

APPENDIX II.

CATALOGUE

OF

1576 STARS,

FORMED FROM

THE OBSERVATIONS MADE DURING SIX YEARS,

FROM 1848 TO 1853,

AT THE

ROYAL OBSERVATORY, GREENWICH,

AND REDUCED TO THE EPOCH

1850.

GREENWICH CATALOGUE FOR 1850.

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INTRODUCTION
TO THE
GREENWICH CATALOGUE
OF
1576 STARS,
FORMED
FROM SIX YEARS' OBSERVATIONS
FROM 1848 TO 1853,
AND REDUCED TO THE EPOCH
1850.

THIS Catalogue is formed, in all essential points, in precisely the same way as the Catalogues formed by the combination of the observations from 1836 to 1841, and of those from 1842 to 1847, which were united to form the Twelve-Year Catalogue. The details are as follows:

The fundamental Right Ascensions of the Standard Stars used for the determination of the error of the Transit-Clock, for the years 1849, 1850, 1851, 1852, 1853, were deduced from the places in the Twelve-Year Catalogue. Those used for the year 1848 were not formed from that Catalogue. In order to unite all in a uniform series, it is necessary to compare the fundamental Right Ascensions actually used in 1848 with those which would have been used if the Twelve-Year Catalogue had been employed. On examining the places of all the stars which were employed for Clock-error, it is found that the Right Ascensions of the Twelve-Year Catalogue exceed those actually used in 1848 by the mean value $+0^{\circ}.062$; the numbers given by different stars being extremely accordant.

On examining the discussion in each year's printed observations for the position of the Ecliptic, it appears that the Fundamental Right Ascensions actually employed require the following corrections:—

1848		+ 0.186
1849		— 0.038
1850		— 0.064
1851		— 0.019
1852		+ 0.033
1853		+ 0.022

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Applying to the first of these, the quantity $-0^s.062$, it appears that the Fundamental Right Ascensions of the Twelve-Year Catalogue, as far as can be inferred from the observations of the different years, require the following corrections:—

1848	.....	+ 0.124
1849	.....	— 0.038
1850	.....	— 0.064
1851	.....	— 0.019
1852	.....	+ 0.033
1853	.....	+ 0.022
Mean		+ 0.010

And therefore the Fundamental Right Ascensions actually used require the following corrections:—

1848	.....	+ 0.072
1849, 1850, 1851, 1852, 1853	.....	+ 0.010

and these corrections are to be applied to every deduced Right Ascension in their respective years.

The following, then, was the process by which each star-place was formed for this Catalogue:—

I. For the Right Ascension.—From the Annual Catalogue in each of the printed volumes were extracted, the Fraction of Year corresponding to the mean of the times of observation, the Concluded Mean Right Ascension for the first day of the year, the Annual Variation, and the Number of Observations. The Annual Variation was multiplied by + 2, + 1, 0, — 1, — 2, — 3, according as the year was 1848, 1849, 1850, 1851, 1852, 1853, and the product was combined algebraically with $+ 0^s.07$ for 1848, or $+ 0^s.01$ for each of the other years; and this compound correction was applied to the place for the year, in order to find a place for the beginning of 1850. A series of Mean Right Ascensions for 1850 being thus obtained, weights were given to them corresponding to the number of observations in each year, and the mean of all was taken with these weights, and adopted without further correction for the place in this Catalogue. Each fraction of year being attached to its integral year, the mean of these was taken with the same weights, and is presented as the Mean Year in this Catalogue.

II. For the North Polar Distance.—The same words will apply in every respect to the North Polar Distance as to the Right Ascension, substituting only the following special corrections for certain years. The colatitude with which *all* the places were formed in the printed volumes is $38^{\circ}. 31'. 21''.80$, which is that deduced from a great mass of observations made with the Mural Circle, and on the accuracy of which, as

applying to the locality of the Mural Circle, there can be no sensible doubt. The places for 1848, 1849, 1850, rest on observations made with the Mural Circle; and these, therefore, may be considered as having been reduced with their appropriate colatitude, and as being sensibly correct. But the places for 1851, 1852, 1853, are determined by the Transit Circle, whose locality is not the same as that of the Mural Circle, and which requires a different colatitude. A large number of excellent observations agree in giving $38^{\circ}. 31'. 22''.00$ as the true colatitude. The individual North Polar Distances, therefore, in the printed Observations for these years, require the correction $+0''.20$. This quantity has been applied to the annual places for 1851, 1852, 1853, for all the stars which are observed only above the pole. For close circumpolar stars (assuming the number of observations above and below the pole to be sensibly equal), no correction is required, inasmuch as the *algebraic* application of $+0''.20$ diminishes the *numerical* value of North Polar Distance below the pole as much as it increases it above the pole.

In this manner, the fundamental places of the Catalogue have been prepared. The calculations were not made in duplicate, but all were examined.

Before describing the columns of the Catalogue as printed, I shall now give an account of the method of correction of the places of the stars for the combined effects of Precession, Nutation, and Aberration, proposed by me in the Memoirs of the Royal Astronomical Society, vol. xvi., and now for many years used (to the exclusion of all other methods) at the Royal Observatory. The auxiliary numbers of this Catalogue, it will be remarked, are adapted to this method of correction.

The combined effect of Precession from the beginning of the year, Lunar and Solar Nutation, and Aberration, may be expressed by these formulæ:—

In Right Ascension, the unit being the second of time,

$$A a + B b + C c + D d;$$

In North Polar Distance, the unit being the second of arc,

$$A a' + B b' + C c' + D d'$$

where A, B, C, D, are the well-known numbers whose logarithms are published in the Nautical Almanac, depending on the day only, and expressed by the following formulæ ($\odot$ denoting the Sun's true longitude, $\oslash$ the mean longitude of the Moon's node, and t the fraction of a year reckoned from January 1^d. 0^h).

$$\begin{aligned} A &= -18.732 \cdot \cos \odot. \\ B &= -20.420 \cdot \sin \odot. \\ C &= t - 0.025 \cdot \sin 2 \odot - 0.343 \cdot \sin \oslash + 0.004 \cdot \sin 2 \oslash. \\ D &= -0.545 \cdot \cos 2 \odot - 9.250 \cdot \cos \oslash + 0.090 \cdot \cos 2 \oslash. \end{aligned}$$

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and where $a, b, c, d, a', b', c', d'$, depend only upon the star's place, and are expressed by the following formulæ (α being the Star's Right Ascension, Δ the Star's North Polar Distance, ω the obliquity of the ecliptic.

$$\begin{aligned} a &= +\frac{1}{15} \cdot \cos \alpha \cdot \operatorname{cosec} \Delta. \\ b &= +\frac{1}{15} \cdot \sin \alpha \cdot \operatorname{cosec} \Delta. \\ c &= +3.0706 + 1.3370 \cdot \sin \alpha \cdot \cotan \Delta. \\ d &= +\frac{1}{15} \cdot \cos \alpha \cdot \cotan \Delta. \\ a' &= -\tan \omega \cdot \sin \Delta + \sin \alpha \cdot \cos \Delta. \\ b' &= -\cos \alpha \cdot \cos \Delta. \\ c' &= -20.055 \cdot \cos \alpha. \\ d' &= +\sin \alpha. \end{aligned}$$

From these constants new constants are formed by the following formulæ:—

$$\begin{aligned} E &= A + 25 \\ F &= B + 25 \\ G &= C + 1.2 \\ H &= D + 25 \\ L &= 210 - 1.2 \times E - 1.2 \times F - 25 \times G - 1.2 \times H \\ e &= a + 1.2 \\ f &= b + 1.2 \\ g &= c + 25 \\ h &= d + 1.2 \\ l &= 210 - 25 \times e - 25 \times f - 1.2 \times g - 25 \times h \\ e' &= a' + 1.2 \\ f' &= b' + 1.2 \\ g' &= c' + 25. \\ h' &= d' + 1.2. \\ l' &= 210 - 25 \times e' - 25 \times f' - 1.2 \times g' - 25 \times h' \end{aligned}$$

The numbers $E, F, G, H, L, e', f', g', h', l'$, are always positive; and the numbers e, f, g, h, l , are always positive for stars whose North Polar Distance exceeds $3^\circ. 10'$.

On substituting $E - 25$ for A , &c., in the formulæ for correction of the Star's place they become:—

In Right Ascension (the unit being a second of time)

$$E e + F f + G g + H h + L + l - 300.00$$

In North Polar Distance (the unit being a second of arc)

$$E e' + F f' + G g' + H h' + L + l' - 300.00.$$

I now proceed to describe the Tabular Contents of the work.

The first part is the Table of Log. E , Log. F , Log. G , Log. H , and L , for mean midnight (Greenwich time) of every day from the beginning of 1856 to the end of

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1860. These numbers are extracted from the Twelve-Year Catalogue, to which I refer for a description of the process of computation. After 1860 I trust that the publication of these numbers will be undertaken as a part of the National Astronomical Ephemeris.

The remainder of the work consists of the Catalogue of Stars, with references to other Catalogues, and with auxiliary numbers for the formation of the star's apparent place on any day for which the necessary day-constants have been prepared.

The *first* column on the left page contains the ordinal number of the star in this Catalogue.

The *second* column contains the star's name. The following is the order of preference which has been adopted in the nomenclature :—

1. Flamsteed's number and constellation, with Bayer's letter ; Baily's edition of Flamsteed being adopted as the standard, and the difference in the nomenclature of the British Association Catalogue being stated in a foot-note. When a star has been found in Baily's Flamsteed, to which no constellation-number was affixed by Flamsteed, Baily's number has been given with the prefix *B. F.*, in addition to one of the following.
2. The number in Bessel's *Fundamenta*, &c., being the Catalogue deduced by Bessel from Bradley's Observations.
3. The hour and number in Piazzi's Catalogue.
4. The number in Groombridge's Catalogue.
5. The number in Pond's Catalogue of 1112 Stars.
6. The number in the Greenwich Twelve-Year Catalogue of 2156 Stars.
7. The hour and number in Weisse's Catalogue.
8. The number in Lalande's Catalogue, published by the British Association.
9. The number in La Caille's Catalogue of the Southern Stars, published by the British Association.
10. The number in Santini's Catalogue of 1677 Stars included between the Equator and 10° of North Declination. (Memoirs of the Royal Astronomical Society, volume XII.)
11. The number in Rümker's Catalogue of 12,000 Stars for the beginning of 1836.
12. The number in Oeltzen's Catalogue of the Stars in Argelander's Northern Zones, between 45° and 80° North Declination.
13. The number in Fedorenko's Catalogue of Circumpolar Stars observed by Lalande.

The *third* column contains the Magnitude of the Star. For all the stars contained in the *Uranometria Nova*, Argelander's magnitudes are adopted ; these are distinguished by asterisks. For other stars, the magnitudes are taken in order of preference from the British Association Catalogue of 8377 stars, from Lalande's Catalogue, published by the British Association, or from Weisse's *Catalogus Stellarum ex Zonis Regiomontanis*, as is expressed in the foot-note on the right-hand pages of the Catalogue. For stars not included in any of these Catalogues, the authorities for the magnitudes are specified in the notes on the left-hand pages. When no authority is given, the magnitude is taken from the Greenwich Observations.

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The *fourth* column contains the Mean Right Ascension of the star for 1850, January 1, as found by the process already described.

The *fifth* column contains the Mean Year of Observation (including the fraction of the year), as found by the process given above. It is inserted for the purpose of enabling any person to deduce with accuracy (by comparison with other Catalogues) the magnitude of proper motion, or to correct the place given for 1850 for the effects of any gross error in the assumed value of the proper motion.

The *sixth* column contains the aggregate number of the observations from which the mean R.A. for 1850 is deduced.

The *seventh* column contains the geometrical precession in Right Ascension, expressed in seconds of time, computed by the following formula :—

$$+ 3\cdot071 + 1\cdot3370 \cdot \sin \text{R.A.} \cdot \cotan \cdot \text{N.P.D.}$$

The Right Ascension and North Polar Distance used in this computation are those of the Catalogue, and correspond, therefore, to the year 1850. For the stars included in the British Association Catalogue, the precessions of that Catalogue (which are computed by the same formula and for the same epoch) are adopted without alteration.

The *eighth* column contains the secular variation of the precession in Right Ascension, expressed in seconds of time. If we put α and Δ for the R.A. and N.P.D. of a star; P for the annual precession in R.A., expressed in seconds of time; p for the annual precession in N.P.D., expressed in seconds of arc; m for $46\cdot0591$; and n for $20\cdot0547$; then we have (taking the year as the unit of time),—

$$\frac{dz}{dt} = P \times 15 \cdot \sin 1'' = m \cdot \sin 1'' + n \cdot \sin 1'' \cdot \sin \alpha \cdot \cotan \Delta$$

$$\frac{d\Delta}{dt} = p \times \sin 1'' = -n \cdot \sin 1'' \cdot \cos \alpha$$

or

$$P = \frac{m}{15} + \frac{n}{15} \sin \alpha \cdot \cotan \Delta$$

$$p = -n \cdot \cos \alpha$$

Differentiating the latter expressions, and substituting in the differential co-efficients from the former equations,—

$$\frac{dP}{dt} = n \cdot \sin 1'' \cdot P \cdot \cos \alpha \cdot \cotan \Delta + \frac{n^2}{15} \sin 1'' \cdot \sin \alpha \cdot \cos \alpha \cdot \text{cosec}^2 \Delta$$

$$\frac{dp}{dt} = 15 n \cdot \sin 1'' \cdot P \cdot \sin \alpha$$

which are to be multiplied by 100 to form the secular variations. Remarking now that the expressions for $\log. a$, $\log. b$, &c., $\log. a'$, $\log. b'$, &c. have been calculated for other purposes, and that they contain all the functions of the star's place which are

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required here, we perceive that the expressions may be conveniently changed into the following :—

$$\begin{aligned} \left. \begin{array}{l} \text{Secular change of Precession in R. A.} \\ \text{expressed in seconds of time} \dots\dots\dots \end{array} \right\} &= 1500 \cdot n^2 \cdot \sin 1'' \times a b + 1500 \cdot n \cdot \sin 1'' \times P d \\ \left. \begin{array}{l} \text{Secular change of Precession in N.P.D.} \\ \text{expressed in seconds of arc} \dots\dots\dots \end{array} \right\} &= 1500 \cdot n \cdot \sin 1'' \times P d'. \end{aligned}$$

The numbers in the eighth column have been computed by the former of these formulæ, if the stars are not included in the British Association Catalogue. For stars included in that Catalogue, the numbers are taken from the Catalogue without alteration.

The *ninth* column contains the Annual Proper Motion in Right Ascension from the British Association Catalogue. It is proper to state that the researches of Mr. Main (published in the nineteenth volume of the Memoirs of the Royal Astronomical Society) show that these proper motions, on the whole, agree well with those which would be found by comparing Bradley's places in Bessel's *Fundamenta Astronomiæ* with the places of the Twelve-Year Catalogue, supposing Bessel's Elements of Precession (given above) to be used for the calculation of the geometrical precession.

The columns from the *tenth* to the *fourteenth* contain the numbers necessary for the computation of the star's apparent place for any day, in conformity with the system explained above. It is proper here to repeat that the numbers are not necessarily positive for stars whose North Polar Distance is less than $3^\circ. 10'$; and, in fact, there are in this Catalogue ten stars for which some of the numbers are negative. They are—

* R.A. $0^h. 10^m. 32^s$, N.P.D. $1^\circ. 23'. 13''$ No.	18.
Piazzi $0^h. 177$	50.
Star preceding 1 Ursæ Minoris α	65.
1 Ursæ Minoris α	66.
Bradley 1656	797.
Bradley 1672	800.
Groombridge 2006.....	847.
Groombridge 2283.....	987.
24 Ursæ Minoris.....	1210.
λ Ursæ Minoris (Bode).....	1314.

The new method may still be applied to these stars, but it ceases to offer any peculiar convenience. For this reason, and also to prevent any confusion as to signs, the auxiliary numbers are computed for these stars as for the others, but their places are given in foot-notes.

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The star-numbers are copied from the columns of the Twelve-Year Catalogue, as far as the stars are included in that Catalogue; those for other stars are copied from the printed Observations in which the first observations of the stars are recorded. In order to verify the transformation of the numbers a, b, c, d , into the numbers e, f, g, h, i , a day was selected, and the correction of every star was computed for that day on both systems of reduction, and the computed corrections were compared: in this manner, several errors were detected. Referring to the Introduction of the Twelve-Year Catalogue, it will appear that the numbers for all the stars of the British Association Catalogue, and for all stars of N.P.D. less than 10° which were observed before 1848, are computed strictly for the epoch 1850; the numbers for other stars are sometimes computed for years at a short distance from 1850, but never so far as to endanger any sensible error in applications for many years.

For the columns on the right-hand page, from the *first* to the *eleventh*, the same explanations will apply, *mutatis mutandis*, as to the corresponding columns on the left hand page, with this difference only, that the new method of computing the star-corrections never fails in regard to North Polar Distances, and therefore it has not been necessary to give any of the numbers in foot notes.

The Catalogues of Stars to which reference is made in the columns from the *twelfth* to the *sixteenth*, are so well known that further description is not required. The four first are selected as the best original Catalogues of their respective date, not strictly limited to particular portions of the sky or particular magnitudes of stars; the fifth because, though not an original Catalogue, it is for many reasons more convenient for use than any of the others.

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ROYAL OBSERVATORY, GREENWICH.

CATALOGUE OF STARS FOR 1850.

V A L U E S

OF

LOG. E, LOG. F, LOG. G, LOG. H, AND L,

AT

GREENWICH MEAN MIDNIGHT,

FOR EVERY DAY,

FROM 1856, JAN. 1, TO 1860, DEC. 31.

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DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1856.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1856.						1856.					
Jan. 1	1.33196	1.65374	0.01777	1.24426	83.050	March 1	0.85862	1.49734	0.08924	1.21405	113.272
2	1.32531	1.65307	0.01936	1.24396	83.453	2	0.85240	1.49262	0.09010	1.21364	113.761
3	1.31856	1.65231	0.02095	1.24366	83.858	3	0.84636	1.48783	0.09088	1.21327	114.245
4	1.31176	1.65151	0.02251	1.24336	84.266	4	0.84114	1.48294	0.09171	1.21289	114.721
5	1.30486	1.65063	0.02408	1.24302	84.682	5	0.83589	1.47799	0.09247	1.21257	115.195
6	1.29787	1.64967	0.02562	1.24268	85.111	6	0.83082	1.47298	0.09324	1.21219	115.667
7	1.29084	1.64869	0.02716	1.24229	85.539	7	0.82621	1.46786	0.09402	1.21193	116.126
8	1.28370	1.64760	0.02868	1.24194	85.978	8	0.82182	1.46268	0.09484	1.21161	116.580
9	1.27651	1.64647	0.03020	1.24151	86.424	9	0.81764	1.45742	0.09559	1.21136	117.034
10	1.26923	1.64529	0.03169	1.24113	86.871	10	0.81397	1.45208	0.09635	1.21108	117.478
11	1.26185	1.64404	0.03317	1.24073	87.326	11	0.81055	1.44665	0.09708	1.21081	117.917
12	1.25445	1.64273	0.03464	1.24029	87.786	12	0.80767	1.44116	0.09789	1.21059	118.346
13	1.24694	1.64132	0.03609	1.23985	88.258	13	0.80505	1.43558	0.09861	1.21037	118.773
14	1.23937	1.63991	0.03754	1.23937	88.736	14	0.80271	1.42992	0.09937	1.21016	119.192
15	1.23171	1.63838	0.03896	1.23893	89.206	15	0.80095	1.42418	0.10011	1.20994	119.604
16	1.22399	1.63680	0.04038	1.23844	89.689	16	0.79946	1.41833	0.10089	1.20978	120.006
17	1.21625	1.63520	0.04178	1.23795	90.170	17	0.79828	1.41244	0.10164	1.20967	120.401
18	1.20836	1.63348	0.04317	1.23746	90.666	18	0.79738	1.40646	0.10237	1.20951	120.795
19	1.20044	1.63173	0.04453	1.23692	91.163	19	0.79708	1.40041	0.10311	1.20940	121.174
20	1.19247	1.62990	0.04589	1.23639	91.663	20	0.79708	1.39427	0.10385	1.20929	121.549
21	1.18442	1.62800	0.04722	1.23589	92.169	21	0.79768	1.38804	0.10458	1.20923	121.911
22	1.17636	1.62607	0.04854	1.23535	92.674	22	0.79828	1.38176	0.10532	1.20918	122.269
23	1.16818	1.62404	0.04986	1.23480	93.187	23	0.79946	1.37532	0.10605	1.20912	122.624
24	1.15990	1.62198	0.05116	1.23425	93.701	24	0.80124	1.36883	0.10679	1.20912	122.961
25	1.15170	1.61981	0.05244	1.23370	94.219	25	0.80301	1.36226	0.10753	1.20912	123.296
26	1.14335	1.61762	0.05371	1.23310	94.730	26	0.80534	1.35560	0.10827	1.20912	123.622
27	1.13496	1.61533	0.05495	1.23254	95.268	27	0.80825	1.34885	0.10901	1.20912	123.935
28	1.12655	1.61297	0.05618	1.23195	95.797	28	0.81112	1.34203	0.10975	1.20918	124.243
29	1.11804	1.61056	0.05741	1.23138	96.326	29	0.81453	1.33511	0.11049	1.20923	124.542
30	1.10954	1.60809	0.05862	1.23077	96.858	30	0.81820	1.32809	0.11124	1.20929	124.833
31	1.10099	1.60553	0.05980	1.23021	97.393	31	0.82237	1.32100	0.11198	1.20940	125.110
Feb. 1	1.09237	1.60293	0.06099	1.22964	97.929	April 1	0.82648	1.31381	0.11273	1.20951	125.386
2	1.08373	1.60027	0.06214	1.22902	98.468	2	0.83136	1.30654	0.11349	1.20967	125.643
3	1.07519	1.59753	0.06326	1.22846	99.003	3	0.83615	1.29918	0.11423	1.20978	125.900
4	1.06654	1.59470	0.06441	1.22783	99.546	4	0.84140	1.29173	0.11500	1.20994	126.142
5	1.05779	1.59185	0.06552	1.22726	100.085	5	0.84682	1.28418	0.11576	1.21010	126.378
6	1.04907	1.58891	0.06663	1.22663	100.631	6	0.85265	1.27654	0.11653	1.21032	126.599
7	1.04041	1.58590	0.06772	1.22605	101.170	7	0.85862	1.26881	0.11730	1.21048	126.815
8	1.03169	1.58280	0.06874	1.22546	101.720	8	0.86471	1.26101	0.11807	1.21070	127.022
9	1.02307	1.57966	0.06985	1.22488	102.256	9	0.87116	1.25312	0.11886	1.21092	127.214
10	1.01443	1.57644	0.07086	1.22429	102.801	10	0.87770	1.24511	0.11965	1.21119	127.400
11	1.00578	1.57316	0.07193	1.22370	103.341	11	0.88457	1.23701	0.12044	1.21140	127.577
12	0.99712	1.56980	0.07295	1.22310	103.886	12	0.89149	1.22888	0.12124	1.21166	127.740
13	0.98865	1.56640	0.07394	1.22256	104.421	13	0.89870	1.22060	0.12204	1.21193	127.896
14	0.98005	1.56289	0.07494	1.22196	104.966	14	0.90594	1.21225	0.12285	1.21225	128.038
15	0.97167	1.55932	0.07592	1.22141	105.496	15	0.91322	1.20380	0.12366	1.21251	128.178
16	0.96320	1.55569	0.07689	1.22085	106.040	16	0.92092	1.19529	0.12448	1.21284	128.298
17	0.95499	1.55202	0.07784	1.22030	106.572	17	0.92842	1.18663	0.12531	1.21316	128.415
18	0.94671	1.54823	0.07878	1.21974	107.107	18	0.93629	1.17795	0.12614	1.21348	128.517
19	0.93856	1.54438	0.07971	1.21923	107.636	19	0.94414	1.16915	0.12699	1.21379	128.611
20	0.93055	1.54047	0.08066	1.21867	108.165	20	0.95195	1.16027	0.12783	1.21416	128.696
21	0.92271	1.53650	0.08155	1.21816	108.688	21	0.96008	1.15132	0.12868	1.21447	128.767
22	0.91486	1.53245	0.08244	1.21770	109.209	22	0.96814	1.14223	0.12954	1.21485	128.831
23	0.90720	1.52832	0.08333	1.21718	109.731	23	0.97630	1.13304	0.13040	1.21522	128.884
24	0.89978	1.52411	0.08421	1.21672	110.246	24	0.98438	1.12384	0.13128	1.21558	128.927
25	0.89238	1.51983	0.08506	1.21620	110.764	25	0.99268	1.11457	0.13215	1.21594	128.957
26	0.88524	1.51550	0.08594	1.21579	111.266	26	1.00089	1.10516	0.13305	1.21631	128.979
27	0.87816	1.51107	0.08675	1.21532	111.779	27	1.00912	1.09562	0.13394	1.21672	128.993
28	0.87139	1.50656	0.08762	1.21490	112.281	28	1.01739	1.08606	0.13484	1.21708	128.997
29	0.86495	1.50200	0.08844	1.21447	112.776	29	1.02580	1.07651	0.13575	1.21749	128.980
						30	1.03406	1.06676	0.13666	1.21785	128.965

DAY NUMBERS FOR STAR CORRECTIONS.

(xiii)

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1856.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1856.						1856.					
May 1	1.04232	1.05695	0.13759	1.21826	128.936	July 1	1.45220	0.69059	0.20165	1.22822	110.054
2	1.05067	1.04709	0.13853	1.21867	128.894	2	1.45687	0.69628	0.20269	1.22798	109.526
3	1.05897	1.03719	0.13945	1.21908	128.843	3	1.46149	0.70228	0.20371	1.22774	108.993
4	1.06722	1.02728	0.14041	1.21944	128.782	4	1.46603	0.70856	0.20473	1.22745	108.458
5	1.07552	1.01725	0.14135	1.21984	128.710	5	1.47051	0.71511	0.20577	1.22716	107.919
6	1.08373	1.00709	0.14231	1.22025	128.631	6	1.47492	0.72229	0.20678	1.22687	107.372
7	1.09196	0.99697	0.14328	1.22065	128.537	7	1.47927	0.72968	0.20777	1.22653	106.828
8	1.10020	0.98675	0.14425	1.22106	128.434	8	1.48356	0.73728	0.20878	1.22624	106.274
9	1.10831	0.97647	0.14521	1.22141	128.328	9	1.48777	0.74541	0.20979	1.22585	105.718
10	1.11641	0.96628	0.14621	1.22181	128.203	10	1.49193	0.75369	0.21078	1.22551	105.159
11	1.12446	0.95605	0.14720	1.22221	128.069	11	1.49604	0.76210	0.21174	1.22517	104.598
12	1.13245	0.94561	0.14820	1.22256	127.934	12	1.50007	0.77096	0.21273	1.22478	104.029
13	1.14047	0.93534	0.14921	1.22296	127.778	13	1.50404	0.77990	0.21368	1.22439	103.462
14	1.14839	0.92508	0.15020	1.22330	127.616	14	1.50796	0.78891	0.21464	1.22399	102.891
15	1.15622	0.91465	0.15123	1.22370	127.447	15	1.51180	0.79828	0.21561	1.22360	102.313
16	1.16402	0.90425	0.15224	1.22404	127.271	16	1.51559	0.80767	0.21656	1.22315	101.738
17	1.17177	0.89414	0.15327	1.22439	127.077	17	1.51932	0.81736	0.21748	1.22271	101.156
18	1.17952	0.88366	0.15431	1.22473	126.880	18	1.52300	0.82703	0.21841	1.22226	100.575
19	1.18713	0.87351	0.15535	1.22507	126.670	19	1.52666	0.83695	0.21935	1.22181	99.988
20	1.19470	0.86326	0.15638	1.22542	126.454	20	1.53015	0.84682	0.22023	1.22136	99.403
21	1.20222	0.85315	0.15743	1.22571	126.225	21	1.53363	0.85689	0.22118	1.22090	98.808
22	1.20972	0.84322	0.15848	1.22605	125.984	22	1.53707	0.86711	0.22207	1.22040	98.214
23	1.21708	0.83323	0.15953	1.22634	125.740	23	1.54042	0.87723	0.22297	1.21994	97.620
24	1.22444	0.82347	0.16059	1.22663	125.483	24	1.54376	0.88726	0.22385	1.21944	97.026
25	1.23171	0.81368	0.16165	1.22692	125.219	25	1.54701	0.89762	0.22473	1.21892	96.425
26	1.23889	0.80388	0.16272	1.22721	124.950	26	1.55020	0.90783	0.22559	1.21842	95.828
27	1.24603	0.79439	0.16379	1.22745	124.668	27	1.55333	0.91811	0.22645	1.21790	95.229
28	1.25312	0.78521	0.16487	1.22774	124.372	28	1.55642	0.92842	0.22731	1.21739	94.622
29	1.26011	0.77610	0.16593	1.22798	124.075	29	1.55945	0.93856	0.22815	1.21682	94.024
30	1.26704	0.76706	0.16703	1.22817	123.770	30	1.56242	0.94889	0.22896	1.21631	93.417
31	1.27389	0.75843	0.16812	1.22841	123.452	31	1.56531	0.95903	0.22981	1.21579	92.814
June						Aug.					
1	1.28068	0.74992	0.16920	1.22860	123.130	1	1.56817	0.96933	0.23061	1.21522	92.216
2	1.28743	0.74190	0.17029	1.22879	122.793	2	1.57095	0.97940	0.23143	1.21469	91.605
3	1.29408	0.73404	0.17137	1.22898	122.451	3	1.57369	0.98959	0.23223	1.21416	90.995
4	1.30064	0.72638	0.17247	1.22917	122.103	4	1.57637	0.99969	0.23300	1.21358	90.393
5	1.30717	0.71891	0.17356	1.22931	121.749	5	1.57902	1.00970	0.23381	1.21305	89.780
6	1.31362	0.71204	0.17466	1.22945	121.382	6	1.58159	1.01976	0.23456	1.21246	89.175
7	1.31999	0.70543	0.17575	1.22960	121.009	7	1.58409	1.02970	0.23535	1.21193	88.567
8	1.32630	0.69949	0.17685	1.22969	120.625	8	1.58654	1.03951	0.23610	1.21136	87.962
9	1.33253	0.69345	0.17794	1.22978	120.242	9	1.58894	1.04932	0.23686	1.21081	87.355
10	1.33870	0.68812	0.17903	1.22988	119.846	10	1.59127	1.05908	0.23760	1.21026	86.750
11	1.34479	0.68314	0.18012	1.22997	119.445	11	1.59358	1.06870	0.23833	1.20972	86.145
12	1.35081	0.67893	0.18122	1.23002	119.031	12	1.59580	1.07836	0.23907	1.20912	85.540
13	1.35676	0.67456	0.18232	1.23007	118.617	13	1.59797	1.08784	0.23978	1.20858	84.939
14	1.36264	0.67121	0.18341	1.23007	118.195	14	1.60013	1.09732	0.24049	1.20803	84.331
15	1.36845	0.66817	0.18449	1.23007	117.766	15	1.60217	1.10670	0.24117	1.20748	83.735
16	1.37420	0.66534	0.18560	1.23007	117.329	16	1.60421	1.11595	0.24186	1.20698	83.132
17	1.37987	0.66378	0.18669	1.23007	116.882	17	1.60614	1.12515	0.24255	1.20643	82.536
18	1.38547	0.66200	0.18777	1.23002	116.437	18	1.60805	1.13430	0.24324	1.20593	81.936
19	1.39101	0.66111	0.18886	1.22997	115.974	19	1.60990	1.14335	0.24390	1.20538	81.340
20	1.39647	0.66007	0.18994	1.22992	115.518	20	1.61173	1.15231	0.24456	1.20488	80.740
21	1.40187	0.66111	0.19102	1.22983	115.046	21	1.61344	1.16115	0.24523	1.20437	80.153
22	1.40718	0.66156	0.19212	1.22974	114.574	22	1.61513	1.16999	0.24587	1.20386	79.561
23	1.41242	0.66289	0.19317	1.22964	114.096	23	1.61679	1.17869	0.24651	1.20335	78.969
24	1.41766	0.66466	0.19426	1.22950	113.605	24	1.61833	1.18726	0.24715	1.20284	78.390
25	1.42280	0.66686	0.19531	1.22936	113.128	25	1.61989	1.19575	0.24775	1.20239	77.804
26	1.42787	0.66948	0.19638	1.22921	112.629	26	1.62133	1.20420	0.24840	1.20193	77.223
27	1.43286	0.67294	0.19744	1.22902	112.115	27	1.62278	1.21257	0.24901	1.20148	76.638
28	1.43780	0.67637	0.19849	1.22888	111.610	28	1.62412	1.22085	0.24960	1.20102	76.066
29	1.44267	0.68062	0.19956	1.22865	111.096	29	1.62546	1.22902	0.25022	1.20056	75.488
30	1.44747	0.68564	0.20060	1.22846	110.574	30	1.62669	1.23710	0.25080	1.20015	74.920
						31	1.62792	1.24506	0.25139	1.19975	74.349

(xiv)

GREENWICH CATALOGUE OF STARS FOR 1850.

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1856.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1856. Sept. 1	1.62908	1.25300	0.25198	1.19934	73.782	1856. Nov. 1	1.59543	1.58056	0.28577	1.20426	49.566
2	1.63015	1.26082	0.25257	1.19894	73.223	2	1.59307	1.58367	0.28642	1.20471	49.402
3	1.63119	1.26854	0.25313	1.19859	72.664	3	1.59070	1.58672	0.28706	1.20516	49.242
4	1.63218	1.27615	0.25373	1.19818	72.110	4	1.58820	1.58966	0.28771	1.20560	49.104
5	1.63310	1.28370	0.25429	1.19783	71.561	5	1.58569	1.59257	0.28840	1.20610	48.959
6	1.63402	1.29118	0.25482	1.19754	71.008	6	1.58307	1.59540	0.28909	1.20655	48.833
7	1.63482	1.29854	0.25539	1.19719	70.468	7	1.58042	1.59815	0.28974	1.20698	48.719
8	1.63562	1.30581	0.25596	1.19690	69.924	8	1.57773	1.60086	0.29044	1.20748	48.613
9	1.63634	1.31302	0.25649	1.19660	69.389	9	1.57493	1.60349	0.29113	1.20792	48.507
10	1.63701	1.32012	0.25703	1.19631	68.859	10	1.57207	1.60607	0.29182	1.20841	48.416
11	1.63761	1.32714	0.25757	1.19607	68.333	11	1.56915	1.60860	0.29253	1.20885	48.334
12	1.63816	1.33408	0.25810	1.19583	67.810	12	1.56618	1.61102	0.29327	1.20929	48.261
13	1.63867	1.34092	0.25865	1.19559	67.292	13	1.56315	1.61340	0.29392	1.20978	48.204
14	1.63914	1.34768	0.25919	1.19541	66.774	14	1.56004	1.61572	0.29466	1.21021	48.150
15	1.63953	1.35435	0.25970	1.19518	66.270	15	1.55685	1.61798	0.29541	1.21064	48.107
16	1.63987	1.36095	0.26025	1.19500	65.763	16	1.55360	1.62017	0.29612	1.21108	48.076
17	1.64016	1.36745	0.26076	1.19488	65.265	17	1.55029	1.62230	0.29686	1.21151	48.053
18	1.64038	1.37388	0.26127	1.19470	64.775	18	1.54692	1.62432	0.29762	1.21193	48.042
19	1.64059	1.38022	0.26182	1.19458	64.280	19	1.54347	1.62632	0.29837	1.21235	48.039
20	1.64072	1.38649	0.26233	1.19446	63.797	20	1.53997	1.62829	0.29912	1.21273	48.042
21	1.64077	1.39266	0.26285	1.19440	63.321	21	1.53639	1.63015	0.29988	1.21316	48.057
22	1.64081	1.39874	0.26334	1.19434	62.849	22	1.53274	1.63194	0.30063	1.21353	48.088
23	1.64077	1.40477	0.26385	1.19428	62.382	23	1.52902	1.63369	0.30139	1.21389	48.125
24	1.64068	1.41067	0.26438	1.19422	61.923	24	1.52524	1.63537	0.30216	1.21426	48.172
25	1.64055	1.41651	0.26489	1.19422	61.466	25	1.52138	1.63697	0.30292	1.21463	48.232
26	1.64034	1.42235	0.26541	1.19422	61.013	26	1.51746	1.63855	0.30369	1.21500	48.295
27	1.64008	1.42804	0.26594	1.19428	60.567	27	1.51344	1.64004	0.30450	1.21532	48.370
28	1.63978	1.43367	0.26647	1.19428	60.128	28	1.50938	1.64149	0.30527	1.21563	48.455
29	1.63940	1.43921	0.26696	1.19434	59.699	29	1.50526	1.64282	0.30604	1.21599	48.555
30	1.63901	1.44467	0.26748	1.19440	59.271	30	1.50104	1.64417	0.30686	1.21625	48.655
Oct. 1	1.63850	1.45005	0.26802	1.19452	58.855	Dec. 1	1.49675	1.64538	0.30762	1.21657	48.778
2	1.63799	1.45535	0.26854	1.19464	58.439	2	1.49240	1.64656	0.30844	1.21682	48.902
3	1.63740	1.46058	0.26904	1.19476	58.035	3	1.48798	1.64769	0.30923	1.21708	49.037
4	1.63676	1.46574	0.26957	1.19488	57.637	4	1.48348	1.64874	0.31005	1.21734	49.180
5	1.63605	1.47082	0.27010	1.19506	57.243	5	1.47891	1.64976	0.31083	1.21754	49.337
6	1.63532	1.47582	0.27064	1.19524	56.856	6	1.47428	1.65068	0.31166	1.21780	49.496
7	1.63448	1.48075	0.27117	1.19541	56.481	7	1.46957	1.65156	0.31245	1.21796	49.672
8	1.63365	1.48559	0.27170	1.19559	56.108	8	1.46477	1.65236	0.31324	1.21816	49.859
9	1.63273	1.49037	0.27224	1.19583	55.743	9	1.45991	1.65311	0.31408	1.21831	50.059
10	1.63173	1.49507	0.27278	1.19607	55.389	10	1.45497	1.65378	0.31488	1.21847	50.255
11	1.63069	1.49969	0.27332	1.19637	55.040	11	1.44996	1.65440	0.31571	1.21862	50.464
12	1.62961	1.50426	0.27386	1.19660	54.698	12	1.44487	1.65498	0.31651	1.21872	50.687
13	1.62845	1.50873	0.27441	1.19690	54.365	13	1.43971	1.65548	0.31736	1.21882	50.912
14	1.62726	1.51315	0.27495	1.19719	54.037	14	1.43447	1.65593	0.31815	1.21892	51.153
15	1.62599	1.51748	0.27553	1.19748	53.718	15	1.42916	1.65629	0.31896	1.21898	51.405
16	1.62464	1.52176	0.27608	1.19777	53.411	16	1.42377	1.65659	0.31977	1.21903	51.663
17	1.62327	1.52596	0.27666	1.19812	53.104	17	1.41829	1.65686	0.32058	1.21903	51.933
18	1.62186	1.53007	0.27721	1.19847	52.809	18	1.41273	1.65704	0.32139	1.21908	52.210
19	1.62033	1.53411	0.27780	1.19882	52.528	19	1.40713	1.65718	0.32220	1.21908	52.493
20	1.61877	1.53812	0.27839	1.19917	52.246	20	1.40142	1.65722	0.32301	1.21903	52.782
21	1.61718	1.54202	0.27898	1.19957	51.972	21	1.39565	1.65727	0.32383	1.21898	53.088
22	1.61548	1.54588	0.27956	1.19998	51.713	22	1.38980	1.65718	0.32466	1.21892	53.400
23	1.61375	1.54964	0.28016	1.20033	51.462	23	1.38386	1.65709	0.32547	1.21887	53.716
24	1.61196	1.55336	0.28076	1.20073	51.214	24	1.37784	1.65691	0.32625	1.21877	54.046
25	1.61010	1.55697	0.28138	1.20119	50.978	25	1.37175	1.65664	0.32708	1.21867	54.383
26	1.60821	1.56057	0.28198	1.20159	50.748	26	1.36558	1.65637	0.32786	1.21852	54.727
27	1.60622	1.56407	0.28258	1.20205	50.530	27	1.35933	1.65597	0.32865	1.21836	55.085
28	1.60418	1.56750	0.28322	1.20245	50.320	28	1.35301	1.65557	0.32944	1.21821	55.442
29	1.60210	1.57088	0.28384	1.20290	50.115	29	1.34658	1.65507	0.33023	1.21806	55.812
30	1.59994	1.57416	0.28449	1.20335	49.923	30	1.34010	1.65453	0.33102	1.21785	56.185
31	1.59772	1.57738	0.28514	1.20380	49.739	31	1.33355	1.65391	0.33181	1.21760	56.570

DAY NUMBERS FOR STAR CORRECTIONS.

(xv)

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1857.

Year, Month, and Day.		Logarithms of				Value of L	Year, Month, and Day.		Logarithms of				Value of L
		E	F	G	H				E	F	G	H	
1857.													
Jan.	1	1.32690	1.65325	0.06027	1.21739	82.004	March	1	0.86009	1.49848	0.12502	1.18992	111.568
	2	1.32018	1.65249	0.06167	1.21713	82.410		2	0.85390	1.49378	0.12578	1.18955	112.056
	3	1.31338	1.65169	0.06313	1.21687	82.814		3	0.84809	1.48900	0.12654	1.18924	112.535
	4	1.30652	1.65086	0.06456	1.21657	83.222		4	0.84244	1.48414	0.12729	1.18893	113.012
	5	1.29956	1.64993	0.06599	1.21631	83.639		5	0.83695	1.47920	0.12803	1.18862	113.486
	6	1.29253	1.64891	0.06739	1.21599	84.069		6	0.83190	1.47420	0.12876	1.18831	113.953
	7	1.28543	1.64787	0.06879	1.21563	84.500		7	0.82730	1.46912	0.12948	1.18806	114.408
	8	1.27827	1.64677	0.07017	1.21532	84.935		8	0.82292	1.46395	0.13021	1.18781	114.862
	9	1.27101	1.64560	0.07155	1.21495	85.379		9	0.81876	1.45870	0.13094	1.18757	115.310
	10	1.26368	1.64434	0.07292	1.21463	85.829		10	0.81482	1.45339	0.13166	1.18738	115.754
	11	1.25628	1.64304	0.07428	1.21416	86.288		11	0.81141	1.44800	0.13237	1.18719	116.187
	12	1.24881	1.64166	0.07562	1.21379	86.750		12	0.80825	1.44252	0.13308	1.18701	116.619
	13	1.24125	1.64025	0.07694	1.21337	87.216		13	0.80564	1.43697	0.13378	1.18682	117.040
	14	1.23361	1.63876	0.07827	1.21295	87.689		14	0.80330	1.43133	0.13447	1.18669	117.460
	15	1.22590	1.63723	0.07959	1.21251	88.162		15	0.80124	1.42562	0.13518	1.18657	117.865
	16	1.21816	1.63558	0.08087	1.21204	88.648		16	0.79976	1.41982	0.13587	1.18644	118.266
	17	1.21032	1.63390	0.08215	1.21161	89.133		17	0.79857	1.41393	0.13656	1.18638	118.661
	18	1.20239	1.63218	0.08341	1.21114	89.622		18	0.79768	1.40795	0.13726	1.18631	119.049
	19	1.19446	1.63036	0.08467	1.21064	90.118		19	0.79708	1.40192	0.13796	1.18625	119.430
	20	1.18644	1.62849	0.08590	1.21016	90.617		20	0.79708	1.39579	0.13863	1.18625	119.801
	21	1.17836	1.62653	0.08711	1.20967	91.124		21	0.79738	1.38957	0.13932	1.18625	120.166
	22	1.17013	1.62452	0.08830	1.20918	91.635		22	0.79828	1.38328	0.14001	1.18625	120.519
	23	1.16194	1.62246	0.08955	1.20863	92.144		23	0.79917	1.37689	0.14070	1.18625	120.871
	24	1.15367	1.62033	0.09069	1.20814	92.660		24	0.80065	1.37042	0.14139	1.18631	121.212
	25	1.14533	1.61814	0.09189	1.20759	93.176		25	0.80271	1.36387	0.14207	1.18638	121.540
	26	1.13695	1.61588	0.09302	1.20704	93.698		26	0.80476	1.35723	0.14276	1.18644	121.866
	27	1.12853	1.61356	0.09416	1.20655	94.218		27	0.80738	1.35050	0.14346	1.18657	122.178
	28	1.12011	1.61114	0.09528	1.20599	94.747		28	0.81026	1.34369	0.14415	1.18669	122.485
	29	1.11161	1.60871	0.09642	1.20544	95.270		29	0.81368	1.33678	0.14484	1.18682	122.782
	30	1.10302	1.60618	0.09747	1.20488	95.806		30	0.81736	1.32981	0.14552	1.18694	123.070
	31	1.09441	1.60357	0.09861	1.20432	96.337		31	0.82127	1.32272	0.14623	1.18713	123.349
1857.													
Feb.	1	1.08585	1.60090	0.09968	1.20375	96.871	April	1	0.82539	1.31557	0.14692	1.18732	123.621
	2	1.07727	1.59819	0.10071	1.20319	97.405		2	0.83001	1.30830	0.14762	1.18750	123.883
	3	1.06859	1.59540	0.10185	1.20262	97.937		3	0.83483	1.30097	0.14835	1.18775	124.130
	4	1.05991	1.59253	0.10288	1.20210	98.474		4	0.84010	1.29354	0.14906	1.18794	124.372
	5	1.05128	1.58963	0.10391	1.20153	99.006		5	0.84554	1.28602	0.14976	1.18819	124.605
	6	1.04257	1.58661	0.10491	1.20096	99.550		6	0.85114	1.27843	0.15048	1.18850	124.826
	7	1.03393	1.58357	0.10591	1.20039	100.086		7	0.85714	1.27074	0.15120	1.18874	125.038
	8	1.02525	1.58046	0.10690	1.19986	100.622		8	0.86326	1.26295	0.15194	1.18906	125.240
	9	1.01654	1.57725	0.10787	1.19928	101.163		9	0.86950	1.25508	0.15266	1.18936	125.437
	10	1.00797	1.57396	0.10883	1.19876	101.702		10	0.87608	1.24711	0.15339	1.18967	125.619
	11	0.99924	1.57066	0.10978	1.19824	102.237		11	0.88275	1.23906	0.15413	1.19004	125.794
	12	0.99067	1.56723	0.11072	1.19765	102.778		12	0.88972	1.23091	0.15487	1.19035	125.957
	13	0.98215	1.56378	0.11164	1.19713	103.312		13	0.89675	1.22266	0.15562	1.19072	126.113
	14	0.97366	1.56022	0.11255	1.19660	103.849		14	0.90404	1.21432	0.15637	1.19108	126.256
	15	0.96525	1.55661	0.11345	1.19613	104.380		15	0.91137	1.20593	0.15714	1.19150	126.387
	16	0.95694	1.55291	0.11434	1.19559	104.913		16	0.91891	1.19742	0.15790	1.19187	126.510
	17	0.94871	1.54917	0.11521	1.19506	105.443		17	0.92666	1.18881	0.15866	1.19229	126.630
	18	0.94062	1.54535	0.11610	1.19458	105.965		18	0.93439	1.18012	0.15943	1.19266	126.726
	19	0.93248	1.54146	0.11695	1.19410	106.493		19	0.94211	1.17129	0.16023	1.19308	126.823
	20	0.92449	1.53749	0.11781	1.19362	107.014		20	0.94998	1.16245	0.16102	1.19356	126.903
	21	0.91669	1.53344	0.11864	1.19314	107.536		21	0.95799	1.15352	0.16181	1.19398	127.075
	22	0.90908	1.52931	0.11946	1.19272	108.057		22	0.96611	1.14447	0.16261	1.19440	127.036
	23	0.90149	1.52514	0.12028	1.19229	108.565		23	0.97416	1.13530	0.16343	1.19488	127.089
	24	0.89414	1.52089	0.12110	1.19187	109.073		24	0.98247	1.12612	0.16423	1.19529	127.128
	25	0.88681	1.51655	0.12190	1.19144	109.585		25	0.99067	1.11677	0.16505	1.19575	127.161
	26	0.87978	1.51215	0.12269	1.19102	110.088		26	0.99893	1.10746	0.16588	1.19625	127.177
	27	0.87304	1.50767	0.12348	1.19066	110.583		27	1.00709	1.09792	0.16672	1.19672	127.193
	28	0.86639	1.50311	0.12425	1.19028	111.079		28	1.01542	1.08846	0.16757	1.19719	127.189
								29	1.02376	1.07879	0.16841	1.19771	127.176
								30	1.03209	1.06915	0.16927	1.19818	127.154

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GREENWICH CATALOGUE OF STARS FOR 1850.

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1857.

Logarithms of						Value of L	Logarithms of						Value of L
Year, Month, and Day.	E	F	G	H	Year, Month, and Day.		E	F	G	H			
1857. May	1	1°04041	1°05932	0°17014	1°19865	127°124	1857. July	1	1°45107	0°68936	0°23013	1°21364	108°133
2	1°04870	1°04956	0°17099	1°19917	127°083	2	1°45575	0°69467	0°23111	1°21348	107°605		
3	1°05695	1°03964	0°17187	1°19963	127°033	3	1°46038	0°70069	0°23208	1°21327	107°068		
4	1°06527	1°02970	0°17276	1°20010	126°969	4	1°46493	0°70700	0°23303	1°21305	106°532		
5	1°07353	1°01963	0°17363	1°20062	126°898	5	1°46943	0°71358	0°23399	1°21284	105°990		
6	1°08171	1°00956	0°17454	1°20108	126°817	6	1°47384	0°72042	0°23495	1°21257	105°447		
7	1°09001	0°99939	0°17543	1°20159	126°723	7	1°47822	0°72785	0°23592	1°21235	104°891		
8	1°09812	0°98927	0°17635	1°20205	126°620	8	1°48250	0°73548	0°23686	1°21209	104°338		
9	1°10631	0°97908	0°17725	1°20256	126°505	9	1°48675	0°74331	0°23778	1°21182	103°781		
10	1°11439	0°96882	0°17816	1°20302	126°385	10	1°49093	0°75164	0°23873	1°21151	103°216		
11	1°12243	0°95851	0°17909	1°20347	126°255	11	1°49503	0°76010	0°23965	1°21125	102°650		
12	1°13051	0°94817	0°18001	1°20397	126°112	12	1°49908	0°76869	0°24059	1°21092	102°081		
13	1°13851	0°93799	0°18097	1°20443	125°951	13	1°50307	0°77769	0°24148	1°21059	101°511		
14	1°14644	0°92764	0°18189	1°20488	125°792	14	1°50700	0°78676	0°24239	1°21021	100°936		
15	1°15427	0°91730	0°18285	1°20532	125°622	15	1°51086	0°79589	0°24330	1°20988	100°360		
16	1°16208	0°90699	0°18381	1°20577	125°439	16	1°51467	0°80534	0°24419	1°20951	99°778		
17	1°16992	0°89654	0°18478	1°20621	125°247	17	1°51842	0°81510	0°24508	1°20918	99°189		
18	1°17762	0°88637	0°18573	1°20666	125°045	18	1°52211	0°82484	0°24596	1°20880	98°601		
19	1°18524	0°87608	0°18669	1°20710	124°838	19	1°52573	0°83456	0°24683	1°20836	98°016		
20	1°19284	0°86591	0°18768	1°20753	124°615	20	1°52928	0°84451	0°24769	1°20797	97°425		
21	1°20039	0°85555	0°18866	1°20792	124°387	21	1°53277	0°85440	0°24856	1°20759	96°833		
22	1°20786	0°84554	0°18964	1°20831	124°151	22	1°53625	0°86447	0°24941	1°20715	96°235		
23	1°21532	0°83563	0°19063	1°20874	123°898	23	1°53964	0°87468	0°25025	1°20671	95°636		
24	1°22266	0°82566	0°19161	1°20912	123°645	24	1°54296	0°88479	0°25110	1°20627	95°038		
25	1°22992	0°81595	0°19260	1°20945	123°380	25	1°54623	0°89523	0°25192	1°20583	94°433		
26	1°23715	0°80622	0°19361	1°20983	123°104	26	1°54944	0°90531	0°25274	1°20538	93°834		
27	1°24430	0°79679	0°19461	1°21021	122°818	27	1°55258	0°91568	0°25353	1°20493	93°231		
28	1°25140	0°78738	0°19562	1°21054	122°526	28	1°55569	0°92587	0°25436	1°20448	92°621		
29	1°25842	0°77832	0°19663	1°21086	122°224	29	1°55873	0°93610	0°25512	1°20397	92°023		
30	1°26537	0°76934	0°19763	1°21119	121°915	30	1°56169	0°94635	0°25592	1°20352	91°416		
31	1°27226	0°76043	0°19864	1°21145	121°601	31	1°56464	0°95658	0°25673	1°20302	90°803		
June	1	1°27905	0°75198	0°19968	1°21177	121°272	Aug.	1	1°56750	0°96679	0°25750	1°20256	90°193
2	1°28579	0°74401	0°20067	1°21204	120°935	2	1°57030	0°97696	0°25824	1°20205	89°587		
3	1°29244	0°73584	0°20170	1°21230	120°595	3	1°57303	0°98707	0°25902	1°20159	88°978		
4	1°29903	0°72822	0°20271	1°21257	120°244	4	1°57573	0°99727	0°25977	1°20108	88°365		
5	1°30558	0°72079	0°20376	1°21278	119°884	5	1°57837	1°00724	0°26052	1°20062	87°753		
6	1°31204	0°71396	0°20479	1°21300	119°513	6	1°58097	1°01725	0°26123	1°20010	87°144		
7	1°31844	0°70700	0°20579	1°21321	119°146	7	1°58350	1°02728	0°26196	1°19957	86°532		
8	1°32476	0°70069	0°20683	1°21342	118°762	8	1°58594	1°03706	0°26268	1°19911	85°926		
9	1°33100	0°69507	0°20785	1°21358	118°371	9	1°58837	1°04696	0°26340	1°19859	85°313		
10	1°33717	0°68936	0°20888	1°21374	117°977	10	1°59073	1°05671	0°26410	1°19812	84°702		
11	1°34329	0°68439	0°20991	1°21389	117°572	11	1°59304	1°06642	0°26479	1°19760	84°093		
12	1°34932	0°67977	0°21093	1°21405	117°160	12	1°59526	1°07596	0°26549	1°19713	83°490		
13	1°35529	0°67552	0°21196	1°21416	116°743	13	1°59746	1°08553	0°26615	1°19666	82°880		
14	1°36119	0°67208	0°21298	1°21426	116°317	14	1°59960	1°09501	0°26682	1°19613	82°273		
15	1°36703	0°66904	0°21403	1°21437	115°880	15	1°60169	1°10439	0°26748	1°19565	81°669		
16	1°37276	0°66642	0°21504	1°21442	115°443	16	1°60372	1°11374	0°26816	1°19518	81°059		
17	1°37848	0°66422	0°21607	1°21447	114°997	17	1°60569	1°12295	0°26879	1°19470	80°459		
18	1°38411	0°66244	0°21707	1°21453	114°547	18	1°60760	1°13211	0°26943	1°19422	79°860		
19	1°38967	0°66156	0°21811	1°21453	114°086	19	1°60948	1°14119	0°27007	1°19380	79°254		
20	1°39516	0°66111	0°21913	1°21453	113°619	20	1°61130	1°15017	0°27071	1°19332	78°655		
21	1°40057	0°66067	0°22015	1°21453	113°154	21	1°61305	1°15910	0°27132	1°19290	78°057		
22	1°40591	0°66156	0°22115	1°21453	112°673	22	1°61473	1°16790	0°27192	1°19241	77°468		
23	1°41117	0°66244	0°22216	1°21447	112°196	23	1°61639	1°17662	0°27253	1°19199	76°873		
24	1°41641	0°66422	0°22317	1°21442	111°703	24	1°61798	1°18524	0°27314	1°19156	76°282		
25	1°42158	0°66598	0°22419	1°21437	111°211	25	1°61953	1°19380	0°27375	1°19114	75°690		
26	1°42666	0°66904	0°22518	1°21426	110°708	26	1°62101	1°20222	0°27434	1°19078	75°104		
27	1°43167	0°67208	0°22619	1°21416	110°202	27	1°62242	1°21059	0°27492	1°19035	74°524		
28	1°43663	0°67552	0°22716	1°21405	109°697	28	1°62380	1°21887	0°27549	1°18998	73°944		
29	1°44151	0°67977	0°22815	1°21395	109°178	29	1°62514	1°22706	0°27608	1°18961	73°361		
30	1°44632	0°68439	0°22914	1°21379	108°659	30	1°62640	1°23517	0°27663	1°18924	72°789		
						31	1°62763	1°24319	0°27718	1°18887	72°227		

DAY NUMBERS FOR STAR CORRECTIONS.

(xvii)

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1857.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1857. Sept. 1	1.62879	1.25112	0.27776	1.18856	71.644	1857. Nov. 1	1.59399	1.57980	0.30977	1.19801	47.116
2	1.62990	1.25895	0.27831	1.18819	71.078	2	1.59365	1.58294	0.31038	1.19853	46.947
3	1.63093	1.26669	0.27883	1.18787	70.523	3	1.59127	1.58597	0.31100	1.19905	46.786
4	1.63194	1.27432	0.27938	1.18763	69.959	4	1.58880	1.58894	0.31162	1.19963	46.636
5	1.63289	1.28188	0.27990	1.18732	69.407	5	1.58630	1.59188	0.31225	1.20015	46.489
6	1.63381	1.28937	0.28046	1.18707	68.848	6	1.58371	1.59470	0.31287	1.20073	46.360
7	1.63465	1.29677	0.28098	1.18682	68.300	7	1.58107	1.59750	0.31353	1.20125	46.233
8	1.63541	1.30407	0.28149	1.18657	67.761	8	1.57837	1.60023	0.31416	1.20182	46.117
9	1.63617	1.31127	0.28202	1.18631	67.218	9	1.57560	1.60289	0.31484	1.20233	46.008
10	1.63685	1.31840	0.28254	1.18613	66.681	10	1.57276	1.60546	0.31550	1.20290	45.915
11	1.63748	1.32545	0.28307	1.18594	66.146	11	1.56987	1.60798	0.31617	1.20347	45.825
12	1.63803	1.33240	0.28355	1.18575	65.626	12	1.56691	1.61045	0.31685	1.20397	45.748
13	1.63855	1.33928	0.28408	1.18562	65.098	13	1.56387	1.61286	0.31752	1.20448	45.681
14	1.63901	1.34606	0.28457	1.18543	64.585	14	1.56079	1.61517	0.31820	1.20504	45.623
15	1.63944	1.35276	0.28506	1.18531	64.069	15	1.55763	1.61746	0.31888	1.20555	45.575
16	1.63978	1.35937	0.28555	1.18524	63.562	16	1.55439	1.61965	0.31956	1.20604	45.541
17	1.64008	1.36591	0.28608	1.18512	63.056	17	1.55109	1.62177	0.32028	1.20655	45.514
18	1.64034	1.37236	0.28657	1.18505	62.555	18	1.54773	1.62388	0.32096	1.20704	45.494
19	1.64055	1.37873	0.28706	1.18499	62.060	19	1.54429	1.62586	0.32169	1.20753	45.488
20	1.64068	1.38501	0.28756	1.18499	61.571	20	1.54078	1.62784	0.32237	1.20803	45.490
21	1.64077	1.39122	0.28805	1.18499	61.086	21	1.53724	1.62969	0.32310	1.20852	45.500
22	1.64081	1.39733	0.28852	1.18499	60.610	22	1.53360	1.63152	0.32379	1.20901	45.524
23	1.64077	1.40336	0.28901	1.18499	60.141	23	1.52989	1.63327	0.32452	1.20945	45.557
24	1.64072	1.40932	0.28951	1.18505	59.669	24	1.52614	1.63499	0.32526	1.20994	45.590
25	1.64059	1.41514	0.29001	1.18505	59.213	25	1.52230	1.63664	0.32599	1.21037	45.639
26	1.64038	1.42099	0.29048	1.18518	58.756	26	1.51839	1.63821	0.32673	1.21075	45.702
27	1.64016	1.42671	0.29098	1.18524	58.305	27	1.51441	1.63970	0.32747	1.21119	45.773
28	1.63987	1.43234	0.29147	1.18537	57.861	28	1.51035	1.64115	0.32821	1.21161	45.854
29	1.63953	1.43789	0.29194	1.18550	57.426	29	1.50625	1.64252	0.32895	1.21198	45.946
30	1.63910	1.44337	0.29245	1.18562	56.998	30	1.50204	1.64382	0.32970	1.21235	46.050
Oct. 1	1.63863	1.44877	0.29295	1.18581	56.573	Dec. 1	1.49779	1.64512	0.33049	1.21273	46.149
2	1.63812	1.45409	0.29346	1.18600	56.153	2	1.49346	1.64629	0.33124	1.21311	46.271
3	1.63757	1.45934	0.29392	1.18619	55.744	3	1.48906	1.64743	0.33199	1.21342	46.401
4	1.63693	1.46450	0.29443	1.18644	55.338	4	1.48458	1.64847	0.33274	1.21374	46.546
5	1.63626	1.46960	0.29494	1.18663	54.939	5	1.48003	1.64949	0.33349	1.21405	46.695
6	1.63559	1.47461	0.29541	1.18688	54.557	6	1.47540	1.65045	0.33429	1.21437	46.848
7	1.63469	1.47956	0.29592	1.18719	54.171	7	1.47070	1.65133	0.33504	1.21463	47.020
8	1.63385	1.48444	0.29644	1.18744	53.793	8	1.46592	1.65218	0.33580	1.21490	47.199
9	1.63293	1.48923	0.29694	1.18775	53.425	9	1.46108	1.65294	0.33656	1.21511	47.385
10	1.63198	1.49394	0.29746	1.18806	53.061	10	1.45516	1.65365	0.33737	1.21532	47.576
11	1.63093	1.49860	0.29797	1.18837	52.711	11	1.45116	1.65427	0.33813	1.21553	47.788
12	1.62986	1.50315	0.29848	1.18874	52.365	12	1.44609	1.65485	0.33889	1.21579	48.001
13	1.62874	1.50767	0.29900	1.18912	52.021	13	1.44094	1.65534	0.33966	1.21594	48.232
14	1.62755	1.51210	0.29952	1.18949	51.680	14	1.43571	1.65579	0.34043	1.21610	48.468
15	1.62628	1.51645	0.30008	1.18985	51.365	15	1.43042	1.65620	0.34124	1.21625	48.702
16	1.62498	1.52074	0.30059	1.19028	51.049	16	1.42505	1.65655	0.34202	1.21636	48.953
17	1.62363	1.52497	0.30111	1.19066	50.730	17	1.41960	1.65682	0.34279	1.21646	49.226
18	1.62218	1.52910	0.30168	1.19108	50.440	18	1.41402	1.65700	0.34356	1.21657	49.494
19	1.62069	1.53317	0.30224	1.19150	50.148	19	1.40845	1.65713	0.34433	1.21667	49.771
20	1.61917	1.53718	0.30276	1.19199	49.861	20	1.40277	1.65722	0.34511	1.21672	50.058
21	1.61754	1.54112	0.30332	1.19241	49.590	21	1.39701	1.65727	0.34585	1.21672	50.356
22	1.61592	1.54499	0.30389	1.19290	49.315	22	1.39117	1.65722	0.34663	1.21677	50.661
23	1.61418	1.54876	0.30446	1.19338	49.059	23	1.38525	1.65709	0.34741	1.21677	50.978
24	1.61239	1.55249	0.30502	1.19386	48.809	24	1.37926	1.65695	0.34820	1.21672	51.294
25	1.61056	1.55615	0.30559	1.19434	48.566	25	1.37319	1.65673	0.34893	1.21672	51.628
26	1.60867	1.55973	0.30616	1.19488	48.332	26	1.36704	1.65642	0.34968	1.21667	51.970
27	1.60667	1.56324	0.30673	1.19535	48.111	27	1.36081	1.65606	0.35047	1.21657	52.316
28	1.60466	1.56669	0.30734	1.19589	47.895	28	1.35451	1.65566	0.35121	1.21651	52.670
29	1.60259	1.57007	0.30791	1.19643	47.689	29	1.34812	1.65521	0.35195	1.21641	53.031
30	1.60046	1.57339	0.30853	1.19695	47.487	30	1.34165	1.65467	0.35270	1.21625	53.405
31	1.59822	1.57665	0.30914	1.19748	47.300	31	1.33512	1.65405	0.35345	1.21610	53.785

GREENWICH CATALOGUE FOR 1850.

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GREENWICH CATALOGUE OF STARS FOR 1850.

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1858.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1858.						1858.					
Jan. 1	1.32850	1.65343	0.10073	1.21594	79.150	March 1	0.86156	1.49961	0.16027	1.19296	108.491
2	1.32181	1.65267	0.10210	1.21579	79.543	2	0.85540	1.49493	0.16097	1.19272	108.972
3	1.31502	1.65187	0.10342	1.21563	79.943	3	0.84937	1.49018	0.16165	1.19241	109.455
4	1.30819	1.65103	0.10473	1.21542	80.348	4	0.84374	1.48534	0.16235	1.19217	109.927
5	1.30125	1.65014	0.10602	1.21516	80.763	5	0.83826	1.48044	0.16301	1.19199	110.398
6	1.29424	1.64918	0.10731	1.21495	81.180	6	0.83323	1.47545	0.16372	1.19175	110.856
7	1.28716	1.64813	0.10859	1.21469	81.607	7	0.82839	1.47037	0.16440	1.19156	111.315
8	1.28000	1.64703	0.10985	1.21442	82.042	8	0.82375	1.46523	0.16505	1.19138	111.771
9	1.27276	1.64586	0.11112	1.21410	82.484	9	0.81960	1.46000	0.16572	1.19126	112.216
10	1.26544	1.64464	0.11237	1.21384	82.927	10	0.81567	1.45471	0.16639	1.19114	112.655
11	1.25804	1.64339	0.11361	1.21353	83.374	11	0.81226	1.44933	0.16705	1.19102	113.087
12	1.25055	1.64201	0.11484	1.21321	83.836	12	0.80911	1.44387	0.16769	1.19090	113.517
13	1.24302	1.64059	0.11606	1.21289	84.297	13	0.80622	1.43833	0.16834	1.19084	113.936
14	1.23544	1.63914	0.11727	1.21251	84.762	14	0.80388	1.43270	0.16900	1.19078	114.348
15	1.22774	1.63757	0.11847	1.21214	85.238	15	0.80183	1.42701	0.16963	1.19072	114.757
16	1.22000	1.63601	0.11965	1.21177	85.711	16	0.80006	1.42123	0.17027	1.19066	115.159
17	1.21214	1.63432	0.12082	1.21140	86.199	17	0.79887	1.41529	0.17091	1.19066	115.556
18	1.20426	1.63260	0.12198	1.21103	86.682	18	0.79768	1.40938	0.17155	1.19066	115.944
19	1.19631	1.63077	0.12313	1.21059	87.179	19	0.79738	1.40339	0.17218	1.19066	116.317
20	1.18831	1.62895	0.12426	1.21016	87.671	20	0.79708	1.39728	0.17282	1.19072	116.689
21	1.18025	1.62702	0.12539	1.20978	88.168	21	0.79738	1.39109	0.17344	1.19078	117.053
22	1.17211	1.62502	0.12649	1.20934	88.673	22	0.79798	1.38481	0.17409	1.19084	117.407
23	1.16388	1.62298	0.12761	1.20891	89.178	23	0.79887	1.37844	0.17472	1.19096	117.756
24	1.15562	1.62085	0.12869	1.20847	89.691	24	0.80035	1.37200	0.17535	1.19108	118.093
25	1.14730	1.61869	0.12978	1.20797	90.203	25	0.80212	1.36547	0.17599	1.19120	118.424
26	1.13900	1.61643	0.13084	1.20753	90.719	26	0.80418	1.35885	0.17663	1.19138	118.745
27	1.13059	1.61411	0.13188	1.20710	91.239	27	0.80680	1.35216	0.17727	1.19156	119.055
28	1.12216	1.61173	0.13290	1.20660	91.761	28	0.80969	1.34536	0.17790	1.19175	119.361
29	1.11365	1.60929	0.13395	1.20621	92.279	29	0.81283	1.33850	0.17855	1.19193	119.656
30	1.10506	1.60679	0.13496	1.20572	92.809	30	0.81651	1.33153	0.17919	1.19217	119.941
31	1.09652	1.60421	0.13596	1.20516	93.340	31	0.82016	1.32448	0.17983	1.19241	120.225
Feb. 1	1.08795	1.60158	0.13696	1.20471	93.865	April 1	0.82430	1.31734	0.18048	1.19266	120.494
2	1.07934	1.59886	0.13794	1.20420	94.399	2	0.82893	1.31012	0.18112	1.19290	120.752
3	1.07062	1.59610	0.13891	1.20375	94.928	3	0.83377	1.30281	0.18177	1.19320	121.001
4	1.06203	1.59325	0.13985	1.20324	95.463	4	0.83879	1.29539	0.18243	1.19350	121.244
5	1.05335	1.59034	0.14080	1.20279	95.996	5	0.84426	1.28792	0.18308	1.19386	121.471
6	1.04472	1.58735	0.14172	1.20227	96.534	6	0.84962	1.28034	0.18374	1.19416	121.698
7	1.03602	1.58432	0.14265	1.20182	97.063	7	0.85565	1.27266	0.18440	1.19452	121.908
8	1.02728	1.58121	0.14356	1.20131	97.602	8	0.86156	1.26487	0.18508	1.19488	122.112
9	1.01866	1.57796	0.14446	1.20085	98.142	9	0.86807	1.25701	0.18575	1.19524	122.303
10	1.00999	1.57476	0.14534	1.20039	98.673	10	0.87445	1.24909	0.18643	1.19565	122.486
11	1.00133	1.57144	0.14621	1.19992	99.209	11	0.88116	1.24104	0.18710	1.19607	122.659
12	0.99284	1.56808	0.14707	1.19946	99.738	12	0.88794	1.23291	0.18779	1.19648	122.824
13	0.98422	1.56461	0.14793	1.19899	100.274	13	0.89501	1.22468	0.18848	1.19690	122.978
14	0.97581	1.56107	0.14877	1.19853	100.805	14	0.90234	1.21636	0.18917	1.19736	123.118
15	0.96730	1.55747	0.14958	1.19812	101.339	15	0.90971	1.20797	0.18987	1.19777	123.252
16	0.95903	1.55382	0.15042	1.19765	101.862	16	0.91710	1.19946	0.19059	1.19824	123.375
17	0.95070	1.55009	0.15124	1.19724	102.390	17	0.92469	1.19090	0.19129	1.19870	123.490
18	0.94248	1.54625	0.15204	1.19684	102.917	18	0.93248	1.18224	0.19200	1.19923	123.587
19	0.93439	1.54239	0.15283	1.19643	103.438	19	0.94025	1.17347	0.19273	1.19969	123.680
20	0.92646	1.53845	0.15361	1.19601	103.956	20	0.94817	1.16459	0.19347	1.20021	123.762
21	0.91851	1.53440	0.15437	1.19556	104.478	21	0.95605	1.15570	0.19419	1.20068	123.837
22	0.91095	1.53031	0.15514	1.19524	104.990	22	0.96424	1.14667	0.19493	1.20119	123.894
23	0.90341	1.52614	0.15589	1.19488	105.500	23	0.97217	1.13753	0.19569	1.20170	123.950
24	0.89588	1.52191	0.15665	1.19452	106.011	24	0.98038	1.12836	0.19645	1.20227	123.985
25	0.88861	1.51760	0.15738	1.19422	106.512	25	0.98865	1.11912	0.19720	1.20279	124.014
26	0.88161	1.51321	0.15811	1.19386	107.013	26	0.99682	1.10973	0.19797	1.20330	124.037
27	0.87468	1.50877	0.15885	1.19356	107.508	27	1.00504	1.10030	0.19873	1.20386	124.048
28	0.86807	1.50424	0.15955	1.19326	108.000	28	1.01343	1.09083	0.19951	1.20437	124.043
						29	1.02170	1.08117	0.20028	1.20493	124.035
						30	1.02996	1.07151	0.20109	1.20549	124.012

DAY NUMBERS FOR STAR CORRECTIONS.

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DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1858.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1858.						1858.					
May						July					
1	1°03836	1°06179	0°20187	1°20604	123°979	1	1°44990	0°68812	0°25770	1°22527	104°925
2	1°04659	1°05201	0°20269	1°20660	123°936	2	1°45461	0°69345	0°25861	1°22517	104°395
3	1°05492	1°04207	0°20348	1°20715	123°887	3	1°45925	0°69909	0°25950	1°22502	103°862
4	1°06319	1°03209	0°20431	1°20770	123°818	4	1°46382	0°70543	0°26042	1°22493	103°317
5	1°07151	1°02211	0°20514	1°20825	123°744	5	1°46833	0°71204	0°26130	1°22478	102°775
6	1°07966	1°01215	0°20594	1°20880	123°668	6	1°47277	0°71891	0°26219	1°22463	102°226
7	1°08795	1°00193	0°20678	1°20934	123°575	7	1°47716	0°72601	0°26309	1°22444	101°674
8	1°09612	0°99176	0°20762	1°20988	123°473	8	1°48146	0°73368	0°26399	1°22429	101°115
9	1°10429	0°98166	0°20847	1°21043	123°355	9	1°48572	0°74155	0°26486	1°22409	100°555
10	1°11245	0°97134	0°20931	1°21097	123°234	10	1°48993	0°74957	0°26572	1°22390	99°991
11	1°12047	0°96112	0°21017	1°21151	123°102	11	1°49406	0°75810	0°26661	1°22365	99°420
12	1°12853	0°95070	0°21104	1°21204	122°960	12	1°49812	0°76673	0°26748	1°22340	98°849
13	1°13654	0°94043	0°21191	1°21257	122°804	13	1°50213	0°77546	0°26833	1°22320	98°274
14	1°14447	0°93017	0°21278	1°21311	122°639	14	1°50608	0°78459	0°26918	1°22291	97°697
15	1°15238	0°91972	0°21365	1°21364	122°471	15	1°50995	0°79378	0°27003	1°22266	97°117
16	1°16020	0°90950	0°21453	1°21416	122°285	16	1°51378	0°80330	0°27085	1°22236	96°533
17	1°16804	0°89913	0°21542	1°21463	122°094	17	1°51753	0°81283	0°27170	1°22211	95°944
18	1°17576	0°88883	0°21631	1°21516	121°891	18	1°52123	0°82237	0°27249	1°22181	95°362
19	1°18340	0°87863	0°21721	1°21563	121°681	19	1°52487	0°83216	0°27332	1°22151	94°770
20	1°19102	0°86831	0°21814	1°21615	121°458	20	1°52845	0°84218	0°27416	1°22116	94°172
21	1°19859	0°85812	0°21904	1°21662	121°228	21	1°53197	0°85215	0°27495	1°22085	93°576
22	1°20610	0°84809	0°21996	1°21708	120°986	22	1°53543	0°86229	0°27575	1°22050	92°977
23	1°21353	0°83800	0°22087	1°21754	120°740	23	1°53883	0°87234	0°27656	1°22015	92°377
24	1°22085	0°82812	0°22179	1°21801	120°483	24	1°54216	0°88252	0°27732	1°21984	91°776
25	1°22817	0°81820	0°22272	1°21842	120°218	25	1°54544	0°89260	0°27809	1°21949	91°177
26	1°23539	0°80883	0°22365	1°21887	119°937	26	1°54868	0°90298	0°27887	1°21908	90°568
27	1°24255	0°79917	0°22456	1°21928	119°637	27	1°55184	0°91322	0°27964	1°21872	89°962
28	1°24966	0°78983	0°22550	1°21969	119°362	28	1°55493	0°92330	0°28039	1°21842	89°357
29	1°25670	0°78053	0°22645	1°22010	119°039	29	1°55799	0°93363	0°28113	1°21801	88°748
30	1°26364	0°77161	0°22737	1°22045	118°752	30	1°56097	0°94396	0°28187	1°21760	88°139
31	1°27053	0°76276	0°22832	1°22080	118°435	31	1°56390	0°95410	0°28261	1°21718	87°532
June						Aug.					
1	1°27737	0°75403	0°22926	1°22121	118°107	1	1°56679	0°96440	0°28333	1°21677	86°918
2	1°28412	0°74576	0°23022	1°22151	117°772	2	1°56960	0°97449	0°28404	1°21641	86°309
3	1°29081	0°73764	0°23117	1°22186	117°428	3	1°57237	0°98470	0°28476	1°21599	85°693
4	1°29742	0°73005	0°23211	1°22221	117°074	4	1°57509	0°99484	0°28548	1°21558	85°078
5	1°30399	0°72266	0°23306	1°22251	116°714	5	1°57773	1°00489	0°28615	1°21522	84°466
6	1°31047	0°71549	0°23402	1°22281	116°345	6	1°58035	1°01485	0°28684	1°21479	83°853
7	1°31687	0°70856	0°23498	1°22305	115°974	7	1°58287	1°02485	0°28752	1°21437	83°242
8	1°32322	0°70228	0°23592	1°22330	115°590	8	1°58534	1°03472	0°28821	1°21395	82°629
9	1°32948	0°69628	0°23689	1°22360	115°196	9	1°58778	1°04459	0°28890	1°21358	82°009
10	1°33568	0°69059	0°23784	1°22380	114°803	10	1°59015	1°05444	0°28955	1°21316	81°396
11	1°34181	0°68564	0°23879	1°22404	114°393	11	1°59246	1°06412	0°29021	1°21273	80°787
12	1°34787	0°68104	0°23978	1°22424	113°977	12	1°59474	1°07375	0°29082	1°21235	80°176
13	1°35387	0°67680	0°24074	1°22444	113°555	13	1°59694	1°08330	0°29147	1°21193	79°567
14	1°35978	0°67294	0°24167	1°22463	113°133	14	1°59908	1°09278	0°29210	1°21156	78°956
15	1°36563	0°66948	0°24264	1°22478	112°700	15	1°60120	1°10215	0°29272	1°21114	78°348
16	1°37141	0°66686	0°24358	1°22493	112°254	16	1°60323	1°11152	0°29334	1°21075	77°741
17	1°37714	0°66466	0°24453	1°22502	111°811	17	1°60523	1°12074	0°29396	1°21037	77°131
18	1°38279	0°66289	0°24548	1°22517	111°357	18	1°60713	1°12991	0°29454	1°20999	76°533
19	1°38836	0°66156	0°24644	1°22527	110°898	19	1°60901	1°13900	0°29518	1°20962	75°924
20	1°39384	0°66111	0°24740	1°22532	110°431	20	1°61087	1°14800	0°29576	1°20923	75°319
21	1°39926	0°66067	0°24837	1°22542	109°960	21	1°61262	1°15696	0°29636	1°20885	74°720
22	1°40462	0°66111	0°24931	1°22546	109°483	22	1°61434	1°16573	0°29690	1°20852	74°125
23	1°40993	0°66200	0°25025	1°22551	108°998	23	1°61600	1°17448	0°29750	1°20820	73°525
24	1°41517	0°66378	0°25119	1°22551	108°505	24	1°61762	1°18314	0°29805	1°20781	72°933
25	1°42033	0°66554	0°25211	1°22551	108°014	25	1°61917	1°19175	0°29860	1°20748	72°340
26	1°42543	0°66817	0°25307	1°22551	107°510	26	1°62065	1°20021	0°29916	1°20711	71°751
27	1°43045	0°67121	0°25399	1°22551	107°003	27	1°62210	1°20858	0°29972	1°20687	71°164
28	1°43542	0°67466	0°25492	1°22546	106°493	28	1°62347	1°21687	0°30028	1°20660	70°579
29	1°44031	0°67850	0°25586	1°22542	105°976	29	1°62481	1°22507	0°30079	1°20627	70°003
30	1°44514	0°68314	0°25676	1°22532	105°457	30	1°62612	1°23320	0°30131	1°20599	69°421
						31	1°62735	1°24125	0°30184	1°20577	68°842

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GREENWICH CATALOGUE OF STARS FOR 1850.

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1858.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1858.						1858.					
Sept. 1	1.62849	1.24918	0.30236	1.20549	68.275	Nov. 1	1.59653	1.57905	0.33238	1.21872	43.485
2	1.62965	1.25705	0.30288	1.20527	67.699	2	1.59424	1.58217	0.33296	1.21928	43.309
3	1.63069	1.26479	0.30340	1.20504	67.135	3	1.59185	1.58524	0.33354	1.21989	43.142
4	1.63173	1.27249	0.30389	1.20482	66.572	4	1.58941	1.58823	0.33411	1.22045	42.990
5	1.63268	1.28009	0.30442	1.20460	66.011	5	1.58689	1.59116	0.33469	1.22106	42.845
6	1.63361	1.28757	0.30490	1.20437	65.456	6	1.58432	1.59406	0.33531	1.22166	42.699
7	1.63444	1.29500	0.30539	1.20420	64.909	7	1.58172	1.59683	0.33593	1.22221	42.570
8	1.63524	1.30231	0.30587	1.20403	64.362	8	1.57902	1.59956	0.33652	1.22281	42.454
9	1.63601	1.30956	0.30636	1.20392	63.813	9	1.57627	1.60225	0.33715	1.22340	42.339
10	1.63668	1.31670	0.30686	1.20380	63.273	10	1.57346	1.60485	0.33778	1.22399	42.236
11	1.63731	1.32378	0.30734	1.20369	62.738	11	1.57056	1.60741	0.33840	1.22458	42.144
12	1.63791	1.33075	0.30783	1.20358	62.205	12	1.56763	1.60986	0.33903	1.22517	42.064
13	1.63846	1.33765	0.30828	1.20347	61.680	13	1.56461	1.61227	0.33966	1.22576	41.992
14	1.63893	1.34444	0.30877	1.20341	61.156	14	1.56153	1.61461	0.34030	1.22629	41.932
15	1.63936	1.35116	0.30923	1.20335	60.640	15	1.55839	1.61691	0.34093	1.22687	41.878
16	1.63970	1.35780	0.30973	1.20335	60.125	16	1.55518	1.61913	0.34161	1.22745	41.831
17	1.64004	1.36435	0.31018	1.20335	59.615	17	1.55190	1.62129	0.34224	1.22798	41.802
18	1.64029	1.37082	0.31063	1.20335	59.115	18	1.54856	1.62335	0.34293	1.22855	41.776
19	1.64051	1.37723	0.31109	1.20335	58.616	19	1.54513	1.62538	0.34356	1.22907	41.770
20	1.64064	1.38352	0.31158	1.20341	58.123	20	1.54166	1.62735	0.34424	1.22960	41.763
21	1.64077	1.38972	0.31204	1.20347	57.633	21	1.53812	1.62924	0.34493	1.23016	41.767
22	1.64081	1.39589	0.31249	1.20352	57.151	22	1.53451	1.63110	0.34557	1.23068	41.784
23	1.64081	1.40190	0.31295	1.20358	56.678	23	1.53080	1.63285	0.34626	1.23115	41.817
24	1.64072	1.40787	0.31341	1.20369	56.210	24	1.52706	1.63457	0.34695	1.23167	41.849
25	1.64059	1.41374	0.31387	1.20386	55.748	25	1.52326	1.63622	0.34764	1.23218	41.891
26	1.64042	1.41958	0.31433	1.20397	55.287	26	1.51937	1.63782	0.34833	1.23264	41.947
27	1.64021	1.42531	0.31479	1.20415	54.831	27	1.51540	1.63931	0.34902	1.23310	42.017
28	1.63995	1.43096	0.31526	1.20432	54.380	28	1.51136	1.64081	0.34977	1.23357	42.082
29	1.63961	1.43654	0.31571	1.20448	53.942	29	1.50727	1.64218	0.35047	1.23398	42.172
30	1.63918	1.44204	0.31613	1.20471	53.516	30	1.50309	1.64352	0.35116	1.23443	42.268
Oct. 1	1.63876	1.44746	0.31659	1.20493	53.085	Dec. 1	1.49884	1.64482	0.35186	1.23484	42.373
2	1.63825	1.45279	0.31710	1.20521	52.658	2	1.49451	1.64599	0.35256	1.23526	42.494
3	1.63769	1.45806	0.31757	1.20544	52.243	3	1.49014	1.64716	0.35331	1.23566	42.610
4	1.63706	1.46325	0.31803	1.20572	51.837	4	1.48566	1.64825	0.35401	1.23602	42.749
5	1.63643	1.46837	0.31850	1.20604	51.428	5	1.48114	1.64927	0.35471	1.23639	42.894
6	1.63577	1.47341	0.31896	1.20632	51.040	6	1.47652	1.65023	0.35546	1.23674	43.046
7	1.63509	1.47837	0.31943	1.20666	50.649	7	1.47185	1.65112	0.35618	1.23706	43.211
8	1.63436	1.48327	0.31990	1.20698	50.270	8	1.46709	1.65196	0.35693	1.23737	43.382
9	1.63351	1.48807	0.32037	1.20731	49.901	9	1.46225	1.65276	0.35764	1.23769	43.564
10	1.63263	1.49281	0.32083	1.20770	49.532	10	1.45735	1.65347	0.35835	1.23795	43.760
11	1.63169	1.49748	0.32135	1.20808	49.171	11	1.45237	1.65413	0.35911	1.23826	43.956
12	1.63065	1.50208	0.32181	1.20852	48.818	12	1.44732	1.65471	0.35982	1.23849	44.173
13	1.62954	1.50660	0.32229	1.20891	48.474	13	1.44219	1.65525	0.36054	1.23875	44.391
14	1.62834	1.51104	0.32280	1.20934	48.139	14	1.43699	1.65575	0.36130	1.23897	44.615
15	1.62701	1.51543	0.32327	1.20978	47.810	15	1.43171	1.65611	0.36202	1.23915	44.861
16	1.62550	1.51971	0.32379	1.21021	47.492	16	1.42636	1.65646	0.36274	1.23937	45.109
17	1.62396	1.52396	0.32426	1.21070	47.178	17	1.42093	1.65673	0.36351	1.23955	45.362
18	1.62234	1.52811	0.32479	1.21119	46.870	18	1.41541	1.65695	0.36423	1.23968	45.632
19	1.62065	1.53218	0.32530	1.21166	46.579	19	1.40984	1.65713	0.36496	1.23981	45.904
20	1.61895	1.53620	0.32582	1.21214	46.289	20	1.40416	1.65722	0.36567	1.23994	46.192
21	1.61719	1.54014	0.32634	1.21268	46.008	21	1.39843	1.65727	0.36640	1.24007	46.480
22	1.61531	1.54403	0.32686	1.21316	45.735	22	1.39262	1.65722	0.36712	1.24016	46.786
23	1.61341	1.54785	0.32739	1.21369	45.469	23	1.38674	1.65713	0.36785	1.24021	47.095
24	1.61148	1.55157	0.32791	1.21421	45.216	24	1.38074	1.65700	0.36858	1.24025	47.412
25	1.60952	1.55524	0.32848	1.21479	44.966	25	1.37470	1.65677	0.36931	1.24029	47.739
26	1.60751	1.55886	0.32900	1.21532	44.729	26	1.36857	1.65651	0.37004	1.24034	48.070
27	1.60549	1.56239	0.32957	1.21589	44.499	27	1.36236	1.65620	0.37078	1.24034	48.406
28	1.60341	1.56586	0.33010	1.21641	44.280	28	1.35607	1.65579	0.37147	1.24029	48.765
29	1.60125	1.56925	0.33067	1.21698	44.068	29	1.34970	1.65530	0.37220	1.24029	49.124
30	1.59907	1.57257	0.33124	1.21754	43.867	30	1.34325	1.65480	0.37289	1.24025	49.489
31	1.59687	1.57583	0.33181	1.21816	43.671	31	1.33674	1.65422	0.37362	1.24016	49.861

DAY NUMBERS FOR STAR CORRECTIONS.

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DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1859.

Year, Month, and Day.	Logarithms of				Value of L.	Year, Month, and Day.	Logarithms of				Value of L.		
	E	F	G	H			E	F	G	H			
1859. Jan.	1	1.33013	1.65356	0.13620	1.24007	75.228	1859. March	1	0.86326	1.50073	0.19086	1.22246	104.405
	2	1.32344	1.65285	0.13741	1.23999	75.617		2	0.85689	1.49606	0.19152	1.22226	104.889
	3	1.31668	1.65209	0.13862	1.23990	76.010		3	0.85089	1.49131	0.19216	1.22206	105.369
	4	1.30985	1.65129	0.13980	1.23977	76.410		4	0.84503	1.48649	0.19278	1.22191	105.844
	5	1.30293	1.65036	0.14100	1.23963	76.824		5	0.83957	1.48160	0.19343	1.22176	106.310
	6	1.29592	1.64940	0.14218	1.23946	77.242		6	0.83430	1.47662	0.19405	1.22166	106.774
	7	1.28886	1.64838	0.14333	1.23928	77.667		7	0.82947	1.47158	0.19466	1.22151	107.232
	8	1.28172	1.64729	0.14451	1.23911	78.095		8	0.82484	1.46645	0.19527	1.22141	107.684
	9	1.27449	1.64616	0.14569	1.23893	78.526		9	0.82071	1.46124	0.19587	1.22136	108.128
	10	1.26721	1.64495	0.14683	1.23871	78.967		10	0.81679	1.45596	0.19649	1.22126	108.566
	11	1.25981	1.64369	0.14796	1.23849	79.415		11	0.81312	1.45061	0.19709	1.22121	108.999
	12	1.25240	1.64235	0.14909	1.23826	79.866		12	0.80969	1.44517	0.19768	1.22121	109.430
	13	1.24490	1.64094	0.15020	1.23800	80.327		13	0.80680	1.43965	0.19828	1.22116	109.851
	14	1.23728	1.63949	0.15130	1.23773	80.793		14	0.80447	1.43405	0.19888	1.22116	110.261
	15	1.22960	1.63795	0.15241	1.23746	81.263		15	0.80212	1.42838	0.19948	1.22121	110.667
	16	1.22186	1.63638	0.15350	1.23719	81.735		16	0.80035	1.42261	0.20006	1.22126	111.068
	17	1.21405	1.63474	0.15458	1.23688	82.213		17	0.79887	1.41675	0.20065	1.22126	111.465
	18	1.20621	1.63302	0.15564	1.23657	82.695		18	0.79798	1.41083	0.20124	1.22136	111.847
	19	1.19830	1.63123	0.15670	1.23625	83.185		19	0.79738	1.40484	0.20182	1.22146	112.223
	20	1.19028	1.62941	0.15775	1.23593	83.674		20	0.79708	1.39875	0.20242	1.22166	112.588
	21	1.18224	1.62747	0.15878	1.23562	84.172		21	0.79738	1.39259	0.20298	1.22166	112.955
	22	1.17408	1.62550	0.15979	1.23530	84.673		22	0.79768	1.38634	0.20356	1.22181	113.314
	23	1.16594	1.62347	0.16081	1.23494	85.176		23	0.79857	1.38000	0.20415	1.22196	113.659
	24	1.15770	1.62137	0.16181	1.23457	85.683		24	0.80006	1.37356	0.20473	1.22211	113.997
	25	1.14940	1.61921	0.16281	1.23425	86.190		25	0.80154	1.36705	0.20531	1.22231	114.331
	26	1.14103	1.61699	0.16379	1.23389	86.702		26	0.80359	1.36046	0.20589	1.22251	114.654
	27	1.13262	1.61469	0.16475	1.23352	87.221		27	0.80622	1.35378	0.20650	1.22276	114.958
	28	1.12419	1.61231	0.16570	1.23310	87.744		28	0.80883	1.34700	0.20708	1.22301	115.266
	29	1.11567	1.60990	0.16665	1.23273	88.263		29	0.81198	1.34015	0.20765	1.22325	115.564
	30	1.10717	1.60741	0.16758	1.23236	88.784		30	0.81538	1.33320	0.20824	1.22350	115.854
	31	1.09861	1.60485	0.16850	1.23199	89.310		31	0.81932	1.32617	0.20883	1.22380	116.128
Feb.	1	1.09001	1.60221	0.16942	1.23162	89.837	April	1	0.82347	1.31904	0.20942	1.22409	116.398
	2	1.08139	1.59952	0.17033	1.23120	90.366		2	0.82784	1.31184	0.21002	1.22444	116.655
	3	1.07275	1.59675	0.17120	1.23082	90.898		3	0.83243	1.30452	0.21061	1.22473	116.912
	4	1.06412	1.59395	0.17208	1.23044	91.424		4	0.83747	1.29714	0.21123	1.22507	117.151
	5	1.05540	1.59106	0.17296	1.23007	91.955		5	0.84296	1.28965	0.21183	1.22546	117.379
	6	1.04671	1.58809	0.17381	1.22964	92.491		6	0.84835	1.28210	0.21243	1.22581	117.605
	7	1.03810	1.58506	0.17466	1.22926	93.022		7	0.85415	1.27446	0.21304	1.22619	117.816
	8	1.02943	1.58193	0.17549	1.22888	93.559		8	0.86033	1.26669	0.21365	1.22663	118.017
	9	1.02073	1.57878	0.17631	1.22850	94.090		9	0.86639	1.25887	0.21427	1.22702	118.212
	10	1.01200	1.57557	0.17713	1.22812	94.623		10	0.87304	1.25096	0.21491	1.22745	118.389
	11	1.00342	1.57224	0.17794	1.22778	95.155		11	0.87955	1.24293	0.21553	1.22788	118.566
	12	0.99484	1.56889	0.17874	1.22740	95.686		12	0.88637	1.23480	0.21615	1.22836	118.733
	13	0.98628	1.56547	0.17952	1.22706	96.214		13	0.89348	1.22663	0.21680	1.22879	118.882
	14	0.97777	1.56195	0.18029	1.22668	96.746		14	0.90064	1.21831	0.21743	1.22926	119.027
	15	0.96933	1.55836	0.18105	1.22634	97.274		15	0.90783	1.20999	0.21808	1.22974	119.160
	16	0.96095	1.55469	0.18181	1.22600	97.803		16	0.91527	1.20148	0.21874	1.23026	119.283
	17	0.95267	1.55096	0.18256	1.22566	98.328		17	0.92291	1.19296	0.21938	1.23073	119.396
	18	0.94451	1.54721	0.18330	1.22532	98.846		18	0.93055	1.18429	0.22001	1.23124	119.502
	19	0.93629	1.54332	0.18402	1.22502	99.371		19	0.93837	1.17556	0.22070	1.23176	119.591
	20	0.92842	1.53939	0.18473	1.22473	99.887		20	0.94616	1.16671	0.22137	1.23227	119.677
	21	0.92052	1.53540	0.18545	1.22439	100.403		21	0.95410	1.15785	0.22207	1.23282	119.744
	22	0.91281	1.53133	0.18614	1.22414	100.913		22	0.96216	1.14886	0.22275	1.23338	119.804
	23	0.90510	1.52719	0.18684	1.22385	101.424		23	0.97033	1.13973	0.22342	1.23389	119.858
	24	0.89762	1.52295	0.18753	1.22360	101.932		24	0.97842	1.13059	0.22413	1.23443	119.898
	25	0.89038	1.51866	0.18821	1.22330	102.436		25	0.98660	1.12127	0.22482	1.23503	119.931
	26	0.88321	1.51429	0.18888	1.22305	102.937		26	0.99484	1.11198	0.22553	1.23557	119.949
	27	0.87631	1.50986	0.18955	1.22286	103.428		27	1.00312	1.10254	0.22625	1.23611	119.959
	28	0.86974	1.50533	0.19021	1.22266	103.918		28	1.01143	1.09309	0.22696	1.23670	119.955
								29	1.01976	1.08341	0.22769	1.23728	119.946
								30	1.02809	1.07386	0.22841	1.23782	119.923

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GREENWICH CATALOGUE OF STARS FOR 1850.

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1859.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1859. May						1859. July					
1	1°03628	1°06412	0°22914	1°23840	119°897	1	1°44881	0°68688	0°28109	1°26008	100°841
2	1°04472	1°05431	0°22987	1°23897	119°854	2	1°45352	0°69223	0°28195	1°26004	100°307
3	1°05298	1°04447	0°23063	1°23955	119°799	3	1°45818	0°69789	0°28280	1°26000	99°770
4	1°06121	1°03446	0°23137	1°24016	119°742	4	1°46276	0°70386	0°28366	1°25996	99°229
5	1°06949	1°02444	0°23214	1°24073	119°668	5	1°46729	0°71011	0°28449	1°25989	98°687
6	1°07781	1°01443	0°23292	1°24130	119°582	6	1°47175	0°71702	0°28536	1°25981	98°133
7	1°08606	1°00430	0°23366	1°24186	119°493	7	1°47615	0°72416	0°28619	1°25974	97°580
8	1°09420	0°99422	0°23444	1°24242	119°390	8	1°48047	0°73187	0°28699	1°25962	97°023
9	1°10244	0°98391	0°23523	1°24302	119°275	9	1°48474	0°73942	0°28782	1°25951	96°463
10	1°11058	0°97366	0°23601	1°24358	119°152	10	1°48895	0°74750	0°28867	1°25936	95°896
11	1°11858	0°96354	0°23680	1°24413	119°021	11	1°49309	0°75607	0°28947	1°25925	95°323
12	1°12664	0°95321	0°23763	1°24468	118°875	12	1°49716	0°76442	0°29028	1°25906	94°757
13	1°13463	0°94285	0°23842	1°24527	118°724	13	1°50119	0°77322	0°29109	1°25891	94°179
14	1°14263	0°93248	0°23922	1°24582	118°561	14	1°50515	0°78241	0°29186	1°25872	93°602
15	1°15047	0°92231	0°24006	1°24637	118°384	15	1°50904	0°79166	0°29268	1°25857	93°014
16	1°15837	0°91178	0°24086	1°24690	118°207	16	1°51287	0°80095	0°29346	1°25834	92°434
17	1°16615	0°90149	0°24167	1°24744	118°016	17	1°51664	0°81055	0°29423	1°25815	91°846
18	1°17394	0°89127	0°24252	1°24794	117°811	18	1°52034	0°82016	0°29502	1°25796	91°254
19	1°18160	0°88093	0°24336	1°24847	117°602	19	1°52401	0°83001	0°29576	1°25773	90°663
20	1°18924	0°87069	0°24419	1°24897	117°382	20	1°52759	0°83984	0°29655	1°25751	90°066
21	1°19678	0°86058	0°24504	1°24950	117°150	21	1°53112	0°84962	0°29730	1°25724	89°466
22	1°20432	0°85038	0°24587	1°24999	116°913	22	1°53459	0°85984	0°29805	1°25701	88°872
23	1°21177	0°84036	0°24673	1°25047	116°664	23	1°53801	0°86997	0°29880	1°25674	88°270
24	1°21913	0°83055	0°24759	1°25096	116°404	24	1°54137	0°88001	0°29952	1°25651	87°669
25	1°22643	0°82071	0°24844	1°25144	116°139	25	1°54467	0°89016	0°30024	1°25624	87°067
26	1°23370	0°81084	0°24931	1°25189	115°866	26	1°54791	0°90042	0°30095	1°25597	86°460
27	1°24087	0°80124	0°25018	1°25236	115°581	27	1°55109	0°91075	0°30168	1°25566	85°851
28	1°24798	0°79196	0°25103	1°25280	115°287	28	1°55421	0°92092	0°30240	1°25539	85°242
29	1°25504	0°78272	0°25192	1°25319	114°985	29	1°55729	0°93113	0°30308	1°25508	84°635
30	1°26204	0°77354	0°25280	1°25363	114°674	30	1°56028	0°94155	0°30381	1°25480	84°017
31	1°26895	0°76475	0°25366	1°25402	114°357	31	1°56324	0°95178	0°30450	1°25449	83°403
June						Aug.					
1	1°27579	0°75607	0°25456	1°25441	114°029	1	1°56615	0°96199	0°30514	1°25422	82°791
2	1°28255	0°74785	0°25542	1°25480	113°694	2	1°56895	0°97217	0°30583	1°25391	82°181
3	1°28926	0°73978	0°25632	1°25519	113°346	3	1°57174	0°98231	0°30649	1°25359	81°567
4	1°29590	0°73187	0°25720	1°25554	112°997	4	1°57446	0°99238	0°30718	1°25327	80°951
5	1°30249	0°72416	0°25810	1°25590	112°636	5	1°57711	1°00252	0°30783	1°25296	80°336
6	1°30897	0°71702	0°25899	1°25624	112°267	6	1°57973	1°01258	0°30844	1°25264	79°724
7	1°31540	0°71011	0°25987	1°25655	111°894	7	1°58228	1°02252	0°30910	1°25232	79°106
8	1°32176	0°70386	0°26076	1°25686	111°508	8	1°58478	1°03249	0°30973	1°25200	78°490
9	1°32803	0°69789	0°26165	1°25716	111°116	9	1°58721	1°04232	0°31038	1°25173	77°874
10	1°33424	0°69223	0°26254	1°25743	110°718	10	1°58963	1°05201	0°31100	1°25140	77°258
11	1°34040	0°68688	0°26344	1°25770	110°313	11	1°59196	1°06179	0°31158	1°25108	76°648
12	1°34646	0°68188	0°26434	1°25796	109°902	12	1°59420	1°07140	0°31221	1°25076	76°036
13	1°35247	0°67765	0°26523	1°25819	109°479	13	1°59643	1°08106	0°31279	1°25047	75°422
14	1°35840	0°67380	0°26612	1°25842	109°054	14	1°59860	1°09052	0°31341	1°25015	74°807
15	1°36426	0°67035	0°26703	1°25865	108°618	15	1°60068	1°09990	0°31400	1°24986	74°200
16	1°37005	0°66729	0°26791	1°25884	108°181	16	1°60274	1°10926	0°31458	1°24954	73°590
17	1°37581	0°66510	0°26883	1°25903	107°725	17	1°60474	1°11858	0°31513	1°24926	72°983
18	1°38146	0°66333	0°26971	1°25918	107°274	18	1°60667	1°12776	0°31571	1°24897	72°376
19	1°38702	0°66200	0°27060	1°25933	106°815	19	1°60860	1°13687	0°31625	1°24868	71°768
20	1°39254	0°66111	0°27149	1°25947	106°350	20	1°61041	1°14589	0°31681	1°24839	71°167
21	1°39798	0°66067	0°27235	1°25959	105°882	21	1°61219	1°15479	0°31736	1°24810	70°567
22	1°40336	0°66111	0°27325	1°25970	105°401	22	1°61391	1°16366	0°31790	1°24785	69°966
23	1°40866	0°66200	0°27412	1°25981	104°917	23	1°61560	1°17239	0°31845	1°24761	69°365
24	1°41393	0°66333	0°27502	1°25989	104°424	24	1°61722	1°18108	0°31896	1°24736	68°770
25	1°41909	0°66510	0°27590	1°25996	103°930	25	1°61877	1°18967	0°31947	1°24711	68°178
26	1°42423	0°66729	0°27677	1°26000	103°430	26	1°62029	1°19818	0°32002	1°24686	67°582
27	1°42927	0°67035	0°27765	1°26004	102°922	27	1°62173	1°20660	0°32054	1°24666	66°993
28	1°43425	0°67380	0°27854	1°26008	102°405	28	1°62315	1°21495	0°32100	1°24641	66°410
29	1°43918	0°67765	0°27938	1°26011	101°888	29	1°62452	1°22315	0°32152	1°24620	65°823
30	1°44402	0°68188	0°28024	1°26011	101°368	30	1°62578	1°23129	0°32202	1°24603	65°246
						31	1°62706	1°23937	0°32250	1°24582	64°664

DAY NUMBERS FOR STAR CORRECTIONS.

(xxiii)

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1859.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1859. Sept. 1	1.62825	1.24732	0.32301	1.24565	64.085	Nov. 1	1.59709	1.57830	0.35102	1.26101	39.115
2	1.62936	1.25519	0.32349	1.24548	63.518	2	1.59478	1.58146	0.35154	1.26160	38.938
3	1.63044	1.26299	0.32396	1.24532	62.950	3	1.59242	1.58450	0.35209	1.26218	38.772
4	1.63148	1.27070	0.32444	1.24519	62.382	4	1.59001	1.58753	0.35265	1.26277	38.606
5	1.63248	1.27830	0.32492	1.24506	61.815	5	1.58753	1.59048	0.35322	1.26335	38.452
6	1.63340	1.28582	0.32539	1.24494	61.257	6	1.58496	1.59336	0.35378	1.26393	38.313
7	1.63423	1.29324	0.32582	1.24485	60.712	7	1.58235	1.59617	0.35434	1.26454	38.181
8	1.63507	1.30060	0.32630	1.24477	60.154	8	1.57966	1.59893	0.35490	1.26512	38.060
9	1.63584	1.30784	0.32673	1.24468	59.612	9	1.57695	1.60162	0.35546	1.26569	37.946
10	1.63651	1.31500	0.32721	1.24460	59.071	10	1.57416	1.60421	0.35608	1.26630	37.837
11	1.63718	1.32210	0.32764	1.24456	58.531	11	1.57128	1.60675	0.35666	1.26686	37.746
12	1.63778	1.32909	0.32808	1.24456	57.996	12	1.56834	1.60925	0.35726	1.26746	37.658
13	1.63833	1.33599	0.32857	1.24451	57.463	13	1.56535	1.61169	0.35783	1.26805	37.584
14	1.63880	1.34282	0.32900	1.24451	56.942	14	1.56229	1.61407	0.35845	1.26861	37.512
15	1.63923	1.34955	0.32944	1.24451	56.423	15	1.55917	1.61635	0.35906	1.26916	37.458
16	1.63961	1.35621	0.32988	1.24456	55.906	16	1.55597	1.61857	0.35968	1.26975	37.411
17	1.63995	1.36278	0.33032	1.24460	55.393	17	1.55270	1.62073	0.36030	1.27029	37.378
18	1.64025	1.36926	0.33071	1.24464	54.890	18	1.54938	1.62286	0.36092	1.27084	37.347
19	1.64046	1.37571	0.33115	1.24473	54.387	19	1.54599	1.62490	0.36154	1.27142	37.329
20	1.64064	1.38199	0.33159	1.24481	53.892	20	1.54253	1.62685	0.36216	1.27196	37.327
21	1.64072	1.38823	0.33203	1.24494	53.403	21	1.53897	1.62879	0.36279	1.27246	37.330
22	1.64081	1.39440	0.33243	1.24502	52.919	22	1.53538	1.63065	0.36346	1.27299	37.337
23	1.64081	1.40045	0.33287	1.24519	52.439	23	1.53171	1.63244	0.36408	1.27353	37.361
24	1.64077	1.40645	0.33332	1.24532	51.961	24	1.52798	1.63415	0.36471	1.27403	37.397
25	1.64064	1.41238	0.33371	1.24548	51.501	25	1.52418	1.63584	0.36538	1.27452	37.433
26	1.64051	1.41821	0.33415	1.24565	51.035	26	1.52030	1.63744	0.36601	1.27501	37.489
27	1.64029	1.42396	0.33460	1.24586	50.576	27	1.51635	1.63897	0.36668	1.27550	37.550
28	1.63999	1.42963	0.33500	1.24607	50.133	28	1.51233	1.64046	0.36737	1.27595	37.618
29	1.63970	1.43523	0.33545	1.24632	49.681	29	1.50825	1.64183	0.36800	1.27641	37.709
30	1.63931	1.44074	0.33585	1.24657	49.249	30	1.50411	1.64322	0.36868	1.27686	37.791
Oct. 1	1.63888	1.44618	0.33629	1.24682	48.816	Dec. 1	1.49986	1.64451	0.36936	1.27731	37.893
2	1.63838	1.45154	0.33674	1.24711	48.389	2	1.49558	1.64573	0.37004	1.27772	38.003
3	1.63782	1.45682	0.33715	1.24740	47.977	3	1.49120	1.64690	0.37073	1.27814	38.121
4	1.63723	1.46203	0.33760	1.24769	47.562	4	1.48675	1.64800	0.37137	1.27852	38.258
5	1.63659	1.46717	0.33805	1.24802	47.153	5	1.48224	1.64900	0.37205	1.27892	38.402
6	1.63588	1.47222	0.33849	1.24835	46.755	6	1.47765	1.65001	0.37274	1.27927	38.549
7	1.63507	1.47719	0.33889	1.24873	46.372	7	1.47300	1.65090	0.37343	1.27965	38.710
8	1.63427	1.48210	0.33934	1.24905	45.986	8	1.46825	1.65178	0.37411	1.28000	38.878
9	1.63340	1.48692	0.33980	1.24946	45.605	9	1.46344	1.65258	0.37481	1.28031	39.056
10	1.63244	1.49168	0.34025	1.24982	45.239	10	1.45855	1.65329	0.37550	1.28062	39.247
11	1.63144	1.49636	0.34070	1.25023	44.877	11	1.45361	1.65396	0.37619	1.28093	39.443
12	1.63040	1.50096	0.34115	1.25067	44.521	12	1.44857	1.65458	0.37689	1.28121	39.649
13	1.62928	1.50550	0.34161	1.25108	44.175	13	1.44347	1.65512	0.37758	1.28148	39.864
14	1.62812	1.50997	0.34206	1.25152	43.836	14	1.43828	1.65561	0.37828	1.28176	40.089
15	1.62689	1.51436	0.34251	1.25197	43.506	15	1.43302	1.65602	0.37897	1.28200	40.326
16	1.62562	1.51868	0.34297	1.25244	43.180	16	1.42769	1.65637	0.37967	1.28222	40.571
17	1.62428	1.52292	0.34347	1.25292	42.860	17	1.42227	1.65668	0.38037	1.28243	40.822
18	1.62286	1.52711	0.34393	1.25339	42.555	18	1.41675	1.65691	0.38102	1.28261	41.096
19	1.62141	1.53120	0.34438	1.25391	42.259	19	1.41119	1.65709	0.38172	1.28280	41.365
20	1.61993	1.53524	0.34488	1.25441	41.960	20	1.40555	1.65718	0.38243	1.28298	41.645
21	1.61833	1.53920	0.34539	1.25492	41.677	21	1.39979	1.65722	0.38313	1.28313	41.936
22	1.61671	1.54310	0.34585	1.25543	41.403	22	1.39404	1.65722	0.38378	1.28325	42.236
23	1.61501	1.54692	0.34636	1.25597	41.134	23	1.38818	1.65718	0.38449	1.28337	42.534
24	1.61329	1.55068	0.34686	1.25651	40.872	24	1.38222	1.65704	0.38520	1.28349	42.846
25	1.61145	1.55436	0.34737	1.25705	40.625	25	1.37618	1.65682	0.38585	1.28358	43.177
26	1.60960	1.55799	0.34787	1.25758	40.382	26	1.37004	1.65659	0.38657	1.28364	43.503
27	1.60768	1.56153	0.34838	1.25815	40.148	27	1.36386	1.65629	0.38723	1.28370	43.841
28	1.60565	1.56503	0.34889	1.25872	39.928	28	1.35759	1.65588	0.38794	1.28373	44.189
29	1.60361	1.56843	0.34939	1.25929	39.715	29	1.35123	1.65543	0.38860	1.28376	44.549
30	1.60151	1.57181	0.34995	1.25985	39.500	30	1.34481	1.65494	0.38926	1.28379	44.911
31	1.59930	1.57506	0.35047	1.26045	39.309	31	1.33830	1.65435	0.38992	1.28379	45.286

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GREENWICH CATALOGUE OF STARS FOR 1850.

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1860.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1860. Jan. 1	1.33172	1.65374	0.16400	1.28376	70.644	1860. March 1	0.85837	1.49718	0.21521	1.27077	100.217
2	1.32507	1.65302	0.16512	1.28373	71.030	2	0.85240	1.49246	0.21580	1.27063	100.697
3	1.31832	1.65227	0.16625	1.28367	71.422	3	0.84656	1.48766	0.21637	1.27057	101.170
4	1.31151	1.65147	0.16735	1.28361	71.821	4	0.84088	1.48278	0.21696	1.27046	101.640
5	1.30462	1.65059	0.16845	1.28355	72.227	5	0.83563	1.47783	0.21754	1.27040	102.101
6	1.29763	1.64967	0.16956	1.28346	72.638	6	0.83055	1.47280	0.21811	1.27036	102.560
7	1.29059	1.64865	0.17063	1.28337	73.059	7	0.82594	1.46770	0.21866	1.27029	103.013
8	1.28346	1.64756	0.17172	1.28325	73.489	8	0.82154	1.46252	0.21924	1.27029	103.456
9	1.27628	1.64642	0.17278	1.28313	73.922	9	0.81764	1.45725	0.21979	1.27026	103.897
10	1.26899	1.64525	0.17383	1.28298	74.360	10	0.81397	1.45191	0.22034	1.27026	104.331
11	1.26163	1.64400	0.17489	1.28283	74.805	11	0.81055	1.44650	0.22090	1.27029	104.757
12	1.25422	1.64269	0.17593	1.28268	75.252	12	0.80767	1.44100	0.22146	1.27033	105.176
13	1.24670	1.64132	0.17697	1.28249	75.708	13	0.80505	1.43542	0.22199	1.27036	105.592
14	1.23915	1.63987	0.17800	1.28231	76.169	14	0.80271	1.42976	0.22255	1.27043	106.000
15	1.23152	1.63833	0.17901	1.28213	76.638	15	0.80095	1.42402	0.22308	1.27050	106.399
16	1.22380	1.63676	0.18001	1.28194	77.110	16	0.79946	1.41816	0.22362	1.27060	106.795
17	1.21599	1.63511	0.18101	1.28172	77.590	17	0.79828	1.41228	0.22416	1.27070	107.181
18	1.20814	1.63344	0.18200	1.28151	78.067	18	0.79738	1.40630	0.22470	1.27084	107.562
19	1.20021	1.63169	0.18298	1.28127	78.551	19	0.79708	1.40022	0.22524	1.27097	107.933
20	1.19223	1.62986	0.18396	1.28102	79.041	20	0.79708	1.39408	0.22575	1.27111	108.300
21	1.18417	1.62796	0.18491	1.28077	79.537	21	0.79768	1.38785	0.22630	1.27128	108.651
22	1.17610	1.62599	0.18586	1.28053	80.035	22	0.79857	1.38153	0.22684	1.27148	108.996
23	1.16790	1.62396	0.18680	1.28028	80.538	23	0.79976	1.37511	0.22737	1.27169	109.337
24	1.15969	1.62190	0.18773	1.28003	81.037	24	0.80124	1.36861	0.22792	1.27189	109.671
25	1.15139	1.61973	0.18864	1.27974	81.531	25	0.80330	1.36204	0.22844	1.27213	109.992
26	1.14303	1.61754	0.18955	1.27946	82.030	26	0.80564	1.35537	0.22899	1.27236	110.307
27	1.13463	1.61525	0.19045	1.27924	82.533	27	0.80825	1.34861	0.22952	1.27263	110.614
28	1.12621	1.61290	0.19134	1.27889	83.039	28	0.81112	1.34178	0.23005	1.27289	110.916
29	1.11777	1.61049	0.19221	1.27861	83.541	29	0.81453	1.33486	0.23061	1.27319	111.201
30	1.10926	1.60801	0.19305	1.27833	84.043	30	0.81848	1.32784	0.23114	1.27349	111.478
31	1.10069	1.60546	0.19391	1.27801	84.546	31	0.82237	1.32075	0.23170	1.27380	111.749
Feb. 1	1.09207	1.60286	0.19477	1.27772	85.048	April 1	0.82676	1.31356	0.23223	1.27413	112.012
2	1.08352	1.60016	0.19562	1.27743	85.549	2	0.83136	1.30628	0.23280	1.27446	112.263
3	1.07485	1.59742	0.19642	1.27715	86.040	3	0.83642	1.29892	0.23333	1.27481	112.505
4	1.06619	1.59463	0.19725	1.27683	86.537	4	0.84166	1.29148	0.23390	1.27517	112.736
5	1.05755	1.59174	0.19804	1.27654	87.039	5	0.84707	1.28394	0.23447	1.27557	112.960
6	1.04882	1.58880	0.19883	1.27625	87.541	6	0.85265	1.27631	0.23501	1.27595	113.179
7	1.04015	1.58580	0.19964	1.27595	88.043	7	0.85862	1.26857	0.23559	1.27635	113.382
8	1.03143	1.58273	0.20040	1.27566	88.545	8	0.86495	1.26078	0.23616	1.27676	113.572
9	1.02280	1.57956	0.20116	1.27537	89.046	9	0.87139	1.25288	0.23674	1.27718	113.758
10	1.01414	1.57634	0.20192	1.27507	89.548	10	0.87793	1.24490	0.23732	1.27763	113.931
11	1.00548	1.57306	0.20266	1.27478	90.049	11	0.88479	1.23679	0.23790	1.27807	114.097
12	0.99697	1.56970	0.20341	1.27452	90.549	12	0.89171	1.22865	0.23849	1.27852	114.250
13	0.98833	1.56631	0.20413	1.27422	91.047	13	0.89892	1.22035	0.23907	1.27899	114.396
14	0.97989	1.56279	0.20484	1.27396	91.547	14	0.90615	1.21198	0.23965	1.27946	114.534
15	0.97134	1.55923	0.20554	1.27370	92.047	15	0.91363	1.20358	0.24024	1.27996	114.666
16	0.96303	1.55560	0.20624	1.27343	92.547	16	0.92112	1.19500	0.24086	1.28046	114.771
17	0.95464	1.55190	0.20693	1.27319	93.047	17	0.92881	1.18638	0.24148	1.28096	114.874
18	0.94633	1.54811	0.20762	1.27296	93.547	18	0.93648	1.17768	0.24208	1.28145	114.971
19	0.93837	1.54426	0.20828	1.27273	94.047	19	0.94433	1.16888	0.24270	1.28197	115.055
20	0.93036	1.54036	0.20896	1.27249	94.547	20	0.95231	1.15998	0.24333	1.28249	115.128
21	0.92231	1.53636	0.20960	1.27226	95.047	21	0.96025	1.15101	0.24397	1.28301	115.192
22	0.91465	1.53229	0.21026	1.27206	95.547	22	0.96831	1.14191	0.24460	1.28355	115.245
23	0.90699	1.52817	0.21090	1.27186	96.047	23	0.97647	1.13279	0.24523	1.28406	115.290
24	0.89935	1.52396	0.21154	1.27165	96.547	24	0.98470	1.12349	0.24590	1.28463	115.318
25	0.89216	1.51969	0.21217	1.27148	97.047	25	0.99284	1.11420	0.24654	1.28516	115.344
26	0.88502	1.51533	0.21278	1.27131	97.547	26	1.00118	1.10478	0.24721	1.28570	115.355
27	0.87793	1.51090	0.21339	1.27114	98.047	27	1.00941	1.09532	0.24788	1.28626	115.354
28	0.87116	1.50641	0.21400	1.27101	98.547	28	1.01781	1.08574	0.24853	1.28682	115.345
29	0.86471	1.50183	0.21461	1.27087	99.047	29	1.02607	1.07618	0.24921	1.28737	115.324
						30	1.03432	1.06642	0.24989	1.28794	115.297

DAY NUMBERS FOR STAR CORRECTIONS.

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DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1860.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1860. May 1	1°04269	1°05659	0°25058	1°28849	115°258	1860. July 1	1°45238	0°69059	0°29940	1°31007	95°791
2	1°05103	1°04684	0°25126	1°28906	115°204	2	1°45705	0°69628	0°30020	1°31007	95°253
3	1°05932	1°03693	0°25198	1°28960	115°142	3	1°46165	0°70228	0°30099	1°31007	94°714
4	1°06756	1°02688	0°25270	1°29017	115°073	4	1°46618	0°70856	0°30180	1°31007	94°168
5	1°07585	1°01683	0°25340	1°29073	114°993	5	1°47065	0°71549	0°30260	1°31003	93°617
6	1°08405	1°00680	0°25412	1°29129	114°900	6	1°47507	0°72266	0°30336	1°31001	93°064
7	1°09227	0°99666	0°25486	1°29184	114°797	7	1°47941	0°73005	0°30417	1°30994	92°505
8	1°10040	0°98644	0°25555	1°29239	114°692	8	1°48370	0°73764	0°30494	1°30989	91°945
9	1°10850	0°97630	0°25629	1°29294	114°588	9	1°48790	0°74576	0°30571	1°30982	91°379
10	1°11668	0°96594	0°25703	1°29349	114°437	10	1°49207	0°75403	0°30649	1°30973	90°809
11	1°12473	0°95570	0°25780	1°29405	114°292	11	1°49616	0°76243	0°30722	1°30965	90°244
12	1°13270	0°94543	0°25855	1°29459	114°141	12	1°50020	0°77128	0°30799	1°30956	89°664
13	1°14071	0°93496	0°25929	1°29513	113°983	13	1°50417	0°78022	0°30873	1°30944	89°090
14	1°14862	0°92409	0°26004	1°29566	113°811	14	1°50810	0°78922	0°30948	1°30933	88°507
15	1°15644	0°91445	0°26082	1°29619	113°630	15	1°51194	0°79857	0°31022	1°30919	87°924
16	1°16431	0°90404	0°26158	1°29672	113°440	16	1°51573	0°80825	0°31096	1°30905	87°333
17	1°17204	0°89370	0°26237	1°29722	113°241	17	1°51947	0°81764	0°31171	1°30890	86°744
18	1°17979	0°88343	0°26313	1°29774	113°030	18	1°52312	0°82757	0°31241	1°30874	86°152
19	1°18738	0°87328	0°26392	1°29823	112°812	19	1°52672	0°83721	0°31316	1°30858	85°559
20	1°19500	0°86302	0°26472	1°29874	112°581	20	1°53028	0°84733	0°31387	1°30842	84°958
21	1°20250	0°85290	0°26549	1°29923	112°348	21	1°53376	0°85738	0°31458	1°30823	84°358
22	1°20999	0°84270	0°26629	1°29971	112°102	22	1°53721	0°86735	0°31526	1°30805	83°760
23	1°21739	0°83297	0°26710	1°30017	111°841	23	1°54056	0°87747	0°31596	1°30787	83°158
24	1°22468	0°82292	0°26791	1°30064	111°580	24	1°54386	0°88771	0°31663	1°30768	82°555
25	1°23195	0°81312	0°26872	1°30110	111°306	25	1°54712	0°89805	0°31731	1°30747	81°947
26	1°23915	0°80359	0°26953	1°30155	111°022	26	1°55032	0°90825	0°31799	1°30727	81°338
27	1°24628	0°79408	0°27032	1°30200	110°733	27	1°55345	0°91851	0°31867	1°30705	80°728
28	1°25335	0°78490	0°27114	1°30241	110°431	28	1°55655	0°92881	0°31935	1°30684	80°113
29	1°26037	0°77578	0°27195	1°30286	110°121	29	1°55957	0°93894	0°31998	1°30661	79°508
30	1°26728	0°76673	0°27278	1°30324	109°809	30	1°56252	0°94925	0°32062	1°30640	78°894
31	1°27416	0°75810	0°27361	1°30366	109°478	31	1°56544	0°95938	0°32126	1°30617	78°284
June 1	1°28093	0°74992	0°27445	1°30404	109°140	Aug. 1	1°56827	0°96966	0°32190	1°30593	77°670
2	1°28766	0°74155	0°27528	1°30443	108°799	2	1°57104	0°97989	0°32254	1°30572	77°052
3	1°29430	0°73368	0°27612	1°30479	108°448	3	1°57380	0°98990	0°32314	1°30548	76°442
4	1°30087	0°72601	0°27695	1°30515	108°092	4	1°57648	0°99999	0°32379	1°30524	75°822
5	1°30738	0°71891	0°27776	1°30548	107°727	5	1°57909	1°01013	0°32439	1°30500	75°207
6	1°31383	0°71204	0°27861	1°30581	107°349	6	1°58166	1°02004	0°32500	1°30476	74°592
7	1°32020	0°70543	0°27945	1°30614	106°967	7	1°58416	1°02996	0°32560	1°30452	73°977
8	1°32650	0°69909	0°28031	1°30645	106°576	8	1°58661	1°03990	0°32617	1°30428	73°363
9	1°33272	0°69345	0°28113	1°30673	106°181	9	1°58901	1°04969	0°32677	1°30404	72°746
10	1°33889	0°68812	0°28198	1°30703	105°774	10	1°59138	1°05944	0°32734	1°30380	72°130
11	1°34498	0°68314	0°28280	1°30729	105°366	11	1°59365	1°06904	0°32791	1°30359	71°519
12	1°35101	0°67850	0°28366	1°30757	104°945	12	1°59588	1°07868	0°32848	1°30334	70°905
13	1°35695	0°67466	0°28449	1°30780	104°520	13	1°59808	1°08826	0°32900	1°30310	70°293
14	1°36283	0°67121	0°28533	1°30803	104°086	14	1°60020	1°09762	0°32957	1°30288	69°683
15	1°36864	0°66817	0°28615	1°30826	103°649	15	1°60225	1°10698	0°33010	1°30266	69°076
16	1°37439	0°66554	0°28699	1°30846	103°205	16	1°60429	1°11631	0°33067	1°30244	68°458
17	1°38008	0°66378	0°28782	1°30867	102°748	17	1°60622	1°12551	0°33120	1°30221	67°855
18	1°38569	0°66200	0°28867	1°30885	102°291	18	1°60813	1°13463	0°33172	1°30200	67°249
19	1°39122	0°66111	0°28951	1°30901	101°826	19	1°60998	1°14367	0°33225	1°30180	66°642
20	1°39671	0°66067	0°29036	1°30917	101°350	20	1°61177	1°15269	0°33274	1°30160	66°041
21	1°40208	0°66111	0°29117	1°30933	100°873	21	1°61352	1°16151	0°33327	1°30139	65°438
22	1°40740	0°66156	0°29202	1°30944	100°392	22	1°61521	1°17034	0°33376	1°30120	64°839
23	1°41268	0°66289	0°29284	1°30958	99°899	23	1°61683	1°17900	0°33424	1°30102	64°247
24	1°41785	0°66466	0°29369	1°30969	99°404	24	1°61841	1°18763	0°33474	1°30085	63°648
25	1°42301	0°66686	0°29450	1°30978	98°903	25	1°61993	1°19613	0°33522	1°30067	63°059
26	1°42807	0°66948	0°29533	1°30985	98°399	26	1°62141	1°20460	0°33571	1°30052	62°464
27	1°43306	0°67294	0°29616	1°30992	97°884	27	1°62282	1°21295	0°33620	1°30037	61°875
28	1°43799	0°67680	0°29694	1°30998	97°370	28	1°62420	1°22116	0°33665	1°30022	61°293
29	1°44286	0°68104	0°29777	1°31003	96°846	29	1°62550	1°22931	0°33715	1°30007	60°708
30	1°44765	0°68564	0°29860	1°31005	96°318	30	1°62677	1°23742	0°33760	1°29994	60°127
						31	1°62796	1°24540	0°33805	1°29984	59°553

GREENWICH CATALOGUE FOR 1850.

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GREENWICH CATALOGUE OF STARS FOR 1850.

DAY NUMBERS FOR STAR CORRECTIONS IN THE YEAR 1860.

Year, Month, and Day.	Logarithms of				Value of L	Year, Month, and Day.	Logarithms of				Value of L
	E	F	G	H			E	F	G	H	
1860.											
Sept. 1	1.62912	1.25327	0.33849	1.29971	58.982	Nov. 1	1.59536	1.58066	0.36471	1.31611	34.299
2	1.63019	1.26108	0.33894	1.29963	58.413	2	1.59300	1.58378	0.36524	1.31666	34.124
3	1.63123	1.26881	0.33939	1.29954	57.846	3	1.59059	1.58679	0.36572	1.31722	33.967
4	1.63223	1.27644	0.33985	1.29946	57.280	4	1.58813	1.58977	0.36625	1.31777	33.809
5	1.63315	1.28397	0.34025	1.29941	56.726	5	1.58559	1.59268	0.36678	1.31832	33.664
6	1.63402	1.29143	0.34070	1.29935	56.171	6	1.58300	1.59551	0.36732	1.31888	33.528
7	1.63486	1.29879	0.34111	1.29930	55.620	7	1.58035	1.59826	0.36790	1.31943	33.397
8	1.63562	1.30607	0.34157	1.29928	55.069	8	1.57762	1.60097	0.36844	1.31999	33.280
9	1.63634	1.31326	0.34197	1.29925	54.528	9	1.57483	1.60361	0.36897	1.32054	33.176
10	1.63701	1.32038	0.34238	1.29925	53.988	10	1.57197	1.60618	0.36951	1.32110	33.081
11	1.63765	1.32738	0.34279	1.29925	53.451	11	1.56905	1.60867	0.37009	1.32164	32.993
12	1.63821	1.33432	0.34320	1.29928	52.920	12	1.56608	1.61110	0.37063	1.32219	32.919
13	1.63867	1.34117	0.34361	1.29930	52.398	13	1.56302	1.61348	0.37122	1.32272	32.848
14	1.63914	1.34793	0.34406	1.29935	51.870	14	1.55991	1.61580	0.37181	1.32327	32.786
15	1.63953	1.35462	0.34447	1.29941	51.352	15	1.55673	1.61806	0.37235	1.32381	32.741
16	1.63987	1.36120	0.34484	1.29948	50.847	16	1.55348	1.62025	0.37294	1.32433	32.700
17	1.64016	1.36772	0.34525	1.29959	50.337	17	1.55017	1.62238	0.37352	1.32487	32.670
18	1.64042	1.37414	0.34567	1.29969	49.828	18	1.54681	1.62440	0.37411	1.32538	32.653
19	1.64059	1.38050	0.34608	1.29979	49.331	19	1.54335	1.62640	0.37471	1.32589	32.644
20	1.64072	1.38675	0.34645	1.29992	48.843	20	1.53983	1.62833	0.37530	1.32641	32.646
21	1.64081	1.39293	0.34686	1.30007	48.352	21	1.53625	1.63023	0.37594	1.32690	32.647
22	1.64081	1.39900	0.34728	1.30022	47.873	22	1.53259	1.63202	0.37654	1.32738	32.672
23	1.64077	1.40502	0.34764	1.30039	47.404	23	1.52887	1.63377	0.37713	1.32787	32.702
24	1.64068	1.41095	0.34806	1.30057	46.930	24	1.52509	1.63545	0.37778	1.32834	32.737
25	1.64055	1.41680	0.34847	1.30077	46.464	25	1.52123	1.63706	0.37838	1.32881	32.791
26	1.64034	1.42258	0.34884	1.30097	46.010	26	1.51731	1.63859	0.37902	1.32928	32.849
27	1.64008	1.42827	0.34925	1.30120	45.559	27	1.51331	1.64008	0.37962	1.32972	32.924
28	1.63978	1.43387	0.34963	1.30145	45.115	28	1.50925	1.64153	0.38027	1.33016	32.996
29	1.63940	1.43941	0.35005	1.30170	44.674	29	1.50511	1.64287	0.38092	1.33060	33.086
30	1.63897	1.44487	0.35047	1.30197	44.238	30	1.50089	1.64421	0.38152	1.33100	33.187
1860.											
Oct. 1	1.63850	1.45024	0.35084	1.30224	43.817	Dec. 1	1.49661	1.64542	0.38218	1.33142	33.296
2	1.63795	1.45554	0.35125	1.30254	43.397	2	1.49226	1.64660	0.38283	1.33183	33.412
3	1.63740	1.46076	0.35168	1.30283	42.977	3	1.48783	1.64773	0.38343	1.33222	33.546
4	1.63672	1.46592	0.35204	1.30314	42.580	4	1.48334	1.64878	0.38409	1.33259	33.682
5	1.63605	1.47099	0.35247	1.30349	42.175	5	1.47878	1.64976	0.38474	1.33296	33.830
6	1.63528	1.47599	0.35289	1.30397	41.773	6	1.47413	1.65068	0.38540	1.33331	33.988
7	1.63448	1.48091	0.35331	1.30419	41.394	7	1.46939	1.65156	0.38606	1.33364	34.155
8	1.63361	1.48576	0.35368	1.30455	41.021	8	1.46460	1.65236	0.38672	1.33398	34.331
9	1.63268	1.49054	0.35410	1.30493	40.649	9	1.45974	1.65311	0.38738	1.33429	34.516
10	1.63169	1.49523	0.35452	1.30531	40.286	10	1.45480	1.65383	0.38804	1.33459	34.709
11	1.63065	1.49986	0.35495	1.30572	39.928	11	1.44978	1.65444	0.38870	1.33489	34.914
12	1.62957	1.50441	0.35537	1.30614	39.578	12	1.44469	1.65498	0.38931	1.33517	35.137
13	1.62841	1.50890	0.35579	1.30659	39.237	13	1.43951	1.65548	0.38998	1.33543	35.361
14	1.62722	1.51331	0.35627	1.30700	38.895	14	1.43427	1.65593	0.39065	1.33568	35.591
15	1.62595	1.51765	0.35671	1.30743	38.570	15	1.42895	1.65629	0.39131	1.33591	35.836
16	1.62460	1.52193	0.35712	1.30789	38.255	16	1.42356	1.65659	0.39197	1.33614	36.087
17	1.62323	1.52611	0.35754	1.30835	37.947	17	1.41807	1.65686	0.39267	1.33635	36.343
18	1.62177	1.53023	0.35802	1.30883	37.643	18	1.41251	1.65704	0.39331	1.33654	36.617
19	1.62029	1.53430	0.35845	1.30930	37.347	19	1.40690	1.65718	0.39393	1.33672	36.898
20	1.61873	1.53828	0.35892	1.30980	37.059	20	1.40119	1.65722	0.39460	1.33689	37.188
21	1.61710	1.54219	0.35940	1.31029	36.780	21	1.39541	1.65722	0.39528	1.33705	37.481
22	1.61544	1.54602	0.35982	1.31079	36.516	22	1.38957	1.65718	0.39594	1.33719	37.781
23	1.61368	1.54979	0.36030	1.31129	36.257	23	1.38366	1.65709	0.39657	1.33731	38.092
24	1.61188	1.55351	0.36078	1.31182	36.001	24	1.37763	1.65691	0.39724	1.33743	38.412
25	1.61002	1.55713	0.36125	1.31233	35.760	25	1.37152	1.65664	0.39787	1.33753	38.749
26	1.60813	1.56070	0.36173	1.31287	35.522	26	1.36534	1.65633	0.39854	1.33762	39.085
27	1.60614	1.56419	0.36221	1.31338	35.299	27	1.35910	1.65597	0.39917	1.33768	39.433
28	1.60410	1.56763	0.36269	1.31392	35.082	28	1.35277	1.65557	0.39984	1.33774	39.779
29	1.60202	1.57098	0.36317	1.31447	34.875	29	1.34637	1.65507	0.40047	1.33779	40.143
30	1.59987	1.57429	0.36370	1.31502	34.667	30	1.33989	1.65449	0.40110	1.33783	40.517
31	1.59764	1.57752	0.36418	1.31557	34.480	31	1.33332	1.65387	0.40173	1.33785	40.895

GREENWICH
CATALOGUE OF STARS
FOR
1850,
FROM OBSERVATIONS
MADE AT THE
ROYAL OBSERVATORY, GREENWICH,
1848 to 1853.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Arcturus, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1	W. B. XXIII. 1242 ..	9	h m s 0. 0. 7'96	1852'8	1	+3'070	-0'0063	..	0'10316	0'07918	1'44825	0'07404	84'966	101. 57. 46'62
2	Piazzi XXIII. 279...	6	0. 0. 25'50	1849'9	2	3'069	-0'0204	+0'003	0'10746	0'07924	1'44823	0'06235	85'434	124. 22.
3	W. B. XXIII. 1249 ..	6	0. 0. 37'56	1852'9	1	3'070	-0'0051	..	0'10300	0'07925	1'44824	0'07506	84'903	99. 39. 29'04
4	21 Andromedæ α	2*	0. 0. 38'61	1850'9	135	3'073	+0'0161	+0'013	0'10574	0'07925	1'44829	0'09197	83'518	61. 44. 15'63
5	11 Cassiopeiæ β	2.3*	0. 1. (10)	..	..	3'082	+0'0488	+0'067	0'12285	0'07942	1'44843	0'11662	80'412	31. 40. 39'85
6	Piazzi XXIII. 285 ..	6	0. 1. 41'88	1848'8	3	+3'065	-0'0163	+0'013	0'10588	0'07939	1'44816	0'06569	85'322	118. 49.
7	W. B. 0. 60.....	9	0. 3. 36'95	1852'7	2	3'075	+0'0067	..	0'10319	0'07959	1'44832	0'08438	84'216	77. 46. 39'21
8	Piazzi 0. 6	5*	0. 3. 57'02	1848'7	3	3'058	-0'0159	+0'001	0'10583	0'07966	1'44805	0'06581	85'308	118. 38.
9	W. B. 0. 80.....	8	0. 4. 57'56	1850'8	1	3'063	-0'0074	..	0'10341	0'07973	1'44814	0'07292	84'994	104. 26. 41'54
10	88 Pegasi γ	3.2*	0. 5. 31'00	1851'2	134	3'079	+0'0080	+0'005	0'10339	0'07979	1'44838	0'08531	84'116	75. 39. 2'06
11	.....	..	0. 5. 46'98	1852'8	1	+3'067	-0'0026	..	0'10276	0'07982	1'44819	0'07687	84'761	95. 28. 53'90
12	W. B. 0. 97.....	9	0. 6. 1'50	1853'6	4	3'075	+0'0036	..	0'10278	0'07984	1'44831	0'08176	84'411	83. 53. 41'82
13	W. B. 0. 102.....	9	0. 6. 21'17	1852'9	1	3'063	-0'0060	..	0'10318	0'07989	1'44813	0'07396	84'931	102. 8. 18'50
14	W. B. 0. 126.....	9	0. 7. 42'21	1852'8	2	3'078	+0'0052	..	0'10293	0'08002	1'44836	0'08295	84'302	81. 4. 51'03
15	W. B. 0. 128.....	8	0. 7. 48'90	1852'8	3	3'080	+0'0072	..	0'10322	0'08005	1'44841	0'08454	84'163	77. 24. 53'80
16	.....	..	0. 8. 1'21	1852'3	2	+3'061	-0'0058	..	0'10315	0'08005	1'44810	0'07406	84'917	101. 52. 1'55
17	24 Andromedæ θ	5.4*	0. 9. 16'04	1850'5	7	3'113	+0'0243	-0'002	0'10869	0'08042	1'44890	0'09752	82'776	52. 9. 5'83
18	.....	..	0. 10. 32'83	1850'9	2	5'612	+3'2712	..	† ..	..	..	..	..	1. 23. 13'32
19	W. B. 0. 189.....	8'9	0. 11. 9'16	1852'3	4	3'057	-0'0055	..	0'10312	0'08038	1'44804	0'07412	84'897	101. 46. 55'41
20	8 Ceti ι	3.4*	0. 11. 47'11	1852'0	14	3'059	-0'0044	+0'001	0'10296	0'08043	1'44808	0'07506	84'835	99. 39. 20'99
21	Lalande 390	7	0. 13. 23'29	1853'6	5	+3'066	-0'0011	..	0'10268	0'08060	1'44817	0'07761	84'664	93. 44. 34'75
22	Sculptoris.....	5	0. 13. 58'63	1848'7	3	3'024	-0'0157	+0'001	0'10609	0'08087	1'44754	0'06516	85'288	119. 46.
23	10 Ceti κ	6	0. 18. 55'89	1851'6	1	3'069	+0'0006	+0'008	0'10275	0'08118	1'44823	0'07881	84'531	90. 52. 50'63
24	W. B. 0. 361.....	8	0. 21. 40'28	1850'8	1	3'039	-0'0062	..	0'10330	0'08153	1'44775	0'07298	84'903	104. 23. 26'49
25	12 Ceti λ	6	0. 22. 23'08	1852'3	27	3'060	-0'0012	+0'003	0'10264	0'08154	1'44809	0'07719	84'637	94. 47. 12'71
26	13 Cassiopeiæ μ	6	0. 22. 50'48	1849'8	3	+3'365	+0'0797	+0'037	0'13390	0'08497	1'45278	0'12932	77'860	24. 18. 33'99
27	W. B. 0. 387.....	8	0. 23. 23'51	1852'8	3	3'044	-0'0043	..	0'10296	0'08169	1'44784	0'07453	84'805	100. 54. 49'75
28	W. B. 0. 389.....	9	0. 23. 29'06	1852'8	2	3'044	-0'0043	..	0'10296	0'08169	1'44784	0'07453	84'805	100. 54. 42'51
29	Groombridge 86.....	7.8	0. 24. 31'38	1849'8	4	3'262	+0'0462	..	0'11756	0'08346	1'45119	0'11022	80'795	36. 42. 25'41
30	.....	..	0. 25. 4'85	1852'7	1	3'075	+0'0022	..	0'10253	0'08181	1'44830	0'07980	84'430	88. 33. 21'62
31	Groombridge 96.....	7.8	0. 27. 9'77	1849'8	3	+3'283	+0'0469	..	0'11759	0'08393	1'45153	0'11027	80'730	36. 37.
32	13 Ceti ν	6.5*	0. 27. 31'71	1852'9	6	3'058	-0'0007	+0'027	0'10257	0'08207	1'44807	0'07732	84'597	94. 25. 9'26
33	Bradley 49	6*	0. 27. 49'03	1850'6	5	3'288	+0'0470	+0'006	0'11755	0'08405	1'45160	0'11023	80'723	36. 39. 32'89
34	.....	..	0. 28. 10'32	1850'9	1	3'046	-0'0029	..	0'10277	0'08216	1'44786	0'07549	84'719	98. 43. 43'26
35	17 Cassiopeiæ ζ	4*	0. 28. 38'37	1850'8	7	3'292	+0'0468	+0'007	0'11730	0'08417	1'45167	0'10992	80'750	36. 55. 45'67

22. The designating letter is Lacaille's.

29, 31. The magnitudes in the text are taken from Groombridge. The first was noted by the observer as of the 6.7th magnitude.

34. It has been assumed that the R.A. and N.P.D. belong to the same star. The N.P.D. was observed with Vesta, 1848, August 24.

† For No. 18, log. e = 0.59676, log. f = 0.12279, log. g = 1.48589, log. h = 0.59667, l = - 57°45'.

1856G0AMM...16G...1A

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850 from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1852.8	1	—20.06	0.000	..	9.88936	0.14832	0.69426	0.07953	119.486	..	...	..	..	..	W. B. XXIII. 1242..	1
..	..	20.06	+0.001	+0.16	9.92463	0.24660	0.69426	0.07986	108.891	..	XXIII. 279	..	1	2	Piazzi XXIII. 279...	2
1852.9	1	20.06	+0.001	..	9.88734	0.13597	0.69467	0.08023	120.507	..	...	..	..	..	W. B. XXIII. 1249..	3
1850.9	112	20.06	+0.001	+0.13	9.91334	9.86125	0.69426	0.08018	135.355	3215	XXIII. 281	1112	2	4	21 Andromedæ .....α	4
1849.7	13	20.06	+0.002	+0.17	9.98971	9.54289	0.69426	0.08108	140.793	3216	XXIII. 283	1	3	7	11 Cassiopeia .....β	5
..	..	—20.06	+0.003	—0.10	9.91179	0.22584	0.69426	0.08185	111.424	..	XXIII. 285	..	6	10	Piazzi XXIII. 285...	6
1852.7	2	20.05	+0.007	..	9.89159	9.99481	0.69442	0.08498	129.478	..	...	..	..	..	W. B. 0. 60.....	7
..	..	20.05	+0.008	—0.05	9.90890	0.22510	0.69426	0.08533	111.388	..	0. 6	..	8	23	Piazzi 0. 6	8
1850.8	1	20.05	+0.010	..	9.88885	0.16121	0.69467	0.08701	117.921	..	...	..	..	..	W. B. 0. 80.....	9
1851.5	83	20.05	+0.011	+0.01	9.89521	9.97876	0.69467	0.08784	130.008	..	0. 9	3	9	26	88 Pegasi.....γ	10
1852.8	1	—20.05	+0.011	..	9.88383	0.11235	0.69467	0.08856	121.891	..	...	..	..	..	.....	11
1853.6	4	20.05	+0.012	..	9.88717	0.03881	0.69467	0.08876	126.773	..	...	..	..	..	W. B. 0. 97	12
1852.9	1	20.05	+0.012	..	9.88627	0.14925	0.69467	0.08933	118.857	..	...	..	..	..	W. B. 0. 102.....	13
1852.8	2	20.04	+0.015	..	9.89009	0.01904	0.69507	0.09132	127.674	..	...	..	..	..	W. B. 0. 126.....	14
1852.8	3	20.04	+0.015	..	9.89476	9.99210	0.69524	0.09150	129.018	..	...	..	..	..	W. B. 0. 128.....	15
1853.9	1	—20.04	+0.016	..	9.88536	0.14809	0.69507	0.09164	118.823	..	...	..	..	..	.....	16
1849.2	30	20.04	+0.018	+0.01	9.94551	9.76860	0.69547	0.09358	136.311	9	0. 28	4	..	52	24 Andromedæ .....θ	17
1850.9	1	20.03	+0.038	..	0.09184	9.30402	0.69588	0.09553	136.969	..	...	..	..	..	.....	18
1852.3	4	20.03	+0.022	..	9.88372	0.14736	0.69628	0.09648	118.589	..	...	..	..	..	W. B. 0. 189.....	19
1851.9	15	20.03	+0.023	+0.05	9.88286	0.13593	0.69628	0.09740	119.474	14	0. 42	5	15	62	8 Ceti.....	20
1853.6	5	—20.02	+0.026	..	9.88252	0.10209	0.69709	0.09996	121.856	..	...	..	..	..	Lalande 390.....	21
..	..	20.02	+0.027	+0.10	9.89938	0.22949	0.69749	0.10070	110.260	..	0. 50	..	17	72	Sculptoris	22
1849.5	4	19.99	+0.037	0.00	9.88354	0.08469	0.70029	0.10806	122.416	29	0. 70	..	25	95	10 Ceti	23
1850.8	1	19.97	+0.042	..	9.87852	0.16064	0.70188	0.11207	116.510	..	...	..	..	..	W. B. 0. 361.....	24
1852.0	33	19.96	+0.044	+0.01	9.88050	0.10825	0.70228	0.11312	120.453	38	0. 89	..	28	112	12 Ceti	25
1848.3	2	—19.96	+0.049	+0.01	0.04611	9.46721	0.70267	0.11378	136.330	37	0. 90	..	..	114	13 Cassiopeia.....	26
1852.8	3	19.95	+0.045	..	9.87754	0.14242	0.70347	0.11473	117.817	..	...	..	..	..	W. B. 0. 387.....	27
1852.8	2	19.95	+0.045	..	9.87754	0.14242	0.70347	0.11473	117.817	..	...	..	..	..	W. B. 0. 389.....	28
1848.8	1	19.94	+0.051	..	0.01102	9.60523	0.70386	0.11606	135.557	..	...	..	..	..	Groombridge 86.....	29
1852.7	1	19.93	+0.049	..	9.88581	0.06986	0.70465	0.11714	122.598	..	...	..	..	..	.....	30
..	..	—19.91	+0.057	..	0.01523	9.60542	0.70622	0.11991	134.978	..	...	..	..	..	Groombridge 96.....	31
1852.9	6	19.91	+0.053	+0.03	9.87974	0.10602	0.70661	0.12052	120.033	50	0. 117	..	32	145	13 Ceti	32
1853.8	1	19.91	+0.058	—0.04	0.01620	9.60601	0.70700	0.12093	134.820	49	0. 118	..	33	146	Bradley 49	33
1848.7	1	19.90	+0.055	..	9.87639	0.13056	0.70728	0.12143	118.243	..	...	..	..	..	.....	34
1850.3	16	19.90	+0.060	—0.01	0.01657	9.60935	0.70778	0.12210	134.620	52	0. 123	9	34	153	17 Cassiopeia .....ζ	35

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionum*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(xxx)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Wolsse.	Mean Right Ascension 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of 1	Mean North Polar Distance, 1850, Jan. 1.
									c	f	g	h		
36	Oeltz. Arg. 547	7	0. 29. 8.96	1853.9	1	+3.310	+0.0493	..	0.11843	0.08444	1.45192	0.11134	80.522	35. 36. 4.86
37	30 Andromedæ	4*	0. 30. 38.33	1852.0	19	3.167	+0.0188	-0.013	0.10557	0.08283	1.44975	0.09198	83.169	61. 30. 12.73
38	31 Andromedæ	3.4*	0. 31. 19.09	1850.9	11	3.176	+0.0200	+0.011	0.10595	0.08296	1.44988	0.09279	83.065	59. 57. 38.13
39	Oeltz. Arg. 599	9	0. 31. 54.63	1850.0	1	3.344	+0.0528	..	0.11965	0.08511	1.45245	0.11288	80.225	34. 17.
40	18 Cassiopeïæ	Var.* 2 to 3	0. 32. 1.51	1850.4	48	3.344	+0.0529	+0.010	0.11965	0.08511	1.45245	0.11288	80.225	34. 17. 9.71
41	W. B. O. 551	9	0. 32. 23.75	1853.0	4	+3.042	-0.0027	..	0.10270	0.08260	1.44781	0.07551	84.697	98. 41. 49.38
42	16 Ceti	2*	0. 36. 3.49	1850.8	111	2.999	-0.0076	+0.017	0.10365	0.08316	1.44715	0.07099	84.946	108. 48. 38.98
43	.....		0. 36. 56.05	1850.7	1	3.043	-0.0017	..	0.10256	0.08306	1.44782	0.07610	84.633	97. 19. 50.53
44	Piazzi O. 171	6	0. 37. 46.04	1850.5	6	3.050	-0.0007	+0.006	0.10246	0.08314	1.44793	0.07689	84.571	95. 27. 8.29
45	34 Andromedæ	4*	0. 39. 23.78	1851.2	6	3.170	+0.0158	-0.001	0.10435	0.08366	1.44978	0.08937	83.384	66. 32. 59.27
46	24 Cassiopeïæ	4.3*	0. 40. 3.39	1851.3	3	+3.429	+0.0581	+0.135	0.12079	0.08682	1.45375	0.11433	79.808	32. 58. 52.69
47	B. F. 75	6*	0. 40. 31.17	1849.9	5	3.089	+0.0046	+0.039	0.10237	0.08341	1.44854	0.08105	84.225	85. 29. 29.07
48	63 Piscium	4.5*	0. 40. 54.20	1852.3	10	3.099	+0.0058	+0.008	0.10246	0.08347	1.44869	0.08199	84.137	83. 13. 55.83
49	.....		0. 43. ± ..	..	..	3.015	-0.0039	..	0.10281	0.08377	1.44739	0.07387	84.751	102. 34. 23.28
50	Bradley 65	6	0. 44. 31.54	1851.0	5	11.361	+6.0216	+0.116	† ..	..	..	..	..	1. 47. 2.36
51	20 Ceti	5.6*	0. 45. 20.62	1851.8	15	+3.062	+0.0015	+0.002	0.10223	0.08390	1.44812	0.07837	84.419	91. 57. 36.01
52	Groombridge 171	5	0. 46. 35.18	1849.8	3	3.369	+0.0412	..	0.11305	0.08637	1.45284	0.10454	81.219	42. 8. 7.69
53	27 Cassiopeïæ	2*	0. 47. (40)	..	..	3.547	+0.0686	+0.001	0.12388	0.08902	1.45557	0.11811	78.991	30. 5. 48.18
54	W. B. O. 834	9	0. 48. (0)	..	..	3.014	-0.0031	..	0.10263	0.08429	1.44737	0.07433	84.698	101. 33. 20.87
55	37 Andromedæ	4*	0. 48. 26.61	1852.5	16	3.287	+0.0284	+0.014	0.10801	0.08553	1.45159	0.09703	82.295	52. 18. 55.50
56	2 Ursæ Minoris	4.5*	0. 49. 9.86	1851.5	4	+6.644	+1.2222	+0.072	0.30555	0.13949	1.50028	0.30502	36.575	4. 33. 1.48
57	.....		0. 50. 25.84	1848.8	1	3.016	-0.0025	..	0.10251	0.08450	1.44740	0.07472	84.662	100. 41.
58	W. B. O. 907	9	0. 51. 54.67	1848.8	1	3.068	+0.0018	..	0.10209	0.08457	1.44809	0.07835	84.384	92. 0. 22.02
59	70 Piscium	7½	0. 54. 19.02	1853.9	1	3.110	+0.0067	+0.002	0.10220	0.08485	1.44887	0.08210	84.038	82. 52.
60	71 Piscium	4*	0. 55. 9.74	1852.9	18	3.110	+0.0067	+0.004	0.10218	0.08494	1.44887	0.08208	84.035	82. 55. 6.97
61	W. B. O. 976	9	0. 55. 25.82	1849.9	3	+3.010	-0.0023	..	0.10240	0.08500	1.44732	0.07474	84.640	100. 40. 15.15
62	80 Piscium	6.5*	1. 0. 38.77	1852.4	8	3.100	+0.0058	-0.017	0.10195	0.08547	1.44871	0.08116	84.090	85. 8. 41.95
63	43 Andromedæ	2.3*	1. 1. 20.86	1851.9	13	3.317	+0.0265	+0.019	0.10664	0.08689	1.45204	0.09507	82.407	55. 10. 34.11
64	33 Ceti	6	1. 2. 50.61	1850.3	8	3.081	+0.0042	+0.002	0.10182	0.08568	1.44842	0.07986	84.198	88. 21. 14.61
65	1 Ursæ Min. (1st star) .	..	1. 4. 37.04	1849.6	17	17.302	+11.2716	..	‡ ..	..	..	..	..	1. 29. 41.03
66	1 Ursæ Minoris	2*	1. 5. 1.26	1851.1	575	+17.456	+11.4276	+0.090	§ ..	..	..	..	..	1. 29. 24.91
67	37 Ceti	6*	1. 6. (50)	..	..	3.012	-0.0006	+0.007	0.10195	0.08614	1.44734	0.07562	84.531	98. 43. 49.98
68	38 Ceti	6*	1. 7. 9.78	1850.9	9	3.059	+0.0027	-0.003	0.10170	0.08610	1.44807	0.07846	84.301	91. 46. 40.19
69	.....		1. 9. (10)	..	..	3.374	+0.0297	..	0.10726	0.08808	1.45290	0.09644	82.112	52. 33. 16.93
70	40 Ceti	6	1. 9. 18.41	1853.9	2	3.049	+0.0022	+0.017	0.10166	0.08631	1.44792	0.07795	84.336	93. 4. 0.76

36, 39. The magnitude is taken from Oeltzen's Argelander.

40. The limits of magnitude are assumed from Mr. Snow's series of comparisons with β Cassiopeïæ and γ Cassiopeïæ.—(See Mem. Royal Astr. Soc. vols. xi and xii.)

43. Of about the 9th magnitude.

49. Of the 12th magnitude.

57. Of the 11th magnitude.

69. The identity of this star with No. 95 of Greenwich Twelve-Year Catalogue is rather questionable. Its magnitude was noted as 8.9.

† For No. 50, log. c = 0.51870, log. f = 0.20780, log. g = 1.56064, log. h = 0.51857, l = -39.020.

‡ For No. 65, log. c = 0.56239, log. f = 0.28101, log. g = 1.62637, log. h = 0.56230, l = -71.031.

§ For No. 66, log. c = 0.56360, log. f = 0.28276, log. g = 1.62796, log. h = 0.56346, l = -71.911.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in. Piazzi (1814.)	No. in Pond's 1112.	No in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1853.9	1	—19.89	+0.061	..	0.02164	9.59454	0.70817	0.12308	134.571	..	...	..	..	..	Oeltz. Arg. 547.....	36
1852.5	43	19.88	+0.062	+0.21	9.94555	9.86164	0.70972	0.12492	130.285	56	0. 134	11	38	164	30 Andromedæ	37
1851.1	19	19.87	+0.063	+0.11	9.95059	9.84763	0.71011	0.12587	130.525	57	0. 136	12	39	166	31 Andromedæ	38
...	..	19.86	+0.068	..	0.02963	9.58175	0.71088	0.12687	134.043	..	...	..	..	..	Oeltz. Arg. 599.....	39
1850.0	83	19.86	+0.068	+0.03	0.02963	9.58175	0.71088	0.12687	134.043	59	0. 139	13	40	169	18 Cassiopeiæ	40
1853.8	3	—19.85	+0.062	..	9.87483	0.13025	0.71127	0.12730	117.830	..	...	..	..	..	W. B. O. 551.....	41
1851.1	71	19.81	+0.069	—0.05	9.86846	0.18141	0.71549	0.13248	113.421	70	0. 159	15	43	196	16 Ceti.....	42
1850.7	1	19.79	+0.071	..	9.87448	0.12245	0.71626	0.13366	117.878	..	...	..	..	..	.....	43
1849.8	7	19.78	+0.073	+0.07	9.87645	0.11184	0.71739	0.13483	118.486	..	0. 171	..	..	205	Piazzi O. 171	44
1851.1	11	19.76	+0.079	+0.07	9.93952	9.90736	0.71929	0.13706	127.488	78	0. 182	17	45	215	34 Andromedæ	45
1850.8	15	—19.75	+0.087	+0.48	0.04520	9.57283	0.72004	0.13794	132.265	79	0. 185	18	46	218	24 Cassiopeiæ	46
1849.9	5	19.74	+0.079	+1.18	9.89277	0.05024	0.72079	0.13858	121.698	..	0. 189	..	47	221	B. F. 75.....	47
1851.9	10	19.74	+0.080	+0.01	9.89762	0.03504	0.72117	0.13911	122.395	85	0. 192	19	50	222	63 Piscium	48
1850.7	1	19.70	+0.082	..	9.86670	0.15037	0.72416	0.14192	115.243	..	...	..	..	..	.....	49
1851.3	7	19.68	+0.320	+0.02	0.13972	9.34120	0.72601	0.14398	128.816	65	0. 177	..	..	240	Bradley 65	50
1852.3	11	—19.66	+0.088	—0.01	9.88056	0.09114	0.72711	0.14506	118.857	93	0. 213	21	56	242	20 Ceti	51
1848.8	2	19.64	+0.099	..	0.02473	9.67553	0.72895	0.14671	130.216	..	...	..	..	245	Groombridge 171....	52
1849.2	17	19.62	+0.107	—0.02	0.06487	9.54845	0.73041	0.14817	130.518	99	0. 225	22	57	253	27 Cassiopeiæ	53
1850.7	1	19.62	+0.091	..	9.86510	0.14484	0.73114	0.14868	115.112	..	...	..	..	..	W. B. O. 834.....	54
1850.7	32	19.61	+0.101	—0.07	9.99340	9.77980	0.73187	0.14916	128.603	101	0. 232	24	58	259	37 Andromedæ	55
1851.4	4	—19.60	+0.206	+0.01	0.13916	9.35393	0.73260	0.15007	128.107	92	0. 220	23	59	262	2 Ursæ Minoris.....	56
...	..	19.57	+0.096	..	9.86510	0.14017	0.73454	0.15164	115.193	..	...	..	..	..	.....	57
1849.9	3	19.54	+0.101	..	9.87984	0.09132	0.73685	0.15358	118.039	..	...	..	..	..	W. B. O. 907.....	58
...	..	19.50	+0.107	—0.17	9.90232	0.03314	0.74084	0.15679	120.576	110	0. 260	..	..	281	70 Piscium	59
1851.9	16	19.48	+0.108	—0.02	9.90237	0.03354	0.74225	0.15788	120.437	113	0. 264	27	66	288	71 Piscium.....	60
1848.8	2	—19.47	+0.105	..	9.86285	0.13988	0.74225	0.15790	114.679	..	...	..	67	..	W. B. O. 976.....	61
1852.5	5	19.36	+0.118	+0.19	9.89747	0.04856	0.75164	0.16481	118.987	136	0. 299	29	72	328	80 Piscium.....	62
1852.0	11	19.34	+0.128	+0.07	9.99773	9.81246	0.75266	0.16568	125.495	140	0. 301	32	75	334	43 Andromedæ	63
1850.3	8	19.31	+0.122	—0.01	9.88875	0.06905	0.75539	0.16755	117.740	148	I. 3	..	..	344	33 Ceti	64
1852.1	11	19.26	+0.702	..	0.16637	9.37970	0.75876	0.16974	123.495	..	..	..	80	..	1 Ursæ Min. (1st star) .	65
1851.7	557	—19.25	+0.713	—0.02	0.16686	9.38090	0.75943	0.17023	123.386	102	0. 263	28	81	360	1 Ursæ Minoris.....	66
1848.8	3	19.21	+0.126	—0.33	9.86184	0.12883	0.76276	0.17247	114.041	164	I. 24	..	89	372	37 Ceti	67
1850.9	9	19.20	+0.129	—0.21	9.87921	0.08981	0.76343	0.17286	116.145	165	I. 25	..	..	374	38 Ceti	68
1849.9	3	19.15	+0.146	..	0.01540	9.79200	0.76738	0.17529	124.156	..	...	..	95	..	.....	69
1848.8	3	19.15	+0.132	+0.09	9.87555	0.09728	0.76738	0.17547	115.482	168	I. 33	..	96	386	40 Ceti	70

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regiomontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Weisse.	Mean Right Ascension 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
71	89 Piscium	5.6*	h m s 1. 10. 3.94	1851.4	9	+3.091	+0.0051	-0.001	0.10163	0.08639	1.44856	0.08031	84.119	87. 10. 35.67
72	34 Cassiopeiæ.....	5*	1. 10. (40)	..	..	3.706	+0.0668	-0.001	0.11993	0.09259	1.45797	0.11377	79.174	32. 33. 31.35
73	42 Ceti	6*	1. 12. 8.26	1853.4	6	3.061	+0.0032	+0.004	0.10155	0.08660	1.44811	0.07866	84.259	91. 17. 53.65
74	36 Cassiopeiæ.....	5*	1. 15. (20)	..	..	4.106	+0.1173	+0.013	0.13475	0.09896	1.46398	0.13070	75.801	22. 39. 18.69
75	37 Cassiopeiæ.....	3*	1. 16. 2.80	1851.2	3	3.809	+0.0748	+0.044	0.12190	0.09438	1.45952	0.11621	78.591	30. 32. 46.67
76	44 Ceti	6	1. 16. (30)	..	..	+3.003	-0.0002	+0.009	0.10166	0.08710	1.44721	0.07565	84.493	98. 47. 21.99
77	45 Ceti.....	3*	1. 16. 31.61	1851.0	115	3.002	-0.0002	-0.002	0.10167	0.08712	1.44718	0.07557	84.499	98. 57. 31.86
78	38 Cassiopeiæ.....	6*	1. 20. 9.19	1849.9	3	4.295	+0.1390	+0.029	0.13949	0.10216	1.46680	0.13590	74.561	20. 30. 34.84
79	W. B. I. 343	9	1. 20. 19.25	1849.9	3	3.048	+0.0028	..	0.10129	0.08735	1.44791	0.07806	84.282	92. 46.
80	W. B. I. 346	8	1. 20. 23.22	1849.6	6	3.048	+0.0028	..	0.10130	0.08739	1.44791	0.07807	84.278	92. 49.
81	W. B. I. 375	8.9	1. 22. 12.08	1849.0	2	+3.067	+0.0041	..	0.10124	0.08754	1.44820	0.07902	84.184	90. 24.
82	98 Piscium	5*	1. 22. 19.78	1850.6	13	3.115	+0.0070	+0.022	0.10130	0.08762	1.44893	0.08130	83.960	84. 37. 52.18
83	.....		1. 22. 54.14	1850.9	5	3.088	+0.0053	..	0.10120	0.08764	1.44852	0.08001	84.088	87. 53. 39.26
84	99 Piscium.....	4.3*	1. 23. 27.78	1852.5	23	3.194	+0.0121	+0.006	0.10188	0.08798	1.45016	0.08500	83.538	75. 25. 45.40
85	39 Cassiopeiæ.....	6.5*	1. 24. (10)	..	..	3.853	+0.0729	0.000	0.12023	0.09544	1.46019	0.11440	78.725	31. 32. 24.06
86	.....	6	1. 24. (30)	..	..	+2.784	-0.0091	..	0.10461	0.08919	1.44379	0.06557	85.076	120. 45. 32.68
87	.....		1. 25. 26.86	1849.0	1	3.080	+0.0049	..	0.10110	0.08788	1.44838	0.07959	84.117	88. 59.
88	.....		1. 25. (40)	..	..	3.120	+0.0074	..	0.10119	0.08795	1.44901	0.08143	83.928	84. 12. 18.27
89	W. B. I. 452	9	1. 26. 12.15	1850.4	6	3.086	+0.0053	..	0.10109	0.08794	1.44849	0.07989	84.085	88. 12. 21.67
90	W. B. I. 467	..	1. 27. (0)	..	..	3.121	+0.0073	..	0.10111	0.08806	1.44903	0.08146	83.925	84. 10. 59.22
91	B. F. 185.....	7½	1. 27. 5.11	1849.0	4	+3.072	+0.0046	..	0.10103	0.08804	1.44829	0.07925	84.141	89. 49.
92	Bradley 207	6	1. 27. 18.59	1850.6	5	3.622	+0.0462	-0.005	0.11140	0.09237	1.45670	0.10334	80.703	42. 2. 43.50
93	.....		1. 27. (20)	..	..	3.079	+0.0050	..	0.10102	0.08807	1.44839	0.07958	84.109	89. 0. 43.59
94	.....		1. 27. 24.36	1849.0	1	3.080	+0.0050	..	0.10102	0.08807	1.44839	0.07958	84.109	88. 59.
95	.....	6*	1. 28. 21.67	1853.3	5	3.851	+0.0692	..	0.11860	0.09562	1.46016	0.11255	78.976	32. 47. 20.91
96	51 Andromedæ	4.3*	1. 28. 48.54	1851.0	7	+3.629	+0.0462	+0.010	0.11127	0.09256	1.45681	0.10320	80.699	42. 8. 0.52
97	102 Piscium	6*	1. 29. 9.27	1853.3	3	3.173	+0.0104	-0.002	0.10138	0.08841	1.44982	0.08365	83.666	78. 38.
98	Bradley 217	7½	1. 29. (40)	..	..	3.173	+0.0105	+0.016	0.10135	0.08847	1.44982	0.08362	83.665	78. 41. 16.43
99	43 Cassiopeiæ.....	6*	1. 31. 18.19	1849.9	3	4.310	+0.1234	+0.006	0.13325	0.10277	1.46701	0.12929	75.508	22. 43. 5.51
100	W. B. I. 564	9	1. 32. 1.27	1849.0	2	3.060	+0.0031	..	0.10089	0.08851	1.44779	0.07790	84.249	93. 16. 49.96
101	106 Piscium	5.4*	1. 33. 37.75	1852.3	28	+3.115	+0.0071	+0.002	0.10085	0.08870	1.44893	0.08099	83.938	85. 16. 23.67
102	54 Andromedæ	4*	1. 34. 17.24	1852.0	2	3.706	+0.0508	+0.010	0.11225	0.09392	1.45797	0.10471	80.327	40. 4. 9.13
103	.....		1. 35. 16.54	1851.0	1	3.165	+0.0099	..	0.10102	0.08896	1.44970	0.08300	83.708	80. 8. 23.33
104	Piazzi I. 157	6	1. 35. 22.13	1852.4	2	2.719	-0.0089	+0.028	0.10475	0.09067	1.44277	0.06456	85.108	123. 5. 8.88
105	52 Ceti.....	3.4*	1. 37. 5.89	1851.5	5	2.905	-0.0024	-0.117	0.10157	0.08943	1.44569	0.07251	84.677	106. 43. 43.95

83. This is one of the variable stars discovered by Mr. Hind. In 1850, November 8, it was noted as the 6.7th magnitude; on November 14, 28, and 29, of the 8th magnitude; on December 5, 7, and 12, of the 8.9th magnitude. Its colour on November 14 was noted as pale white, and its appearance disk-like; on November 28 the colour was again noted to be white, but on November 29 and December 12, it was slightly red.
87, 93, 94. Of the 10th magnitude. 88. Of the 8.9th magnitude.

89. Of the 9th magnitude.

93, 94. It appears probable that the R. A. of 94 and N. P. D. of 93 belong to the same star.

FROM OBSERVATIONS MADE AT THE ROYAL OBSERVATORY, FROM 1848 TO 1853.

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Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of μ	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1851.4	9	—19'13	+ 0'136	+ 0'01	9'89288	0'06184	0'76901	0'17637	117'065	171	I. 36	..	..	388	89 Piscium.....f	71
1850.8	2	19'11	+ 0'164	— 0'02	9'08716	9'59861	0'77031	0'17711	124'864	169	I. 37	..	100	391	34 Cassiopeiae.....g	72
1853.3	5	19'07	+ 0'138	— 0'02	9'88033	0'08690	0'77322	0'17886	115'625	175	I. 47	..	..	400	42 Ceti.....	73
1851.9	2	18'98	+ 0'194	— 0'03	9'12418	9'51405	0'77959	0'18274	123'256	178	I. 53	37	106	412	36 Cassiopeiae.....h	74
1850.7	15	18'96	+ 0'181	+ 0'04	9'10032	9'58622	0'78084	0'18349	123'473	180	I. 62	38	107	416	37 Cassiopeiae.....i	75
1849.9	4	—18'95	+ 0'144	— 0'05	9'85796	0'12851	0'78179	0'18402	112'913	183	I. 66	..	108	419	44 Ceti.....	76
1851.3	61	18'95	+ 0'144	+ 0'20	9'85750	0'12941	0'78210	0'18405	112'855	184	I. 67	39	109	420	45 Ceti.....j	77
1849.2	8	18'84	+ 0'215	+ 0'08	9'13637	9'50538	0'78952	0'18826	121'817	188	I. 80	41	..	438	38 Cassiopeiae.....A	78
...	..	18'84	+ 0'153	..	9'87495	0'09538	0'78922	0'18810	114'178	..	..	..	117	..	W. B. I. 343.....	79
...	..	18'83	+ 0'153	..	9'87471	0'09567	0'78967	0'18836	114'137	..	..	..	118	..	W. B. I. 346.....	80
...	..	—18'78	+ 0'157	..	9'88275	0'08164	0'79317	0'19034	114'541	..	..	..	120	..	W. B. I. 375.....	81
1851.3	10	18'78	+ 0'160	+ 0'18	9'90352	0'04627	0'79408	0'19077	115'911	199	I. 95	42	121	448	98 Piscium.....k	82
1850.9	5	18'76	+ 0'159	..	9'89170	0'06651	0'79559	0'19154	115'027	..	..	..	..	..	.....	83
1852.7	26	18'74	+ 0'166	— 0'02	9'93933	9'98450	0'79649	0'19207	117'720	203	I. 98	43	124	453	99 Piscium.....l	84
1850.8	2	18'72	+ 0'202	+ 0'03	9'10687	9'60699	0'79798	0'19287	121'398	202	I. 100	..	125	456	39 Cassiopeiae.....m	85
1849.0	1	—18'71	+ 0'146	..	9'80799	0'22456	0'79887	0'19329	105'438	..	..	..	..	458	.....	86
...	..	18'68	+ 0'164	..	9'88784	0'07316	0'80065	0'19419	114'424	..	..	..	..	..	.....	87
1850.0	3	18'67	+ 0'166	..	9'90563	0'04392	0'80095	0'19430	115'528	..	..	..	126	..	.....	88
1848.0	1	18'65	+ 0'165	..	9'89070	0'06857	0'80212	0'19493	114'515	..	..	..	129	..	W. B. I. 452.....	89
1850.0	3	18'63	+ 0'168	..	9'90601	0'04379	0'80359	0'19576	115'342	..	..	..	132	..	W. B. I. 467.....	90
...	..	—18'62	+ 0'166	..	9'88490	0'07811	0'80447	0'19616	113'970	..	..	..	133	472	B. F. 185.....	91
1852.0	1	18'62	+ 0'196	+ 0'05	9'07391	9'70805	0'80505	0'19640	120'643	207	I. 113	..	134	474	Bradley 207.....	92
1850.6	3	18'62	+ 0'167	..	9'88790	0'07328	0'80534	0'19661	114'114	..	..	..	..	..	.....	93
...	..	18'61	+ 0'167	..	9'88790	0'07328	0'80534	0'19661	114'114	..	..	..	..	..	.....	94
1853.3	5	18'58	+ 0'211	..	9'10755	9'62435	0'80738	0'19758	120'345	..	..	..	..	482	.....	95
1850.8	10	—18'57	+ 0'200	+ 0'12	9'07522	9'71046	0'80825	0'19809	120'272	212	I. 124	46	136	487	51 Andromedae.....	96
...	..	18'56	+ 0'176	— 0'08	9'92912	0'00754	0'80911	0'19847	116'112	214	I. 126	47	137	488	102 Piscium.....n	97
1849.9	3	18'54	+ 0'177	0'00	9'92908	0'00803	0'81026	0'19907	116'009	217	I. 128	..	138	490	Bradley 217.....	98
1848.9	2	18'48	+ 0'244	— 0'04	9'14311	9'54387	0'81397	0'20084	118'978	216	I. 135	..	..	498	43 Cassiopeiae.....o	99
1849.9	3	18'46	+ 0'174	..	9'87169	0'09785	0'81538	0'20156	112'468	..	..	..	..	..	W. B. I. 564.....	100
1852.0	19	—18'40	+ 0'180	+ 0'02	9'90322	0'05092	0'81932	0'20339	114'035	228	I. 150	49	145	518	106 Piscium.....p	101
1850.5	9	18'38	+ 0'216	+ 0'03	9'08873	9'69770	0'82071	0'20410	118'930	227	I. 151	50	147	522	54 Andromedae.....	102
1851.0	1	18'35	+ 0'187	..	9'92505	0'01839	0'82320	0'20522	114'793	..	..	..	..	..	.....	103
1851.0	2	18'34	+ 0'160	— 0'02	9'78940	0'23025	0'82320	0'20529	104'030	..	I. 157	..	149	527	Piazzi I. 157.....	104
1850.9	9	18'28	+ 0'174	— 0'87	9'82351	0'16507	0'82730	0'20714	108'446	233	I. 163	51	..	536	52 Ceti.....q	105

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Arge- lond, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Preces- sion in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
106	110 Piscium	4*	1. 37. 28.66	1851.8	21	+3.152	+0.0091	+0.010	0.10085	0.08913	1.44951	0.08241	83.764	81. 35. 56.67
107	Lalande 3225	8½	1. 38. (10)	..	..	3.377	+0.0229	..	0.10356	0.09045	1.45295	0.09111	82.593	61. 8. 23.96
108	Lalande { 3230 } { 3231 }	8	1. 38. 9.63	1849.5	2	3.097	+0.0062	..	0.10062	0.08908	1.44865	0.08020	84.005	87. 20.
109	Sculptoris	5*	1. 38. 37.24	1851.9	3	2.801	-0.0059	+0.018	0.10288	0.09022	1.44406	0.06845	84.916	115. 48. 13.62
110	Piazzi I. 169	7½	1. 39. 11.97	1853.3	5	3.170	+0.0101	+0.001	0.10088	0.08934	1.44979	0.08306	83.680	79. 54. 26.91
111	W. B. I. 743	8	1. 41. 16.17	1852.9	3	+3.156	+0.0093	..	0.10070	0.08950	1.44958	0.08244	83.741	81. 28. 23.20
112	Piazzi I. 182	7.8	1. 42. 1.49	1849.0	3	2.954	0.0000	..	0.10084	0.08964	1.44645	0.07474	84.495	101. 27.
113	53 Ceti	5.4*	1. 42. 13.15	1849.0	1	2.954	+0.0001	-0.008	0.10084	0.08967	1.44644	0.07476	84.493	101. 26.
114	2 Persei	6*	1. 42. 38.27	1853.0	1	3.762	+0.0517	+0.006	0.11179	0.09516	1.45882	0.10439	80.229	39. 57. 3.44
115	54 Ceti	6*	1. 42. 54.70	1853.4	7	3.176	+0.0104	-0.005	0.10073	0.08970	1.44988	0.08311	83.655	79. 42. 6.68
116	45 Cassiopeie	3.4*	1. 43. (40)	..	..	+4.214	+0.0968	+0.007	0.12443	0.10176	1.46560	0.11970	77.114	27. 4. 17.38
117	55 Ceti	3*	1. 44. 3.43	1851.1	6	2.956	+0.0002	+0.004	0.10073	0.08983	1.44647	0.07492	84.475	101. 4. 41.52
118	2 Trianguli	4.3*	1. 44. 32.58	1851.9	9	3.395	+0.0230	+0.004	0.10323	0.09115	1.45324	0.09095	82.556	61. 9. 15.80
119	W. B. I. 824	9	1. 45. 44.97	1851.8	1	3.097	+0.0064	..	0.10029	0.08981	1.44866	0.08014	83.981	87. 28. 5.95
120	6 Arietis	3.2*	1. 46. 21.80	1852.8	21	3.289	+0.0164	+0.008	0.10157	0.09053	1.45162	0.08699	83.128	69. 55. 38.80
121	50 Cassiopeie	4*	1. 50. (40)	..	..	+4.948	+0.1830	-0.008	0.14237	0.11348	1.47636	0.13939	72.439	18. 18. 29.76
122	.....	..	1. 53. 52.08	1853.9	1	3.104	+0.0069	..	0.09991	0.09056	1.44877	0.08028	83.936	87. 2. 34.23
123	113 Piscium (1st star). α	3.4*	1. 54. 17.14	1850.9	1	3.093	+0.0064	+0.009	0.09988	0.09058	1.44860	0.07994	83.973	87. 57. 46.25
124	113 Piscium (as one mass) α	3.4*	1. 54. 17.30	1852.1	3	3.093	+0.0064	+0.009	0.09988	0.09058	1.44860	0.07994	83.973	87. 57. 46.33
125	113 Piscium (2d star). α	3.4*	1. 54. 17.43	1849.9	6	3.093	+0.0064	+0.009	0.09988	0.09058	1.44860	0.07994	83.973	87. 57. 44.95
126	W. B. I. 974	9	1. 54. 28.09	1849.9	2	+3.034	+0.0040	..	0.09989	0.09058	1.44768	0.07796	84.181	93. 19.
127	57 Andromedæ	2.3*	1. 54. 42.60	1850.6	5	3.640	+0.0374	+0.004	0.10661	0.09440	1.45699	0.09759	81.306	48. 23. 33.62
128	57 Andromedæ	9	1. 54. 43.44	1850.7	4	3.640	+0.0374	..	0.10661	0.09440	1.45699	0.09759	81.306	48. 23. 29.06
129	W. B. I. 986	9	1. 55. 2.67	1851.8	7	3.045	+0.0045	..	0.09984	0.09065	1.44785	0.07832	84.140	92. 20. 52.41
130	W. B. I. 990	7	1. 55. 15.53	1852.9	4	3.036	+0.0041	..	0.09985	0.09067	1.44771	0.07804	84.170	93. 6. 6.03
131	W. B. I. 988	9	1. 55. (20)	..	..	+3.195	+0.0110	..	0.10022	0.09084	1.45017	0.08324	83.579	79. 4. 13.71
132	13 Arietis	2*	1. 58. 43.68	1851.5	112	3.348	+0.0185	+0.016	0.10134	0.09196	1.45253	0.08789	82.909	67. 14. 57.93
133	4 Trianguli	3*	2. 0. 37.96	1851.8	9	3.528	+0.0285	+0.017	0.10372	0.09361	1.45528	0.09318	82.026	55. 43. 29.54
134	64 Ceti	6*	2. 3. 26.23	1850.0	3	3.165	+0.0095	-0.009	0.09960	0.09149	1.44971	0.08204	83.698	82. 8. 7.43
135	.....	..	2. 4. 11.61	1853.8	1	3.118	+0.0076	..	0.09939	0.09150	1.44898	0.08059	83.869	86. 7. 4.17
136	Lalande { 4047 } { 4048 }	6	2. 4. 27.11	1850.0	2	+3.806	+0.0459	..	0.10836	0.09699	1.45945	0.10065	80.575	43. 13. 8.67
137	65 Ceti	4.5*	2. 5. 3.25	1852.1	11	3.170	+0.0097	-0.001	0.09953	0.09166	1.44979	0.08212	83.678	81. 51. 33.17
138	Fornacis	5*	2. 6. 18.13	1850.6	3	2.643	-0.0054	-0.001	0.10263	0.09374	1.44159	0.06642	85.010	121. 25. 44.49
139	67 Ceti	6*	2. 9. 30.21	1852.4	21	2.981	+0.0029	+0.007	0.09925	0.09201	1.44686	0.07663	84.280	97. 6. 57.19
140	W. B. II. 158	7	2. 10. 45.20	1853.5	3	3.166	+0.0094	..	0.09919	0.09214	1.44972	0.08184	83.694	82. 30. 52.87

109, 138. The designating letters are Lacaille's.

112. The magnitude is taken from Piazzi.

111. Of the 7.8th magnitude.

130. Of the 11th magnitude.

1856GAMM...16G...1A

FROM OBSERVATIONS MADE AT THE ROYAL OBSERVATORY, FROM 1848 TO 1853.

(xxxv)

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850 from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue	Logarithms of				Value of P	No. in Bessel's Bradley.	No. in Piazzi. (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue	No. in British Association Catalogue	Star's Name.	No.
					e'	f'	g'	h'								
1851·8	15	—18·27	+ 0·190	— 0·04	9·91961	0·02813	0·82812	0·20754	114·158	232	I. 164	52	152	537	110 Piscium	106
1848·0	1	18·24	+ 0·204	..	0·00847	9·88131	0·82920	0·20798	117·030	..	...	..	153	..	Lalande 3225	107
..	..	18·24	+ 0·188	..	9·89515	0·06368	0·82947	0·20813	112·940	151	...	..	151	..	Lalande { 3230 } 3231	108
1850·6	6	18·23	+ 0·170	— 0·01	9·79777	0·20294	0·83082	0·20876	105·858	..	I. 168	53	156	541	Sculptoris	109
1853·8	4	18·21	+ 0·194	+ 0·06	9·92745	0·01742	0·83216	0·20937	114·184	..	I. 169	..	..	542	Piazzi I. 169	110
1853·8	2	—18·13	+ 0·197	..	9·92127	0·02771	0·83721	0·21162	113·552	..	...	..	..	..	W. B. I. 745	111
..	..	18·10	+ 0·185	..	9·83828	0·13972	0·83826	0·21210	109·274	..	I. 182	..	159	..	Piazzi I. 182	112
..	..	18·09	+ 0·186	+ 0·09	9·83831	0·13949	0·83931	0·21256	109·228	242	I. 183	54	161	559	53 Ceti	113
1850·8	6	18·08	+ 0·238	+ 0·07	0·09806	9·70669	0·84036	0·21298	116·810	238	I. 181	..	162	560	2 Persei	114
1853·9	6	18·07	+ 0·201	+ 0·07	9·92973	0·01659	0·84088	0·21328	113·590	243	I. 185	..	..	561	54 Ceti	115
1849·0	8	—18·04	+ 0·269	0·00	0·14352	9·60103	0·84270	0·21406	115·954	239	I. 184	55	163	564	45 Cassiopeia	116
1851·3	5	18·02	+ 0·189	+ 0·12	9·83875	0·13758	0·84374	0·21448	109·096	247	I. 192	56	..	565	55 Ceti	117
1850·4	23	18·01	+ 0·218	+ 0·21	0·01384	9·88473	0·84477	0·21499	115·610	245	I. 193	57	165	569	2 Trianguli	118
1851·8	1	17·96	+ 0·201	..	9·89542	0·06462	0·84779	0·21628	111·752	..	...	..	..	..	W. B. I. 824	119
1851·8	20	17·93	+ 0·215	+ 0·11	9·97590	9·95090	0·84912	0·21685	114·355	252	I. 202	60	170	577	6 Arietis	120
1850·2	11	—17·76	+ 0·335	— 0·02	0·17747	9·55531	0·85984	0·22132	113·096	260	I. 215	64	177	600	50 Cassiopeia	121
1853·9	1	17·63	+ 0·216	..	9·89834	0·06228	0·86778	0·22458	110·582	..	...	..	..	..	.....	122
1850·9	2	17·61	+ 0·216	— 0·01	9·89394	0·06772	0·86855	0·22487	110·374	277	I. 238	66	..	625	113 Piscium (1st star) ..	123
1852·8	2	17·61	+ 0·216	— 0·01	9·89394	0·06772	0·86855	0·22487	110·374	277	I. 238	66	..	625	113 Piscium (as one mass) ..	124
1849·8	8	17·61	+ 0·216	— 0·01	9·89394	0·06772	0·86855	0·22487	110·374	277	I. 238	66	..	625	113 Piscium (2d star) ..	125
..	..	—17·61	+ 0·211	..	9·86853	0·09728	0·86807	0·22473	109·453	..	...	..	180	..	W. B. I. 974	126
1850·4	5	17·60	+ 0·255	+ 0·04	0·07704	9·79054	0·86950	0·22527	113·832	276	I. 236	67	181	628	57 Andromeda	127
1850·4	5	17·60	+ 0·255	..	0·07704	9·79054	0·86950	0·22527	113·832	..	I. 237	..	182	..	57 Andromeda	128
1852·1	6	17·58	+ 0·214	..	9·87303	0·09201	0·87021	0·22556	109·513	..	...	..	..	..	W. B. I. 986	129
1853·8	3	17·57	+ 0·214	..	9·86953	0·09602	0·87069	0·22575	109·348	..	...	..	..	..	W. B. I. 990	130
1850·8	2	—17·57	+ 0·224	..	9·93692	0·01451	0·87021	0·22556	111·607	..	...	..	183	..	W. B. I. 988	131
1851·3	87	17·42	+ 0·242	+ 0·12	9·99621	9·93653	0·87955	0·22923	112·141	287	I. 253	68	186	648	13 Arietis	132
1851·9	10	17·34	+ 0·259	+ 0·02	0·05088	9·85311	0·88411	0·23108	112·315	290	I. 260	69	189	656	4 Trianguli	133
1848·9	1	17·22	+ 0·237	+ 0·10	9·92445	0·03444	0·89127	0·23375	109·763	302	II. 6	..	..	672	64 Ceti	134
1853·8	1	17·18	+ 0·235	..	9·90412	0·05769	0·89392	0·23474	109·080	..	...	..	..	..	.....	135
1850·5	4	—17·17	+ 0·286	..	0·10680	9·76045	0·89346	0·23459	111·332	..	...	..	194	..	Lalande { 4047 } 4048	136
1853·0	5	17·14	+ 0·240	+ 0·02	9·92628	0·03301	0·89523	0·23529	109·525	306	II. 16	71	195	684	65 Ceti	137
1849·2	5	17·09	+ 0·202	+ 0·08	9·74564	0·21596	0·89849	0·23644	102·387	..	II. 28	..	198	688	Fornacis	138
1852·2	15	16·94	+ 0·233	+ 0·12	9·84700	0·11548	0·90636	0·23941	106·749	321	II. 47	..	..	704	67 Ceti	139
1853·5	3	16·88	+ 0·250	..	9·92433	0·03750	0·90991	0·24065	108·479	..	...	..	..	..	W. B. II. 158	140

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(xxxvi)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of ι	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
141	Bradley 323	7	2. 11. 21.87	1849.0	2	+4.168	+0.7010	-0.001	0.11448	0.10230	1.46492	0.10883	78.697	33. 27.
142	Bradley 328	8	2. 12. 24.69	1849.5	4	4.182	+0.0715	..	0.11450	0.10246	1.46505	0.10889	78.669	33. 18.
143	69 Ceti	6*	2. 14. 15.72	1853.5	5	3.067	+0.0059	+0.003	0.09884	0.09234	1.44820	0.07908	84.014	90. 17. 32.26
144	Fornacis	5*	2. 15. 40.81	1849.0	2	2.731	-0.0027	+0.025	0.10065	0.09373	1.44296	0.06996	84.811	114. 29. 59.79
145	Piazzi II. 75	6½	2. 16. 29.94	1852.0	5	3.190	+0.0103	+0.001	0.09895	0.09268	1.45010	0.08234	83.609	80. 58. 3.43
146	{ B.F. 292 ... }	4*	2. 16. (40)	..	..	+4.817	+0.1288	-0.005	0.12696	0.11221	1.47447	0.12325	75.156	23. 16. 34.37
147	24 Arietis	5.6*	2. 16. 46.99	1852.7	5	3.202	+0.0107	+0.003	0.09898	0.09273	1.45028	0.08266	83.565	80. 4. 17.85
148	Piazzi II. 83	7	2. 18. 8.22	1849.5	2	3.204	+0.0108	+0.007	0.09890	0.09285	1.45031	0.08266	83.561	80. 1. 50.98
149	Bradley 341	6	2. 18. 43.28	1850.8	6	3.203	+0.0108	+0.004	0.09885	0.09289	1.45030	0.08262	83.566	80. 6. 45.19
150	W.B. II. 306	9	2. 18. 45.90	1852.9	1	3.203	+0.0108	..	0.09887	0.09292	1.45031	0.08263	83.561	80. 5. 44.40
151	73 Ceti	4*	2. 20. 11.36	1852.0	28	+3.176	+0.0097	+0.006	0.09867	0.09295	1.44987	0.08187	83.661	82. 12. 54.93
152	Lalande 4594	8	2. 21. 40.20	1852.6	3	3.623	+0.0298	..	0.10268	0.09602	1.45671	0.09298	81.830	54. 33. 10.33
153	14 Trianguli	6*	2. 22. 57.80	1851.9	6	3.627	+0.0297	0.000	0.10259	0.09615	1.45678	0.09292	81.827	54. 31. 16.99
154	W.B. II. 417	9	2. 25. 1.89	1853.0	4	3.171	+0.0095	..	0.09832	0.09336	1.44981	0.08164	83.678	82. 46. 38.24
155	Bradley 344	6*	2. 26. 52.59	1849.0	2	7.999	+0.6294	+0.024	0.18606	0.16106	1.51849	0.18484	57.544	9. 11. 42.56
156	.....		2. 27. 4.95	1853.0	1	+3.256	+0.0125	..	0.09858	0.09377	1.45110	0.08362	83.391	76. 59. 27.15
157	Piazzi II. 118	6½	2. 27. 7.86	1853.7	1	3.166	+0.0092	+0.002	0.09821	0.09350	1.44974	0.08149	83.689	83. 11. 6.38
158	.....		2. 27. 12.36	1853.0	1	3.256	+0.0125	..	0.09850	0.09387	1.45111	0.08359	83.390	77. 3. 17.12
159	Piazzi II. 123	6*	2. 27. 51.90	1852.8	1	3.158	+0.0090	+0.118	0.09815	0.09354	1.44959	0.08126	83.720	83. 49. 55.97
160	78 Ceti	5*	2. 28. 0.66	1850.8	1	3.140	+0.0084	-0.005	0.09811	0.09352	1.44932	0.08084	83.774	85. 3. 51.63
161	W.B. II. 497	8	2. 29. 8.44	1850.0	3	+2.875	+0.0011	..	0.09850	0.09394	1.44522	0.07451	84.469	103. 33. 10.06
162	82 Ceti	4*	2. 31. 47.91	1851.2	11	3.066	+0.0062	+0.008	0.09780	0.09378	1.44819	0.07907	83.998	90. 19. 16.88
163	Piazzi II. 148	6*	2. 32. 21.48	1850.2	4	3.150	+0.0087	+0.008	0.09785	0.09388	1.44946	0.08099	83.746	84. 32.
164	12 Persei	5*	2. 32. (50)	..	..	3.754	+0.0343	0.000	0.10310	0.09811	1.45868	0.09457	81.380	50. 26. 38.35
165	13 Persei	4*	2. 34. (0)	..	..	4.014	+0.0491	+0.037	0.10683	0.10131	1.46262	0.10008	80.163	41. 24. 35.03
166	Bradley 381	6*	2. 34. (20)	..	..	+3.219	+0.0109	-0.001	0.09794	0.09421	1.45055	0.08253	83.525	79. 54. 1.76
167	35 Arietis	5*	2. 34. 39.66	1851.7	4	3.497	+0.0216	+0.002	0.09984	0.09579	1.45481	0.08871	82.505	62. 56. 5.60
168	86 Ceti	3.4*	2. 35. 31.97	1851.9	80	3.109	+0.0075	-0.007	0.09759	0.09408	1.44885	0.08003	83.864	87. 23. 57.03
169	36 Arietis	7	2. 35. 57.30	1849.4	3	3.330	+0.0148	+0.007	0.09838	0.09479	1.45224	0.08492	83.152	72. 52.
170	[87 Ceti	4*	2. 36. 50.36	1850.0	8	3.212	+0.0105	+0.020	0.09773	0.09439	1.45045	0.08229	83.552	80. 31. 22.08
171	89 Ceti	4*	2. 36. 59.11	1852.1	5	+2.852	+0.0012	-0.001	0.09806	0.09467	1.44485	0.07432	84.490	104. 29. 48.19
172	B.F. 341	7	2. 38. (10)	..	..	4.352	+0.0699	..	0.11156	0.10609	1.46764	0.10632	78.604	33. 35. 54.11
173	B.F. 343	6½	2. 38. (30)	..	..	4.356	+0.0701	..	0.11158	0.10617	1.46770	0.10634	78.590	33. 32. 45.29
174	15 Persei	4.3*	2. 39. 44.36	1851.0	1	4.309	+0.0660	..	0.11049	0.10555	1.46701	0.10508	78.865	34. 44.
175	15 Persei	4.3*	2. 39. 47.45	1850.6	7	4.309	+0.0660	+0.003	0.11049	0.10555	1.46701	0.10508	78.865	34. 43. 52.29

142. The R.A. of this star given in the B.A.C. is incorrect, in consequence of a wrong object having been assumed to be identical with it in the Greenwich Catalogue of 1439 stars. The proper motion given in the B.A.C. is also in error from the same cause.

144. The designation is Lacaille's.

170. The designation "87 Ceti μ " has been withdrawn from this star in the B. A. C. and the star is marked as within the limits of the constellation Aries; the name is retained here because the star is well known under its previous designation.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Nalue of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
..	..	-16'85	+0'330	..	0'15023	9'69812	0'91116	0'24114	108'853	323	...	..	205	718	Bradley 323.....	141
..	..	16'80	+0'332	..	0'15174	9'69885	0'91384	0'24209	108'553	328	...	..	207	725	Bradley 328.....	142
1853'9	4	16'71	+0'247	+0'07	9'88263	0'08072	0'91851	0'24374	107'045	333	II. 69	..	..	729	69 Ceti	143
1850'4	6	16'64	+0'222	+0'08	9'75867	0'18868	0'92211	0'24504	103'073	..	II. 73	..	209	737	Fornacis	144
1852'0	5	16'60	+0'261	+0'09	9'93425	0'02940	0'92410	0'24577	107'659	..	II. 75	..	..	741	Piazzi II. 75	145
1849'7	7	-16'59	+0'395	0'00	0'18888	9'64365	0'92489	0'24599	106'232	332	II. 72	75	210	744	{ B. F. 292... } Bradley 332	146
1851'8	5	16'59	+0'263	+0'05	9'93922	0'02425	0'92489	0'24603	107'683	338	II. 76	..	..	745	24 Arietis	147
1850'5	6	16'52	+0'265	+0'35	9'93986	0'02425	0'92842	0'24721	107'448	..	II. 83	..	..	750	Piazzi II. 83	148
1851'0	9	16'49	+0'266	+0'13	9'93960	0'02482	0'92978	0'24772	107'344	341	II. 85	..	..	755	Bradley 341	149
1852'9	1	16'49	+0'266	..	9'93962	0'02475	0'93017	0'24782	107'325	..	...	..	..	..	W. B. II. 306	150
1852'2	21	-16'42	+0'266	0'00	0'92829	0'03707	0'93363	0'24901	106'922	347	II. 94	77	212	760	73 Ceti	151
1853'9	2	16'34	+0'306	..	0'07280	9'86170	0'93724	0'25031	107'381	..	...	..	..	..	Lalande 4594	152
1851'2	7	16'28	+0'309	+0'02	0'07394	9'86268	0'94062	0'25143	107'067	350	II. 102	..	..	772	14 Trianguli	153
1853'0	4	16'17	+0'274	..	9'92619	0'04089	0'94625	0'25333	106'035	..	...	..	..	..	W. B. II. 417	154
1850'4	9	16'09	+0'696	..	0'23547	9'61052	0'94962	0'25446	101'207	344	...	..	218	784	Bradley 344	155
1853'0	1	-16'06	+0'285	..	9'95995	0'00844	0'95133	0'25501	106'010	..	...	..	..	..	.....	156
1853'7	1	16'06	+0'277	+0'12	9'92437	0'04334	0'95124	0'25499	105'676	..	II. 118	..	..	789	Piazzi II. 118	157
1853'0	1	16'06	+0'285	..	9'95971	0'00878	0'95178	0'25515	105'977	..	...	..	..	..	.....	158
1852'8	1	16'02	+0'277	-1'31	9'92068	0'04695	0'95303	0'25558	105'517	..	II. 123	..	221	793	Piazzi II. 123	159
1848'0	2	16'02	+0'276	+0'03	9'91348	0'05357	0'95339	0'25572	105'409	362	II. 125	80	222	794	78 Ceti	160
1849'8	5	-15'96	+0'254	..	9'80346	0'14209	0'95570	0'25646	103'465	..	...	..	225	..	W. B. II. 497	161
1851'0	8	15'81	+0'275	+0'03	9'88223	0'08079	0'96320	0'25889	104'426	372	II. 144	81	..	811	82 Ceti	162
..	..	15'78	+0'283	+0'04	9'91733	0'05118	0'96457	0'25933	104'724	..	II. 148	..	228	817	Piazzi II. 148	163
1849'0	6	15'76	+0'339	+0'16	0'10009	9'84479	0'96560	0'25970	104'485	371	II. 146	..	229	821	12 Persei	164
1850'0	4	15'70	+0'364	+0'10	0'13981	9'78749	0'96865	0'26065	103'454	374	II. 150	83	231	827	13 Persei	165
1850'5	4	-15'67	+0'293	+0'06	9'94555	0'02653	0'96983	0'26099	104'580	381	II. 156	..	..	830	Bradley 381	166
1852'3	6	15'66	+0'319	-0'02	0'04057	9'92670	0'97033	0'26120	104'609	380	II. 157	84	..	831	35 Arietis	167
1851'9	52	15'61	+0'285	+0'16	9'90035	0'06621	0'97267	0'26192	104'047	383	II. 161	85	235	837	86 Ceti	168
...	..	15'59	+0'306	-0'05	9'98704	9'98725	0'97366	0'26226	104'434	384	II. 162	..	236	838	36 Arietis	169
1851'4	2	15'54	+0'296	+0'05	9'94256	0'03036	0'97598	0'26295	104'130	387	II. 167	86	238	845	[87 Ceti	170
1851'3	5	-15'53	+0'263	+0'02	9'79344	0'14422	0'97630	0'26309	102'436	388	II. 170	87	..	847	89 Ceti	171
1851'0	1	15'46	+0'404	..	0'17328	9'74645	0'97940	0'26406	101'434	..	...	..	..	857	B. F. 341	172
1851'0	1	15'45	+0'405	..	0'17367	9'74668	0'98005	0'26427	101'354	..	...	..	..	858	B. F. 343	173
...	..	15'38	+0'404	..	0'17040	9'75581	0'98343	0'26530	101'138	..	...	..	..	..	15 Persei	174
1850'5	4	15'38	+0'404	0'00	0'17040	9'75581	0'98343	0'26530	101'138	..	II. 179	89	242	863	15 Persei	175

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A. Catalogue, or W. C. C.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
176	42 Arietis	6.5*	2. 40. 55.72	1853.6	2	+3.332	+0.0145	+0.003	0.09802	0.09516	1.45227	0.08473	83.162	73. 9. 46.63
177	41 Arietis	4*	2. 41. 9.94	1851.6	9	3.504	+0.0210	+0.006	0.09930	0.09630	1.45491	0.08831	82.529	63. 21. 41.01
178	Fornacis	5.4*	2. 42. 48.79	1849.0	3	2.504	-0.0029	+0.005	0.10047	0.09757	1.43939	0.06712	85.014	123. 2. 16.73
179	43 Arietis	6*	2. 43. 13.03	1854.0	4	3.296	+0.0132	+0.003	0.09765	0.09516	1.45173	0.08386	83.293	75. 32. 22.35
180	Piazzi II. 203.	7	2. 44. 50.95	1855.9	1	3.321	+0.0139	+0.008	0.09766	0.09540	1.45211	0.08432	83.213	74. 7. 56.54
181	Bradley 392	6*	2. 46. 23.29	1850.6	3	+7.561	+0.4497	-0.001	0.16347	0.15480	1.51270	0.16202	62.491	11. 10. 55.42
182	46 Arietis	6*	2. 47. 58.64	1849.0	2	3.351	+0.0147	+0.023	0.09759	0.09579	1.45257	0.08478	83.120	72. 35.
183	Bradley 410	6½	2. 48. 12.63	1853.9	1	3.193	+0.0097	+0.008	0.09691	0.09520	1.45014	0.08162	83.622	82. 13. 31.39
184	3 Eridani	3*	2. 49. 6.15	1850.9	10	2.920	+0.0032	+0.008	0.09691	0.09533	1.44592	0.07618	84.316	99. 29. 52.75
185	48 Arietis	4.5*	2. 50. 38.61	1853.9	6	3.414	+0.0166	+0.004	0.09775	0.09633	1.45352	0.08586	82.921	69. 15. 47.36
186	4 Eridani	5*	2. 50. 43.65	1849.0	2	+2.658	-0.0008	+0.008	0.09824	0.09679	1.44182	0.07103	84.781	114. 28.
187	91 Ceti	5.4*	2. 51. 40.98	1852.7	4	3.204	+0.0099	+0.009	0.09668	0.09548	1.45030	0.08176	83.596	81. 41. 37.81
188	23 Persei	3*	2. 53. 57.70	1852.3	3	4.288	+0.0579	+0.008	0.10728	0.10588	1.46670	0.10175	79.347	37. 5. 6.81
189	Lalande 5612	7½	2. 54. 1.25	1851.0	1	2.712	0.0000	..	0.09761	0.09664	1.44267	0.07229	84.687	111. 17.
190	Persei	5*	2. 54. 18.31	1849.0	1	4.443	+0.0675	-0.003	0.10945	0.10803	1.46899	0.10446	78.643	33. 53.
191	92 Ceti	2.3*	2. 54. 26.60	1851.8	71	+3.127	+0.0078	+0.002	0.09637	0.09555	1.44912	0.08025	83.811	86. 30. 7.05
192	Piazzi II. 248.	6	2. 55. (10).	..	..	2.565	-0.0014	+0.017	0.09859	0.09781	1.44035	0.06956	84.894	118. 40. 0.83
193	25 Persei	4*	2. 55. (30).	..	..	3.802	+0.0315	+0.013	0.10080	0.09998	1.45942	0.09267	81.488	51. 44. 44.56
194	11 Eridani	4.3*	2. 55. 46.88	1852.0	2	2.653	-0.0006	-0.010	0.09782	0.09717	1.44175	0.07130	84.770	114. 12. 54.04
195	Lalande 5706	8	2. 57. 0.45	1850.6	3	2.695	0.0000	..	0.09744	0.09695	1.44240	0.07215	84.707	111. 57. 0.29
196	Lalande 5728	9	2. 57. 50.75	1850.6	3	+2.693	0.0000	..	0.09737	0.09703	1.44236	0.07217	84.707	111. 59. 48.06
197	26 Persei	Var.* 2 to 3	2. 58. 25.55	1850.8	7	3.869	+0.0340	+0.002	0.10119	0.10089	1.46043	0.09355	81.251	49. 37. 34.69
198	.....	..	3. 1. 4.25	1852.6	5	2.667	-0.0001	..	0.09726	0.09742	1.44196	0.07189	84.737	113. 2. 0.32
199	W. B. II. 1090.	8	3. 1. 11.38	1849.0	2	2.901	+0.0031	..	0.09611	0.09626	1.44561	0.07613	84.334	100. 7. 25.16
200	W. B. III. 23	8.9	3. 2. 25.69	1850.0	3	2.900	+0.0031	..	0.09602	0.09633	1.44560	0.07615	84.335	100. 8. 57.73
201	.....	..	3. 2. 29.59	1851.1	1	+3.319	+0.0128	..	0.09628	0.09665	1.45208	0.08355	83.278	75. 26. 17.38
202	57 Arietis	4.5*	3. 3. 3.59	1851.6	19	3.403	+0.0153	+0.015	0.09666	0.09711	1.45337	0.08498	83.017	70. 50. 39.50
203	94 Ceti	5.6*	3. 5. 7.25	1853.7	1	3.041	+0.0059	+0.017	0.09555	0.09629	1.44779	0.07867	84.028	91. 45. 37.10
204	.....	..	3. 5. 42.04	1853.7	1	3.041	+0.0059	..	0.09550	0.09634	1.44778	0.07866	84.030	91. 48. 49.43
205	12 Eridani	3.4*	3. 5. 42.19	1849.3	4	2.521	-0.0010	+0.029	0.09790	0.09883	1.43966	0.06964	84.917	119. 34. 50.79
206	58 Arietis	4.5*	3. 6. 17.24	1853.9	5	+3.433	+0.0160	+0.001	0.09654	0.09750	1.45382	0.08534	82.937	69. 30. 54.92
207	.....	..	3. 6. 31.30	1853.0	1	3.409	+0.0152	..	0.09637	0.09736	1.45345	0.08489	83.019	70. 51. 23.36
208	Bradley 456	7½	3. 8. 14.40	1853.7	1	2.910	+0.0035	+0.005	0.09553	0.09672	1.44576	0.07647	84.308	99. 19. 44.17
209	13 Eridani	4.5*	3. 8. 33.01	1850.8	11	2.909	+0.0035	+0.001	0.09551	0.09676	1.44574	0.07646	84.308	99. 22. 48.80
210	Lalande 6094	9	3. 11. 3.02	1848.1	2	4.836	+0.0835	..	0.11115	0.11426	1.47475	0.10720	77.380	29. 15. 29.39

178. The designation is Lacaille's.

190. This star is thus designated in Bailey's Flamsteed (No. 378). The designation *k* is omitted in the B.A.C.

197. The limits of magnitude are those given by Piazzi (see note to this star in the British Association Catalogue).

198. Of the 11th magnitude.

204. This star is designated "12 Eridani *a*" in the B.A. Catalogue; the well known southern star *a* Eridani (B.A.C. 507) being thus confounded with it, the designation *a* is omitted.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of p	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Poul's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
		"	"	"	e'	f'	g'	h'	"							
1851.8	3	-15.31	+0.314	-0.04	9.98754	9.99072	0.98628	0.26622	103.460	397	II. 185	90	244	870	42 Arietis	176
1850.9	15	15.30	+0.331	+0.10	0.04218	9.93350	0.98691	0.26640	103.187	395	II. 186	92	245	872	41 Arietis	177
1849.0	2	15.20	+0.238	-0.21	9.68174	0.20773	0.99098	0.26766	99.597	..	II. 195	..	246	879	Fornacis	178
1854.0	2	15.18	+0.314	+0.03	9.97452	0.00475	0.99207	0.26798	103.031	400	II. 192	..	247	881	43 Arietis	179
1853.9	1	15.09	+0.319	+0.07	9.98354	9.99753	0.99621	0.26925	102.704	..	II. 203	..	..	892	Piazzi II. 203	180
1848.0	1	-15.00	+0.732	-0.02	0.24727	9.66870	1.00014	0.27043	95.562	392	II. 191	..	..	896	Bradley 392	181
..	..	14.91	+0.327	+0.17	9.99397	9.99010	1.00046	0.27163	102.066	408	II. 213	95	249	903	46 Arietis	182
1853.9	1	14.89	+0.312	+0.04	9.93481	0.04121	1.00047	0.27181	102.117	410	II. 215	..	..	905	Bradley 410	183
1851.0	11	14.84	+0.287	+0.22	9.82019	0.12126	1.00069	0.27246	101.412	413	II. 219	96	..	910	3 Eridani	184
1853.9	3	14.75	+0.337	0.00	0.01456	9.97295	1.01085	0.27361	101.413	415	II. 224	97	254	921	48 Arietis	185
..	..	-14.74	+0.265	+0.07	9.71953	0.17739	1.01100	0.27368	100.026	418	II. 225	..	255	922	4 Eridani	186
1852.9	3	14.69	+0.318	-0.01	9.93903	0.03909	1.01343	0.27438	101.520	419	II. 228	..	..	929	91 Ceti	187
1852.0	4	14.55	+0.430	0.00	0.17239	9.79326	1.01907	0.27604	97.544	422	II. 234	98	257	947	25 Persei	188
..	..	14.54	+0.272	..	9.73695	0.16547	1.01866	0.27593	100.044	..	..	..	258	..	Lalande 5612	189
..	..	14.53	+0.447	-0.08	0.18476	9.77710	1.02004	0.27630	96.981	..	II. 236	99	259	948	Persei	190
1851.8	54	-14.52	+0.315	+0.10	9.90789	0.06294	1.02032	0.27641	101.060	428	II. 244	100	260	949	92 Ceti	191
1849.9	1	14.48	+0.259	+0.28	9.68766	0.18931	1.02211	0.27692	99.235	..	II. 248	..	..	951	Piazzi II. 248	192
1850.6	3	14.45	+0.384	+0.08	0.11008	9.87728	1.02321	0.27725	98.947	429	II. 246	101	..	953	25 Persei	193
1851.5	4	14.44	+0.269	+0.08	9.71562	0.17474	1.02362	0.27736	99.608	434	II. 249	103	..	954	11 Eridani	194
1848.0	1	14.36	+0.274	..	9.72827	0.16660	1.02880	0.27885	99.604	..	..	..	262	..	Lalande 5706	195
1849.5	2	-14.31	+0.275	..	9.72827	0.16660	1.02880	0.27885	99.604	..	..	..	..	..	Lalande 5728	196
1851.0	4	14.28	+0.396	-0.02	0.12199	9.86852	1.03023	0.27927	98.000	436	II. 254	106	265	963	26 Persei	197
1853.0	4	14.27	+0.276	..	9.71800	0.16900	1.03667	0.28109	99.234	..	..	..	..	..	..	198
1849.0	2	14.11	+0.300	..	9.81137	0.12186	1.03654	0.28105	99.904	..	..	..	268	..	W. B. II. 1090	199
1849.0	3	14.03	+0.302	..	9.81090	0.12163	1.03964	0.28191	99.752	..	..	..	269	..	W. B. III. 23	200
1851.0	2	-14.03	+0.346	..	9.98209	0.01034	1.04041	0.28213	99.366	..	..	..	..	..	..	201
1851.5	17	13.99	+0.356	-0.01	0.01082	9.98725	1.04181	0.28250	98.967	446	III. 2	109	271	986	57 Arietis	202
1853.7	1	13.86	+0.321	+0.08	9.87155	0.08680	1.04684	0.28393	99.433	450	III. 8	..	..	994	94 Ceti	203
1853.7	1	13.82	+0.321	..	9.87116	0.08694	1.04862	0.28440	99.333	..	..	..	..	..	..	204
1850.9	3	13.82	+0.266	-0.64	9.66727	0.18760	1.04833	0.28430	98.549	454	III. 13	110	274	997	12 Eridani	205
1853.9	3	-13.79	+0.364	+0.06	0.02024	9.98200	1.04969	0.28472	98.210	451	III. 11	111	275	999	58 Arietis	206
1853.0	1	13.77	+0.362	..	0.01220	9.98895	1.05067	0.28497	98.246	..	..	..	..	..	..	207
1852.3	2	13.66	+0.311	+0.09	9.81498	0.11742	1.05456	0.28604	99.002	456	III. 20	..	..	1010	Bradley 456	208
1851.0	11	13.64	+0.311	-0.02	9.81448	0.11756	1.05528	0.28623	98.965	457	III. 22	112	278	1015	15 Eridani	209
1848.0	3	13.48	+0.522	..	0.21312	9.78778	1.06129	0.28784	91.503	..	..	..	..	..	Lalande 6094	210

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weiss's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Average of B.A.C. or Weiss.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
211	Lalande 6129	8	3. 11. 31.18	1853.0	5	+3.373	+0.0158	..	0.09577	0.09751	1.45291	0.08408	83.151	73. 2. 58.28
212	15 Eridani	5.6 ^o	3. 11. 44.39	1850.0	3	2.648	+0.0003	+0.003	0.09641	0.09812	1.44166	0.07225	84.747	113. 3. 44.16
213	Rümker 842	..	3. 12. 8.00	1853.9	4	3.353	+0.0132	..	0.09561	0.09744	1.45258	0.08371	83.219	74. 12. 50.42
214	61 Arietis	7 ¹	3. 12. 34.57	1852.9	6	3.445	+0.0158	+0.004	0.09606	0.09798	1.45400	0.08519	82.933	69. 23. 51.01
215	16 Eridani	7 ⁴	3. 12. 50.86	1851.0	5	2.662	+0.0004	+0.003	0.09623	0.09820	1.44187	0.07253	84.718	112. 18. 24.59
216	33 Persei	2 ^o	3. 13. 38.29	1851.0	32	+4.234	+0.0470	+0.007	0.10308	0.10602	1.46589	0.09743	80.023	40. 40. 39.03
217	.....	..	3. 13. 21.30	1853.0	1	4.240	+0.0466	..	0.10283	0.10620	1.46600	0.09722	80.031	40. 44. 5.58
218	Groombridge 660	7.8	3. 13. 23.42	1853.1	2	4.241	+0.0465	..	0.10282	0.10615	1.46595	0.09720	80.043	40. 47. 22.27
219	64 Arietis	6 [*]	3. 13. 27.55	1853.9	4	3.523	+0.0178	+0.002	0.09625	0.09867	1.45520	0.08625	82.700	65. 48. 41.61
220	1 Tauri	4.3 ^o	3. 16. 44.81	1851.3	20	3.222	+0.0097	0.000	0.09484	0.09727	1.45058	0.08153	83.594	81. 30. 10.00
221	Piazzi III. 51	5.4 [*]	3. 16. 57.77	1849.7	3	+4.784	+0.0762	+0.005	0.10909	0.11369	1.47399	0.10505	77.797	30. 35. 17.40
222	.....	6 ^o	3. 17. 56.33	1850.7	5	18.209	+3.1470	..	0.26650	0.29151	1.63558	0.26615	16.913	3. 50. 24.76
223	Piazzi III. 54	5 [*]	3. 18. (o)	..	..	4.720	+0.0717	+0.005	0.10807	0.11281	1.47301	0.10390	78.104	31. 38. 48.64
224	2 Tauri	4.3 ^o	3. 19. 2.68	1851.7	29	3.236	+0.0099	+0.007	0.09470	0.09745	1.45080	0.08170	83.561	80. 47. 38.49
225	Lalande 6361	8	3. 19. 11.09	1853.9	6	3.367	+0.0130	..	0.09509	0.09796	1.45281	0.08366	83.205	73. 51. 52.46
226	.....	..	3. 20. (30)	..	..	+3.238	+0.0099	..	0.09456	0.09757	1.45082	0.08169	83.564	80. 45. 21.25
227	.....	..	3. 22. (o)	..	..	3.297	+0.0112	..	0.09463	0.09781	1.45174	0.08254	83.410	77. 36. 56.96
228	4 Tauri	5 ^o	3. 22. 12.83	1852.3	4	3.268	+0.0105	+0.004	0.09452	0.09775	1.45130	0.08210	83.486	79. 10. 56.26
229	5 Tauri	4 [*]	3. 22. 35.88	1853.9	6	3.298	+0.0112	+0.006	0.09457	0.09788	1.45176	0.08253	83.408	77. 34. 51.93
230	.....	..	3. 23. 45.38	1853.0	4	2.913	+0.0038	..	0.09430	0.09772	1.44581	0.07687	84.292	98. 37. 31.21
231	6 Tauri	6 [*]	3. 24. 29.28	1853.7	1	+3.233	+0.0096	+0.005	0.09425	0.09779	1.45076	0.08154	83.583	81. 8. 14.18
232	18 Eridani	3 [*]	3. 25. 51.98	1851.1	13	2.887	+0.0034	-0.061	0.09418	0.09794	1.44540	0.07653	84.341	99. 58. 9.33
233	19 Eridani	4 [*]	3. 27. 9.81	1851.0	4	2.643	+0.0009	0.000	0.09500	0.09918	1.44159	0.07306	84.721	112. 8. 19.70
234	Piazzi III. 94	6 ^o	3. 29. 11.32	1849.8	3	5.122	+0.0891	-0.005	0.11025	0.11896	1.47890	0.10690	76.772	27. 17.
235	10 Tauri	4.5 [*]	3. 29. 13.29	1852.0	3	3.069	+0.0063	-0.011	0.09369	0.09786	1.44823	0.07915	83.980	90. 5.
236	11 Tauri	6	3. 31. 49.29	1854.0	5	+3.565	+0.0173	+0.003	0.09491	0.09990	1.45583	0.08586	82.685	65. 9. 36.19
237	12 Tauri	6 [*]	3. 32. 2.60	1852.6	3	3.119	+0.0072	-0.002	0.09348	0.09805	1.44900	0.07983	83.876	87. 26. 5.21
238	39 Persei	3 [*]	3. 32. 15.86	1850.9	7	4.229	+0.0404	+0.006	0.10003	0.10673	1.46581	0.09462	80.400	42. 41. 50.12
239	38 Persei	4 [*]	3. 34. 55.43	1852.6	5	3.739	+0.0219	-0.006	0.09566	0.10150	1.45847	0.08795	82.159	58. 11. 29.44
240	W. B. III. 680	9	3. 35. 37.10	1853.1	1	2.861	+0.0032	..	0.09344	0.09860	1.44499	0.07641	84.386	100. 59. 11.17
241	17 Tauri	4 [*]	3. 35. 58.59	1852.5	9	+3.544	+0.0163	+0.004	0.09459	0.09998	1.45552	0.08534	82.779	66. 21. 46.43
242	23 Eridani	3 [*]	3. 36. 3.94	1850.0	3	2.875	+0.0034	-0.004	0.09336	0.09859	1.44521	0.07660	84.361	100. 16. 28.15
243	Piazzi III. 138	6 ^o	3. 36. 24.11	1850.4	3	2.861	+0.0032	+0.003	0.09336	0.09865	1.44499	0.07644	84.385	100. 57. 51.32
244	24 Tauri	7	3. 38. (30)	..	..	3.548	+0.0160	0.000	0.09418	0.10014	1.45558	0.08525	82.783	66. 21. 7.12
245	25 Tauri	3 [*]	3. 38. 34.57	1851.5	74	3.548	+0.0160	+0.004	0.09416	0.10014	1.45558	0.08525	82.784	66. 21. 47.20

213. Of the 9.10th magnitude.

218. The magnitude is taken from Groombridge.

225. Of the 8.9th magnitude.

230. This star agrees in R.A. with No. 297 of the Greenwich Twelve-Year Catalogue, but the N.P.D. differs by 15". It is probable that the N.P.D. given in the Twelve-Year Catalogue, which depends on a single observation, is incorrect.

243. Of the 6th magnitude.

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1853.0	5	—13.45	+ 0.365	..	0.00061	0.00192	1.06296	0.28829	97.427	..	...	..	..	..	Lalande 6129	211
1849.7	7	13.44	+ 0.287	0.00	9.70751	0.16509	1.06307	0.28832	98.256	466	III. 39	..	281	1031	15 Eridani	212
1853.9	4	13.41	+ 0.364	..	9.99322	0.00781	1.06412	0.28861	97.434	..	...	..	..	..	Rümker 842	213
1853.1	5	13.38	+ 0.374	+ 0.05	0.02362	9.98462	1.06516	0.28890	96.908	465	III. 40	..	282	1034	61 Arietis	214
1851.0	3	13.36	+ 0.289	— 0.05	9.71219	0.16224	1.06585	0.28905	98.186	469	III. 43	113	283	1037	16 Eridani	215
1851.5	27	—13.31	+ 0.462	+ 0.04	0.17153	9.84299	1.06768	0.28959	92.753	464	III. 41	114	284	1043	33 Persei	216
1853.0	1	13.20	+ 0.466	..	0.17252	9.84603	1.07224	0.29076	92.265	..	...	..	..	..	.....	217
1852.4	3	13.20	+ 0.466	..	0.17210	9.84622	1.07183	0.29067	92.318	..	...	..	..	..	Groombridge 660	218
1853.9	3	13.19	+ 0.387	+ 0.06	0.04638	9.96871	1.07218	0.29074	95.921	472	III. 49	..	285	1052	64 Arietis	219
1851.0	15	13.11	+ 0.356	+ 0.06	9.94576	0.04274	1.07530	0.29155	97.158	477	III. 55	117	289	1057	1 Tauri	220
1850.5	2	—13.09	+ 0.529	— 0.04	0.21253	9.80477	1.07574	0.29171	90.046	..	III. 51	116	290	1058	Piazzi III. 51	221
1851.5	4	13.04	+ 2.018	..	0.28536	9.74144	1.07781	0.29225	84.634	..	...	..	288	1061	.....	222
1849.3	8	13.03	+ 0.523	— 0.03	0.20939	9.81093	1.07825	0.29233	89.959	..	III. 54	118	291	1062	Piazzi III. 54	223
1852.3	20	12.96	+ 0.360	+ 0.04	9.95117	0.04007	1.08085	0.29299	96.705	481	III. 63	119	292	1068	2 Tauri	224
1853.9	6	12.95	+ 0.375	..	9.99808	0.00885	1.08150	0.29319	96.012	..	...	..	..	..	Lalande 6361	225
1849.9	1	—12.86	+ 0.362	..	9.95177	0.04018	1.08426	0.29390	96.449	..	...	..	..	..	.....	226
1849.1	1	12.76	+ 0.371	..	9.97382	0.02662	1.08721	0.29466	95.941	..	...	..	295	..	.....	227
1853.1	3	12.74	+ 0.368	+ 0.04	9.96317	0.03374	1.08846	0.29494	95.998	485	III. 75	..	..	1084	4 Tauri	228
1852.4	3	12.72	+ 0.372	0.00	9.97427	0.02679	1.08929	0.29518	95.777	486	III. 77	121	296	1087	5 Tauri	229
1853.0	4	12.64	+ 0.330	..	9.81578	0.11216	1.09173	0.29580	97.052	..	...	..	297	..	.....	230
1853.7	1	—12.59	+ 0.367	+ 0.05	9.94993	0.04269	1.09380	0.29636	95.783	489	III. 83	..	..	1092	6 Tauri	231
1851.2	13	12.49	+ 0.329	+ 0.06	9.80423	0.11655	1.09712	0.29718	96.810	493	III. 89	124	300	1100	18 Eridani	232
1850.4	6	12.41	+ 0.303	+ 0.03	9.70064	0.15627	1.10020	0.29793	96.867	495	III. 95	125	..	1104	19 Eridani	233
...	..	12.27	+ 0.591	— 0.08	0.23155	9.81715	1.10497	0.29912	85.921	..	III. 94	..	302	1111	Piazzi III. 94	234
...	..	12.26	+ 0.354	+ 0.52	9.88360	0.07948	1.10506	0.29912	95.792	497	III. 100	126	..	1112	10 Tauri	235
1854.0	3	—12.08	+ 0.415	+ 0.05	0.05748	9.97633	1.11124	0.30063	92.331	500	III. 107	..	304	1126	11 Tauri	236
1853.7	1	12.07	+ 0.363	— 0.01	9.90431	0.06933	1.11170	0.30075	95.129	503	III. 110	..	..	1128	12 Tauri	237
1850.8	8	12.05	+ 0.493	+ 0.03	0.17413	9.87986	1.11226	0.30087	88.189	499	III. 106	127	305	1129	39 Persei	238
1852.6	20	11.86	+ 0.440	— 0.03	0.09903	9.94851	1.11849	0.30240	90.470	..	III. 123	129	310	1138	38 Persei	239
1850.5	2	11.82	+ 0.337	..	9.79218	0.11806	1.12019	0.30280	95.668	..	...	..	..	..	W.B. III. 680	240
1852.5	5	—11.79	+ 0.418	+ 0.03	0.05185	9.98420	1.12092	0.30296	91.647	509	III. 130	131	313	1147	17 Tauri	241
1851.4	2	11.78	+ 0.339	— 0.73	9.79841	0.11554	1.12109	0.30304	95.573	515	III. 134	133	314	1148	23 Eridani	242
1848.1	2	11.76	+ 0.338	+ 0.05	9.79218	0.11779	1.12185	0.30319	95.582	..	III. 138	..	317	1152	Piazzi III. 138	243
1850.5	6	11.62	+ 0.422	+ 0.12	0.05289	9.98573	1.12664	0.30433	91.126	520	III. 150	..	321	1164	24 Tauri	244
1851.8	53	11.61	+ 0.422	+ 0.05	0.05285	9.98587	1.12698	0.30442	91.098	521	III. 152	136	322	1166	25 Tauri	245

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regiomontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(xlii)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									α	ϕ	g	h		
246	W. B. III. 758	8.9	3. 39. 23.61	1853.0	1	+2.880	+0.0035	..	0.09307	0.09875	1.44529	0.07675	84.352	99. 54. 44.12
247	W. B. III. 760	9	3. 39. 38.24	1852.9	1	2.881	+0.0035	..	0.09307	0.09876	1.44530	0.07676	84.353	99. 51. 19.94
248	30 Tauri..... ^c	5*	3. 40. 3.10	1851.8	4	3.277	+0.0097	+0.002	0.09304	0.09885	1.45144	0.08178	83.524	79. 19. 20.38
249	Piazzi III. 170.....	6*	3. 41. 18.33	1853.9	2	3.586	+0.0167	+0.015	0.09408	0.10057	1.45615	0.08557	82.691	64. 53.
250	44 Persei..... ^z	3*	3. 44. 42.75	1851.0	5	3.750	+0.0207	+0.005	0.09465	0.10206	1.45863	0.08731	82.223	58. 33. 58.91
251	Piazzi III. 160	5½	3. 45. 13.20	1849.8	3	+9.560	+0.5112	+0.005	0.15198	0.18421	1.53859	0.15101	59.448	9. 43. 35.78
252	32 Tauri.....	6*	3. 48. 0.78	1852.7	5	3.525	+0.0145	+0.006	0.09314	0.10051	1.45522	0.08446	82.914	67. 57. 30.85
253	.....	..	3. 48. (20.)	..	..	5.837	+0.1179	..	0.11270	0.12993	1.48904	0.11033	74.641	22. 5. 9.62
254	Bradley 544	7	3. 49. 28.54	1851.1	2	2.789	+0.0026	+0.003	0.09239	0.09963	1.44388	0.07591	84.504	104. 2. 15.51
255	34 Eridani..... ^y	3*	3. 51. 1.99	1851.6	54	2.790	+0.0026	+0.006	0.09225	0.09971	1.44389	0.07597	84.505	103. 56. 19.43
256	35 Tauri..... ^λ	3.4*	3. 52. 22.50	1852.0	12	+3.313	+0.0097	+0.002	0.09203	0.09963	1.45200	0.08190	83.486	77. 56. 16.19
257	35 Eridani.....	5.6*	3. 53. 56.21	1852.0	2	3.031	+0.0053	+0.003	0.09162	0.09930	1.44764	0.07875	84.100	91. 58.
258	37 Tauri..... ^Δ ¹	5.4*	3. 55. 50.05	1848.4	5	3.526	+0.0137	+0.008	0.09236	0.10087	1.45523	0.08410	82.967	68. 19. 56.89
259	39 Tauri..... ^A ²	6	3. 56. 27.85	1849.8	3	3.525	+0.0136	+0.016	0.09231	0.10090	1.45523	0.08406	82.972	68. 24.
260	Rümker 1092	7	3. 59. 53.24	1853.0	1	3.574	+0.0142	..	0.09214	0.10139	1.45596	0.08439	82.867	66. 31. 56.57
261	.....	..	4. 0. 26.65	1851.0	1	+3.363	+0.0101	..	0.09135	0.10027	1.45275	0.08219	83.411	75. 52.
262	Piazzi III. 254	6½	4. 0. 39.28	1852.0	3	3.338	+0.0096	+0.011	0.09133	0.10014	1.45237	0.08194	83.468	77. 0. 9.48
263	Groombridge 784	6	4. 1. 46.70	1848.1	2	7.642	+0.2359	..	0.12495	0.15692	1.51378	0.12361	68.382	14. 16.
264	W. B. IV. 30.....	9	4. 2. 34.23	1850.1	3	3.359	+0.0099	..	0.09120	0.09998	1.45268	0.08208	83.455	76. 7.
265	37 Eridani.....	5½	4. 3. 3.57	1851.1	1	2.921	+0.0038	+0.003	0.09090	0.09990	1.44594	0.07767	84.311	97. 19. 10.91
266	W. B. IV. 53	9	4. 3. 44.89	1850.6	2	+3.374	+0.0100	..	0.09113	0.10046	1.45291	0.08221	83.398	75. 27. 22.63
267	.....	..	4. 3. (50.)	..	..	3.374	+0.0100	..	0.09113	0.10046	1.45291	0.08221	83.398	75. 27. 26.32
268	38 Eridani..... ^δ ¹	4.5*	4. 4. 32.80	1851.6	9	2.922	+0.0039	0.000	0.09077	0.09998	1.44595	0.07771	84.311	97. 13. 56.62
269	W. B. IV. 93.....	7.8	4. 5. 29.31	1848.1	1	3.328	+0.0091	..	0.09087	0.10033	1.45222	0.08172	83.515	77. 38.
270	Piazzi IV. 10	6*	4. 6. 36.52	1850.4	3	5.567	+0.0844	-0.013	0.10525	0.12634	1.48525	0.10283	76.344	25. 14. 0.19
271	W. B. IV. 124.....	9	4. 6. 57.16	1853.0	4	+3.133	+0.0062	..	0.09047	0.09995	1.44920	0.07978	83.941	87. 0. 51.35
272	40 Eridani..... ^δ ²	5.4*	4. 8. 22.07	1851.4	9	2.907	+0.0037	-0.144	0.09043	0.10018	1.44571	0.07760	84.348	97. 53. 23.29
273	W. B. IV. 180.....	8	4. 9. 29.22	1853.0	3	3.116	+0.0058	..	0.09023	0.10006	1.44894	0.07960	83.982	87. 50. 39.55
274	.....	..	4. 10. 29.85	1848.0	1	3.437	+0.0105	..	0.09066	0.10104	1.45388	0.08259	83.288	72. 50. 26.26
275	54 Tauri..... ^γ	4*	4. 11. 15.75	1851.1	15	3.395	+0.0098	+0.012	0.09046	0.10088	1.45325	0.08218	83.390	74. 44. 20.95
276	55 Tauri.....	7	4. 11. 20.03	1848.0	1	+3.415	+0.0101	+0.011	0.09051	0.10099	1.45355	0.08236	83.344	73. 50. 37.83
277	41 Eridani.....	4.3*	4. 12. 13.06	1849.1	1	2.262	+0.0009	+0.002	0.09220	0.10443	1.45555	0.07169	85.090	124. 10. 0.09
278	61 Tauri..... ^δ ¹	4*	4. 14. 17.44	1850.5	2	3.441	+0.0103	+0.009	0.09028	0.10123	1.45394	0.08249	83.303	72. 48. 50.59
279	61 Tauri..... ^δ ²	6*	4. 15. 27.33	1850.9	10	3.440	+0.0101	+0.011	0.09016	0.10128	1.45391	0.08244	83.314	72. 54. 29.42
280	Groombridge 828	6*	4. 16. 11.57	1848.1	1	6.818	+0.1451	..	0.11247	0.14482	1.50255	0.11093	72.269	17. 48. 15.09

250. The magnitude is taken from Rümker.

261. Of the 11th magnitude. Observed for No. 353 of the Greenwich Twelve-Year Catalogue.

264. Of the 9th magnitude.

272. In Bailey's Flamsteed, this star is marked 40 Eridani, *d*. See Mr. Bailey's note on this star in the British Association Catalogue, No. 1309.

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue	Logarithms of				Value of P	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Poul's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1853.0	1	— 11.55	+ 0.343	..	9.80051	0.11369	1.12851	0.30477	95.162	..	...	..	323	..	W. B. III. 758	246
1852.9	1	11.53	+ 0.343	..	9.80079	0.11347	1.12905	0.30490	95.132	..	...	..	324	..	W. B. III. 760	247
1851.8	4	11.50	+ 0.392	+ 0.05	9.96633	0.03892	1.13034	0.30518	92.841	529	III. 159.	..	325	1174	30 Tauri	248
..	..	11.41	+ 0.430	+ 0.25	0.06298	9.98160	1.13329	0.30587	90.265	..	III. 170.	..	330	1192	Piazzi III. 170	249
1850.8	10	11.16	+ 0.454	+ 0.02	0.10139	9.95891	1.14103	0.30767	88.309	534	III. 185.	141	334	1207	44 Persei	250
1849.1	3	— 11.13	+ 1.160	— 0.05	0.28932	9.81498	1.14215	0.30791	77.557	..	III. 160.	..	335	1211	Piazzi III. 160	251
1852.8	4	10.92	+ 0.431	+ 0.14	0.04634	9.99811	1.14855	0.30935	89.432	..	III. 197.	..	..	1221	32 Tauri	252
1848.1	1	10.90	+ 0.715	..	0.25876	9.84293	1.14928	0.30952	79.315	..	...	..	337	..	.....	253
1850.3	5	10.81	+ 0.343	— 0.03	9.75943	0.12411	1.15185	0.31009	94.286	544	III. 205.	..	338	1229	Bradley 544.	254
1851.8	37	10.70	+ 0.344	+ 0.10	9.75976	0.12336	1.15532	0.31088	94.104	546	III. 210.	147	339	1234	34 Eridani	255
1852.2	11	— 10.60	+ 0.410	— 0.01	9.97910	0.03724	1.15837	0.31154	90.432	548	III. 218.	148	342	1241	35 Tauri	256
..	..	10.48	+ 0.377	+ 0.05	9.86739	0.08365	1.16187	0.31229	92.396	550	III. 222.	150	..	1245	35 Eridani	257
1848.0	4	10.34	+ 0.441	+ 0.06	0.04653	0.00414	1.16608	0.31320	87.923	554	III. 232.	153	344	1257	37 Tauri	258
..	..	10.29	+ 0.441	+ 0.10	0.04626	0.00476	1.16748	0.31349	87.812	556	III. 236.	..	345	1260	39 Tauri	259
1853.0	1	10.04	+ 0.451	..	0.05956	0.00044	1.17569	0.31521	86.657	..	...	..	..	..	Rümker 1092	260
..	..	— 9.99	+ 0.425	..	9.99607	0.03295	1.17749	0.31559	88.491	..	...	..	353	..	.....	261
1850.0	3	9.98	+ 0.422	+ 0.04	9.98779	0.03667	1.17676	0.31546	88.773	..	III. 254.	..	349	1275	Piazzi III. 254	262
..	..	9.89	+ 0.970	..	0.28691	9.85849	1.17921	0.31596	73.672	..	...	..	351	1280	Groombridge 784	263
..	..	9.83	+ 0.427	..	9.99463	0.03435	1.18076	0.31625	88.297	..	...	..	..	..	W. B. IV. 30	264
1851.1	1	9.80	+ 0.372	+ 0.03	9.81848	0.10114	1.18199	0.31651	91.924	567	IV. 3	..	..	1284	37 Eridani	265
1849.1	1	— 9.74	+ 0.430	..	9.99974	0.03264	1.18365	0.31685	87.893	..	...	..	..	..	W. B. IV. 53	266
1848.1	1	9.74	+ 0.430	..	9.99965	0.03269	1.18368	0.31687	87.892	..	...	..	..	..	.....	267
1851.7	8	9.68	+ 0.373	— 0.06	9.81905	0.10065	1.18524	0.31719	91.720	568	IV. 11.	156	..	1290	38 Eridani	268
..	..	9.61	+ 0.426	..	9.98403	0.04027	1.18663	0.31748	88.101	..	...	..	357	..	W. B. IV. 93	269
1848.0	2	9.52	+ 0.715	+ 0.03	0.25793	9.88675	1.18967	0.31807	74.889	..	IV. 10.	..	..	1300	Piazzi IV. 10	270
1853.0	4	— 9.50	+ 0.403	..	9.90972	0.07016	1.19053	0.31824	89.680	..	...	..	..	..	W. B. IV. 124	271
1851.6	9	9.39	+ 0.375	+ 3.45	9.81212	0.10184	1.19350	0.31884	91.344	578	IV. 29.	160	..	1300	40 Eridani	272
1853.0	3	9.30	+ 0.403	..	9.90293	0.07279	1.19595	0.31930	89.455	..	...	..	..	..	W. B. IV. 180	273
1848.0	1	9.22	+ 0.445	..	0.01995	0.02706	1.19783	0.31970	86.098	..	...	..	..	..	.....	274
1850.6	12	9.16	+ 0.441	+ 0.02	0.00664	0.03332	1.19969	0.32007	86.375	583	IV. 39.	162	362	1328	54 Tauri	275
1848.0	1	— 9.16	+ 0.443	+ 0.03	0.01300	0.03056	1.19963	0.32002	86.179	584	IV. 40.	..	..	1329	55 Tauri	276
1850.1	1	9.09	+ 0.294	+ 0.02	9.53173	0.16272	1.20176	0.32045	93.749	590	IV. 50.	163	363	1333	41 Eridani	277
1852.5	2	8.93	+ 0.449	+ 0.02	0.02119	0.02877	1.20610	0.32130	85.361	594	IV. 57.	165	364	1346	61 Tauri	278
1851.4	8	8.83	+ 0.450	0.00	0.02082	0.02960	1.20858	0.32177	85.165	597	IV. 64.	166	366	1356	64 Tauri	279
1849.1	4	8.78	+ 0.892	..	0.28407	9.89388	1.21010	0.32202	70.393	..	...	..	367	..	Groombridge 828. ..	280

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(xliv)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									c	f	g	h		
281	68 Tauri..... ⁸³	5*	4. 16. (50)	..	..	+3.452	+0.0102	+0.012	0.09006	0.10140	1.45411	0.08249	83.293	72. 25. 11.32
282	Lalande 8336	9	4. 18. 16.06	1848.1	1	3.482	+0.0106	..	0.09000	0.10162	1.45457	0.08270	83.230	71. 13. 15.32
283	43 Eridani	4*	4. 18. 24.17	1849.1	1	2.245	+0.0010	+0.009	0.09154	0.10482	1.43528	0.07204	85.106	124. 22.
284	74 Tauri	4.3*	4. 19. 51.80	1851.7	34	3.484	+0.0105	+0.010	0.08984	0.10169	1.45460	0.08265	83.237	71. 9. 25.77
285	77 Tauri..... ⁶¹	4.5*	4. 20. 0.69	1850.1	4	3.410	+0.0093	+0.003	0.08964	0.10132	1.45346	0.08203	83.412	74. 22. 31.27
286	78 Tauri..... ⁶²	4.5*	4. 20. 6.18	1851.9	12	+3.408	+0.0093	+0.012	0.08963	0.10131	1.45343	0.08200	83.417	74. 27. 59.29
287	1 Camelopardali (2d star)	6*	4. 20. 10.31	1848.1	1	4.713	+0.0403	+0.006	0.09600	0.11454	1.47295	0.09277	79.660	36. 25.
288	80 Tauri	6	4. 21. 35.75	1849.4	3	3.403	+0.0091	+0.088	0.08948	0.10134	1.45337	0.08193	83.436	74. 42.
289	B. F. 570.....	5*	4. 21. 58.84	1849.8	4	3.416	+0.0092	+0.011	0.08947	0.10144	1.45357	0.08202	83.406	74. 8. 11.98
290	81 Tauri.....	5½	4. 22. 5.80	1850.3	4	3.405	+0.0091	+0.013	0.08943	0.10139	1.45339	0.08192	83.434	74. 38. 19.60
291	Piazzi IV. 102	7	4. 22. 12.12	1850.5	2	+3.416	+0.0092	+0.008	0.08944	0.10144	1.45356	0.08199	83.411	74. 10. 51.24
292	85 Tauri.....	6	4. 23. 18.00	1848.1	3	3.409	+0.0090	+0.007	0.08932	0.10145	1.45346	0.08192	83.432	74. 29.
293	Lalande 8553	9	4. 25. 11.84	1850.1	2	4.385	+0.0288	..	0.09323	0.11042	1.46811	0.08952	80.793	42. 57.
294	Lalande 8555	8½	4. 25. 13.63	1850.1	2	4.386	+0.0288	..	0.09323	0.11043	1.46812	0.08952	80.792	42. 56.
295	Piazzi IV. 111	6*	4. 25. 15.42	1853.1	1	3.739	+0.0142	+0.011	0.09010	0.10365	1.45847	0.08444	82.646	61. 21. 27.39
296	.....	..	4. 26. (20)	..	..	+2.886	+0.0031	..	0.08878	0.10101	1.44539	0.07774	84.418	98. 34. 29.70
297	.....	..	4. 26. 50.65	1853.0	1	3.834	+0.0156	..	0.09023	0.10453	1.45990	0.08505	82.416	58. 9. 30.01
298	47 Eridani	6.5*	4. 27. (0)	..	..	2.886	+0.0031	+0.002	0.08871	0.10104	1.44539	0.07775	84.421	98. 32. 57.33
299	87 Tauri	1*	4. 27. 19.12	1851.1	126	3.428	+0.0089	+0.008	0.08896	0.10169	1.45374	0.08193	83.418	73. 47. 49.26
300	.....	..	4. 28. (10)	..	..	3.414	+0.0086	..	0.08886	0.10164	1.45351	0.08179	83.456	74. 26. 27.87
301	Piazzi IV. 112	6*	4. 28. 44.42	1850.1	3	+7.891	+0.1920	+0.051	0.11539	0.16079	1.51707	0.11431	69.194	14. 20. 36.09
302	48 Eridani	3.4*	4. 28. 49.65	1853.1	2	2.992	+0.0040	+0.002	0.08845	0.10092	1.44703	0.07858	84.265	93. 39. 47.47
303	52 Eridani	4.3*	4. 29. 43.29	1850.4	3	2.333	+0.0011	0.000	0.08984	0.10439	1.43667	0.07361	85.046	120. 52. 21.14
304	53 Eridani	4*	4. 31. 18.80	1850.3	4	2.748	+0.0023	-0.002	0.08849	0.10168	1.44323	0.07680	84.622	104. 36. 4.47
305	93 Tauri..... ⁶²	6.5*	4. 31. 42.58	1850.7	8	3.332	+0.0073	+0.004	0.08835	0.10146	1.45227	0.08109	83.651	78. 6. 6.23
306	Piazzi IV. 157	6	4. 32. (30)	..	..	+2.746	+0.0022	+0.009	0.08838	0.10173	1.44320	0.07682	84.627	104. 39. 12.82
307	Groombridge 836	5*	4. 32. (30)	..	..	10.841	+0.4268	..	0.13277	0.20205	1.55439	0.13213	59.350	9. 4. 15.20
308	Piazzi IV. 158	8	4. 33. (10)	..	..	3.589	+0.0107	..	0.08877	0.10281	1.45620	0.08289	83.088	67. 21. 1.41
309	94 Tauri	4.5*	4. 33. 14.81	1852.0	8	3.589	+0.0106	+0.003	0.08874	0.10282	1.45620	0.08289	83.091	67. 20. 9.75
310	54 Eridani	5*	4. 33. 52.92	1850.5	7	2.619	+0.0016	+0.004	0.08850	0.10243	1.44121	0.07595	84.778	109. 57. 47.48
311	4 Camelopardali	6*	4. 35. 31.63	1849.0	1	+4.954	+0.0405	+0.006	0.09465	0.11814	1.47644	0.09211	79.245	33. 31.
312	Piazzi IV. 169.....	6*	4. 36. 7.38	1852.1	2	3.310	+0.0067	+0.013	0.08790	0.10154	1.45194	0.08083	83.721	79. 8.
313	Rümker 1268	8.9	4. 37. 16.80	1853.8	1	3.422	+0.0079	..	0.08792	0.10202	1.45364	0.08156	83.500	74. 21. 1.25
314	9 Camelopardali....(α)	4*	4. 39. 10.40	1851.6	5	5.899	+0.0703	+0.007	0.09927	0.13172	1.48995	0.09758	76.344	23. 55. 14.23
315	Piazzi IV. 194.....	7.8	4. 40. 53.73	1848.1	2	3.423	+0.0076	..	0.08758	0.10214	1.45366	0.08146	83.520	74. 22. 40.38

291. This star is a magnitude and a half smaller than No. 289. The N.P.D. differs 13" from the B.A.C.

296. Of nearly equal brightness with the following star, 47 Eridani.

309. A small star of the 9th magnitude precedes this object.

314. This star has the designation α in the British Association Catalogue.

308, 315. The magnitudes in the text are taken from Piazzi.

313. The magnitude is taken from Rümker.

315. Of the 7.8th magnitude.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814-)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1849.5	6	— 8.73	+ 0.453	— 0.01	0.02460	0.02881	1.21145	0.32229	84.792	601	IV. 73	169	369	1365	68 Tauri..... ⁸³	281
1848.1	1	8.61	+ 0.459	..	0.03322	0.02601	1.21430	0.32282	84.241	..	...	..	..	..	Lalande 8336	282
..	..	8.60	+ 0.296	+ 0.01	9.52093	0.15902	1.21479	0.32293	93.385	..	IV. 85	172	372	1372	43 Eridani	283
1852.1	23	8.49	+ 0.460	+ 0.02	0.03419	0.02667	1.21785	0.32349	83.898	609	IV. 87	173	373	1376	74 Tauri	284
1850.0	5	8.48	+ 0.451	+ 0.01	0.01122	0.03591	1.21816	0.32353	84.701	612	IV. 90	174	375	1380	77 Tauri..... ⁶¹	285
1851.8	16	— 8.47	+ 0.451	+ 0.01	0.01059	0.03620	1.21831	0.32357	84.708	613	IV. 91	175	378	1381	78 Tauri..... ⁶²	286
..	..	8.46	+ 0.623	+ 0.01	0.22319	9.93473	1.21847	0.32357	74.184	607	IV. 84	..	377	1382	1 Camelopardali (2d star)	287
..	..	8.35	+ 0.451	+ 0.03	0.00919	0.03748	1.22146	0.32413	84.499	617	IV. 97	..	379	1390	80 Tauri	288
1850.1	4	8.32	+ 0.453	+ 0.01	0.01338	0.03608	1.22226	0.32426	84.286	619	IV. 99	..	380	1391	B. F. 570	289
1851.1	2	8.31	+ 0.452	+ 0.03	0.00970	0.03753	1.22251	0.32430	84.397	620	IV. 100	..	381	1392	81 Tauri.....	290
1850.1	4	— 8.30	+ 0.454	— 0.12	0.01313	0.03629	1.22271	0.32435	84.256	..	IV. 102	..	..	1394	Piazzi IV. 102	291
..	..	8.21	+ 0.454	+ 0.06	0.01119	0.03758	1.22497	0.32474	84.137	623	IV. 108	..	383	1402	85 Tauri	292
..	..	8.06	+ 0.585	..	0.19698	9.95679	1.22848	0.32538	74.829	..	...	..	386	..	Lalande 8553	293
..	..	8.06	+ 0.585	..	0.19700	9.95652	1.22817	0.32530	74.865	..	...	..	387	..	Lalande 8555	294
1853.1	1	8.06	+ 0.499	+ 0.09	0.09975	0.00294	1.22846	0.32539	80.180	..	IV. 111	..	..	1408	Piazzi IV. 111	295
1849.1	3	— 7.97	+ 0.386	..	9.80229	0.10008	1.23087	0.32580	89.308	..	...	..	..	..	.....	296
1853.0	1	7.93	+ 0.514	..	0.11935	9.99654	1.23291	0.32617	78.794	..	...	..	..	..	.....	297
1848.7	5	7.92	+ 0.387	0.00	9.80228	0.09991	1.23250	0.32608	89.210	634	IV. 126	177	391	1419	47 Eridani	298
1851.1	98	7.89	+ 0.460	+ 0.15	0.01695	0.03751	1.23324	0.32621	83.234	630	IV. 125	178	392	1420	87 Tauri	299
1850.1	2	7.82	+ 0.459	..	0.01237	0.03954	1.23496	0.32647	83.264	..	...	..	..	..	.....	300
1848.1	1	— 7.78	+ 1.061	+ 0.10	0.29789	9.91610	1.23611	0.32669	66.041	..	IV. 112	..	..	1428	Piazzi IV. 112	301
1853.1	2	7.77	+ 0.402	0.00	9.85001	0.08806	1.23630	0.32673	87.955	637	IV. 133	180	..	1429	48 Eridani..... ⁷	302
1850.8	4	7.70	+ 0.314	+ 0.03	9.54869	0.14517	1.23813	0.32704	92.383	645	IV. 144	182	395	1433	52 Eridani	303
1850.4	3	7.57	+ 0.371	+ 0.16	9.73776	0.11231	1.24134	0.32756	89.886	647	IV. 150	183	..	1441	53 Eridani	304
1850.3	9	7.54	+ 0.450	— 0.03	9.98520	0.05020	1.24211	0.32769	83.654	646	IV. 149	184	396	1442	93 Tauri..... ⁶²	305
1850.1	1	— 7.48	+ 0.372	+ 0.15	9.73680	0.11205	1.24358	0.32795	89.781	650	IV. 157	..	..	1446	Piazzi IV. 157	306
1849.8	5	7.47	+ 1.467	..	0.31133	9.92015	1.24371	0.32795	63.770	..	...	..	397	1448	Groombridge 856	307
1849.1	2	7.42	+ 0.486	..	0.06333	0.02413	1.24451	0.32813	80.357	..	IV. 158	..	399	..	Piazzi IV. 158	308
1851.3	10	7.41	+ 0.486	0.00	0.06357	0.02433	1.24523	0.32821	80.283	648	IV. 159	185	400	1449	94 Tauri	309
1850.6	6	7.36	+ 0.355	+ 0.11	9.67629	0.12231	1.24649	0.32843	90.580	653	IV. 166	186	..	1451	54 Eridani.....	310
..	..	— 7.23	+ 0.674	+ 0.14	0.24009	9.95405	1.24978	0.32895	69.408	649	IV. 164	..	401	1456	4 Camelopardali	311
..	..	7.18	+ 0.451	0.00	9.97763	0.05407	1.25096	0.32913	83.212	..	IV. 169	..	..	1460	Piazzi IV. 169	312
1853.8	1	7.08	+ 0.467	..	0.01473	0.04336	1.25371	0.32957	81.594	..	...	..	..	..	.....	313
1852.6	21	6.93	+ 0.807	— 0.02	0.27459	9.94659	1.25705	0.33010	65.696	..	IV. 176	188	402	1474	9 Camelopardali..... ^(α)	314
1849.1	2	6.78	+ 0.470	..	0.01498	0.04480	1.25993	0.33054	81.056	..	IV. 194	..	403	..	Piazzi IV. 194	315

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									c	f	g	h		
316	96 Tauri.....	6	4. 41. (10)	..	..	+3.423	+0.0076	+0.003	0.08755	0.10216	1.45367	0.08144	83.521	74. 21. 44.59
317	1 Orionis	4*	4. 41. 42.03	1851.0	11	3.219	+0.0054	+0.039	0.08725	0.10149	1.45054	0.08013	83.926	83. 18. 18.82
318	2 Orionis	5.4*	4. 42. (30)	..	..	3.262	+0.0058	+0.010	0.08721	0.10162	1.45121	0.08041	83.849	81. 21. 41.62
319	3 Orionis	4.5*	4. 43. 13.22	1850.6	9	3.189	+0.0051	+0.005	0.08708	0.10149	1.45008	0.07992	83.989	84. 39. 20.61
320	4 Orionis	5.6*	4. 44. 3.10	1850.7	9	3.386	+0.0069	+0.002	0.08720	0.10208	1.45310	0.08113	83.619	76. 0. 15.35
321	61 Eridani.....	4.5*	4. 45. 31.60	1852.1	2	+2.944	+0.0031	+0.002	0.08685	0.10158	1.44629	0.07840	84.399	95. 42.
322	3 Aurigæ	3*	4. 47. 13.94	1852.2	17	3.893	+0.0132	+0.002	0.08807	0.10563	1.46079	0.08404	82.487	57. 4. 37.06
323	W. B. IV. 1048	9	4. 47. 41.77	1849.1	3	3.381	+0.0066	..	0.08682	0.10218	1.45302	0.08099	83.653	76. 15. 57.79
324	62 Eridani	6*	4. 49. 0.97	1852.1	2	2.950	+0.0030	+0.004	0.08651	0.10168	1.44638	0.07849	84.402	95. 25.
325	W. B. IV. 1081	9	4. 49. 13.09	1850.0	1	3.381	+0.0064	..	0.08666	0.10222	1.45302	0.08096	83.664	76. 18. 20.80
326	W. B. IV. 1086.....	9	4. 49. 20.39	1849.7	5	+3.383	+0.0064	..	0.08666	0.10223	1.45305	0.08097	83.661	76. 14. 8.69
327	W. B. IV. 1096	9	4. 49. 50.72	1849.8	4	3.382	+0.0064	..	0.08661	0.10224	1.45304	0.08095	83.665	76. 16. 50.90
328	10 Camelopardali.....	4*	4. 50. 5.71	1848.1	2	5.299	+0.0421	+0.004	0.09353	0.12321	1.48143	0.09166	78.557	29. 47. 6.15
329	7 Aurigæ	3.4*	4. 51. 12.85	1850.9	6	4.287	+0.0187	+0.004	0.08893	0.10989	1.46667	0.08593	81.507	46. 24. 16.65
330	8 Aurigæ	4*	4. 52. 0.12	1850.8	4	4.176	+0.0167	+0.005	0.08840	0.10866	1.46503	0.08524	81.815	49. 8. 56.97
331	W. B. IV. 1199.....	8	4. 53. 52.05	1849.1	3	+3.384	+0.0061	..	0.08620	0.10235	1.45305	0.08085	83.692	76. 18. 29.20
332	102 Tauri.....	5*	4. 54. 8.03	1850.9	10	3.572	+0.0080	+0.009	0.08647	0.10335	1.45595	0.08184	83.304	68. 37. 45.89
333	W. B. IV. 1218	9	4. 54. 39.25	1849.7	3	3.379	+0.0059	..	0.08613	0.10237	1.45292	0.08080	83.709	76. 29. 19.83
334	11 Orionis	5*	4. 56. 0.16	1849.2	8	3.420	+0.0062	+0.004	0.08602	0.10257	1.45362	0.08099	83.634	74. 48. 34.66
335	Piazzi IV. 287	7	4. 56. 36.57	1851.1	2	3.704	+0.0090	-0.003	0.08647	0.10431	1.45794	0.08241	83.036	63. 46. 53.37
336	Piazzi IV. 269	5	4. 58. (0)	..	..	+9.725	+0.2235	-0.054	0.11189	0.18695	1.54064	0.11006	65.323	10. 57. 18.91
337	W. B. IV. 1312.....	8	4. 58. 13.93	1849.0	1	3.389	+0.0057	..	0.08575	0.10248	1.45308	0.08074	83.720	76. 7. 1.36
338	104 Tauri.....	5.6*	4. 58. 35.25	1852.3	5	3.501	+0.0067	+0.045	0.08588	0.10305	1.45485	0.08131	83.491	71. 33. 41.02
339	106 Tauri.....	6.5*	4. 58. 55.99	1853.1	4	3.546	+0.0071	+0.001	0.08591	0.10330	1.45554	0.08151	83.403	69. 47. 4.42
340	103 Tauri.....	6*	4. 59. (0)	..	..	3.647	+0.0082	+0.004	0.08608	0.10395	1.45708	0.08201	83.187	65. 56. 17.53
341	2 Leporis.....	4.3*	4. 59. 6.76	1851.8	17	+2.534	+0.0012	+0.004	0.08599	0.10369	1.43987	0.07654	84.925	112. 34. 34.54
342	66 Eridani	6	4. 59. 20.88	1852.1	2	2.961	+0.0027	+0.002	0.08547	0.10195	1.44655	0.07865	84.431	94. 52.
343	67 Eridani.....	3*	5. 0. 28.73	1850.6	7	2.951	+0.0026	-0.003	0.08536	0.10199	1.44640	0.07861	84.449	95. 17. 4.86
344	Lalande 9671	8½	5. 0. 47.97	1849.2	2	3.386	+0.0055	..	0.08551	0.10255	1.45310	0.08069	83.735	76. 17.
345	15 Orionis	5.6*	5. 1. 7.03	1849.0	7	3.427	+0.0057	+0.003	0.08550	0.10274	1.45373	0.08087	83.659	74. 35. 57.40
346	Bradley 718	7	5. 1. 9.36	1851.1	1	+2.869	+0.0022	+0.007	0.08534	0.10219	1.44512	0.07823	84.563	98. 51. 50.77
347	W. B. V. 11	9	5. 1. 45.32	1849.1	3	3.389	+0.0054	..	0.08540	0.10258	1.45314	0.08068	83.736	76. 11. 55.45
348	W. B. V. 12.....	9	5. 1. 45.80	1849.1	3	3.389	+0.0054	..	0.08540	0.10258	1.45314	0.08068	83.736	76. 12. 21.57
349	69 Eridani.....	4*	5. 1. 58.23	1853.1	4	2.867	+0.0021	+0.005	0.08525	0.10221	1.44509	0.07823	84.570	98. 57. 2.08
350	.....	..	5. 3. 4.66	1852.7	5	3.711	+0.0082	..	0.08574	0.10451	1.45803	0.08209	83.087	63. 43. 41.37
333. Of the 8.9th magnitude. 344. Of the 8th magnitude. 346. The N.P.D. differs 9" from the B.A.C.														

M. Y.	No. of Observations.	Annual Precession in N.P.D. for 1850 from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi, (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1849.1	4	— 6.76	+ 0.470	+ 0.08	0.01527	0.04497	1.26093	0.33071	80.958	660	IV. 195	..	404	1485	96 Tauri.....	316
1850.4	8	6.72	+ 0.442	+ 0.01	9.94388	0.06481	1.26200	0.33089	83.510	663	IV. 201	189	..	1486	1 Orionis..... π^1	317
1850.1	5	6.66	+ 0.449	+ 0.03	9.96034	0.06075	1.26346	0.33106	82.837	667	IV. 209	190	..	1491	2 Orionis..... π^2	318
1850.5	9	6.59	+ 0.439	+ 0.03	9.93242	0.06795	1.26497	0.33133	83.669	670	IV. 213	191	..	1495	3 Orionis..... π^3	319
1852.0	6	6.53	+ 0.467	+ 0.06	0.00329	0.04973	1.26658	0.33155	80.967	672	IV. 216	192	406	1500	4 Orionis..... σ^1	320
..	..	— 6.40	+ 0.407	— 0.01	9.82857	0.09053	1.26943	0.33199	86.349	676	IV. 227	194	..	1507	61 Eridani..... ω	321
1852.4	27	6.26	+ 0.539	+ 0.01	0.13097	0.01298	1.27273	0.33243	74.208	677	IV. 235	196	409	1520	3 Aurigæ..... ι	322
1849.1	4	6.22	+ 0.469	..	0.00173	0.05166	1.27360	0.33256	80.446	..	...	..	..	..	W. B. IV. 1048	323
..	..	6.11	+ 0.410	+ 0.08	9.83128	0.08948	1.27618	0.33291	85.855	689	IV. 250	..	..	1525	62 Eridani..... b	324
1849.1	4	6.10	+ 0.470	..	0.00165	0.05221	1.27609	0.33291	80.242	..	...	..	..	..	W. B. IV. 1081	325
1849.1	4	— 6.09	+ 0.470	..	0.00221	0.05222	1.27676	0.33300	80.162	..	...	..	..	..	W. B. IV. 1086	326
1849.1	4	6.04	+ 0.470	..	0.00191	0.05251	1.27772	0.33314	80.094	..	...	..	..	..	W. B. IV. 1096	327
1848.1	4	6.02	+ 0.737	+ 0.02	0.25821	9.97284	1.27823	0.33323	64.591	681	IV. 244	199	412	1536	10 Camelopardali..... β	328
1850.8	6	5.93	+ 0.597	0.00	0.18877	9.99833	1.28037	0.33349	69.720	690	IV. 256	200	413	1540	7 Aurigæ..... ϵ	329
1850.8	8	5.86	+ 0.582	0.00	0.17529	0.00379	1.28188	0.33371	70.477	693	IV. 262	201	414	1541	8 Aurigæ..... ζ	330
1849.1	3	— 5.71	+ 0.473	..	0.00217	0.05410	1.28534	0.33415	79.448	..	...	..	..	..	W. B. IV. 1199	331
1851.6	8	5.69	+ 0.500	+ 0.04	0.05897	0.04009	1.28591	0.33424	76.794	698	IV. 274	203	417	1551	102 Tauri..... ι	332
1849.5	3	5.64	+ 0.473	..	0.00082	0.05475	1.28690	0.33438	79.370	..	...	..	..	..	W. B. IV. 1218	333
1849.4	7	5.53	+ 0.479	+ 0.04	0.01414	0.05222	1.28940	0.33469	78.584	702	IV. 286	206	420	1557	11 Orionis.....	334
1851.2	1	5.48	+ 0.520	— 0.04	0.09193	0.03317	1.29056	0.33487	74.642	..	IV. 287	..	..	1562	Piazzi IV. 287	335
1853.0	2	— 5.37	+ 1.367	— 0.05	0.31463	9.97187	1.29299	0.33518	57.327	..	IV. 269	..	..	1565	Piazzi IV. 269	336
1850.0	3	5.34	+ 0.476	..	0.00428	0.05540	1.29349	0.33522	78.668	..	...	..	..	..	W. B. IV. 1312	337
1852.5	7	5.31	+ 0.492	— 0.03	0.03874	0.04777	1.29424	0.33531	77.025	705	IV. 293	207	..	1568	104 Tauri..... m	338
1853.1	4	5.28	+ 0.499	+ 0.05	0.05158	0.04494	1.29489	0.33540	76.340	708	IV. 296	..	..	1570	106 Tauri..... l	339
1849.1	2	5.28	+ 0.513	— 0.05	0.07814	0.03850	1.29497	0.33540	74.970	706	IV. 295	..	421	1572	103 Tauri.....	340
1851.5	17	— 5.27	+ 0.357	+ 0.05	9.63238	0.11420	1.29524	0.33545	88.952	713	IV. 303	209	422	1575	2 Leporis..... ϵ	341
..	..	5.25	+ 0.417	+ 0.04	9.83622	0.08714	1.29566	0.33549	84.465	712	IV. 302	..	..	1579	66 Eridani.....	342
1850.9	5	5.15	+ 0.416	+ 0.08	9.83183	0.08766	1.29776	0.33576	84.451	715	IV. 312	210	..	1588	67 Eridani..... β	343
..	..	5.12	+ 0.477	..	0.00325	0.05663	1.29811	0.33579	78.325	..	...	..	425	..	Lalande 9671	344
1851.1	2	5.10	+ 0.483	— 0.02	0.01640	0.05405	1.29895	0.33589	77.661	714	IV. 313	211	426	1591	15 Orionis.....	345
1851.1	1	— 5.09	+ 0.405	..	9.79390	0.09312	1.29903	0.33589	85.398	718	...	..	..	1592	Bradley 718	346
1849.7	3	5.04	+ 0.479	..	0.00402	0.05686	1.29994	0.33602	78.135	..	...	..	..	..	W. B. V. 11	347
1849.7	3	5.04	+ 0.479	..	0.00402	0.05686	1.29994	0.33602	78.135	..	...	..	..	..	W. B. V. 12	348
1852.5	5	5.02	+ 0.405	+ 0.02	9.79288	0.09307	1.30052	0.33607	85.335	720	IV. 323	212	..	1597	69 Eridani..... λ	349
1852.7	5	4.93	+ 0.525	..	0.09346	0.03795	1.30271	0.33634	73.386	..	...	..	..	..	.....	350

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Weisse.	Mean Right	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
			Ascension, 1850, Jan. 1.			e	f	g	h					
			h m s			s	s	s					s	° ' "
351	W.B. V. 48.....	9	5. 3. 27.72	1848.5	2	+3.398	+0.0053	..	0.08523	0.10267	1.45328	0.08067	83.732	75. 49. 30.43
352	W.B. V. 54.....	9	5. 3. 51.87	1849.1	3	3.388	+0.0052	..	0.08517	0.10264	1.45313	0.08061	83.754	76. 15. 41.09
353	13 Aurigæ.....α	1*	5. 5. 36.99	1850.1	54	4.409	+0.0165	+0.013	0.08725	0.11160	1.46848	0.08498	81.418	44. 9. 39.15
354	Bradley 729	7	5. 6. 20.42	1849.0	1	2.880	+0.0020	+0.004	0.08480	0.10228	1.44529	0.07836	84.571	98. 19. 41.21
355	.....		5. 7. 19.75	1853.1	2	2.879	+0.0021	..	0.08474	0.10230	1.44527	0.07837	84.576	98. 22. 53.56
356	19 Orionis.....β	1*	5. 7. 19.88	1850.6	114	+2.879	+0.0020	+0.005	0.08474	0.10230	1.44527	0.07837	84.576	98. 22. 44.67
357	109 Tauri	6*	5. 10. 15.95	1853.9	1	3.596	+0.0062	+0.006	0.08475	0.10387	1.45632	0.08127	83.397	68. 3. 50.15
358	.....		5. 10. 17.44	1853.0	4	3.666	+0.0068	..	0.08483	0.10434	1.45736	0.08153	83.256	65. 30. 52.72
359	20 Orionis	4*	5. 10. 19.42	1850.8	3	2.910	+0.0021	+0.006	0.08439	0.10230	1.44576	0.07854	84.550	97. 0. 38.64
360	.....		5. 10. 20.10	1849.0	1	3.106	+0.0029	..	0.08434	0.10214	1.44880	0.07933	84.276	88. 27.
361	.....		5. 10. 29.36	1852.8	3	+3.711	+0.0072	..	0.08487	0.10467	1.45804	0.08170	83.162	63. 54. 11.81
362	16 Camelopardali	6.5*	5. 10. 37.77	1849.7	3	5.112	+0.0259	-0.005	0.08865	0.12085	1.47874	0.08717	79.627	32. 37.
363	Piazzi V. 41	6½	5. 11. 34.43	1852.7	3	3.760	+0.0074	+0.001	0.08487	0.10506	1.45879	0.08184	83.066	62. 12. 1.30
364	6 Leporis.....λ	4.5*	5. 12. 40.03	1853.1	2	2.760	+0.0015	+0.004	0.08424	0.10280	1.44343	0.07801	84.740	103. 20. 8.53
365	{ B.F. 698 ... } { Bradley 750 }	6	5. 13. 52.60	1849.1	3	3.058	+0.0025	+0.006	0.08398	0.10221	1.44805	0.07913	84.368	90. 34.
366	22 Orionis.....ο	5*	5. 14. 6.43	1849.1	3	+3.058	+0.0024	+0.006	0.08395	0.10221	1.44807	0.07913	84.368	90. 32.
367	Piazzi V. 61	8	5. 14. 12.58	1850.1	1	3.149	+0.0029	-0.065	0.08395	0.10225	1.44946	0.07947	84.234	86. 35.
368	Groombridge 944	6*	5. 14. 26.95	1850.9	3	18.363	+0.7563	..	0.13166	0.29346	1.63714	0.13148	41.134	4. 53. 55.02
369	Lalande 10056	8	5. 14. 48.69	1853.0	4	3.677	+0.0062	..	0.08435	0.10450	1.45753	0.08136	83.278	65. 11. 9.50
370	23 Orionis.....m	5.6*	5. 14. 57.24	1850.1	1	3.148	+0.0029	+0.004	0.08387	0.10226	1.44945	0.07946	84.240	86. 36. 17.44
371	W.B. V. 343.....	7.8	5. 15. (ο)	..	..	+3.149	+0.0029	..	0.08390	0.10226	1.44946	0.07946	84.238	86. 35. 48.18
372	Lalande 10096	9	5. 15. 35.62	1849.8	3	3.478	+0.0047	..	0.08403	0.10329	1.45450	0.08063	83.677	72. 46.
373	111 Tauri	6.5*	5. 15. 40.47	1849.9	4	3.478	+0.0047	+0.020	0.08400	0.10329	1.45451	0.08062	83.678	72. 45. 39.62
374	112 Tauri	2*	5. 16. 48.82	1850.6	97	3.783	+0.0068	+0.008	0.08431	0.10534	1.45913	0.08162	83.073	61. 31. 29.23
375	24 Orionis.....γ	2*	5. 17. 5.54	1852.6	4	3.214	+0.0030	+0.006	0.08367	0.10240	1.45046	0.07967	84.150	83. 47. 26.97
376	.....		5. 17. 47.94	1850.5	4	+3.725	+0.0062	..	0.08408	0.10490	1.45824	0.08137	83.209	63. 33. 4.66
377	114 Tauri	6*	5. 18. 37.74	1850.0	7	3.597	+0.0052	+0.005	0.08382	0.10402	1.45632	0.08091	83.476	68. 11. 48.61
378	117 Tauri	6	5. 19. 19.36	1850.1	3	3.476	+0.0043	+0.007	0.08361	0.10335	1.45447	0.08049	83.713	72. 53. 25.87
379	Groombridge 966....	5	5. 19. 41.95	1853.0	2	7.961	+0.0833	+0.041	0.09510	0.16212	1.51801	0.09456	71.932	15. 4. 2.33
380	118 Tauri (1st star)....	6*	5. 20. 2.62	1853.1	2	3.685	+0.0056	+0.005	0.08378	0.10465	1.45767	0.08112	83.312	64. 58. 40.88
381	118 Tauri (as one mass)..	6*	5. 20. 2.54	1852.1	1	+3.685	+0.0056	+0.005	0.08378	0.10465	1.45767	0.08112	83.312	64. 58. 37.10
382	118 Tauri (2d star)	6*	5. 20. 2.84	1853.1	2	3.685	+0.0056	+0.005	0.08378	0.10465	1.45767	0.08112	83.312	64. 58. 35.42
383	.....		5. 21. 43.28	1852.6	2	3.728	+0.0057	..	0.08362	0.10497	1.45829	0.08116	83.248	63. 32. 14.31
384	9 Leporis	3.4*	5. 21. 49.25	1850.4	4	2.568	+0.0008	+0.004	0.08344	0.10393	1.44040	0.07765	84.969	110. 52. 57.25
385	25 Aurigæ.....%	5*	5. 22. 58.03	1848.1	1	3.898	+0.0067	+0.007	0.08373	0.10641	1.46086	0.08161	82.898	57. 55.

360. Of the 9th or 10th magnitude.

376. Of the 10th magnitude.

367. This star differs 1^s in R.A. from the B.A.C.379. This star differs in R.A. nearly 4^s from the B.A.C.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of ν	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.	
					e'	f'	g'	h'									
1849.4	3	—	4.90	+ 0.481	..	0.00706	0.05694	1.30301	0.33638	77.738	..	...	..	..	W. B. V. 48.....	351	
1850.1	3	—	4.86	+ 0.479	..	0.00372	0.05783	1.30399	0.33650	77.805	..	...	..	..	W. B. V. 54.....	352	
1849.7	88	—	4.71	+ 0.625	+ 0.41	0.20276	0.01340	1.30719	0.33688	65.696	722	V. 6	214	428	1613	13 Aurigæ..... α	353
1850.0	4	—	4.65	+ 0.409	+ 0.04	9.79914	0.09114	1.30851	0.33701	84.683	729	V. 15	219	432	1618	Bradley 729	354
1851.8	6	—	4.57	+ 0.409	..	9.79837	0.09111	1.30971	0.33715	84.630	..	...	..	434	..	.....	355
1851.2	57	—	4.57	+ 0.409	+ 0.01	9.79850	0.09103	1.31032	0.33719	84.590	736	V. 18	221	433	1623	19 Orionis..... β	356
1853.9	1	—	4.32	+ 0.512	— 0.05	0.06533	0.04905	1.31559	0.33778	73.720	741	V. 34	..	436	1637	109 Tauri..... η	357
1853.0	4	—	4.32	+ 0.522	..	0.08282	0.04576	1.31601	0.33782	72.707	..	...	..	..	..	.....	358
1850.8	3	—	4.31	+ 0.415	+ 0.03	9.81297	0.08858	1.31569	0.33778	83.853	742	V. 40	223	..	1638	20 Orionis..... τ	359
...	..	—	4.31	+ 0.442	..	9.89894	0.07709	1.31571	0.33778	81.094	..	...	..	..	..	.....	360
1852.8	3	—	4.30	+ 0.529	..	0.09339	0.04377	1.31631	0.33787	72.065	..	...	..	..	..	.....	361
...	..	—	4.29	+ 0.728	+ 0.05	0.25260	0.00856	1.31623	0.33782	60.503	735	V. 28	..	437	1642	16 Camelopardali.....	362
1852.7	3	—	4.21	+ 0.536	+ 0.06	0.10452	0.04225	1.31793	0.33800	71.249	..	V. 41	..	..	1648	Piazzi V. 41.....	363
1850.5	5	—	4.11	+ 0.394	+ 0.02	9.74191	0.09598	1.31989	0.33822	85.483	748	V. 52	224	441	1653	6 Leporis..... λ	364
...	..	—	4.01	+ 0.437	+ 0.03	9.87869	0.07990	1.32204	0.33844	81.355	750	V. 58	..	445	1657	{ B. F. 698... } { Bradley 750 }	365
...	..	—	3.99	+ 0.437	+ 0.02	9.87904	0.07986	1.32244	0.33844	81.319	751	V. 60	..	446	1660	22 Orionis..... θ	366
...	..	—	3.98	+ 0.450	— 0.01	9.91661	0.07488	1.32259	0.33849	79.939	..	V. 61	..	447	1661	Piazzi V. 61.....	367
1851.2	3	—	3.96	+ 2.626	..	0.33032	0.00143	1.32305	0.33853	51.673	..	...	..	443	1662	Groombridge 944....	368
1853.0	4	—	3.93	+ 0.526	..	0.08550	0.04837	1.32374	0.33858	71.810	..	...	..	..	..	Lalande 10056	369
1849.7	5	—	3.92	+ 0.450	+ 0.01	9.91638	0.07498	1.32394	0.33862	79.847	753	V. 65	225	449	1665	23 Orionis..... μ	370
1849.4	3	—	3.91	+ 0.450	..	9.91635	0.07495	1.32349	0.33858	79.882	..	...	..	450	..	W. B. V. 343.....	371
...	..	—	3.86	+ 0.498	..	0.03185	0.05804	1.32519	0.33871	74.618	..	...	..	..	..	Lalande 10096	372
1850.1	4	—	3.86	+ 0.498	— 0.04	0.03198	0.05808	1.32521	0.33871	74.607	754	V. 66	..	..	1671	111 Tauri.....	373
1851.3	78	—	3.76	+ 0.542	+ 0.19	0.10951	0.04560	1.32722	0.33889	70.016	756	V. 72	226	453	1681	112 Tauri..... β	374
1852.6	4	—	3.73	+ 0.461	+ 0.01	9.94196	0.07185	1.32770	0.33894	78.548	761	V. 80	228	454	1687	24 Orionis..... γ	375
1850.5	4	—	3.67	+ 0.534	..	0.09660	0.04851	1.32871	0.33905	70.664	..	...	..	..	..	.....	376
1852.7	2	—	3.60	+ 0.516	— 0.03	0.06539	0.05435	1.33040	0.33921	72.331	768	V. 88	231	456	1695	114 Tauri..... θ	377
1850.0	5	—	3.54	+ 0.499	+ 0.05	0.03133	0.05994	1.33161	0.33930	74.073	..	V. 92	..	..	1702	117 Tauri.....	378
1850.0	15	—	3.50	+ 1.143	0.00	0.30918	0.01340	1.33239	0.33939	52.856	..	...	230	457	1706	Groombridge 966....	379
1853.1	2	—	3.48	+ 0.529	+ 0.07	0.08756	0.05179	1.33287	0.33943	70.803	775	V. 98	..	..	1707	118 Tauri (1st Star)....	380
1852.1	1	—	3.48	+ 0.529	+ 0.07	0.08756	0.05179	1.33287	0.33943	70.803	775	V. 98	..	..	1707	118 Tauri (as one mass).	381
1853.1	2	—	3.48	+ 0.529	+ 0.07	0.08756	0.05179	1.33287	0.33943	70.803	775	V. 98	..	..	1707	118 Tauri (2d Star)	382
1852.6	2	—	3.33	+ 0.536	..	0.09722	0.05159	1.33598	0.33971	69.904	..	...	..	..	..	.....	383
1849.9	6	—	3.33	+ 0.369	+ 0.08	9.64640	0.10006	1.33595	0.33971	86.781	781	V. 113	233	458	1715	9 Leporis..... β	384
...	..	—	3.23	+ 0.561	— 0.04	0.13238	0.04711	1.33794	0.33985	67.423	776	V. 114	235	461	1723	25 Aurigæ..... κ	385

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weiss's *Catalogue Stellarum ex Zonis Regiomontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(1)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
386	119 Tauri	6.5*	5. 23. 25.29	1848.8	3	+3.512	+0.0041	+0.004	0.08320	0.10360	1.45501	0.08046	83.684	71.31.....
387	W. B. V. 603	8	5. 24. 20.52	1849.2	2	3.062	+0.0020	..	0.08293	0.10239	1.44811	0.07915	84.421	90.24. 0.44
388	34 Orionis	2*	5. 24. 20.72	1850.9	84	3.061	+0.0020	+0.005	0.08290	0.10239	1.44811	0.07915	84.423	90.24. 52.59
389	120 Tauri	6	5. 24. 44.26	1849.6	2	3.511	+0.0039	+0.007	0.08306	0.10361	1.45500	0.08041	83.698	71.34.....
390	.....	..	5. 25. 33.41	1853.1	1	3.732	+0.0051	..	0.08320	0.10506	1.45835	0.08098	83.277	63.26. 5.93
391	.....	..	5. 25. 43.93	1850.0	1	+3.731	+0.0051	..	0.08320	0.10506	1.45835	0.08098	83.277	63.29.....
392	11 Leporis	3*	5. 26. 6.96	1850.8	42	2.643	+0.0009	+0.005	0.08290	0.10357	1.44158	0.07804	84.917	107.56. 0.90
393	W. B. V. 658	7	5. 26. 48.65	1853.0	2	3.068	+0.0018	..	0.08263	0.10243	1.44821	0.07915	84.432	90. 7. 8.54
394	39 Orionis	3.4*	5. 26. 52.76	1851.1	1	3.300	+0.0027	+0.002	0.08269	0.10276	1.45179	0.07979	84.081	80.10. 16.13
395	Piazzi V. 145	7	5. 27. 46.91	1853.1	2	3.740	+0.0049	+0.011	0.08295	0.10517	1.45849	0.08089	83.282	63.10. 29.27
396	43 Orionis	4*	5. 28. 1.14	1851.2	1	+2.943	+0.0014	+0.002	0.08253	0.10255	1.44628	0.07886	84.600	95.31. 9.80
397	44 Orionis	3*	5. 28. 5.85	1852.4	2	2.931	+0.0014	+0.005	0.08253	0.10257	1.44608	0.07883	84.615	96. 0. 45.40
398	.....	..	5. 28. (10)	..	..	2.931	+0.0014	..	0.08253	0.10257	1.44608	0.07883	84.615	96. 0. 54.20
399	46 Orionis	2*	5. 28. 36.24	1850.6	77	3.041	+0.0017	+0.003	0.08246	0.10246	1.44779	0.07910	84.478	91.18. 8.15
400	123 Tauri	3.4*	5. 28. 40.96	1851.0	8	3.580	+0.0038	+0.005	0.08268	0.10406	1.45607	0.08044	83.604	68.57. 15.55
401	.....	..	5. 29. 36.64	1852.7	3	+3.733	+0.0045	..	0.08273	0.10512	1.45836	0.08077	83.320	63.28. 30.22
402	125 Tauri	6*	5. 30. 26.55	1850.1	7	3.712	+0.0042	+0.006	0.08261	0.10497	1.45806	0.08068	83.369	64.11. 32.83
403	48 Orionis	4.3*	5. 31. 13.08	1850.4	4	3.008	+0.0014	+0.002	0.08219	0.10251	1.44728	0.07904	84.535	92.41. 27.58
404	47 Orionis	5*	5. 31. 16.10	1848.1	1	3.164	+0.0019	+0.006	0.08219	0.10254	1.44970	0.07940	84.318	85.58. 7.10
405	49 Orionis	5*	5. 31. 37.73	1852.0	6	2.901	+0.0012	+0.001	0.08217	0.10268	1.44561	0.07880	84.671	97.18.....
406	Lalande 10669	9	5. 32. 16.17	1852.9	6	+3.734	+0.0041	..	0.08242	0.10516	1.45839	0.08064	83.344	63.28. 5.60
407	50 Orionis (as one mass) ζ	2*	5. 33. 11.51	1851.5	9	3.024	+0.0014	+0.006	0.08199	0.10252	1.44753	0.07909	84.526	92. 1. 35.60
408	Columbæ	2*	5. 34. 13.11	1850.7	21	2.169	+0.0005	+0.008	0.08244	0.10723	1.43407	0.07734	85.298	124. 9. 26.28
409	129 Tauri	6	5. 38. 7.97	1854.0	4	3.446	+0.0022	+0.005	0.08157	0.10345	1.45402	0.07983	83.930	74.14. 29.23
410	Bradley 836	7	5. 38. 11.46	1852.2	1	2.520	+0.0004	-0.007	0.08166	0.10442	1.43965	0.07823	85.075	112.28. 30.26
411	13 Leporis	4*	5. 38. 12.70	1851.2	10	+2.519	+0.0004	-0.019	0.08166	0.10443	1.43964	0.07823	85.074	112.30. 3.38
412	130 Tauri	6*	5. 38. 41.49	1850.4	8	3.495	+0.0023	+0.001	0.08153	0.10369	1.45476	0.07989	83.853	72.19. 55.88
413	W. B. V. 1015	8	5. 39. (50)	...	..	3.256	+0.0016	..	0.08136	0.10279	1.45110	0.07948	84.246	82. 5. 56.10
414	132 Tauri	5.6*	5. 39. 48.59	1853.9	2	3.678	+0.0028	+0.005	0.08151	0.10482	1.45755	0.08012	83.536	65.29. 19.35
415	53 Orionis	3.2*	5. 40. 38.61	1850.7	8	2.842	+0.0007	+0.004	0.08124	0.10292	1.44471	0.07884	84.783	99.43. 38.73
416	31 Camelopardali	5.6*	5. 41. 32.22	1849.1	2	+5.365	+0.0113	0.000	0.08303	0.12460	1.48236	0.08251	79.758	30. 9. 12.90
417	135 Tauri	6*	5. 41. (50)	...	..	3.409	+0.0018	+0.004	0.08113	0.10332	1.45346	0.07966	84.026	75.44. 34.72
418	137 Tauri	6*	5. 43. 51.12	1850.1	3	3.406	+0.0016	+0.004	0.08093	0.10332	1.45342	0.07961	84.046	75.52. 16.88
419	136 Tauri	5*	5. 43. 54.06	1853.7	7	3.767	+0.0025	+0.004	0.08109	0.10552	1.45890	0.08007	83.410	62.25. 44.38
420	Lalande 11095	8	5. 44. (20)	...	..	3.694	+0.0023	..	0.08103	0.10496	1.45778	0.07998	83.550	64.57. 58.81

391. Of the 8.9th magnitude.

396. Of the 9th magnitude.

401. Of the 7th magnitude.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue	Star's Name.	No.
					c'	f'	g'	h'								
...	..	3.19	+ 0.506	0.01	0.04190	0.06056	1.33871	0.33989	72.872	783	V. 119	..	462	1726	119 Tauri.....	386
1850.2	1	3.11	+ 0.441	..	9.88024	0.07958	1.33986	0.34003	80.054	..	...	..	463	..	W. B. V. 603.....	387
1851.2	38	3.11	+ 0.441	+ 0.04	9.88015	0.07959	1.34030	0.34003	80.032	787	V. 126	237	464	1730	34 Orionis.....	388
..	..	3.07	+ 0.506	0.06	0.04167	0.06130	1.34098	0.34007	72.677	786	V. 127	..	465	1734	120 Tauri.....	389
1853.1	1	3.00	+ 0.538	..	0.09795	0.05437	1.34257	0.34021	69.212	..	...	..	..	..	.....	390
..	..	2.99	+ 0.538	..	0.09795	0.05437	1.34257	0.34021	69.212	..	...	..	..	..	.....	391
1851.3	20	2.95	+ 0.381	0.01	9.68354	0.09527	1.34333	0.34025	85.623	796	V. 139	240	470	1741	11 Leporis.....	392
1853.0	2	2.89	+ 0.443	..	9.88304	0.07929	1.34483	0.34039	79.604	..	...	..	..	..	W. B. V. 658.....	393
1851.1	1	2.89	+ 0.476	+ 0.04	9.97372	0.07018	1.34463	0.34039	75.805	794	V. 141	242	..	1749	39 Orionis.....	394
1853.1	2	2.81	+ 0.540	0.05	0.10022	0.05568	1.34616	0.34048	68.708	..	V. 145	..	..	1754	Piazzi V. 145.....	395
1849.6	2	2.79	+ 0.425	+ 0.01	9.82779	0.08400	1.34655	0.34052	81.437	804	V. 150	..	..	1760	43 Orionis.....	396
1851.7	3	2.78	+ 0.423	+ 0.01	9.82262	0.08440	1.34670	0.34052	81.599	806	V. 151	244	..	1762	44 Orionis.....	397
1850.2	1	2.78	+ 0.423	..	9.82262	0.08440	1.34670	0.34052	81.599	..	...	..	..	..	.....	398
1851.2	45	2.74	+ 0.439	+ 0.01	9.87131	0.08030	1.34754	0.34057	79.855	809	V. 160	247	473	1765	46 Orionis.....	399
1852.0	5	2.73	+ 0.517	+ 0.02	0.06099	0.06110	1.34768	0.34057	70.967	800	V. 152	245	474	1767	123 Tauri.....	400
1852.1	4	2.65	+ 0.540	..	0.09844	0.05717	1.34906	0.34067	68.538	..	...	..	..	..	.....	401
1851.1	3	2.58	+ 0.537	+ 0.01	0.09375	0.05845	1.35065	0.34079	68.676	810	V. 165	249	478	1778	125 Tauri.....	402
1850.4	4	2.51	+ 0.435	+ 0.01	9.85730	0.08131	1.35195	0.34088	80.064	814	V. 172	250	..	1780	48 Orionis.....	403
1848.1	4	2.51	+ 0.458	0.01	9.92268	0.07599	1.35203	0.34088	77.502	813	V. 171	..	479	1782	47 Orionis.....	404
....	..	2.48	+ 0.420	+ 0.06	9.80852	0.08483	1.35264	0.34093	81.682	816	V. 176	251	480	1785	49 Orionis.....	405
1852.9	6	2.42	+ 0.541	..	0.09868	0.05925	1.35382	0.34097	68.050	..	...	..	..	..	Lalande 10669.....	406
1851.3	10	2.34	+ 0.438	+ 0.01	9.86403	0.08066	1.35525	0.34106	79.599	819	V. 188	252	481	1794	50 Orionis.....	407
1850.5	23	2.25	+ 0.314	0.00	9.45169	0.10142	1.35696	0.34120	89.207	..	V. 196	253	482	1802	Columba.....	408
1854.0	1	1.91	+ 0.500	0.02	0.02230	0.06974	1.36342	0.34152	71.734	830	V. 212	..	487	1821	129 Tauri.....	409
1850.4	7	1.91	+ 0.366	..	9.62175	0.09213	1.36351	0.34152	86.029	836	...	..	488	1822	Bradley 836.....	410
1850.9	17	1.90	+ 0.366	+ 0.35	9.62119	0.09214	1.36354	0.34152	86.040	837	V. 219	255	489	1823	13 Leporis.....	411
1851.1	7	1.86	+ 0.508	0.00	0.03691	0.06886	1.36432	0.34157	70.830	832	V. 215	..	..	1828	130 Tauri.....	412
1849.1	2	1.77	+ 0.473	..	9.95756	0.07472	1.36565	0.34166	74.881	..	...	..	492	..	W. B. V. 1015.....	413
1853.9	1	1.76	+ 0.534	+ 0.01	0.08583	0.06578	1.36616	0.34166	67.663	835	V. 223	256	493	1837	132 Tauri.....	414
1851.1	5	1.69	+ 0.413	+ 0.03	9.78098	0.08432	1.36751	0.34175	81.660	844	V. 234	259	..	1843	53 Orionis.....	415
1848.6	8	1.61	+ 0.780	+ 0.04	0.26572	0.05323	1.36895	0.34179	52.661	831	V. 226	261	497	1849	31 Camelopardali.....	416
1849.5	4	1.58	+ 0.496	+ 0.04	0.01068	0.07215	1.36962	0.34184	71.828	845	V. 240	..	498	1852	135 Tauri.....	417
1848.9	4	1.41	+ 0.496	+ 0.02	0.00975	0.07292	1.37270	0.34193	71.617	849	V. 249	..	501	1862	137 Tauri.....	418
1853.9	3	1.41	+ 0.548	+ 0.06	0.10619	0.06728	1.37277	0.34193	65.637	848	V. 247	263	502	1863	136 Tauri.....	419
1850.0	2	1.38	+ 0.537	..	0.08948	0.06834	1.37285	0.34193	66.766	..	...	..	503	..	Lalande 11095.....	420

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

No.	Star's Name.	Magnitude from Average of R.A.C., or B.A.C., or Wens.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
421	Bradley 850.....	7½	5. 44. 24.29	1849.1	3	+3.563	+0.0019	+0.008	0.08093	0.10411	1.45580	0.07979	83.790	69. 45.
422	Lalande 11108.....	8½	5. 44. 38.56	1851.2	1	3.733	+0.0023	..	0.08097	0.10525	1.45837	0.07999	83.485	63. 36. 57.33
423	54 Orionis.....χ¹	5.4*	5. 45. 30.01	1849.1	1	3.563	+0.0017	-0.011	0.08081	0.10411	1.45580	0.07974	83.801	69. 45. 25.13
424	Columbæ.....β	3*	5. 45. 40.38	1851.1	3	2.107	+0.0003	+0.002	0.08103	0.10791	1.43309	0.07809	85.366	125. 49. 44.55
425	Groombridge 1004 ..	6	5. 45. 46.31	1851.2	4	26.626	+0.5266	+0.289	0.10448	0.37597	1.71286	0.10443	25.038	3. 14. 31.45
426	.....	..	5. 46. 18.57	1852.3	5	+3.735	+0.0021	..	0.08080	0.10528	1.45841	0.07990	83.498	63. 33. 13.07
427	58 Orionis.....α	1 to 1½	5. 47. 3.15	1850.6	128	3.243	+0.0009	+0.006	0.08055	0.10281	1.45092	0.07936	84.324	82. 37. 32.75
428	33 Aurigæ.....δ	4.5*	5. 47. 10.63	1853.1	1	4.926	+0.0058	+0.011	0.08149	0.11858	1.47605	0.08108	80.949	35. 44. 3.04
429	.....	..	5. 47. 18.93	1848.1	1	4.222	+0.0031	..	0.08096	0.10987	1.46570	0.08034	82.534	49. 13. 39.96
430	.....	..	5. 47. 45.30	1848.1	2	4.222	+0.0031	..	0.08089	0.10987	1.46569	0.08030	82.543	49. 14. 18.05
431	.....	..	5. 47. 54.97	1850.6	2	+4.084	+0.0027	..	0.08083	0.10843	1.46365	0.08018	82.827	52. 46. 50.09
432	34 Aurigæ.....β	2*	5. 48. 31.61	1850.6	6	4.403	+0.0034	+0.001	0.08088	0.11194	1.46839	0.08039	82.165	45. 4. 26.97
433	139 Tauri.....	5.6*	5. 48. 41.30	1852.8	3	3.720	+0.0017	+0.005	0.08050	0.10519	1.45818	0.07976	83.553	64. 4. 12.63
434	37 Aurigæ.....θ	3*	5. 49. 29.65	1851.0	10	4.084	+0.0023	+0.008	0.08056	0.10843	1.46365	0.08002	82.855	52. 48. 13.92
435	16 Leporis.....γ	4.3*	5. 49. 34.44	1851.2	4	2.733	+0.0003	+0.002	0.08031	0.10336	1.44309	0.07891	84.936	104. 11. 57.71
436	Columbæ.....γ	4*	5. 52. 13.03	1849.2	1	+2.124	+0.0002	+0.003	0.08018	0.10776	1.43336	0.07861	85.380	125. 18.
437	35 Camelopardali.....	6	5. 52. (40)	..	..	4.755	+0.0030	+0.003	0.08043	0.11635	1.47356	0.08015	81.460	38. 25. 49.05
438	Rümker 1673.....	..	5. 54. 7.62	1852.1	6	3.731	+0.0009	..	0.07986	0.10528	1.45834	0.07948	83.598	63. 43. 31.39
439	Rümker 1680.....	8	5. 54. 32.20	1851.6	2	3.733	+0.0008	..	0.07982	0.10529	1.45838	0.07946	83.598	63. 39. 1.83
440	Piazzi V. 306.....	7	5. 54. 55.74	1851.1	2	3.707	+0.0008	+0.014	0.07977	0.10511	1.45798	0.07944	83.647	64. 33. 22.34
441	1 Geminorum.....	5*	5. 55. 0.15	1854.0	4	+3.645	+0.0006	+0.003	0.07976	0.10468	1.45705	0.07941	83.756	66. 44. 3.00
442	Lalande 11509.....	8½	5. 56. (50)	..	..	3.652	+0.0004	..	0.07959	0.10473	1.45716	0.07935	83.759	66. 28. 48.39
443	Rümker 1701.....	..	5. 57. 14.81	1852.2	3	3.733	+0.0004	..	0.07948	0.10530	1.45837	0.07932	83.630	63. 39. 50.29
444	2 Geminorum.....	6½	5. 57. (40)	..	..	3.656	+0.0004	+0.002	0.07945	0.10475	1.45721	0.07929	83.767	66. 21. 11.82
445	Rümker 1705.....	..	5. 57. 41.17	1853.1	3	3.743	+0.0004	..	0.07944	0.10538	1.45852	0.07930	83.618	63. 19. 11.65
446	Rümker 1707.....	..	5. 57. 58.41	1853.1	3	+3.743	+0.0004	..	0.07944	0.10538	1.45852	0.07930	83.618	63. 18. 29.78
447	67 Orionis.....ν	5.4*	5. 59. 0.42	1849.2	1	3.423	+0.0001	+0.005	0.07929	0.10345	1.45368	0.07921	84.158	75. 13.
448	.....	..	5. 59. 16.19	1853.2	1	3.641	0.0000	..	0.07924	0.10466	1.45700	0.07922	83.810	66. 54. 53.88
449	.....	..	5. 59. 56.51	1852.6	2	3.645	0.0000	..	0.07916	0.10468	1.45703	0.07921	83.813	66. 47. 28.67
450	3 Geminorum.....	6	6. 0. (40)	..	..	3.642	0.0000	+0.006	0.07911	0.10466	1.45700	0.07915	83.824	66. 52. 2.87
451	Lalande 11684.....	8	6. 1. 34.30	1852.1	6	+3.724	-0.0002	..	0.07899	0.10523	1.45823	0.07909	83.697	63. 57. 44.01
452	5 Geminorum.....	6	6. 2. 20.35	1851.1	4	3.678	-0.0004	+0.004	0.07892	0.10491	1.45756	0.07907	83.781	65. 33. 8.48
453	Lalande 11714.....	9	6. 2. 26.04	1852.1	3	3.724	-0.0004	..	0.07889	0.10523	1.45825	0.07906	83.705	63. 59. 18.68
454	44 Aurigæ.....κ	5.4*	6. 5. 49.13	1853.1	2	3.828	-0.0009	0.000	0.07848	0.10606	1.45982	0.07884	83.562	60. 27. 7.39
455	7 Geminorum.....η	3.4*	6. 5. 49.38	1851.8	15	3.626	-0.0008	-0.002	0.07852	0.10454	1.45676	0.07893	83.908	67. 27. 18.45

425. The R.A. in the text differs 10s. from the B. A. C. In this instance the proper motion in R.A. given in the B. A. C. is not used in forming the Mean R.A. The R.A. of the Oxford Catalogue agrees closely with the text, and also with the 12-year Catalogue.

426. Of the 10th or 11th magnitude.

431. Of about the 9th or 10th magnitude.

439. The magnitude is taken from Rümker.

445. Of the 8th magnitude.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1851.2	1	1.36	+ 0.518	+ 0.06	0.05627	0.07059	1.37358	0.34197	68.823	850	V. 251	..	504	1867	Bradley 850.....	421
1849.8	3	1.34	+ 0.543	..	0.09847	0.06834	1.37411	0.34197	66.036	..	...	..	..	..	Lalande 11108	422
1852.1	2	1.27	+ 0.519	+ 0.10	0.05616	0.07119	1.37534	0.34202	68.668	856	V. 259	265	506	1876	54 Orionis	423
1851.1	7	1.25	+ 0.307	- 0.28	0.42151	0.09219	1.37560	0.34206	89.039	..	V. 267	267	507	1878	Columbæ	424
1852.3	5	1.23	+ 3.876	+ 0.10	0.33688	0.05654	1.37612	0.34206	43.736	..	...	254	500	1879	Groombridge 1004...	425
1850.9	103	1.20	+ 0.544	..	0.09896	0.06947	1.37667	0.34206	65.746	..	...	..	..	..	.....	426
1851.1	3	1.13	+ 0.472	0.00	0.95318	0.07655	1.37781	0.34211	74.135	860	V. 268	269	509	1883	58 Orionis	427
1848.1	1	1.12	+ 0.717	+ 0.11	0.24479	0.06243	1.37801	0.34211	53.594	852	V. 262	268	508	1885	33 Aurigæ	428
1848.1	2	1.11	+ 0.615	..	0.18276	0.06574	1.37800	0.34211	59.219	..	...	..	..	..	.....	429
1849.1	2	1.07	+ 0.615	..	0.18267	0.06629	1.37878	0.34214	59.135	..	...	..	..	..	.....	430
1851.6	4	1.06	+ 0.595	..	0.16373	0.06732	1.37889	0.34214	60.684	..	...	..	512	..	.....	431
1852.8	3	1.00	+ 0.641	+ 0.03	0.20359	0.06620	1.38015	0.34220	57.164	859	V. 269	270	514	1895	34 Aurigæ	432
1850.5	6	0.99	+ 0.542	0.00	0.09564	0.07132	1.38041	0.34220	65.594	862	V. 273	..	515	1896	139 Tauri	433
1852.6	7	0.92	+ 0.595	+ 0.11	0.16383	0.06904	1.38167	0.34220	60.367	863	V. 277	272	516	1900	37 Aurigæ	434
1851.4	3	0.91	+ 0.398	- 0.15	0.72776	0.08319	1.38180	0.34224	82.483	866	V. 281	273	517	1901	16 Leporis	435
1852.2	1	0.68	+ 0.310	+ 0.07	0.42853	0.08624	1.38597	0.34233	88.630	..	V. 297	274	519	1922	Columbæ	436
1852.1	6	0.65	+ 0.693	+ 0.04	0.23384	0.06991	1.38653	0.34233	53.590	864	V. 291	..	..	1924	35 Camelopardali	437
1851.1	2	0.51	+ 0.544	..	0.09809	0.07521	1.38925	0.34242	64.533	..	...	..	..	..	Rümker 1673	438
1851.4	3	0.48	+ 0.544	..	0.09854	0.07537	1.38962	0.34238	64.468	..	...	..	..	..	Rümker 1680	439
1851.1	2	0.44	+ 0.540	+ 0.12	0.09258	0.07573	1.39017	0.34238	64.834	..	V. 306	..	..	1937	Piazzi V. 306	440
1849.7	5	0.44	+ 0.532	+ 0.11	0.07784	0.07607	1.39029	0.34238	65.836	880	V. 307	276	521	1938	1 Geminorum	441
1852.2	3	0.27	+ 0.533	..	0.07951	0.07704	1.39272	0.34242	65.484	..	...	..	524	..	Lalande 11509	442
1848.1	4	0.24	+ 0.545	..	0.09847	0.07731	1.39387	0.34242	64.047	..	...	..	..	..	Rümker 1701	443
1853.1	3	0.20	+ 0.533	+ 0.05	0.08048	0.07771	1.39438	0.34242	65.257	884	V. 323	..	526	1951	2 Geminorum	444
1853.1	3	0.20	+ 0.546	..	0.10078	0.07787	1.39515	0.34242	63.752	..	...	..	..	..	Rümker 1705	445
1853.1	3	0.18	+ 0.546	..	0.10078	0.07787	1.39515	0.34242	63.752	..	...	..	..	..	Rümker 1707	446
1853.2	1	0.09	+ 0.499	+ 0.03	0.01515	0.07878	1.39645	0.34242	69.244	887	V. 332	278	527	1958	67 Orionis	447
1852.6	2	0.06	+ 0.531	..	0.07690	0.07880	1.39701	0.34242	65.247	..	...	..	..	..	.....	448
1849.1	4	0.01	+ 0.532	..	0.07744	0.07929	1.39819	0.34242	65.095	..	...	..	..	..	.....	449
1852.1	6	+ 0.05	+ 0.531	+ 0.02	0.07693	0.07957	1.39888	0.34242	65.065	891	V. 340	..	529	1971	3 Geminorum	450
1851.1	3	+ 0.14	+ 0.543	..	0.09639	0.08033	1.40046	0.34242	63.534	..	...	..	..	..	Lalande 11684	451
1852.1	4	0.21	+ 0.536	+ 0.08	0.08594	0.08071	1.40148	0.34242	64.179	896	V. 350	..	..	1981	5 Geminorum	452
1851.1	4	0.21	+ 0.543	..	0.09639	0.08091	1.40172	0.34242	63.406	..	...	..	..	..	Lalande 11714	453
1852.0	20	0.51	+ 0.529	+ 0.01	0.07282	0.08268	1.40670	0.34238	64.587	909	VI. 22	286	535	2002	7 Geminorum	455

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weiss's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(liv)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelanders*, or B.A.C., or Wesse.	Mean Right Ascension 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
456	71 Orionis	6.5*	6. 6. (o)	..	..	+3.536	-0.0007	-0.0002	0.07851	0.10400	1.45539	0.07896	84.054	70. 47. 52.03
457	Lalande 11854	8	6. 6. 8.93	1852.7	5.	3.705	-0.0009	..	0.07846	0.10509	1.45795	0.07888	83.782	64. 37. 37.57
458	Lalande 11946	9 $\frac{1}{2}$	6. 7. 38.84	1853.2	4	3.709	-0.0011	..	0.07827	0.10512	1.45802	0.07878	83.794	64. 27. 38.08
459	Lalande { 11976 }	9	6. 9. 29.88	1852.7	2	3.711	-0.0014	..	0.07806	0.10512	1.45803	0.07869	83.812	64. 24. 58.45
460	.....	..	6. 9. 53.74	1849.1	3.	3.639	-0.0014	..	0.07806	0.10462	1.45697	0.07875	83.929	66. 57.
461	.....	..	6. 9. 54.71	1851.2	1	+3.724	-0.0015	..	0.07801	0.10521	1.45823	0.07867	83.795	63. 57. 39.19
462	Lalande 11996	9	6. 10. 8.74	1852.8	3	3.715	-0.0015	..	0.07801	0.10515	1.45840	0.07867	83.786	64. 15. 42.31
463	Rümker 1809	..	6. 10. 36.44	1852.1	1	3.836	-0.0018	..	0.07787	0.10627	1.46022	0.07852	83.579	59. 34. 19.94
464	Columbae	4 $\frac{1}{2}$	6. 11. 12.97	1848.7	2	2.132	-0.0003	+0.001	0.07774	0.10768	1.43349	0.08001	85.448	125. 5. 38.19
465	W. B. VL. 334	9	6. 11. (20)	..	..	2.731	-0.0004	..	0.07796	0.10336	1.44296	0.07948	85.068	104. 16. 44.61
466	Lalande { 12041 }	8	6. 11. 18.30	1853.1	3	+3.713	-0.0017	..	0.07784	0.10513	1.45807	0.07860	83.831	64. 19. 55.24
467	.....	..	6. 11. 35.54	1851.7	4	3.716	-0.0017	..	0.07782	0.10515	1.45811	0.07859	83.828	64. 14. 15.44
468	13 Geminorum	3*	6. 13. 53.15	1850.4	78	3.626	-0.0018	+0.010	0.07760	0.10451	1.45676	0.07857	83.998	67. 24. 52.87
469	1 Canis Majoris	3.2*	6. 14. 33.47	1853.2	1	2.300	-0.0003	+0.004	0.07741	0.10613	1.43617	0.08007	85.380	119. 59. 58.02
470	Piazzi VI. 78	7	6. 15. 29.36	1853.2	2	3.696	-0.0022	+0.001	0.07738	0.10499	1.45782	0.07841	83.905	64. 52. 40.58
471	2 Canis Majoris	3.2*	6. 16. 5.85	1850.8	3	+2.640	-0.0004	+0.003	0.07740	0.10376	1.44154	0.07973	85.170	107. 53. 7.43
472	3 Canis Majoris	4*	6. 16. 37.95	1848.2	1	2.193	-0.0003	+0.004	0.07808	0.10708	1.43445	0.08033	85.444	123. 21. 46.22
473	Lalande 12237	9	6. 16. 50.62	1850.9	4	3.709	-0.0025	..	0.07726	0.10508	1.45802	0.07833	83.896	64. 24. 37.41
474	Lalande 12240	8	6. 16. 58.04	1850.2	2	3.712	-0.0025	..	0.07719	0.10509	1.45806	0.07832	83.898	64. 19.
475	Groombridge 1151 ...	6*	6. 17. 7.95	1849.2	3	9.398	-0.0551	..	0.07036	0.18253	1.53652	0.07055	71.857	11. 54.
476	15 Geminorum (1st Star)	8	6. 18. (50)	..	..	+3.579	-0.0023	..	0.07705	0.10418	1.45604	0.07842	84.128	69. 7. 53.85
477	15 Geminorum (2d Star)	6	6. 18. (50)	..	..	3.579	-0.0023	0.000	0.07705	0.10418	1.45604	0.07842	84.128	69. 7. 24.99
478	.....	6	6. 18. 56.40	1851.1	1	7.657	-0.0350	..	0.07197	0.15781	1.51398	0.07226	75.825	16. 12. 0.09
479	Lalande 12336	8 $\frac{1}{2}$	6. 19. 27.55	1851.2	1	3.712	-0.0029	..	0.07694	0.10508	1.45806	0.07822	83.923	64. 17. 31.33
480	.....	..	6. 19. 43.59	1852.2	1	3.698	-0.0029	..	0.07686	0.10496	1.45783	0.07820	83.957	64. 47. 36.01
481	.....	..	6. 19. 56.92	1852.7	2	+3.696	-0.0029	..	0.07686	0.10496	1.45783	0.07820	83.957	64. 51. 33.75
482	18 Geminorum	5.4*	6. 20. 3.44	1850.5	8	3.563	-0.0024	+0.003	0.07692	0.10408	1.45582	0.07739	84.232	69. 41. 53.40
483	Lalande 12360	9 $\frac{1}{2}$	6. 20. 21.10	1849.2	2	3.932	-0.0038	..	0.07666	0.10690	1.46138	0.07781	83.574	57. 7.
484	.....	8	6. 20. 48.83	1849.2	2	3.931	-0.0038	..	0.07661	0.10688	1.46136	0.07777	83.581	57. 9.
485	.....	..	6. 21. 5.98	1852.7	2	+3.699	-0.0031	..	0.07672	0.10496	1.45785	0.07814	83.970	64. 45. 35.04
486	Rümker 1881	..	6. 21. 10.45	1849.2	2	3.932	-0.0040	..	0.07656	0.10690	1.46139	0.07777	83.582	57. 6.
487	Lalande 12395	9	6. 21. 14.41	1853.2	1	3.714	-0.0031	..	0.07668	0.10508	1.45809	0.07810	83.948	64. 13. 21.66
488	.....	..	6. 21. 39.95	1853.0	2	3.706	-0.0031	..	0.07663	0.10501	1.45797	0.07809	83.966	64. 28. 45.58
489	Lalande { 12489 }	7	6. 23. 52.11	1850.2	3	3.939	-0.0045	..	0.07622	0.10694	1.46148	0.07756	83.610	56. 52.
490	Lalande 12554	8	6. 25. 47.97	1851.2	1	3.692	-0.0037	..	0.07617	0.10487	1.45775	0.07793	84.036	64. 58. 6.48

458, 483, 484. Of the 8.9th magnitude.

472. This star is designated by Lacaille as δ Columbae.

478. The R.A. differs more than 1' from the B.A.C.

484. The magnitude is taken from Rümker. This star is included in the additions to 6 $\frac{1}{2}$, which have been imperfectly observed in only one element.

487. Of the 9th magnitude.

461. This star is included in Bessel's Zone, No. 523.

475. The R.A. in the text, which, however, agrees with the Oxford Observations, differs nearly 1' from the B.A.C.

483. This star is also identical with Rümker 1875; the magnitude in that Catalogue being noted as of the 7th.

487. Of the 9th magnitude.

464. The designating letter is Lacaille's.

475. The R.A. in the text, which, however, agrees with the Oxford Observations, differs nearly 1' from the B.A.C.

483. This star is also identical with Rümker 1875; the magnitude in that Catalogue being noted as of the 7th.

487. Of the 9th magnitude.

Mean Year. 1850 1851 1852 1853 1854 1855 1856 1857 1858 1859 1860 1861 1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100	Number of Observations.	Annual Preces- sion in N.P.D. for 1850 from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of P	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.	
					e'	f'	g'	h'									
1849.1	8	+	0.53	+ 0.516	+ 0.26	0.04883	0.08229	1.40698	0.34238	66.183	911	VI. 23	..	536	2004	71 Orionis.	456
1852.8	5		0.54	+ 0.540	..	0.09213	0.08338	1.40732	0.34233	63.156	..	...	..	..	..	Lalande 11854	457
1853.2	4		0.67	+ 0.541	..	0.09332	0.08438	1.40945	0.34233	62.852	..	...	..	..	..	Lalande 11946	458
1852.7	2		0.83	+ 0.541	..	0.09339	0.08565	1.41223	0.34224	62.571	..	...	..	..	..	Lalande { 11976 } ...	459
..	..		0.87	+ 0.530	..	0.07631	0.08512	1.41238	0.34224	63.793	..	...	..	543	..	.....	460
1851.2	1	+	0.87	+ 0.543	..	0.09635	0.08605	1.41288	0.34224	62.285	..	...	..	..	..	.....	461
1852.6	4		0.89	+ 0.541	..	0.09433	0.08614	1.41322	0.34224	62.399	..	...	..	..	..	Lalande 11996	462
1852.1	1		0.93	+ 0.562	..	0.12441	0.08762	1.41382	0.34220	60.030	..	...	..	..	..	Rümker 1809	463
1848.2	1		0.98	+ 0.311	+ 0.03	9.43233	0.06888	1.41466	0.34220	87.789	..	VI. 65	289	547	2034	Columbæ	464
1849.9	1		0.99	+ 0.398	..	9.72665	0.07478	1.41470	0.34220	80.829	..	...	..	..	..	W. B. VI. 334	465
1853.1	3	+	0.99	+ 0.541	..	0.09402	0.08698	1.41509	0.34220	62.232	..	...	..	..	..	Lalande { 12041 } ...	466
1852.2	3		1.01	+ 0.541	..	0.09454	0.08712	1.41530	0.34215	62.180	..	...	..	..	..	.....	467
1850.4	80		1.21	+ 0.528	+ 0.13	0.07284	0.08752	1.41852	0.34206	63.445	929	VI. 74	291	550	2047	13 Geminorum.	468
1853.2	1		1.27	+ 0.335	+ 0.03	9.51218	0.06753	1.41951	0.34202	86.186	933	VI. 81	292	..	2051	1 Canis Majoris	469
1853.2	2		1.35	+ 0.538	+ 0.10	0.09015	0.08943	1.42085	0.34197	61.949	..	VI. 78	..	..	2058	Piazzi VI. 78	470
1850.9	5	+	1.41	+ 0.384	0.00	9.68174	0.07130	1.42172	0.34193	81.900	936	VI. 92	293	552	2061	2 Canis Majoris	471
1849.9	1		1.45	+ 0.319	+ 0.09	9.46096	0.06453	1.42250	0.34193	87.086	939	VI. 95	294	553	2066	3 Canis Majoris	472
1851.6	2		1.47	+ 0.540	..	0.09321	0.09051	1.42278	0.34189	61.523	..	...	..	..	..	Lalande 12237	473
..	..		1.48	+ 0.540	..	0.09377	0.09066	1.42303	0.34188	61.457	..	...	..	..	..	Lalande 12240	474
..	..		1.50	+ 1.367	..	0.31939	0.10483	1.42319	0.34188	39.288	..	...	..	551	2069	Groombridge 1151 ...	475
1849.2	3	+	1.65	+ 0.520	..	0.06061	0.08964	1.42564	0.34175	63.634	..	VI. 99	..	554	..	15 Geminorum (1st Star)	476
1849.2	3		1.65	+ 0.520	+ 0.04	0.06061	0.08964	1.42564	0.34175	63.634	940	VI. 100	..	555	2080	15 Geminorum (2d Star)	477
1850.3	6		1.66	+ 1.113	..	0.30877	0.10700	1.42583	0.34175	40.212	..	...	..	..	2083	.....	478
1851.2	1		1.70	+ 0.539	..	0.09388	0.09231	1.42654	0.34170	61.094	..	...	..	..	..	Lalande 12336	479
1852.2	1		1.73	+ 0.537	..	0.09040	0.09230	1.42705	0.34170	61.305	..	...	..	..	..	.....	480
1852.7	2	+	1.74	+ 0.537	..	0.08994	0.09237	1.42729	0.34166	61.320	..	...	..	..	..	.....	481
1853.0	3		1.75	+ 0.518	+ 0.03	0.05638	0.09000	1.42737	0.34166	63.771	942	VI. 109	296	560	2090	18 Geminorum	482
..	..		1.78	+ 0.571	..	0.13862	0.09609	1.42751	0.34167	57.390	..	...	..	563	..	Lalande 12360	483
..	..		1.82	+ 0.571	..	0.13862	0.09609	1.42751	0.34167	57.390	..	...	..	564	..	.....	484
1852.7	2		1.84	+ 0.537	..	0.09054	0.09319	1.42894	0.34161	61.105	..	...	..	..	..	.....	485
..	..	+	1.85	+ 0.571	..	0.13884	0.09679	1.42866	0.34160	57.246	..	...	..	565	..	Rümker 1881	486
1852.1	2		1.86	+ 0.539	..	0.09419	0.09349	1.42899	0.34161	60.820	..	...	..	..	..	Lalande 12395	487
1853.0	2		1.89	+ 0.538	..	0.09251	0.09378	1.42988	0.34152	60.863	..	...	..	..	..	.....	488
..	..		2.08	+ 0.572	..	0.13994	0.09911	1.43244	0.34137	56.739	..	...	..	570	..	Lalande { 12489 } ...	489
1851.2	1		2.25	+ 0.535	..	0.08892	0.09609	1.43553	0.34115	60.578	..	...	..	..	..	Lalande 12554	490

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars: from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(lvi)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Weiss.	Mean Right	Mean	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
			Ascension 1850, Jan. 1.						Year.	c	f	g		
			^h ^m ^s			^s	^s	^s					^s	[°] ['] ["]
491	Lalande 12557	9	6. 25. 50.33	1851.2	1	+3.684	-0.0037	..	0.07617	0.10481	1.45763	0.07794	84.048	65. 15. 18.07
492	.....	..	6. 27. 3.38	1853.0	1	3.997	-0.0035	..	0.07567	0.10744	1.46234	0.07718	83.568	55. 6. 44.50
493	Piazzi VI. 157	7.8	6. 27. 11.99	1850.2	3	3.466	-0.0029	..	0.07620	0.10349	1.45432	0.07833	84.378	73. 26. 19.36
494	Rümker 1926	7	6. 27. 22.62	1853.2	3	3.988	-0.0034	..	0.07572	0.10737	1.46222	0.07724	83.574	55. 21. 28.11
495	.....	..	6. 27. 24.78	1852.0	1	3.677	-0.0039	..	0.07600	0.10475	1.45753	0.07786	84.079	65. 27. 13.30
496	.....	..	6. 27. 56.36	1852.0	1	+3.676	-0.0039	..	0.07593	0.10474	1.45752	0.07784	84.087	65. 28. 57.74
497	Piazzi VI. 165	6½	6. 28. 15.60	1851.1	1	3.681	-0.0039	+0.011	0.07591	0.10477	1.45760	0.07783	84.079	65. 17. 24.57
498	Cephei 51 (Hevel.)...	5*	6. 28. 32.88	1850.4	50	30.750	-1.4765	-0.027	0.01146	0.41189	1.74628	0.01155	27.213	2. 44. 38.18
499	24 Geminorum	2.3*	6. 29. 2.78	1851.5	13	3.464	-0.0031	+0.005	0.07599	0.10346	1.45430	0.07827	84.400	73. 28. 39.88
500	Rümker 1942	..	6. 29. 36.70	1850.7	5	3.984	-0.0038	..	0.07543	0.10731	1.46216	0.07704	83.618	55. 26. 16.11
501	6 Canis Majoris	6½	6. 29. 48.72	1851.1	1	+2.626	-0.0008	+0.002	0.07587	0.10371	1.44132	0.08023	85.262	108. 32. 25.38
502	12 Lynceis	5*	6. 32. 58.25	1849.1	3	5.325	-0.0198	-0.022	0.07229	0.12396	1.48179	0.07325	81.232	30. 25.
503	Piazzi VI. 203	6	6. 33. 22.48	1852.1	2	3.085	-0.0019	-0.007	0.07566	0.10243	1.44848	0.07914	84.893	89. 22.
504	Lalande 12828	7	6. 33. (50)	..	..	4.377	-0.0098	..	0.07422	0.11150	1.46801	0.07569	83.010	45. 21. 5.56
505	27 Geminorum	3.4*	6. 34. 42.11	1852.4	8	3.695	-0.0050	+0.005	0.07514	0.10479	1.45781	0.07746	84.140	64. 43. 32.11
506	Oeltz. Arg. 7190	8.9	6. 34. 44.49	1851.2	1	+4.619	-0.0126	..	0.07352	0.11445	1.47157	0.07488	82.605	40. 28. 43.77
507	42 Camelopardali	5*	6. 35. 17.42	1849.1	3	6.296	-0.0366	+0.006	0.06931	0.13793	1.49550	0.07005	79.396	22. 16. 19.31
508	Piazzi VI. 201	5.4*	6. 38. 6.95	1850.1	3	8.854	-0.1054	+0.014	0.06082	0.17485	1.52961	0.06130	74.434	12. 50. 40.09
509	9 Canis Majoris	1*	6. 38. 32.34	1850.4	146	2.680	-0.0010	-0.034	0.07495	0.10331	1.44216	0.08038	85.279	106. 30. 49.54
510	14 Lynceis	6*	6. 39. (50)	..	..	5.317	-0.0240	-0.001	0.07085	0.12380	1.48169	0.07200	81.435	30. 22. 51.91
511	.....	..	6. 40. 30.29	1849.1	2	+3.994	-0.0081	..	0.07402	0.10728	1.46231	0.07622	83.760	54. 57.
512	Lalande { 13136 } ...	8½	6. 42. (20)	..	..	3.963	-0.0082	..	0.07385	0.10688	1.46174	0.07621	83.847	56. 2. 6.72
513	34 Geminorum	3.4*	6. 42. 53.85	1851.5	7	3.961	-0.0084	+0.002	0.07372	0.10692	1.46181	0.07613	83.853	55. 51. 48.88
514	Lalande 13153	7½	6. 43. 19.94	1848.1	1	4.385	-0.0152	..	0.07223	0.11393	1.47108	0.07394	82.834	40. 55.
515	13 Canis Majoris	4*	6. 44. 14.27	1851.7	5	2.240	-0.0008	+0.002	0.07367	0.10634	1.43521	0.08204	85.557	122. 20. 17.68
516	38 Geminorum	5*	6. 46. 10.97	1852.1	3	+3.382	-0.0045	+0.005	0.07419	0.10282	1.45304	0.07804	84.686	76. 38.
517	14 Canis Majoris	4.5*	6. 47. 13.27	1852.1	9	2.796	-0.0015	-0.005	0.07411	0.10267	1.44398	0.08022	85.254	101. 51. 17.24
518	16 Canis Majoris	5*	6. 47. 54.46	1852.2	6	2.488	-0.0010	+0.004	0.07367	0.10428	1.43915	0.08141	85.453	114. 0. 0.49
519	18 Canis Majoris	5*	6. 49. 14.20	1851.7	5	2.749	-0.0015	+0.005	0.07387	0.10280	1.44324	0.08044	85.303	103. 51. 11.62
520	20 Canis Majoris	5.4*	6. 49. 26.84	1852.1	3	2.675	-0.0013	+0.001	0.07375	0.10313	1.44209	0.08076	85.353	106. 51. 49.41
521	Piazzi VI. 294	7	6. 51. 13.54	1852.2	2	+3.448	-0.0052	+0.007	0.07358	0.10301	1.45405	0.07764	84.661	73. 52.
522	21 Canis Majoris	2.1*	6. 52. 43.92	1850.1	48	2.356	-0.0009	+0.004	0.07286	0.10519	1.43705	0.08219	85.545	118. 46. 16.33
523	.....	..	6. 53. 8.22	1850.2	1	3.707	-0.0076	..	0.07300	0.10457	1.45800	0.07648	84.355	63. 56.
524	Piazzi VI. 301 (1st star)	6	6. 53. 43.45	1850.2	1	4.795	-0.0225	+0.004	0.06978	0.11651	1.47415	0.07168	82.709	37. 1.
525	{ Piazzi VI. 301 (as one mass) }	6	6. 53. 43.46	1850.2	2	4.795	-0.0225	+0.004	0.06978	0.11651	1.47415	0.07168	82.709	37. 1.

493. The magnitude is taken from Piazzi.

506. The magnitude is taken from Oeltzen's Argelander.

494. The magnitude is taken from Rümker.

511. Of the 9th magnitude.

500. Of the 9.10th magnitude.

523. Of the 8th magnitude.

1856G0AMM...165...1A

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1851.2	1	+	2.26	+ 0.534	..	0.08700	0.09594	1.43555	0.34115	60.721	..	...	..	..	Lalande 12557	491
1853.0	1		2.36	+ 0.576	..	0.14987	0.10314	1.43753	0.34102	55.309	..	...	..	..	.....	492
1849.1	2		2.37	+ 0.502	..	0.02816	0.09119	1.43718	0.34106	64.819	..	VI. 157	..	..	Piazzi VI. 157.....	493
1852.2	4		2.39	+ 0.578	..	0.14845	0.10272	1.43707	0.34106	55.485	..	...	..	..	Rümker 1926	494
1852.0	1		2.39	+ 0.533	..	0.08551	0.09692	1.43799	0.34097	60.596	..	...	..	..	.....	495
1852.0	1	+	2.44	+ 0.532	..	0.08525	0.09711	1.43845	0.34097	60.563	..	...	..	..	.....	496
1851.1	1		2.47	+ 0.533	+ 0.10	0.08658	0.09740	1.43881	0.34093	60.429	..	VI. 165	..	..	Piazzi VI. 165.....	497
1851.2	66		2.50	+ 4.450	+ 0.08	0.33652	0.12198	1.43926	0.34088	34.836	..	VI. 21	295	575	Cephei 51 (Hevelii)...	498
1851.0	12		2.54	+ 0.501	+ 0.02	0.02780	0.09200	1.43989	0.34084	64.606	969	VI. 169	300	579	24 Geminorum.....	499
1853.2	2		2.59	+ 0.576	..	0.14774	0.10469	1.44037	0.34080	55.181	..	...	..	580	Rümker 1942	500
1851.1	1	+	2.60	+ 0.380	- 0.05	9.67506	0.06398	1.44094	0.34075	81.291	975	VI. 179	..	..	6 Canis Majoris.....	501
...	..		2.87	+ 0.769	+ 0.03	0.26337	0.12175	1.44520	0.34039	42.872	971	VI. 185	..	583	12 Lynceis	502
...	..		2.91	+ 0.445	+ 0.07	9.89044	0.07976	1.44576	0.34034	72.305	..	VI. 203	..	..	Piazzi VI. 203	503
1850.1	2		2.95	+ 0.632	..	0.20044	0.11471	1.44591	0.34030	49.545	..	...	..	585	Lalande 12828	504
1852.1	7		3.03	+ 0.533	+ 0.02	0.08980	0.10189	1.44755	0.34016	59.303	983	VI. 204	307	587	27 Geminorum	505
1851.2	1	+	3.03	+ 0.666	..	0.22280	0.11899	1.44772	0.34016	47.007	..	...	..	..	Oeltz. Arg. 7190.....	506
1849.2	13		3.08	+ 0.907	- 0.01	0.29005	0.12772	1.44833	0.34007	39.307	974	VI. 194	306	588	42 Camelopardali.....	507
1848.5	16		3.32	+ 1.273	+ 0.03	0.31492	0.13398	1.45208	0.33971	35.699	..	VI. 201	309	..	Piazzi VI. 201.....	508
1850.8	120		3.36	+ 0.385	+ 1.14	9.70203	0.06163	1.45266	0.33962	79.926	994	VI. 227	312	592	9 Canis Majoris.....	509
1849.1	2		3.47	+ 0.764	+ 0.04	0.26251	0.13007	1.45436	0.33943	41.730	988	VI. 222	..	594	14 Lynceis	510
...	..	+	3.53	+ 0.574	..	0.14894	0.11406	1.45497	0.33937	53.438	..	...	..	597	.....	511
1850.1	2		3.69	+ 0.568	..	0.14283	0.11458	1.45724	0.33912	53.745	..	...	..	602	Lalande { 13136 } { 13137 }...	512
1851.7	9		3.73	+ 0.568	+ 0.05	0.14370	0.11541	1.45836	0.33898	53.541	1003	VI. 248	315	604	34 Geminorum	513
...	..		3.77	+ 0.657	..	0.21958	0.12755	1.45867	0.33892	45.956	..	...	..	606	Lalande 13153.....	514
1851.1	7		3.85	+ 0.321	+ 0.01	9.48903	0.04036	1.46011	0.33876	85.701	1008	VI. 259	317	609	13 Canis Majoris.....	515
...	..	+	4.01	+ 0.483	+ 0.06	0.00187	0.09561	1.46262	0.33840	64.424	1009	VI. 266	..	..	38 Geminorum.....	516
1852.2	10		4.10	+ 0.399	+ 0.04	9.75910	0.06368	1.46393	0.33822	77.303	1011	VI. 274	319	..	14 Canis Majoris.....	517
1851.7	8		4.16	+ 0.355	- 0.01	9.60817	0.04751	1.46482	0.33809	82.519	1014	VI. 279	320	..	16 Canis Majoris.....	518
1851.8	5		4.28	+ 0.392	0.00	9.73620	0.06030	1.46651	0.33787	78.099	1017	VI. 286	..	..	18 Canis Majoris.....	519
1852.1	3		4.29	+ 0.381	- 0.01	9.70008	0.05610	1.46677	0.33782	79.449	1019	VI. 289	321	..	20 Canis Majoris.....	520
...	..	+	4.45	+ 0.490	+ 0.04	0.02292	0.10094	1.46902	0.33751	62.388	..	VI. 294	..	..	Piazzi VI. 294.....	521
1850.5	39		4.57	+ 0.335	- 0.01	9.54532	0.03752	1.47091	0.33719	84.139	1023	VI. 304	322	614	21 Canis Majoris	522
...	..		4.61	+ 0.527	..	0.09279	0.11409	1.47102	0.33719	56.695	..	...	..	615	.....	523
...	..		4.66	+ 0.680	+ 0.02	0.23435	0.14159	1.47216	0.33701	42.571	..	{ VI. 301 (1st Star) }	..	619	Piazzi VI. 301 (1st Star)	524
...	..		4.66	+ 0.680	+ 0.02	0.23435	0.14159	1.47216	0.33701	42.571	..	VI. 301	..	620	Piazzi VI. 301 (as one mass).....	525

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(lviii)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelanders*, or B.A.C., or Weiss.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									c	f	g	h		
526	Piazzi VI. 301 (2d Star)	6	6. 53. 43.68	1850.2	1	+4.795	-0.0225	+0.004	0.06978	0.11651	1.47415	0.07168	82.709	37. 1.
527	Lacaille 2570	6½	6. 54. 56.04	1851.2	1	2.465	-0.0010	..	0.07284	0.10431	1.43878	0.08183	85.506	115. 0. 24.63
528	Piazzi VI. 311	8.9	6. 55. (10.)	..	..	3.563	-0.0065	..	0.07299	0.10355	1.45582	0.07699	84.568	69. 11. 20.23
529	43 Geminorum	4*	6. 55. 12.60	1852.0	12	3.563	-0.0065	+0.004	0.07298	0.10354	1.45582	0.07699	84.568	69. 12. 52.96
530	22 Canis Majoris	5.4*	6. 55. 44.61	1851.1	7	2.389	-0.0010	+0.002	0.07256	0.10486	1.43757	0.08222	85.550	117. 43. 24.66
531	17 Lynceis	6	6. 56. 10.39	1849.2	3	+5.413	-0.0361	+0.003	0.06691	0.12500	1.48305	0.06847	81.734	28. 59.
532	24 Canis Majoris	3.4*	6. 56. 45.63	1852.2	3	2.504	-0.0011	+0.003	0.07267	0.10399	1.43939	0.08176	85.498	113. 37. 3.81
533	23 Canis Majoris	4.5*	6. 56. 58.35	1851.0	7	2.713	-0.0015	+0.005	0.07298	0.10279	1.44269	0.08082	85.379	105. 24. 55.57
534	Piazzi VI. 292	5*	6. 59. (10.)	..	..	13.137	-0.4520	+0.009	0.02787	0.23199	1.58135	0.02831	68.243	7. 19. 1.44
535	45 Geminorum	6*	6. 59. 45.83	1852.1	2	3.445	-0.0060	+0.002	0.07265	0.10280	1.45400	0.07736	84.762	73. 50.
536	.....	..	7. 0. 0.51	1848.1	2	+4.094	-0.0134	..	0.07115	0.10793	1.46379	0.07422	83.925	51. 38. 5.86
537	Lalande 13792	7½	7. 0. (20.)	..	..	3.700	-0.0085	..	0.07217	0.10436	1.45789	0.07612	84.459	64. 1. 48.99
538	Lalande 13797	8	7. 0. (30.)	..	..	3.700	-0.0086	..	0.07215	0.10435	1.45788	0.07612	84.463	64. 1. 46.79
539	46 Geminorum	5.4*	7. 1. 35.32	1852.2	4	3.829	-0.0103	+0.002	0.07168	0.10537	1.45983	0.07540	84.314	59. 30. 51.16
540	.....	..	7. 1. 50.01	1851.2	6	3.529	-0.0071	..	0.07223	0.10316	1.45527	0.07687	84.699	70. 27. 5.54
541	.....	..	7. 1. 51.46	1850.9	7	+3.529	-0.0071	..	0.07230	0.10318	1.45528	0.07689	84.692	70. 25. 58.65
542	25 Canis Majoris	2*	7. 2. 17.64	1852.3	8	2.438	-0.0011	+0.003	0.07190	0.10433	1.43835	0.08235	85.566	116. 9. 30.01
543	18 Lynceis	6*	7. 2. (50.)	..	..	5.291	-0.0375	-0.014	0.06596	0.12319	1.48131	0.06777	82.128	30. 6. 9.80
544	.....	..	7. 3. 4.55	1849.6	4	3.528	-0.0072	..	0.07218	0.10315	1.45527	0.07685	84.706	70. 26.
545	51 Geminorum	6*	7. 4. 45.32	1849.3	7	3.449	-0.0066	+0.005	0.07211	0.10269	1.45406	0.07720	84.815	73. 35. 28.84
546	Piazzi VI. 334	6	7. 7. 5.75	1848.1	1	+11.327	-0.3577	..	0.03123	0.20860	1.56022	0.03182	72.228	8. 48. 53.27
547	Lalande 14047	8	7. 7. 13.77	1849.1	3	4.191	-0.0166	..	0.06982	0.10886	1.46526	0.07305	83.909	48. 48.
548	54 Geminorum	4.3*	7. 9. 28.16	1848.2	4	3.456	-0.0070	+0.002	0.07159	0.10259	1.45418	0.07699	84.862	73. 12.
549	W. B. VII. 302	9	7. 9. 55.94	1853.2	2	3.335	-0.0059	..	0.07169	0.10206	1.45231	0.07767	84.993	78. 18. 35.19
550	W. B. VII. 306	9	7. 10. 6.22	1853.2	1	3.335	-0.0059	..	0.07168	0.10206	1.45235	0.07765	84.993	78. 12. 52.14
551	Lalande 14177	8	7. 10. 25.75	1849.2	1	+3.593	-0.0087	..	0.07126	0.10337	1.45627	0.07620	84.717	67. 42.
552	55 Geminorum	3.4*	7. 11. 9.66	1850.8	97	3.592	-0.0088	+0.005	0.07113	0.10333	1.45624	0.07615	84.735	67. 44. 47.07
553	Argus	3	7. 11. 50.70	1850.2	1	2.118	-0.0012	+0.023	0.06978	0.10695	1.43326	0.08472	85.734	126. 50.
554	59 Geminorum	6½	7. 15. 13.14	1849.1	5	3.741	-0.0113	+0.003	0.07028	0.10429	1.45850	0.07504	84.619	62. 5.
555	Piazzi VII. 67	6*	7. 15. 13.56	1849.2	3	6.328	-0.0812	-0.010	0.05717	0.13805	1.49592	0.05869	80.919	21. 14. 11.13
556	60 Geminorum	4*	7. 16. 24.33	1852.2	7	+3.745	-0.0116	-0.003	0.07014	0.10428	1.45855	0.07495	84.631	61. 54. 32.16
557	Oeltz. Arg. 7903	9	7. 17. 8.91	1849.2	2	4.495	-0.0254	..	0.06700	0.11223	1.46973	0.07010	83.687	41. 33.
558	Lalande 14381	8	7. 17. 10.95	1849.2	3	4.491	-0.0254	..	0.06706	0.11220	1.46970	0.07016	83.683	41. 39.
559	31 Canis Majoris	3.2*	7. 18. 9.82	1851.9	6	2.372	-0.0011	0.000	0.06985	0.10443	1.43731	0.08363	85.686	119. 0. 48.94
560	3 Canis Minoris	3*	7. 19. 0.85	1851.9	16	3.261	-0.0058	0.000	0.07085	0.10157	1.45118	0.07795	85.155	81. 24. 46.00

527. The magnitude is taken from Lacaille.

529. A variable star, of 10 days' period, with a magnitude varying from 3.7 to 4.3.

540, 541. Of the 8.9th magnitude.

546. The R.A. of this star differs four seconds from the B.A.C. It appears to have been brought up incorrectly in that Catalogue, and in consequence, the proper motion is rejected.

547. Of the 7.8th magnitude.

557. The magnitude is taken from Oeltzen's Argelander.

528. The magnitude is taken from Piazzi.

537, 538. Lalande's observations appear to be in error 30", or one interval of wires.

544. Of the 9.10th magnitude.

558. Of the 9th magnitude.

185600AM...166...1A

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Poud's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
..	..	+ 4'66	+ 0'680	+ 0'02	0'23435	0'14159	1'47216	0'33701	42'571	..	{ VI. 301 2d Star }	..	621	2300	Piazzi VI. 301 (2d Star)	526
1851'2	1	4'76	+ 0'349	..	9'59759	0'04141	1'47338	0'33679	82'619	..	..	..	623	..	Lacaille 2570	527
1849'2	2	4'78	+ 0'505	..	0'05668	0'10866	1'47357	0'33674	59'416	..	VI. 311	..	625	..	Piazzi VI. 311	528
1852'9	18	4'79	+ 0'505	+ 0'01	0'05649	0'10879	1'47400	0'33670	59'388	1024	VI. 312	323	626	2305	43 Geminorum	529
1852'7	4	4'83	+ 0'338	+ 0'01	9'56158	0'03661	1'47466	0'33656	83'632	1027	VI. 320	325	627	2309	22 Canis Majoris	530
..	..	+ 4'87	+ 0'766	+ 0'04	0'26448	0'14992	1'47518	0'33647	38'639	1022	VI. 308	..	628	2312	17 Lynceis	531
1853'2	2	4'92	+ 0'354	- 0'01	9'61704	0'04209	1'47592	0'33634	81'970	1029	VI. 323	326	..	2318	24 Canis Majoris	532
1850'9	8	4'93	+ 0'384	+ 0'03	9'71927	0'05484	1'47616	0'33629	78'387	1028	VI. 325	327	..	2319	23 Canis Majoris	533
1849'2	5	5'12	+ 1'852	+ 0'02	0'32297	0'16238	1'47891	0'33580	30'758	..	VI. 292	324	629	2326	Piazzi VI. 292	534
..	..	5'17	+ 0'485	+ 0'07	0'02209	0'10441	1'47958	0'33571	61'541	1030	VI. 333	..	..	2330	45 Geminorum	535
1848'2	2	+ 5'19	+ 0'577	..	0'16411	0'13368	1'47977	0'33566	49'138	..	..	..	..	..	.....	536
1849'2	2	5'18	+ 0'521	..	0'09093	0'11844	1'47996	0'33563	55'957	..	..	..	631	..	Lalande 13792	537
1849'2	2	5'23	+ 0'521	..	0'09093	0'11851	1'48010	0'33563	55'939	..	..	..	632	..	Lalande 13797	538
1852'2	5	5'33	+ 0'538	+ 0'06	0'11896	0'12539	1'48179	0'33527	53'263	1033	VI. 341	329	638	2340	46 Geminorum	539
1852'5	3	5'35	+ 0'496	..	0'04677	0'11034	1'48210	0'33522	59'416	..	..	..	643	..	.....	540
1852'5	3	+ 5'35	+ 0'496	..	0'04677	0'11034	1'48210	0'33522	59'416	..	..	..	644	..	.....	541
1851'4	13	5'38	+ 0'343	- 0'02	9'58643	0'03409	1'48265	0'33513	82'767	1042	VII. 2	330	641	2345	25 Canis Majoris	542
1849'3	13	5'43	+ 0'743	+ 0'33	0'25892	0'15656	1'48325	0'33500	38'189	1031	VI. 340	..	642	2349	18 Lynceis	543
..	..	5'45	+ 0'496	..	0'04657	0'11089	1'48350	0'33495	59'303	..	..	..	..	..	.....	544
1852'1	2	5'59	+ 0'483	- 0'01	0'02325	0'10679	1'48559	0'33451	60'940	1046	VII. 17	332	647	2362	51 Geminorum	545
1852'1	2	+ 5'78	+ 1'582	- 0'03	0'31799	0'17170	1'48830	0'33398	30'006	..	VI. 334	..	651	2377	Piazzi VI. 334	546
..	..	5'81	+ 0'585	..	0'17733	0'14302	1'48832	0'33393	46'767	..	..	..	652	..	Lalande 14047	547
..	..	5'99	+ 0'481	0'00	0'02554	0'10935	1'49118	0'33332	60'285	1058	VII. 50	335	659	2398	54 Geminorum	548
1853'1	2	6'03	+ 0'464	..	9'98601	0'10070	1'49180	0'33318	63'189	..	..	..	..	..	W. B. VII. 302	549
1853'2	1	6'04	+ 0'464	..	9'98664	0'10095	1'49218	0'33310	63'113	..	..	..	..	..	W. B. VII. 306	550
..	..	+ 6'07	+ 0'500	..	0'06446	0'11883	1'49222	0'33309	57'027	..	..	..	..	..	Lalande 14177	551
1850'9	87	6'13	+ 0'499	+ 0'01	0'06411	0'11917	1'49315	0'33287	56'974	1062	VII. 57	337	661	2410	55 Geminorum	552
..	..	6'19	+ 0'294	- 0'02	9'45104	0'00652	1'49394	0'33269	86'357	..	VII. 68	..	..	2414	Argus	553
..	..	6'47	+ 0'517	- 0'02	0'10032	0'13064	1'49781	0'33177	53'307	1071	VII. 83	..	663	2440	59 Geminorum	554
1848'9	5	6'46	+ 0'874	+ 0'07	0'28445	0'17623	1'49781	0'33177	32'938	..	VII. 67	340	662	2439	Piazzi VII. 67	555
1852'0	11	+ 6'56	+ 0'516	+ 0'09	0'10114	0'13165	1'49918	0'33142	53'092	1072	VII. 90	341	664	2442	60 Geminorum	556
..	..	6'63	+ 0'618	..	0'20911	0'16054	1'50004	0'33120	41'808	..	..	..	667	..	Oeltz. Arg. 7903	557
..	..	6'63	+ 0'618	..	0'20879	0'16025	1'49979	0'33126	41'877	..	..	..	668	..	Lalande 14381	558
1851'9	6	6'71	+ 0'326	+ 0'01	9'56045	0'01610	1'50117	0'33089	83'361	1081	VII. 104	342	671	2458	31 Canis Majoris	559
1851'8	16	6'78	+ 0'448	+ 0'05	9'95971	0'09707	1'50213	0'33067	64'288	1079	VII. 106	344	..	2462	3 Canis Minoris	560

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Piazzi, or B.A.C., or Wessel.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Preces- sion in R.A., for 1850, from Bessel's Elements.	Secular Variation of Precession in .	Annual Proper Motion in R.A., from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									c	f	g	h		
561	Lalande 14458.....	8½	7. 19. (20.)	..	..	+3.859	-0.0138	..	0.06942	0.10524	1.46038	0.07400	84.529	57. 42. 48.12
562	62 Geminorum.....?	5*	7. 19. (30.)	..	..	3.859	-0.0138	+0.012	0.06940	0.10517	1.46027	0.07402	84.542	57. 55. 22.07
563	66 Geminorum.....α¹	2.1*	7. 25. 0.93	1850.2	2	3.856	-0.0147	-0.008	0.06872	0.10497	1.46023	0.07363	84.633	57. 47. 18.66
564	66 Geminorum.....α²	2.1*	7. 25. 1.31	1850.5	105	3.856	-0.0147	-0.008	0.06872	0.10497	1.46023	0.07363	84.633	57. 47. 16.60
565	68 Geminorum.....	6.5*	7. 25. 2.64	1849.1	5	3.431	-0.0083	+0.002	0.06997	0.10198	1.45380	0.07664	85.070	73. 51. 19.17
566	W. B. VII. 898.....	9	7. 29. 4.03	1852.1	2	+3.303	-0.0070	..	0.06978	0.10134	1.45184	0.07745	85.228	79. 21. 58.92
567	10 Canis Minoris.....α	1*	7. 31. 26.92	1850.6	166	3.192	-0.0059	-0.047	0.06967	0.10097	1.45012	0.07825	85.340	84. 23. 40.06
568	49 Camelopardali.....	5½	7. 32. 50.65	1849.2	3	5.502	-0.0648	-0.005	0.05759	0.12575	1.48433	0.05994	82.757	26. 49.
569	.....	..	7. 35. 3.43	1852.1	1	3.294	-0.0074	..	0.06918	0.10106	1.45168	0.07740	85.304	79. 41. 19.32
570	77 Geminorum.....κ	4.3*	7. 35. 23.20	1850.2	9	3.634	-0.0124	0.000	0.06830	0.10282	1.45688	0.07467	85.013	65. 14. 49.75
571	78 Geminorum.....β	1.2*	7. 36. 7.85	1850.5	153	+3.730	-0.0142	-0.048	0.06788	0.10353	1.45834	0.07384	84.932	61. 36. 58.23
572	3 Navis.....τ	4*	7. 37. (50.)	..	..	2.407	-0.0011	+0.002	0.06766	0.10350	1.45787	0.08459	85.792	118. 35. 56.19
573	82 Geminorum.....	7	7. 39. 35.18	1852.2	8	3.598	-0.0123	+0.002	0.06795	0.10242	1.45634	0.07474	85.104	66. 29. 33.60
574	Groombridge 1374 ..	6.5*	7. 42. 8.23	1851.2	1	7.365	-0.1790	..	0.03892	0.15303	1.51009	0.04049	80.813	15. 41. 27.63
575	Bradley 1130.....	6½	7. 42. 43.89	1853.2	1	2.521	-0.0013	..	0.06753	0.10245	1.43966	0.08392	85.789	114. 32. 26.67
576	7 Navis.....ξ	4.3*	7. 42. 59.11	1852.0	12	+2.522	-0.0012	+0.005	0.06750	0.10243	1.43968	0.08392	85.791	114. 29. 12.19
577	26 Lynceis.....	6*	7. 43. (50.)	..	..	4.403	-0.0322	-0.005	0.06313	0.11042	1.46840	0.06731	84.377	42. 3. 8.38
578	84 Geminorum.....	6½	7. 44. 6.09	1852.2	4	3.574	-0.0124	+0.004	0.06755	0.10207	1.45596	0.07473	85.187	67. 17. 5.44
579	83 Geminorum.....φ	5*	7. 44. 18.71	1853.2	5	3.686	-0.0146	+0.002	0.06709	0.10288	1.45768	0.07371	85.092	62. 51. 2.97
580	.....	..	7. 45. 1.74	1853.1	1	3.400	-0.0100	..	0.06788	0.10119	1.45375	0.07599	85.316	73. 24. 51.38
581	Piazzi VII. 249.....	6	7. 47. 22.35	1852.2	4	+3.265	-0.0077	-0.002	0.06801	0.10046	1.45125	0.07740	85.460	80. 44. 35.70
582	11 Navis.....ε	5.4*	7. 50. 24.62	1849.2	3	2.580	-0.0015	+0.003	0.06691	0.10173	1.44060	0.08379	85.821	112. 29.
583	Oeltz. Arg. 8510....	7	7. 51. 57.07	1850.2	3	4.647	-0.0433	..	0.05985	0.11334	1.47198	0.06378	84.320	36. 49. 52.07
584	Lalande 15595.....	7	7. 52. 3.51	1850.2	2	3.504	-0.0122	..	0.06694	0.10129	1.45493	0.07499	85.348	69. 47.
585	5 Cancri.....	6	7. 52. 57.06	1849.2	1	3.428	-0.0107	+0.002	0.06709	0.10084	1.45374	0.07570	85.417	73. 8. 7.81
586	Lalande 15646.....	6½	7. 53. 20.59	1849.6	5	+3.503	-0.0121	..	0.06683	0.10124	1.45489	0.07497	85.365	69. 51.
587	6 Cancri.....	5*	7. 54. 17.97	1852.3	15	3.700	-0.0162	+0.002	0.06587	0.10258	1.45790	0.07295	85.231	61. 47. 22.85
588	.....	..	7. 54. 59.62	1852.2	1	3.615	-0.0146	..	0.06618	0.10189	1.45659	0.07375	85.310	65. 5. 30.84
589	Lalande 15707.....	9	7. 55. 8.26	1852.2	3	3.615	-0.0146	..	0.06618	0.10189	1.45659	0.07375	85.310	65. 4. 30.02
590	8 Cancri.....	6*	7. 56. 42.90	1848.3	1	3.352	-0.0097	+0.001	0.06691	0.10033	1.45259	0.07634	85.512	76. 27. 31.39
591	27 Lynceis.....	5.4*	7. 57. 8.90	1850.1	4	+4.560	-0.0423	-0.004	0.05962	0.11204	1.47070	0.06382	84.534	38. 4. 0.16
592	Piazzi VII. 301.....	6	7. 57. 13.12	1851.2	1	2.341	-0.0007	+0.013	0.06502	0.10332	1.43682	0.08651	85.927	122. 2. 45.10
593	Bradley 1158.....	7	7. 57. 42.73	1852.7	6	3.562	-0.0138	-0.012	0.06612	0.10142	1.45579	0.07415	85.383	67. 7. 0.70
594	12 Cancri.....	6	8. 0. 19.22	1848.2	3	3.361	-0.0101	+0.002	0.06653	0.10018	1.45271	0.07614	85.552	75. 56.
595	29 Monocerotis.....	5*	8. 1. 3.19	1849.2	3	3.019	-0.0050	+0.001	0.06683	0.09957	1.44746	0.07973	85.738	92. 33.

572. The designation of the B.A.C. is 3 Puppis.

575, 578. The N.P.D. differs 10" from the B.A.C.

576, 582. These stars are designated in the B.A.C. as ξ Argus and 11 Puppis respectively.

583. The magnitude in the text is that of Oeltzen's Argelander. It was noted of the 8th magnitude by the observers.

586. Of the 7.8th magnitude.

FROM OBSERVATIONS MADE AT THE ROYAL OBSERVATORY, FROM 1848 TO 1853.

(lxi)

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of μ	No. in Bessel's Bradley.	No. in Piazz's (1814).	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1850.1	2	+ 6.81	+ 0.530	..	0.12571	0.14003	1.50211	0.33067	50.431	..	...	..	674	..	Lalande 14458	561
1848.2	1	6.81	+ 0.529	- 0.20	0.12444	0.14003	1.50262	0.33054	50.500	1078	VII. 105	345	675	2464	62 Geminorum.....p	562
1850.3	11	7.27	+ 0.524	+ 0.07	0.12372	0.14402	1.50882	0.32878	49.904	1087	VII. 127	..	677	..	66 Geminorum.....a	563
1851.0	77	7.27	+ 0.524	+ 0.07	0.12372	0.14402	1.50882	0.32878	49.904	1087	VII. 128	346	678	2485	66 Geminorum.....a ²	564
1849.7	3	7.27	+ 0.466	- 0.04	0.01803	0.11422	1.50884	0.32878	59.392	1091	VII. 131	347	679	2486	68 Geminorum.....	565
1852.1	2	+ 7.60	+ 0.446	..	9.97497	0.10381	1.51331	0.32743	62.388	..	...	..	..	..	W. B. VII. 898.....	566
1850.9	101	7.79	+ 0.429	+ 0.98	9.93354	0.09270	1.51575	0.32665	65.209	1106	VII. 168	350	686	2522	10 Canis Minoris.....a	567
...	..	7.90	+ 0.738	+ 0.06	0.26113	0.19082	1.51724	0.32617	33.131	1100	VII. 167	..	688	2533	49 Camelopardali.....	568
1852.1	1	8.08	+ 0.440	..	9.97151	0.10453	1.51971	0.32530	62.202	..	...	..	..	..	.....	569
1850.6	7	8.11	+ 0.485	+ 0.05	0.07515	0.13649	1.51993	0.32526	53.447	1111	VII. 184	352	692	2551	77 Geminorum.....k	570
1850.9	98	+ 8.17	+ 0.497	+ 0.06	0.09773	0.14414	1.52072	0.32496	51.217	1112	VII. 191	353	693	2555	78 Geminorum.....β	571
1850.2	3	8.30	+ 0.320	- 0.03	9.58346	0.00082	1.52245	0.32435	82.654	1120	VII. 201	355	696	2562	3 Navis.....7	572
1852.2	7	8.44	+ 0.476	- 0.05	0.06593	0.13606	1.52430	0.32366	53.899	1119	VII. 207	..	698	2578	82 Geminorum.....	573
1849.6	8	8.64	+ 0.969	..	0.29032	0.20816	1.52690	0.32271	27.913	..	...	..	701	2596	Groombridge 1374 ...	574
1853.2	1	8.69	+ 0.331	- 0.28	9.63435	0.00861	1.52752	0.32246	80.768	1130	...	..	702	2599	Bradley 1130	575
1851.9	13	+ 8.71	+ 0.331	- 0.01	9.63524	0.00858	1.52778	0.32237	80.735	1132	VII. 230	356	703	2602	7 Navis.....ξ	576
1849.2	6	8.77	+ 0.578	+ 0.04	0.19782	0.18323	1.52858	0.32207	39.432	1126	VII. 222	357	705	2609	26 Lynceis.....	577
1852.2	4	8.80	+ 0.468	- 0.07	0.05945	0.13655	1.52892	0.32194	54.071	1127	VII. 232	..	..	2613	84 Geminorum.....	578
1853.2	5	8.82	+ 0.483	+ 0.03	0.08771	0.14631	1.52913	0.32185	51.355	1128	VII. 233	358	707	2617	83 Geminorum.....φ	579
1853.1	1	8.87	+ 0.445	..	0.01695	0.12268	1.53000	0.32152	57.767	..	...	..	..	..	.....	580
1852.2	4	+ 9.06	+ 0.425	+ 0.12	9.96153	0.10471	1.53218	0.32062	62.131	..	VII. 249	..	..	2636	Piazz's VII. 249	581
...	..	9.29	+ 0.334	- 0.03	9.66281	0.00980	1.53519	0.31935	79.624	1141	VII. 266	..	711	2652	11 Navis.....e	582
1850.2	2	9.41	+ 0.598	..	0.21656	0.19749	1.53674	0.31867	36.073	..	...	..	..	..	Oeltz. Arg. 8510.....	583
...	..	9.42	+ 0.450	..	0.04048	0.13425	1.53674	0.31867	55.131	..	...	..	714	..	Lalande 15595	584
1849.2	1	9.49	+ 0.440	- 0.04	0.01716	0.12622	1.53768	0.31828	57.147	1146	VII. 279	..	713	2664	5 Cancri.....	585
...	..	+ 9.52	+ 0.450	..	0.03985	0.13462	1.53789	0.31818	55.091	..	...	..	715	..	Lalande 15646	586
1852.4	27	9.59	+ 0.474	+ 0.07	0.09087	0.15415	1.53897	0.31769	50.064	1149	VII. 285	..	716	2672	6 Cancri.....	587
1852.2	1	9.65	+ 0.462	..	0.07022	0.14703	1.53981	0.31731	52.039	..	...	..	..	..	.....	588
1852.2	3	9.66	+ 0.462	..	0.07022	0.14703	1.53981	0.31731	52.039	..	...	..	..	..	Lalande 15707	589
1848.3	1	9.78	+ 0.427	+ 0.05	9.99232	0.11865	1.54129	0.31663	59.023	1156	VII. 296	..	717	2690	8 Cancri.....	590
1850.2	3	+ 9.81	+ 0.580	+ 0.01	0.20927	0.20006	1.54172	0.31642	36.318	1154	VII. 294	362	718	2697	27 Lynceis.....	591
1851.2	1	9.82	+ 0.298	+ 0.09	9.56771	9.97326	1.54178	0.31638	83.673	..	VII. 301	..	..	2699	Piazz's VII. 301.....	592
1852.8	5	9.85	+ 0.453	+ 0.08	0.05649	0.14333	1.54225	0.31617	53.154	1158	VII. 299	..	..	2703	Bradley 1158	593
...	..	10.05	+ 0.424	+ 0.05	9.99541	0.12119	1.54470	0.31500	58.520	1165	VII. 310	..	722	2720	12 Cancri.....	594
...	..	10.11	+ 0.380	- 0.04	9.86216	0.07100	1.54538	0.31467	68.637	1168	VII. 316	..	725	2725	Monocerotis	595

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regiomontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Wesse.	Mean Right		Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.	
			Ascension, 1850, Jan. 1.							e	f	g	h			
			h	m	s		s	s	s					s	° ' "	
596	15 Navis	3*	8.	1.	9.41	1851.0	59	+2.560	-0.0012	-0.0002	0.06565	0.10139	1.44028	0.08454	85.902	113. 52. 30.03
597	14 Cancri	6*	8.	1.	24.69	1851.4	5	3.632	-0.0157	-0.0002	0.06540	0.10175	1.45686	0.07320	85.388	64. 2. 30.96
598	16 Cancri	5.4*	8.	3.	36.22	1850.7	8	3.446	-0.0119	+0.0009	0.06595	0.10043	1.45402	0.07511	85.540	71. 54. 15.67
599	Cancri	7½	8.	3.	36.53	1852.3	1	3.445	-0.0119	+0.0005	0.06593	0.10041	1.45400	0.07511	85.546	71. 54. 24.13
600	15 Cancri	6*	8.	3.	(50.)	..	..	3.735	-0.0185	+0.0004	0.06460	0.10247	1.45841	0.07192	85.353	59. 53. 44.85
601	Santini 569	8.9	8.	6.	4.87	1849.2	2	+3.105	-0.0063	..	0.06639	0.09930	1.44879	0.07880	85.749	88. 18.
602	Puppis	5	8.	7.	49.93	1851.5	3	2.263	-0.0005	+0.0005	0.06320	0.10361	1.43558	0.08818	86.004	125. 26. 53.88
603	58 Camelopardali	6*	8.	8.	(20.)	..	..	4.898	-0.0619	+0.0009	0.05416	0.11635	1.47564	0.05799	84.551	31. 47. 43.17
604	17 Cancri	4.3*	8.	8.	22.65	1851.8	18	3.263	-0.0089	0.0000	0.06598	0.09943	1.45122	0.07699	85.701	80. 21. 22.32
605	.....	..	8.	8.	(40.)	..	..	3.076	-0.0060	..	0.06615	0.09916	1.44832	0.07913	85.788	89. 45. 7.14
606	W. B. VIII. 217	8.9	8.	8.	(50.)	..	..	+3.075	-0.0060	..	0.06615	0.09914	1.44832	0.07913	85.789	89. 48. 20.93
607	Groombridge 1418 ..	6	8.	11.	13.64	1850.7	5	17.565	-2.1875	..	0.86454	0.28441	1.62908	0.98537	74.159	4. 25. 56.89
608	19 Cancri	6*	8.	11.	36.67	1852.2	7	3.582	-0.0158	0.0000	0.06453	0.10089	1.45609	0.07317	85.571	65. 30. 34.61
609	Puppis	5	8.	12.	56.54	1851.2	2	2.252	-0.0004	-0.0008	0.06247	0.10350	1.43540	0.08875	86.034	126. 12.
610	20 Cancri	6*	8.	14.	46.16	1851.6	10	3.450	-0.0130	0.0000	0.06481	0.09989	1.45408	0.07460	85.686	71. 11. 25.35
611	23 Cancri (1st Star) ..	6*	8.	17.	42.29	1852.2	2	+3.643	-0.0181	-0.0002	0.06353	0.10104	1.45701	0.07204	85.631	62. 34. 47.77
612	23 Cancri (2d Star) ..	6*	8.	17.	42.61	1852.2	4	3.643	-0.0181	-0.0002	0.06353	0.10104	1.45701	0.07204	85.631	62. 34. 42.98
613	24 Cancri (1st Star) ..	7	8.	17.	43.98	1852.2	4	3.585	-0.0166	0.0000	0.06386	0.10060	1.45614	0.07278	85.660	64. 58. 37.71
614	24 Cancri (2d Star) ..	7.8	8.	17.	44.40	1852.2	1	3.585	-0.0166	0.0000	0.06386	0.10060	1.45614	0.07278	85.660	64. 58. 32.85
615	1 Ursæ Majoris	3.4*	8.	17.	(50.)	..	..	5.078	-0.0770	-0.0012	0.04987	0.11865	1.47825	0.05361	84.725	28. 47. 9.92
616	W. B. VIII. 484	9	8.	18.	29.60	1851.9	1	+3.288	-0.0099	..	0.06497	0.09896	1.45159	0.07647	85.810	78. 51. 9.76
617	28 Cancri	6½	8.	19.	42.67	1852.2	4	3.573	-0.0165	0.0000	0.06371	0.10041	1.45596	0.07281	85.696	65. 21. 41.55
618	29 Cancri	6*	8.	20.	14.86	1848.3	1	3.358	-0.0114	+0.0002	0.06461	0.09914	1.45267	0.07553	85.801	75. 18.
619	30 Cancri	6*	8.	22.	37.83	1852.2	3	3.568	-0.0167	-0.0003	0.06342	0.10022	1.45588	0.07270	85.742	65. 25. 2.12
620	31 Cancri	6*	8.	23.	2.23	1851.6	4	3.436	-0.0135	-0.0001	0.06404	0.09936	1.45386	0.07440	85.806	71. 24. 9.49
621	32 Lynceis	6	8.	23.	43.57	1849.2	3	+3.885	-0.0264	-0.0004	0.06108	0.10297	1.46067	0.06840	85.610	53. 4.
622	33 Cancri	6*	8.	24.	1.66	1852.3	14	3.485	-0.0147	+0.0001	0.06371	0.09961	1.45461	0.07372	85.799	69. 3. 12.18
623	32 Cancri	6*	8.	24.	7.58	1852.2	6	3.565	-0.0168	-0.0004	0.06328	0.10012	1.45584	0.07264	85.765	65. 24. 32.14
624	33 Lynceis	6*	8.	25.	4.93	1849.2	3	3.881	-0.0265	+0.0001	0.06095	0.10286	1.46061	0.06832	85.636	53. 4.
625	4 Ursæ Majoris	5.4*	8.	27.	(0.)	..	..	5.352	-0.1008	+0.0006	0.04381	0.12243	1.48219	0.04729	84.907	25. 9. 14.36
626	Groombridge 1452 ..	8	8.	28.	44.83	1848.2	1	+9.469	-0.5654	..	9.97989	0.18279	1.53740	9.98140	82.736	9. 27. 14.46
627	4 Hydræ	4.5*	8.	29.	42.78	1851.4	21	3.186	-0.0084	-0.0002	0.06418	0.09802	1.45004	0.07756	85.977	83. 46. 36.21
628	39 Cancri	6	8.	31.	28.53	1853.2	1	3.466	-0.0149	-0.0003	0.06305	0.09907	1.45433	0.07359	85.913	69. 28. 0.94
629	Groombridge 1463 ..	6	8.	33.	(10.)	..	..	9.396	-0.5772	..	9.97662	0.18175	1.53650	9.97818	83.269	9. 25. 12.11
630	{ Pixidis Nauticae...β } { Mali	5	8.	34.	(10.)	..	..	2.345	+0.0005	+0.0018	0.06047	0.10157	1.43688	0.08950	86.143	124. 46. 44.81

596. This star is designated in the B.A.C. as ρ Argus.

601. The magnitude is taken from Santini.

605. Of the 9.10th magnitude.

606. This star was noted by the observers with the Mural Circle in the year 1849 to be of the 10th magnitude, and in the year 1850, of the 7.8th magnitude.

607. The R.A. of the text, which is confirmed by the Oxford Observations, differs 9' from the B.A.C.

599. The N.P.D. differs 8'' from the B.A.C.

602, 609. The designating letter is Lacaille's.

600. The N.P.D. differs 12'' from the B.A.C.

603. This star is designated 30 Lynceis in the B.A.C.

614. The magnitude is taken from Piazzi.

185660AMM-16G...1A

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1851.0	51	+10.12	+0.322	-0.08	9.65679	9.99821	1.54550	0.31463	80.030	1170	VII. 320	366	726	2728	15 Navis.....	596
1851.4	5	10.13	+0.457	+0.34	0.07463	0.15266	1.54573	0.31450	51.047	1167	VII. 314	365	..	2730	14 Caneri..... ^ψ	597
1851.0	7	10.30	+0.431	+0.11	0.02283	0.13339	1.54776	0.31345	55.854	1175	VIII. 5	..	729	2744	16 Caneri..... ^ζ	598
1852.3	1	10.30	+0.431	+0.33	0.02283	0.13339	1.54776	0.31345	55.854	..	VIII. 6	..	730	2745	Caneri..... ^ζ	599
1848.2	5	10.32	+0.467	+0.06	0.09854	0.16376	1.54799	0.31337	48.360	1173	VIII. 4	..	731	2747	15 Caneri.....	600
..	..	+10.48	+0.386	..	9.89867	0.08485	1.54979	0.31241	65.924	..	...	..	734	..	Santini 569.....	601
1852.1	2	10.62	+0.280	+0.09	9.54941	9.95087	1.55163	0.31142	84.867	..	VIII. 31	..	739	2774	Puppis..... ^r	602
1848.2	6	10.65	+0.605	-0.02	0.22829	0.21784	1.55205	0.31121	32.462	1178	VIII. 19	..	740	2776	5 Camelopardali.....	603
1852.6	11	10.66	+0.403	+0.06	9.96100	0.11026	1.55214	0.31117	60.952	1180	VIII. 28	368	..	2778	17 Caneri..... ^β	604
1850.1	1	10.68	+0.380	..	9.88598	0.07990	1.55220	0.31113	66.752	..	...	..	..	..	.....	605
1849.7	2	+10.69	+0.380	..	9.88598	0.07991	1.55234	0.31104	66.748	..	...	..	742	..	W. B. VIII. 217....	606
1851.2	4	10.88	+2.152	..	0.30192	0.24074	1.55481	0.30968	22.320	..	...	..	..	2787	Groombridge 1418..	607
1852.2	7	10.89	+0.439	+0.04	0.06192	0.15387	1.55503	0.30956	51.474	1182	VIII. 41	..	745	2789	19 Caneri..... ^λ	608
..	..	10.99	+0.275	0.00	9.55109	9.94267	1.55621	0.30885	85.100	..	VIII. 47	..	748	2795	Puppis..... ^q	609
1851.7	9	11.13	+0.419	0.00	0.02429	0.13952	1.55781	0.30791	54.942	1185	VIII. 50	..	751	2799	20 Caneri..... ^d	610
1852.2	2	+11.34	+0.438	+0.01	0.07728	0.16447	1.56035	0.30640	49.395	1191	VIII. 64	..	754	2817	23 Caneri (1st Star).. ^φ	611
1852.2	4	11.34	+0.438	+0.01	0.07728	0.16447	1.56035	0.30640	49.395	1191	VIII. 64	..	756	2817	23 Caneri (2d Star).. ^φ	612
1852.2	4	11.34	+0.431	+0.18	0.06284	0.15811	1.56038	0.30636	50.905	1193	VIII. 65	..	..	2818	24 Caneri (1st Star).. ^v	613
1852.2	1	11.34	+0.431	+0.18	0.06284	0.15811	1.56038	0.30636	50.905	1193	VIII. 66	..	..	2818	24 Caneri (2d Star).. ^v	614
1848.8	14	11.34	+0.611	+0.12	0.23396	0.22935	1.56041	0.30636	30.633	1186	...	370	753	2819	1 Ursæ Majoris..... ^ε	615
1851.9	1	+11.40	+0.395	..	9.96997	0.11725	1.56113	0.30591	59.674	..	...	..	..	..	W. B. VIII. 484....	616
1852.2	4	11.48	+0.427	+0.08	0.05971	0.15797	1.56207	0.30535	51.071	1198	VIII. 76	..	..	2833	28 Caneri..... ^v	617
..	..	11.52	+0.401	+0.07	9.99477	0.12898	1.56255	0.30502	57.366	1200	VIII. 77	..	757	2836	29 Caneri.....	618
1852.2	2	11.69	+0.423	+0.10	0.05821	0.15911	1.56458	0.30373	51.009	1201	VIII. 84	..	..	2850	30 Caneri..... ^v	619
1851.6	4	11.72	+0.407	+0.05	0.02015	0.14188	1.56490	0.30352	54.803	1203	VIII. 85	371	758	2853	31 Caneri..... ^θ	620
..	..	+11.77	+0.459	+0.01	0.12701	0.19109	1.56547	0.30312	43.327	1204	VIII. 87	..	760	2860	32 Lynceis.....	621
1852.2	29	11.79	+0.411	+0.03	0.03499	0.14928	1.56573	0.30296	53.276	1207	VIII. 88	372	762	2862	33 Caneri..... ^η	622
1852.2	8	11.80	+0.421	+0.07	0.05763	0.15981	1.56583	0.30292	50.957	1205	VIII. 89	..	..	2864	32 Caneri.....	623
..	..	11.87	+0.456	+0.01	0.12629	0.19186	1.56663	0.30240	43.279	1208	VIII. 92	..	764	2871	33 Lynceis.....	624
1848.3	5	12.00	+0.625	-0.01	0.24074	0.24099	1.56824	0.30127	28.504	1206	VIII. 96	373	765	2884	4 Ursæ Majoris..... ^π	625
1849.6	3	+12.12	+1.100	..	0.28208	0.25436	1.56960	0.30032	22.768	..	...	..	767	..	Groombridge 1452..	626
1851.9	14	12.19	+0.369	-0.02	9.93182	0.10240	1.59043	0.29976	62.502	1217	VIII. 114	374	768	2901	4 Hydræ..... ^δ	627
1853.2	1	12.31	+0.399	+0.02	0.02958	0.15086	1.57184	0.29872	53.347	1222	VIII. 126	..	769	2917	39 Caneri.....	628
1849.2	4	12.43	+1.076	..	0.27949	0.25800	1.57319	0.29773	22.600	..	...	..	773	2930	Groombridge 1463..	629
1848.7	2	12.50	+0.267	+0.10	9.59922	9.92657	1.57403	0.29710	84.404	..	VIII. 145	377	774	2935	{ Pixidis Nauticæ . ^β } { Mali..... ^b }	630

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionontaxis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(lxiv)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander's, or B.A.C., or Weiss's.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Preces- sion in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
631	43 Cancri	7	8. 34. 35.89	1852.2	23	+3.493	-0.0160	-0.0005	0.06261	0.09905	1.45474	0.07305	85.947	67. 59. 45.94
632	.....	..	8. 34. 44.79	1848.2	1	4.595	-0.0607	..	0.05163	0.11132	1.47124	0.05657	85.546	34. 24.
633	.....	..	8. 35. 15.21	1852.2	5	4.017	-0.0338	..	0.05825	0.10385	1.46264	0.06523	85.788	47. 45. 51.00
634	Lalande 17161	9½	8. 35. 15.81	1852.2	3	4.017	-0.0338	..	0.05825	0.10385	1.46264	0.06523	85.788	47. 45. 31.34
635	47 Cancri	4*	8. 36. 9.26	1851.2	9	3.422	-0.0142	+0.0003	0.06283	0.09853	1.45366	0.07401	85.990	71. 17. 52.69
636	Oeltz. Arg. 9304	8.9	8. 38. (0.)	..	..	+4.729	-0.0699	..	0.04915	0.11313	1.47323	0.05381	85.588	31. 48. 24.79
637	50 Cancri	Δ²	8. 38. 42.42	1848.2	3	3.302	-0.0113	-0.004	0.06310	0.09781	1.45181	0.07571	86.053	77. 21.
638	11 Hydræ	ε	8. 38. 49.75	1851.2	84	3.196	-0.0089	-0.007	0.06335	0.09748	1.45020	0.07728	86.078	83. 2. 3.89
639	6 Ursæ Majoris	6*	8. 43. 42.36	1849.2	3	5.254	-0.1088	+0.0003	0.03980	0.12056	1.48079	0.04359	85.658	24. 50.
640	Lalande 17513	9	8. 45. 20.93	1852.9	6	3.494	-0.0171	..	0.06151	0.09839	1.45473	0.07242	86.111	67. 7. 55.17
641	Lalande 17528	7½	8. 45. 37.92	1852.9	4	+3.492	-0.0170	..	0.06151	0.09839	1.45473	0.07242	86.111	67. 12. 58.12
642	58 Cancri	ρ³	8. 46. 39.98	1851.2	6	3.613	-0.0211	-0.001	0.06052	0.09921	1.45657	0.07039	86.111	61. 30. 14.17
643	16 Hydræ	ζ	8. 47. 27.72	1850.7	7	3.184	-0.0089	0.000	0.06267	0.09691	1.45001	0.07735	86.174	83. 29. 12.81
644	Groombridge 1480 ...	6	8. 48. 24.15	1850.9	8	9.646	-0.7073	..	9.95441	0.18514	1.53964	9.95604	85.034	8. 34. 47.55
645	.....	..	8. 48. 46.55	1852.2	4	3.469	-0.0166	..	0.06138	0.09806	1.45439	0.07260	86.159	68. 4. 34.63
646	61 Cancri	σ³	8. 48. (50.)	..	..	+3.661	-0.0231	+0.007	0.05990	0.09932	1.45729	0.06940	86.140	59. 11. 38.57
647	9 Ursæ Majoris	3*	8. 48. 54.82	1850.3	38	4.195	-0.0459	-0.070	0.05393	0.10540	1.46531	0.06034	86.068	41. 22. 24.08
648	65 Cancri	α	8. 50. 16.72	1852.1	17	3.288	-0.0116	+0.005	0.06214	0.09701	1.45160	0.07557	86.204	77. 33. 53.94
649	10 Ursæ Majoris	4*	8. 50. 52.97	1850.4	6	3.967	-0.0358	-0.036	0.05643	0.10254	1.46190	0.06396	86.146	47. 37. 37.38
650	12 Ursæ Majoris	κ	8. 53. 21.65	1849.8	8	4.141	-0.0448	-0.001	0.05383	0. 0452	1.46450	0.06056	86.190	42. 15. 15.09
651	69 Cancri	ν	8. 53. 57.57	1852.9	11	+3.524	-0.0189	+0.001	0.06045	0.09808	1.45521	0.07135	86.239	64. 57. 37.76
652	Lalande 17818	8½	8. 54. 7.19	1852.9	6	3.465	-0.0170	..	0.06085	0.09766	1.45430	0.07237	86.246	67. 53. 39.60
653	11 Ursæ Majoris	σ¹	8. 55. 8.49	1851.2	1	5.397	-0.1317	+0.002	0.03326	0.12241	1.48284	0.03694	86.174	22. 31. 47.19
654	Lalande 17973	9½	8. 59. 8.26	1852.2	5	3.447	-0.0169	..	0.06052	0.09724	1.45405	0.07239	86.316	68. 23. 24.22
655	76 Cancri	κ	8. 59. 37.11	1852.4	25	3.259	-0.0113	+0.003	0.06147	0.09627	1.45116	0.07577	86.319	78. 43. 53.44
656	77 Cancri	ξ	9. 0. 43.50	1852.7	3	+3.464	-0.0176	+0.002	0.06021	0.09724	1.45430	0.07199	86.344	67. 21. 4.89
657	79 Cancri	6	9. 1. 43.29	1852.3	2	3.461	-0.0176	+0.007	0.06017	0.09716	1.45425	0.07197	86.358	67. 23. 51.94
658	16 Ursæ Majoris	c	9. 2. (30.)	..	..	4.832	-0.0928	+0.012	0.04076	0.11376	1.47469	0.04542	86.499	27. 57. 48.59
659	Lalande 18105	9	9. 3. 12.64	1852.2	3	3.429	-0.0167	..	0.06023	0.09683	1.45376	0.07247	86.381	68. 57. 44.97
660	.....	..	9. 3. 56.87	1853.2	1	3.395	-0.0156	..	0.06038	0.09658	1.45324	0.07306	86.390	70. 42. 51.22
661	.....	..	9. 4. 9.58	1852.2	5	+3.432	-0.0169	..	0.06017	0.09683	1.45383	0.07236	86.389	68. 42. 40.21
662	B. F. 1301	6	9. 4. 22.60	1852.2	2	3.143	-0.0082	..	0.06138	0.09565	1.44937	0.07782	86.368	85. 31.
663	17 Ursæ Majoris	6*	9. 4. (40.)	..	..	4.516	-0.0718	+0.001	0.04565	0.10911	1.47007	0.05113	86.545	32. 38. 26.93
664	38 Lynceis	4*	9. 9. 29.62	1850.6	8	3.764	-0.0309	-0.001	0.05622	0.09929	1.45884	0.06538	86.545	52. 35. 58.37
665	83 Cancri	6*	9. 10. 36.19	1852.4	22	3.369	-0.0152	-0.008	0.05999	0.09598	1.45284	0.07323	86.480	71. 39. 42.63

632. Of about the 11th magnitude.

634. This star was noted by the observer to be of the 9th magnitude.

661. It appears probable that this star is identical with Lalande 18132, and that the R.A. of the latter Catalogue is 10° too small.

633. Of the 8th magnitude.

636. The magnitude is taken from Oeltzen's Argelander.

1856 Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1852.1	23	+ 12.53	+ 0.398	- 0.03	0.03755	0.15654	1.57432	0.29686	52.341	1230	VIII. 142	376	775	2937	43 Cancri	631
...	..	12.53	+ 0.524	..	0.20415	0.23423	1.57413	0.29702	32.575	..	...	..	776	..	.....	632
1852.2	5	12.57	+ 0.456	..	0.14678	0.20997	1.57496	0.29640	39.838	..	...	..	..	..	.....	633
1852.2	3	12.57	+ 0.456	..	0.14678	0.20997	1.57496	0.29640	39.838	..	...	..	..	..	Lalande 17161	634
1851.1	4	12.63	+ 0.388	+ 0.24	0.01623	0.14674	1.57557	0.29596	54.419	1236	VIII. 150	379	777	2953	47 Cancri	635
1848.2	2	+ 12.76	+ 0.533	..	0.21139	0.24070	1.57699	0.29482	31.213	..	...	..	779	..	Oeltz. Arg. 9304	636
...	..	12.80	+ 0.371	+ 0.06	9.97553	0.12707	1.57756	0.29439	58.265	1242	VIII. 163	..	780	2970	50 Cancri	637
1851.3	79	12.81	+ 0.359	+ 0.03	9.93575	0.10635	1.57762	0.29431	61.896	1243	VIII. 164	381	781	2971	11 Hydræ	638
...	..	13.14	+ 0.579	+ 0.13	0.23134	0.25396	1.58135	0.29128	27.894	1246	VIII. 178	..	784	3003	6 Ursæ Majoris	639
1852.9	6	13.25	+ 0.383	..	0.03806	0.16343	1.58270	0.29013	51.621	..	...	..	..	..	Lalande 17513	640
1853.2	3	+ 13.27	+ 0.382	..	0.03747	0.16325	1.58288	0.28997	51.671	..	...	..	..	..	Lalande 17528	641
1850.2	6	13.33	+ 0.394	+ 0.04	0.07003	0.18103	1.58357	0.28936	48.024	1258	VIII. 204	..	786	3026	58 Cancri	642
1850.8	5	13.38	+ 0.346	0.00	9.93108	0.10575	1.58416	0.28886	62.096	1261	VIII. 210	383	..	3032	16 Hydræ	643
1851.1	9	13.45	+ 1.044	..	0.27159	0.27021	1.58485	0.28825	22.017	..	...	..	788	3042	Groombridge 1480 ..	644
1852.2	4	13.47	+ 0.375	..	0.03121	0.16158	1.58492	0.28817	52.186	..	...	..	789	..	.....	645
1848.2	3	+ 13.48	+ 0.396	- 0.03	0.08157	0.18368	1.58517	0.28794	46.548	1263	VIII. 216	..	790	3046	61 Cancri	646
1850.9	28	13.48	+ 0.453	+ 0.28	0.16699	0.23155	1.58524	0.28790	35.983	1260	VIII. 212	385	791	3048	9 Ursæ Majoris	647
1852.0	17	13.57	+ 0.353	+ 0.03	9.97071	0.12894	1.58623	0.28699	58.297	1269	VIII. 222	386	794	3055	65 Cancri	648
1849.7	12	13.61	+ 0.425	+ 0.28	0.13814	0.21938	1.58665	0.28661	39.514	1268	VIII. 223	..	796	3059	10 Ursæ Majoris	649
1850.2	3	13.77	+ 0.439	+ 0.11	0.16032	0.23250	1.58844	0.28495	36.435	1272	VIII. 230	387	797	3075	12 Ursæ Majoris	650
1852.7	15	+ 13.80	+ 0.373	+ 0.07	0.04681	0.17356	1.58887	0.28453	50.173	1275	VIII. 234	..	..	3079	69 Cancri	651
1852.9	6	13.81	+ 0.366	..	0.02954	0.16414	1.58905	0.28434	52.061	..	...	..	..	..	Lalande 17818	652
1848.2	4	13.88	+ 0.568	+ 0.04	0.23058	0.26461	1.58970	0.28374	26.807	1271	VIII. 232	..	798	3087	11 Ursæ Majoris	653
1852.2	5	14.13	+ 0.357	..	0.02485	0.16429	1.59228	0.28120	52.333	..	...	..	802	..	Lalande 17973	654
1850.2	24	14.16	+ 0.337	- 0.03	9.96037	0.12645	1.59282	0.28064	59.034	1287	VIII. 255	389	803	3111	76 Cancri	655
1850.8	9	+ 14.23	+ 0.356	- 0.02	0.02975	0.16825	1.59358	0.27986	51.705	1289	VIII. 259	390	804	3117	77 Cancri	656
1850.9	3	14.29	+ 0.354	+ 0.01	0.02902	0.16843	1.59427	0.27916	51.737	1291	VIII. 262	..	805	3123	79 Cancri	657
1848.6	6	14.33	+ 0.493	+ 0.06	0.20800	0.26271	1.59474	0.27865	29.177	1288	VIII. 261	..	806	3125	16 Ursæ Majoris	658
1852.2	3	14.38	+ 0.349	..	0.01924	0.16360	1.59523	0.27813	52.747	..	...	..	..	..	Lalande 18105	659
1853.2	1	14.42	+ 0.344	..	0.00826	0.15761	1.59591	0.27739	53.906	..	...	..	..	..	.....	660
1852.2	5	+ 14.44	+ 0.348	..	0.02049	0.16475	1.59569	0.27761	52.583	..	...	..	809	..	.....	661
...	..	14.45	+ 0.318	..	9.91459	0.09907	1.59606	0.27725	63.380	..	...	..	..	3132	B. F. 1301	662
1848.2	3	14.47	+ 0.456	+ 0.07	0.19009	0.25707	1.59625	0.27703	31.411	1293	IX. 4	..	810	3135	17 Ursæ Majoris	663
1850.9	9	14.76		+ 0.04	0.10278	0.21677	1.59941	0.27350	42.506	1305	IX. 29	393	..	3162	38 Lyncis	664
1852.7	33	14.82	+ 0.331	+ 0.16	0.00000	0.15611	1.60013	0.27267	54.560	1309	IX. 42	..	815	3171	83 Cancri	665

The magnitude of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontensis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
666	Piazzi IX. 37	4.5*	9. 15. 15.45	1851.0	7	+9.321	-0.8153	-0.063	9.92445	0.18033	1.53557	9.92624	88.843	8. 1. 6.01
667	1 Leonis	5*	9. 15. (55.)	..	..	3.514	-0.0211	0.000	0.05830	0.09658	1.45506	0.06989	86.600	63. 10. 31.12
668	23 Ursæ Majoris	3.4*	9. 19. 38.82	1852.8	2	4.814	-0.1052	+0.019	0.03537	0.11292	1.47442	0.04011	87.259	26. 17. 12.17
669	30 Hydræ	2.1025	9. 20. 12.97	1850.6	93	2.950	-0.0034	+0.001	0.06008	0.09456	1.44638	0.08178	86.490	98. 0. 40.07
670	.....	..	9. 21. 26.89	1853.3	2	3.474	-0.0201	..	0.05812	0.09588	1.45444	0.07029	86.684	64. 40. 0.09
671	25 Ursæ Majoris	3*	9. 22. 47.73	1850.1	41	+4.169	-0.0578	-0.120	0.04748	0.10351	1.46492	0.05428	87.053	37. 38. 32.20
672	.....	..	9. 22. 52.23	1853.2	3	3.467	-0.0200	..	0.05804	0.09572	1.45433	0.07035	86.707	64. 55. 42.92
673	4 Leonis	5.4*	9. 23. 9.23	1852.6	3	3.440	-0.0189	+0.001	0.05830	0.09553	1.45393	0.07092	86.694	66. 22. 24.19
674	5 Leonis	6*	9. 23. 51.36	1850.9	9	3.249	-0.0118	-0.004	0.05959	0.09444	1.45101	0.07520	86.624	78. 2. 20.50
675	26 Ursæ Majoris	5*	9. 24. (30.)	..	..	4.173	-0.0588	-0.003	0.04701	0.10349	1.46498	0.05378	87.112	37. 17. 6.24
676	W. B. IX. 611	8.9	9. 27. (30.)	..	..	+3.147	-0.0085	..	0.05977	0.09391	1.44944	0.07740	86.626	84. 41. 53.92
677	7 Leonis	6½	9. 27. 41.19	1852.2	2	3.292	-0.0136	0.000	0.05907	0.09432	1.45167	0.07405	86.694	74. 57.
678	27 Ursæ Majoris	6*	9. 29. (0.)	..	..	5.736	-0.2166	-0.009	0.00878	0.12679	1.48764	0.01213	88.423	17. 4. 13.39
679	9 Leonis	6	9. 29. 14.37	1853.2	7	3.458	-0.0203	-0.005	0.05752	0.09521	1.45420	0.07004	86.808	64. 39. 30.86
680	2 Sextantis	5*	9. 30. 37.66	1848.8	3	3.146	-0.0086	-0.008	0.05948	0.09365	1.44942	0.07740	86.663	84. 41.
681	14 Leonis	4.3*	9. 33. 8.43	1851.8	34	+3.220	-0.0111	+0.008	0.05906	0.09362	1.45055	0.07556	86.730	79. 25. 40.73
682	28 Ursæ Majoris	5	9. 34. (20.)	..	..	4.723	-0.1100	+0.002	0.03186	0.11106	1.47309	0.03676	87.937	25. 39. 37.61
683	Piazzi IX. 163	7	9. 36. 43.63	1852.2	1	3.422	-0.0195	0.000	0.05717	0.09439	1.45364	0.07031	86.915	65. 50. 19.07
684	17 Leonis	3*	9. 37. 19.70	1850.7	99	3.425	-0.0197	0.000	0.05707	0.09439	1.45370	0.07016	86.927	65. 32. 16.14
685	29 Ursæ Majoris	4.3*	9. 40. 16.76	1850.8	4	4.383	-0.0839	-0.030	0.03804	0.10576	1.46810	0.04388	87.900	30. 15. 32.98
686	30 Ursæ Majoris	5.4*	9. 41. (50.)	..	..	+4.144	-0.0652	+0.006	0.04329	0.10227	1.46455	0.05009	87.713	35. 14. 16.63
687	24 Leonis	4*	9. 44. 13.43	1852.5	23	3.446	-0.0215	-0.018	0.05616	0.09401	1.45403	0.06898	87.067	63. 17. 21.02
688	.....	..	9. 49. 4.54	1852.3	3	3.249	-0.0129	..	0.05775	0.09240	1.45100	0.07414	86.966	76. 7. 57.22
689	27 Leonis	5*	9. 50. 8.87	1853.1	1	3.238	-0.0124	+0.002	0.05774	0.09228	1.45084	0.07439	86.969	76. 50. 33.35
690	.....	..	9. 50. 23.30	1852.3	1	3.249	-0.0128	..	0.05764	0.09231	1.45099	0.07409	86.982	76. 2. 49.02
691	29 Leonis	5*	9. 52. 16.96	1852.6	19	+3.180	-0.0100	+0.002	0.05795	0.09191	1.44994	0.07601	86.941	81. 14. 18.64
692	21 Leonis Minoris	4.5*	9. 58. (30.)	..	..	3.561	-0.0304	+0.010	0.05266	0.09398	1.45578	0.06378	87.508	54. 1. 35.96
693	W. B. IX. 1296	9	10. 0. 13.05	1849.3	1	3.221	-0.0120	..	0.05723	0.09138	1.45059	0.07442	87.085	77. 16. 20.53
694	32 Leonis	1.2*	10. 0. 22.75	1851.0	136	3.221	-0.0120	-0.015	0.05717	0.09133	1.45057	0.07444	87.093	77. 18. 6.49
695	34 Leonis	6	10. 3. 33.70	1853.2	6	3.234	-0.0128	+0.008	0.05689	0.09112	1.45077	0.07386	87.149	75. 54. 23.43
696	Piazzi X. 10	7	10. 6. 13.96	1850.2	3	+3.327	-0.0177	-0.013	0.05569	0.09139	1.45219	0.07056	87.324	68. 5. 13.93
697	Bradley 1399	6*	10. 6. 58.46	1851.0	12	10.321	-1.7282	-0.114	9.72029	0.19393	1.54802	9.72247	102.220	4. 59. 29.44
698	32 Ursæ Majoris	6*	10. 7. 4.68	1848.3	3	4.481	-0.1180	-0.013	0.02384	0.10622	1.46955	0.02896	89.560	24. 9.
699	Groombridge 1626 ...	8.9	10. 7. 7.71	1850.3	1	3.672	-0.0402	..	0.04881	0.09464	1.45745	0.05849	87.929	46. 27.
700	33 Ursæ Majoris	3.4*	10. 8. 1.81	1850.4	6	3.670	-0.0404	-0.011	0.04869	0.09456	1.45742	0.05835	87.954	46. 20. 18.92

670. Of the 8.9th magnitude.

697. A double star.

699. The magnitude is taken from Groombridge.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of P	No. in Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1851.2	1	+15.09	+0.895	+0.04	0.25323	0.28897	1.60308	0.26918	22.003	..	IX. 37	395	818	3199	Piazzi IX. 37	666
1849.3	2	15.13	+0.336	+0.03	0.04490	0.18766	1.60349	0.26865	49.199	1320	IX. 67	397	..	3204	1 Leonis	667
1852.4	20	15.34	+0.452	-0.04	0.20009	0.27553	1.60576	0.26576	28.709	1323	IX. 82	398	823	3221	23 Ursæ Majoris	668
1850.8	73	15.38	+0.276	-0.03	0.83304	0.03869	1.60610	0.26530	71.151	1330	IX. 89	399	824	3223	30 Hydræ	669
1853.3	2	15.44	+0.323	..	0.03346	0.18456	1.60698	0.26417	50.281	..	...	..	..	..	.....	670
1850.4	33	+15.52	+0.385	+0.06	0.15733	0.25834	1.60768	0.26327	34.306	1332	IX. 98	402	829	3242	25 Ursæ Majoris	671
1853.2	3	15.52	+0.320	..	0.03137	0.18415	1.60779	0.26309	50.471	..	...	..	..	..	.....	672
1852.4	2	15.54	+0.317	+0.04	0.02358	0.17913	1.60786	0.26295	51.394	1335	IX. 100	403	831	3246	4 Leonis	673
1851.1	5	15.58	+0.298	+0.06	0.95711	0.13386	1.60828	0.26240	58.889	1338	IX. 106	404	832	3250	5 Leonis	674
1848.3	3	15.61	+0.382	+0.04	0.15728	0.25994	1.60867	0.26189	34.177	1336	IX. 104	..	834	3256	26 Ursæ Majoris	675
1850.3	2	+15.82	+0.283	..	0.91647	0.10486	1.61033	0.25960	63.166	..	...	..	835	..	W. B. IX. 611	676
..	..	15.79	+0.296	+0.07	0.97359	0.14746	1.61052	0.25929	57.005	1345	IX. 125	..	..	3272	7 Leonis	677
1848.5	7	15.86	+0.512	+0.06	0.21954	0.29136	1.61130	0.25821	25.318	1342	IX. 121	..	837	3283	27 Ursæ Majoris	678
1853.2	6	15.87	+0.308	+0.06	0.02918	0.18715	1.61141	0.25800	50.467	1348	IX. 128	..	..	3285	9 Leonis	679
..	..	15.94	+0.278	+0.07	0.91601	0.10509	1.61219	0.25687	63.253	1352	IX. 139	..	840	3295	2 Sextantis	680
1851.6	35	+16.08	+0.281	+0.05	0.94602	0.12939	1.61360	0.25476	60.006	1360	IX. 151	408	841	3312	14 Leonis	681
1849.1	2	16.14	+0.409	+0.01	0.18955	0.28449	1.61426	0.25376	28.977	1355	IX. 150	..	842	3315	28 Ursæ Majoris	682
1852.2	1	16.26	+0.292	+0.13	0.01854	0.18523	1.61556	0.25169	51.467	..	IX. 163	..	..	3327	Piazzi IX. 163	683
1850.8	92	16.29	+0.291	+0.04	0.01970	0.18652	1.61588	0.25116	51.301	1368	IX. 164	410	845	3331	17 Leonis	684
1849.6	16	16.44	+0.366	+0.19	0.16907	0.28061	1.61746	0.24860	31.352	1371	IX. 174	411	849	3346	29 Ursæ Majoris	685
1848.8	2	+16.52	+0.343	+0.05	0.15002	0.27249	1.61825	0.24721	33.870	1375	IX. 179	412	851	3358	30 Ursæ Majoris	686
1852.3	36	16.64	+0.281	+0.06	0.02665	0.19670	1.61949	0.24511	50.171	1384	IX. 194	413	852	3371	24 Leonis	687
1852.3	2	16.87	+0.256	..	0.95809	0.14664	1.62194	0.24065	58.501	..	...	..	..	..	.....	688
1853.1	1	16.92	+0.254	+0.01	0.95405	0.14367	1.62242	0.23975	58.984	1395	IX. 216	415	855	3406	27 Leonis	689
1852.3	1	16.93	+0.254	..	0.95799	0.14724	1.62262	0.23941	58.502	..	...	..	..	..	.....	690
1852.7	20	+17.02	+0.245	+0.03	0.93027	0.12361	1.62347	0.23778	61.827	1398	IX. 225	416	857	3415	29 Leonis	691
1848.3	5	17.31	+0.263	0.00	0.05907	0.23220	1.62640	0.23181	45.286	1401	IX. 242	417	861	3446	21 Leonis Minoris	692
1849.5	4	17.38	+0.235	..	0.94792	0.14336	1.62702	0.23049	59.701	..	...	..	865	..	W. B. IX. 1296	693
1850.9	109	17.39	+0.234	0.00	0.94752	0.14319	1.62722	0.23007	59.756	1406	IX. 251	421	866	3459	32 Leonis	694
1853.2	6	17.52	+0.229	+0.11	0.95308	0.15007	1.62862	0.22699	59.051	1411	X. 3.	..	..	3475	34 Leonis	695
1848.2	3	+17.63	+0.231	+0.07	0.98909	0.18417	1.62977	0.22436	54.346	..	X. 10	..	..	3485	Piazzi X. 10	696
1851.1	12	17.66	+0.713	+0.07	0.21326	0.31752	1.63006	0.22365	24.178	1399	IX. 252	..	867	3495	Bradley 1399	697
..	..	17.67	+0.309	+0.04	0.16259	0.30188	1.63010	0.22350	30.524	1415	X. 9	..	868	3496	32 Ursæ Majoris	698
..	..	17.67	+0.253	..	0.08318	0.25700	1.63015	0.22342	41.518	..	...	..	..	..	Groombridge 1626 ..	699
1850.5	6	17.71	+0.251	+0.06	0.08282	0.25760	1.63052	0.22255	41.521	1421	X. 20	423	869	3505	33 Ursæ Majoris	700

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
701	37 Leonis	6	h m s 10. 8. 37.31	1852.2	6	+3.232	-0.0129	+0.003	0.05657	0.09067	1.45073	0.07364	87.220	75. 31. 32.54
702	Groombridge 1635...	7	10. 9. 28.89	1850.2	2	3.666	-0.0406	..	0.04851	0.09441	1.45735	0.05820	87.992	46. 12.
703	.....	..	10. 11. 20.39	1849.1	1	3.334	-0.0187	..	0.05521	0.09113	1.45234	0.06984	87.409	66. 40.
704	41 Leonis	2*	10. 11. 41.78	1852.8	16	3.299	-0.0167	+0.023	0.05560	0.09077	1.45177	0.07102	87.374	69. 24. 6.85
705	Piazzi X. 22	5*	10. 12. 17.50	1850.5	9	8.238	-0.0968	-0.106	0.83846	0.16418	1.52163	0.84067	99.072	6. 40. 58.19
706	34 Ursæ Majoris.....	3*	10. 13. 22.41	1850.6	6	+3.616	-0.0380	-0.001	0.04902	0.09358	1.45661	0.05916	88.015	47. 44. 53.46
707	42 Leonis	6	10. 13. 46.02	1852.8	11	3.239	-0.0135	-0.002	0.05616	0.09025	1.45085	0.07306	87.308	74. 16. 12.13
708	24 Sextantis.....	6½	10. 15. 47.58	1850.2	3	3.069	-0.0050	+0.009	0.05697	0.08962	1.44823	0.07924	87.079	90. 8. 38.36
709	W. B. X. 290	8	10. 17. (10.)	..	..	3.069	-0.0050	..	0.05691	0.08955	1.44825	0.07919	87.090	90. 1. 53.17
710	42 Hydræ	4*	10. 18. 50.31	1850.7	7	2.906	+0.0020	-0.006	0.05586	0.08978	1.44570	0.08543	86.905	106. 4. 19.99
711	35 Ursæ Majoris	6	10. 19. 11.37	1849.3	3	+4.373	-0.1192	-0.007	0.02093	0.10411	1.46795	0.02612	90.196	23. 36. 30.16
712	31 Leonis Minoris	4.5*	10. 19. 11.70	1852.0	9	3.507	-0.0317	-0.005	0.05076	0.09196	1.45495	0.06212	87.952	52. 31. 34.14
713	Piazzi X. 83.....	6	10. 20. 47.10	1853.2	7	3.222	-0.0130	-0.001	0.05588	0.08955	1.45058	0.07323	87.384	74. 53. 30.28
714	29 Sextantis.....	5*	10. 21. 51.58	1848.3	4	3.052	-0.0040	+0.001	0.05663	0.08910	1.44796	0.07994	87.111	91. 58.
715	Bradley 1446.....	5.4*	10. 22. 11.89	1849.3	3	5.373	-0.2875	+0.004	0.97329	0.11994	1.48249	0.97660	93.402	13. 31. 1.29
716	47 Leonis	4*	10. 24. 54.58	1852.1	32	+3.166	-0.0099	+0.005	0.05615	0.08895	1.44974	0.07524	87.338	79. 55. 23.81
717	Bradley 1458	6	10. 28. (20.)	..	..	6.434	-0.5719	+0.042	0.90217	0.13662	1.49740	0.90471	98.005	8. 47. 36.25
718	38 Ursæ Majoris	5*	10. 31. 39.23	1849.3	3	4.227	-0.1161	-0.013	0.01916	0.10134	1.46578	0.02446	90.782	23. 30.
719	B. F. 1510.....	5*	10. 32. 15.20	1849.3	3	4.432	-0.1470	+0.003	0.00878	0.10460	1.46882	0.01342	91.577	20. 8. 28.90
720	33 Sextantis	6	10. 33. 46.24	1853.4	1	3.062	-0.0039	-0.005	0.05613	0.08796	1.44813	0.07955	87.238	90. 57. 17.43
721	.....	..	10. 34. (0.)	..	..	+4.606	-0.1786	..	0.99825	0.10734	1.47138	0.00244	92.422	17. 42. 7.43
722	34 Sextantis.....	6	10. 34. 52.63	1852.6	27	3.108	-0.0065	-0.003	0.05602	0.08788	1.44882	0.07745	87.341	85. 38. 4.59
723	Piazzi X. 143	6	10. 35. 46.49	1849.9	3	2.771	+0.0097	-0.008	0.05181	0.08928	1.44360	0.09301	86.829	121. 55. 48.23
724	52 Leonis.....	6*	10. 38. 28.36	1852.2	6	3.195	-0.0123	-0.007	0.05512	0.08780	1.45018	0.07309	87.599	75. 0. 53.36
725	53 Leonis.....	5*	10. 41. 22.14	1852.6	17	3.161	-0.0101	+0.002	0.05537	0.08738	1.44965	0.07450	87.557	78. 39. 45.42
726	42 Ursæ Majoris	6*	10. 41. 55.65	1849.3	3	+3.848	-0.0779	+0.001	0.03095	0.09505	1.46011	0.03769	90.153	29. 53. 5.74
727	4 Crateris.....	3.4*	10. 42. 13.63	1850.6	6	2.948	+0.0030	+0.006	0.05492	0.08743	1.44635	0.08542	87.084	105. 24. 35.23
728	Groombridge 1702 ...	8	10. 45. 21.80	1849.3	3	3.938	-0.0939	..	0.02415	0.09637	1.46153	0.03015	90.832	26. 15.
729	7 Crateris.....	4*	10. 52. 28.24	1850.5	8	2.948	+0.0046	-0.029	0.05428	0.08647	1.44636	0.08640	87.123	107. 30. 3.70
730	48 Ursæ Majoris	2.3*	10. 52. 45.34	1850.5	4	3.670	-0.0653	+0.015	0.03432	0.09187	1.45743	0.04180	90.125	32. 48. 53.63
731	58 Leonis	5*	10. 52. 48.75	1852.0	16	+3.101	-0.0058	+0.003	0.05537	0.08612	1.44871	0.07739	87.521	85. 34. 41.68
732	50 Ursæ Majoris.....	2*	10. 54. 25.70	1850.2	50	3.797	-0.0848	-0.013	0.02580	0.09371	1.45936	0.03215	90.971	27. 26. 25.59
733	63 Leonis.....	5*	10. 57. 16.64	1851.8	20	3.122	-0.0077	-0.019	0.05506	0.08572	1.44906	0.07585	87.648	81. 51. 15.08
734	52 Ursæ Majoris.....	3*	11. 1. 12.61	1850.4	6	3.414	-0.0390	-0.003	0.04466	0.08780	1.45352	0.05492	89.225	44. 41. 19.17
735	11 Crateris.....	4*	11. 4. 17.20	1850.2	5	2.941	+0.0077	+0.006	0.05316	0.08540	1.44623	0.08855	87.130	112. 0. 28.00

702. The R.A. of the text, which is confirmed by the Oxford Observations, differs nearly 4^s from Groombridge.

702, 728. The magnitude is taken from Groombridge.

721. Of the 11th or 12th magnitude.

712. The designating letter β is added in the B.A.C.727. This star is named ν Hydræ in the B.A.C.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850 from Bessel's Elements.	Secular of Variation in Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of V	No. in Bessel's Bradley.	No. in Piazzi, (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1852.2	5	+17.73	+0.220	+0.04	9.95253	0.15259	1.63077	0.22196	59.106	1426	X. 27	..	..	3510	37 Leonis	701
..	..	17.77	+0.248	..	0.08192	0.25844	1.63114	0.22107	41.565	..	...	..	..	..	Groombridge 1635 ..	702
..	..	17.84	+0.222	..	9.99224	0.19100	1.63190	0.21921	53.804	..	...	..	..	..	.....	703
1852.6	26	17.86	+0.219	+0.15	9.97951	0.17991	1.63202	0.21885	55.513	1432	X. 38	425	872	3523	41 Leonis	704
1850.0	20	17.88	+0.544	+0.07	0.20395	0.31922	1.63227	0.21828	25.093	..	X. 22	..	877	3528	Piazzi X. 22	705
1850.5	10	+17.92	+0.237	-0.03	0.07207	0.25548	1.63268	0.21712	42.744	1434	X. 45	426	880	3533	34 Ursæ Majoris	706
1852.8	11	17.94	+0.211	+0.01	9.95594	0.15911	1.63285	0.21672	58.646	1436	X. 47	..	..	3534	42 Leonis	707
1848.8	2	18.02	+0.197	+0.10	9.88360	0.07835	1.63365	0.21461	68.336	1442	X. 57	..	883	3550	24 Sextantis	708
1850.3	2	18.07	+0.195	..	9.88411	0.07909	1.63406	0.21351	68.317	..	...	..	884	..	W. B. X. 290	709
1850.6	9	18.13	+0.181	+0.12	9.82262	9.97758	1.63482	0.21143	77.200	1451	X. 74	428	..	3568	42 Hydræ	710
1850.2	7	+18.15	+0.272	+0.02	0.15120	0.30730	1.63495	0.21109	31.439	..	X. 69	..	887	3571	35 Ursæ Majoris	711
1852.1	14	18.15	+0.218	+0.11	0.04715	0.24318	1.63495	0.21106	45.949	1448	X. 72	429	888	3572	31 Leonis Minoris	712
1853.2	6	18.21	+0.197	+0.04	9.94955	0.15733	1.63554	0.20937	59.495	..	X. 83	..	..	3579	Piazzi X. 83	713
..	..	18.24	+0.185	+0.04	9.87621	0.06772	1.63592	0.20824	69.708	1457	X. 86	..	894	3590	29 Sextantis	714
1849.0	8	18.26	+0.324	-0.01	0.17639	0.31913	1.63605	0.20788	28.091	1446	X. 78	432	895	3593	Bradley 1446	715
1852.1	31	+18.35	+0.186	+0.04	9.92594	0.13357	1.63701	0.20496	62.819	1467	X. 102	433	896	3600	47 Leonis	716
1852.2	2	18.47	+0.365	+0.02	0.18135	0.32435	1.63825	0.20116	27.385	1458	...	..	..	3629	Bradley 1458	717
..	..	18.58	+0.232	+0.08	0.13729	0.31171	1.63931	0.19756	32.761	1476	X. 124	..	904	3647	38 Ursæ Majoris	718
1849.1	8	18.60	+0.242	+0.05	0.14652	0.31617	1.63953	0.19690	31.528	..	X. 126	438	907	3652	B. F. 1510	719
1853.9	1	18.65	+0.164	+0.14	9.88079	0.07354	1.63999	0.19520	69.821	1482	X. 134	..	..	3663	33 Sextantis	720
1849.3	1	+18.66	+0.246	..	0.15143	0.31939	1.64008	0.19493	30.858	..	...	..	..	..	.....	721
1852.5	27	18.69	+0.165	+0.01	9.90029	0.10412	1.64038	0.19393	66.856	1484	X. 138	..	908	3667	34 Sextantis	722
1850.2	1	18.72	+0.145	+0.02	9.80731	9.84903	1.64064	0.19294	84.857	..	X. 143	..	909	3677	Piazzi X. 143	723
1852.3	11	18.80	+0.162	+0.10	9.93998	0.15908	1.64144	0.18985	60.904	1494	X. 152	..	914	3693	52 Leonis	724
1852.4	31	18.89	+0.155	-0.01	9.92458	0.14150	1.64231	0.18652	63.284	1500	X. 162	..	916	3708	53 Leonis	725
1849.0	12	+18.90	+0.188	+0.09	0.10500	0.30474	1.64248	0.18586	36.698	1498	X. 161	..	917	3714	42 Ursæ Majoris	726
1850.5	10	18.91	+0.143	-0.17	9.84081	9.97747	1.64256	0.18551	77.924	1504	X. 167	442	..	3715	4 Crateris	727
..	..	19.00	+0.185	..	0.11271	0.31162	1.64339	0.18221	35.534	..	...	..	923	..	Groombridge 1702 ..	728
1850.6	7	19.19	+0.125	-0.14	9.84436	9.96012	1.64533	0.17330	79.434	1525	X. 209	448	..	3766	7 Crateris	729
1850.4	8	19.20	+0.155	-0.03	0.08203	0.30200	1.64542	0.17296	39.420	1523	X. 207	449	924	3767	48 Ursæ Majoris	730
1852.0	17	+19.20	+0.131	+0.05	9.89741	0.10511	1.64542	0.17290	68.149	1526	X. 210	450	925	3768	58 Leonis	731
1850.6	107	19.24	+0.156	+0.09	0.09707	0.31204	1.64582	0.17091	37.311	1528	X. 217	452	929	3777	50 Ursæ Majoris	732
1851.5	22	19.31	+0.123	+0.08	9.90779	0.12595	1.64651	0.16740	66.441	1535	X. 236	454	934	3788	63 Leonis	733
1850.8	6	19.40	+0.126	+0.09	0.03149	0.27593	1.64738	0.16247	46.307	1542	X. 253	456	937	3812	52 Ursæ Majoris	734
1850.3	4	19.47	+0.103	+0.10	9.84973	9.92234	1.64804	0.15858	82.028	1545	XI. 6	458	..	3826	11 Crateris	735

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regiomontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of ι	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
736	68 Leonis..... δ	2.3*	11. 6. 7.49	1850.5	81	+3.192	-0.0152	+0.017	0.05323	0.08518	1.45013	0.06991	88.126	68.39. 19.13
737	B. F. 1589.....	6	11. 6. 11.16	1850.3	2	3.087	-0.0045	..	0.05502	0.08476	1.44852	0.07793	87.615	86.54. 51.20
738	70 Leonis..... θ	3.4*	11. 6. 21.83	1852.3	9	3.161	-0.0119	0.000	0.05402	0.08497	1.44965	0.07230	87.964	73.45. 5.22
739	73 Leonis..... η	6*	11. 8. 0.85	1852.3	3	3.146	-0.0105	+0.003	0.05423	0.08474	1.44942	0.07323	87.922	75.52. 30.43
740	Rümker 3507.....	..	11. 10. (10.)	..	..	3.639	-0.0816	..	0.02377	0.09061	1.45701	0.03012	91.628	27. 0. 0.60
741	53 Ursæ Majoris..... ξ^1	4.3*	11. 10. 10.12	1850.7	3	+3.253	-0.0234	-0.030	0.05036	0.08530	1.45107	0.06398	88.628	57.37. 39.37
742	53 Ursæ Majoris..... ξ^2	4.3*	11. 10. 10.38	1850.3	2	3.253	-0.0234	-0.030	0.05036	0.08530	1.45107	0.06398	88.628	57.38.....
743	54 Ursæ Majoris..... ν	3.4*	11. 10. 22.08	1850.8	2	3.264	-0.0248	+0.004	0.04982	0.08539	1.45123	0.06304	88.706	56. 5. 16.77
744	12 Crateris..... δ	3.4*	11. 11. 50.71	1850.6	77	3.001	+0.0043	-0.004	0.05416	0.08435	1.44718	0.08501	87.314	103.58. 2.99
745	77 Leonis..... σ	4*	11. 13. 24.05	1850.7	11	3.103	-0.0062	-0.004	0.05470	0.08406	1.44876	0.07633	87.777	83. 8. 57.18
746	Piazzi XI. 55.....	5½	11. 15. (58.)	..	..	+2.890	+0.0159	+0.015	0.04913	0.08479	1.44544	0.09568	86.986	125.20. 33.53
747	78 Leonis.....	4*	11. 16. 6.17	1851.5	9	3.122	-0.0085	+0.015	0.05433	0.08384	1.44904	0.07439	87.927	78.38. 42.81
748	15 Crateris..... γ	4*	11. 17. 23.62	1850.5	5	2.996	+0.0061	-0.006	0.05368	0.08382	1.44709	0.08631	87.297	106.51. 38.38
749	83 Leonis.....	7	11. 19. 9.68	1849.6	9	3.087	-0.0043	-0.051	0.05470	0.08345	1.44851	0.07759	87.753	86.10. 10.88
750	Piazzi XI. 71.....	7.8	11. 19. 10.77	1849.6	8	3.087	-0.0043	..	0.05470	0.08345	1.44851	0.07759	88.753	86.10. 36.55
751	84 Leonis..... τ	5*	11. 20. 13.34	1851.5	26	+3.086	-0.0041	+0.005	0.05469	0.08334	1.44848	0.07766	87.759	86.19. 5.59
752	W. B. XI. 349.....	8	11. 20. 14.41	1848.3	1	3.086	-0.0041	..	0.05469	0.08335	1.44848	0.07765	87.760	86.20. 38.99
753	1 Draconis..... λ	3.4*	11. 22. 26.50	1850.5	6	3.675	-0.1159	-0.004	0.00269	0.09064	1.45751	0.00763	94.190	19.50. 29.40
754	Bradley 1580.....	4*	11. 25. 38.01	1850.3	3	2.951	+0.0145	-0.010	0.05040	0.08337	1.44639	0.09331	87.100	121. 1. 40.88
755	.....	..	11. 26. 20.58	1852.3	1	3.153	-0.0150	..	0.05248	0.08298	1.44952	0.06901	88.437	67. 9. 23.22
756	20 Crateris.....	6	11. 27. 12.62	1853.3	3	+2.951	+0.0152	-0.055	0.05006	0.08322	1.44640	0.09388	87.091	122. 2. 13.57
757	21 Crateris..... θ	4.5*	11. 29. 4.56	1850.6	7	3.042	+0.0028	+0.001	0.05428	0.08245	1.44781	0.08293	87.534	98.58. 23.80
758	91 Leonis..... ν	5.4*	11. 29. 16.16	1852.5	14	3.071	-0.0017	+0.003	0.05459	0.08239	1.44825	0.07916	87.747	89.59. 45.52
759	Lalande 22026.....	7	11. 29. (30.)	..	..	3.251	-0.0355	..	0.04359	0.08377	1.45106	0.05407	89.824	44.27. 14.60
760	.....	..	11. 29. 40.38	1853.3	1	3.057	+0.0007	..	0.05450	0.08234	1.44803	0.08110	87.638	94.34. 42.15
761	27 Crateris..... ζ	5*	11. 37. 9.94	1850.7	6	+3.029	+0.0078	+0.004	0.05325	0.08169	1.44760	0.08670	87.407	107.31. 1.63
762	2 Virginis..... ξ	5.4*	11. 37. 33.05	1852.3	7	3.092	-0.0061	+0.005	0.05416	0.08157	1.44858	0.07532	88.069	80.54. 29.71
763	63 Ursæ Majoris..... χ	4*	11. 38. 6.57	1850.9	2	3.215	-0.0381	-0.006	0.04125	0.08264	1.45048	0.05103	90.294	41.23. 20.70
764	3 Virginis..... ν	4.5*	11. 38. 8.85	1852.1	5	3.087	-0.0052	+0.006	0.05427	0.08149	1.44852	0.07606	88.021	82.37. 48.98
765	4 Virginis..... A^1	6*	11. 40. 12.33	1852.3	4	3.089	-0.0059	+0.003	0.05412	0.08128	1.44854	0.07532	88.096	80.55. 17.33
766	93 Leonis.....	4.5*	11. 40. 14.46	1851.4	1	+3.115	-0.0129	-0.008	0.05263	0.08141	1.44895	0.06982	88.526	68.56. 50.94
767	Lalande 22308.....	8	11. 41. 14.51	1851.3	1	3.101	-0.0093	..	0.05350	0.08121	1.44871	0.07253	88.319	74.40.....
768	94 Leonis..... β	2*	11. 41. 24.34	1851.0	95	3.101	-0.0094	-0.035	0.05349	0.08121	1.44871	0.07250	88.321	74.35. 22.95
769	5 Virginis..... β	3.4*	11. 42. 52.94	1850.2	12	3.075	-0.0024	+0.053	0.05439	0.08098	1.44833	0.07808	87.924	87.23. 24.31
770	Groombridge 1830...	6½	11. 44. 19.15	1851.0	17	3.144	-0.0260	+0.344	0.04714	0.08131	1.44939	0.05939	89.550	51.12. 21.86

737. The N.P.D. of this star in the B.A.C. is 1' in error.

740. Of the 7.8th magnitude.

741, 742. A close double star, the components being of the 5th and 5.6th magnitudes respectively.

749. This star was also noted by the observer to be of the 7th magnitude.

750. Of the 8th magnitude (Greenwich Observations, 1850). The R.A. differs about 3' from Piazzi; the magnitude in the text is from that authority. By comparison with the Catalogues of Piazzi, Weisse, and Taylor, it appears to have a proper motion nearly the same as that of 83 Leonis.

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1850.5	85	+19.50	+0.108	+0.14	9.94479	0.19145	1.64838	0.15622	59.909	1546	XI. 10	459	939	3834	68 Leonis	736
1850.3	3	19.51	+0.105	..	9.89164	0.09764	1.64838	0.15614	69.999	..	...	..	..	3836	B. F. 1589	737
1852.3	9	19.51	+0.107	+0.03	9.92854	0.16797	1.64843	0.15591	62.783	1548	XI. 13	460	..	3838	70 Leonis	738
1852.3	3	19.54	+0.103	+0.04	9.92120	0.15769	1.64878	0.15379	64.129	1550	XI. 20	..	941	3843	73 Leonis	739
1850.3	2	19.58	+0.115	..	0.07740	0.31597	1.64914	0.15098	39.483	..	...	..	944	..	Rümker 3507	740
1851.3	1	+19.58	+0.102	+0.57	9.97726	0.23625	1.64918	0.15096	54.310	1553	XI. 28	463	..	3851	53 Ursæ Majoris	741
...	..	19.58	+0.102	+0.57	9.97726	0.23625	1.64918	0.15096	54.310	1553	XI. 28	463	..	3851	53 Ursæ Majoris	742
1850.7	3	19.59	+0.102	-0.04	9.98217	0.24176	1.64922	0.15072	53.506	1554	XI. 29	464	..	3852	54 Ursæ Majoris	743
1851.0	63	19.61	+0.091	-0.17	9.86248	9.98405	1.64949	0.14879	78.932	1557	XI. 38	467	946	3859	12 Crateris	744
1851.0	8	19.64	+0.091	+0.02	9.89938	0.11953	1.64976	0.14673	68.629	1558	XI. 42	468	948	3862	77 Leonis	745
1849.3	1	+19.69	+0.081	+0.21	9.86657	9.80085	1.65019	0.14331	87.409	..	XI. 55	..	..	3875	Piazzi XI. 55	746
1851.7	8	19.69	+0.087	+0.06	9.90957	0.14404	1.65019	0.14313	66.483	1560	XI. 54	469	949	3877	78 Leonis	747
1850.7	3	19.71	+0.081	-0.04	9.86397	9.96140	1.65041	0.14140	80.576	1564	XI. 62	472	..	3883	15 Crateris	748
1850.3	4	19.74	+0.080	-0.16	9.89142	0.10234	1.65068	0.13902	70.769	1568	XI. 70	..	953	3894	83 Leonis	749
1850.3	4	19.74	+0.080	..	9.89142	0.10234	1.65068	0.13902	70.769	..	XI. 71	..	954	..	Piazzi XI. 71	750
1851.3	32	+19.75	+0.078	+0.03	9.89099	0.10150	1.65086	0.13756	70.943	1570	XI. 76	473	955	3900	84 Leonis	751
1850.7	4	19.75	+0.078	..	9.89098	0.10150	1.65081	0.13792	70.921	..	...	..	956	..	W.B. XI. 349	752
1849.9	14	19.79	+0.087	+0.08	0.08142	0.32799	1.65116	0.13454	38.820	1572	XI. 86	474	958	3914	1 Draconis	753
1850.3	5	19.83	+0.064	+0.03	9.87567	9.83905	1.65156	0.13014	86.436	1580	XI. 103	476	..	3928	Bradley 1580	754
1852.3	1	19.84	+0.067	..	9.93268	0.19973	1.65169	0.12893	61.543	..	...	..	..	..	.....	755
1852.8	4	+19.85	+0.061	-0.82	9.87881	9.82927	1.65178	0.12794	86.827	1584	XI. 110	..	963	3934	20 Crateris	756
1850.6	10	19.87	+0.060	-0.01	9.87525	0.01930	1.65200	0.12533	77.894	1585	XI. 114	477	..	3943	21 Crateris	757
1852.6	16	19.88	+0.060	-0.01	9.88423	0.07920	1.65200	0.12506	73.657	1586	XI. 116	478	964	3946	91 Leonis	758
1848.3	1	19.88	+0.063	..	9.99585	0.28039	1.65203	0.12473	50.388	..	...	..	965	..	Lalande 22026	759
1853.3	1	19.88	+0.059	..	9.87898	0.04941	1.65207	0.12426	75.929	..	...	..	..	..	.....	760
1850.7	7	+19.96	+0.044	+0.01	9.87869	9.95448	1.65280	0.11377	82.144	1598	XI. 150	479	..	3978	27 Crateris	761
1852.3	7	19.96	+0.044	+0.04	9.89595	0.13266	1.65280	0.11320	70.000	1599	XI. 151	480	..	3979	2 Virginis	762
1849.8	9	19.96	+0.045	-0.02	9.99325	0.28932	1.65285	0.11238	50.378	1600	XI. 152	481	969	3981	63 Ursæ Majoris	763
1851.9	3	19.96	+0.043	+0.20	9.89309	0.12310	1.65285	0.11233	70.928	1601	XI. 153	482	970	3982	3 Virginis	764
1852.3	3	19.98	+0.039	+0.02	9.89495	0.13264	1.65302	0.10932	70.309	1602	XI. 158	..	..	3989	4 Virginis	765
1850.6	6	+19.98	+0.039	0.00	9.91692	0.19255	1.65302	0.10927	64.276	1603	XI. 159	483	..	3990	93 Leonis	766
...	..	19.99	+0.037	..	9.90466	0.16541	1.65311	0.10772	67.313	..	...	..	..	..	Lalande 22308	767
1850.9	91	19.99	+0.037	+0.10	9.90476	0.16579	1.65311	0.10756	67.289	1605	XI. 163	484	972	3995	94 Leonis	768
1850.3	8	20.00	+0.034	+0.28	9.88641	0.09532	1.65320	0.10538	73.755	1606	XI. 166	485	975	4002	5 Virginis	769
1851.4	19	20.01	+0.031	+5.70	9.95646	0.26127	1.65329	0.10325	56.040	..	...	..	976	4010	Groombridge 1830 ...	770

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argu- lander*, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Preces- sion in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value f l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
771	28 Crateris	4*	11. 45. 20.52	1849.0	3	+3.015	+0.0179	-0.001	0.04945	0.08126	1.44739	0.09459	87.139	123. 4.
772	64 Ursæ Majoris	2.3*	11. 45. 55.09	1850.4	49	3.186	-0.0458	+0.016	0.03557	0.08173	1.45003	0.04400	91.200	35. 28. 16.55
773	.....		11. 46. 48.72	1852.2	1	3.106	-0.0147	..	0.05184	0.08071	1.44880	0.06800	88.759	65. 21. 10.62
774	Lalande 22440.....	9½	11. 47. 7.97	1848.3	1	3.080	-0.0043	..	0.05423	0.08057	1.44839	0.07635	88.079	83. 22.
775	Lalande 22547.....	8	11. 51. 0.83	1851.2	19	3.113	-0.0251	..	0.04712	0.08041	1.44891	0.05940	89.650	51. 17. 19.78
776	7 Virginis	6*	11. 52. (20.)	..	..	+3.074	-0.0027	+0.004	0.05430	0.08000	1.44831	0.07728	88.055	85. 30. 33.48
777	8 Virginis	4.5*	11. 53. 11.11	1852.4	16	3.076	-0.0043	+0.003	0.05415	0.07990	1.44834	0.07602	88.157	82. 32. 57.51
778	Lalande 22608.....	9	11. 53. 49.43	1848.3	1	3.106	-0.0298	..	0.04434	0.08009	1.44879	0.05532	90.128	46. 7. 20.53
779	67 Ursæ Majoris	5*	11. 54. 28.84	1848.3	2	3.102	-0.0296	-0.028	0.04436	0.08000	1.44874	0.05534	90.134	46. 7. 19.88
780	Piazzi XL 218.....	7	11. 54. (52.)	..	..	3.099	-0.0296	-0.017	0.04432	0.07994	1.44870	0.05530	90.148	46. 3. 33.74
781	.....	..	11. 55. 40.12	1852.3	1	+3.075	-0.0051	..	0.05404	0.07966	1.44832	0.07528	88.232	80. 51. 46.81
782	Groombridge 1850 ..	6	11. 57. 4.38	1850.8	4	3.340	-0.5606	..	9.12436	0.08413	1.45239	9.13073	138.942	3. 34. 53.31
783	9 Virginis	4*	11. 57. 34.04	1852.1	17	3.073	-0.0051	-0.009	0.05400	0.07945	1.44830	0.07509	88.264	80. 26. 1.66
784	W.B. XL 1038.....	8.9	12. 1. 1.54	1848.3	1	3.070	-0.0020	..	0.05430	0.07909	1.44824	0.07750	88.108	86. 3.
785	10 Virginis	6*	12. 2. 0.17	1853.3	5	3.070	-0.0013	+0.004	0.05433	0.07897	1.44824	0.07803	88.078	87. 15. 34.69
786	2 Corvi	3*	12. 2. 25.03	1851.5	14	+3.076	+0.0122	+0.001	0.05238	0.07891	1.44834	0.08872	87.456	111. 47. 6.85
787	.....	..	12. 3. 13.65	1853.2	1	3.074	+0.0052	..	0.05401	0.07883	1.44830	0.08320	87.746	99. 32. 25.87
788	4 Comæ	6*	12. 4. (14.)	..	..	3.058	-0.0147	-0.001	0.05130	0.07868	1.44807	0.06686	89.067	63. 17. 37.26
789	B. F. 1693.....	6	12. 7. (57.)	..	..	2.936	-0.0787	..	9.99781	0.07660	1.44615	0.00264	96.628	18. 57. 53.91
790	69 Ursæ Majoris	3.4*	12. 7. (59.)	..	..	2.997	-0.0448	+0.019	0.03130	0.07760	1.44710	0.03899	92.298	32. 8. 0.87
791	4 Corvi	2*	12. 8. 5.86	1850.6	8	+3.085	+0.0095	-0.008	0.05325	0.07829	1.44847	0.08636	87.598	106. 42. 31.73
792	2 Canum Venaticum ..	6*	12. 8. (36.)	..	..	3.026	-0.0251	+0.008	0.04574	0.07799	1.44757	0.05733	90.145	48. 30. 15.75
793	Lalande 23048	7½	12. 10. 49.15	1852.3	1	3.061	-0.0040	..	0.05409	0.07802	1.44818	0.07540	88.351	81. 6. 6.67
794	13 Virginis	6	12. 10. 58.99	1849.9	2	3.071	+0.0006	+0.004	0.05438	0.07804	1.44825	0.07916	88.061	89. 57. 11.60
795	.....	..	12. 12. 7.54	1852.3	1	3.060	-0.0039	..	0.05409	0.07789	1.44808	0.07541	88.362	81. 8. 36.64
796	15 Virginis	3.4*	12. 12. 13.95	1852.2	24	+3.070	+0.0006	-0.003	0.05439	0.07790	1.44825	0.07911	88.072	89. 49. 57.85
797	Bradley 1656.....	6*	12. 12. 24.96	1851.0	4	1.551	-0.0055	+0.325	..	..	..	..	..	2. 43. 48.73
798	16 Virginis	5*	12. 12. 43.96	1852.2	1	3.065	-0.0015	-0.016	0.05433	0.07784	1.44818	0.07743	88.201	85. 51. 6.39
799	Groombridge 1867 ..	7	12. 12. 44.59	1849.4	3	+3.012	-0.0223	..	0.04714	0.07747	1.44733	0.05941	89.974	51. 15. 52.47
800	Bradley 1672.....	6*	12. 14. 23.43	1850.9	3	-0.235	+1.3403	-0.173	†. .	..	..	..	..	1. 28. 5.83
801	Centauri	6	12. 15. 42.77	1850.3	1	+3.134	+0.0223	-0.017	0.04892	0.07717	1.44923	0.09546	87.252	124. 34. 48.95
802	13 Comæ	5*	12. 16. (47.)	..	..	3.021	-0.0137	+0.001	0.05132	0.07719	1.44748	0.06677	89.221	63. 4. 8.52
803	Centauri	6	12. 17. 28.70	1850.3	1	3.140	+0.0223	+0.025	0.04902	0.07694	1.44933	0.09533	87.264	124. 21. 15.03
804	6 Canum Venaticum ..	5.6*	12. 18. (30.)	..	..	2.981	-0.0223	-0.003	0.04667	0.07665	1.44685	0.05864	90.148	50. 8. 55.83
805	Groombridge 1892 ..	6	12. 19. 7.57	1852.4	1	1.964	-0.0815	..	9.72888	0.05864	1.43078	9.73159	122.164	5. 44. 24.05

781. Of the 11.12th magnitude.

797. The observer (1850) notes this of the 7.8th magnitude.

800. Of the 9.10th magnitude. The R.A. of the text, which is confirmed by the Oxford Observations, differs nearly 9' from the B.A.C.

805. The R.A. differs 2' from the B.A.C.

† For No. 797, log. e = -9.29519, log. f = 0.05081, log. g = 1.42408, log. h = 9.29165, l = 159.862.

† For No. 800, log. e = -0.14470, log. f = 0.01500, log. g = 1.39385, log. h = -0.14450, l = 224.156.

FROM OBSERVATIONS MADE AT THE ROYAL OBSERVATORY, FROM 1848 TO 1853.

(lxxiii)

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
..	..	"	"	"	9'90387	9'81649	1'65334	0'10172	87'966	1607	XI. 172	486	977	4015	28 Crateris	771
1850'9	35	20'02	+ 0'029	+ 0'02	9'99922	0'30381	1'65338	0'10084	49'169	1608	XI. 174	487	978	4017	64 Ursæ Majoris	772
1852'2	1	20'02	+ 0'026	..	9'91871	0'20847	1'65343	0'09948	63'401	..	...	..	..	..	.....	773
..	..	20'03	+ 0'025	..	9'88953	0'11923	1'65343	0'09925	72'271	..	...	..	980	..	Lalande 22440	774
1851'2	20	20'04	+ 0'018	..	9'94763	0'26130	1'65360	0'09342	57'163	..	...	..	982	..	Lalande 22547	775
1848'3	3	+ 20'04	+ 0'015	+ 0'04	9'88647	0'10662	1'65365	0'09122	73'897	1617	XI. 208	..	983	4049	7 Virginis	776
1851'7	22	20'05	+ 0'013	+ 0'05	9'88853	0'12373	1'65365	0'08981	72'621	1618	XI. 211	488	984	4052	8 Virginis	777
1850'3	3	20'05	+ 0'013	..	9'95731	0'27725	1'65369	0'08924	55'232	..	...	..	986	..	Lalande 22608	778
1849'2	12	20'05	+ 0'011	- 0'02	9'95613	0'27714	1'65369	0'08781	55'417	1621	XI. 217	..	987	4057	67 Ursæ Majoris	779
1848'4	1	20'05	+ 0'010	+ 0'58	9'95568	0'27732	1'65369	0'08721	55'463	..	XI. 218	..	988	4059	Piazzi XI. 218	780
1852'3	1	20'05	+ 0'009	..	9'88897	0'13313	1'65371	0'08598	72'137	..	...	..	..	..	.....	781
1851'2	11	20'05	+ 0'006	..	0'07391	0'34202	1'65374	0'08372	41'033	..	...	..	..	4070	Groombridge 1850 ...	782
1852'2	16	20'05	+ 0'005	0'00	9'88870	0'13351	1'65374	0'08300	72'167	1623	XI. 228	489	989	4072	9 Virginis	783
..	..	20'06	- 0'002	..	9'88463	0'10352	1'65374	0'07799	75'120	..	...	..	993	..	W. B. XI. 1038	784
1853'3	5	20'05	- 0'004	+ 0'23	9'88428	0'09617	1'65374	0'07601	75'806	1625	XI. 246	..	..	4094	10 Virginis	785
1851'8	14	20'05	- 0'005	- 0'02	9'90357	9'91850	1'65374	0'07534	85'455	1626	XI. 248	491	..	4097	2 Corvi	786
1853'2	1	20'05	- 0'006	..	9'88891	0'01444	1'65374	0'07388	81'095	..	...	..	..	..	.....	787
1852'4	2	20'05	- 0'008	- 0'01	9'90525	0'21732	1'65374	0'07244	65'063	1630	XII. 7	..	..	4107	4 Comæ	788
1852'2	2	20'04	- 0'015	..	0'01122	0'33146	1'65365	0'06645	47'529	..	...	..	..	4122	B. F. 1693	789
1848'6	23	20'04	- 0'015	+ 0'06	9'97298	0'31096	1'65365	0'06640	52'168	1637	XII. 22	493	998	4123	69 Ursæ Majoris	790
1850'7	11	+ 20'04	- 0'016	- 0'02	9'90014	9'96031	1'65365	0'06621	84'149	1638	XII. 24	494	..	4124	4 Corvi	791
1848'3	3	20'04	- 0'017	+ 0'03	9'92948	0'26999	1'65361	0'06539	59'085	1640	XII. 27	..	999	4126	2 Canum Venaticum...	792
1852'3	1	20'03	- 0'021	..	9'88292	0'13179	1'65352	0'06147	74'205	..	...	..	..	..	Lalande 23048	793
1849'9	2	20'03	- 0'022	+ 0'06	9'88423	0'07948	1'65352	0'06149	77'989	1643	XII. 38	497	1000	4137	13 Virginis	794
1852'3	1	20'03	- 0'024	..	9'88241	0'13151	1'65347	0'05953	74'383	..	...	..	..	..	.....	795
1852'1	27	+ 20'03	- 0'024	+ 0'04	9'88411	0'08024	1'65347	0'05943	78'084	1647	XII. 44	498	1002	4145	15 Virginis	796
1850'7	5	20'03	- 0'012	+ 0'08	0'05119	0'34193	1'65347	0'05911	44'258	1656	...	..	1004	4150	Bradley 1656	797
1852'2	1	20'02	- 0'025	+ 0'07	9'88263	0'10456	1'65347	0'05861	76'471	1652	XII. 50	499	1005	4151	16 Virginis	798
1850'3	5	20'02	- 0'024	..	9'91725	0'26120	1'65347	0'05859	61'075	..	...	..	..	..	Groombridge 1867 ...	799
1851'3	2	20'02	+ 0'002	- 0'06	0'05135	0'34197	1'65338	0'05561	44'483	1672	...	..	1007	4165	Bradley 1672	800
1848'3	1	+ 20'01	- 0'031	+ 0'17	9'94526	9'80192	1'65329	0'05367	89'819	..	XII. 66	..	..	4174	Centauri	801
1849'3	2	20'00	- 0'032	+ 0'02	9'89207	0'21794	1'65325	0'05187	67'030	1661	XII. 70	502	..	4181	13 Comæ	802
1848'3	1	20'00	- 0'035	+ 0'02	9'94681	9'80441	1'65320	0'05068	89'855	..	XII. 74	..	..	4183	Centauri	803
1849'2	9	9'99	- 0'035	+ 0'09	9'91133	0'26451	1'65311	0'04905	61'673	1664	XII. 79	..	1009	4188	6 Canum Venaticum...	804
1852'4	2	19'99	- 0'024	..	0'03092	0'34075	1'65307	0'04797	46'464	..	...	..	..	4193	Groombridge 1892...	805

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weiss's *Catalogus Stellarum ex Zonis Regiomontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R. A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of 1	Mean North Polar Distance, 1850, Jan. 1.
									o	f	g	h		
806	.....	..	12. 20. 2'39	1852.2	2	+3.028	-0.0095	..	0.05278	0.07692	1.44758	0.07024	88.905	69. 48. 27.75
807	Piazzi XII. 87.....	6	12. 20. 2'59	1851.3	1	3.104	+0.0097	+0.004	0.05345	0.07699	1.44877	0.08594	87.681	105. 48. 3.74
808	B. F. 1726.....	6	12. 21. (10)	..	..	3.008	-0.0134	..	0.05133	0.07668	1.44727	0.06673	89.274	62. 56. 33.10
809	7 Corvi.....	2.3*	12. 22. 6'52	1851.7	16	3.107	+0.0097	-0.001	0.05349	0.07676	1.44881	0.08588	87.696	105. 40. 47.03
810	Piazzi XII. 118.....	7	12. 25. 56'37	1848.4	2	3.048	-0.0029	+0.007	0.05424	0.07642	1.44790	0.07558	88.455	81. 30.
811	21 Virginis.....	6*	12. 26. 2'51	1848.4	3	+3.094	+0.0060	-0.003	0.05423	0.07641	1.44862	0.08281	87.901	98. 37.
812	9 Corvi.....	2.3*	12. 26. 31'03	1850.7	83	3.135	+0.0143	-0.004	0.05242	0.07615	1.44924	0.08904	87.552	112. 33. 59.71
813	8 Canum Venaticum .	4.5*	12. 26. 36'61	1851.1	3	2.930	-0.0229	-0.065	0.04558	0.07540	1.44607	0.05691	90.478	47. 49. 35.91
814	5 Draconis.....	3.4*	12. 27. 3'37	1850.4	1	2.623	-0.0582	-0.013	0.00022	0.07053	1.44127	0.00512	97.135	19. 23. 3.43
815	6 Draconis.....	5½	12. 28. 21'60	1848.7	3	2.595	-0.0573	+0.019	9.99928	0.07001	1.44084	0.00410	97.316	19. 9.
816	9 Canum Venaticum ..	6*	12. 31. (30)	...	..	+2.907	-0.0218	+0.004	0.04593	0.07473	1.44572	0.05733	90.500	48. 17. 56.26
817	29 Virginis (S. Star) ..	3.2*	12. 34. 3'45	1852.6	3	3.073	+0.0022	-0.033	0.05464	0.07560	1.44829	0.07945	88.187	90. 37. 34.86
818	29 Virginis (as one mass)	3.2*	12. 34. 3'70	1851.4	17	3.073	+0.0022	-0.033	0.05464	0.07560	1.44829	0.07945	88.187	90. 37. 33.90
819	29 Virginis (N. Star) ..	3.2*	12. 34. 3'64	1852.7	6	3.073	+0.0022	-0.033	0.05464	0.07560	1.44829	0.07945	88.187	90. 37. 31.94
820	Groombridge 1918 ..	6.7	12. 36. 28'21	1848.4	3	2.673	-0.0390	..	0.02522	0.07097	1.44205	0.03189	93.955	28. 1. 22.90
821	W. B. XII. 619.....	7	12. 36. (30)	...	..	+3.078	+0.0030	..	0.05466	0.07536	1.44837	0.08002	88.158	92. 1. 14.86
822	35 Virginis.....	6	12. 40. 13'24	1850.5	11	3.053	0.0000	+0.002	0.05467	0.07494	1.44798	0.07735	88.400	85. 36. 26.11
823	W. B. XII. 706.....	9	12. 41. 18'93	1850.3	1	3.009	-0.0051	..	0.05390	0.07469	1.44727	0.07285	88.827	75. 8. 36.20
824	30 Comæ.....	6*	12. 42. (0)	...	..	2.939	-0.0122	-0.007	0.05135	0.07416	1.44621	0.06618	89.565	61. 37. 47.62
825	37 Virginis.....	6	12. 43. 58'84	1853.3	8	3.053	+0.0004	+0.002	0.05477	0.07454	1.44799	0.07758	88.405	86. 7. 36.13
826	38 Virginis.....	6	12. 45. 30'51	1853.4	2	+3.083	+0.0039	-0.011	0.05483	0.07438	1.44845	0.08030	88.189	92. 44. 14.09
827	35 Comæ.....	5*	12. 45. (50)	..	..	2.963	-0.0084	-0.003	0.05289	0.07396	1.44658	0.06949	89.228	67. 56. 18.76
828	.....	..	12. 46. 6'05	1852.4	1	3.066	+0.0019	..	0.05487	0.07433	1.44817	0.07870	88.321	88. 49. 37.61
829	77 Ursæ Majoris.....	2*	12. 47. 24'96	1850.6	2	2.651	-0.0298	+0.017	0.03380	0.07003	1.44172	0.04154	92.912	33. 13. 30.61
830	Bradley 1730	5.4*	12. 47. 57'65	1850.9	3	0.321	+0.2314	-0.017	9.74109	0.02620	1.40348	9.74366	125.432	5. 45. 58.99
831	43 Virginis.....	3*	12. 48. 2'95	1851.5	26	+3.050	+0.0006	-0.027	0.05485	0.07412	1.44793	0.07744	88.434	85. 47. 10.59
832	Bradley 1731.....	5.4*	12. 48. 5'76	1850.9	3	0.316	+0.2321	-0.028	9.74156	0.02610	1.40339	9.74413	125.414	5. 46. 17.70
833	12 Can. Venat. (1st Star)	7	12. 48. 58'89	1852.4	3	2.840	-0.0174	-0.019	0.04767	0.07253	1.44467	0.05958	90.472	50. 52. 27.55
834	12 Can. Venat. (2d Star)	3*	12. 49. 0'22	1848.5	30	2.840	-0.0175	-0.017	0.04767	0.07253	1.44467	0.05958	90.472	50. 52. 13.61
835	Piazzi XII. 238.....	6	12. 52. 20'75	1851.8	2	3.265	+0.0238	0.000	0.05032	0.07264	1.45125	0.09401	87.417	122. 41. 28.34
836	9 Draconis.....	6*	12. 54. (10)	..	..	+2.317	-0.0325	-0.020	0.01338	0.06422	1.43644	0.01881	96.346	22. 35. 32.91
837	47 Virginis.....	3.2*	12. 54. 42'58	1850.5	6	3.005	-0.0028	-0.012	0.05455	0.07331	1.44723	0.07427	88.788	78. 13. 59.88
838	14 Canum Venaticum ..	5*	12. 58. (40)	..	..	2.819	-0.0148	+0.006	0.04909	0.07150	1.44434	0.06151	90.347	53. 23. 49.66
839	41 Comæ.....	5*	12. 59. 58'70	1851.5	10	2.883	-0.0105	+0.005	0.05184	0.07201	1.44535	0.06639	89.732	61. 34. 8.21
840	49 Virginis.....	6*	13. 0. 2'70	1850.9	4	3.131	+0.0086	+0.006	0.05486	0.07279	1.44919	0.08324	88.033	99. 56. 13.93

821. Of the 6.7th magnitude.

824. The observer notes this star of the 7th magnitude.

822. The magnitude is taken from Fedorenko's Lalande.

834. The designating letter α is added in the B.A.C.

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850 from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazz (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1852.2	2	+19.98	-0.039	..	9.88207	0.18857	1.65300	0.04615	70.576	..	...	..	..	..	.....	806
1851.3	1	19.98	-0.040	+0.04	9.90643	9.96784	1.65302	0.04636	84.839	..	XII. 87	..	..	4198	Piazz XII. 87	807
1853.2	2	19.97	-0.040	..	9.88737	0.21828	1.65294	0.04450	67.722	..	...	..	..	4205	B. F. 1726.....	808
1851.8	18	19.96	-0.044	+0.16	9.90750	9.96894	1.65285	0.04284	84.974	1675	XII. 101	506	..	4211	7 Corvi.....	809
..	..	19.93	-0.050	+0.03	9.87745	0.12935	1.65249	0.03624	76.387	..	XII. 118	..	1012	4229	Piazz XII. 118	810
..	..	+19.93	-0.051	-0.03	9.89647	0.02162	1.65249	0.03607	82.952	1683	XII. 119	..	1013	4230	21 Virginis.....	811
1851.2	75	19.92	-0.053	+0.07	9.92615	9.91320	1.65245	0.03525	87.419	1685	XII. 123	508	1014	4234	9 Corvi.....	812
1850.8	4	19.92	-0.050	-0.28	9.90342	0.27110	1.65245	0.03509	62.306	1686	XII. 126	509	1015	4235	8 Canum Venaticum..	813
1851.2	28	19.92	-0.045	+0.04	9.97539	0.32974	1.65240	0.03432	52.005	1689	XII. 129	510	1017	4239	5 Draconis	814
..	..	19.90	-0.047	+0.02	9.97359	0.32992	1.65227	0.03204	52.239	1691	XII. 135	..	1018	4246	6 Draconis	815
1849.3	2	+19.87	-0.058	+0.03	9.89469	0.26929	1.65191	0.02646	63.498	1696	XII. 150	..	1019	4258	9 Canum Venaticum...	816
1851.7	15	19.83	-0.066	+0.02	9.88518	0.07525	1.65160	0.02198	80.980	1698	XII. {157 158}	513 514	1020	4268	29 Virginis (S. star)..	817
1851.5	4	19.83	-0.066	+0.02	9.88518	0.07525	1.65160	0.02198	80.980	1699					29 Virginis (as one mass)	818
1851.6	15	19.83	-0.066	+0.02	9.88518	0.07525	1.65160	0.02198	80.980	1699					29 Virginis (N. star)..	819
1848.4	1	19.80	-0.061	..	9.93283	0.31634	1.65131	0.01793	56.970	..	...	..	1022	..	Groombridge 1918...	820
1849.3	1	+19.80	-0.071	..	9.88745	0.06642	1.65129	0.01774	81.772	..	...	..	..	..	W. B. XII. 619	821
1851.2	12	19.75	-0.078	+0.05	9.87733	0.10565	1.65077	0.01090	79.935	1708	XII. 184	..	..	4296	35 Virginis.....	822
1850.3	1	19.73	-0.079	..	9.86587	0.16209	1.65059	0.00872	76.150	..	...	..	..	..	W. B. XII. 706.....	823
1848.3	3	19.72	-0.078	-0.05	9.86435	0.22199	1.65050	0.00769	70.917	1711	XII. 192	..	1026	4304	30 Comæ	824
1853.3	8	19.69	-0.085	-0.02	9.87745	0.10254	1.65019	0.00401	80.631	1714	XII. 199	..	..	4314	37 Virginis.....	825
1848.3	3	+19.66	-0.089	+0.03	9.88979	0.06191	1.64993	0.00118	83.112	1718	XII. 208	..	1029	4323	38 Virginis.....	826
1848.5	9	19.65	-0.086	+0.04	9.85922	0.19538	1.64989	0.00044	74.106	1719	XII. 212	516	1030	4328	35 Comæ	827
1852.4	1	19.65	-0.090	..	9.88190	0.08634	1.64982	9.99992	81.878	..	...	..	..	..	.....	828
1848.9	21	19.63	-0.079	+0.06	9.89783	0.30506	1.64963	9.99765	61.354	1722	XII. 220	518	1032	4335	77 Ursæ Majoris.....	829
1851.1	5	19.62	-0.010	+0.01	9.97758	0.33710	1.64949	9.99663	53.582	1730	XII. 230	520	1034	4339	Bradley 1730	830
1851.9	19	+19.62	-0.093	+0.09	9.87615	0.10444	1.64949	9.99646	81.070	1723	XII. 223	519	1033	4340	43 Virginis.....	831
1851.1	5	19.62	-0.010	-0.02	9.97736	0.33710	1.64949	9.99639	53.608	1731	XII. 232	521	1035	4342	Bradley 1731	832
1850.9	7	19.60	-0.088	..	9.86300	0.25929	1.64931	9.99473	68.131	1724	...	..	1036	4345	12 Can. Venat. (1st Star)	833
1850.7	29	19.60	-0.088	-0.04	9.86300	0.25929	1.64931	9.99466	68.135	1725	XII. 226	522	1037	4346	12 Can. Venat. (2d Star)	834
1850.8	2	19.53	-0.108	+0.02	9.98097	9.82857	1.64869	9.98835	91.447	..	XII. 238	..	..	4355	Piazz XII. 238	835
1849.4	2	+19.50	-0.079	+0.03	9.91218	0.32173	1.64834	9.98479	59.599	1737	XII. 250	..	1041	4365	9 Draconis	836
1850.5	6	19.49	-0.104	-0.03	9.86151	0.14555	1.64821	9.98386	79.404	1735	XII. 249	525	..	4367	47 Virginis	837
1849.4	4	19.40	-0.104	-0.01	9.84544	0.24963	1.64738	9.97615	71.124	1739	XII. 266	526	1044	4384	14 Canum Venaticum...	838
1850.9	8	19.37	-0.109	+0.09	9.84213	0.22010	1.64712	9.97370	74.341	1743	XII. 273	529	1046	4390	41 Comæ	839
1850.2	5	19.37	-0.118	+0.03	9.91232	0.01424	1.64707	9.97359	86.971	1742	XII. 272	528	1047	4391	49 Virginis	840

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

No.	Star's Name.	Magnitude from Arctander*, or B.A.C., or Weisse.	Mean Right Ascension			Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
			1850, Jan. 1.								e	f	g	h		
			h	m	s			s	s	s					s	° ' "
841	51 Virginis	4.5*	13.	2.	11.25	1851.7	29	+3.100	+0.0058	+0.001	0.05521	0.07264	1.44871	0.08112	88.205	94. 44. 12.60
842	42 Comæ	4.5*	13.	2.	41.43	1849.4	3	2.951	-0.0053	-0.027	0.05399	0.07226	1.44640	0.07141	89.156	71. 41.
843	53 Virginis.....	5*	13.	4.	5.01	1853.4	2	3.172	+0.0119	+0.009	0.05443	0.07221	1.44982	0.08551	87.893	105. 23.
844	43 Comæ	4*	13.	4.	52.18	1852.8	5	2.867	-0.0101	-0.056	0.05194	0.07142	1.44509	0.06633	89.790	61. 21. 36.72
845	Lalande 24610	7½	13.	8.	17.35	1849.4	2	3.104	+0.0062	..	0.05540	0.07201	1.44877	0.08114	88.228	94. 52.
846	B. F. 1825	5.4*	13.	8.	(30)	..	..	+3.305	+0.0232	+0.015	0.05150	0.07083	1.45185	0.09267	87.512	120. 42. 40.64
847	Groombridge 2006 ..	7	13.	10.	(30)	..	..	-1.917	+9.3606	..	†..	..	..	..	..	1. 32. 49.90
848	61 Virginis.....	5*	13.	10.	34.00	1853.4	2	3.198	+0.0134	-0.069	0.05438	0.07144	1.45022	0.08636	87.857	107. 28.
849	46 Hydræ	3*	13.	10.	46.58	1850.7	7	3.238	+0.0168	+0.009	0.05358	0.07117	1.45084	0.08854	87.725	112. 22. 42.44
850	Groombridge 1977...	6	13.	11.	9.76	1849.4	3	0.413	+0.1391	..	9.89319	0.02772	1.40504	9.89590	113.637	8. 44. 4.11
851	67 Virginis	1*	13.	17.	17.81	1850.8	225	+3.152	+0.0095	0.000	0.05540	0.07098	1.44950	0.08334	88.089	100. 22. 36.25
852	Groombridge 2007...	6	13.	20.	54.81	1850.6	8	-2.857	+1.0312	..	9.59760	9.95594	1.34524	9.60023	140.984	4. 27. 40.26
853	W. B. XIII. 364	7	13.	22.	25.22	1850.3	3	+3.015	+0.0010	..	0.05582	0.07055	1.44739	0.07648	88.729	83. 12. 41.93
854	74 Virginis	5*	13.	24.	10.32	1853.4	2	3.117	+0.0071	-0.001	0.05594	0.07039	1.44897	0.08136	88.273	95. 29.
855	76 Virginis	5*	13.	25.	4.31	1852.0	3	3.151	+0.0092	0.000	0.05557	0.07022	1.44949	0.08289	88.162	99. 23. 25.68
856	79 Virginis	3.4*	13.	27.	3.20	1851.9	34	+3.069	+0.0044	-0.014	0.05616	0.07014	1.44823	0.07911	88.489	89. 49. 37.91
857	{ B.F. 1866	5*	13.	28.	5.79	1849.4	3	2.680	-0.0115	+0.011	0.04985	0.06755	1.44216	0.06138	90.742	52. 3.
858	{ Piazzì XIII. 136 ... }	6*	13.	28.	20.85	1850.2	4	2.322	-0.0166	+0.004	0.03710	0.06258	1.43650	0.04454	93.410	33. 52. 52.64
859	Centauri	6	13.	30.	17.17	1848.4	2	3.353	+0.0225	-0.011	0.05298	0.06849	1.45260	0.09125	87.617	118. 47. 33.69
860	25 Canum Venaticum ...	5*	13.	30.	47.61	1849.4	3	2.681	-0.0109	..	0.05036	0.06736	1.44218	0.06204	90.676	52. 56. 25.27
861	82 Virginis.....	6*	13.	33.	44.73	1848.9	6	+3.145	+0.0087	-0.004	0.05621	0.06938	1.44940	0.08226	88.228	97. 56. 38.02
862	W. B. XIII. 597	8	13.	34.	(40)	..	..	3.054	+0.0040	..	0.05649	0.06939	1.44799	0.07849	88.580	88. 14. 36.81
863	Lalande 25360.....	8½	13.	37.	48.40	1849.7	6	2.976	+0.0005	..	0.05630	0.06897	1.44680	0.07544	88.922	80. 24. 19.77
864	86 Virginis.....	6*	13.	38.	(0)	..	..	3.185	+0.0109	+0.001	0.05616	0.06884	1.45002	0.08369	88.120	101. 40. 22.94
865	W. B. XIII. 670	8	13.	38.	(30)	..	..	3.013	+0.0022	..	0.05657	0.06896	1.44736	0.07689	88.762	84. 7. 47.13
866	Piazzì XIII. 194	7	13.	39.	31.74	1849.1	4	+3.001	+0.0017	..	0.05654	0.06886	1.44716	0.07644	88.818	82. 53. 34.84
867	4 Bootis.....	5.4*	13.	40.	8.06	1852.2	10	2.885	-0.0029	-0.029	0.05554	0.06829	1.44537	0.07193	89.367	71. 47. 37.58
868	2 Centauri.....	5*	13.	40.	46.27	1849.4	2	3.450	+0.0274	+0.002	0.05211	0.06665	1.45408	0.09352	87.519	123. 42.
869	W. B. XIII. 720	8.9	13.	41.	35.25	1852.9	4	2.961	+0.0002	..	0.05638	0.06855	1.44655	0.07498	88.995	79. 10. 36.38
870	85 Ursæ Majoris	2*	13.	41.	37.48	1850.2	52	2.385	-0.0128	-0.033	0.04383	0.06275	1.43752	0.05234	92.395	39. 56. 11.27
871	Groombridge 2053 ...	6	13.	42.	5.19	1850.4	6	+0.157	+0.1273	-0.013	9.94931	0.02198	1.40066	9.95216	108.876	11. 11. 1.63
872	5 Bootis	4.5*	13.	42.	14.56	1850.7	7	2.899	-0.0021	-0.004	0.05586	0.06819	1.44559	0.07266	89.286	73. 27. 22.72
873	3 Centauri.....	4.5*	13.	43.	10.98	1848.4	1	3.438	+0.0261	+0.005	0.05270	0.06660	1.45389	0.09267	87.561	122. 15.
874	Lalande 25569	8	13.	46.	35.91	1849.9	2	3.095	+0.0063	..	0.05704	0.06822	1.44862	0.08003	88.467	92. 15. 41.63
875	90 Virginis	6.5*	13.	47.	0.21	1851.3	8	3.079	+0.0056	+0.003	0.05708	0.06818	1.44838	0.07947	88.523	90. 45. 45.95

842. The designating letter α is added in the B.A.C.

845. Of about the 8th magnitude.

859. The designating letter is Lacaille's.

863. Of about the 8th or 9th magnitude.

844. The designating letter β is added in the B.A.C.

847. The magnitude is taken from Groombridge.

865. The R.A. of the text differs 1^s from the B.A.C.

866. The magnitude is taken from Piazzì.

† For No. 850 log. e = -0.05694, log. f = 9.62989, log. g = 1.09910, log. h = -0.05660; l = 241.244.

842. The designating letter α is added in the B.A.C.

845. Of about the 8th magnitude.

859. The designating letter is Lacaille's.

863. Of about the 8th or 9th magnitude.

844. The designating letter β is added in the B.A.C.

847. The magnitude is taken from Groombridge.

865. The R.A. of the text differs 1^s. from the B.A.C.

866. The magnitude is taken from Piazzì.

† For No. 850 log. e = -0.05694, log. f = 9.62989, log. g = 1.09910, log. h = -0.05660; l = 241.244.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1851.8	20	+19.32	-0.121	+0.05	9.89741	0.04939	1.64660	9.96939	85.766	1747	XII. 281	531	1049	4401	51 Virginis	841
..	..	19.31	-0.116	-0.14	9.84700	0.17687	1.64651	9.96842	78.436	1748	XIII. 2	532	1050	4406	42 Comæ	842
..	..	19.28	-0.128	+0.29	9.93186	9.97542	1.64616	9.96567	88.776	1752	XIII. 9	533	1052	4418	53 Virginis	843
1852.9	7	19.26	-0.117	-0.91	9.83584	0.22018	1.64599	9.96411	75.236	1755	XIII. 15	..	1053	4421	43 Comæ	844
..	..	19.17	-0.133	..	9.89889	0.04878	1.64516	9.95743	86.546	..	...	..	..	..	Lalande 24610	845
1850.4	1	+19.16	-0.142	0.00	9.99008	9.85249	1.64508	9.95676	92.135	..	XIII. 31	..	..	4437	B. F. 1825	846
1853.2	1	19.11	+0.526	..	9.94724	0.33298	1.64457	9.95289	58.677	..	...	..	..	..	Groombridge 2006 ..	847
...	..	19.11	-0.141	+1.03	9.94303	9.96087	1.64455	9.95274	89.872	1763	XIII. 44	534	1056	4449	61 Virginis	848
1850.8	5	19.11	-0.144	0.00	9.96112	9.92286	1.64451	9.95233	90.880	1764	XIII. 45	535	..	4450	46 Hydræ	849
1848.8	4	19.10	-0.018	..	9.92024	0.33067	1.64442	9.95162	60.379	..	...	..	1058	4452	Groombridge 1977 ..	850
1851.3	141	+18.93	-0.152	+0.05	9.92050	0.01284	1.64269	9.93907	88.997	1774	XIII. 75	539	1061	4480	67 Virginis	851
1849.6	7	18.82	+0.144	..	9.91450	0.32948	1.64162	9.93149	62.153	..	...	..	1066	4498	Groombridge 2007 ..	852
1849.4	2	18.77	-0.155	..	9.86171	0.11755	1.64121	9.92862	85.307	..	...	..	..	..	W. B. XIII. 364	853
..	..	18.72	-0.163	+0.05	9.90431	0.04566	1.64068	9.92475	88.685	1784	XIII. 115	543	1070	4516	74 Virginis	854
1851.3	2	18.69	-0.167	+0.04	9.91966	0.02034	1.64038	9.92286	89.664	1786	XIII. 118	..	1072	4521	76 Virginis	855
1852.2	26	+18.63	-0.166	-0.06	9.88360	0.08020	1.63974	9.91868	87.727	1789	XIII. 128	544	1075	4532	79 Virginis	856
..	..	18.59	-0.147	+0.09	9.79741	0.24801	1.63940	9.91647	77.131	..	XIII. 136	..	1076	4536	{ B. F. 1866..... Piazzi XIII. 136.. }	857
1848.4	2	18.58	-0.127	+0.02	9.81015	0.29431	1.63931	9.91592	71.722	1792	XIII. 141	..	..	4540	81 Ursæ Majoris.....	858
1850.4	3	18.52	-0.188	+0.02	0.00200	9.87810	1.63867	9.91179	93.376	..	XIII. 146	..	1078	4548	Centauri	859
1848.7	24	18.50	-0.151	..	9.79326	0.24453	1.63850	9.91071	78.013	..	...	..	1079	4552	25 Canum Venaticum ..	860
1848.9	3	+18.40	-0.182	-0.01	9.91656	0.03068	1.63748	9.90431	90.405	1796	XIII. 162	545	1082	4565	82 Virginis.....	861
1850.1	3	18.37	-0.179	..	9.87714	0.08938	1.63723	9.90277	88.413	..	...	..	1083	..	W. B. XIII. 597	862
1850.4	3	18.26	-0.179	..	9.84689	0.13111	1.63613	9.89600	87.024	..	...	..	1090	..	Lalande 25360	863
1848.4	4	18.25	-0.193	0.00	9.93394	0.00684	1.63601	9.89516	91.590	1805	XIII. 186	..	1091	4585	86 Virginis	864
1849.4	2	18.23	-0.183	..	9.86058	0.11176	1.63588	9.89432	88.041	..	...	..	1092	..	W. B. XIII. 670	865
1851.4	1	+18.19	-0.184	..	9.85558	0.11817	1.63549	9.89223	87.908	..	XIII. 194	..	1094	..	Piazzi XIII. 194....	866
1852.3	40	18.17	-0.178	-0.05	9.81665	0.17116	1.63520	9.89034	85.305	1810	XIII. 199	547	1097	4597	4 Bootis	867
..	..	18.15	-0.214	+0.15	0.03149	9.84378	1.63495	9.88891	94.539	1807	XIII. 202	548	1099	4603	2 Centauri	868
1852.4	5	18.12	-0.185	..	9.84073	0.13676	1.63474	9.88769	87.368	..	...	..	1100	..	W. B. XIII. 720	869
1850.6	35	18.12	-0.149	+0.03	9.77263	0.27707	1.63465	9.88703	76.859	1815	XIII. 209	549	1101	4607	85 Ursæ Majoris	870
1848.5	2	+18.10	-0.010	-0.07	9.84081	0.31917	1.63444	9.88602	69.595	..	...	551	1103	4614	Groombridge 2053...	871
1850.9	4	18.09	-0.182	-0.05	9.82028	0.16344	1.63440	9.88564	86.126	1813	XIII. 210	550	..	4615	5 Bootis	872
..	..	18.06	-0.218	+0.11	0.02743	9.85710	1.63402	9.88354	94.595	1814	XIII. 216	552	1105	4623	3 Centauri	873
1849.4	2	17.92	-0.203	..	9.89421	0.06630	1.63273	9.87615	90.973	..	...	..	..	..	Lalande 25569.....	874
1851.7	10	17.91	-0.202	+0.04	9.88769	0.07486	1.63256	9.87501	90.754	1819	XIII. 237	..	..	4645	90 Virginis	875

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(lxxviii)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelanders, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									o	f	g	h		
876	8 Bootis.....η	3*	13. 47. 32.57	1850.9	133	+2.861	-0.0027	+0.001	0.05578	0.06747	1.44499	0.07164	89.455	70. 50. 54.20
877	93 Virginis.....τ	4½	13. 54. 0.92	1852.4	23	3.045	+0.0065	+0.005	0.05743	0.06750	1.44786	0.07834	88.666	87. 43. 38.21
878	Lacaille 5791.....	6	13. 54. 20.08	1850.4	4	3.454	+0.0251	-0.001	0.05375	0.06549	1.45415	0.09172	87.614	120. 57. 36.91
879	49 Hydræ.....π	4.3*	13. 57. (50.)	..	..	3.391	+0.0209	+0.007	0.05516	0.06578	1.45318	0.08928	87.751	115. 57. 24.68
880	5 Centauri.....θ	3*	13. 57. 52.11	1850.7	4	3.542	+0.0299	-0.037	0.05253	0.06432	1.45549	0.09398	87.504	125. 37. 41.45
881	94 Virginis.....	6	13. 58. 21.60	1849.5	4	+3.165	+0.0095	+0.002	0.05743	0.06697	1.44971	0.08218	88.292	98. 10. 25.20
882	Piazzi XIII. 306....	6	13. 58. 33.04	1849.4	3	1.312	+0.0156	+0.019	0.01507	0.04387	1.42015	0.01946	98.740	20. 35. 54.37
883	95 Virginis.....	6*	13. 58. 47.20	1852.3	8	3.171	+0.0097	-0.007	0.05745	0.06691	1.44980	0.08233	88.277	98. 35. 43.62
884	.....	..	13. 59. 20.87	1850.4	1	2.834	-0.0022	..	0.05638	0.06626	1.44457	0.07166	89.528	70. 25. 1.95
885	11 Draconis.....α	3.4*	14. 0. (20.)	..	..	1.627	+0.0023	-0.009	0.02654	0.04948	1.42533	0.03171	96.561	24. 54. 20.66
886	12 Bootis.....d	5*	14. 3. (30.)	..	..	+2.739	-0.0040	+0.003	0.05555	0.06520	1.44308	0.06905	89.945	64. 11. 44.26
887	98 Virginis.....κ	4.5*	14. 4. 53.99	1851.2	28	3.188	+0.0104	+0.007	0.05774	0.06631	1.45007	0.08264	88.256	99. 34. 22.38
888	Bradley 1843.....	6½	14. 6. 32.86	1849.4	3	3.135	+0.0083	-0.015	0.05804	0.06627	1.44924	0.08108	88.412	95. 14. 53.19
889	Bootis.....κ¹	8	14. 8. 5.25	1848.4	1	2.147	-0.0073	+0.026	0.04421	0.05764	1.43372	0.05167	93.038	37. 30.
890	99 Virginis.....	4*	14. 8. 9.18	1850.1	10	3.136	+0.0083	+0.006	0.05815	0.06615	1.44926	0.08107	88.411	95. 16. 56.60
891	16 Bootis.....α	1*	14. 8. 49.29	1851.1	179	+2.812	-0.0018	-0.078	0.05691	0.06526	1.44423	0.07169	89.585	70. 2. 4.16
892	Groombridge 2091 ..	6.5*	14. 9. 17.34	1848.4	2	1.091	+0.0261	+0.019	0.01451	0.03937	1.41644	0.01863	99.378	19. 52.
893	4 Ursæ Minoris.....	5*	14. 9. 30.90	1848.4	2	-0.372	+0.1565	-0.015	9.96544	0.01058	1.39143	9.96816	108.508	11. 45.
894	21 Bootis (1st star)....	4.5*	14. 10. 51.16	1850.8	6	+2.144	-0.0069	-0.014	0.04483	0.05743	1.43368	0.05232	92.973	37. 56. 20.61
895	21 Bootis (2d star)....	..	14. 10. 53.21	1850.4	1	2.144	-0.0069	..	0.04483	0.05743	1.43368	0.05232	92.973	37. 55. 46.97
896	100 Virginis.....λ	5.4*	14. 11. 0.00	1850.7	7	+3.233	+0.0121	+0.004	0.05787	0.06558	1.45077	0.08372	88.165	102. 40. 40.65
897	.....	..	14. 17. 6.60	1853.3	1	3.324	+0.0156	..	0.05765	0.06459	1.45214	0.08581	87.993	108. 30. 23.49
898	.....	..	14. 17. 26.73	1853.3	1	3.329	+0.0159	..	0.05762	0.06453	1.45223	0.08593	87.983	108. 50. 22.06
899	22 Bootis.....f	5*	14. 19. (30.)	..	..	2.794	-0.0012	+0.001	0.05759	0.06425	1.44395	0.07195	89.611	70. 5. 46.49
900	.....	..	14. 23. 31.31	1850.1	3	2.670	-0.0030	..	0.05664	0.06301	1.44201	0.06908	90.100	62. 57.
901	25 Bootis.....ρ	4.3*	14. 25. 21.89	1852.3	16	+2.594	-0.0037	-0.004	0.05589	0.06215	1.44082	0.06734	90.414	58. 58. 4.06
902	Lalande 26560.....	8	14. 25. (50.)	..	..	2.595	-0.0038	..	0.05594	0.06212	1.44082	0.06739	90.410	59. 4. 33.40
903	27 Bootis.....γ	3.2*	14. 26. 2.17	1851.8	9	2.427	-0.0050	+0.002	0.05349	0.06030	1.43818	0.06320	91.170	51. 2. 0.31
904	.....	..	14. 26. 21.55	1850.4	4	2.652	-0.0030	..	0.05669	0.06262	1.44172	0.06886	90.159	62. 17. 14.19
905	Groombridge 2123 ..	6*	14. 27. 12.74	1849.0	5	1.439	+0.0093	..	0.03298	0.04508	1.42225	0.03794	96.284	26. 9. 0.53
906	5 Ursæ Minoris.....	5.4*	14. 27. 54.45	1850.8	8	-0.244	+0.1202	0.000	9.98861	0.01281	1.39367	9.99144	105.681	13. 38. 13.86
907	.....	..	14. 28. 14.60	1848.4	1	+1.428	+0.0097	..	0.03307	0.04483	1.42206	0.03801	96.303	26. 7.
908	.....	..	14. 29. (10.)	..	..	1.411	+0.0105	..	0.03306	0.04450	1.42178	0.03796	96.350	26. 0. 50.27
909	Oeltz. Arg. 14703....	9	14. 30. (0.)	..	..	1.404	+0.0105	..	0.03328	0.04434	1.42167	0.03817	96.340	26. 2. 37.47
910	Piazzi XIV. 145....	6	14. 33. 32.23	1849.4	3	2.861	+0.0012	+0.004	0.05921	0.06346	1.44499	0.07437	89.313	75. 49. 5.17

884. Of the 10.11th magnitude.

892. The R.A. of the text, which is confirmed by the Oxford observations, differs 1.7 from the B.A.C.

899. The N.P.D. of the text, which agrees closely with Rümker, differs 7" from the B.A.C.

905. This star differs nearly one second in R.A. from the B.A.C., the authority for the place given being the Catalogue of Groombridge. It is identical with Groombridge 2123.

909. The magnitude is taken from Oeltzen's Argelander.

89. The smaller component of a double star.

900. Of about the 10th magnitude.

904. Of the 8.9th magnitude.

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in. Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1851.2	115	+17.89	-0.189	+0.35	9.80731	0.17395	1.63231	9.87374	86.487	1821	XIII. 240	555	1109	4648	8 Bootis.....η	876
1852.2	20	17.62	-0.212	+0.07	9.87362	0.09162	1.62965	9.85902	91.223	..	...	557	..	..	93 Virginis.....τ	877
1851.4	1	17.61	-0.241	-0.13	0.03100	9.87404	1.62953	9.85823	95.273	..	...	..	1116	4674	Lacaille 5791.....	878
1850.4	1	17.46	-0.243	+0.14	0.01076	9.91325	1.62800	9.85015	95.241	1832	XIII. 295	558	..	4685	49 Hydræ.....π	879
1850.9	2	17.46	-0.254	+0.63	0.05458	9.84059	1.62800	9.85008	95.677	1831	XIII. 293	559	1120	4686	5 Centauri.....θ	880
1849.6	7	+17.44	-0.228	-0.02	9.92458	0.03197	1.62776	9.84896	93.493	1833	XIII. 297	..	1122	4688	94 Virginis.....	881
1849.1	9	17.43	-0.095	+0.04	9.76671	0.30397	1.62767	9.84847	76.498	..	XIII. 306	..	1123	4689	Piazzi XIII. 306....	882
1852.3	8	17.42	-0.229	-0.02	9.92678	0.02946	1.62759	9.84791	93.605	1834	XIII. 299	..	..	4690	95 Virginis.....	883
1850.4	1	17.40	-0.206	..	9.79525	0.17348	1.62735	9.84664	88.682	..	...	..	..	..	.....	884
1848.9	3	17.35	-0.119	+0.02	9.75021	0.29773	1.62689	9.84429	78.021	1836	XIII. 312	560	1125	4696	11 Draconis.....α	885
1852.4	2	+17.21	-0.205	+0.06	9.76776	0.19690	1.62542	9.83675	88.195	1839	XIV. 8	..	1129	4706	12 Bootis.....d	886
1851.8	19	17.15	-0.241	-0.01	9.93366	0.02439	1.62481	9.83350	94.477	1842	XIV. 14	562	1131	4716	98 Virginis.....κ	887
1848.4	1	17.08	-0.240	-0.02	9.91156	0.05004	1.62404	9.82958	94.175	1843	XIV. 19	..	..	4720	Bradley 1843.....	888
...	..	17.00	-0.166	-0.04	9.71193	0.27242	1.62327	9.82590	83.164	..	XIV. 30	..	1136	4725	Bootis.....κ ¹	889
1851.0	5	17.00	-0.243	+0.41	9.91208	0.04998	1.62327	9.82574	94.394	1846	XIV. 28	563	1135	4727	99 Virginis.....i	890
1851.0	202	+16.97	-0.219	+1.96	9.78538	0.17288	1.62294	9.82415	90.484	1847	XIV. 32	565	1138	4729	16 Bootis.....α	891
...	..	16.95	-0.085	+0.06	9.74002	0.29988	1.62270	9.82295	79.427	..	...	564	1139	4732	Groombridge 2091..	892
...	..	16.94	+0.029	+0.01	9.76881	0.30681	1.62258	9.82246	77.716	1859	XIV. 49	566	1141	4733	4 Ursæ Minoris.....	893
1850.6	5	16.87	-0.169	-0.07	9.70505	0.27035	1.62194	9.81930	83.995	1854	XIV. 42	569	1145	4742	21 Bootis (1st star)....	894
1850.4	1	16.87	-0.169	..	9.70505	0.27035	1.62194	9.81930	83.995	..	...	..	..	..	21 Bootis (2d star)....	895
1850.4	7	+16.87	-0.255	-0.03	9.95195	0.00664	1.62186	9.81889	95.519	1850	XIV. 37	568	1146	4743	100 Virginis.....λ	896
1853.3	1	16.57	-0.273	..	9.98556	9.97220	1.61868	9.80351	96.593	..	...	..	..	..	.....	897
1853.3	1	16.56	-0.274	..	9.98758	9.97012	1.61851	9.80267	96.643	..	...	..	..	..	.....	898
1850.4	6	16.45	-0.233	+0.04	9.77629	0.17006	1.61758	9.79814	92.628	1864	XIV. 86	..	..	4785	22 Bootis.....f	899
..	..	16.24	-0.228	..	9.73775	0.19560	1.61543	9.78816	92.258	..	...	..	1159	..	.....	900
1851.9	33	+16.15	-0.224	-0.13	9.71810	0.20824	1.61442	9.78344	91.986	1869	XIV. 112	572	1161	4808	25 Bootis.....p	901
1850.4	1	16.13	-0.225	..	9.71775	0.20780	1.61415	9.78226	92.109	..	...	..	..	..	Lalande 26560.....	902
1851.7	11	16.12	-0.211	-0.14	9.68883	0.23184	1.61403	9.78177	90.685	1871	XIV. 117	573	1163	4812	27 Bootis.....γ	903
1850.4	2	16.10	-0.230	..	9.73127	0.19704	1.61399	9.78157	92.726	..	...	..	1164	..	.....	904
1848.4	2	16.06	-0.126	..	9.67291	0.28303	1.61340	9.77880	85.966	..	...	..	1165	4817	Groombridge 2123..	905
1849.9	33	+16.02	+0.021	+0.03	9.71033	0.29588	1.61301	9.77710	83.569	1873	XIV. 136	575	1167	4822	5 Ursæ Minoris.....	906
..	..	16.00	-0.126	..	9.67025	0.28255	1.61286	9.77639	86.234	..	...	..	..	..	.....	907
1850.4	1	15.96	-0.125	..	9.66801	0.28224	1.61239	9.77427	86.455	..	...	..	..	..	.....	908
1850.4	2	15.90	-0.125	..	9.66455	0.28157	1.61173	9.77129	86.796	..	...	..	..	..	Oeltz. Arg. 14703...	909
1849.1	3	15.72	-0.259	+0.17	9.79741	0.14365	1.60983	9.76278	96.174	..	XIV. 145	..	1173	4846	Piazzi XIV. 145....	910

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(Lxxx)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander's Catalogue, or B.A.C., or Weisse.	Mean Right Ascension 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
911	29 Bootis (1st star) ... π	4*	14. 33. 40.69	1850.7	10	+2.816	+0.0003	0.000	0.05895	0.06320	1.44429	0.07334	89.471	72. 56. 9.69
912	29 Bootis (2d star) ... π	4*	14. 33. 41.23	1850.8	9	2.816	+0.0003	0.000	0.05895	0.06320	1.44429	0.07334	89.471	72. 56. 11.56
913	30 Bootis..... ζ	3.4*	14. 33. 59.27	1851.5	18	2.857	+0.0011	+0.004	0.05925	0.06339	1.44494	0.07431	89.323	75. 37. 31.52
914	107 Virginis..... μ	4*	14. 35. 9.75	1848.4	3	3.144	+0.0085	+0.011	0.05990	0.06373	1.44939	0.08083	88.465	95. 0. 10.38
915	Lalande 26865	9½	14. 36. 29.23	1852.4	1	1.940	-0.0018	..	0.04669	0.05294	1.43038	0.05333	93.329	36. 42. 37.41
916	54 Hydræ	6*	14. 37. 19.87	1848.4	2	+3.462	+0.0197	-0.013	0.05813	0.06200	1.45428	0.08772	87.832	114. 48.
917	.....	..	14. 37. 26.22	1853.3	1	2.789	+0.0001	..	0.05907	0.06271	1.44383	0.07291	89.561	71. 34. 26.06
918	5 Libræ.....	6	14. 37. 41.99	1848.4	2	3.295	+0.0134	+0.002	0.05946	0.06305	1.45172	0.08409	88.130	104. 49.
919	36 Bootis..... ϵ^1	..	14. 38. (26)	..	..	2.623	-0.0022	..	0.05764	0.06147	1.44127	0.06931	90.178	62. 17. 24.27
920	36 Bootis..... ϵ^2	2.3*	14. 38. 26.20	1851.1	138	2.623	-0.0022	-0.001	0.05764	0.06147	1.44127	0.06931	90.178	62. 17. 26.62
921	55 Hydræ.....	5½	14. 38. 39.83	1848.4	2	+3.468	+0.0199	+0.002	0.05820	0.06184	1.45436	0.08776	87.829	115. 0.
922	109 Virginis.....	4.3*	14. 38. 40.12	1850.8	5	3.033	+0.0054	-0.004	0.06018	0.06349	1.44767	0.07836	88.766	87. 28. 19.67
923	56 Hydræ.....	5	14. 39. 0.12	1848.4	2	3.478	+0.0202	0.000	0.05814	0.06176	1.45451	0.08793	87.814	115. 27.
924	7 Libræ..... μ	6*	14. 41. (10)	..	..	3.278	+0.0126	+0.001	0.05981	0.06282	1.45146	0.08358	88.179	103. 31. 14.39
925	{ 58 Hydræ	6.5*	14. 41. 29.53	1848.4	2	3.518	+0.0216	-0.015	0.05798	0.06122	1.45512	0.08858	87.766	117. 20.
	{ 6 Libræ.....													
926	8 Libræ.....	6	14. 42. 23.86	1850.9	15	+3.310	+0.0136	-0.003	0.05976	0.06258	1.45193	0.08420	88.117	105. 22. 12.35
927	9 Libræ..... α	2.3*	14. 42. 35.30	1850.9	85	3.311	+0.0136	-0.002	0.05976	0.06254	1.45194	0.08421	88.119	105. 24. 54.15
928	Rümker 4824	..	14. 42. 36.63	1850.4	3	2.529	-0.0027	..	0.05707	0.06030	1.43980	0.06763	90.517	58. 8. 8.31
929	.....	..	14. 43. (0)	..	..	2.529	-0.0027	..	0.05707	0.06030	1.43980	0.06763	90.517	58. 8. 42.72
930	Oeltz. Arg. 14881 ...	7.8	14. 44. 7.53	1850.4	1	1.406	+0.0100	..	0.03825	0.04383	1.42170	0.04317	95.743	27. 49.
931	W.B. XIV. 844	8	14. 44. 25.23	1853.2	1	+2.850	+0.0016	..	0.06003	0.06250	1.44483	0.07460	89.319	75. 53. 52.43
932	37 Bootis (1st star).... ξ	4*	14. 44. 28.20	1851.4	1	2.755	+0.0001	+0.012	0.05943	0.06200	1.44335	0.07261	89.641	70. 16. 22.27
933	37 Bootis (2d star).... ξ	4*	14. 44. 28.31	1851.0	7	2.755	+0.0001	+0.012	0.05943	0.06200	1.44335	0.07261	89.641	70. 16. 28.19
934	39 Bootis (1st star)....	6*	14. 44. (40)	..	..	2.046	-0.0022	-0.003	0.05037	0.05410	1.43211	0.05748	92.615	40. 39. 37.55
935	39 Bootis (2d star).....	6*	14. 44. (40)	..	..	2.046	-0.0022	-0.003	0.05037	0.05410	1.43211	0.05748	92.615	40. 39. 35.16
936	.....	..	14. 46. 14.68	1850.4	1	+1.363	+0.0113	..	0.03813	0.04300	1.42101	0.04295	95.868	27. 27.
937	.....	..	14. 46. 16.29	1849.4	1	1.363	+0.0113	..	0.03813	0.04300	1.42101	0.04295	95.868	27. 27.
938	Piazzi XIV. 217.....	6*	14. 47. 38.19	1848.5	1	1.530	+0.0066	-0.022	0.04181	0.04579	1.42374	0.04704	94.998	30. 6.
939	15 Libræ..... ϵ^2	6*	14. 48. 38.18	1851.8	9	3.242	+0.0112	+0.003	0.06057	0.06232	1.45090	0.08274	88.262	100. 48. 3.06
940	.....	..	14. 49. 2.07	1848.3	1	3.267	+0.0119	..	0.06050	0.06225	1.45127	0.08305	88.222	102. 19. 3.52
941	.....	..	14. 51. 1.99	1851.4	1	+2.452	-0.0024	..	0.05719	0.05890	1.43857	0.06694	90.742	55. 43. 26.21
942	7 Ursæ Minoris..... β	2*	14. 51. 12.01	1850.9	60	-0.266	+0.1009	-0.007	0.00597	0.01181	1.39331	0.00876	103.774	15. 13. 53.25
943	.....	..	14. 51. 28.58	1852.4	1	+3.226	+0.0106	..	0.06088	0.06218	1.45064	0.08217	88.313	99. 38. 26.24
944	.....	..	14. 51. 41.62	1850.4	2	2.453	-0.0024	..	0.05728	0.05888	1.43859	0.06700	90.731	55. 50. 30.25
945	.....	..	14. 51. (50)	..	..	2.453	-0.0024	..	0.05728	0.05888	1.43859	0.06700	90.731	55. 51. 19.41

925. The upper name is that of the B.A.C.

930. The magnitude is taken from Oeltzen's Argelander. The R.A., however, differs 2". from that Catalogue. The observer noted it as being of the 7th magnitude.

936. Of the 8th magnitude.

928, 940. Of about the 11th magnitude.

933. The larger component of the double star.

944. Of the 10-11th magnitude.

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1851.1	7	+15.71	-0.255	-0.02	9.78009	0.15532	1.60975	9.76235	95.863	1875	XIV. 147	576	..	4847	29 Bootis (1st star) ... π	911
1850.9	4	15.71	-0.255	-0.02	9.78009	0.15532	1.60975	9.76235	95.863	1875	XIV. 147	576	..	4847	29 Bootis (2d star) ... π	912
1851.1	18	15.70	-0.259	0.00	9.79594	0.14436	1.60956	9.76159	96.240	1876	XIV. 152	577	1174	4849	30 Bootis ζ	913
1849.2	5	15.63	-0.287	+0.33	9.91501	0.05386	1.60886	9.75856	98.047	1880	XIV. 158	580	1176	4855	107 Virginis μ	914
1852.4	1	15.56	-0.179	..	9.63809	0.26052	1.60807	9.75514	90.692	..	...	..	..	..	Lalande 26865.....	915
...	..	+15.51	-0.320	+0.08	0.03020	9.94226	1.60760	9.75292	98.543	1881	XIV. 163	..	1178	4865	54 Hydræ.....	916
1853.3	1	15.51	-0.258	..	9.76923	0.15964	1.60748	9.75252	96.456	..	...	..	..	..	.....	917
...	..	15.49	-0.305	+0.03	9.97452	0.00102	1.60737	9.75202	98.652	1882	XIV. 167	..	1181	4868	5 Libræ α	918
1852.9	1	15.45	-0.244	..	9.71536	0.19264	1.60690	9.75010	95.462	1890	XIV. 175	..	1183	4876	36 Bootis ϵ^1	919
1851.2	111	15.45	-0.244	0.00	9.71536	0.19264	1.60690	9.75010	95.462	1890	XIV. 175	583	1184	4876	36 Bootis ϵ^2	920
...	..	+15.44	-0.323	+0.08	0.03198	9.94189	1.60679	9.74954	98.651	1885	XIV. 169	..	1185	4877	55 Hydræ α	921
1850.9	4	15.44	-0.282	+0.02	9.86821	0.09130	1.60679	9.74943	98.128	1889	XIV. 174	584	..	4878	109 Virginis α	922
...	..	15.42	-0.324	+0.09	0.03463	9.93929	1.60660	9.74863	98.668	1886	XIV. 173	..	1187	4880	56 Hydræ α	923
1849.2	4	15.30	-0.309	+0.01	9.96810	0.00930	1.60531	9.74308	99.033	1891	XIV. 183	585	1189	4890	7 Libræ μ	924
...	..	15.28	-0.332	+0.04	0.04607	9.92952	1.60508	9.74215	98.805	1892	XIV. 184	586	1190	4891	{ 58 Hydræ μ 6 Libræ..... }	925
1850.4	15	+15.23	-0.314	+0.07	9.97958	9.99946	1.60452	9.73978	99.174	1893	XIV. 186	587	1191	4894	8 Libræ α	926
1851.3	53	15.22	-0.315	+0.07	9.97987	9.99926	1.60440	9.73919	99.203	1894	XIV. 187	588	1192	4895	9 Libræ α	927
1850.4	3	15.21	-0.240	..	9.68815	0.20441	1.60455	9.73998	95.772	..	...	..	1193	..	Rümker 4824 α	928
1850.4	1	15.19	-0.241	..	9.68815	0.20441	1.60455	9.73998	95.772	..	...	..	..	..	.....	929
...	..	15.13	-0.135	..	9.62034	0.27132	1.60353	9.73560	91.113	..	...	..	1196	..	Oeltz. Arg. 14881 ...	930
1853.2	1	+15.11	-0.273	..	9.79162	0.14091	1.60322	9.73423	98.260	..	...	..	..	..	W.B. XIV. 844.....	931
1850.9	2	15.11	-0.264	+0.14	9.75547	0.16264	1.60323	9.73427	97.719	1898	XIV. 197	589	..	4905	37 Bootis (1st Star) ... ξ	932
1851.0	5	15.11	-0.264	+0.14	9.75547	0.16264	1.60323	9.73427	97.719	1898	XIV. 197	589	..	4905	37 Bootis (2d Star) ... ξ	933
1849.1	3	15.10	-0.196	-0.02	9.62119	0.24827	1.60315	9.73403	93.598	1902	XIV. 200	..	1197	4907	39 Bootis (1st Star) ...	934
1848.4	1	15.10	-0.196	-0.02	9.62119	0.24827	1.60315	9.73403	93.598	1902	XIV. 200	..	1198	4907	39 Bootis (2d Star) ...	935
...	..	+15.01	-0.132	..	9.61395	0.27046	1.60213	9.72963	91.699	..	...	..	..	..	.....	936
...	..	15.01	-0.132	..	9.61395	0.27046	1.60213	9.72963	91.699	..	...	..	..	..	.....	937
...	..	14.93	-0.149	-0.07	9.60699	0.26572	1.60123	9.72601	92.579	..	XIV. 217	..	1200	4918	Piazzi XIV. 217.....	938
1852.4	7	14.87	-0.317	+0.03	9.95402	0.02575	1.60060	9.72323	99.928	1903	XIV. 214	590	1201	4922	15 Libræ ϵ^2	939
1848.3	1	14.84	-0.320	..	9.96332	0.01796	1.60048	9.72254	99.946	..	...	..	..	..	.....	940
1851.4	1	+14.73	-0.243	..	9.66172	0.20780	1.59908	9.71700	97.485	..	...	..	1206	..	.....	941
1850.8	119	14.72	+0.026	+0.06	9.63381	0.28057	1.59897	9.71641	90.871	1917	XIV. 240	592	1207	4936	7 Ursæ Minoris..... β	942
1852.4	1	14.70	-0.320	..	9.94758	0.03221	1.59871	9.71542	100.303	..	...	..	..	..	.....	943
1850.4	1	14.69	-0.244	..	9.66143	0.20729	1.59874	9.71562	97.619	..	...	..	1209	..	.....	944
1850.4	1	14.68	-0.244	..	9.66143	0.20729	1.59874	9.71562	97.619	..	...	..	..	..	.....	945

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850.

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Wesse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
946	.....	..	14. 51. (50.)	..	..	+2'453	-0'0024	..	0'05728	0'05888	1'43859	0'06700	90'731	55. 51. 41'01
947	19 Libræ	5*	14. 52. 57'86	1850'4	4	3'198	+0'0098	-0'001	0'06106	0'06216	1'45022	0'08162	88'372	97. 55. 12'98
948	42 Bootis	3*	14. 56. 17'75	1851'0	14	2'263	-0'0023	+0'001	0'05559	0'05638	1'43557	0'06386	91'445	49. 0. 55'66
949	W. B. XIV. 1093	9	14. 58. 0'68	1851'2	1	3'221	+0'0102	..	0'06141	0'06173	1'45050	0'08184	88'341	98. 57. 4'58
950	43 Bootis	4'5*	14. 58. 1'18	1851'6	21	2'582	-0'0010	-0'010	0'05935	0'05967	1'44063	0'07012	90'177	62. 27. 53'02
951	21 Libræ	6*	14. 58. 16'02	1853'0	5	+3'334	+0'0135	+0'001	0'06095	0'06123	1'45230	0'08398	88'115	105. 40. 17'58
952	46 Bootis	6*	15. 1. (55.)	..	..	2'587	-0'0007	+0'003	0'05981	0'05944	1'44070	0'07051	90'131	63. 7. 16'68
953	W. B. XV. 45	9	15. 3. 34'35	1852'4	3	3'239	+0'0105	..	0'06180	0'06122	1'45085	0'08211	88'302	99. 56. 14'83
954	.....	..	15. 3. 45'41	1850'4	1	3'237	+0'0105	..	0'06182	0'06123	1'45080	0'08206	88'306	99. 46. 48'08
955	W. B. XV. 74	9	15. 5. 7'38	1850'4	1	3'236	+0'0104	..	0'06192	0'06112	1'45082	0'08204	88'309	99. 46.
956	.....	..	15. 6. 14'32	1852'5	3	+0'977	+0'0225	..	0'03787	0'03540	1'41459	0'04187	96'897	24. 53. 1'98
957	Groombridge 2198 ...	8	15. 6. 34'87	1848'5	2	1'942	+0'0002	..	0'05303	0'05143	1'43043	0'05953	92'607	40. 44.
958	Groombridge 2202 ...	7	15. 7. 52'53	1849'5	3	1'940	+0'0003	..	0'05322	0'05135	1'43040	0'05967	92'593	40. 51.
959	2 Lupi	5'4*	15. 8. 42'92	1851'5	7	3'628	+0'0222	+0'003	0'05990	0'05835	1'45678	0'08840	87'711	119. 35. 34'15
960	27 Libræ	2*	15. 8. 56'46	1851'4	99	3'223	+0'0099	-0'003	0'06227	0'06087	1'45061	0'08172	88'341	98. 49. 33'04
961	Oeltz. Arg. 15221 ...	7	15. 9. 6'55	1852'5	2	+1'039	+0'0200	..	0'03988	0'03644	1'41564	0'04394	96'497	25. 48. 56'11
962	Oeltz. Arg. 15222 ...	7	15. 9. 15'94	1852'5	2	1'039	+0'0200	..	0'03986	0'03635	1'41556	0'04394	96'510	25. 47. 4'14
963	49 Bootis	3*	15. 9. 27'40	1851'2	6	2'410	-0'0013	+0'011	0'05902	0'05728	1'43792	0'06806	90'701	56. 7. 22'37
964	Lalande 27904	7	15. 10. (38.)	..	..	2'309	-0'0014	..	0'05815	0'05605	1'43631	0'06645	91'070	52. 22. 35'31
965	.....	..	15. 11. 56'36	1850'4	1	2'305	-0'0013	..	0'05830	0'05592	1'43623	0'06656	91'066	52. 23.
966	.....	..	15. 12. 55'60	1851'4	1	+2'293	-0'0012	..	0'05830	0'05573	1'43604	0'06645	91'098	52. 2. 24'81
967	Groombridge 2214 ...	5'6*	15. 12. 56'37	1848'5	2	0'612	+0'0359	..	0'03417	0'02847	1'40845	0'03763	98'262	22. 4. 58'30
968	30 Libræ	6	15. 14. 40'20	1851'7	10	3'332	+0'0125	+0'001	0'06239	0'06003	1'45227	0'08331	88'147	104. 35. 40'43
969	Piazzi XV. 56	7½	15. 14. 47'62	1849'5	2	1'841	+0'0016	+0'018	0'05325	0'04954	1'42879	0'05925	92'856	39. 14.
970	2 Coronæ	5*	15. 17. 0'65	1849'5	2	2'466	-0'0006	+0'013	0'06043	0'05733	1'43880	0'06967	90'431	59. 10.
971	.....	..	15. 18. 24'38	1850'4	1	+3'469	+0'0160	..	0'06206	0'05900	1'45436	0'08525	87'938	111. 20. 40'35
972	31 Bootis	4'3*	15. 18. 49'45	1851'7	23	2'277	-0'0009	-0'010	0'05892	0'05521	1'43579	0'06686	91'085	52. 5. 39'08
973	Bootis	8	15. 18. 50'86	1851'0	6	2'277	-0'0009	..	0'05892	0'05523	1'43580	0'06686	91'083	52. 7. 25'96
974	.....	..	15. 19. 44'06	1850'4	1	3'476	+0'0160	..	0'06215	0'05885	1'45448	0'08528	87'931	111. 37.
975	32 Libræ	4	15. 19. 48'25	1852'2	12	+3'368	+0'0130	+0'006	0'06271	0'05953	1'45282	0'08366	88'091	106. 11. 22'67
976	13 Ursæ Minoris	3*	15. 21. (0.)	..	..	-0'164	+0'0729	+0'018	0'02500	0'01316	1'39509	0'02771	101'299	17. 37. 54'64
977	33 Libræ	7	15. 21. 6'10	1850'0	2	+3'383	+0'0134	-0'001	0'06275	0'05935	1'45307	0'08385	88'069	106. 55. 8'97
978	12 Draconis	3*	15. 21. 36'06	1850'6	8	1'322	+0'0109	+0'010	0'04778	0'04092	1'42033	0'05226	94'839	30. 30. 25'08
979	3 Coronæ	4'3*	15. 21. 38'71	1851'6	9	2'485	-0'0004	-0'005	0'06112	0'05723	1'43910	0'07035	90'323	60. 22. 27'97
980	.....	7	15. 21. 42'43	1852'9	2	3'381	+0'0133	..	0'06282	0'05930	1'45302	0'08378	88'075	106. 44. 5'22

946. Of the 10-11th magnitude.

954, 971. Of the 9-10th magnitude.

958. The magnitude is taken from Groombridge.

959. The designation is that of Baily's Flamsteed; in the Catalogue of the British Association, the star is named 2 Lupi, the designation 8 being transferred to B.A.C. 5046.

961, 962. The magnitudes are taken from Oeltzen's Argelander.

966. Of the 10th magnitude.

967. By comparison with the Catalogue of Groombridge, it appears that this star has a proper motion amounting to about +0'10 in R.A. and to +0'32 in N.P.D.

968. The observer notes this as being of the 6-7th magnitude.

972. The larger component of a double star.

974. Of the 11th magnitude.

1856G0AMM 160...1A

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of μ	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1850.4	2	+14.68	-0.244	..	9.66143	0.20729	1.59874	9.71562	97.619	..	...	..	..	..	.....	946
1849.6	5	14.61	-0.320	+0.01	9.93680	0.04125	1.59779	9.71179	100.491	1911	XIV. 238	593	1210	4939	19 Libræ..... δ	947
1851.0	12	14.41	-0.230	+0.05	9.61931	0.22303	1.59558	9.70272	97.918	1918	XIV. 259	597	1214	4958	42 Bootis..... β	948
1851.2	1	14.30	-0.329	..	9.94463	0.03695	1.59441	9.69798	101.138	..	...	..	..	..	W. B. XIV. 1093....	949
1851.9	21	14.30	-0.264	0.00	9.69115	0.18460	1.59441	9.69812	99.843	1922	XIV. 270	598	1219	4969	43 Bootis..... ψ	950
1853.0	5	+14.29	-0.341	+0.03	9.98758	0.00327	1.59427	9.69742	100.913	1919	XIV. 267	599	..	4970	21 Libræ..... ν	951
1848.5	2	14.06	-0.269	-0.02	9.69057	0.18099	1.59174	9.68751	100.767	1926	XIV. 290	..	1223	4991	46 Bootis..... δ	952
1852.4	3	13.96	-0.339	..	9.95255	0.03334	1.59053	9.68279	101.808	..	...	..	..	..	W. B. XV. 45.....	953
1850.4	1	13.95	-0.339	..	9.95143	0.03411	1.59066	9.68324	101.791	..	...	..	..	..	.....	954
...	..	13.86	-0.341	..	9.95173	0.03454	1.58948	9.67858	102.005	..	...	..	..	..	W. B. XV. 74.....	955
1852.5	3	+13.79	-0.103	..	9.55437	0.26089	1.58866	9.67537	97.073	..	...	..	..	..	.....	956
...	..	13.77	-0.206	-0.02	9.56340	0.23556	1.58848	9.67476	99.505	..	...	..	1227	5019	Groombridge 2198 ..	957
...	..	13.69	-0.207	..	9.56050	0.23471	1.58771	9.67182	99.810	..	...	..	1229	..	Groombridge 2202 ..	958
1852.2	4	13.63	-0.388	+0.06	0.07366	9.93668	1.58693	9.66885	100.752	1931	XV. 22	604	1230	5032	2 Lupi..... δ	959
1851.6	92	13.62	-0.345	0.00	9.94634	0.03974	1.58679	9.66822	102.523	1934	XV. 26	605	1232	5034	27 Libræ..... β	960
1852.5	2	+13.61	-0.111	..	9.54332	0.25780	1.58661	9.66759	98.051	..	...	..	..	..	Oeltz. Arg. 15221...	961
1852.5	2	13.60	-0.111	..	9.54295	0.25774	1.58651	9.66712	98.088	..	...	..	..	..	Oeltz. Arg. 15222 ...	962
1851.9	16	13.58	-0.259	+0.09	9.63310	0.19799	1.58640	9.66680	101.912	1936	XV. 29	606	1234	5036	49 Bootis..... δ	963
1848.8	3	13.51	-0.249	..	9.60746	0.20720	1.58559	9.66370	101.851	..	...	..	1235	..	Lalande 27904	964
...	..	13.42	-0.250	..	9.60466	0.20645	1.58453	9.65974	102.204	..	...	..	..	..	.....	965
1851.4	1	+13.36	-0.249	..	9.60119	0.20693	1.58402	9.65778	102.344	..	...	..	1240	..	.....	966
1848.3	2	13.36	-0.067	..	9.53872	0.25943	1.58388	9.65729	98.536	..	...	..	1241	5058	Groombridge 2214 ..	967
1851.4	16	13.25	-0.365	-0.01	9.98642	0.01435	1.58256	9.65232	102.811	1941	XV. 50	..	..	5063	30 Libræ..... δ	968
...	..	13.24	-0.202	+0.07	9.53599	0.23330	1.58249	9.65198	101.528	..	XV. 56	..	1244	5064	Piazzi XV. 56	969
...	..	13.09	-0.273	+0.18	9.64261	0.18599	1.58083	9.64588	103.884	1947	XV. 67	608	1245	5075	2 Coronæ..... η	970
1850.4	1	+13.00	-0.385	..	0.03048	9.98423	1.57968	9.64156	102.531	..	...	..	..	..	.....	971
1852.1	21	12.97	-0.253	-0.08	9.58999	0.20339	1.57943	9.64069	103.848	1950	XV. 73	610	1249	5084	31 Bootis..... μ	972
1851.7	4	12.97	-0.253	..	9.59006	0.20346	1.57956	9.64122	103.813	..	XV. 74	..	1250	..	Bootis..... μ	973
..	..	12.91	-0.388	..	0.03274	9.98354	1.57878	9.63842	102.604	..	...	..	..	..	.....	974
1851.2	16	12.90	-0.376	+0.04	9.99851	0.00886	1.57868	9.63807	103.222	1949	XV. 75	..	1251	5089	32 Libræ..... ζ	975
1849.5	1	+12.82	+0.018	-0.05	9.52611	0.25754	1.57776	9.63453	100.204	1962	XV. 95	612	1255	5094	13 Ursæ Minoris..... γ	976
1850.8	3	12.82	-0.380	-0.03	0.00373	0.00604	1.57769	9.63435	103.281	1951	XV. 80	..	1254	5096	33 Libræ..... ζ	977
1850.7	9	12.78	-0.149	-0.02	9.49927	0.24283	1.57728	9.63292	102.305	1957	XV. 92	613	1258	5097	12 Draconis	978
1852.0	14	12.78	-0.279	-0.07	9.64519	0.18041	1.57725	9.63274	105.014	1955	XV. 86	611	1257	5098	3 Coronæ..... β	979
1852.1	3	12.78	-0.380	..	0.00277	0.00713	1.57721	9.63256	103.368	..	...	..	1256	5099		980

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No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Wils.	Mean Right Ascension, 1850, Jan. 1.			Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
			h	m	s						c	f	g	h		
981	36 Libræ.....	6	15. 25. (32.)	..	..	..	..	+3.615	+0.0195	0.000	0.06188	0.05738	1.45661	0.08696	87.760	117. 32. 12.91
982	37 Libræ.....	5*	15. 25. 59.15	1850.2	1	..	1	3.247	+0.0098	+0.021	0.06368	0.05960	1.45096	0.08170	88.306	99. 32. 48.75
983	38 Libræ.....	4.5*	15. 27. 8.53	1849.9	4	..	4	3.338	+0.0118	+0.006	0.06350	0.05916	1.45237	0.08296	88.148	104. 17. 5.29
984	13 Serpentis.....	3.4*	15. 27. 38.39	1851.0	2	..	2	2.865	+0.0032	+0.001	0.06375	0.05939	1.44507	0.07627	89.144	78. 57. 26.71
985	13 Serpentis.....	3.4*	15. 27. 38.36	1851.2	4	..	4	2.865	+0.0032	+0.001	0.06375	0.05939	1.44507	0.07627	89.144	78. 57. 23.25
986	39 Libræ.....	4.5*	15. 27. (56.)	..	..	..	..	+3.622	+0.0194	+0.002	0.06208	0.05717	1.45671	0.08689	87.757	117. 38. 0.57
987	Groombridge 2283 ..	6	15. 28. 0.19	1850.6	5	..	5	-24.315	+8.0516	..	†..	..	..	..	..	2. 12. 8.32
988	5 Coronæ.....	2*	15. 28. 20.32	1851.5	141	..	141	+2.528	+0.0002	+0.011	0.06219	0.05723	1.43978	0.07148	90.123	62. 46. 39.04
989	41 Libræ.....	6	15. 30. (17.)	..	..	..	..	3.432	+0.0139	+0.011	0.06339	0.05845	1.45381	0.08415	88.005	108. 48. 14.08
990	W. B. XV. 637	9	15. 33. 15.07	1852.5	1	..	1	3.360	+0.0119	..	0.06402	0.05865	1.45271	0.08304	88.114	105. 4.
991	W. B. XV. 644	9	15. 33. 36.44	1852.5	2	..	2	+3.360	+0.0119	..	0.06402	0.05865	1.45271	0.08304	88.114	105. 4. 51.32
992	Piazzi XV. 150	7	15. 34. 20.53	1852.5	3	..	3	3.370	+0.0121	-0.017	0.06406	0.05856	1.45285	0.08314	88.099	105. 31. 42.10
993	Bradley 1987.....	7	15. 35. 0.69	1852.2	4	..	4	3.351	+0.0116	..	0.06418	0.05859	1.45256	0.08287	88.132	104. 33. 28.26
994	44 Libræ.....	6*	15. 35. 38.47	1852.0	12	..	12	+3.364	+0.0118	+0.007	0.06420	0.05849	1.45277	0.08302	88.110	105. 11. 25.86
995	15 Ursæ Minoris	6.5*	15. 35. (59.)	..	..	..	..	-1.952	+0.1913	-0.024	0.00597	9.97490	1.36264	0.00776	107.949	12. 9. 12.81
996	24 Serpentis.....	2.3*	15. 36. 52.96	1851.5	111	..	111	+2.939	+0.0043	+0.014	0.06473	0.05902	1.44622	0.07748	88.933	83. 5. 56.12
997	28 Serpentis.....	3.4*	15. 39. 16.02	1850.7	8	..	8	2.759	+0.0022	+0.008	0.06448	0.05819	1.44341	0.07521	89.376	74. 6. 18.33
998	5 Lupi.....	5*	15. 41. 26.26	1851.1	5	..	5	3.790	+0.0224	-0.001	0.06247	0.05480	1.45924	0.08806	87.602	123. 9. 55.75
999	32 Serpentis.....	3.4*	15. 41. 47.79	1851.0	6	..	6	3.128	+0.0070	0.000	0.06525	0.05883	1.44913	0.08007	88.505	92. 58. 1.63
1000	35 Serpentis.....	4*	15. 41. 59.41	1851.1	4	..	4	2.700	+0.0018	0.000	0.06452	0.05768	1.44247	0.07456	89.524	71. 23. 30.67
1001	Lacaille 6562.....	6	15. 42. 57.77	1851.1	3	..	3	+3.694	+0.0194	+0.001	0.06331	0.05566	1.45780	0.08678	87.696	119. 25. 34.48
1002	W. B. XV. 838	8	15. 43. 12.90	1852.5	3	..	3	3.354	+0.0111	..	0.06496	0.05807	1.45263	0.08264	88.123	104. 24. 21.94
1003	37 Serpentis.....	3.4*	15. 43. 20.54	1852.2	17	..	17	2.975	+0.0047	+0.014	0.06336	0.05867	1.44677	0.07801	88.835	85. 4. 1.77
1004	45 Libræ.....	6*	15. 44. 37.98	1853.4	2	..	2	3.469	+0.0135	+0.002	0.06467	0.05733	1.45436	0.08397	87.963	109. 42. 51.98
1005	W. B. XV. 864	8	15. 44. 53.22	1852.5	2	..	2	3.353	+0.0110	..	0.06512	0.05796	1.45260	0.08257	88.128	104. 15. 43.13
1006	Bradley 2009.....	6	15. 44. (57.)	..	..	..	..	+3.567	+0.0158	+0.002	0.06425	0.05664	1.45588	0.08514	87.835	114. 4. 52.34
1007	Piazzi XV. 192.....	6*	15. 45. 0.74	1852.9	5	..	5	3.555	+0.0155	+0.001	0.06431	0.05672	1.45568	0.08497	87.853	113. 31. 36.97
1008	46 Libræ.....	5.4*	15. 45. 17.43	1851.4	17	..	17	3.396	+0.0118	+0.014	0.06500	0.05774	1.45325	0.08307	88.064	106. 17. 3.89
1009	W. B. XV. 910.....	6	15. 47. 50.13	1852.5	3	..	3	3.349	+0.0107	..	0.06542	0.05781	1.45255	0.08244	88.131	103. 57. 13.69
1010	.....	..	15. 48. 37.79	1851.4	1	..	1	3.349	+0.0105	..	0.06557	0.05777	1.45254	0.08238	88.127	103. 57.
1011	Groombridge 2288 ..	6*	15. 48. (48.)	..	..	..	..	+1.387	+0.0083	+0.014	0.05497	0.04103	1.42140	0.05916	93.837	33. 43. 41.56
1012	W. B. XV. 942	9	15. 49. 29.00	1851.4	1	..	1	3.349	+0.0106	..	0.06557	0.05774	1.45252	0.08237	88.131	103. 53. 11.63
1013	41 Serpentis.....	4.3*	15. 49. 31.68	1851.5	23	..	23	+2.744	+0.0022	+0.025	0.06542	0.05748	1.44317	0.07540	89.365	73. 50. 43.90
1014	16 Ursæ Minoris.....	4.5*	15. 49. 31.80	1850.7	28	..	28	-2.345	+0.2015	+0.029	0.01008	9.96576	1.35517	0.01165	108.442	11. 44. 47.87
1015	48 Libræ.....	5*	15. 49. 47.68	1852.0	5	..	5	+3.348	+0.0106	+0.001	0.06560	0.05771	1.45253	0.08236	88.133	103. 50. 32.82

984. This star was noted by the observer in 1850, to be half a magnitude smaller than the following.

993. This star is designated χ Lupi in the B.A.C.

1001. The observer notes this as about the 7th magnitude.

1010. It is probable that this star is identical with Lalande 29024, and that the R.A. of the latter Catalogue is 1^m too great.

1014. The R.A. observation of 1851, June 25, has been rejected.

† For No. 987, log. c = 9.12115, log. f = -9.22134, log. g = 9.83478, log. h = 9.12356, l = 206° 7.15.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of ρ	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Poud's 1112.	No. in Greenwich Twelve-Year Catalogue	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1850.0	4	+12.52	-0.412	+0.05	0.07057	9.95974	1.57423	9.62175	102.318	1958	XV. 102	..	1261	5121	36 Libræ.....	981
1849.4	1	12.49	-0.371	+0.23	9.95512	0.04011	1.57386	9.62063	104.616	1960	XV. 106	615	1262	5125	37 Libræ.....	982
1850.3	2	12.41	-0.383	-0.02	9.98828	0.02009	1.57293	9.61723	104.241	1964	XV. 111	616	1264	5134	38 Libræ.....	983
1851.2	4	12.37	-0.329	-0.05	9.79465	0.11997	1.57253	9.61590	106.296	1969	XV. 117	618	..	5135	13 Serpentis.....	984
1851.0	6	12.37	-0.329	-0.05	9.79465	0.11997	1.57253	9.61590	106.296	1969	XV. 117	618	..	5135	13 Serpentis.....	985
1849.8	3	+12.35	-0.416	-0.03	0.07221	9.96109	1.57230	9.61513	102.493	1966	XV. 116	619	1265	5138	39 Libræ.....	986
1850.7	4	12.35	+2.794	..	9.59760	0.25895	1.57227	9.61494	99.600	..	...	..	..	5140	Groombridge 2283 ..	987
1851.7	121	12.32	-0.291	+0.07	9.65630	0.17059	1.57197	9.61398	106.577	1973	XV. 121	620	1266	5142	5 Coronæ	988
1850.5	6	12.19	-0.398	+0.03	0.01916	0.00179	1.57043	9.60837	103.995	1975	XV. 133	..	1274	5161	41 Libræ.....	989
...	..	11.98	-0.393	..	9.99555	0.01911	1.56760	9.59861	104.871	..	...	..	..	..	W. B. XV. 637	990
1852.5	2	+11.96	-0.394	..	9.99555	0.01911	1.56760	9.59861	104.871	..	...	..	..	..	W. B. XV. 644	991
1852.5	4	11.91	-0.396	+0.16	9.99888	0.01748	1.56707	9.59679	104.874	..	XV. 150	..	..	5184	Piazzi XV. 150	992
1852.5	3	11.86	-0.394	+0.14	9.99241	0.02176	1.56653	9.59495	105.081	1987	...	..	1282	5188	Bradley 1987	993
1852.1	11	11.81	-0.397	+0.05	9.99690	0.01939	1.56602	9.59310	105.064	1985	XV. 157	628	1283	5190	44 Libræ	994
1848.4	2	11.79	+0.230	0.00	9.50206	0.24911	1.56573	9.59228	103.766	2008	XV. 172	630	1285	5191	15 Ursæ Minoris	995
1851.7	95	+11.73	-0.348	-0.06	9.82716	0.10390	1.56496	9.58957	107.664	1990	XV. 163	629	1286	5196	24 Serpentis	996
1850.6	6	11.56	-0.329	0.00	9.74714	0.13283	1.56295	9.58282	108.657	1996	XV. 170	632	..	5216	28 Serpentis.....	997
1853.5	1	11.40	-0.455	+0.06	0.10951	9.94893	1.56110	9.57657	102.494	1998	XV. 174	633	1290	5227	5 Lupi	998
1851.3	4	11.37	+0.376	+0.01	9.90803	0.06843	1.56079	9.57569	107.444	2001	XV. 178	634	..	5230	32 Serpentis	999
1851.3	3	11.36	-0.325	+0.05	9.72068	0.14012	1.56064	9.57503	109.309	2002	XV. 182	636	..	5234	35 Serpentis	1000
1851.8	3	+11.29	-0.445	+0.15	0.08921	9.96541	1.55979	9.57217	103.330	..	...	..	1293	5240	Lacaille 6562	1001
1852.5	3	11.27	-0.405	..	9.99352	0.02538	1.55960	9.57172	106.011	..	...	..	..	..	W. B. XV. 838	1002
1852.6	11	11.26	-0.359	-0.05	9.84292	0.09633	1.55945	9.57128	108.550	2005	XV. 187	637	..	5245	37 Serpentis	1003
1853.4	2	11.17	-0.420	+0.02	0.03008	0.00525	1.55833	9.56748	105.266	2007	XV. 190	640	1296	5251	45 Libræ	1004
1852.5	2	11.15	-0.406	..	9.99308	0.02658	1.55802	9.56636	106.233	..	...	..	..	..	W. B. XV. 864	1005
1850.5	2	+11.15	-0.433	0.00	0.05804	9.98822	1.55805	9.56658	104.504	2009	XV. 191	..	1297	5253	Bradley 2009	1006
1852.9	5	11.14	-0.431	0.00	0.05462	9.99044	1.55799	9.56636	104.615	..	XV. 192	..	..	5254	Piazzi XV. 192	1007
1851.2	18	11.12	-0.412	-0.13	0.00724	0.01892	1.55775	9.56568	105.927	2011	XV. 193	642	1298	5257	46 Libræ	1008
1852.5	3	10.93	-0.410	..	9.99171	0.02877	1.55545	9.55811	106.608	..	...	..	..	..	W. B. XV. 910	1009
...	..	10.88	-0.410	..	9.99154	0.02921	1.55478	9.55602	106.700	..	...	..	..	..	.....	1010
1850.2	3	+10.86	-0.170	..	9.41472	0.21762	1.55466	9.55555	110.220	..	...	..	1305	5279	Groombridge 2288	1011
1851.4	1	10.81	-0.411	..	9.99154	0.02964	1.55403	9.55368	106.796	..	...	..	..	..	W. B. XV. 942	1012
1852.2	17	10.81	-0.337	+1.24	9.73943	0.13033	1.55400	9.55344	110.617	2023	XV. 219	646	1306	5284	41 Serpentis	1013
1851.0	53	10.81	+0.288	0.00	9.45779	0.23747	1.55400	9.55344	107.721	2041	XV. 238	649	1309	5285	16 Ursæ Minoris	1014
1852.3	4	10.79	-0.412	-0.01	9.99137	0.02990	1.55376	9.55274	106.807	2022	XV. 218	647	1308	5290	48 Libræ	1015

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or R.A.C., or Wesse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of 1	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1016	13 Coronæ	4*	15. 51. (22.)	..	..	+2.486	+0.0008	+0.001	0.06450	0.05557	1.43912	0.07250	90.058	62. 41. 4.65
1017	7 Scorpil.	2.3*	15. 51. 28.30	1851.0	14	3.532	+0.0143	+0.003	0.06510	0.05654	1.45534	0.08438	87.881	112. 11. 24.84
1018	8 Scorpil.	2*	15. 56. 43.32	1851.1	54	3.475	+0.0125	+0.003	0.06587	0.05664	1.45446	0.08351	87.952	109. 23. 24.93
1019	8 Scorpil.	5½	15. 56. 43.77	1850.5	11	3.475	+0.0125	-0.005	0.06587	0.05664	1.45446	0.08351	87.952	109. 23. 12.97
1020	W. B. XV. 1100....	9	15. 57. (50.)	..	..	3.313	+0.0095	..	0.06645	0.05743	1.45198	0.08176	88.179	101. 53. 27.38
1021	9 Scorpil.	4*	15. 58. 2.39	1848.5	2	+3.496	+0.0129	+0.006	0.06593	0.05643	1.45479	0.08367	87.925	110. 15. 29.31
1022	10 Scorpil.	4½	15. 58. 36.91	1852.0	16	3.501	+0.0129	+0.007	0.06596	0.05638	1.45486	0.08370	87.919	110. 27. 32.05
1023	W. B. XV. 1118....	7	15. 58. 41.84	1852.2	4	3.351	+0.0100	..	0.06645	0.05720	1.45257	0.08213	88.121	103. 39. 48.38
1024	13 Draconis	4.3*	15. 59. (5.)	..	..	+1.151	+0.0119	-0.027	0.05495	0.03673	1.41749	0.05849	94.437	31. 1. 57.59
1025	Groombridge 2315 ..	6	15. 59. 22.77	1850.5	2	-6.909	+0.7179	..	9.95853	9.84450	1.25747	9.95946	125.319	6.37.....
1026	W. B. XV. 1144....	8	15. 59. 48.82	1852.5	3	+3.349	+0.0099	..	0.06660	0.05714	1.45254	0.08207	88.123	103. 31. 51.17
1027	W. B. XVI. 38.....	7.8	16. 2. 39.74	1851.4	1	3.353	+0.0098	..	0.06685	0.05697	1.45259	0.08204	88.115	103. 35. 37.63
1028	14 Scorpil.	7	16. 3. 15.93	1851.5	7	3.474	+0.0119	+0.008	0.06657	0.05627	1.45445	0.08323	87.951	109. 3. 20.09
1029	14 Scorpil.	4*	16. 3. 17.05	1851.3	16	3.474	+0.0119	+0.004	0.06655	0.05629	1.45445	0.08323	87.950	109. 3. 59.03
1030	Lalande 29490	9	16. 3. 57.19	1851.5	6	3.349	+0.0095	..	0.06695	0.05694	1.45252	0.08195	88.122	103. 20. 46.89
1031	.....	..	16. 4. 7.23	1851.5	2	+3.349	+0.0095	..	0.06701	0.05692	1.45252	0.08194	88.120	103. 21.....
1032	48 Serpentis	6*	16. 4. 41.46	1849.5	3	2.711	+0.0021	0.000	0.06683	0.05649	1.44266	0.07560	89.360	72. 56. 33.37
1033	14 Herculis	6	16. 5. 32.65	1848.5	1	1.928	+0.0019	+0.014	0.06275	0.04857	1.43021	0.06780	91.618	45. 46.....
1034	Groombridge 2320....	6.5*	16. 5. (56.)	..	..	0.133	+0.0381	-0.006	0.04699	0.01796	1.40023	0.04938	97.918	21. 47. 39.77
1035	1 Ophiuchi.	3*	16. 6. 29.35	1851.5	88	3.139	+0.0063	-0.001	0.06753	0.05738	1.44930	0.07984	88.451	93. 18. 14.38
1036	Piazzi XVI. 33.....	7.8	16. 8. 7.19	1848.5	2	+1.836	+0.0025	..	0.06247	0.04720	1.42871	0.06717	91.877	43. 43.....
1037	Piazzi XVI. 36.....	6	16. 10. (4.)	..	..	3.770	+0.0172	+0.005	0.06606	0.05358	1.45895	0.08571	87.630	120. 32. 16.42
1038	2 Ophiuchi	3.4*	16. 10. 23.31	1851.6	19	3.160	+0.0064	+0.008	0.06790	0.05712	1.44964	0.08003	88.404	94. 19. 21.78
1039	20 Scorpil.	3.4*	16. 12. 4.72	1852.4	5	3.632	+0.0139	+0.002	0.06691	0.05474	1.45686	0.08432	87.762	115. 13. 38.27
1040	.....	..	16. 12. (10.)	...	..	+1.146	+0.0108	..	0.05784	0.03628	1.41740	0.06108	94.111	31. 45. 5.45
1041	19 Ursæ Minoris	6*	16. 15. (8.)	..	..	-1.832	+0.1234	-0.031	0.03183	9.97694	1.36488	0.03326	104.601	13. 44. 48.98
1042	22 Herculis	3.4*	16. 15. 14.10	1850.8	8	+1.799	+0.0027	0.000	0.06339	0.04643	1.42812	0.06774	91.871	43. 19. 38.00
1043	20 Herculis	3*	16. 15. 18.33	1852.1	19	2.646	+0.0018	-0.001	0.06774	0.05558	1.44163	0.07540	89.449	70. 29. 28.16
1044	4 Ophiuchi	5*	16. 15. 20.01	1848.9	2	3.500	+0.0112	+0.001	0.06772	0.05555	1.45484	0.08297	87.907	109. 40. 52.34
1045	21 Scorpil.	1.2*	16. 20. 13.03	1851.2	61	3.664	+0.0136	+0.004	0.06769	0.05411	1.45734	0.08414	87.724	116. 5. 38.35
1046	22 Scorpil.	5*	16. 21. 6.01	1851.4	2	+3.631	+0.0128	+0.004	0.06793	0.05435	1.45684	0.08382	87.755	114. 46. 47.35
1047	Normæ	4	16. 21. 35.37	1851.5	4	3.902	+0.0180	-0.003	0.06683	0.05176	1.46093	0.08599	87.521	124. 22. 21.17
1048	.....	..	16. 21. 36.59	1853.5	1	3.546	+0.0043	..	0.06903	0.05664	1.44749	0.07878	88.612	87. 40. 50.18
1049	Groombridge 2345...	6	16. 21. 48.73	1849.2	3	+0.780	+0.0164	..	0.05728	0.02966	1.41128	0.05985	95.078	27. 58.
1050	21 Ursæ Minoris	5*	16. 21. 57.41	1848.5	1	-1.844	+0.1151	+0.005	0.03539	9.97660	1.36466	0.03673	104.195	13. 54. 5.80

1023. The observer notes this as of the 7th magnitude. 1028. Of the 7th magnitude.

1032. This star is designated in the R. A. C., as being in the constellation Hercules.

1047. The designation is Lacaille's.

1029. Noted by the observer (1850) as of the 4½ magnitude.

1036. The magnitude is taken from Piazzi.

1048. Observed for No. 1363 of the Twelve-Year Catalogue.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1848.4	2	+ 10.67	- 0.307	+ 0.003	9.62930	0.15964	1.55234	9.54821	111.605	2029	XV. 229	650	1311	5302	13 Coronæ.....ε	1016
1851.7	12	10.67	- 0.436	+ 0.01	0.04844	9.99962	1.55225	9.54797	105.444	2024	XV. 225	648	1312	5303	7 Scorpii.....δ	1017
1851.2	47	10.28	- 0.435	+ 0.02	0.03173	0.01279	1.54747	9.53299	106.498	2034	XV. 251	654	1318	5329	8 Scorpii.....β ¹	1018
1850.4	15	10.27	- 0.435	+ 0.09	0.03169	0.01281	1.54747	9.53299	106.500	..	XV. 252	655	1319	5330	8 Scorpii.....β ²	1019
1849.5	1	10.19	- 0.416	..	9.97882	0.03946	1.54672	9.53072	108.070	..	...	..	1320	..	W. B. XV. 1100.....	1020
1850.5	5	+ 10.18	- 0.439	- 0.01	0.03795	0.01044	1.54625	9.52919	106.443	2039	XV. 259	656	..	5337	9 Scorpii.....ω ¹	1021
1852.1	12	10.13	- 0.441	+ 0.02	0.03941	0.01005	1.54570	9.52766	106.456	2040	XV. 263	657	1324	5342	10 Scorpii.....ω ²	1022
1852.2	4	10.13	- 0.422	..	9.99216	0.03370	1.54566	9.52750	107.853	..	...	..	..	..	W. B. XV. 1118.....	1023
1849.8	3	10.10	- 0.145	- 0.32	9.37281	0.21256	1.54527	9.52637	112.799	2053	XV. 277	659	1325	5348	13 Draconis.....θ	1024
...	..	10.08	+ 0.871	..	9.46409	0.23022	1.54502	9.52560	109.766	..	...	..	1327	5352	Groombridge 2315 ..	1025
1852.5	3	+ 10.04	- 0.423	..	9.99145	0.03460	1.54450	9.52405	108.017	..	...	..	..	..	W. B. XV. 1144.....	1026
1851.4	1	9.82	- 0.426	..	9.99260	0.03536	1.54188	9.51619	108.307	..	...	..	..	..	W. B. XVI. 38.....	1027
1850.9	10	9.78	- 0.442	+ 0.11	0.03136	0.01738	1.54129	9.51432	107.205	..	XVI. 3	..	1330	5383	14 Scorpii.....ν ¹	1028
1851.2	18	9.78	- 0.442	- 0.03	0.03141	0.01734	1.54129	9.51432	107.204	2055	XVI. 4	661	1331	5382	14 Scorpii.....ν ²	1029
1851.5	5	9.73	- 0.427	..	9.99100	0.03665	1.54061	9.51240	108.509	..	...	..	..	..	Lalande 29490.....	1030
..	..	+ 9.71	- 0.427	..	9.99100	0.03665	1.54061	9.51240	108.509	..	...	..	..	..	.....	1031
1849.0	2	9.67	- 0.346	- 0.06	9.72272	0.12758	1.53994	9.51056	113.557	2060	XVI. 12	..	1334	5392	48 Serpentis.....	1032
..	..	9.61	- 0.247	+ 0.35	9.44215	0.18584	1.53914	9.50811	115.148	2068	XVI. 22	..	1336	5400	14 Herculis.....	1033
1850.5	2	9.57	- 0.017	- 0.07	9.34828	0.21572	1.53875	9.50702	113.818	..	...	664	1337	5406	Groombridge 2320...	1034
1851.8	73	9.53	- 0.403	+ 0.11	9.91251	0.06918	1.53823	9.50538	110.801	2065	XVI. 21	663	1338	5414	1 Ophiuchi.....δ	1035
...	..	+ 9.41	- 0.236	..	9.41814	0.18735	1.53680	9.50123	115.736	..	XVI. 33	..	1340	..	Piazzi XVI. 33.....	1036
1848.5	1	9.26	- 0.488	+ 0.09	0.10619	9.98477	1.53473	9.49532	105.010	..	XVI. 36	..	1344	5435	Piazzi XVI. 36.....	1037
1851.7	17	9.23	- 0.409	- 0.04	9.92129	0.06642	1.53440	9.49447	111.132	2073	XVI. 41	666	1345	5437	2 Ophiuchi.....ε	1038
1853.4	3	9.10	- 0.472	0.00	0.07452	0.00286	1.53274	9.48961	106.517	2077	XVI. 50	668	1346	5447	20 Scorpii.....σ	1039
1849.5	1	9.09	- 0.149	..	9.33041	0.20033	1.53282	9.48990	116.348	..	...	..	1347	..	.....	1040
1850.5	2	+ 8.86	+ 0.240	0.00	9.35306	0.21196	1.52969	9.48113	115.433	2096	XVI. 82	675	1351	5462	19 Ursæ Minoris.....	1041
1851.3	4	8.85	- 0.235	- 0.02	9.39690	0.18215	1.52958	9.48083	117.552	2086	XVI. 73	672	1350	5463	22 Herculis.....τ	1042
1852.2	28	8.85	- 0.346	- 0.05	9.69129	0.12946	1.52952	9.48083	115.857	2084	XVI. 66	671	..	5466	20 Herculis.....γ	1043
1849.3	4	8.84	- 0.458	+ 0.06	0.03890	0.02180	1.52950	9.48083	108.192	2082	XVI. 64	670	1349	5467	4 Ophiuchi.....ψ	1044
1851.4	52	8.46	- 0.485	+ 0.03	0.08246	0.00624	1.52451	9.46721	106.930	2091	XVI. 84	681	1356	5498	21 Scorpii.....α	1045
1850.7	4	+ 8.39	- 0.481	+ 0.01	0.07435	0.01059	1.52361	9.46503	107.354	2092	XVI. 89	..	1358	5501	22 Scorpii.....	1046
1853.4	2	8.35	- 0.517	+ 0.08	0.13197	9.98453	1.52307	9.46347	104.712	..	XVI. 92	683	1360	5508	Normæ.....α	1047
1853.5	1	8.35	- 0.470	..	9.86303	0.08522	1.52282	9.46316	114.086	..	...	..	1363	..	.....	1048
..	..	8.33	- 0.103	..	9.28571	0.19505	1.52287	9.46284	118.745	..	...	..	1361	5509	Groombridge 2345...	1049
1849.1	1	8.32	+ 0.245	- 0.20	9.32754	0.20486	1.52270	9.46253	117.382	2111	XVI. 114	688	1364	5511	21 Ursæ Minoris.....η	1050

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weiss's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Wiese.	Mean Right			Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
			Ascension,	h	m s						c	f	g	h		
			1850, Jan. 1.													
1051	14 Draconis.....η	3.2*	16. 21. 58.14	1851.1	43	+0.797	+0.0161	+0.023	0.05743	0.02996	1.41155	0.06008	95.016	28. 8. 42.38		
1052	8 Ophiuchi.....φ	5*	16. 22. 33.47	1851.9	2	3.426	+0.0093	+0.004	0.06869	0.05566	1.45372	0.08208	87.986	106. 16. 50.89		
1053	9 Ophiuchi.....ω	5*	16. 23. 15.11	1850.0	6	3.542	+0.0111	+0.004	0.06845	0.05492	1.45549	0.08299	87.847	111. 8. 25.92		
1054	10 Ophiuchi.....λ	4.3*	16. 23. 21.10	1851.8	9	3.021	+0.0044	+0.006	0.06919	0.05654	1.44749	0.07878	88.608	87. 41. 0.88		
1055	30 Herculis.....g	5.6*	16. 23. 43.09	1848.5	1	1.963	+0.0017	+0.006	0.06568	0.04837	1.43076	0.07016	91.235	47. 47.		
1056	27 Herculis.....β	2.3*	16. 23. 46.43	1850.2	7	+2.582	+0.0015	-0.006	0.06846	0.05478	1.44062	0.07522	89.545	68. 10. 47.64		
1057	23 Scorpil.....τ	3.4*	16. 26. 33.16	1853.5	5	3.720	+0.0137	+0.005	0.06821	0.05337	1.45819	0.08422	87.665	117. 53. 58.70		
1058	13 Ophiuchi.....ζ	3.2*	16. 28. 54.22	1852.0	22	3.294	+0.0070	+0.005	0.06958	0.05594	1.45169	0.08087	88.150	100. 15. 31.29		
1059	Lalande 30230.....	8½	16. 29. (40.)	..	..	2.865	+0.0029	..	0.06967	0.05600	1.44506	0.07764	88.877	80. 33. 26.32		
1060	Piazzi XVI. 142....	7½	16. 32. 36.82	1848.5	1	3.468	+0.0090	-0.007	0.06965	0.05500	1.45436	0.08205	87.915	107. 45. 42.36		
1061	24 Scorpil.....	5*	16. 32. 54.16	1850.2	4	+3.461	+0.0088	0.000	0.06969	0.05504	1.45425	0.08199	87.923	107. 26. 48.81		
1062	Piazzi XVI. 182....	6*	16. 34. (12)	..	..	-3.501	+0.1935	-0.019	0.02896	9.93776	1.33242	0.02988	109.034	10. 43. 14.84		
1063	40 Herculis.....ζ	3.2*	16. 35. 37.93	1852.4	35	+2.295	+0.0011	-0.030	0.06884	0.05183	1.43608	0.07375	90.156	58. 7. 21.09		
1064	44 Herculis.....η	3*	16. 37. (45.)	..	..	2.049	+0.0014	+0.005	0.06811	0.04901	1.43216	0.07221	90.787	50. 47. 21.76		
1065	W.B. XVI. 739....	8.9	16. 38. 8.54	1848.5	2	2.761	+0.0022	..	0.07037	0.05526	1.44342	0.07709	89.043	76. 6.		
1066	Rümker 5537.....	..	16. 38. (20.)	..	..	+3.001	+0.0037	..	0.07063	0.05594	1.44717	0.07872	88.579	86. 50. 4.30		
1067	18 Draconis.....g	5.6*	16. 39. (53.)	..	..	0.392	+0.0204	+0.001	0.05925	0.02222	1.40471	0.06121	95.779	25. 7. 33.74		
1068	Groombridge 2374..	5½	16. 39. (54.)	..	..	1.211	+0.0074	..	0.06414	0.03666	1.41848	0.06677	93.211	34. 1. 55.28		
1069	.....	..	16. 40. ±	..	..	2.757	+0.0021	..	0.07059	0.05516	1.44337	0.07711	89.035	75. 58. 20.38		
1070	26 Scorpil.....ε	3*	16. 40. 27.23	1851.2	3	3.919	+0.0148	-0.044	0.06917	0.05091	1.46119	0.08469	87.489	124. 0. 54.29		
1071	W. B. XVI. 782....	9	16. 40. 31.72	1850.5	1	+2.759	+0.0021	..	0.07061	0.05516	1.44339	0.07715	89.030	76. 3. 48.68		
1072	W. B. XVI. 790....	9	16. 40. 58.10	1850.5	1	2.754	+0.0021	..	0.07069	0.05512	1.44333	0.07715	89.033	75. 54.		
1073	21 Ophiuchi.....	6*	16. 43. 48.66	1853.6	1	3.038	+0.0038	+0.004	0.07123	0.05575	1.44775	0.07898	88.488	88. 31. 26.64		
1074	W. B. XVI. 853....	9	16. 44. 2.04	1849.5	2	2.730	+0.0020	..	0.07096	0.05489	1.44294	0.07704	89.068	74. 53. 52.53		
1075	.....	..	16. 44. (0.)	..	..	2.726	+0.0019	..	0.07096	0.05487	1.44288	0.07702	89.075	74. 43. 51.54		
1076	.....	..	16. 44. 52.33	1851.5	1	+2.719	+0.0019	..	0.07102	0.05481	1.44276	0.07699	89.084	74. 26. 53.52		
1077	49 Herculis.....	6*	16. 45. (15.)	..	..	2.726	+0.0019	+0.005	0.07110	0.05483	1.44289	0.07709	89.062	74. 46. 11.88		
1078	.....	..	16. 45. (50.)	..	..	2.703	+0.0019	..	0.07108	0.05470	1.44253	0.07694	89.108	73. 49. 23.94		
1079	.....	..	16. 46. ±	..	..	2.704	+0.0019	..	0.07108	0.05470	1.44253	0.07694	89.108	73. 51. 47.62		
1080	.....	..	16. 46. (20.)	..	..	2.705	+0.0018	..	0.07115	0.05467	1.44255	0.07694	89.105	73. 55. 7.25		
1081	23 Ophiuchi.....	6*	16. 46. 34.80	1853.6	1	+3.202	+0.0049	+0.001	0.07147	0.05552	1.45028	0.07997	88.222	95. 54. 14.38		
1082	25 Ophiuchi.....	4.5*	16. 46. (55.)	..	..	2.837	+0.0024	-0.001	0.07142	0.05524	1.44463	0.07781	88.830	79. 35. 1.64		
1083	53 Herculis.....	5*	16. 47. (17.)	..	..	2.278	+0.0011	-0.009	0.07022	0.05129	1.43581	0.07446	90.070	58. 2. 48.66		
1084	27 Ophiuchi.....κ	3.4*	16. 50. 34.25	1852.5	29	2.855	+0.0024	-0.017	0.07182	0.05517	1.44489	0.07796	88.777	80. 23. 16.59		
1085	.....	4½ to 13½	16. 51. 5.72	1849.3	6	3.358	+0.0061	..	0.07179	0.05490	1.45266	0.08079	87.998	102. 39. 27.49		

1061. This star is designated in the B.A.C. as being in the constellation Ophiuchus.

1074, 1075. Probably these are the same star.

1076. Of the 12th magnitude.

1080. This star is included in the additions to the stars of 16^h in Rümker's Catalogue.

1085. This is one of Mr. Hind's variable stars. On 1848, May 8, it was noted of the 6th magnitude; on May 20, of the 5th magnitude; on July 5, of the 6-7th magnitude. From the effect of atmospheric dispersion, the upper part was red, the rest of a yellowish colour. In 1849, on July 4, it was noted of the 8th magnitude; on July 12, of the 9th or 10th magnitude; on 1850, July 5, of the 11th magnitude; in 1851, June 17, of the 14th magnitude, and too faint for observation.

1850-1860 Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.			Secular Variation of Precession N.P.D.			Annual Proper Motion in N.P.D. from B.A. Catalogue.			Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
		c'	f'	g'	h'	i'																
1850.7	71	+	8.32	-	0.106	-	0.08	9.28571	0.19473	1.52270	9.46253	118.794	2104	XVI. 102	685	1362 5512	14	Draconis	.....	1051		
1851.1	3		8.27	-	0.455	+	0.03	0.01653	0.03518	1.52208	9.46096	109.769	2094	XVI. 94	684	1365 5516	8	Ophiuchi	.....	1052		
1850.8	8		8.22	-	0.471	-	0.08	0.05084	0.02211	1.52136	9.45906	108.534	2095	XVI. 96	686	1366 5519	9	Ophiuchi	.....	1053		
1852.5	5		8.21	-	0.402	+	0.06	9.86300	0.08512	1.52126	9.45874	114.311	2097	XVI. 100	687	1368 5520	10	Ophiuchi	.....	1054		
..	..		8.18	-	0.261	-	0.09	9.42328	0.16850	1.52087	9.45779	119.535	2102	XVI. 105	690	1369 5523	30	Herculis	.....	1055		
1850.9	5	+	8.18	-	0.344	-	0.01	9.66055	0.13083	1.52081	9.45779	117.785	2100	XVI. 10	689	.. 5525	27	Herculis	.....	1056		
1853.5	5		7.95	-	0.498	-	0.01	0.09561	0.00624	1.51789	9.45007	106.891	2103	XVI. 113	692	1371 5539	23	Scorpii	.....	1057		
1852.1	22		7.76	-	0.443	-	0.03	9.97184	0.05348	1.51538	9.44382	112.033	2109	XVI. 123	694	1374 5548	13	Ophiuchi	.....	1058		
1849.5	3		7.70	-	0.386	..	..	9.79260	0.10148	1.51483	9.44249	116.721	..	...	.. 1377	..	Lalande 30230	.....	1059			
1849.5	4		7.46	-	0.470	0.00	..	0.02930	0.03602	1.51139	9.43439	110.340	..	XVI. 142	..	.. 5573	Piazzi XVI. 142	....	1060			
1849.9	7	+	7.44	-	0.469	-	0.03	0.02710	0.03694	1.51107	9.43336	110.463	2114	XVI. 143	697	1386 5579	24	Scorpii	.....	1061		
1848.5	4		7.33	-	0.475	..	..	9.31137	0.19294	1.50965	9.43026	120.363	..	XVI. 182	..	1389 5592	Piazzi XVI. 182	....	1062			
1852.1	80		7.22	-	0.312	-	0.43	9.52996	0.14304	1.50810	9.42645	121.442	2127	XVI. 165	699	1392 5604	40	Herculis	.....	1063		
1848.7	3		7.04	-	0.280	+	0.07	9.43439	0.15290	1.50575	9.42115	122.607	2133	XVI. 173	700	1396 5617	44	Herculis	.....	1064		
..	..		7.01	-	0.377	..	..	9.74296	0.10867	1.50557	9.42080	119.034	..	...	.. 1397	..	W. B. XVI. 739	.....	1065			
1850.5	1	+	7.00	-	0.410	..	..	9.85400	0.08616	1.50546	9.42045	116.641	..	...	.. 1398	..	Rümker 5537	.....	1066			
1849.0	7		6.87	-	0.054	+	0.05	9.21775	0.17901	1.50335	9.41580	123.366	2141	XVI. 197	703	1401 5628	18	Draconis	.....	1067		
1850.5	2		6.87	-	0.166	..	..	9.25186	0.17137	1.50335	9.41580	123.687	..	...	.. 1400 5629	..	Groombridge 2374	....	1068			
1848.5	1		6.86	-	0.378	..	..	9.74107	0.10820	1.50324	9.41544	119.416	..	...	.. ..	..	.....	.....	1069			
1850.8	3		6.82	-	0.338	+	0.30	0.13558	0.00419	1.50272	9.41435	105.921	2132	XVI. 184	702	1402 5632	26	Scorpii	.....	1070		
1849.5	4	+	6.82	-	0.378	..	..	9.74194	0.10793	1.50286	9.41472	119.447	..	...	.. 1403	..	W. B. XVI. 782	....	1071			
..	..		6.78	-	0.378	..	..	9.74013	0.10800	1.50211	9.41290	119.598	..	...	.. ..	..	W. B. XVI. 790	....	1072			
1853.6	1		6.55	-	0.419	-	0.01	9.87026	0.08222	1.49892	9.40592	117.027	2140	XVI. 210	..	.. 5659	21	Ophiuchi	.....	1073		
1849.5	1		6.53	-	0.377	..	..	9.72779	0.10887	1.49871	9.40565	120.322	..	...	.. ..	..	W. B. XVI. 853	....	1074			
1848.5	1		6.53	-	0.376	..	..	9.72607	0.10915	1.49871	9.40566	120.355	..	...	.. ..	..	.....	.....	1075			
1851.5	1	+	6.47	-	0.375	..	..	9.72255	0.10930	1.49757	9.40330	120.585	..	...	.. ..	..	.....	.....	1076			
1849.2	3		6.43	-	0.377	+	0.02	9.72626	0.10862	1.49728	9.40255	120.558	2144	XVI. 223	..	1410 5674	49	Herculis	.....	1077		
1850.5	1		6.39	-	0.374	..	..	9.71517	0.11027	1.49701	9.40218	120.801	..	...	.. 1411	..	.....	.....	1078			
1850.5	1		6.36	-	0.374	..	..	9.71517	0.11027	1.49701	9.40218	120.801	..	...	.. ..	..	.....	.....	1079			
1850.0	2		6.33	-	0.374	..	..	9.71584	0.10985	1.49624	9.40030	120.906	..	...	.. 1412	..	.....	.....	1080			
1853.6	1	+	6.32	-	0.443	+	0.09	9.93746	0.06731	1.49576	9.39955	115.310	2146	XVI. 227	708	.. 5688	23	Ophiuchi	.....	1081		
1848.5	2		6.29	-	0.393	+	0.04	9.77920	0.09923	1.49538	9.39880	119.739	2150	XVI. 233	709	1415 5692	25	Ophiuchi	.....	1082		
1849.3	5		6.26	-	0.316	0.00	..	9.51725	0.13518	1.49495	9.39766	123.890	2151	XVI. 238	710	1416 5693	53	Herculis	.....	1083		
1852.7	27		5.98	-	0.397	-	0.02	9.78721	0.09685	1.49112	9.38996	120.123	2156	XVI. 252	711	1418 5708	27	Ophiuchi		1084		
1848.9	5		5.94	-	0.468	..	..	9.99370	0.05505	1.49052	9.38895	113.731	..	...		..			1085			

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Wessel.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1086	Groombridge 2390...	5½	16. 51. 59.69	1848.5	3	+0.801	+0.0111	..	0.06456	0.02942	1.41165	0.06648	94.144	29. 24.
1087	58 Herculis	3.4*	16. 54. 33.14	1851.6	13	2.295	+0.0010	-0.001	0.07117	0.05125	1.43608	0.07506	89.946	58. 50. 58.48
1088	Lalande 30971	6½	16. 54. (50.)	..	..	3.542	+0.0076	..	0.07192	0.05378	1.45548	0.08166	87.779	110. 10. 9.92
1089	Lalande 30976	7½	16. 55. (0.)	..	..	3.544	+0.0076	..	0.07190	0.05378	1.45551	0.08167	87.779	110. 15. 20.44
1090	Oeltz. Arg. 16707 ...	8.9	16. 55. (10.)	..	..	0.845	+0.0100	..	0.06549	0.03012	1.41236	0.06734	93.930	29. 58. 34.00
1091	20 Draconis	h ²	16. 55. 41.57	1849.5	3	-0.282	+0.0181	-0.007	0.06290	0.01990	1.40281	0.06443	95.596	24. 43. 57.06
1092	Piazzi XVI. 273	7	16. 55. (52.)	..	..	3.545	+0.0074	-0.013	0.07201	0.05373	1.45554	0.08164	87.774	110. 16. 40.98
1093	32 Ophiuchi.	5*	16. 56. 15.63	1853.4	1	2.743	+0.0018	+0.005	0.07229	0.05455	1.44315	0.07748	88.952	75. 41.
1094	W.B. XVI. 1135.	8.9	16. 59. (40.)	..	..	+2.968	+0.0027	..	0.07281	0.05517	1.44665	0.07867	88.525	85. 25. 57.05
1095	22 Ursæ Minoris	4.5*	17. 1. 31.60	1850.7	40	-6.467	+0.2928	-0.055	0.03133	9.85737	1.26795	0.03178	115.991	7. 43. 27.91
1096	35 Ophiuchi.	2.3*	17. 1. 46.79	1851.4	31	+3.430	+0.0057	+0.005	0.07285	0.05424	1.45378	0.08087	87.875	105. 32. 2.79
1097	W. B. XVII. 12.	8.9	17. 2. 6.85	1853.1	5	2.975	+0.0027	..	0.07306	0.05511	1.44680	0.07874	88.495	85. 52. 12.48
1098	W. B. XVII. 6f.	9	17. 4. 33.99	1853.5	2	3.018	+0.0027	..	0.07333	0.05509	1.44743	0.07894	88.416	87. 40. 19.67
1099	W. B. XVII. 6g.	8.9	17. 4. 48.41	1853.4	1	3.018	+0.0027	..	0.07335	0.05509	1.44744	0.07895	88.413	87. 41. 21.29
1100	Oeltz. Arg. 16877.	8.9	17. 5. 3.27	1852.5	2	1.120	+0.0058	..	0.06874	0.03467	1.41696	0.07050	92.886	33. 38. 21.76
1101	36 Ophiuchi.	A ¹	17. 6. 7.51	1852.5	2	+3.715	+0.0079	-0.032	0.07286	0.05217	1.45811	0.08196	87.591	116. 22. 37.35
1102	W. B. XVII. 106.	9	17. 6. 59.52	1852.5	1	3.097	+0.0030	..	0.07359	0.05504	1.44867	0.07930	88.281	91. 10. 13.61
1103	64 Herculis	z ¹	17. 7. 48.59	1851.0	106	2.732	+0.0015	+0.002	0.07351	0.05420	1.44298	0.07777	88.885	75. 26. 5.36
1104	64 Herculis	z ²	17. 7. 48.85	1850.2	6	2.732	+0.0015	..	0.07351	0.05420	1.44298	0.07777	88.885	75. 26. 7.36
1105	22 Draconis	ζ	17. 8. 21.70	1850.1	3	0.157	+0.0162	+0.002	0.06578	0.01739	1.40066	0.06697	95.535	24. 6. 1.36
1106	Rümker 5746	5	17. 8. 40.92	1853.5	2	+3.017	+0.0025	..	0.07376	0.05497	1.44742	0.07896	88.394	87. 38. 29.52
1107	39 Ophiuchi (S. star) ...	6*	17. 8. 52.07	1849.5	2	3.654	+0.0069	0.000	0.07328	0.05260	1.45719	0.08157	87.636	114. 7.
1108	39 Ophiuchi	6*	17. 8. 52.19	1848.5	3	3.654	+0.0069	..	0.07328	0.05260	1.45719	0.08157	87.636	114. 7.
1109	39 Ophiuchi (N. star) ...	7	17. 8. 52.10	1849.5	2	3.654	+0.0069	+0.003	0.07328	0.05260	1.45719	0.08157	87.636	114. 7.
1110	65 Herculis	δ	17. 8. 52.46	1852.1	6	2.462	+0.0009	-0.003	0.07324	0.05240	1.43874	0.07668	89.419	64. 58. 50.04
1111	67 Herculis	π	17. 9. 49.59	1852.1	6	+2.088	+0.0010	0.000	0.07257	0.04865	1.43278	0.07522	90.255	53. 1. 8.80
1112	66 Herculis	5*	17. 11. 34.01	1853.4	1	2.816	+0.0017	+0.002	0.07399	0.05446	1.44429	0.07819	88.705	78. 58.
1113	68 Herculis.	u	17. 11. 47.20	1851.5	9	2.213	+0.0009	-0.001	0.07312	0.05000	1.43441	0.07586	89.966	56. 44. 6.87
1114	40 Ophiuchi	ξ	17. 12. 1.19	1849.5	5	3.571	+0.0058	+0.021	0.07379	0.05315	1.45593	0.08110	87.697	110. 56. 47.95
1115	53 Serpentis.	ν	17. 12. 23.69	1850.0	5	3.365	+0.0043	+0.006	0.07405	0.05429	1.45278	0.08030	87.908	102. 41. 24.22
1116	Lalande 31499	7½	17. 12. 33.81	1849.5	3	+3.370	+0.0044	..	0.07404	0.05427	1.45286	0.08032	87.902	102. 55. 35.65
1117	.....	..	17. 12. 35.82	1852.4	1	3.635	+0.0062	..	0.07379	0.05267	1.45688	0.08129	87.640	113. 18. 37.76
1118	42 Ophiuchi.	θ	17. 12. 48.08	1852.3	18	3.677	+0.0066	+0.003	0.07371	0.05234	1.45754	0.08146	87.603	114. 50. 39.03
1119	.....	..	17. 16. (0.)	..	..	2.249	+0.0008	..	0.07375	0.05029	1.43534	0.07631	89.804	57. 59. 14.45
1120	44 Ophiuchi.	b	17. 17. 12.64	1850.2	3	3.656	+0.0057	+0.004	0.07425	0.05241	1.45722	0.08116	87.608	114. 1. 55.13

1090, 1100. The magnitudes are taken from Oeltzen's Argelander.

1093. This star is designated in the B.A.C. as being in the constellation Hercules.

1106. The magnitude is taken from Rümker.

1117. Of the 11th magnitude.

1112. This star is designated in the B.A.C. as being in the constellation Ophiuchus.

1119. Observed for No. 1481 of the Greenwich Twelve-Year Catalogue.

1856GQAMW...166...1A

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850. from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Piazzi's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
		"	"	"	e'	f'	g'	h'	"							
..	..	+ 5.87	- 0.112	..	9.18706	0.16281	1.48946	9.38684	126.654	..	...	..	1419.5717	..	Groombridge 2390 ...	1086
1852.2	27	5.65	- 0.321	- 0.07	9.52146	0.12896	1.48642	9.38090	125.262	2161	XVI. 272	713	1422.5731	58	Hereulis	1087
1849.5	1	5.63	- 0.496	..	0.05100	0.04254	1.48615	9.38050	111.552	..	...	..	..	..	Lalande 30971	1088
1849.5	3	5.61	- 0.496	..	0.05100	0.04254	1.48615	9.38050	111.552	..	...	..	1425	..	Lalande 30976	1089
1850.5	1	5.59	- 0.118	..	9.18013	0.15890	1.48568	9.37970	127.460	..	...	..	1426	..	Oeltz. Arg. 16707 ...	1090
1848.5	5	+ 5.56	- 0.040	- 0.03	9.16319	0.16185	1.48509	9.37850	127.427	2170	XVI. 290	..	1429.5745	20	Draconis	1091
1849.5	1	5.54	- 0.497	+ 0.09	0.05154	0.04308	1.48485	9.37810	111.626	..	XVI. 273	..	1428.5746	..	Piazzi XVI. 273	1092
..	..	5.51	- 0.385	+ 0.05	9.73379	0.10307	1.48438	9.37729	122.194	2163	XVI. 279	..	1431.5749	32	Ophiuchi	1093
1850.0	2	5.23	- 0.418	..	9.93898	0.08668	1.48068	9.37076	120.056	..	...	..	1437	..	W. B. XVI. 1135 ...	1094
1851.2	64	5.06	+ 0.913	0.00	9.26201	0.16141	1.47803	9.36621	127.291	2201	XVII. 36	720	1444.5780	22	Ursæ Minoris	1095
1851.8	18	+ 5.04	- 0.484	- 0.12	0.01750	0.05411	1.47770	9.36580	113.813	2171	XVI. 306	717	1442.5781	35	Ophiuchi	1096
1852.7	6	5.01	- 0.420	..	9.84317	0.08571	1.47760	9.36538	120.284	..	...	..	1443	..	W. B. XVII. 12	1097
1853.5	2	4.80	- 0.427	..	9.86136	0.08271	1.47460	9.36076	120.058	..	...	..	1448	..	W. B. XVII. 61	1098
1853.4	1	4.78	- 0.427	..	9.86136	0.08269	1.47429	9.35991	120.097	..	...	..	1449	..	W. B. XVII. 69	1099
1852.5	3	4.76	- 0.159	..	9.17840	0.14547	1.47373	9.35919	129.846	..	...	..	..	..	Oeltz. Arg. 16877	1100
1851.5	3	+ 4.67	- 0.527	+ 1.14	0.09456	0.04002	1.47233	9.35693	110.214	2176	XVII. 17	722	1452.5808	36	Ophiuchi	1101
1852.5	1	4.60	- 0.440	..	9.89515	0.07748	1.47160	9.35564	119.264	..	...	..	1455	..	W. B. XVII. 106	1102
1851.1	77	4.53	- 0.388	- 0.05	9.72838	0.09925	1.47024	9.35393	124.123	2183	XVII. 29	723	1457.5821	64	Hereulis	1103
1850.4	6	4.53	- 0.388	..	9.72838	0.09925	1.47024	9.35393	124.123	..	...	..	1458	..	64 Hereulis	1104
1850.5	11	4.48	- 0.022	- 0.01	9.12356	0.14735	1.46954	9.35263	130.570	2193	XVII. 42	726	1461.5823	22	Draconis	1105
1853.5	2	+ 4.45	- 0.429	..	9.86088	0.08250	1.46944	9.35263	120.622	..	...	..	1462	..	Rümker 5746	1106
..	..	4.44	- 0.520	0.00	0.08001	0.04517	1.46890	9.35177	111.258	2181	XVII. 32	..	1463.5827	39	Ophiuchi (S. Star) ...	1107
..	..	4.44	- 0.520	..	0.08001	0.04517	1.46890	9.35177	111.258	..	...	..	..	..	39 Ophiuchi	1108
..	..	4.44	- 0.520	+ 0.04	0.08001	0.04517	1.46890	9.35177	111.258	..	XVII. 31	..	1464.5829	39	Ophiuchi (N. Star) ...	1109
1851.9	14	4.44	- 0.350	+ 0.15	9.59618	0.11178	1.46890	9.35220	126.846	2185	XVII. 35	725	.. 5828	65	Hereulis	1110
1853.6	3	+ 4.36	- 0.297	- 0.04	9.42504	0.12406	1.46770	9.35003	129.258	2187	XVII. 39	727	.. 5834	67	Hereulis	1111
..	..	4.21	- 0.402	+ 0.09	9.76860	0.09349	1.46548	9.34696	123.715	2191	XVII. 50	..	1469.5841	66	Hereulis	1112
1851.5	11	4.19	- 0.316	- 0.02	9.47814	0.11878	1.46520	9.34652	129.041	2194	XVII. 56	729	.. 5842	68	Hereulis	1113
1850.1	3	4.17	- 0.510	+ 0.19	0.05859	0.05142	1.46491	9.34608	112.698	2186	XVII. 47	728	1471.5844	40	Ophiuchi	1114
1852.6	1	4.14	- 0.480	- 0.03	9.99629	0.06247	1.46443	9.34520	115.847	2190	XVII. 52	730	1472.5845	53	Serpentis	1115
1849.3	4	+ 4.12	- 0.481	..	9.99791	0.06216	1.46450	9.34546	115.765	..	...	..	1473	..	Lalande 31499	1116
1852.4	1	4.12	- 0.519	..	0.07496	0.04878	1.46408	9.34476	111.853	..	...	..	..	..	.....	1117
1852.4	19	4.10	- 0.525	+ 0.05	0.08547	0.04691	1.46391	9.34476	111.259	2189	XVII. 53	731	1474.5851	42	Ophiuchi	1118
1850.1	2	3.79	- 0.322	..	9.49276	0.11415	1.45943	9.33850	129.696	..	...	..	..	..	.....	1119
1853.6	1	3.72	- 0.524	+ 0.08	0.08052	0.05093	1.45821	9.33715	111.896	2198	XVII. 83	734	1482.5876	44	Ophiuchi	1120

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

No.	Star's Name.	Magnitude from Average ladder, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Preces- sion in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1121	45 Ophiuchi .....d	5*	17. 17. 46.80	1852.8	7	+3.821	+0.0070	-0.002	0.07406	0.05097	1.45972	0.08170	87.479	119. 43. 31.26
1122	.....	..	17. 17. 55.78	1848.5	2	0.956	+0.0057	..	0.07073	0.03175	1.41424	0.07201	93.026	31. 53.
1123	75 Herculis .....p ¹	4*	17. 18. 30.24	1850.8	4	2.069	+0.0008	+0.004	0.07369	0.04827	1.43247	0.07586	90.184	52. 42. 45.14
1124	75 Herculis .....p ²	4*	17. 18. 30.60	1850.8	4	2.069	+0.0008	+0.004	0.07369	0.04827	1.43247	0.07586	90.184	52. 42. 47.85
1125	47 Ophiuchi .....6	6	17. 18. (37.)	..	..	3.359	+0.0037	+0.007	0.07473	0.05418	1.45269	0.08013	87.887	102. 22. 29.29
1126	49 Ophiuchi .....σ	5*	17. 19. 4.45	1852.5	23	+2.972	+0.0019	+0.005	0.07486	0.05469	1.44673	0.07886	88.397	85. 43. 29.86
1127	Piazzi XVII. 112 ...	5.6*	17. 21. 10.68	1848.5	3	3.060	+0.0022	0.000	0.07509	0.05472	1.44809	0.07916	88.253	89. 33.
1128	51 Ophiuchi .....c ²	5*	17. 22. 15.95	1853.3	1	3.653	+0.0051	+0.007	0.07484	0.05235	1.45717	0.08093	87.590	113. 50. 26.85
1129	35 Scorpii .....λ	3*	17. 23. 25.63	1850.6	1	4.065	+0.0079	+0.007	0.07435	0.04829	1.46337	0.08206	87.314	126. 59.
1130	.....	..	17. 24. 40.30	1852.3	1	3.628	+0.0046	..	0.07516	0.05250	1.45679	0.08074	87.603	112. 52. 8.61
1131	76 Herculis .....λ	5*	17. 24. 40.68	1853.4	1	+2.420	+0.0007	+0.001	0.07504	0.05176	1.43806	0.07736	89.344	63. 46.
1132	W. B. XVII. 493 ...	6	17. 26. 26.22	1848.5	2	3.311	+0.0029	..	0.07555	0.05415	1.45225	0.07989	87.885	101. 8.
1133	.....	..	17. 26. (50.)	..	..	2.649	+0.0008	..	0.07559	0.05335	1.44167	0.07809	88.876	72. 18. 24.50
1134	.....	..	17. 27. (0.)	..	..	2.651	+0.0009	..	0.07562	0.05336	1.44170	0.07811	88.871	72. 22. 56.89
1135	23 Draconis .....β	3.2*	17. 27. 2.76	1851.1	29	1.352	+0.0026	+0.001	0.07348	0.03816	1.42080	0.07467	91.784	37. 35. 8.22
1136	W. B. XVII. 508 ...	8	17. 27. 4.72	1851.3	4	+2.774	+0.0010	..	0.07560	0.05400	1.44364	0.07840	88.661	77. 22. 43.16
1137	.....	..	17. 27. 30.92	1850.0	2	2.649	+0.0008	..	0.07559	0.05335	1.44167	0.07809	88.876	72. 18.
1138	.....	..	17. 27. 39.86	1849.6	1	2.651	+0.0009	..	0.07562	0.05336	1.44170	0.07811	88.871	72. 23.
1139	55 Ophiuchi .....α	2*	17. 27. 58.40	1851.3	146	2.773	+0.0011	+0.008	0.07572	0.05398	1.44362	0.07842	88.655	77. 19. 36.67
1140	55 Serpentis .....ξ	4.3*	17. 29. 0.03	1849.5	2	3.433	+0.0031	0.000	0.07580	0.05366	1.45382	0.08007	87.763	105. 17. 55.06
1141	Lalande 32112 .....7	7	17. 29. 22.89	1850.2	3	+2.148	+0.0007	..	0.07522	0.04902	1.43373	0.07694	89.862	55. 8. 53.39
1142	W. B. XVII. 619 ...	7	17. 31. 34.59	1849.5	1	3.022	+0.0015	..	0.07616	0.05454	1.44749	0.07907	88.245	87. 53.
1143	W. B. XVII. 637 ...	9	17. 32. 21.28	1849.6	3	3.022	+0.0015	..	0.07624	0.05453	1.44749	0.07907	88.239	87. 54.
1144	56 Serpentis .....σ	5.4*	17. 32. 59.24	1850.5	2	3.372	+0.0025	-0.003	0.07627	0.05389	1.45289	0.07983	87.806	102. 47.
1145	26 Draconis .....6.5*	6.5*	17. 33. 26.96	1848.5	3	0.574	+0.0056	+0.037	0.07320	0.02488	1.40780	0.07391	93.609	28. 1.
1146	58 Ophiuchi .....5*	5*	17. 34. 26.64	1850.7	5	+3.597	+0.0032	-0.003	0.07629	0.05259	1.45632	0.08025	87.591	111. 36. 16.93
1147	W. B. XVII. 672 ...	9	17. 34. 27.60	1853.2	5	3.180	+0.0017	..	0.07648	0.05443	1.44992	0.07940	88.018	94. 41. 25.59
1148	85 Herculis .....1	3.4*	17. 35. 13.88	1850.7	9	1.690	+0.0011	+0.023	0.07541	0.04314	1.42635	0.07647	90.807	43. 54. 41.65
1149	60 Ophiuchi .....β	3*	17. 36. 3.85	1852.6	32	+2.963	+0.0012	+0.001	0.07665	0.05441	1.44658	0.07898	88.295	85. 21. 56.80
1150	29 Draconis .....7	7	17. 36. (50.)	..	..	-1.667	+0.0237	-0.010	0.07007	9.97984	1.36797	0.07043	99.356	15. 40. 57.15
1151	28 Draconis .....ω	5*	17. 37. 50.20	1850.3	6	-0.365	+0.0105	+0.003	0.07268	0.00702	1.39156	0.07312	95.893	21. 10. 22.87
1152	62 Ophiuchi .....γ	4.3*	17. 40. 22.40	1851.8	18	+3.006	+0.0010	-0.002	0.07709	0.05442	1.44725	0.07909	88.206	87. 13. 55.46
1153	86 Herculis .....μ	3.4*	17. 40. 35.42	1852.4	17	+2.568	+0.0004	-0.024	0.07687	0.05111	1.43724	0.07810	89.271	62. 11. 18.11
1154	31 Draconis .....ψ ¹	4.5*	17. 44. 37.06	1849.5	3	-1.090	+0.0115	-0.006	0.07385	9.99219	1.37860	0.07410	97.468	17. 46. 44.21
1155	31 Draconis .....ψ ²	4.5*	17. 44. 38.87	1849.5	3	-1.092	+0.0115	-0.002	0.07385	9.99219	1.37860	0.07410	97.468	17. 46. 15.23

1123, 1124. The second star is the larger.

1137. Of the 8.9th magnitude.

1142. Of the 7th magnitude.

1125. This star is designated in the B.A.C. as being in the constellation Serpens.

1138. Of the 9.10th magnitude.

1143. Of the 9th magnitude.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of μ	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1852.8	7	+ 3.67	- 0.548	+ 0.20	0.11747	0.04500	1.45748	9.33624	109.676	2200	XVII. 86	735	..	5881	45 Ophiuchi	1121
...	..	3.66	- 0.137	..	9.13290	0.13204	1.45739	9.33624	132.899	..	...	..	1485	..	.....	1122
1850.8	4	3.61	- 0.297	- 0.02	9.41290	0.11696	1.45653	9.33534	131.061	2207	XVII. 105	736	..	5886	75 Herculis	1123
1850.8	4	3.61	- 0.297	- 0.02	9.41290	0.11696	1.45653	9.33534	131.061	2207	XVII. 105	736	..	5886	75 Herculis	1124
1848.9	3	3.60	- 0.482	+ 0.06	9.99427	0.06503	1.45640	9.33488	116.562	2202	XVII. 98	..	1487	5888	47 Ophiuchi	1125
1852.2	24	+ 3.56	- 0.427	- 0.02	9.84125	0.08393	1.45579	9.33443	122.650	2206	XVII. 103	737	1489	5893	49 Ophiuchi	1126
...	..	3.38	- 0.440	+ 0.12	9.87980	0.07966	1.45302	9.33123	121.594	..	XVII. 112	..	1494	5903	Piazzi XVII. 112	1127
1853.3	1	3.29	- 0.526	+ 0.02	0.07984	0.05452	1.45159	9.32939	112.328	2209	XVII. 115	739	1496	5907	51 Ophiuchi	1128
...	..	3.19	- 0.585	- 0.05	0.16059	0.04313	1.45004	9.32754	107.066	2210	XVII. 121	740	1498	5915	35 Scorpii	1129
1852.3	1	3.08	- 0.523	..	0.07350	0.05712	1.44818	9.32568	112.904	..	...	..	..	..	.....	1130
...	..	+ 3.08	- 0.349	- 0.07	9.57283	0.10307	1.44838	9.32614	129.962	2213	XVII. 136	741	1500	5922	76 Herculis	1131
...	..	2.93	- 0.481	..	9.98439	0.06879	1.44640	9.32381	117.781	..	...	..	1501	..	W.B. XVII. 493	1132
1848.6	2	2.89	- 0.383	..	9.68619	0.09479	1.44555	9.32320	128.026	..	...	..	..	..	.....	1133
1848.6	2	2.88	- 0.383	..	9.68726	0.09467	1.44540	9.32287	128.021	..	...	..	..	..	.....	1134
1851.0	37	2.87	- 0.195	- 0.01	9.17881	0.11845	1.44519	9.32287	134.681	2221	XVII. 155	742	1504	5937	23 Draconis	1135
1851.6	2	+ 2.87	- 0.400	..	9.74819	0.09042	1.44537	9.32306	126.492	..	...	..	1503	..	W.B. XVII. 508	1136
...	..	2.83	- 0.383	..	9.68619	0.09479	1.44555	9.32320	128.026	..	...	..	..	..	.....	1137
...	..	2.82	- 0.383	..	9.68726	0.09467	1.44540	9.32287	128.021	..	...	..	..	..	.....	1138
1851.6	106	2.79	- 0.401	+ 0.19	9.74760	0.09010	1.44394	9.32145	126.662	2218	XVII. 153	743	1508	5941	55 Ophiuchi	1139
1850.1	4	2.70	- 0.496	+ 0.05	0.01820	0.06612	1.44255	9.32050	116.345	2217	XVII. 157	744	1509	5949	55 Serpentis	1140
1850.6	2	+ 2.67	- 0.311	..	9.44295	0.10605	1.44228	9.32003	132.703	..	...	..	1513	..	Lalande 32112	1141
...	..	2.48	- 0.437	..	9.86291	0.08087	1.43939	9.31764	123.451	..	...	..	1516	..	W.B. XVII. 619	1142
...	..	2.41	- 0.437	..	9.86285	0.08082	1.43831	9.31668	123.549	..	...	..	1517	..	W.B. XVII. 637	1143
...	..	2.36	- 0.488	+ 0.02	9.99851	0.06966	1.43709	9.31572	117.735	2225	XVII. 184	748	1519	5976	56 Serpentis	1144
...	..	2.32	- 0.083	+ 0.36	9.07669	0.11464	1.43646	9.31524	136.517	..	XVII. 201	..	1520	5978	26 Draconis	1145
1853.0	2	+ 2.23	- 0.521	- 0.07	0.06536	0.06411	1.43507	9.31427	114.130	2226	XVII. 192	750	1522	5987	58 Ophiuchi	1146
1853.6	4	2.23	- 0.461	..	9.92860	0.07589	1.43500	9.31427	121.189	..	...	..	..	..	W.B. XVII. 672	1147
1850.8	7	2.16	- 0.245	- 0.01	9.26201	0.10642	1.43397	9.31331	135.750	2233	XVII. 211	751	1525	5990	85 Herculis	1148
1852.4	28	2.09	- 0.430	- 0.17	9.83705	0.08222	1.43282	9.31282	124.963	2229	XVII. 209	752	1526	5996	60 Ophiuchi	1149
1852.4	2	2.02	+ 0.242	- 0.02	9.09612	0.11299	1.43174	9.31185	136.898	2240	XVII. 242	..	..	6001	29 Draconis	1150
1850.8	8	+ 1.94	+ 0.053	- 0.28	9.06096	0.11061	1.43034	9.31088	137.432	2238	XVII. 241	754	1528	6006	28 Draconis	1151
1851.8	18	1.72	- 0.437	+ 0.07	9.85635	0.08066	1.42676	9.30893	124.789	2236	XVII. 239	756	1532	6020	62 Ophiuchi	1152
1852.6	27	1.70	- 0.344	+ 0.72	9.54556	0.09324	1.42645	9.30893	133.106	2237	XVII. 244	757	..	6021	86 Herculis	1153
1848.6	16	1.35	+ 0.159	+ 0.25	9.06938	0.10172	1.42071	9.30600	138.796	2251	XVII. 286	758	1535	6047	31 Draconis	1154
1848.5	1	1.34	+ 0.159	+ 0.26	9.06938	0.10172	1.42071	9.30600	138.796	2252	XVII. 287	759	..	6048	31 Draconis	1155

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Wesen.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Preces- sion in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									c	f	g	h		
1156	.....	..	h m s 17. 47. 41.95	1852.6	1	s +3.315	s +0.0010	s ..	0.07788	0.05398	1.45200	0.07942	87.788	100. 21. 9.39
1157	89 Herculis.....	6*	17. 49. 22.17	1851.5	10	2.417	+0.0002	+0.008	0.07794	0.05148	1.43804	0.07864	89.075	63. 55. 21.64
1158	4 Sagittarii.....	5*	17. 50. 38.27	1849.9	3	3.660	+0.0012	+0.001	0.07811	0.05200	1.45726	0.07962	87.473	113. 47. 48.21
1159	64 Ophiuchi.....	4.3*	17. 50. 46.14	1851.0	7	3.300	+0.0007	+0.004	0.07819	0.05401	1.45179	0.07935	87.785	99. 45. 0.41
1160	32 Draconis.....	3.4*	17. 50. 56.24	1850.9	5	1.022	+0.0011	+0.014	0.07745	0.05263	1.41532	0.07771	92.044	33. 6. 7.43
1161	91 Herculis.....	4*	17. 51. 6.57	1850.9	3	+2.054	+0.0002	+0.001	0.07801	0.04778	1.43223	0.07848	89.757	52. 43. 36.71
1162	Lalande 32981.....	9	17. 51. (40.)	..	..	1.390	+0.0006	..	0.07774	0.05386	1.42144	0.07806	91.184	38. 28. 44.32
1163	92 Herculis.....	4.3*	17. 51. 56.28	1852.1	2	2.322	+0.0002	+0.010	0.07821	0.05062	1.43650	0.07871	89.224	60. 43. 58.30
1164	94 Herculis.....	4.5*	17. 52. 45.99	1851.6	1	2.293	+0.0001	+0.003	0.07829	0.05034	1.43604	0.07874	89.269	59. 47. 42.22
1165	66 Ophiuchi.....	5*	17. 52. 49.89	1853.6	1	2.968	+0.0003	+0.003	0.07842	0.05430	1.44666	0.07912	88.166	85. 37. 5.91
1166	33 Draconis.....	2.3*	17. 53. 7.46	1850.8	74	+1.390	+0.0005	+0.004	0.07801	0.05386	1.42144	0.07827	91.152	38. 29. 29.32
1167	67 Ophiuchi.....	4*	17. 53. 7.98	1850.8	6	3.902	+0.0004	+0.008	0.07846	0.05434	1.44719	0.07915	88.118	87. 3. 25.36
1168	Rümker 6172.....	..	17. 54. (20.)	..	..	1.736	+0.0002	..	0.07833	0.04369	1.42710	0.07858	90.372	45. 3. 0.97
1169	9 Sagittarii.....	5.4*	17. 54. 40.68	1848.5	1	3.676	+0.0008	0.000	0.07857	0.05186	1.45751	0.07944	87.443	114. 21.
1170	Piazzi XVII. 333...	7.8	17. 54. 45.25	1848.5	2	3.675	+0.0008	..	0.07854	0.05187	1.45750	0.07945	87.444	114. 19.
1171	Piazzi XVII. 339...	4	17. 55. 26.28	1851.6	3	+3.829	+0.0007	+0.011	0.07863	0.05052	1.45983	0.07946	87.339	119. 34. 50.47
1172	10 Sagittarii.....	3.4*	17. 56. 10.32	1851.9	6	3.856	+0.0007	+0.002	0.07872	0.05027	1.46023	0.07942	87.320	120. 25. 12.36
1173	Oeltz. Arg. 17748...	8.9	17. 56. (40.)	..	..	1.564	+0.0002	..	0.07866	0.04122	1.42429	0.07878	90.699	41. 35. 9.93
1174	Oeltz. Arg. 17761....	7	17. 57. (10.)	..	..	1.561	+0.0002	..	0.07871	0.04117	1.42423	0.07883	90.699	41. 31. 53.15
1175	Piazzi XVII. 356....	7	17. 58. 11.87	1848.6	2	3.596	+0.0002	-0.009	0.07898	0.05245	1.45630	0.07925	87.485	111. 27. 12.64
1176	W. B. XVII. 1235...	7	17. 58. 16.09	1848.5	1	+3.181	+0.0001	..	0.07897	0.05428	1.44996	0.07919	87.869	94. 45. 29.49
1177	Oeltz. Arg. 17803...	9	17. 59. 30.90	1848.6	1	1.736	+0.0001	..	0.07909	0.04366	1.42608	0.07911	90.359	45. 3.
1178	Piazzi XVII. 364...	7	17. 59. 38.89	1848.5	1	3.596	0.0000	+0.004	0.07914	0.05245	1.45632	0.07918	87.478	111. 27. 51.75
1179	72 Ophiuchi.....	3.4*	18. 0. 14.34	1852.0	18	2.846	0.0000	-0.002	0.07921	0.05400	1.44476	0.07919	88.273	80. 27. 12.51
1180	W. B. XVIII. 61...	7	18. 3. 49.66	1852.6	3	3.277	-0.0003	..	0.07961	0.05407	1.45143	0.07911	87.728	98. 45. 33.20
1181	13 Sagittarii.....	4*	18. 4. 47.59	1851.4	100	+3.586	-0.0006	+0.001	0.07971	0.05253	1.45615	0.07899	87.459	111. 5. 33.78
1182	14 Sagittarii.....	6	18. 5. (15.)	..	..	3.604	-0.0006	+0.004	0.07979	0.05240	1.45643	0.07896	87.442	111. 44. 51.88
1183	15 Sagittarii.....	5*	18. 6. (16.)	..	..	3.577	-0.0008	+0.001	0.07989	0.05259	1.45603	0.07893	87.457	110. 46. 0.97
1184	.....	..	18. 6. 48.48	1849.6	1	3.811	-0.0011	..	0.08001	0.05070	1.45955	0.07878	87.303	118. 58. 21.75
1185	W. B. XVIII. 147..	8.9	18. 7. 20.48	1852.6	4	3.271	-0.0006	..	0.07998	0.05409	1.45134	0.07907	87.712	98. 31. 44.53
1186	{ Telescopii..... } { Sagittarii..... }	4*	18. 7. 28.65	1850.6	1	+4.070	-0.0017	-0.014	0.08015	0.04797	1.46344	0.07860	87.170	126. 48.
1187	40 Draconis.....	5*	18. 11. 15.01	1849.6	2	-4.483	-0.0331	+0.024	0.08594	9.91251	1.31213	0.08584	104.005	10. 1. 29.68
1188	41 Draconis.....	5*	18. 11. 21.27	1849.6	2	-4.485	-0.0334	+0.019	0.08599	9.91246	1.31206	0.08591	104.005	10. 1. 17.88
1189	W. B. XVIII. 265..	7	18. 11. 55.72	1852.5	3	+3.259	-0.0009	..	0.08045	0.05414	1.45116	0.07900	87.695	98. 2. 21.97
1190	Groombridge 2539..	6	18. 12. (3.)	..	..	1.051	-0.0014	..	0.08148	0.03312	1.41580	0.08108	91.470	33. 27. 41.25

1170. The magnitude is taken from Piazzi.

1184. Of the 10th magnitude.

1173, 1174, 1177. The magnitudes are taken from Oeltzen's Argelander.

1186. The upper designation is Lacaille's; the lower, that of the B.A.C.

1852.0 Mean Star.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of P	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1852.6	1	+ 1.08	- 0.483	..	9.97877	0.07572	1.41605	9.30402	120.118	..	...	..	..	..	.....	1156
1851.6	9	0.93	- 0.352	- 0.04	9.56950	0.08649	1.41379	9.30353	134.069	2249	XVII. 298	..	..	6073	89 Herculis	1157
1849.3	3	0.82	- 0.533	+ 0.01	0.08136	0.07317	1.41193	9.30303	114.256	2246	XVII. 299	761	1541	6077	4 Sagittarii	1158
1850.2	8	0.81	- 0.481	+ 0.10	9.97381	0.07671	1.41174	9.30253	120.648	2250	XVII. 303	762	1542	6078	64 Ophiuchi	1159
1850.3	5	0.79	- 0.149	- 0.06	9.10041	0.09100	1.41150	9.30253	140.054	2263	XVII. 316	764	1543	6079	32 Draconis	1160
1851.1	2	+ 0.78	- 0.299	- 0.05	9.39690	0.08758	1.41125	9.30253	137.228	2256	XVII. 309	763	1544	6082	91 Herculis	1161
1850.1	4	0.73	- 0.203	..	9.16879	0.08945	1.41056	9.30253	139.693	..	...	..	1545	..	Lalande 32981	1162
1851.2	5	0.71	- 0.338	+ 0.02	9.52224	0.08536	1.41002	9.30253	135.386	2258	XVII. 314	765	..	6084	92 Herculis	1163
1850.6	3	0.63	- 0.334	0.00	9.50811	0.08488	1.40881	9.30203	135.777	2261	XVII. 324	768	1550	6087	94 Herculis	1164
1850.0	5	0.63	- 0.433	- 0.01	9.83942	0.08005	1.40869	9.30203	126.903	2257	XVII. 318	767	1551	6089	66 Ophiuchi	1165
1850.8	84	+ 0.60	- 0.203	+ 0.03	9.16896	0.08758	1.40826	9.30203	139.992	2267	XVII. 335	771	1552	6091	33 Draconis	1166
1851.6	1	0.60	- 0.438	+ 0.03	9.85447	0.07974	1.40823	9.30203	126.348	2259	XVII. 322	769	..	6092	67 Ophiuchi	1167
1850.6	1	0.50	- 0.253	..	9.27068	0.08546	1.40647	9.30153	139.299	..	...	..	..	..	Rümker 6172	1168
..	..	0.47	- 0.536	+ 0.01	0.08528	0.07570	1.40595	9.30153	114.252	2260	XVII. 332	..	1559	6102	9 Sagittarii	1169
..	..	0.46	- 0.536	..	0.08497	0.07555	1.40633	9.30153	114.256	..	XVII. 333	..	1560	..	Piazzi XVII. 333.	1170
1852.1	2	+ 0.40	- 0.558	+ 0.08	0.11932	0.07561	1.40482	9.30153	111.856	..	XVII. 339	773	..	6107	Piazzi XVII. 339.	1171
1851.9	6	0.34	- 0.562	+ 0.23	0.12454	0.07611	1.40372	9.30153	111.500	2266	XVII. 343	774	1562	6115	10 Sagittarii	1172
1850.6	2	0.29	- 0.228	..	9.21484	0.08310	1.40298	9.30128	140.275	..	...	..	1564	..	Oeltz. Arg. 17748.	1173
1849.6	1	0.25	- 0.228	..	9.21352	0.08269	1.40246	9.30103	140.355	..	...	..	1565	..	Oeltz. Arg. 17761.	1174
1849.6	1	0.16	- 0.524	+ 0.04	0.06513	0.07814	1.40067	9.30103	115.838	..	XVII. 356	..	1568	6125	Piazzi XVII. 356.	1175
1848.5	3	+ 0.15	- 0.464	..	9.92952	0.07892	1.40097	9.30103	123.553	..	...	..	1569	..	W. B. XVII. 1235.	1176
..	..	0.04	- 0.253	..	9.26975	0.07989	1.39888	9.30103	140.233	..	...	..	1572	..	Oeltz. Arg. 17803.	1177
1849.5	1	+ 0.03	- 0.525	0.00	0.06523	0.07898	1.39846	9.30103	115.925	..	XVII. 364	..	1573	6133	Piazzi XVII. 364.	1178
1852.2	21	- 0.02	- 0.415	- 0.08	9.78255	0.07912	1.39757	9.30103	129.877	2275	XVII. 374	779	1575	6143	72 Ophiuchi	1179
1852.6	3	0.34	- 0.478	..	9.96534	0.08013	1.39181	9.30153	122.266	..	...	..	..	..	W. B. XVIII. 61.	1180
1851.9	76	- 0.42	- 0.523	- 0.01	0.06258	0.08189	1.39056	9.30153	116.437	2284	XVIII. 7	781	1578	6168	13 Sagittarii	1181
1849.3	3	0.46	- 0.526	+ 0.04	0.06718	0.08224	1.38987	9.30153	116.152	2286	XVIII. 8	..	1579	6172	14 Sagittarii	1182
1849.3	3	0.55	- 0.522	- 0.04	0.06017	0.08268	1.38831	9.30203	116.688	2288	XVIII. 14	782	1582	6179	15 Sagittarii	1183
1849.6	1	0.59	- 0.556	..	0.11538	0.08438	1.38742	9.30203	112.737	..	...	..	..	..	.....	1184
1852.6	4	0.64	- 0.477	..	9.96332	0.08093	1.38639	9.30203	122.679	..	...	..	..	..	W. B. XVIII. 147.	1185
..	..	- 0.65	- 0.593	+ 0.23	0.16172	0.08618	1.38642	9.30203	109.007	..	XVIII. 17	784	1584	6186	{ Telescopii } { Sagittarii }	1186
1848.7	2	0.99	+ 0.653	- 0.05	9.14845	0.06133	1.38049	9.30353	143.842	2318	XVIII. 62	788	..	6206	40 Draconis	1187
1848.7	2	0.99	+ 0.653	- 0.06	9.14920	0.06116	1.38033	9.30353	143.857	2321	XVIII. 63	789	..	6208	41 Draconis	1188
1852.5	3	1.04	- 0.475	..	9.95890	0.08181	1.37932	9.30402	123.300	..	...	..	..	..	W. B. XVIII. 265.	1189
1850.5	2	1.05	- 0.153	..	9.10549	0.06301	1.37923	9.30402	144.140	..	...	..	1588	6216	Groombridge 2539.	1190

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.	
									e	f	g	h			
1191	Lalande 33779	8	h m s 18. 12. (18.)	..	..	+2.465	-0.0002	..	0.08059	0.05189	1.43879	0.07976	88.731	65. 36. 52.29	
1192	Lacaille 7686	7	18. 12. 57.33	1852.6	3	3.637	-0.0017	..	0.08067	0.05219	1.45692	0.07861	87.382	112. 59. 6.74	
1193	105 Herculis	6*	18. 13. 0.45	1849.5	2	2.466	-0.0003	+0.005	0.08069	0.05189	1.43879	0.07980	88.721	65. 36. 45.10	
1194	.....	..	18. 13. (0.)	..	..	3.267	-0.0011	..	0.08060	0.05412	1.45127	0.07897	87.679	98. 21. 48.63	
1195	.....	..	18. 13. 16.25	1852.8	4	3.267	-0.0011	..	0.08060	0.05412	1.45127	0.07897	87.679	98. 20. 48.64	
1196	58 Serpentis.....	3*	18. 13. 32.93	1852.2	23	+3.139	-0.0009	-0.037	0.08062	0.05437	1.44931	0.07911	87.804	92. 56. 0.32	
1197	20 Sagittarii	3.2*	18. 14. 12.81	1851.2	2	3.986	-0.0028	+0.001	0.08099	0.04895	1.46218	0.07817	87.180	124. 27. 1.41	
1198	Lalande 33885.....	9	18. 16. 2.61	1852.6	1	+3.639	-0.0022	..	0.08102	0.05220	1.45694	0.07846	87.365	113. 3. 19.49	
1199	37 Draconis	6*	18. 16. 9.60	1852.2	3	-0.350	-0.0075	-0.003	0.08383	0.00729	1.39181	0.08352	94.373	21. 17. 57.02	
1200	38 Draconis	6	18. 17. 51.63	1853.0	3	-0.345	-0.0083	-0.013	0.08432	0.00740	1.39190	0.08398	94.295	21. 19. 5.23	
1201	22 Sagittarii.....	3*	18. 18. 42.77	1852.2	13	+3.706	-0.0027	+0.001	0.08136	0.05168	1.45797	0.07825	87.307	115. 29. 55.68	
1202	23 Ursæ Minoris	4.5*	18. 20. 43.56	1850.9	77	-19.323	-0.6157	+0.030	0.11442	8.91020	0.75403	0.11436	136.089	3. 24. 9.84	
1203	Piazzi XVIII. 79....	5½	18. 21. 14.24	1852.4	4	+3.938	-0.0040	-0.002	0.08183	0.04952	1.46147	0.07774	87.170	123. 4. 59.28	
1204	39 Draconis.....	5*	18. 21. (43.)	..	..	0.880	-0.0032	-0.004	0.08356	0.03028	1.41298	0.08292	91.575	31. 17. 4.47	
1205	60 Serpentis.....	6*	18. 21. 52.58	1853.7	5	+3.119	-0.0013	+0.006	0.08148	0.05446	1.44900	0.07909	87.764	92. 4. 39.32	
1206	43 Draconis	4.5*	18. 22. 54.31	1850.3	3	-0.850	-0.0149	+0.002	0.08661	9.99719	1.38293	0.08622	95.172	18. 44. 35.06	
1207	Lalande 34222	9	18. 23. 28.24	1852.6	3	+3.619	-0.0030	..	0.08184	0.05242	1.45664	0.07817	87.337	112. 23. 41.53	
1208	.....	..	18. 25. (40.)	..	..	2.600	-0.0006	..	0.08200	0.05297	1.44091	0.08013	88.376	70. 30. 11.76	
1209	Lalande 34347	8½	18. 25. (50.)	..	..	+2.604	-0.0006	..	0.08205	0.05299	1.44096	0.08013	88.367	70. 38. 33.19	
1210	24 Ursæ Minoris	6*	18. 26. 16.71	1850.7	6	-22.053	-0.9904	..	† ..	..	..	..	..	3. 1. 36.30	
1211	Piazzi XVIII. 120....	7	18. 27. 59.25	1848.5	2	+3.485	-0.0030	+0.004	0.08225	0.05334	1.45460	0.07827	87.402	107. 19.	
1212	3 Lyre.....	1*	18. 31. 51.62	1851.0	169	2.012	-0.0007	+0.020	0.08344	0.04746	1.43155	0.08184	89.219	51. 21. 11.03	
1213	26 Sagittarii	6	18. 32. 42.77	1848.5	1	3.659	-0.0044	+0.007	0.08292	0.05223	1.45726	0.07767	87.259	113. 58.	
1214	27 Sagittarii	4.5*	18. 36. 16.95	1851.8	23	3.747	-0.0055	+0.011	0.08343	0.05154	1.45859	0.07724	87.193	117. 8. 21.60	
1215	.....	..	18. 37. (50.)	..	..	1.759	-0.0014	..	0.08474	0.04425	1.42748	0.08310	89.550	45. 9. 33.98	
1216	Groombridge 2646....	7.8	18. 38. 30.92	1849.6	3	+1.763	-0.0014	..	0.08482	0.04429	1.42752	0.08315	89.535	45. 13. 17.08	
1217	Oeltz. Arg. 18565 ...	9	18. 38. 31.32	1849.6	1	1.763	-0.0015	..	0.08482	0.04429	1.42752	0.08315	89.535	45. 12. 53.24	
1218	7 Aquilæ	6½	18. 43. 13.46	1853.7	6	3.149	-0.0027	-0.002	0.08369	0.05477	1.44946	0.07892	87.567	93. 25. 46.92	
1219	8 Aquilæ	6½	18. 43. 29.58	1853.7	3	3.151	-0.0028	+0.006	0.08371	0.05477	1.44949	0.07891	87.564	93. 29. 19.03	
1220	10 Lyre.....	β ¹ ½ to 4½	18. 44. 32.56	1851.1	153	2.213	-0.0008	+0.002	0.08471	0.04993	1.43477	0.08222	88.704	56. 48. 30.13	
1221	10 Lyre.....	β ²	..	18. 44. 34.48	1850.4	20	+2.213	-0.0008	..	0.08470	0.04993	1.43477	0.08221	88.705	56. 49. 9.10
1222	Sagittarii.....	5*	18. 45. 6.77	1848.5	1	3.625	-0.0058	+0.002	0.08429	0.05270	1.45675	0.07719	87.207	112. 55.	
1223	34 Sagittarii.....	2.3*	18. 45. 57.70	1851.1	13	3.723	-0.0068	+0.006	0.08451	0.05193	1.45823	0.07678	87.152	116. 28. 38.32	
1224	63 Serpentis.....	4.3*	18. 48. 45.69	1852.2	7	2.979	-0.0023	+0.003	0.08427	0.05487	1.44683	0.07953	87.680	85. 59. 15.32	
1225	37 Sagittarii.....	4*	18. 48. 46.66	1848.8	1	3.580	-0.0060	+0.003	0.08462	0.05311	1.45607	0.07719	87.210	111. 17. 54.41	

1195. Of the 10.11th magnitude. 1216. Of the 8th magnitude. The magnitude in the text is taken from Groombridge.

1217. Of the 9½ magnitude. The magnitude in the text is taken from Oeltzen's Argelander.

† For No. 1210, log. e = 0.12838, log. f = -8.73703, log. g = 0.46914, log. h = 0.12832, l = 140.638.

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850 from Bessel's Elements.	Secular of Variation in Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi, (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue	Star's Name.	No.
					e'	f'	g'	h'								
1848·6	1	— 1·08	— 0·359	..	9·59362	0·07118	1·37905	9·30407	136·982	..	...	..	1590	..	Lalande 33779.....	1191
1852·6	3	1·13	— 0·530	..	0·07569	0·08710	1·37777	9·30452	116·010	..	...	..	6222	..	Lacaille 7686	1192
1848·6	3	1·14	— 0·359	0·00	9·59392	0·07062	1·37771	9·30452	137·097	2300	XVIII. 47	786	1592	6223	105 Herculis	1193
1852·5	1	1·14	— 0·476	..	9·96166	0·08222	1·37720	9·30452	123·260	..	...	..	..	..	.....	1194
1852·8	4	1·16	— 0·476	..	9·96166	0·08222	1·37720	9·30452	123·260	..	...	..	..	..	.....	1195
1852·3	25	— 1·19	— 0·457	+ 0·65	9·91260	0·08027	1·37679	9·30501	125·862	2298	XVIII. 48	787	1594	6229	58 Serpentis	1196
1850·8	4	1·24	— 0·580	+ 0·08	0·14820	0·09167	1·37576	9·30501	110·406	2297	XVIII. 46	790	1595	6233	20 Sagittarii	1197
1852·6	1	1·40	— 0·529	..	0·07595	0·08906	1·37266	9·30649	116·166	..	...	..	..	..	Lalande 33885.....	1198
1853·1	2	1·41	+ 0·051	+ 0·06	9·05334	0·05477	1·37270	9·30649	145·444	2316	XVIII. 67	..	..	6243	37 Draconis.....	1199
1851·2	5	1·56	+ 0·050	+ 0·08	9·05430	0·05213	1·36996	9·30747	145·776	2322	XVIII. 80	..	..	6257	38 Draconis.....	1200
1852·2	15	— 1·64	— 0·539	+ 0·23	0·09251	0·09171	1·36855	9·30796	115·070	2310	XVIII. 66	793	1602	6263	22 Sagittarii	1201
1851·2	172	1·81	+ 2·807	— 0·02	9·25528	0·04526	1·36528	9·30991	144·824	2395	XVIII. 178	798	1610	6281	23 Ursæ Minoris.....	1202
1853·0	3	1·86	— 0·572	+ 0·12	0·13984	0·09711	1·36443	9·31039	111·358	..	XVIII. 79	..	1606	6285	Piazzi XVIII. 79 ...	1203
1850·6	4	1·90	— 0·128	— 0·04	9·09264	0·04888	1·36365	9·31039	146·097	2328	XVIII. 98	795	1609	6289	39 Draconis.....	1204
1853·7	4	1·91	— 0·453	+ 0·06	9·90436	0·08043	1·36339	9·31088	127·034	2317	XVIII. 86	..	..	6290	60 Serpentis	1205
1849·1	3	— 2·00	+ 0·123	— 0·01	9·07306	0·04357	1·36171	9·31185	146·679	2334	XVIII. 113	796	..	6297	43 Draconis.....	1206
1852·6	3	2·05	— 0·525	..	0·07103	0·09312	1·36062	9·31234	116·917	..	...	..	..	..	Lalande 34222.....	1207
1850·1	2	2·24	— 0·377	..	9·66181	0·06562	1·35759	9·31427	136·954	..	...	..	1617	..	.....	1208
1849·6	1	2·26	— 0·377	..	9·66361	0·06546	1·35687	9·31456	136·959	..	...	..	..	..	Lalande 34347	1209
1850·6	4	2·29	+ 3·195	— 0·01	9·26699	0·03590	1·35629	9·31476	145·806	2417	XVIII. 227	..	1623	6320	24 Ursæ Minoris	1210
..	..	— 2·44	— 0·504	— 0·01	0·03394	0·09210	1·35327	9·31668	119·810	..	XVIII. 120	..	1622	6332	Piazzi XVIII. 120 ..	1211
1850·7	184	2·78	— 0·291	— 0·28	9·38488	0·04667	1·34676	9·32145	144·193	2341	XVIII. 143	799	1634	6355	3 Lyræ	1212
..	..	2·85	— 0·528	+ 0·01	0·08121	0·09961	1·34531	9·32239	116·587	2338	XVIII. 141	..	1635	6356	26 Sagittarii	1213
1851·9	22	3·16	— 0·540	+ 0·03	0·10185	0·10446	1·33921	9·32754	115·075	2344	XVIII. 159	801	1637	6371	27 Sagittarii	1214
1848·7	1	3·30	— 0·253	..	9·29358	0·03509	1·33656	9·32939	146·598	..	...	..	..	..	.....	1215
1848·7	3	— 3·36	— 0·254	..	9·29513	0·03447	1·33562	9·33031	146·663	..	...	..	1639	..	Groombridge 2646 ..	1216
1848·7	3	3·35	— 0·254	..	9·29513	0·03447	1·33562	9·33031	146·663	..	...	..	1640	..	Oeltz. Arg. 18565 ...	1217
1853·7	5	3·76	— 0·451	+ 0·03	9·91670	0·08322	1·32717	9·33805	128·149	2361	XVIII. 205	..	..	6418	7 Aquilæ	1218
1853·7	2	3·78	— 0·451	— 0·03	9·91724	0·08332	1·32667	9·33850	128·140	2362	XVIII. 206	..	..	6420	8 Aquilæ	1219
1851·2	131	3·87	— 0·317	+ 0·02	9·47664	0·03912	1·32483	9·33985	144·332	2369	XVIII. 215	808	1652	6429	10 Lyræ	1220
1850·8	20	— 3·87	— 0·317	..	9·47654	0·03927	1·32508	9·33985	144·310	..	...	..	1653	..	10 Lyræ	1221
..	..	3·92	— 0·519	— 0·01	0·07273	0·10591	1·32383	9·34120	117·758	2364	XVIII. 211	809	1654	6434	32 Sagittarii	1222
1852·7	7	4·00	— 0·532	+ 0·08	0·09640	0·11020	1·32233	9·34254	115·858	2365	XVIII. 218	810	1655	6440	34 Sagittarii	1223
1853·7	4	4·24	— 0·425	— 0·10	9·84429	0·07381	1·31732	9·34740	132·422	2376	XVIII. 236	815	1662	6460	63 Serpentis.....	1224
1848·6	5	4·24	— 0·510	0·00	0·06095	0·10609	1·31730	9·34740	118·836	2373	XVIII. 233	814	1661	6461	37 Sagittarii	1225

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regiomontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Average Incliner* or B.A.C., or Weisse.	Mean Right Ascension 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Preces- sion in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1226	63 Serpentis..... θ^2	4.3*	18. 48. 47.16	1848.6	3	+2.979	-0.0023	+0.003	0.08427	0.05487	1.44683	0.07954	87.679	85. 59.
1227	Piazzi XVIII. 241 ...	7	18. 48. 52.51	1848.6	3	3.018	-0.0025	..	0.08425	0.05491	1.44744	0.07939	87.643	87. 43.
1228	Piazzi XVIII. 259 ...	8	18. 52. 23.67	1852.3	4	2.725	-0.0015	..	0.08480	0.05415	1.44284	0.08064	87.922	75. 4. 15.32
1229	13 Aquilæ..... ϵ	4*	18. 52. 48.93	1852.2	27	2.725	-0.0015	-0.002	0.08484	0.05417	1.44288	0.08066	87.913	75. 7. 53.88
1230	38 Sagittarii..... ζ	3.4*	18. 53. (0.)	..	..	3.825	-0.0088	+0.003	0.08554	0.05116	1.45977	0.07596	87.065	120. 5. 20.06
1231	14 Lyræ..... γ	3.4*	18. 53. 19.96	1850.8	12	+2.242	-0.0009	+0.002	0.08574	0.05041	1.43525	0.08271	88.531	57. 30. 46.79
1232	39 Sagittarii..... σ	4*	18. 55. 41.51	1851.2	11	+3.594	-0.0069	+0.006	0.08540	0.05317	1.45627	0.07683	87.161	111. 57. 21.39
1233	52 Draconis..... ν	5.6*	18. 56. (13.)	..	..	-0.717	-0.0341	+0.009	0.09691	0.00016	1.38532	0.09598	93.417	18. 54. 14.86
1234	16 Aquilæ..... λ	3.4*	18. 58. 17.24	1851.0	8	+3.186	-0.0039	+0.001	0.08523	0.05509	1.45004	0.07864	87.411	95. 6. 10.94
1235	17 Aquilæ..... ζ	3*	18. 58. 30.98	1851.3	132	2.757	-0.0018	-0.002	0.08542	0.05447	1.44337	0.08066	87.815	76. 21. 20.70
1236	W. B. XVIII. 1539 ..	9	18. 59. 25.16	1851.6	1	+2.759	-0.0017	..	0.08551	0.05450	1.44337	0.08069	87.804	76. 23. 3.75
1237	41 Sagittarii..... π	3*	19. 0. 50.44	1851.1	12	3.573	-0.0073	+0.002	0.08592	0.05345	1.45595	0.07671	87.140	111. 15. 24.57
1238	Lacaille 8019	6½	19. 0. 54.43	1849.6	2	3.823	-0.0101	..	0.08645	0.05137	1.45974	0.07547	87.022	120. 14. 27.06
1239	19 Aquilæ.....	5.6*	19. 1. 39.04	1853.7	5	+2.939	-0.0026	+0.002	0.08559	0.05515	1.44621	0.07984	87.596	84. 9. 31.16
1240	Bradley 2440.....	6	19. 4. 11.85	1848.6	3	-2.422	-0.0944	-0.017	0.10753	9.96317	1.35368	0.10680	95.946	13. 11.
1241	.....	..	19. 4. 27.54	1853.1	4	+3.333	-0.0054	..	0.08596	0.05486	1.45228	0.07782	87.257	101. 30. 51.75
1242	21 Aquilæ.....	6.5*	19. 6. 8.81	1853.7	5	3.025	-0.0033	+0.004	0.08601	0.05540	1.44755	0.07943	87.477	87. 57. 26.38
1243	42 Sagittarii..... ψ	6*	19. 6. 20.33	1852.6	14	3.682	-0.0093	+0.005	0.08675	0.05277	1.45761	0.07588	87.052	115. 30. 36.35
1244	43 Sagittarii..... d	5*	19. 8. 51.40	1849.6	2	3.516	-0.0076	+0.003	0.08668	0.05407	1.45508	0.07669	87.117	109. 12. 54.90
1245	55 Draconis.....	6*	19. 9. 11.35	1848.6	3	0.240	-0.0203	+0.001	0.09629	0.01918	1.40209	0.09481	91.279	24. 16.
1246	Piazzi XIX. 39.....	8	19. 9. 24.45	1849.6	3	+3.513	-0.0076	-0.007	0.08673	0.05410	1.45504	0.07668	87.115	109. 8.
1247	Lalande 36268	6.5*	19. 9. 34.65	1851.6	1	2.746	-0.0020	..	0.08658	0.05475	1.44320	0.08126	87.686	75. 43. 1.49
1248	25 Aquilæ..... ω	6.5*	19. 10. 46.52	1852.3	37	2.815	-0.0022	+0.003	0.08660	0.05509	1.44428	0.08066	87.622	78. 40. 17.12
1249	21 Lyræ..... θ	4.5*	19. 11. (10.)	..	..	2.081	-0.0013	-0.001	0.08842	0.04906	1.43266	0.08488	88.472	52. 7. 51.16
1250	57 Draconis..... δ	3*	19. 12. 30.08	1851.5	2	0.019	-0.0259	+0.022	0.09828	0.01500	1.39827	0.09683	91.505	22. 36. 7.35
1251	Piazzi XIX. 67.....	7	19. 12. 49.52	1848.7	3	+3.521	-0.0081	+0.001	0.08710	0.05416	1.45516	0.07650	87.088	109. 31.
1252	44 Sagittarii..... p^1	4*	19. 12. 58.17	1848.8	1	3.486	-0.0078	+0.003	0.08706	0.05437	1.45464	0.07670	87.104	108. 7. 28.51
1253	1 Cygni..... κ	4*	19. 13. 38.09	1850.9	8	+1.382	-0.0052	+0.007	0.09170	0.03928	1.42130	0.08922	89.396	36. 54. 22.51
1254	59 Draconis.....	6.5*	19. 14. (37.)	..	..	-2.129	-0.0975	-0.001	0.11061	9.96994	1.35928	0.10976	94.787	13. 41. 31.06
1255	Piazzi XIX. 110	7	19. 17. (50.)	..	..	+3.405	-0.0073	+0.009	0.08743	0.05498	1.45339	0.07704	87.113	104. 50. 39.94
1256	30 Aquilæ..... δ	3.4*	19. 17. 56.09	1851.2	117	+3.009	-0.0036	+0.018	0.08717	0.05578	1.44729	0.07958	87.379	87. 10. 48.72
1257	60 Draconis..... τ	5*	19. 18. 24.48	1852.6	3	-1.068	-0.0600	-0.028	0.10613	9.99312	1.37898	0.10500	92.916	16. 55. 28.56
1258	58 Draconis..... π	5*	19. 19. 53.34	1851.0	7	+0.323	-0.0218	+0.009	0.09854	0.02092	1.40352	0.09683	90.766	24. 34. 25.97
1259	Piazzi XIX. 140	8	19. 20. 36.15	1848.6	3	1.578	-0.0038	..	0.09190	0.04247	1.42451	0.08895	88.965	40. 3.
1260	.....	..	19. 21. 12.74	1852.5	3	3.584	-0.0098	..	0.08813	0.05402	1.45611	0.07575	87.000	112. 15. 56.67

1227, 1228, 1259. The magnitudes are taken from Piazzi.
1241. Of the 11th magnitude.

1228. Of the 7-8th magnitude.
1246. Noted by the observer as of the 9-10th magnitude.

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1856	..	..	..	..	9.84429	0.07380	1.31730	9.34740	132.423	2377	XVIII. 237	816	1663	6462	63 Serpentis..... ^θ	1226
..	..	..	..	..	9.86171	0.07613	1.31757	9.34740	131.532	..	XVIII. 241	..	1664	..	Piazzi XVIII. 241 ..	1227
1852.6	2	..	..	..	9.72387	0.05753	1.31092	9.35400	138.019	..	XVIII. 259	..	..	..	Piazzi XVIII. 259...	1228
1852.2	41	..	..	..	9.72487	0.05743	1.31003	9.35479	138.036	2390	XVIII. 262	822	1670	6487	13 Aquilæ..... ^ε	1229
1849.6	3	..	..	..	0.11811	0.11894	1.30958	9.35521	114.170	2384	XVIII. 257	820	1671	6489	38 Sagittarii..... ^ζ	1230
1850.7	34	..	..	..	9.49305	0.03186	1.30910	9.35607	145.191	2392	XVIII. 266	823	..	6491	14 Lyræ..... ^γ	1231
1851.4	8	..	..	..	0.06460	0.11058	1.30481	9.36034	118.800	2393	XVIII. 278	825	1674	6507	39 Sagittarii..... ^δ	1232
1848.7	4	..	..	..	9.15144	9.98688	1.30383	9.36160	152.298	2411	XVIII. 308	827	1675	6510	52 Draconis..... ^ν	1233
1850.9	11	..	..	..	9.93141	0.08721	1.30005	9.36580	128.342	2401	XVIII. 298	828	..	6526	16 Aquilæ..... ^λ	1234
1851.3	92	..	..	..	9.74038	0.05707	1.29961	9.36621	138.006	2405	XVIII. 303	829	1682	6528	17 Aquilæ..... ^ζ	1235
1851.6	1	..	..	..	9.74084	0.05675	1.29779	9.36829	138.085	..	...	..	..	..	W. B. XVIII. 1539 ..	1236
1851.6	9	..	..	..	0.05897	0.11231	1.29531	9.37117	119.424	2406	XVIII. 315	830	1687	6548	41 Sagittarii..... ^π	1237
1848.7	1	..	..	..	0.11760	0.12459	1.29521	9.37117	114.363	..	...	..	..	6549	Lacaille 8019.....	1238
1853.7	4	..	..	..	9.82622	0.06928	1.29378	9.37281	134.418	2410	XVIII. 321	..	1688	6552	19 Aquilæ.....	1239
..	..	..	..	..	9.21837	9.96885	1.28906	9.37850	153.274	2440	XIX. 38	..	1691	6563	Bradley 2440.....	1240
1853.6	3	..	..	..	9.98502	0.09878	1.28848	9.37890	125.164	..	...	..	..	..	.....	1241
1853.7	3	..	..	..	9.86454	0.07550	1.28537	9.38250	132.770	2419	XIX. 24	..	1693	6572	21 Aquilæ.....	1242
1852.6	14	..	..	..	0.08671	0.12154	1.28502	9.38290	117.233	2418	XIX. 21	833	..	6575	42 Sagittarii..... ^ψ	1243
1848.7	3	..	..	..	0.04320	0.11308	1.28025	9.38879	120.951	2423	XIX. 35	834	1694	6584	43 Sagittarii..... ^d	1244
..	..	..	..	..	9.17950	9.96798	1.27959	9.38957	154.022	2443	XIX. 63	..	1698	6586	55 Draconis.....	1245
..	..	..	..	..	0.04250	0.11318	1.27917	9.38996	121.029	..	XIX. 39	..	1697	6587	Piazzi XIX. 39	1246
1851.6	1	..	..	..	9.73552	0.05160	1.27869	9.39065	139.305	..	...	..	..	..	Lalande 36268	1247
1852.3	46	..	..	..	9.76881	0.05702	1.27657	9.39305	137.945	2432	XIX. 57	838	..	6595	25 Aquilæ..... ^ω	1248
1848.6	2	..	..	..	9.43609	0.00538	1.27582	9.39421	149.021	2438	XIX. 65	839	1703	6599	21 Lyræ..... ^θ	1249
1850.1	8	..	..	..	9.19246	9.96037	1.27322	9.39728	154.534	2449	XIX. 90	842	1712	6612	57 Draconis..... ^δ	1250
..	..	..	..	..	0.04466	0.11539	1.27263	9.39804	120.952	..	XIX. 67	..	1713	6616	Piazzi XIX. 67	1251
1848.8	1	..	..	..	0.03463	0.11307	1.27236	9.39842	121.766	2434	XIX. 69	841	1716	6619	44 Sagittarii..... ^p	1252
1851.0	10	..	..	..	9.25697	9.97657	1.27108	9.39993	153.115	2447	XIX. 91	843	1720	6623	1 Cygni..... ^κ	1253
1848.6	2	..	..	..	9.24726	9.94903	1.26920	9.40218	154.735	2466	XIX. 119	..	1722	6625	59 Draconis.....	1254
1848.6	1	..	..	..	0.00946	0.10905	1.26277	9.41034	123.906	..	XIX. 110	..	1731	6645	Piazzi XIX. 110	1255
1851.3	78	..	..	..	9.85743	0.07320	1.26270	9.41034	134.002	2451	XIX. 113	845	1732	6646	30 Aquilæ..... ^δ	1256
1852.6	2	..	..	..	9.23668	9.94399	1.26178	9.41144	155.341	2472	XIX. 141	846	..	6650	60 Draconis..... ^τ	1257
1850.6	20	..	..	..	9.21712	9.94910	1.25887	9.41508	155.361	2471	XIX. 142	847	1738	6662	58 Draconis..... ^π	1258
..	..	..	..	..	9.30514	9.97159	1.25770	9.41652	153.291	..	XIX. 140	..	1739	..	Piazzi XIX 140	1259
1853.6	2	..	..	..	0.06187	0.12425	1.25636	9.41832	119.687	..	...	..	..	..	.....	1260

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(c)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Weisse.	Mean Right Ascension 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1261	35 Aquilæ c	6.5*	19. 21. 25.91	1853.7	5	+3.035	-0.0039	+0.002	0.08750	0.05594	1.44769	0.07942	87.326	88. 21. 7.21
1262	6 Vulpeculæ	4.5*	19. 22. 27.88	1851.2	16	2.504	-0.0013	-0.009	0.08840	0.05366	1.43939	0.08301	87.798	65. 38. 7.68
1263	W. B. XIX. 561.	7	19. 22. 33.41	1852.6	3	3.258	-0.0061	..	0.08771	0.05573	1.45113	0.07792	87.160	98. 29. 39.37
1264	6 Cygni β^1	3*	19. 24. 40.40	1851.0	7	2.418	-0.0012	+0.002	0.08891	0.05301	1.43803	0.08372	87.858	62. 21. 7.93
1265	6 Cygni β^2	7	19. 24. 42.55	1850.7	3	2.417	-0.0012	+0.003	0.08891	0.05301	1.43803	0.08372	87.858	62. 20. 48.13
1266	W. B. XIX. 621.	9	19. 24. 49.49	1852.6	3	+3.253	-0.0062	..	0.08793	0.05584	1.45105	0.07791	87.146	98. 18. 44.22
1267	Lacaille 8152.	7	19. 25. 29.63	1850.7	3	3.846	-0.0146	..	0.08943	0.05187	1.46009	0.07367	86.873	121. 55. 44.30
1268	38 Aquilæ μ	5.4*	19. 26. 45.67	1852.3	26	+2.917	-0.0032	+0.017	0.08808	0.05600	1.44587	0.08027	87.363	82. 56. 8.80
1269	Lalande (Fed.) 3209	6	19. 26. 49.08	1853.6	4	-2.010	-0.1088	..	0.11520	9.97276	1.36153	0.11421	93.818	13. 44. 26.34
1270	Lalande 37057	6	19. 27. 23.89	1852.6	3	+3.240	-0.0062	..	0.08816	0.05597	1.45086	0.07796	87.130	97. 47. 0.54
1271	52 Sagittarii h^2	5.4*	19. 27. 34.39	1850.7	3	+3.655	-0.0117	+0.008	0.08902	0.05371	1.45719	0.07493	86.929	115. 12. 35.35
1272	39 Aquilæ κ	5*	19. 28. 49.20	1851.1	9	3.230	-0.0061	+0.003	0.08828	0.05605	1.45072	0.07801	87.125	97. 21. 23.82
1273	44 Aquilæ σ	5*	19. 31. 47.37	1853.7	5	2.962	-0.0037	+0.003	0.08853	0.05627	1.44656	0.08001	87.278	84. 56. 25.16
1274	54 Sagittarii e^1	6*	19. 32. 7.51	1848.8	1	+3.438	-0.0090	+0.007	0.08893	0.05537	1.45389	0.07635	86.989	106. 38.
1275	61 Draconis σ	5.6*	19. 32. (38)	..	..	-0.201	-0.0400	+0.094	0.10535	0.01104	1.39444	0.10373	90.989	20. 35. 39.61
1276	Rümker 7742	8	19. 32. 51.03	1851.6	1	+2.678	-0.0019	..	0.08906	0.05527	1.44213	0.08221	87.495	72. 16. 28.31
1277	5 Sagittæ α	4.5*	19. 33. 23.54	1851.0	8	2.680	-0.0019	+0.005	0.08911	0.05523	1.44216	0.08222	87.486	72. 19. 38.84
1278	12 Cygni ρ	5*	19. 33. 27.23	1850.8	6	2.367	-0.0011	+0.001	0.09008	0.05288	1.43724	0.08463	87.780	60. 11. 21.44
1279	55 Sagittarii e^2	5*	19. 33. 56.11	1851.5	23	3.433	-0.0091	+0.007	0.08909	0.05546	1.45382	0.07633	86.979	106. 28. 15.33
1280	W. B. XIX. 895	8.9	19. 34. 44.08	1852.6	3	3.208	-0.0064	..	0.08885	0.05634	1.45051	0.07703	87.150	96. 49. 22.54
1281	47 Aquilæ χ	6*	19. 35. 30.54	1853.7	5	+2.822	-0.0027	+0.004	0.08904	0.05605	1.44439	0.08116	87.344	78. 31. 23.08
1282	Piazzi XIX. 243	5½	19. 36. 26.53	1848.7	3	3.841	-0.0164	-0.003	0.09069	0.05232	1.46000	0.07291	86.815	122. 15. 51.27
1283	.....	..	19. 37. 16.85	1851.5	1	3.221	-0.0065	..	0.08905	0.05643	1.45056	0.07797	87.061	96. 59. 45.98
1284	56 Sagittarii f	5*	19. 37. (37)	..	..	3.517	-0.0107	-0.009	0.08966	0.05513	1.45509	0.07551	86.917	110. 7. 1.90
1285	50 Aquilæ γ	3*	19. 39. 7.67	1851.2	135	2.851	-0.0030	+0.006	0.08933	0.05632	1.44484	0.08099	87.283	79. 44. 55.12
1286	18 Cygni δ	3*	19. 40. 17.11	1851.1	8	+1.869	-0.0023	+0.007	0.09336	0.04725	1.42926	0.08922	88.186	45. 13. 58.79
1287	7 Sagittæ δ	4*	19. 40. 41.91	1851.0	7	2.674	-0.0019	+0.010	0.08985	0.05557	1.44207	0.08253	87.400	71. 49. 56.78
1288	53 Aquilæ α	1.2*	19. 43. 27.85	1851.0	169	2.891	-0.0034	+0.034	0.08968	0.05664	1.44547	0.08076	87.204	81. 31. 26.76
1289	57 Sagittarii	5½	19. 43. 28.71	1848.9	3	3.495	-0.0109	+0.003	0.09020	0.05553	1.45476	0.07545	86.883	109. 25. 15.78
1290	55 Aquilæ η { 104.7}	3.3	19. 44. 49.86	1851.1	9	3.058	-0.0051	+0.002	0.08971	0.05698	1.44805	0.07930	87.082	89. 22. 31.15
1291	Piazzi XIX. 302.	6	19. 45. 28.03	1848.7	3	+3.861	-0.0184	-0.005	0.09184	0.05247	1.46031	0.07204	86.759	123. 25. 58.55
1292	59 Aquilæ ξ	5*	19. 46. 58.71	1849.7	3	2.901	-0.0035	+0.011	0.09003	0.05686	1.44562	0.08070	87.158	81. 55. 22.39
1293	59 Sagittarii b	5*	19. 47. 44.16	1851.8	11	3.693	-0.0152	+0.003	0.09133	0.05421	1.45777	0.07344	86.788	117. 33. 46.96
1294	60 Aquilæ β	4*	19. 47. 56.69	1851.2	133	2.945	-0.0039	+0.007	0.09005	0.05702	1.44630	0.08035	87.117	83. 57. 50.94
1295	61 Sagittarii g	6.5*	19. 49. 26.29	1849.7	2	3.409	-0.0100	+0.002	0.09056	0.05632	1.45345	0.07601	86.870	105. 53. 4.94

1262. The designating letter α is added in the B.A.C.

1276. The magnitude is taken from Rümker.

1270. This star is identical with W.B. XIX. 689, but the N.P.D. of that Catalogue appears to be 1' in error.

1856GQAMM...165...1A

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazz's (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1853.7	4	— 6.98	— 0.415	— 0.02	9.86877	0.07554	1.25582	9.41903	133.582	2463	XIX. 135	..	..	6670	35 Aquilæ	1261
1851.4	19	7.06	— 0.342	+ 0.09	9.62175	0.02316	1.25379	9.42151	145.042	2467	XIX. 148	848	1742	6674	6 Vulpeculæ	1262
1852.6	3	7.07	— 0.445	..	9.95837	0.09764	1.25339	9.42222	127.867	..	...	..	..	..	W. B. XIX. 561	1263
1851.0	11	7.24	— 0.329	— 0.02	9.58303	0.01386	1.24938	9.42714	146.624	2473	XIX. 161	849	1745	6690	6 Cygni	1264
1850.7	1	7.25	— 0.329	— 0.04	9.58303	0.01386	1.24938	9.42714	146.624	2474	XIX. 162	..	..	6691	6 Cygni	1265
1852.6	3	— 7.25	— 0.442	..	9.95679	0.09771	1.24922	9.42749	128.068	..	...	..	..	..	W. B. XIX. 621	1266
1848.7	1	7.31	— 0.522	..	0.12195	0.14386	1.24777	9.42922	114.130	..	...	..	..	6693	Lacaille 8152	1267
1852.1	29	7.41	— 0.395	+ 0.09	9.81624	0.06243	1.24523	9.43268	136.883	2479	XIX. 171	852	1749	6701	38 Aquilæ	1268
1853.1	8	7.41	+ 0.272	..	9.28831	9.92475	1.24515	9.43268	156.248	..	...	..	..	6702	Lalande (Fed.) 3209 ..	1269
1852.6	3	7.46	— 0.439	..	9.95197	0.09703	1.24375	9.43456	128.524	..	...	..	..	..	Lalande 37057	1270
1850.6	2	— 7.48	— 0.495	0.00	0.08012	0.13316	1.24358	9.43473	118.136	2478	XIX. 174	853	1751	6706	52 Sagittarii	1271
1851.1	10	7.58	— 0.436	— 0.02	9.94847	0.09637	1.24108	9.43813	128.825	2482	XIX. 187	854	..	6713	39 Aquilæ	1272
1853.7	4	7.82	— 0.398	— 0.01	9.83668	0.06660	1.23503	9.44580	136.099	2492	XIX. 215	856	1756	6729	44 Aquilæ	1273
..	..	7.85	— 0.461	0.00	0.02019	0.11792	1.23434	9.44679	123.433	2490	XIX. 214	..	1758	6733	54 Sagittarii	1274
1848.7	22	7.89	+ 0.027	+ 1.83	9.27081	9.92006	1.23334	9.44811	156.988	2505	XIX. 236	859	1762	6735	61 Draconis	1275
1851.6	1	— 7.90	— 0.359	..	9.70467	0.03341	1.23291	9.44843	142.799	..	...	..	..	..	Rümker 7742	1276
1851.1	9	7.95	— 0.359	— 0.03	9.70574	0.03330	1.23176	9.45007	142.804	2495	XIX. 224	858	..	6739	5 Sagittæ	1277
1851.3	16	7.95	— 0.317	— 0.06	9.56477	0.00124	1.23167	9.45007	148.247	2497	XIX. 226	860	..	6740	12 Cygni	1278
1851.7	21	7.99	— 0.459	— 0.04	0.01862	0.11826	1.23063	9.45136	123.604	2494	XIX. 222	861	1763	6742	55 Sagittarii	1279
1852.6	3	8.06	— 0.429	..	9.94330	0.09613	1.22884	9.45395	129.431	..	...	..	..	..	W. B. XIX. 895	1280
1853.7	3	— 8.12	— 0.376	— 0.07	9.77284	0.04901	1.22740	9.45588	139.796	2501	XIX. 242	..	1764	6749	47 Aquilæ	1281
1849.7	3	8.19	— 0.511	+ 0.08	0.12068	0.15170	1.22551	9.45811	114.192	..	XIX. 243	..	1765	6755	Piazz's XIX. 243	1282
1851.5	1	8.26	— 0.428	..	9.94453	0.09698	1.22365	9.46064	129.438	..	...	..	..	..	.....	1283
1850.6	1	8.29	— 0.467	+ 0.03	0.04363	0.12779	1.22310	9.46127	121.516	2504	XIX. 249	863	1766	6760	56 Sagittarii	1284
1851.7	75	8.41	— 0.378	— 0.01	9.78634	0.05131	1.21994	9.46565	139.362	2511	XIX. 264	865	1770	6772	50 Aquilæ	1285
1851.3	5	— 8.50	— 0.247	0.00	9.40480	9.95502	1.21754	9.46875	153.951	2520	XIX. 280	866	1771	6779	18 Cygni	1286
1851.0	6	8.53	— 0.353	— 0.05	9.70368	0.02831	1.21667	9.46967	143.544	2516	XIX. 279	867	..	6783	7 Sagittæ	1287
1851.0	99	8.75	— 0.379	— 0.38	9.80494	0.05527	1.21086	9.47724	138.651	2524	XIX. 294	870	1776	6802	53 Aquilæ	1288
1848.9	4	8.75	— 0.459	+ 0.06	0.03739	0.12875	1.21086	9.47754	122.118	2522	XIX. 291	..	1775	6803	57 Sagittarii	1289
1851.1	10	8.86	— 0.400	+ 0.04	9.87869	0.07745	1.20797	9.48113	134.271	2526	XIX. 303	871	..	6811	55 Aquilæ	1290
1850.7	2	— 8.91	— 0.505	— 0.07	0.12431	0.15977	1.20666	9.48291	113.684	..	XIX. 302	..	1778	6816	Piazz's XIX. 302	1291
1848.6	2	9.03	— 0.378	+ 0.06	9.80938	0.05568	1.20341	9.48699	138.621	2536	XIX. 319	873	1781	6825	59 Aquilæ	1292
1852.9	8	9.08	— 0.480	— 0.01	0.08913	0.14910	1.20182	9.48932	117.252	2533	XIX. 322	875	1783	6832	59 Sagittarii	1293
1851.4	74	9.10	— 0.383	+ 0.54	9.82912	0.09612	1.20136	9.48990	135.136	2538	XIX. 324	876	1784	6833	60 Aquilæ	1294
1849.7	2	9.22	— 0.442	+ 0.05	0.01102	0.12247	1.19818	9.49390	124.480	2540	XIX. 329	..	1786	6840	61 Sagittarii	1295

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(cii)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Weisse.	Mean Right			Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
			Ascension, 1850, Jan. 1.	h	m						s	e	f	g			h
1296	12 Sagittæ.....γ	4.3*	19. 52.	5.19	1853.7	6	+2.662	-0.0018	+0.007	0.09101	0.05603	1.44188	0.08309	87.264	70. 54. 43.78	
1297	62 Sagittarii.....c	5*	19. 53.	25.62	1852.2	26	3.699	-0.0161	+0.006	0.09199	0.05441	1.45787	0.07300	86.750	118. 7. 19.94	
1298	64 Draconis.....e	6.5*	19. 59.	52.71	1849.7	3	0.653	-0.0235	-0.002	0.10621	0.02790	1.40914	0.10364	88.892	25. 35. 53.83	
1299	64 Aquilæ.....	6	20. 0.	17.10	1853.7	4	3.093	-0.0059	+0.011	0.09111	0.05778	1.44860	0.07895	86.912	91. 6. 22.51	
1300	Piazzi XX. 1.....	7	20. 0.	34.46	1853.7	2	0.675	-0.0231	..	0.10619	0.02837	1.40956	0.10357	88.842	25. 45. 48.14	
1301	65 Draconis.....	7	20. 0.	39.78	1853.7	3	+0.678	-0.0229	+0.001	0.10619	0.02837	1.40956	0.10357	88.842	25. 47. 18.46	
1302	67 Draconis.....ρ	5*	20. 2.	7.41	1851.4	7	0.298	-0.0352	+0.002	0.11002	0.02131	1.40308	0.10773	89.140	22. 33. 14.24	
1303	65 Aquilæ.....θ	3*	20. 3.	33.81	1852.5	34	3.096	-0.0060	+0.007	0.09141	0.05794	1.44865	0.07891	86.878	91. 15. 45.72	
1304	28 Cygni... ..b ²	5*	20. 3.	(52.)	..	..	2.225	-0.0007	+0.003	0.09435	0.05269	1.43497	0.08824	87.407	53. 35. 56.58	
1305	18 Vulpeculæ.....	6*	20. 4.	17.89	1848.7	3	2.501	-0.0010	+0.003	0.09289	0.05546	1.43934	0.08534	87.205	63. 32.	
1306	19 Vulpecule.....	6*	20. 5.	31.90	1848.6	1	+2.505	-0.0009	+0.003	0.09298	0.05557	1.43941	0.08537	87.182	63. 38.	
1307	67 Aquilæ.....ρ	5*	20. 7.	19.94	1851.6	1	2.772	-0.0025	+0.007	0.09215	0.05750	1.44361	0.08251	86.994	75. 15. 21.47	
1308	5 Capricorni.....α ¹	3.4*	20. 9.	19.77	1850.6	26	3.331	-0.0102	+0.003	0.09222	0.05774	1.45225	0.07620	86.740	102. 58. 3.66	
1309	6 Capricorni.....α ²	3.4*	20. 9.	43.68	1851.0	77	3.331	-0.0102	+0.008	0.09228	0.05774	1.45226	0.07618	86.736	103. 0. 20.64	
1310	7 Capricorni.....σ	6.5*	20. 10.	44.06	1851.5	9	3.471	-0.0132	+0.006	0.09279	0.05707	1.45440	0.07452	86.689	109. 34. 57.80	
1311	.....	8	20. 12.	9.28	1853.7	3	+3.092	-0.0062	..	0.09215	0.05847	1.44859	0.07893	86.793	91. 6. 46.74	
1312	B. F. 2762.....	6½	20. 12.	20.55	1851.4	4	3.376	-0.0113	+0.003	0.09264	0.05769	1.45295	0.07557	86.701	105. 15. 13.52	
1313	9 Capricorni.....β	3*	20. 12.	34.76	1852.1	23	+3.376	-0.0113	+0.004	0.09264	0.05772	1.45295	0.07557	86.700	105. 15. 3.93	
1314	Ursæ Minoris.....λ	5	20. 13.	1.19	1851.2	49	-53.142	-29.3200	-0.042	†..	..	..	..	..	1. 8. 21.82	
1315	37 Cygni.....γ	3.2*	20. 16.	50.72	1851.1	12	+2.150	-0.0004	+0.003	0.09648	0.05240	1.43378	0.09032	87.215	50. 13. 15.71	
1316	10 Capricorni.....π	5*	20. 18.	43.90	1853.7	1	+3.443	-0.0132	+0.003	0.09346	0.05771	1.45396	0.07450	86.573	108. 41. 59.59	
1317	Lacaille 8451.....	7	20. 18.	45.93	1848.7	1	3.674	-0.0190	..	0.09456	0.05594	1.45748	0.07159	86.594	118. 45. 2.77	
1318	Lacaille 8452.....	7	20. 18.	52.63	1848.7	2	3.701	-0.0199	..	0.09474	0.05569	1.45791	0.07123	86.588	119. 51. 47.62	
1319	Groombridge 3172..	6	20. 20.	12.64	1853.7	6	2.081	-0.0006	..	0.09748	0.05170	1.43266	0.09154	87.186	47. 53. 1.62	
1320	11 Capricorni.....ρ	5*	20. 20.	17.94	1850.2	4	3.433	-0.0131	0.000	0.09355	0.05789	1.45381	0.07457	86.624	108. 18. 20.10	
1321	B. F. 2780.....	7	20. 20.	26.37	1849.7	3	+3.434	-0.0132	+0.005	0.09355	0.05789	1.45384	0.07455	86.623	108. 22.	
1322	2 Delphini.....ε	4*	20. 26.	2.79	1852.2	25	2.866	-0.0032	+0.002	0.09355	0.05897	1.44507	0.08191	86.727	79. 12. 12.45	
1323	Bradley 2655.....	7	20. 26.	27.16	1853.7	7	0.378	-0.0399	+0.022	0.11641	0.02344	1.40446	0.11387	87.980	21. 43. 56.06	
1324	Oeltz. Arg. 20713...	9	20. 27.	52.51	1848.7	2	1.267	-0.0116	..	0.10675	0.03958	1.41940	0.10301	87.437	30. 38.	
1325	4 Delphini.....ζ	5.4*	20. 28.	17.68	1850.7	1	2.802	-0.0026	+0.005	0.09394	0.05888	1.44407	0.08284	86.717	75. 50.	
1326	70 Aquilæ.....	5*	20. 28.	54.90	1851.6	1	+3.128	-0.0073	+0.006	0.09356	0.05950	1.44913	0.07839	86.621	93. 3. 56.24	
1327	6 Delphini.....β	3.4*	20. 30.	30.89	1851.8	18	2.805	-0.0025	+0.008	0.09411	0.05902	1.44413	0.08286	86.691	75. 55. 24.98	
1328	14 Capricorni.....τ ²	5*	20. 30.	52.81	1848.7	3	3.363	-0.0123	+0.002	0.09425	0.05892	1.45276	0.07507	86.555	105. 28. 38.81	
1329	15 Capricorni.....ν	6.5*	20. 31.	30.30	1852.0	6	3.427	-0.0139	-0.001	0.09454	0.05859	1.45373	0.07415	86.543	108. 39. 46.25	
1330	Bradley 2667.....	7	20. 32.	7.53	1853.3	6	2.782	-0.0022	+0.002	0.09432	0.05902	1.44377	0.08323	86.677	74. 41. 9.27	

1300. The magnitude is taken from Piazzi.

1317. The R.A. of this star differs nearly one second from the B.A.C.

1324. The magnitude is taken from Oeltzen's Argelander.

1314. This is the λ Ursæ Minoris of the Nautical Almanac; the designating letter is Bode's and not Bayer's. In the B.A.C., there is no designating letter.

† For 1314, log. e = 0.48262, log. f = -0.20507, log. g = -1.44928, log. h = 0.48256; l = 131° 9.51.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in. Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1853·7	4	— 9'42	— 0'343	— 0'08	9'69994	0'01969	1'19253	9'50123	144'690	2550	XIX. 352	880	..	6858	12 Sagittæ.....γ	1296
1852·2	29	9'53	— 0'475	— 0'05	0'09064	0'15347	1'18961	9'50511	117'033	2549	XIX. 355	882	1792	6870	62 Sagittarii .....c	1297
1851·3	6	10'02	— 0'083	+ 0'02	9'36412	9'87477	1'17556	9'52327	159'162	2578	XIX. 421	..	..	6905	64 Draconis.....e	1298
1853·7	3	10'05	— 0'390	+ 0'07	9'89367	0'08267	1'17468	9'52456	133'879	2571	XIX. 408	..	..	6910	64 Aquilæ.....	1299
1853·7	2	10'07	— 0'085	..	9'36663	9'87368	1'17388	9'52560	159'201	..	XX. 1	..	..	..	Piazzi XX. 1	1300
1853·5	12	— 10'08	— 0'086	+ 0'08	9'36663	9'87368	1'17388	9'52560	159'201	2580	XX. 3	..	..	6913	65 Draconis.....	1301
1851·2	28	10'19	— 0'037	— 0'04	9'37689	9'86384	1'17061	9'52970	159'535	2587	XX. 21	886	1801	6926	67 Draconis.....p	1302
1852·5	29	10'30	— 0'388	— 0'02	9'89485	0'08325	1'16741	9'53374	133'906	2576	XX. 10	887	1804	6934	65 Aquilæ.....θ	1303
1848·7	2	10'32	— 0'278	— 0'11	9'53374	9'95166	1'16678	9'53474	152'907	2582	XX. 22	889	1805	6937	28 Cygni.....b ²	1304
..	..	10'35	— 0'312	— 0'09	9'63328	9'98676	1'16580	9'53599	148'839	2583	XX. 24	..	1806	6940	18 Vulpeculæ.....	1305
..	..	— 10'44	— 0'312	— 0'05	9'63560	9'98621	1'16302	9'53946	148'854	2585	XX. 34	..	1807	6943	19 Vulpeculæ.....	1306
1851·6	1	10'58	— 0'343	— 0'08	9'75134	0'02765	1'15903	9'54460	143'188	2590	XX. 48	890	..	6952	67 Aquilæ.....p	1307
1850·6	32	10'73	— 0'410	— 0'02	9'98529	0'12058	1'15457	9'55037	126'825	2593	XX. 54	891	1814	6972	5 Capricorni.....α ¹	1308
1851·2	57	10'76	— 0'410	— 0'03	9'98546	0'12080	1'15367	9'55132	126'815	2595	XX. 58	893	1816	6974	6 Capricorni.....α ²	1309
1852·9	6	10'83	— 0'426	— 0'03	0'03068	0'14019	1'15139	9'55438	122'680	2597	XX. 67	897	1818	6981	7 Capricorni.....σ	1310
1853·7	3	— 10'93	— 0'378	..	9'89341	0'08300	1'14816	9'55834	134'255	..	...	..	..	6988	.....	1311
1850·7	4	10'95	— 0'413	+ 0'01	0'00074	0'12827	1'14777	9'55881	125'451	2607	XX. 79	..	1821	6992	B. F. 2762.....	1312
1852·2	17	10'97	— 0'412	— 0'04	0'00064	0'12834	1'14722	9'55950	125'459	2609	XX. 83	900	1822	6995	9 Capricorni.....β	1313
1851·8	106	11'00	+ 6'481	— 0'02	9'55061	9'81406	1'14620	9'56089	158'925	2795	XX. 424	915	1830	6999	Ursæ Minoris.....λ	1314
1851·4	12	11'28	— 0'259	— 0'02	9'52817	9'92441	1'13745	9'57172	154'765	2624	XX. 124	902	1828	7022	37 Cygni.....γ	1315
1853·7	1	— 11'41	— 0'413	— 0'05	0'02222	0'14064	1'13312	9'57722	123'379	2623	XX. 131	904	1831	7031	10 Capricorni.....π	1316
1850·2	4	11'41	— 0'441	..	0'08458	0'16841	1'13312	9'57722	117'034	..	...	..	..	7032	Lacaille 8451.....	1317
1850·7	2	11'42	— 0'444	..	0'09087	0'17129	1'13287	9'57744	116'350	..	...	..	1832	7033	Lacaille 8452.....	1318
1853·4	8	11'52	— 0'249	..	9'51725	9'91109	1'12974	9'58132	155'690	..	...	..	..	7041	Groombridge 3172...	1319
1851·5	1	11'52	— 0'410	— 0'03	0'01913	0'14003	1'12956	9'58154	123'652	2626	XX. 142	905	1833	7042	11 Capricorni.....ρ	1320
..	..	— 11'54	— 0'410	+ 0'13	0'01945	0'14026	1'12922	9'58197	123'619	2627	XX. 144	..	1834	7044	B. F. 2780.....	1321
1852·3	26	11'93	— 0'336	0'00	9'79456	0'03684	1'11622	9'59801	141'620	2642	XX. 191	909	1836	7088	2 Delphini.....ε	1322
1853·4	8	11'96	— 0'044	— 0'07	9'46783	9'81024	1'11521	9'59922	160'928	2655	XX. 208	..	..	7090	Bradley 2655.....	1323
..	..	12'06	— 0'148	..	9'46404	9'83433	1'11226	9'60284	160'093	..	...	..	1839	..	Oeltz. Arg. 20713...	1324
..	..	12'09	— 0'326	— 0'04	9'76639	0'02223	1'11095	9'60444	143'540	2648	XX. 207	912	1841	7107	4 Delphini.....ζ	1325
1851·6	1	— 12'13	— 0'363	— 0'08	9'90813	0'09074	1'10945	9'60621	133'422	2649	XX. 212	..	..	7109	70 Aquilæ.....	1326
1852·2	20	12'24	— 0'324	+ 0'01	9'76829	0'02181	1'10574	9'61071	143'540	2656	XX. 227	914	1844	7121	6 Delphini.....β	1327
1848·7	2	12'27	— 0'388	+ 0'03	9'99690	0'13458	1'10487	9'61167	125'595	2652	XX. 225	..	1847	7127	14 Capricorni.....τ ²	1328
1852·5	5	12'31	— 0'395	— 0'05	0'01766	0'14503	1'10332	9'61340	123'562	2657	XX. 233	916	1848	7134	15 Capricorni.....υ	1329
1853·1	10	12'36	— 0'320	— 0'02	9'75845	0'01591	1'10187	9'61513	144'254	2667	XX. 247	..	1850	7146	Bradley 2667.....	1330

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionibus*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(civ)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1331	Lacaille 8532	6½	20. 32. 26.51	1848.7	3	+3.596	-0.0187	..	0.09553	0.05743	1.45630	0.07169	86.513	116. 32.
1332	9 Delphini.....a	4.3*	20. 32. 40.25	1852.2	23	+2.781	-0.0022	+0.010	0.09438	0.05905	1.44376	0.08327	86.669	74. 36. 50.74
1333	73 Draconis	5.6*	20. 33. 25.87	1848.7	3	-0.694	-0.1029	-0.001	0.13169	0.00221	1.38569	0.12988	88.135	15. 34.
1334	Lalande 39944	..	20. 33. 40.43	1851.6	1	+2.810	-0.0025	..	0.09437	0.05925	1.44418	0.08291	86.649	76. 0. 7.63
1335	50 Cygni.....a	2.1*	20. 36. 19.20	1851.0	75	2.042	-0.0002	+0.002	0.10008	0.05198	1.43203	0.09400	86.851	45. 15. 12.47
1336	11 Delphini	4*	20. 36. 27.39	1851.2	10	+2.802	-0.0023	+0.002	0.09463	0.05940	1.44407	0.08310	86.616	75. 27. 38.26
1337	16 Capricorni	4.5*	20. 37. 12.26	1853.5	1	3.571	-0.0185	-0.001	0.09583	0.05794	1.45593	0.07173	86.485	115. 48. 22.75
1338	17 Capricorni	6*	20. 37. 27.77	1853.7	6	3.489	-0.0161	+0.006	0.09538	0.05859	1.45469	0.07293	86.490	112. 3. 19.92
1339	2 Aquarii.....ε	4.3*	20. 39. 33.12	1852.0	20	3.252	-0.0102	+0.007	0.09463	0.05994	1.45105	0.07644	86.501	100. 2. 28.95
1340	12 Delphini	7	20. 39. 41.10	1851.4	7	2.785	-0.0021	+0.001	0.09494	0.05953	1.44381	0.08348	86.578	74. 24. 48.94
1341	12 Delphini	3.4*	20. 39. 41.96	1851.2	10	+2.785	-0.0021	0.000	0.09494	0.05953	1.44381	0.08348	86.578	74. 24. 48.03
1342	53 Cygni	3.2*	20. 40. 8.63	1851.2	7	2.395	+0.0007	+0.031	0.09739	0.05647	1.43768	0.08930	86.661	56. 35. 20.80
1343	4 Cephei	6.5*	20. 41. 17.97	1853.7	3	0.769	-0.0282	-0.002	0.11612	0.03120	1.41110	0.11308	87.116	23. 53. 13.91
1344	Microscopii.....β	6	20. 42. 38.86	1850.2	2	3.748	-0.0252	+0.007	0.09769	0.05659	1.45860	0.06856	86.443	123. 44. 4.70
1345	6 Aquarii	5.4*	20. 44. 33.50	1849.6	2	3.240	-0.0101	+0.006	0.09498	0.06034	1.45086	0.07650	86.460	99. 32. 31.52
1346	31 Vulpeculæ.....	5*	20. 45. 42.56	1853.7	7	+2.570	+0.0002	-0.004	0.09668	0.05848	1.44043	0.08708	86.529	63. 27. 43.12
1347	Rümker 8658	9	20. 47. 17.70	1848.8	1	1.430	-0.0087	..	0.10910	0.04308	1.42210	0.10487	86.709	31. 16. 2.22
1348	32 Vulpeculæ	5.6*	20. 48. 10.10	1852.5	27	2.554	+0.0005	+0.003	0.09703	0.05849	1.44018	0.08750	86.493	62. 30. 37.20
1349	58 Cygni	4*	20. 51. 34.93	1851.2	10	2.231	+0.0015	+0.003	0.10027	0.05526	1.43507	0.09304	86.464	49. 24. 29.43
1350	1 Piscis Australis.....	5½	20. 52. 4.69	1849.2	4	+3.702	-0.0251	+0.003	0.09837	0.05764	1.45791	0.06842	86.389	122. 50.
1351	76 Draconis	6*	20. 53. 7.92	1851.0	11	-3.830	-0.5136	-0.002	0.18392	9.93067	1.32572	0.18300	87.002	8. 1. 43.48
1352	59 Cygni	5.6*	20. 54. (43.)	..	..	+2.036	+0.0007	-0.004	0.10293	0.05285	1.43194	0.09668	86.403	43. 3. 44.00
1353	22 Capricorni.....η	5.6*	20. 55. 51.70	1852.7	3	+3.429	-0.0160	+0.001	0.09672	0.06025	1.45376	0.07289	86.360	110. 26. 40.48
1354	Bradley 2748	6	20. 56. 26.24	1853.7	6	-0.600	-0.1170	..	0.14095	0.00467	1.38738	0.13907	86.429	14. 39. 19.88
1355	23 Capricorni	4*	20. 57. 30.52	1852.1	26	+3.378	-0.0146	+0.009	0.09656	0.06069	1.45298	0.07372	86.348	107. 49. 32.14
1356	62 Cygni	4*	20. 59. (29.)	..	..	+2.177	+0.0018	+0.003	0.10197	0.05501	1.43419	0.09495	86.288	46. 40. 6.27
1357	61 Cygni (1st Star).....	5.6*	21. 0. 10.62	1851.2	62	2.332	+0.0020	+0.359	0.10032	0.05697	1.43667	0.09234	86.279	51. 59. 7.32
1358	61 Cygni (2d Star).....	5.6*	21. 0. 12.11	1850.8	45	2.332	+0.0020	+0.352	0.10032	0.05697	1.43667	0.09234	86.279	51. 59. 11.33
1359	13 Aquarii.....ν	4.5*	21. 1. 25.19	1850.4	3	3.270	-0.0116	+0.006	0.09640	0.06151	1.45132	0.07552	86.312	101. 58. 32.94
1360	Lalande 41000	8½	21. 1. 58.67	1848.7	1	3.368	-0.0146	..	0.09687	0.06104	1.45282	0.07371	86.314	107. 33. 46.67
1361	3 Piscis Australis	6	21. 4. 22.95	1848.8	3	+3.568	-0.0218	+0.009	0.09850	0.05976	1.45589	0.06976	86.309	118. 13. 36.26
1362	64 Cygni	3*	21. 6. 33.27	1851.4	116	2.549	+0.0016	+0.001	0.09889	0.05971	1.44010	0.08904	86.175	60. 23. 9.10
1363	29 Capricorni	6*	21. 7. 26.37	1850.7	6	3.329	-0.0137	+0.005	0.09711	0.06169	1.45223	0.07417	86.269	105. 47. 29.30
1364	8 Equulei.....α	4*	21. 8. 19.45	1852.4	25	2.997	-0.0048	+0.008	0.09656	0.06239	1.44711	0.08062	86.217	85. 22. 10.14
1365	W. B. XXI, 198	8.9	21. 9. 16.54	1853.7	1	2.998	-0.0048	..	0.09664	0.06247	1.44711	0.08062	86.205	85. 22.

1344. The designation is Lacaille's.

1347. The magnitude is not given in Rümker, but has been taken from Oeltzen's Argelander: the star is identical with No. 21255 of that Catalogue.

1360. Of about the 9th magnitude.

1856GQAMM...16G...1A

1856GOAMM. Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850 from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
..	..	12°38	0°413	..	0°06558	0°16898	1°10118	9°61609	118°558	..	...	..	1851	7147	Lacaille 8532.....	1331
1852°0	18	12°39	0°319	0°02	9°75812	0°01538	1°10059	9°61685	144°301	2670	XX. 254	919	1852	7145	9 Delphini.....α	1332
..	..	12°45	+ 0°079	+ 0°03	9°51619	9°77970	1°09881	9°61894	161°278	2682	XX. 279	921	1853	7150	73 Draconis.....	1333
1851°6	1	12°46	0°321	..	9°77012	0°02099	1°09825	9°61960	143°579	..	...	..	..	..	Lalande 39944.....	1334
1850°3	106	12°64	0°231	0°00	9°53823	9°87863	1°09196	9°62711	157°038	2679	XX. 285	923	1854	7171	50 Cygni.....α	1335
1851°3	8	12°65	0°317	+ 0°02	9°76723	0°01771	1°09155	9°62748	143°913	2678	XX. 281	922	1855	7173	11 Delphini.....δ	1336
1853°5	1	12°70	0°403	+ 0°15	0°05925	0°16902	1°08980	9°62966	119°040	2676	XX. 282	924	1857	7177	16 Capricorni.....ψ	1337
1853°7	5	12°72	0°393	0°00	0°03667	0°15781	1°08919	9°63039	121°433	2677	XX. 284	..	..	7175	17 Capricorni.....	1338
1852°3	17	12°86	0°364	+ 0°02	9°95737	0°11787	1°08415	9°63613	129°160	2681	XX. 299	925	1859	7196	2 Aquarii.....ε	1339
1853°7	3	12°87	0°312	+ 0°20	9°76030	0°01780	1°08383	9°63666	144°530	2685	XX. 303	..	..	7195	12 Delphini.....γ ¹	1340
1851°5	6	12°87	0°311	+ 0°15	9°76030	0°01180	1°08383	9°63666	144°530	2686	XX. 304	927	..	7200	12 Delphini.....γ ²	1341
1851°0	9	12°90	0°268	0°33	9°61931	9°92724	1°08277	9°63789	153°071	2689	XX. 313	929	..	7204	53 Cygni.....ε	1342
1853°3	5	12°98	0°086	+ 0°01	9°51486	9°78412	1°07998	9°64104	161°247	2697	XX. 335	..	..	7211	4 Cephei.....	1343
1848°7	1	13°07	0°415	+ 0°02	0°10051	0°19366	1°07672	9°64485	114°088	..	XX. 320	..	..	7226	Microscopii.....β	1344
1849°7	1	13°20	0°356	+ 0°03	9°95274	0°11696	1°07207	9°65013	129°515	2696	XX. 345	933	1869	7235	6 Aquarii.....μ	1345
1853°2	9	13°27	0°281	+ 0°01	9°67827	9°95633	1°06926	9°65349	150°142	2703	XX. 365	..	..	7246	31 Vulpeculæ.....	1346
1848°8	1	13°37	0°156	..	9°52815	9°79968	1°06573	9°65745	160°482	..	...	..	1872	..	Rümker 8658.....	1347
1852°4	43	13°43	0°277	0°04	9°67414	9°94983	1°06330	9°66022	150°606	2709	XX. 379	936	1874	7256	32 Vulpeculæ.....	1348
1850°9	16	13°65	0°238	0°03	9°59536	9°87916	1°05492	9°66964	155°923	2724	XX. 410	937	1875	7277	58 Cygni.....ν	1349
..	..	13°68	0°395	0°01	0°09058	0°19590	1°05371	9°67104	114°651	2714	XX. 403	..	1876	7280	1 Piscis Australis.....	1350
1851°5	9	13°75	+ 0°407	0°03	9°62175	9°71693	1°05115	9°67399	161°207	2754	XX. 463	939	1878	7291	76 Draconis.....	1351
1848°7	2	13°85	0°215	0°00	9°57437	9°84227	1°04721	9°67827	157°936	2732	XX. 437	..	1880	7301	59 Cygni.....f ¹	1352
1852°7	3	13°92	0°360	+ 0°02	0°01904	0°15911	1°04447	9°68144	122°519	2729	XX. 436	940	1881	7305	22 Capricorni.....η	1353
1853°3	11	13°96	+ 0°063	0°04	9°59720	9°72157	1°04307	9°68294	161°645	2748	...	..	..	7311	Bradley 2748.....	1354
1852°3	21	14°03	0°352	+ 0°03	0°00246	0°15048	1°04041	9°68590	124°207	2733	XX. 451	942	1882	7322	23 Capricorni.....θ	1355
1850°6	2	14°15	0°225	0°02	9°59983	9°85481	1°03550	9°69129	156°852	2746	XX. 472	943	1884	7335	62 Cygni.....ξ	1356
1851°6	52	14°19	0°240	3°30	9°62637	9°88320	1°03380	9°69316	155°014	2744	XX. 475	945	1886	7336	61 Cygni (1st Star).....	1357
1851°2	35	14°19	0°240	3°03	9°62637	9°88320	1°03367	9°69331	155°014	2745	XX. 476	946	1887	7337	61 Cygni (2d Star).....	1358
1851°3	2	14°27	0°335	0°01	9°96441	0°12957	1°03063	9°69658	127°968	2747	XX. 485	947	1888	7344	13 Aquarii.....ν	1359
1848°7	2	14°30	0°344	..	9°99896	0°15084	1°02916	9°69812	124°369	..	...	..	..	..	Lalande 41000.....	1360
1849°7	3	14°45	0°361	+ 0°07	0°05907	0°18775	1°02321	9°70464	117°515	2753	XXI. 12	..	1890	7357	3 Piscis Australis.....	1361
1851°4	85	14°58	0°255	+ 0°06	9°68428	9°92467	1°01781	9°71046	151°560	2760	XXI. 35	950	1891	7368	64 Cygni.....ζ	1362
1851°7	4	14°63	0°332	0°03	9°98609	0°14569	1°01556	9°71286	125°479	2759	XXI. 37	953	1892	7374	29 Capricorni.....	1363
1852°5	19	14°69	0°298	+ 0°08	9°85277	0°05723	1°01343	9°71524	138°313	2764	XXI. 47	954	1895	7380	8 Equulei.....α	1364
..	..	14°74	0°296	..	9°85285	0°05712	1°01044	9°71834	138°309	..	...	..	..	..	W. B. XXI. 198	1365

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionum Antaris*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(cvi)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Wesse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1366	66 Cygni.....	4.5*	21. 11. 45.14	1853.7	3	+2.460	+0.0026	+0.002	0.10034	0.05916	1.43871	0.09122	86.058	55. 43. 50.21
1367	32 Capricorni.....	4.5*	21. 13. 53.27	1851.7	21	3.350	-0.0148	+0.007	0.09772	0.06208	1.45255	0.07346	86.223	107. 28. 13.11
1368	5 Cephei.....	3.2*	21. 14. 59.77	1851.1	58	1.416	-0.0097	+0.023	0.11614	0.04396	1.42187	0.11196	85.621	28. 2. 55.18
1369	.....	..	21. 15. 37.56	1852.9	5	0.530	-0.0491	..	0.13153	0.02776	1.40707	0.12880	85.238	19. 4. 47.10
1370	.....	..	21. 16. 43.48	1853.7	2	3.114	-0.0075	..	0.09711	0.06313	1.44893	0.07827	86.151	92. 52. 4.36
1371	.....	..	21. 17. ±	..	..	+3.114	-0.0075	..	0.09711	0.06313	1.44893	0.07827	86.151	92. 51. 50.44
1372	W. B. XXI. 400.....	9	21. 17. 20.30	1853.7	1	3.114	-0.0076	..	0.09715	0.06316	1.44894	0.07824	86.146	92. 57. 1.97
1373	5 Piscis Australis.....	6	21. 20. 5.29	1849.3	4	3.605	-0.0256	+0.006	0.10041	0.06052	1.45644	0.06753	86.227	121. 53.
1374	Piazzi XXI. 157....	6½	21. 22. 0.29	1849.8	3	2.197	+0.0038	+0.005	0.10508	0.05659	1.43452	0.09790	85.721	44. 14.
1375	6 Piscis Australis.....	6	21. 23. 8.80	1849.8	1	3.654	-0.0284	+0.009	0.10134	0.06025	1.45717	0.06609	86.217	124. 36.
1376	.....	..	21. 23. 17.96	1853.7	3	+3.006	-0.0046	..	0.09761	0.06368	1.44725	0.08062	86.045	85. 35. 22.54
1377	22 Aquarii.....	3*	21. 23. 39.54	1851.3	81	3.163	-0.0090	+0.005	0.09765	0.06360	1.44967	0.07715	86.099	96. 13. 41.17
1378	W. B. XXI. 571....	8	21. 24. 24.65	1850.7	1	3.003	-0.0046	..	0.09763	0.06373	1.44719	0.08071	86.039	85. 21. 55.96
1379	Rümker 9246.....	8	21. 25. 15.54	1853.7	4	2.845	-0.0010	..	0.09823	0.06328	1.44475	0.08423	85.969	74. 53. 35.16
1380	W. B. XXI. 630....	8.9	21. 26. 30.69	1849.8	1	2.849	-0.0010	..	0.09832	0.06339	1.44482	0.08419	85.951	75. 4. 47.37
1381	8 Cephei.....	β¹	21. 26. 39.76	1849.8	1	+0.805	-0.0368	..	0.13103	0.03330	1.41171	0.12806	84.664	20. 5. 53.34
1382	8 Cephei.....	β²	21. 26. 42.33	1851.1	49	0.805	-0.0368	+0.002	0.13103	0.03330	1.41171	0.12806	84.664	20. 5. 49.69
1383	W. B. XXI. 637.....	8	21. 26. 42.90	1849.8	3	2.848	-0.0010	..	0.09832	0.06339	1.44479	0.08423	85.951	74. 58. 32.78
1384	Groombridge 3492...	8	21. 27. 7.50	1849.4	5	1.806	0.0000	..	0.11248	0.05101	1.42823	0.10721	85.326	33. 9. 30.42
1385	Groombridge 3494...	8	21. 27. 58.69	1849.5	3	+1.809	+0.0001	..	0.11262	0.05109	1.42827	0.10735	85.298	33. 7. 25.97
1386	Groombridge 3548...	6	21. 28. 31.18	1850.9	8	-10.001	-2.8256	..	0.30952	9.73788	1.17610	0.30918	76.394	3. 35. 36.46
1387	39 Capricorni.....	5.4*	21. 28. 40.51	1852.1	2	+3.371	-0.0166	+0.004	0.09903	0.06313	1.45288	0.07213	86.123	110. 8. 7.32
1388	23 Aquarii.....	5.4*	21. 29. 45.78	1852.4	28	3.193	-0.0101	+0.009	0.09811	0.06404	1.45014	0.07631	86.058	98. 31. 26.87
1389	.....	..	21. 31. (0.)	..	..	1.832	+0.0008	..	0.11294	0.05163	1.42866	0.10761	85.190	33. 9. 28.06
1390	Groombridge 3510...	8.9	21. 31. (10.)	..	..	1.835	+0.0008	..	0.11288	0.05167	1.42870	0.10754	85.194	33. 12. 8.34
1391	Groombridge 3513...	9	21. 31. (20.)	..	..	+1.837	+0.0009	..	0.11291	0.05172	1.42874	0.10757	85.183	33. 12. 0.62
1392	.....	..	21. 31. (20.)	..	..	1.832	+0.0009	..	0.11311	0.05174	1.42872	0.10778	85.154	33. 7. 25.61
1393	W. B. XXI. 755....	8	21. 31. 39.46	1851.7	1	2.940	-0.0027	..	0.09826	0.06420	1.44622	0.08230	85.926	80. 47. 4.36
1394	40 Capricorni.....	γ	21. 31. 46.45	1850.7	4	3.322	-0.0149	+0.019	0.09889	0.06368	1.45212	0.07313	86.088	107. 20. 12.50
1395	43 Capricorni.....	κ	21. 34. 16.53	1851.7	2	3.353	-0.0163	+0.011	0.09930	0.06371	1.45260	0.07223	86.080	109. 32. 51.59
1396	Oeltz. Arg. { 22641 } { 22542 }	8.9	21. 34. (17.)	..	..	+1.857	+0.0015	..	0.11327	0.05219	1.42906	0.10789	85.080	33. 10. 58.92
1397	Piazzi XXI. 248.....	6.5*	21. 34. 18.76	1853.7	3	1.857	+0.0015	+0.002	0.11327	0.05219	1.42906	0.10789	85.080	33. 11. 16.55
1398	Oeltz. Arg. 22648...	9	21. 34. (20.)	..	..	1.857	+0.0015	..	0.11327	0.05219	1.42906	0.10789	85.080	33. 11. 22.70
1399	9 Piscis Australis.....	5*	21. 36. (0.)	..	..	3.595	-0.0278	+0.005	0.10203	0.06180	1.45629	0.06596	86.142	123. 42. 26.43
1400	W. B. XXI. 896....	8.9	21. 36. 43.83	1848.8	1	2.944	-0.0025	..	0.09859	0.06463	1.44628	0.08234	85.866	80. 46. 43.33

1376. Of the 10th magnitude.

1379. The magnitude is taken from Rümker.

1385. Of the 7-8th magnitude.

1378. Of the 8-9th magnitude.

1384, 1385, 1390, 1391. The magnitudes are taken from Groombridge.

1396, 1398. The magnitudes are taken from Oeltzen's Argelander.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1853.1	7	—14.89	—0.240	—0.02	9.66664	9.89319	1.00475	9.72437	153.462	2770	XXI. 76	960	..	7399	66 Cygni	1366
1852.3	14	15.01	—0.324	—0.06	9.99349	0.15374	0.99939	9.73000	124.344	2772	XXI. 84	961	1900	7407	32 Capricorni	1367
1850.9	120	15.08	—0.136	—0.01	9.61704	9.72950	0.99666	9.73294	160.814	2786	XXI. 105	963	1901	7416	5 Cephei	1368
1852.9	5	15.11	—0.051	..	9.64048	9.68810	0.99484	9.73463	161.456	..	...	..	..	..	.....	1369
1853.7	2	15.18	—0.297	..	9.90249	0.09258	0.99238	9.73728	133.643	..	...	..	..	..	.....	1370
1850.8	1	—15.19	—0.297	..	9.90249	0.09258	0.99238	9.73728	133.643	..	...	..	..	..	.....	1371
1853.7	1	15.21	—0.296	..	9.90293	0.09302	0.99021	9.73943	133.581	..	...	..	..	..	W.B. XXI. 400....	1372
..	..	15.37	—0.338	+0.07	0.06852	0.20544	0.98375	9.74622	115.109	2789	XXI. 129	..	1903	7458	5 Piscis Australis	1373
..	..	15.48	—0.204	+0.05	9.64502	9.81101	0.97891	9.75123	157.252	..	XXI. 157	..	1904	7469	Piazzi XXI. 157	1374
..	..	15.54	—0.337	+0.04	0.07984	0.21486	0.97598	9.75425	113.401	2794	XXI. 155	..	1906	7475	6 Piscis Australis	1375
1853.0	4	—15.55	—0.277	..	9.85655	0.05697	0.97383	9.75636	137.964	..	...	..	..	..	.....	1376
1851.5	53	15.57	—0.291	—0.03	9.92272	0.10863	0.97466	9.75547	131.413	2797	XXI. 162	967	1907	7478	22 Aquarii	1377
1850.7	1	15.61	—0.275	..	9.85503	0.05564	0.97283	9.75735	138.108	..	...	..	..	..	W.B. XXI. 571	1378
1852.9	5	15.66	—0.259	..	9.79085	9.99847	0.97084	9.75940	144.055	..	...	..	1911	..	Rümker 9246	1379
1850.5	3	15.72	—0.258	..	9.79288	9.99938	0.96797	9.76224	143.911	..	...	..	1915	..	W.B. XXI. 630....	1380
1849.8	4	—15.73	—0.073	..	9.67073	9.66585	0.96696	9.76332	161.088	..	...	..	..	..	8 Cephei	1381
1851.7	102	15.73	—0.073	+0.04	9.67073	9.66585	0.96696	9.76332	161.088	2811	XXI. 198	969	1917	7493	8 Cephei	1382
1850.2	7	15.73	—0.258	..	9.79246	9.99872	0.96727	9.76299	143.957	..	...	..	1916	..	W.B. XXI. 637	1383
1849.8	3	15.75	—0.163	..	9.64758	9.73475	0.96628	9.76406	159.697	..	...	..	1918	..	Groombridge 3492...	1384
1849.8	3	15.80	—0.163	..	9.64992	9.73282	0.96406	9.76618	159.683	..	...	..	1920	..	Groombridge 3494...	1385
1850.9	4	—15.83	+0.896	..	9.74817	9.61513	0.96234	9.76787	160.042	..	...	..	..	7504	Groombridge 3548...	1386
1853.7	1	15.84	—0.302	—0.02	0.00161	0.16788	0.96182	9.76839	122.451	2806	XXI. 197	970	1922	7506	39 Capricorni	1387
1851.7	29	15.90	—0.284	+0.01	9.93512	0.11976	0.95921	9.77119	129.846	2808	XXI. 209	973	1923	7514	23 Aquarii	1388
1848.7	1	15.96	—0.162	..	9.65877	9.72726	0.95605	9.77427	159.553	..	...	..	..	..	.....	1389
1849.9	2	15.97	—0.162	..	9.65868	9.72776	0.95605	9.77417	159.542	..	...	..	1924	..	Groombridge 3510...	1390
1849.9	3	—15.99	—0.162	..	9.65954	9.72713	0.95535	9.77498	159.529	..	...	..	1925	..	Groombridge 3513...	1391
1848.7	1	15.98	—0.162	..	9.66181	9.72487	0.95321	9.77700	159.523	..	...	..	..	..	.....	1392
1851.7	1	16.00	—0.259	..	9.82924	0.03028	0.95421	9.77607	140.595	..	...	..	..	..	W.B. XXI. 755....	1393
1851.1	3	16.01	—0.292	—0.01	9.98467	0.15769	0.95410	9.77629	124.191	2815	XXI. 223	976	1926	7525	40 Capricorni	1394
1851.7	2	16.14	—0.290	—0.02	9.99551	0.16709	0.94762	9.78255	122.736	2821	XXI. 238	978	1931	7543	43 Capricorni	1395
1849.9	2	—16.14	—0.161	..	9.66807	9.72145	0.94762	9.78265	159.402	..	...	..	..	..	Oeltz. Arg. ... ^{22641} _{22642}	1396
1852.0	6	16.14	—0.161	+0.01	9.66807	9.72145	0.94762	9.78265	159.402	..	XXI. 248	..	..	7545	Piazzi XXI. 248....	1397
1849.9	2	16.14	—0.161	..	9.66807	9.72145	0.94762	9.78265	159.402	..	...	..	..	..	Oeltz. Arg. 22468 ...	1398
1848.7	2	16.23	—0.308	+0.09	0.06639	0.21721	0.94322	9.78692	113.812	2825	XXI. 250	980	1932	7557	9 Piscis Australis	1399
1849.7	3	16.26	—0.251	..	9.83117	0.02981	0.94283	9.78732	140.436	..	...	..	..	..	W.B. XXI. 896....	1400

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(cviii)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession on in R.A. for 1850 from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of 1	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1401	8 Pegasi.....ε	2.3*	21. 36. 49.10	1851.3	126	+2.944	-0.0025	+0.007	0.09859	0.06463	1.44630	0.08233	85.866	80. 48. 37.11
1402	W. B. XXI. 935....	9	21. 38. 37.22	1853.0	4	2.951	-0.0027	..	0.09867	0.06484	1.44640	0.08221	85.846	81. 11. 53.48
1403	49 Capricorni .....δ	3*	21. 38. 45.38	1852.0	28	3.304	-0.0146	+0.019	0.09930	0.06436	1.45184	0.07319	86.032	106. 48. 19.45
1404	Oeltz. Arg. 22879....	8.9	21. 42. 14.48	1848.8	1	1.071	-0.0257	..	0.13203	0.03880	1.41618	0.12879	83.866	20. 42. 33.12
1405	Lalande 42611.....	8	21. 43. 55.16	1853.8	4	2.672	+0.0038	..	0.10127	0.06360	1.44203	0.08971	85.550	61. 55. 51.84
1406	.....	..	21. 44. (10.)	..	..	+1.086	-0.0253	..	0.13259	0.03911	1.41640	0.12936	83.740	20. 37. 15.92
1407	Oeltz. Arg. 22927 ...	9	21. 44. 14.71	1848.8	1	1.096	-0.0247	..	0.13234	0.03937	1.41662	0.12908	83.751	20. 43.
140	.....	..	21. 44. 21.30	1848.8	1	1.096	-0.0247	..	0.13234	0.03937	1.41662	0.12908	83.751	20. 41. 54.67
140	Groombridge 3590 ...	5	21. 44. 21.65	1853.8	1	1.079	-0.0257	..	0.13281	0.03900	1.41629	0.12959	83.721	20. 32. 39.15
1410	Bradley 2865.....	7	21. 44. 55.58	1849.7	3	1.753	+0.0002	0.000	0.11820	0.05099	1.42738	0.11335	84.506	29. 26.
1411	51 Capricorni .....μ	5*	21. 45. 6.73	1851.9	9	+3.259	-0.0131	+0.026	0.09941	0.06513	1.45116	0.07405	85.966	104. 15. 19.32
1412	.....	..	21. 45. 51.10	1853.7	2	1.460	-0.0084	..	0.12497	0.04604	1.42264	0.12100	84.079	24. 38. 3.71
1413	.....	..	21. 46. 1.18	1849.8	3	1.440	-0.0095	..	0.12546	0.04560	1.42224	0.12154	84.060	24. 20.
1414	.....	..	21. 46. (10.)	..	..	1.463	-0.0084	..	0.12497	0.04604	1.42264	0.12100	84.079	24. 37. 56.20
1415	16 Pegasi.....	5.6*	21. 46. 14.36	1852.1	23	2.724	+0.0031	+0.006	0.10088	0.06424	1.44286	0.08857	85.552	64. 46. 43.48
1416	.....	..	21. 46. 22.31	1853.7	1	+1.461	-0.0086	..	0.12513	0.04603	1.42262	0.12116	84.058	24. 33. 46.79
1417	.....	..	21. 46. 36.85	1851.2	2	1.481	-0.0079	..	0.12476	0.04636	1.42293	0.12076	84.073	24. 48. 43.17
1418	17 Pegasi.....	6.5*	21. 49. (40.)	..	..	2.926	-0.0013	+0.003	0.09943	0.06571	1.44600	0.08325	85.692	78. 38. 2.41
1419	79 Draconis.....	6	21. 51. 0.30	1853.7	3	0.738	-0.0488	+0.008	0.14387	0.03277	1.41058	0.14124	82.727	17. 0. 24.28
1420	Rümker 9704.....	..	21. 51. 39.48	1853.0	4	2.927	-0.0012	..	0.09957	0.06593	1.44601	0.08333	85.661	78. 31. 15.54
1421	Piazzi XXI. 360....	6.5*	21. 52. (26.)	..	..	+1.690	-0.0008	+0.013	0.12200	0.05025	1.42635	0.11749	84.030	27. 5. 15.36
1422	20 Pegasi.....	6.5*	21. 53. 46.95	1849.7	3	2.917	-0.0008	+0.011	0.09974	0.06606	1.44587	0.08368	85.625	77. 35. 46.68
1423	29 Aquarii (1st Star)...	6	21. 54. 13.52	1853.8	2	3.293	-0.0151	+0.002	0.10027	0.06578	1.45168	0.07256	85.921	107. 41. 7.88
1424	29 Aquarii (2d Star)...	6	21. 54. 13.90	1853.8	1	3.293	-0.0151	+0.002	0.10027	0.06578	1.45168	0.07256	85.921	107. 41. 5.95
1425	Rümker 9773.....	..	21. 55. 2.10	1849.9	2	2.084	+0.0072	..	0.11361	0.05686	1.43271	0.10754	84.504	35. 8.
1426	13 Piscis Australis.....	6½	21. 55. 44.31	1850.1	3	+3.479	-0.0250	+0.009	0.10256	0.06446	1.45453	0.06677	86.011	120. 38. 23.86
1427	.....	..	21. 55. (50.)	..	..	2.090	+0.0074	..	0.11370	0.05702	1.43281	0.10762	84.473	35. 5. 57.19
1428	.....	..	21. 56. ±	..	..	2.092	+0.0075	..	0.11370	0.05705	1.43285	0.10760	84.468	35. 8. 4.49
1429	34 Aquarii.....α	3*	21. 58. 4.69	1851.1	120	3.083	-0.0062	+0.002	0.09948	0.06677	1.44845	0.07880	85.736	91. 2. 47.00
1430	33 Aquarii.....ι	4*	21. 58. 19.81	1851.3	5	3.247	-0.0132	+0.005	0.10017	0.06636	1.45098	0.07374	85.865	104. 35. 41.10
1431	18 Cephei.....	5	21. 59. (22.)	..	..	+1.786	+0.0024	-0.016	0.12202	0.05221	1.42792	0.11735	83.796	27. 36. 31.27
1432	17 Cephei.....ξ¹	5.4*	21. 59. (27.)	..	..	1.701	0.0000	+0.037	0.12419	0.05073	1.42652	0.11981	83.643	26. 6. 7.12
1433	17 Cephei.....ξ²	5.4*	21. 59. (27.)	..	..	1.701	0.0000	..	0.12419	0.05073	1.42652	0.11981	83.643	26. 6. 6.33
1434	24 Pegasi.....ι	4*	22. 0. 1.85	1851.5	11	2.764	+0.0039	+0.024	0.10158	0.06571	1.44349	0.08866	85.348	65. 23. 8.29
1435	.....	..	22. 2. 36.76	1852.8	1	2.130	+0.0089	..	0.11453	0.05794	1.43341	0.10841	84.246	34. 49. 31.47

1401. Of the 8th magnitude.
 1407. Noted by the observer as of the 9th magnitude.
 1414. Of the 10th magnitude.
 1427. Of about the 11th magnitude.

1404, 1407, 1408. The magnitudes are taken from Oeltzen's Argelander.
 1413. Of the 11th magnitude.
 1423, 1428. Of the 8.9th magnitude.
 1435. Of the 9th magnitude.

1856GQAMM...16G...1A

Mean Year.	Number of Observations	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue	Logarithms of				Value of r	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1851'4	71	— 16'27	— 0'251	— 0'02	9'83136	0'02957	0'94118	9'78893	140'427	2835	XXI. 260	981	1934	7561	8 Pegasi	1401
1853'7	3	16'36	— 0'249	..	9'83423	0'03158	0'93648	9'79353	140'138	..	...	..	..	..	W. B. XXI. 935.....	1402
1852'0	24	16'37	— 0'279	+ 0'25	9'97850	0'15714	0'93629	9'79381	124'395	2847	XXI. 276	987	1942	7580	49 Capricorni	1403
1849'8	1	16'54	— 0'089	..	9'71315	9'63272	0'92801	9'80180	160'348	..	...	..	1948	..	Oeltz. Arg. 22879....	1404
1852'9	5	16'62	— 0'218	..	9'74312	9'90857	0'92334	9'80634	149'844	..	...	..	..	..	Lalande 42611	1405
1849'7	2	— 16'64	— 0'088	..	9'71950	9'62711	0'92251	9'80722	160'224	..	...	..	..	..	.....	1406
..	..	16'64	— 0'089	..	9'71917	9'62766	0'92251	9'80714	160'224	..	...	..	1949	..	Oeltz. Arg. 22927....	1407
1849'8	5	16'64	— 0'089	..	9'71917	9'62766	0'92251	9'80714	160'224	..	...	..	..	..	.....	1608
1853'8	1	16'64	— 0'088	..	9'72041	9'62621	0'92207	9'80754	160'216	..	...	994	1950	7610	Groombridge 3590 ...	1409
..	..	16'67	— 0'142	+ 0'09	9'70133	9'67751	0'92052	9'80895	159'440	2865	XXI. 318	..	1951	7615	Bradley 2865	1410
1852'1	8	— 16'68	— 0'264	— 0'04	9'96194	0'14761	0'92012	9'80947	125'872	2860	XXI. 315	995	1952	7618	51 Capricorni	1411
1851'7	4	16'72	— 0'118	..	9'71324	9'64578	0'91827	9'81121	159'895	..	...	..	..	..	.....	1412
..	..	16'72	— 0'116	..	9'71450	9'64365	0'91791	9'81161	159'906	..	...	..	1956	..	.....	1413
1849'9	1	16'73	— 0'118	..	9'71391	9'64537	0'91770	9'81178	160'013	..	...	..	..	..	.....	1414
1852'2	61	16'74	— 0'219	+ 0'02	9'75790	9'92657	0'91730	9'81220	148'430	2864	XXI. 321	..	..	7627	16 Pegasi	1415
1852'3	2	— 16'75	— 0'117	..	9'71533	9'64399	0'91649	9'81280	159'859	..	...	..	..	..	.....	1416
1852'3	2	16'76	— 0'119	..	9'71525	9'64502	0'91623	9'81328	159'823	..	...	..	..	..	.....	1417
1853'7	1	16'99	— 0'227	..	9'82494	0'01449	0'90867	9'82044	141'188	2869	XXI. 341	..	..	7641	17 Pegasi	1418
1852'9	5	16'96	— 0'058	+ 0'04	9'75032	9'59248	0'90510	9'82375	159'845	2880	XXI. 357	..	..	7654	79 Draconis	1419
1853'8	3	16'99	— 0'227	..	9'82530	0'01326	0'90311	9'82574	141'168	..	...	..	..	..	Rümker 9704	1420
1851'6	2	— 17'03	— 0'130	+ 0'02	9'72588	9'64742	0'90149	9'82716	159'243	..	XXI. 360	..	..	7658	Piazzi XXI. 360	1421
1848'7	2	17'09	— 0'223	0'00	9'82206	0'00729	0'89827	9'83043	141'568	2879	XXI. 363	..	..	7664	20 Pegasi	1422
1853'8	2	17'11	— 0'251	— 0'08	9'97545	0'16411	0'89697	9'83144	123'470	2878	XXI. 365	..	..	7666	29 Aquarii (1st Star) ...	1423
1853'8	1	17'11	— 0'251	— 0'08	9'97545	0'16411	0'89697	9'83144	123'470	2878	XXI. 365	..	..	7666	29 Aquarii (2d Star) ...	1424
..	..	17'15	— 0'158	..	9'72057	9'69994	0'89545	9'83289	157'886	..	...	..	1963	..	Rümker 9773	1425
1848'8	1	— 17'18	— 0'262	— 0'02	0'03726	0'21395	0'89326	9'83509	115'358	2881	XXI. 375	..	1965	7673	13 Piscis Australis	1426
1848'8	1	17'18	— 0'157	..	9'72305	9'69823	0'89304	9'83524	157'821	..	..	..	..	..	.....	1427
1848'8	1	17'19	— 0'157	..	9'72346	9'69820	0'89260	9'83566	157'802	..	...	..	..	..	.....	1428
1851'3	57	17'28	— 0'228	— 0'01	9'88951	0'08484	0'88749	9'84059	133'643	2890	XXI. 387	998	1968	7688	34 Aquarii	1429
1850'4	8	17'30	— 0'240	+ 0'05	9'95788	0'15147	0'88681	9'84118	125'288	2889	XXI. 389	1000	1969	7691	33 Aquarii	1430
1852'2	4	— 17'34	— 0'131	..	9'74332	9'63736	0'88411	9'84364	158'678	2906	...	..	..	7699	18 Cephei	1431
1848'6	2	17'34	— 0'125	— 0'08	9'74679	9'62674	0'88389	9'84378	158'828	2907	XXI. 408	1001	1970	7700	17 Cephei	1432
1848'8	2	17'34	— 0'125	..	9'74679	9'62674	0'88389	9'84378	158'828	..	...	..	1971	..	17 Cephei	1433
1851'3	12	17'37	— 0'202	— 0'05	9'77619	9'92389	0'88252	9'84515	147'429	2899	XXI. 402	1002	..	7706	24 Pegasi	1434
1850'2	7	17'48	— 0'152	..	9'73989	9'68531	0'87631	9'85098	157'387	..	...	..	1979 1982	..	.....	1435

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(cx)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander*, or B.A.C., or Wesse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1436	26 Pegasi.....θ	3.4*	22. 2. 37.94	1851.7	15	+3.008	-0.0032	+0.025	0.09980	0.06714	1.44728	0.08116	85.615	84. 32. 17.64
1437	Oeltz. Arg. 23477 ...	9	22. 2. (40.)	..	..	2.162	+0.0092	..	0.11370	0.05845	1.43394	0.10739	84.310	35. 47. 14.68
1438	Oeltz. Arg. 23480 ...	8	22. 2. 40.97	1852.2	5	2.106	+0.0085	..	0.11524	0.05748	1.43294	0.10928	84.194	34. 9. 17.85
1439	.....	8	22. 2. (40.)	..	..	2.106	+0.0087	..	0.11514	0.05764	1.43309	0.10915	84.189	34. 9. 16.48
1440	Oeltz. Arg. { 23506 } { 23507 }	8.9	22. 3. 23.03	1852.1	3	2.130	+0.0090	..	0.11466	0.05799	1.43345	0.10855	84.230	34. 42. 5.65
1441	.....	..	22. 3. 29.13	1849.8	2	+2.106	+0.0088	..	0.11532	0.05767	1.43623	0.10935	83.924	34. 0.
1442	Oeltz. Arg.. { 23522 } { 23523 }	9	22. 3. 49.19	1852.7	1	2.097	+0.0088	..	0.11561	0.05748	1.43291	0.10970	84.138	33. 41. 14.24
1443	Oeltz. Arg. 23534 ...	8.9	22. 3. 57.41	1852.8	1	2.130	+0.0091	..	0.11482	0.05804	1.43344	0.10872	84.193	34. 32. 33.04
1444	.....	..	22. 4. 27.10	1853.8	1	2.114	+0.0091	..	0.11539	0.05784	1.43319	0.10947	84.132	34. 1. 48.53
1445	Oeltz. Arg.. { 23565 } { 23566 }	7.8	22. 4. 48.09	1851.8	1	2.139	+0.0093	..	0.11484	0.05825	1.43358	0.10872	84.168	34. 39. 9.16
1446	21 Cephei .....ζ	4.3*	22. 5. (39.)	..	..	+2.068	+0.0088	+0.003	0.11688	0.05717	1.43245	0.11118	83.987	32. 32. 12.62
1447	24 Cephei .....ε	5.4*	22. 6. 54.95	1853.8	3	1.167	-0.0244	+0.003	0.14177	0.04137	1.41776	0.13878	82.036	18. 23. 50.55
1448	W. B. XXII. 143.	8	22. 7. 38.86	1852.7	1	3.172	-0.0099	..	0.10023	0.06754	1.44981	0.07575	85.733	99. 8. 26.82
1449	W. B. XXII. 173.	9	22. 8. 43.10	1850.9	1	3.203	-0.0115	..	0.10046	0.06756	1.45029	0.07464	85.759	101. 56.
1450	W. B. XXII. 175.	8.9	22. 8. 44.83	1848.9	1	3.208	-0.0117	..	0.10050	0.06749	1.45037	0.07446	85.761	102. 23. 34.49
1451	42 Aquarii .....γ	6*	22. 8. 45.74	1852.8	5	+3.221	-0.0124	0.000	0.10060	0.06745	1.45057	0.07400	85.774	103. 34. 39.30
1452	43 Aquarii .....θ	4.5*	22. 8. 54.89	1852.2	34	3.164	-0.0096	+0.011	0.10027	0.06766	1.44969	0.07596	85.718	98. 31. 41.24
1453	.....	..	22. 9. (10.)	..	..	3.204	-0.0115	..	0.10051	0.06755	1.45030	0.07460	85.754	102. 1. 5.64
1454	23 Cephei .....ε	5.4*	22. 9. (30.)	..	..	2.141	+0.0104	+0.056	0.11610	0.05854	1.43363	0.11010	83.947	33. 42. 10.01
1455	Groombridge 3739 ...	6	22. 12. 47.81	1853.8	5	1.755	+0.0031	..	0.12802	0.05225	1.42741	0.12380	82.879	24. 37. 14.87
1456	48 Aquarii .....γ	4.3*	22. 13. 54.43	1852.5	24	+3.093	-0.0062	+0.013	0.10027	0.06827	1.44860	0.07837	85.595	92. 8. 28.99
1457	W. B. XXII. 288.	8	22. 14. 13.84	1850.5	3	3.193	-0.0111	..	0.10069	0.06806	1.45014	0.07473	85.709	101. 36. 6.47
1458	Lalande 43636 .....δ	8	22. 14. 47.12	1849.9	3	3.367	-0.0212	..	0.10271	0.06703	1.45283	0.06821	85.864	116. 36.
1459	2 Lacertae .....δ	5.4*	22. 14. (50.)	..	..	2.462	+0.0115	+0.003	0.10914	0.06357	1.43874	0.10084	84.427	44. 13. 2.83
1460	Groombridge 3760 ...	6	22. 17. 17.61	1851.6	6	1.772	+0.0042	..	0.12951	0.05273	1.42769	0.12536	82.593	24. 3. 1.03
1461	Oeltz. Arg. 23985 ...	8	22. 17. 18.28	1850.8	1	+1.773	+0.0042	..	0.12951	0.05273	1.42769	0.12536	82.594	24. 3.
1462	.....	..	22. 18. 51.95	1853.8	5	3.186	-0.0108	..	0.10089	0.06855	1.45003	0.07477	85.668	101. 23. 12.10
1463	.....	..	22. 19. 12.96	1848.8	1	2.316	+0.0132	..	0.11397	0.06176	1.43640	0.10716	83.904	37. 2.
1464	Groombridge 3771 ...	7.8	22. 19. 56.59	1850.9	2	2.319	+0.0132	..	0.11408	0.06185	1.43644	0.10728	83.876	36. 57.
1465	Groombridge 3772 ...	7.8	22. 20. 4.38	1848.8	4	2.317	+0.0133	..	0.11417	0.06184	1.43642	0.10740	83.864	36. 49.
1466	57 Aquarii .....σ	5.4*	22. 22. 42.35	1851.3	10	+3.182	-0.0108	+0.002	0.10104	0.06893	1.44997	0.07471	85.640	101. 26. 37.82
1467	.....	..	22. 22. 57.10	1848.8	1	2.340	+0.0141	..	0.11429	0.06235	1.43680	0.10746	83.788	36. 58.
1468	17 Piscis Australis....β	4*	22. 22. 57.89	1852.7	9	3.429	-0.0267	+0.008	0.10468	0.06717	1.45376	0.06460	85.880	123. 6. 45.17
1469	W. B. XXII. 493.	6*	22. 23. 26.00	1852.7	4	3.140	-0.0085	..	0.10084	0.06913	1.44933	0.07635	85.578	97. 19. 6.53
1470	.....	..	22. 23. 58.32	1853.7	2	2.350	+0.0144	..	0.11435	0.06254	1.43694	0.10751	83.758	36. 58. 31.55

1437. The magnitude is taken from Oeltzen's Argelander. The Greenwich observer in 1849 notes it of the 8th magnitude.
 1438, 1439, 1442, 1443, 1445, and 1461. The magnitudes are taken from Oeltzen's Argelander.
 1439. Of the 7-8th magnitude. It appears probable that this star is identical with the preceding.
 1441, 1462, 1467. Of the 10-11th magnitude
 1443. The observer notes it of the 9-10th magnitude.
 1464, 1465. The magnitudes are taken from Groombridge.
 1442. The observer notes it of the 8-9th magnitude.
 1445. Of the 10th magnitude.
 1448, 1470. Of the 9th magnitude.
 1469. The observer notes this star of the 7th magnitude.

Mean Year.	Number of Observations.	Annual Precession in N. P. D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N. P. D.	Annual Proper Motion in N. P. D. from B. A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue	No. in British Association Catalogue	Star's Name.	No.
					e'	f'	g'	h'								
1856.0 AMM.																
1851.9	14	—17.48	—0.215	—0.05	9.85816	0.04807	0.87608	9.85125	137.269	2914	XXII. 1	1004	1977	7723	26 Pegasi	1436
1849.8	2	17.48	—0.155	..	9.73878	9.69316	0.87654	9.85077	157.205	..	..	..	1978	..	Oeltz. Arg. 23477 . . .	1437
1853.7	3	17.48	—0.150	..	9.74084	9.67903	0.87631	9.85098	157.531	..	..	..	1980	..	Oeltz. Arg. 23480 . . .	1438
1850.5	3	17.48	—0.150	..	9.74186	9.67964	0.87515	9.85208	157.460	..	..	..	..	..	..	1439
1851.5	4	17.51	—0.152	..	9.74178	9.68354	0.87468	9.85256	157.346	..	..	..	1984	..	Oeltz. Arg. { 23506 23507 }	1440
...	..	—17.52	—0.150	..	9.74327	9.67736	0.87398	9.85325	157.454	..	..	..	..	..	..	1441
1851.3	2	17.53	—0.149	..	9.74406	9.67476	0.87351	9.85365	157.494	..	..	..	1985	..	Oeltz. Arg. { 23522 23523 }	1442
1851.3	2	17.54	—0.151	..	9.74327	9.68174	0.87328	9.85386	157.323	..	..	..	1986	..	Oeltz. Arg. 23534 . . .	1443
1853.8	1	17.56	—0.149	..	9.74570	9.67599	0.87149	9.85552	157.371	..	..	..	..	..	..	1444
1850.1	4	17.58	—0.151	..	9.74531	9.68099	0.87116	9.85582	157.243	..	..	..	1988	..	Oeltz. Arg. { 23565 23566 }	1445
1849.9	21	—17.61	—0.144	+0.01	9.75066	9.66249	0.86855	9.85823	157.524	2925	XXII. 26	1007	1990	7740	21 Cephei	1446
1852.9	5	17.66	—0.081	+0.01	9.78778	9.56135	0.86543	9.86112	158.598	2932	XXII. 40	1008	..	7758	24 Cephei	1447
1852.7	1	17.69	—0.218	..	9.92742	0.12713	0.86350	9.86307	128.341	..	..	..	..	..	W.B. XXII. 143 . . .	1448
...	..	17.74	—0.218	..	9.93044	0.14077	0.86131	9.86518	127.082	..	..	..	..	..	W.B. XXII. 173 . . .	1449
1849.8	3	17.74	—0.218	..	9.94265	0.14298	0.86131	9.86518	126.298	..	..	..	..	..	W.B. XXII. 175 . . .	1450
1852.8	5	—17.74	—0.219	—0.04	9.94825	0.14849	0.86107	9.86537	125.568	2928	XXII. 41	..	..	7771	42 Aquarii	1451
1852.2	27	17.75	—0.215	0.00	9.92424	0.12425	0.86058	9.86575	128.664	2929	XXII. 44	1011	1993	7773	43 Aquarii	1452
1848.8	1	17.76	—0.217	..	9.94062	0.14124	0.86009	9.86632	126.516	..	..	..	..	..	..	1453
1850.6	4	17.77	—0.145	—0.04	9.75856	9.66553	0.85911	9.86707	157.005	2937	XXII. 54	1013	1994	7778	23 Cephei	1454
1853.1	7	17.90	—0.115	..	9.78480	9.58957	0.85114	9.87453	157.807	..	..	..	..	7786	Groombridge 3739 . . .	1455
1852.2	26	—17.95	—0.201	—0.04	9.89378	0.09111	0.84861	9.87704	132.285	2943	XXII. 72	1017	1999	7795	48 Aquarii	1456
1848.6	1	17.96	—0.208	..	9.93666	0.13988	0.84792	9.87763	126.576	..	..	..	..	..	W.B. XXII. 288 . . .	1457
...	..	17.98	—0.218	..	0.00484	0.20471	0.84687	9.87861	117.327	..	..	..	2001	..	Lalande 43636	1458
1853.7	2	17.98	—0.159	—0.02	9.76342	9.74622	0.84631	9.87916	154.212	2948	XXII. 79	1019	2002	7800	2 Lacertae	1459
1850.1	9	18.07	—0.112	0.00	9.79750	9.57635	0.84036	9.88457	157.418	..	..	..	..	7810	Groombridge 3760 . . .	1460
...	..	—18.08	—0.112	..	9.79750	9.57635	0.84036	9.88457	157.418	..	..	..	..	..	Oeltz. Arg. 23985 . . .	1461
1852.3	8	18.13	—0.199	..	9.93394	0.13937	0.83721	9.88769	126.514	..	..	..	..	..	..	1462
...	..	18.15	—0.144	..	9.77670	9.67949	0.83642	9.88848	155.526	..	..	..	2009	..	..	1463
...	..	18.17	—0.143	..	9.77866	9.67757	0.83443	9.89027	155.469	..	..	..	2010	..	Groombridge 3771 . . .	1464
...	..	18.18	—0.143	..	9.77887	9.67675	0.83430	9.89039	155.480	..	..	..	2012	..	Groombridge 3772 . . .	1465
1852.4	6	—18.28	—0.191	—0.08	9.93266	0.14013	0.82757	9.89657	126.301	2966	XXII. 122	1025	2018	7840	57 Aquarii	1466
...	..	18.28	—0.140	..	9.78547	9.67371	0.82750	9.89686	155.173	..	..	..	..	..	..	1467
1852.8	8	18.28	—0.206	+0.02	0.02568	0.22996	0.82703	9.89715	113.239	2964	XXII. 123	1026	2019	7842	17 Piscis Australis . . .	1468
1852.7	4	18.30	—0.187	..	9.91450	0.11924	0.82586	9.89834	128.750	..	..	..	..	..	W.B. XXII. 493 . . .	1469
1852.0	5	18.32	—0.139	..	9.78810	9.67229	0.82457	9.89943	155.053	..	..	..	..	..	..	1470

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weiss's *Catalogus Stellarum ex Zonis Regionum Antaris*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

(cxii)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue	Logarithms of				Value of ι	Mean North Polar Distance, 1850, Jan. 1.
									e	f	g	h		
1471	6 Lacertæ.....	5*	22. 24. (0.)	..	..	+2.575	+0.0121	0.000	0.10803	0.06568	1.44052	0.09885	84.378	47. 38. 39.84
1472	Bradley 2993	5.6*	22. 24. 29.85	1851.3	8	-3.577	-1.1224	+0.076	0.29048	9.93823	1.33089	0.28990	65.071	4. 38. 59.30
1473	Bradley 2997	7	22. 25. 1.53	1851.1	4	-3.713	-1.1826	+0.031	0.29486	9.93485	1.32810	0.29431	64.410	4. 32. 6.21
1474	7 Lacertæ.....	4*	22. 25. 6.96	1851.7	5	+2.441	+0.0141	+0.016	0.11193	0.06396	1.43840	0.10432	83.966	40. 29. 14.23
1475	62 Aquarii	4.3*	22. 27. 38.82	1852.8	28	+3.079	-0.0051	+0.008	0.10084	0.06962	1.44838	0.07884	85.448	90. 53. 20.43
1476	.....	..	22. 31. 26.80	1850.9	2	-7.685	-3.5491	..	0.40267	9.81977	1.23702	0.40191	46.322	2. 40. 57.80
1477	Piazzi XXII. 176 ...	7	22. 32. 13.05	1850.2	6	+3.160	-0.0098	+0.005	0.10134	0.06993	1.44964	0.07516	85.546	100. 8. 28.03
1478	18 Piscis Australis	4*	22. 32. 20.99	1852.1	8	3.334	-0.0217	+0.004	0.10378	0.06888	1.45231	0.06720	85.770	117. 49. 27.32
1479	42 Pegasi	3.4*	22. 33. 58.93	1851.3	117	2.984	+0.0002	+0.006	0.10139	0.07010	1.44691	0.08314	85.191	79. 57. 1.11
1480	Rümker 10511	..	22. 34. 14.02	1849.9	3	2.805	+0.0081	..	0.10404	0.06908	1.44415	0.09122	84.712	61. 29.
1481	43 Pegasi	5*	22. 34. 43.09	1849.9	3	+2.806	+0.0081	+0.003	0.10404	0.06908	1.44415	0.09122	84.712	61. 28.
1482	.....	..	22. 34. (50.)	..	..	2.807	+0.0081	..	0.10404	0.06908	1.44415	0.09122	84.712	61. 28. 25.91
1483	44 Pegasi	3*	22. 35. 58.58	1851.4	10	2.800	+0.0086	+0.005	0.10431	0.06915	1.44405	0.09172	84.659	60. 33. 42.62
1484	Lalande 44487	8	22. 36. (50.)	..	..	2.813	+0.0083	..	0.10410	0.06931	1.44424	0.09124	84.682	61. 30. 26.90
1485	71 Aquarii	4*	22. 41. 38.78	1851.2	9	3.186	-0.0119	+0.001	0.10204	0.07075	1.45003	0.07331	85.536	104. 22. 58.71
1486	.....	..	22. 41. 50.17	1852.1	3	+1.928	+0.0143	..	0.13754	0.05643	1.43018	0.13377	80.886	21. 20. 42.98
1487	.....	..	22. 41. (50.)	..	..	1.928	+0.0143	..	0.13754	0.05643	1.43018	0.13377	80.886	21. 21. 14.50
1488	48 Pegasi	4*	22. 42. 46.05	1852.3	24	2.876	+0.0068	+0.012	0.10338	0.07037	1.44522	0.08913	84.739	66. 11. 21.25
1489	22 Piscis Australis	5.4*	22. 44. 10.48	1848.8	3	3.360	-0.0264	+0.001	0.10576	0.06967	1.45270	0.06371	85.776	123. 40.
1490	Oeltz. Arg. 24755 ...	8.9	22. 44. 17.36	1849.8	3	2.108	+0.0193	..	0.13151	0.05969	1.43310	0.12614	81.519	24. 14. 20.61
1491	32 Cephei	4.3*	22. 44. (20.)	..	..	+2.124	+0.0197	-0.010	0.13084	0.05999	1.43335	0.12641	81.514	24. 35. 15.25
1492	73 Aquarii	4*	22. 44. 47.14	1851.5	23	3.134	-0.0083	-0.001	0.10168	0.07124	1.44923	0.07581	85.420	98. 22. 35.27
1493	.....	..	22. 46. 9.01	1852.7	1	3.137	-0.0085	..	0.10175	0.07140	1.44926	0.07561	85.416	98. 50. 24.58
1494	76 Aquarii	3*	22. 46. 41.06	1851.8	17	3.196	-0.0130	-0.001	0.10245	0.07119	1.45019	0.07229	85.533	106. 37. 1.70
1495	23 Piscis Australis	5.4*	22. 47. 37.64	1848.8	3	3.344	-0.0258	+0.004	0.10580	0.07012	1.45245	0.06382	85.754	123. 20. 20.54
1496	W. B. XXII. 1002 ...	8	22. 47. 54.92	1852.7	1	+3.134	-0.0083	..	0.10180	0.07159	1.44922	0.07569	85.396	98. 37. 10.69
1497	24 Piscis Australis	1.2*	22. 49. 21.08	1850.8	65	3.309	-0.0231	+0.026	0.10505	0.07061	1.45192	0.06546	85.707	120. 24. 57.21
1498	.....	..	22. 49. 24.44	1852.6	1	3.130	-0.0081	..	0.10182	0.07174	1.44917	0.07580	86.382	98. 21. 50.40
1499	1 Andromedæ	4.3*	22. 55. 1.74	1850.9	7	2.740	+0.0164	+0.005	0.10907	0.07007	1.44310	0.09921	83.783	48. 28. 44.85
1500	53 Pegasi	2 to 2½	22. 56. 30.51	1851.8	11	2.832	+0.0096	+0.016	0.10453	0.07169	1.44532	0.09097	84.427	62. 43. 47.54
1501	54 Pegasi	2*	22. 57. 17.53	1851.2	119	+2.978	+0.0036	+0.007	0.10253	0.07239	1.44681	0.08511	84.823	75. 36. 3.17
1502	.....	..	22. 57. 28.39	1853.8	2	3.157	-0.0107	..	0.10245	0.07247	1.44959	0.07357	85.405	103. 31. 28.19
1503	.....	..	22. 58. 36.94	1853.6	2	3.118	-0.0073	..	0.10205	0.07272	1.44898	0.07607	85.294	97. 38. 4.51
1504	Groombridge 3993 ...	6.7	23. 1. (40.)	..	..	2.415	+0.0291	..	0.12745	0.06570	1.43800	0.12237	81.354	27. 10. 38.56
1505	.....	..	23. 1. 43.83	1853.8	1	3.150	-0.0103	..	0.10254	0.07293	1.44946	0.07365	85.373	103. 16. 1.78

1474. The designation in the B.A.C. is 7 Lacertæ α .

1490. The magnitude is taken from Oeltzen's Argelander. It is noted by the observer of the 7-8th magnitude.

1504. The magnitude is taken from Groombridge.

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1850.6	2	—18.32	—0.153	—0.01	9.78197	9.76681	0.82457	9.89948	152.409	2971	XXII. 136	..	2022	7850	6 Lacertæ	1471
1851.6	8	18.34	+0.211	—0.01	9.88171	9.46001	0.82347	9.90065	155.871	2993	XXII. 165	..	2023	7851	Bradley 2993	1472
1851.1	3	18.36	+0.218	—0.02	9.88331	9.45843	0.82237	9.90171	155.802	2997	XXII. 167	..	..	7854	Bradley 2997	1473
1851.3	5	18.36	—0.143	+0.01	9.78692	9.70217	0.82210	9.90187	154.191	2975	XXII. 141	1028	2025	7853	7 Lacertæ	1474
1852.7	25	18.45	—0.176	+0.05	9.88775	0.08433	0.81623	9.90736	132.278	2979	XXII. 151	1031	2026	7868	62 Aquarii	1475
1851.1	6	—18.58	+0.422	..	9.90482	9.43880	0.80767	9.91547	154.769	..	...	..	2032	..	.....	1476
1850.3	5	18.60	—0.172	+0.11	9.92355	0.13460	0.80593	9.91710	126.620	..	XXII. 176	..	2031	7897	Piazzi XXII. 176 ..	1477
1851.8	8	18.61	—0.182	+0.02	9.99581	0.21298	0.80564	9.91742	116.075	2986	XXII. 175	1036	2033	7898	18 Piscis Australis	1478
1851.2	91	18.66	—0.160	—0.02	9.85042	0.01604	0.80212	9.92085	137.899	2992	XXII. 189	1039	2035	7908	42 Pegasi	1479
..	..	18.67	—0.150	..	9.80964	9.87804	0.80065	9.92242	146.500	..	...	..	..	..	Rümker 10511	1480
..	..	—18.68	—0.149	+0.01	9.80964	9.87804	0.80065	9.92242	146.500	2999	XXII. 196	1040	2038	7914	43 Pegasi	1481
1848.8	1	18.69	—0.149	..	9.80964	9.87804	0.80065	9.92242	146.500	..	...	..	..	..	.....	1482
1851.5	23	18.72	—0.146	+0.01	9.81015	9.86989	0.79768	9.92509	146.755	3003	XXII. 205	1041	2040	7923	44 Pegasi	1483
1848.8	2	18.75	—0.146	..	9.81211	9.87769	0.79649	9.92649	146.298	..	...	..	2041	..	Lalande 44487	1484
1851.1	8	18.89	—0.156	—0.01	9.93594	0.15656	0.78583	9.93687	123.632	3013	XXII. 225	1045	2046	7954	71 Aquarii	1485
1851.4	5	—18.90	—0.094	..	9.86368	9.50822	0.78521	9.93746	154.713	..	...	..	..	..	.....	1486
1849.8	1	18.90	—0.094	..	9.86368	9.50822	0.78521	9.93746	154.713	..	...	..	..	..	.....	1487
1852.4	32	18.93	—0.139	+0.02	9.82574	9.91330	0.78335	9.93918	143.766	3016	XXII. 231	1046	2047	7958	48 Pegasi	1488
..	..	18.97	—0.159	—0.05	0.00814	0.23662	0.78053	9.94207	112.301	3017	XXII. 234	1047	2051	7966	22 Piscis Australis	1489
1849.8	3	18.97	—0.100	..	9.86046	9.52868	0.78053	9.94192	154.314	..	...	..	2052	..	Oeltz. Arg. 24755 ...	1490
1848.7	2	—18.97	—0.100	+0.12	9.86013	9.53123	0.78022	9.94245	154.258	3022	XXII. 238	1048	2053	7967	32 Cephei	1491
1851.5	18	18.99	—0.147	—0.06	9.91260	0.12643	0.77927	9.94333	126.948	3019	XXII. 235	1049	2054	7970	73 Aquarii	1492
1852.7	1	19.02	—0.145	..	9.91360	0.12896	0.77610	9.94648	126.598	..	...	..	..	..	.....	1493
1851.3	20	19.04	—0.147	—0.02	9.94155	0.16775	0.77546	9.94720	122.067	3025	XXII. 245	1051	2056	7980	76 Aquarii	1494
1849.8	4	19.06	—0.151	—0.10	0.00354	0.23613	0.77354	9.94914	112.374	3029	XXII. 251	..	2059	7987	23 Piscis Australis	1495
1852.7	1	—19.07	—0.141	..	9.91233	0.12800	0.77290	9.94986	126.612	..	...	..	..	..	W. B. XXII. 1002 ..	1496
1851.1	56	19.11	—0.146	+0.15	9.99096	0.22593	0.76999	9.95260	113.974	3032	XXII. 253	1052	2063	7992	24 Piscis Australis	1497
1852.6	1	19.11	—0.139	..	9.91084	0.12659	0.76966	9.95301	126.683	..	...	..	..	..	.....	1498
1850.7	15	19.25	—0.112	—0.03	9.83868	9.75089	0.75943	9.96393	148.766	3043	XXII. 284	1053	2072	8023	1 Andromedæ	1499
1851.6	19	19.29	—0.115	—0.17	9.83823	9.88038	0.75675	9.96683	143.778	3047	XXII. 288	1055	2074	8032	53 Pegasi	1500
1851.1	96	—19.31	—0.117	—0.01	9.85277	9.98252	0.75505	9.96839	138.102	3050	XXII. 290	1057	2075	8034	54 Pegasi	1501
1853.8	2	19.31	—0.124	..	9.92459	0.15377	0.75437	9.96911	123.264	..	...	..	..	..	.....	1502
1853.6	2	19.34	—0.120	..	9.90563	0.12315	0.75232	9.97139	126.496	..	...	..	..	..	.....	1503
1850.3	6	19.41	—0.089	..	9.89042	9.53072	0.74785	9.97654	151.690	..	...	..	2079	..	Groombridge 3993 ...	1504
1853.8	1	19.41	—0.116	..	9.92158	0.15287	0.74732	9.97755	123.135	..	...	..	..	..		1505

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(cxiv)

GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.			Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements.	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of 1	Mean North Polar Distance, 1850, Jan. 1.
			h	m	s						o	f	g	h		
1506	.....	..	23.	4.	1'14	1853.8	1	+3'146	-0'0101	..	0'10258	0'07316	1'44942	0'07368	85'354	103. 10. 35'06
1507	.....	..	23.	5.	26'29	1848.8	2	3'065	-0'0026	..	0'10202	0'07345	1'44818	0'07953	85'070	89. 8. 37'55
1508	90 Aquarii.....φ	4'5*	23.	6.	33'12	1851.5	16	3'108	-0'0065	+0'006	0'10221	0'07353	1'44884	0'07635	85'219	96. 51. 24'09
1509	.....	..	23.	6.	58'14	1853.8	1	3'141	-0'0098	..	0'10264	0'07349	1'44933	0'08451	84'588	102. 53. 17'72
1510	92 Aquarii.....χ	5'6*	23.	9.	4'16	1853.9	1	3'115	-0'0073	0'000	0'10235	0'07377	1'44895	0'07563	85'232	98. 32. 38'94
1511	6 Piscium.....γ	4*	23.	9.	23'42	1852.4	27	+3'058	-0'0016	+0'052	0'10213	0'07386	1'44805	0'08020	84'998	87. 32. 11'41
1512	93 Aquarii.....ψ ²	5'4*	23.	10.	6'26	1852.7	5	3'122	-0'0080	+0'006	0'10247	0'07386	1'44904	0'07501	85'253	100. 0. 2'24
1513	Sculptoris.....γ	5'4*	23.	10.	42'75	1848.7	1	3'258	-0'0243	+0'002	0'10651	0'07298	1'45115	0'06339	85'638	123. 21.....
1514	95 Aquarii.....ψ ³	5*	23.	11.	9'36	1851.6	14	3'123	-0'0083	+0'005	0'10252	0'07395	1'44906	0'07482	85'256	100. 25. 48'10
1515	W.B. XXIII. 229...	8'9	23.	11.	12'39	1852.7	3	3'048	-0'0004	..	0'10222	0'07405	1'44789	0'08107	84'930	85. 24. 32'65
1516	.....	..	23.	12.	14'43	1853.7	1	+3'131	-0'0091	..	0'10269	0'07406	1'44917	0'07405	85'279	102. 12.....
1517	.....	..	23.	12.	16'76	1853.9	4	2'954	+0'0088	..	0'10409	0'07372	1'44643	0'08908	84'368	66. 59. 34'94
1518	Piazzi XXIII. 48 ...	8	23.	12.	(20.)	..	..	2'954	+0'0088	..	0'10409	0'07372	1'44643	0'08908	84'368	66. 59. 33'62
1519	34 Cephei.....ε	6'5*	23.	12.	29'13	1848.8	3	2'413	+0'0373	+0'016	0'13641	0'06612	1'43796	0'13223	79'869	22. 42. 30'11
1520	62 Pegasi.....τ	5'4*	23.	13.	13'08	1849.9	3	2'956	+0'0089	+0'005	0'10410	0'07384	1'44647	0'08906	84'357	67. 4. 47'16
1521	97 Aquarii.....	6'5*	23.	14.	47'10	1852.8	7	+3'145	-0'0112	+0'009	0'10311	0'07424	1'44940	0'07241	85'330	105. 51. 43'41
1522	67 Pegasi.....	6*	23.	17.	30'85	1853.9	4	2'919	+0'0139	+0'011	0'10615	0'07393	1'44591	0'09352	83'927	58. 26. 18'96
1523	.....	..	23.	18.	11'08	1853.7	1	3'120	-0'0085	..	0'10275	0'07471	1'44901	0'07434	85'225	101. 28. 48'63
1524	4 Cassiopeiae.....	6*	23.	18.	(10.)	..	..	2'625	+0'0359	+0'002	0'12620	0'06993	1'44130	0'12076	81'038	28. 32. 25'43
1525	.....	..	23.	18.	12'09	1852.7	1	3'154	-0'0130	..	0'10357	0'07455	1'44953	0'07096	85'364	108. 56. 33'89
1526	8 Piscium.....κ	5'4*	23.	19.	14'59	1852.3	24	+3'069	-0'0021	+0'010	0'10230	0'07489	1'44823	0'07936	84'960	89. 33. 53'54
1527	Lalande 45976	9	23.	21.	26'67	1849.8	1	2'824	+0'0250	..	0'11322	0'07307	1'44439	0'10465	82'775	42. 10. 48'77
1528	W.B. XXIII. 444...	9	23.	21.	54'29	1853.0	3	3'049	+0'0006	..	0'10245	0'07517	1'44793	0'08138	84'813	84. 43. 22'27
1529	.....	..	23.	23.	(50.)	..	..	2'840	+0'0256	..	0'11328	0'07348	1'44464	0'10470	82'719	42. 10. 52'49
1530	.....	..	23.	23.	55'91	1850.5	3	2'840	+0'0256	..	0'11328	0'07348	1'44464	0'10470	82'719	42. 11. 22'65
1531	W.B. XXIII. 487...	8'9	23.	24.	4'97	1853.8	4	+3'040	+0'0024	..	0'10264	0'07537	1'44777	0'08273	84'704	81. 30. 23'55
1532	.....	..	23.	25.	48'48	1853.8	4	3'039	+0'0027	..	0'10271	0'07554	1'44775	0'08303	84'669	80. 47. 34'02
1533	39 Cephei (Hevelii)....	6*	23.	27.	49'29	1851.1	5	0'025	-0'4747	+0'048	0'35703	0'02030	1'39837	0'35661	40'067	3. 31. 13'25
1534	W.B. XXIII. 602 ..	9	23.	29.	9'79	1850.9	1	3'055	+0'0009	..	0'10255	0'07592	1'44802	0'08099	84'774	84. 54. 46'02
1535	Piazzi XXIII. 133 ..	6	23.	29.	52'72	1850.9	11	3'114	-0'0092	+0'010	0'10314	0'07591	1'44892	0'07323	85'194	103. 53. 28'92
1536	17 Andromedæ.....	4*	23.	30.	47'50	1851.0	8	+2'915	+0'0227	+0'003	0'11045	0'07501	1'44584	0'10056	83'035	47. 33. 42'32
1537	W.B. XXIII. 644 ..	9	23.	31.	9'17	1853.7	3	3'038	+0'0040	..	0'10291	0'07608	1'44774	0'08383	84'560	78. 57. 21'07
1538	17 Piscium.....	4'5*	23.	32.	14'22	1851.0	85	3'057	+0'0009	+0'055	0'10258	0'07624	1'44804	0'08121	84'733	85. 11. 10'54
1539	35 Cephei.....γ	3'4*	23.	33.	14'06	1850.9	34	2'407	+0'0703	-0'016	0'17315	0'06668	1'43786	0'17090	73'662	13. 12. 16'67
1540	Piazzi XXIII. 153 ..	6*	23.	33.	22'94	1850.5	9	3'105	-0'0083	+0'009	0'10306	0'07631	1'44879	0'07384	85'143	102. 30. 43'22

1507. This star is noted by the observer in 1848, to be of the 9-10th magnitude, and in 1849, of the 11th magnitude.

1513. The designating letter is Lacaille's.

1533. The designation is that of Flamsteed's Hevelius.

1517. Of the 7-8th magnitude.

1518. The magnitude is taken from Piazzi.

1523. Of the 13th magnitude.

1525. Of the 12-13th magnitude.

1527. Of about the 7th magnitude.

1530, 1532. Of the 10-11th magnitude.

1856GQAMM...160...1A

Mean Year.	Number of Observations.	Annual Precession in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					c'	f'	g'	h'								
1853·8	1	—19·46	—0·111	..	9·92018	0·15253	0·74331	9·98172	123·063	..	...	..	..	..	.....	1506
1849·8	3	19·49	—0·105	..	9·88213	0·07384	0·74155	9·98364	130·615	..	...	..	2084	..	.....	1507
1851·7	15	19·51	—0·105	+0·16	9·90130	0·11930	0·73942	9·98628	126·370	3076	XXIII. 19	1068	2086	8085	90 Aquarii..... ϕ	1508
1853·8	1	19·52	—0·105	..	9·91782	0·15130	0·73891	9·98748	123·023	..	...	..	..	..	.....	1509
1853·9	1	19·56	—0·100	—0·04	9·90505	0·12869	0·73548	9·99105	125·272	3081	XXIII. 30	1070	..	8102	92 Aquarii..... χ	1510
1852·6	28	—19·57	—0·098	—0·04	9·87910	0·06371	0·73512	9·99166	131·080	3082	XXIII. 31	1071	2088	8105	6 Piscium..... γ	1511
1852·7	5	19·58	—0·098	+0·02	9·90852	0·13659	0·73368	9·99302	124·408	3083	XXIII. 33	1072	2089	8109	93 Aquarii..... ψ^2	1512
..	..	19·59	—0·101	+0·07	9·97992	0·23981	0·73296	9·99415	111·550	..	XXIII. 36	1073	2090	8113	Sculptoris..... γ	1513
1851·9	12	19·60	—0·096	—0·02	9·90928	0·13891	0·73223	9·99498	124·099	3087	XXIII. 40	1075	2092	8116	95 Aquarii..... ψ^3	1514
1852·7	3	19·60	—0·094	..	9·87529	0·04984	0·73223	9·99522	131·996	..	...	..	..	..	W. B. XXIII. 229...	1515
...	..	—19·62	—0·095	..	9·91344	0·14823	0·73054	9·99717	123·057	..	...	..	..	..	.....	1516
1852·5	6	19·62	—0·089	..	9·85697	9·91260	0·73078	9·99686	140·296	..	...	..	..	..	.....	1517
1850·9	1	19·62	—0·089	..	9·85697	9·91266	0·73078	9·99686	140·296	..	XXIII. 48	..	..	..	Piazzi XXIII. 48	1518
1848·8	2	19·63	—0·072	—0·04	9·92560	9·47302	0·73041	9·99744	150·202	3097	XXIII. 53	..	2095	8124	34 Cephei..... ϕ	1519
1849·1	3	19·64	—0·087	—0·01	9·85816	9·91311	0·72931	9·99882	140·133	3096	XXIII. 56	1077	2096	8131	62 Pegasi..... τ	1520
1852·8	7	—19·67	—0·090	—0·03	9·92229	0·16674	0·72711	0·00173	120·894	3102	XXIII. 61	..	..	8142	97 Aquarii.....	1521
1853·1	6	19·71	—0·079	—0·05	9·86550	9·83600	0·72341	0·00677	142·781	3111	XXIII. 75	..	..	8159	67 Pegasi.....	1522
1853·7	1	19·72	—0·083	..	9·90870	0·14474	0·72229	0·00826	123·041	..	...	..	..	..	.....	1523
1848·7	2	19·72	—0·069	—0·02	9·92081	9·52637	0·72229	0·00799	148·971	3115	XXIII. 81	1081	2099	8162	4 Cassiopeiæ.....	1524
1852·7	1	19·72	—0·084	..	9·92845	0·18160	0·72229	0·00826	119·007	..	...	..	..	..	.....	1525
1852·5	23	—19·74	—0·079	+0·10	9·88348	0·07647	0·72117	0·00992	129·177	3116	XXIII. 83	1082	2100	8169	8 Piscium..... κ	1526
1849·8	1	19·77	—0·069	..	9·89426	9·67201	0·71850	0·01371	146·576	..	...	..	2105	..	Lalande 45976	1527
1853·0	3	19·78	—0·074	..	9·87645	0·04490	0·71773	0·01492	131·328	..	...	..	..	..	W. B. XXIII. 444 ...	1528
1848·7	1	19·81	—0·065	..	9·89845	9·67088	0·71549	0·01799	146·205	..	...	..	..	..	.....	1529
1849·8	1	19·81	—0·065	..	9·89845	9·67088	0·71549	0·01799	146·205	..	...	..	2109	..	.....	1530
1853·2	5	—19·81	—0·069	..	9·87367	0·02283	0·71511	0·01868	132·635	..	...	..	..	..	W. B. XXIII. 487 ...	1531
1853·2	5	19·83	—0·066	..	9·87373	0·01771	0·71320	0·02180	132·780	..	...	..	..	..	.....	1532
1851·6	10	19·86	—0·001	—0·02	0·01432	9·32568	0·71127	0·02524	146·202	3147	XXIII. 135	..	2112	8213	39 Cephei (Hevelii)....	1533
1850·9	1	19·87	—0·060	..	9·87835	0·04608	0·70972	0·02771	130·512	..	...	..	..	..	W. B. XXIII. 602 ...	1534
1851·0	12	19·88	—0·050	—0·02	9·90861	0·15776	0·70894	0·02896	120·931	..	XXIII. 133	..	..	8221	Piazzi XXIII. 133...	1535
1851·0	10	—19·89	—0·054	—0·05	9·89978	9·72487	0·70817	0·03057	143·933	3144	XXIII. 142	..	2116	8229	17 Andromedæ.....	1536
1853·0	4	19·90	—0·056	..	9·87495	0·00414	0·70778	0·03121	133·029	..	...	..	..	..	W. B. XXIII. 644 ...	1537
1851·9	46	19·91	—0·054	+0·44	9·87939	0·04793	0·70700	0·03309	130·054	3148	XXIII. 145	1091	2119	8233	17 Piscium.....	1538
1850·7	86	19·92	—0·041	—0·17	9·99453	9·36746	0·70582	0·03483	146·304	3152	XXIII. 155	1093	2121	8238	35 Cephei..... γ	1539
1850·5	10	19·92	—0·053	—0·04	9·90387	0·15081	0·70582	0·03508	121·386	..	XXIII. 153	..	..	8239	Piazzi XXIII. 153...	1540

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GREENWICH CATALOGUE OF STARS FOR 1850,

No.	Star's Name.	Magnitude from Argelander, or B.A.C., or Weisse.	Mean Right Ascension, 1850, Jan. 1.	Mean Year.	Number of Observations.	Annual Precession in R.A. for 1850, from Bessel's Elements	Secular Variation of Precession in R.A.	Annual Proper Motion in R.A. from B.A. Catalogue.	Logarithms of				Value of l	Mean North Polar Distance, 1850, Jan. 1.
									c	f	g	h		
1541	18 Piscium	5*	23. 34. 23.45	1851.1	2	+3.068	-0.0009	-0.004	0.10253	0.07648	1.44822	0.07958	84.819	89. 2. 42.07
1542	Oeltz. Arg. 25947 ...	6.7	23. 35. 23.13	1848.8	2	2.812	+0.0428	..	0.12576	0.07385	1.44416	0.12012	80.655	29. 9.
1543	5 Cassiopeiæ	5*	23. 39. 44.76	1848.8	1	2.883	+0.0404	+0.008	0.12212	0.07517	1.44535	0.11578	81.060	32. 11. 0.11
1544	20 Piscium	6*	23. 40. 13.82	1851.9	6	3.078	-0.0030	+0.007	0.10263	0.07709	1.44836	0.07767	84.891	93. 35. 42.40
1545	Sculptoris	4.5*	23. 41. 6.31	1852.4	18	3.132	-0.0182	+0.009	0.10582	0.07689	1.44920	0.06565	85.422	118. 57. 33.69
1546	6 Cassiopeiæ	6*	23. 41. 33.55	1849.8	3	+2.874	+0.0465	+0.002	0.12670	0.07511	1.44520	0.12116	80.317	28. 37.
1547	W. B. XXIII. 868 ..	7	23. 42. 23.65	1848.9	1	3.092	-0.0073	..	0.10310	0.07728	1.44858	0.07407	85.073	101. 56. 11.28
1548	.....	..	23. 42. ±	..	..	3.096	-0.0084	..	0.10328	0.07688	1.44863	0.07321	85.142	103. 49. 19.12
1549	Piazzi XXIII. 200 ..	6	23. 42. 30.17	1852.9	8	3.090	-0.0067	+0.002	0.10301	0.07732	1.44856	0.07456	85.044	100. 48. 40.25
1550	W. B. XXIII. 876. ...	7	23. 42. 46.93	1849.9	3	3.096	-0.0085	..	0.10329	0.07732	1.44864	0.07316	85.114	103. 57.
1551	.....	..	23. 44. 59.65	1850.8	5	+3.049	+0.0066	..	0.10335	0.07755	1.44791	0.08527	84.313	75. 41. 46.91
1552	.....	..	23. 49. 12.57	1853.8	1	3.066	+0.0018	..	0.10272	0.07806	1.44817	0.08116	84.591	85. 20. 11.20
1553	W. B. XXIII. 1032. ..	9	23. 50. 7.20	1853.3	6	3.066	+0.0018	..	0.10272	0.07812	1.44818	0.08110	84.590	85. 25. 48.49
1554	27 Piscium	5.6*	23. 50. 59.60	1851.4	15	3.075	-0.0028	-0.003	0.10272	0.07823	1.44832	0.07732	84.833	94. 23. 16.87
1555	8 Cassiopeiæ	5*	23. 51. (30.)	..	..	2.999	+0.0400	+0.004	0.11923	0.07760	1.44715	0.11223	81.240	35. 4. 46.84
1556	28 Piscium	4*	23. 51. 36.67	1852.4	26	+3.065	+0.0026	+0.015	0.10277	0.07829	1.44818	0.08173	84.530	83. 58. 1.71
1557	Bradley 3194.	6½	23. 52. 37.35	1850.9	8	2.470	+0.02512	-0.009	0.32747	0.06818	1.43886	0.32695	41.572	4. 7. 43.41
1558	Bradley 3195.	5	23. 54. (0.)	..	..	3.009	+0.0501	..	0.12544	0.07790	1.44729	0.11967	80.175	29. 36. 44.27
1559	29 Piscium	5.6*	23. 54. 8.22	1853.7	1	3.073	-0.0023	+0.002	0.10271	0.07857	1.44830	0.07756	84.796	93. 52.
1560	30 Piscium	5*	23. 54. 15.95	1851.7	2	3.075	-0.0039	+0.007	0.10282	0.07857	1.44832	0.07628	84.874	96. 50. 51.97
1561	Sculptoris.	5*	23. 54. 38.08	1848.7	3	+3.089	-0.0181	+0.001	0.10632	0.07852	1.44854	0.06470	85.389	120. 33. 21.09
1562	Groombridge 4206 ..	8	23. 55. 2.43	1848.8	1	3.044	+0.0262	..	0.11051	0.07848	1.44785	0.10043	82.647	47. 54. 49.13
1563	Groombridge 4207 ..	7	23. 55. 27.51	1848.8	3	3.047	+0.0261	..	0.11044	0.07851	1.44786	0.10032	82.657	48. 6.
1564	.....	..	23. 55. (30.)	..	..	3.029	+0.0456	..	0.12209	0.07831	1.44762	0.11571	80.673	32. 21. 35.45
1565	2 Ceti	4.5*	23. 56. 3.09	1852.1	15	3.078	-0.0100	+0.004	0.10387	0.07875	1.44837	0.07119	85.128	108. 10. 15.49
1566	3 Ceti.	6	23. 56. 49.27	1852.7	3	+3.074	-0.0062	+0.001	0.10311	0.07884	1.44832	0.07431	84.970	101. 20. 41.41
1567	Bradley 3207.	7	23. 57. (10.)	..	..	3.045	+0.0462	..	0.12213	0.07863	1.44786	0.11576	80.630	32. 18. 8.11
1568	.....	..	23. 57. 29.61	1852.8	1	3.071	0.0000	..	0.10267	0.07894	1.44825	0.07927	84.660	89. 48. 4.87
1569	.....	..	23. 57. 29.82	1853.0	1	3.071	-0.0002	..	0.10267	0.07894	1.44825	0.07909	84.672	90. 14. 42.01
1570	33 Piscium	5*	23. 57. 39.45	1851.6	15	3.072	-0.0035	+0.004	0.10281	0.07893	1.44829	0.07640	84.844	96. 32. 47.92
1571	W. B. XXIII. 1194. ..	8	23. 57. 47.46	1852.8	1	+3.073	-0.0046	..	0.10292	0.07897	1.44828	0.07557	84.892	98. 29. 55.11
1572	W. B. XXIII. 1208. ..	8	23. 58. 36.30	1853.8	3	3.072	-0.0062	..	0.10314	0.07904	1.44828	0.07419	84.964	101. 36. 49.21
1573	Bradley 3212.	6½	23. 58. 50.24	1850.0	1	3.067	+0.0159	+0.035	0.10573	0.07905	1.44820	0.09193	83.543	61. 48.
1574	.....	..	23. 59. 39.14	1852.8	1	3.071	+0.0004	..	0.10267	0.07916	1.44825	0.07954	84.626	89. 10. 14.46
1575	W. B. XXIII. 1227. ..	9	23. 59. 42.81	1852.9	4	3.071	-0.0063	..	0.10316	0.07912	1.44826	0.07409	84.966	101. 52. 5.35
1576	W. B. XXIII. 1232. ..	9	23. 59. 50.96	1852.8	2	3.071	-0.0061	..	0.10313	0.07922	1.44825	0.07423	84.951	101. 32. 17.23

1542. The magnitude is taken from Oeltzen's Argelander. The observer in 1848 notes it to be of the 6-7th magnitude.

1545, 1561. The designations are Lacaille's.

1550, 1572. Of the 8th magnitude.

1551. Of about the 10th magnitude.

1562, 1563. The magnitudes are taken from Groombridge.

1568. Of the 10th magnitude.

1569. Of the 12th magnitude.

1855GAMM...166...1A

Mean Year.	Number of Observations.	Annual Preces- sion in N.P.D. for 1850, from Bessel's Elements.	Secular Variation of Precession in N.P.D.	Annual Proper Motion in N.P.D. from B.A. Catalogue.	Logarithms of				Value of l'	No. in Bessel's Bradley.	No. in Piazzi (1814.)	No. in Pond's 1112.	No. in Greenwich Twelve-Year Catalogue.	No. in British Association Catalogue.	Star's Name.	No.
					e'	f'	g'	h'								
1851.1	2	-19.93	-0.050	+0.13	9.88320	0.07314	0.70504	0.03683	128.012	3153	XXIII. 158	1096	2122	8243	18 Piscium	1541
...	..	19.94	-0.044	..	9.95129	9.52093	0.70425	0.03814	145.988	..	...	..	2124	..	Oeltz. Arg. 25947 ...	1542
1849.5	14	19.98	-0.037	-0.06	9.95145	9.55250	0.70109	0.04600	144.900	3164	XXIII. 187	1101	2126	8268	5 Cassiopeiae	1543
1851.9	6	19.98	-0.039	-0.02	9.88780	0.10123	0.70069	0.04683	125.260	3165	XXIII. 188	..	2127	8271	20 Piscium	1544
1852.2	18	19.99	-0.038	+0.10	9.93461	0.22596	0.70029	0.04831	112.471	..	XXIII. 192	1103	2128	8275	Sculptoris	1545
..	..	-19.99	-0.034	-0.04	9.96450	9.51191	0.69989	0.04908	144.827	3169	XXIII. 195	..	2129	8279	6 Cassiopeiae	1546
1848.9	1	20.00	-0.035	..	9.89829	0.14803	0.69937	0.05038	120.985	..	...	..	..	..	W. B. XXIII. 868 ...	1547
1848.8	1	20.00	-0.035	..	9.90124	0.15788	0.69909	0.05094	120.012	..	...	..	..	..	.....	1548
1852.9	8	20.00	-0.034	+0.15	9.89652	0.14210	0.69909	0.05066	121.530	..	XXIII. 200	..	..	8285	Piazzi XXIII. 200...	1549
...	..	20.00	-0.034	..	9.90129	0.15848	0.69909	0.05121	119.941	..	...	..	..	..	W. B. XXIII. 876...	1550
1850.8	5	-20.01	-0.029	..	9.88264	9.97920	0.69789	0.05484	132.739	..	...	..	..	..	.....	1551
1853.8	1	20.03	-0.021	..	9.88281	0.04873	0.69628	0.06176	128.160	..	...	..	..	..	.....	1552
1853.8	4	20.04	-0.019	..	9.88304	0.04940	0.69588	0.06339	128.004	..	...	..	..	..	W. B. XXIII. 1032..	1553
1851.7	13	20.04	-0.018	+0.12	9.88664	0.10600	0.69547	0.06474	123.861	3189	XXIII. 244	1105	2136	8328	27 Piscium	1554
1848.9	2	20.04	-0.016	+0.02	9.96378	9.58239	0.69547	0.06546	142.424	3190	XXIII. 245	..	2137	8330	8 Cassiopeiae	1555
1852.1	33	-20.04	-0.016	+0.08	9.88343	0.03940	0.69547	0.06573	128.474	3191	XXIII. 246	1106	2138	8331	28 Piscium	1556
1851.1	10	20.04	-0.012	..	0.05557	9.30796	0.69507	0.06728	141.361	3194	...	..	..	8336	Bradley 3194	1557
1849.0	2	20.05	-0.012	+0.01	9.98354	9.51962	0.69467	0.06961	142.372	3195	...	1107	2141	8344	Bradley 3195	1558
..	..	20.05	-0.012	-0.02	9.88575	0.10290	0.69467	0.06984	123.796	3196	XXIII. 255	1108	2143	8346	29 Piscium	1559
1852.7	1	20.05	-0.011	+0.02	9.88769	0.12031	0.69467	0.07003	122.402	3197	XXIII. 256	1109	2144	8349	30 Piscium	1560
1849.9	5	-20.05	-0.011	+0.09	9.92334	0.23256	0.69467	0.07064	110.981	..	XXIII. 259	..	2145	8352	Sculptoris	1561
1849.8	3	20.05	-0.010	..	9.93611	9.72424	0.69467	0.07121	139.775	..	...	..	..	..	Groombridge 4206...	1562
..	..	20.05	-0.009	..	9.93611	9.72616	0.69455	0.07169	139.686	..	...	..	2147	..	Groombridge 4207...	1563
1849.8	3	20.05	-0.009	..	9.97813	9.55037	0.69467	0.07188	141.908	..	...	..	2148	..	.....	1564
1851.3	23	20.05	-0.008	-0.02	9.89933	0.17950	0.69426	0.07291	116.872	3204	XXIII. 264	1110	2149	8358	2 Ceti	1565
1852.7	3	-20.05	-0.006	-0.02	9.89055	0.14510	0.69426	0.07414	120.063	3206	XXIII. 266	..	..	8361	3 Ceti	1566
1848.9	1	20.05	-0.005	+0.03	9.98127	9.54989	0.69426	0.07476	141.556	3207	...	..	2151	8364	Bradley 3207	1567
1852.8	1	20.05	-0.005	..	9.88417	0.07781	0.69426	0.07548	125.267	..	...	..	..	..	.....	1568
1853.0	1	20.05	-0.005	..	9.88417	0.08066	0.69426	0.07548	125.070	..	...	..	..	..	.....	1569
1851.9	11	20.05	-0.005	-0.05	9.88653	0.11860	0.69426	0.07548	122.218	3208	XXIII. 272	1111	2153	8368	33 Piscium	1570
1852.8	1	-20.05	-0.004	..	9.88756	0.12953	0.69426	0.07601	121.297	..	...	..	..	..	W. B. XXIII. 1194..	1571
1853.0	4	20.06	-0.003	..	9.88986	0.14655	0.69426	0.07709	119.775	..	...	..	..	..	W. B. XXIII. 1208..	1572
..	..	20.06	-0.002	+0.17	9.91119	9.86184	0.69426	0.07736	135.626	3212	XXIII. 276	..	2156	8374	Bradley 3212	1573
1852.8	1	20.06	-0.001	..	9.88417	0.07378	0.69426	0.07892	125.305	..	...	..	..	..	.....	1574
1852.9	4	20.06	-0.001	..	9.88958	0.14787	0.69426	0.07866	119.572	..	...	..	..	..	W. B. XXIII. 1227..	1575
1852.8	2	20.06	0.000	..	9.88908	0.14611	0.69426	0.07912	119.705	..	...	..	..	..	W. B. XXIII. 1232..	1576

The magnitudes of Stars taken from Argelander are marked with asterisks. Other magnitudes are taken in the order of preference from the British Association Catalogue of 8377 Stars; from the Catalogue of Lalande published by the British Association; or from Weisse's *Catalogus Stellarum ex Zonis Regionemontanis*. The authorities for other magnitudes are given in the Notes. When no authority is given, the magnitude is taken from the Greenwich Observations.

By inadvertence, the following star, observed once only in N.P.D., was omitted in its proper place. It is here added that the Catalogue may be a correct record of the results of all the observations of stars.

Lalande 2138 (Fedorenko) of the 9th magnitude.

Approx. R.A., ^{h m s} 12. 37. (20.) Mean N.P.D., 1850, Jan. 1, from one observation, ^{° ' "} 28. 5. 3.03

Time of observation, 1848.4.

{ Prec. in R.A. + 2^s.664
 { Secular variation - 0^s.0385

{ Prec. in N.P.D. + 19["].79
 { Secular variation - 0["].063

Values of log. e, log. f, log. g, } 0.02541, 0.07079, 1.44192,
 log. h, and l. } 0.03210, and 93^s.953.

Values of log. e', log. f', log. g', } 9.93069, 0.31609, 1.65118,
 log. h', and l'. } 0.01612, and 57["].230.