.

1. Brodersen, Svend, and Langseth, A.: The Infrared Spectra of Benzene, sym-Benzene-d_3, and Benzene-d_6. 1956 ..... 14.–
2. Nörlund, N. E.: Sur les fonctions hypergéométriques d'ordre supérieur. 1956 .. 15.–
3. Fröman, Per Olof: Alpha Decay of Deformed Nuclei. 1957 ..... 20.–
4. Brodersen, Svend: A Simplified Procedure for Calculating the Complete Harmonic Potential Function of a Molecule from the Vibrational Frequencies. 1957 10.–
5. Brodersen, Svend, and Langseth, A.: A Complete Rule for the Vibrational Frequencies of Certain Isotopic Molecules. 1958 ..... 6.–
6. Källén, G., and Wightman, A.: The Analytic Properties of the Vacuum Expectation Value of a Product of three Scalar Local Fields. 1958 ..... 15.–
7. Brodersen, Svend, and Langseth, A.: The Fundamental Frequencies of all the Deuterated Benzenes. Application of the Complete Isotopic Rule to New Experimental Data. 1959 ..... 10.–
8. Mottelson, Ben R., and Nilsson, Sven Gösta: The Intrinsic States of Odd-A Nuclei having Ellipsoidal Equilibrium Shape. 1959 ..... 22.–
9. Källén, G., and Wilhelmsson, H.: Generalized Singular Functions. 1959 ..... 6.–
10. Møller, C.: Conservation Laws and Absolute Parallelism in General Relativity. 1961 15.–
11. Soloviev, V. G.: Effect of Pairing Correlation on Energies and β-Transition Probabilities in Deformed Nuclei. 1961 ..... 8.–

Bind **2** (kr. 180.–)

1. Higgins, Joseph: Theory of Irreversible Processes. I. Parameters of Smallness. 1962 17.–
2. Gallagher, C. J., Jr., and Soloviev, V. G.: Two-Quasi-Particle States in Even-Mass Nuclei with Deformed Equilibrium Shape. 1962 ..... 18.–
3. Mang, H. J., and Rasmussen, J. O.: Shell Model Calculations of Alpha Decay Rates of Even-Even Spheroidal Nuclei. 1962 ..... 12.–
4. Pellegrini, C., and Plebanski, J.: Tetrad Fields and Gravitational Fields. 1963 .. 14.–
5. Nörlund, N. E.: The Logarithmic Solutions of the Hypergeometric Equation. 1963 23.–
6. Lütken, Hans, and Winther, Aage: Coulomb Excitation in Deformed Nuclei. 1964 9.–
7. Bartlett, James H.: The Restricted Problem of Three Bodies. 1964 ..... 13.–
8. van Winter, Clasine: Theory of Finite Systems of Particles. I. The Green Function. 1964. ..... 20.–
9. Gyldenkerne, Kjeld: A Three-Dimensional Spectral Classification of G and K Stars. 1964 ..... 14.–
10. van Winter, Clasine: Theory of Finite Systems of Particles. II. Scattering Theory. 1965 ..... 40.–

Bind **3**

(*uafsluttet / in preparation*) kr. ø.

1. BARTLETT, J. H., and WAGNER, C. A.: The Restricted Problem of Three Bodies (II). 1965 ..... 17.–
2. HALD, A.: Bayesian Single Sampling Attribute Plans for Discrete Prior Distributions. 1965 ..... 40.–
3. LAUSTSEN, SVEND: Development of Impersonal Transit Circle Methods. 1967 .... 14.–
4. HALD, A., and KOUSGAARD, E.: A Table for Solving the Binomial Equation $B(c,n,p) = P$ for $c = 0(1)50$ and 15 Values of P. 1967 ..... 14.–
5. ZELDES, N., GRILL, A., and SIMIEVIC, A.: Shell-Model Semi-Empirical Nuclear Masses (II). 1967 ..... 60.–
6. LAUSTSEN, SVEND: Meridian Observations Made in Brorfelde (Copenhagen University Observatory) 1964–1967. Positions of 972 Stars Brighter than 11.0 vis. mag. 1968 ..... 14.–

On direct application to the agent of the Academy, MUNKSGAARD, Publishers, 47 Prags Boulevard, København S., a subscription may be taken out for the series *Matematisk-fysiske Skrifter*. This subscription automatically includes the *Matematisk-fysiske Meddelelser* in 8vo as well, since the *Meddelelser* and the *Skrifter* differ only in size, not in subject matter. Papers with large formulae, tables, plates etc., will as a rule be published in the *Skrifter*, in 4to.

For subscribers or others who wish to receive only those publications which deal with a single group of subjects, a special arrangement may be made with the agent of the Academy to obtain the published papers included under one or more of the following heads: *Mathematics, Physics, Chemistry, Astronomy, Geology.*

In order to simplify library cataloguing and reference work, these publications will appear without any special designation as to subject. On the cover of each, however, there will appear a list of the most recent paper dealing with the same subject.

The last published numbers of *Matematisk-fysiske Skrifter* within the group of **Astronomy** are the following:

Vol. **3**, nos. 1, 3, 6.

Printed in Denmark
Bianco Lunos Bogtrykkeri A/S