RESULT

\mathbf{OF}

ASTRONOMICAL OBSERVATIONS

MADE AT

THE HONORABLE,

THE EAST INDIA COMPANY'S OBSERVATORY

AT MADRAS

BY

THOMAS GLANVILLE T₂

ASTRONOMER TO THE HONORABLE COMPANY.

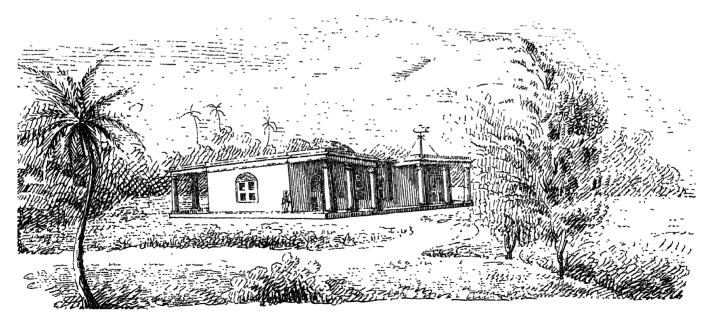
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MDCCCXXXVIII.

PREFACE.

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HE contents of the present volume differs so little from that found in the former volumes of the Madras Observations, as almost to render a preface unnecessary : to conform however to established customs, it is proper for me to remark, that the Observations on the meridian of which the results are here given, have been continued without interruption—principally by the native Assistants, and that those out of the meridian have been made exclusively by myself: In allowing the meridianal Observations to be made by the native assistants, I have been careful frequently to re-examine their bisections with the Mural Circle, and to compare the clock errors from their observations with the Transit Instrument with those determined from my own, when, in no case have I found that their bisections were less accurate than I could have made myself, and the difference between our estimations of time ("personal equation") has seldom amounted to two tenths of a second. The observations of the Sun (which have always proved unsatisfactory-still continue to exhibit the same want of consistency, and my endeavour to discover the cause have-I regret to state not in the least degree proved successful: the observations of the Planet Mars and of Stars situated near to his path for the purposes of Parallax, have now been continued for three successive oppositions, and the necessary comparisons between these and corresponding observations which have been made at the Cape of Good Hope Observatory, have been instituted sult, as well as other observations of measuring angular distances with the Mural Circle, tends to shew--that although a single observation may be depended upon to 1", 5 or 2", still, the tenth or twentieth part of this amountwhich is the present object of enquiry,—can only be attained by an almost unlimited number of observations. The observation of Moon Culminating Stars and occultations has been continued, as has likewise the Eclipses of Jupiter's Satellites, but not having received the corresponding observations at Greenwich complete, I have delayed for the present to attempt any improvement of the supposed value of the Longitude, and since it would have interfered with the observation of the Star Catalogue to attempt reflection Observations; I have likewise allowed the question of Latitude to remain undisturbed. The reductions have for the most part been performed by myself; and when performed by an Assistant, have invariably undergone—either a recomputation, or a careful revision by myself before they were trusted. On comparing the places of the 2066 Stars which are here given, with Piazzi's

Catalogue; a result similar to that noticed in Vol. III. (as occurring between the Catalogue *there* given when compared with Piazzi) was here too apparent; in consequence of which, I have gone back to the catalogue given in Vol. II. and have likewise compared it with the places assigned by Piazzi; after combining the results from these three catalogues (containing about 7600 Stars) there still appears a tendency to exhibit a *General Proper Motion* of the fixed Stars, which can be explained, by supposing a motion of the Solar System towards the North Pole of the Ecliptic: whether the data from which this conclusion has been drawn shall appear sufficient or no, I would beg for the present to claim a little indulgence--until a comparison of the table of refractions employed by Piazzi (not now at my command) with those at present in use, shall have been instituted—and a reexamination of Latitudes undertaken ;—this done,—I shall be prepared either to announce this important and somewhat unexpected result, with more precision and certainty, or to acknowledge with humility that I have been in error—

T. G. TAYLOR, H. C. ASTRONOMER.

I take this opportunity to acknowledge with very many thanks, the receipt of copies of the *Connaissance des Temps* and *Nautical Almanac*, as well as other very valuable works from learned Societies and individuals.

OF THE TRANSIT INSTRUMENT.

THE focal length of the Transit Instrument is 61 Inches, with a clear aperture of $3\frac{3}{4}$ Inches; but for bright Stars and the Sun an aperture of 2 Inches only has generally been employed. As originally constructed by Dollond the pivots were of bell metal, but during the first three years of its use these had worn so unequally as to render it necessary to re-turn them, when collars of steel were applied over the bell metal, so as to restore them to their original dimensions; this was accomplished in the years 1834—35 by Mr. Barrow, the Honorable Company's Instrument maker at Calcutta, in a manner which rendered the Instrument as perfect as when it was first erected. Consulting Vol. 111. it appears that in January and February 1834 the illuminating pivot was *apparently* less than the other pivot 1",69 and in December 1835 that it was less......1,10

The eye-piece is furnished with five vertical and one horizontal fixed wires, and one vertical moveable wire; the Equatorial intervals between the former were determined from the intervals occupied by several stars situated near the Pole to pass from wire to wire as follows:—

	Seconds.
from 1st wire to centre	+54,577
2d	
4th	
5th	
the composition	-0,244 to reduce the

rendering necessary the correction..... $\frac{-0.244}{\cos}$ to reduce the mean

of the five wires to the centre wire.

MADRAS OBSERVATIONS.

These numbers hold good up to the 30th October 1836, when the wires were broken in consequence of the shutters on the roof of the Observatory being blown open by the violence of the wind, whereby the instrument was exposed for some minutes to very heavy rain;*-having failed during this time to secure the shutter-the fastenings having given way and one only out of three hinges remaining entire, I was compelled to take the transit off its axis, and deposit it in the safest place I could find; the wind which was blowing from the North, had burst open the Northern door as well as the Southern one immediately opposite; hence there appeared to be no other choice than that of placing it upon the table which stood against the most secure part of the Northern wall of the Observatory;—here, supported by books and a green baize cover, I felt assured that nothing short of the building falling in, would have in the least degree endangered it; at one instant 1 thought of depositing it upon the floor, where it would be sheltered by the table, but streams of water which were flowing through the Observatory determined it otherwise; -at 5 o'clock in the afternoon having completed all that could be of service to secure the Instruments-I left the Observatory to the care of an assistant. At $\frac{1}{4}$ before 7 it blew a perfect hurricane,—the Dome on the top of the Observatory was blown away, and the stoutest trees and hedges were laid low !--at 7 o'clock the wind had much moderated, and at $\frac{1}{4}$ past 7—a lull—a dead I watched the appearance of the sky and fluctuations of the calm ensued. Barometer at this moment with feelings of intense anxiety and interest;—the clouds were passing one another in utter confusion, and although calm below, it was evident that at no great height above the Earth there was a severe conflict among the elements;—I had hardly time to make a note of these appearances and of the height of the Barometer, when the rain—which had ceased during the lull, again set in, accompanied by the sighs and moans of the again returning hurricane:—at a $\frac{1}{4}$ before 8, the wind—which now blew from the SOUTH, had risen to a pitch more fearful than that before experienced; in short—no description can convey an adequate idea of its intense fury;—doors and windows, iron bars and bolts-were with one rude rush scattered and broken! At this moment the southern doors of the Observatory, situated opposite to the northern wall where the Transit Instrument had been deposited-was literally blown to pieces; whereby one of the pieces (about 8 feet by 6 Inches by 2 Inches) which had been blown across the room, had fallen edgewise upon the head of the micrometer attached to the Transit Instrument and very neatly cut it off, without at all disturbing the other parts of the telescope. Other

^{*} There fell 7,5 Inches, in the course of 12 hours-for the indications of the Barometer see the end.

injuries had been sustained by the books having been disturbed, whereby the object end of the telescope had fallen upon a pile of books from a height of about 2 feet, whence two slight indentations had been sustained -one on each side of the tube, at 10 or 12 Inches above the object end of the telescope; and the tangent screw of the setting circle had been hit: but it was evident that the axis had not in the slightest degree been injured; a circumstance of which . I have since well assured myself from observation.—The first fact that struck my notice on examining the Instrument—was, that the focal length of the object glass had apparently altered; or rather that the telescope had become shorter; for, in order to render the principal focus coincident with the wires, it was necessary to remove the object glass, 07 of an inch from the position it had hitherto occupied in the cell into which it was secured ;---this remedied (which I was enabled to do by interposing three pieces of brass of this thickness between the bottom of the cell and the frame carrying the object glass) it only remained that the micrometer screw should be replaced—this was readily and very neatly accomplished by Mr. Barrow of Calcutta, and six weeks after the date of this calamity all was again in order :---in this interval the observations were continued without the micrometer (as will be seen in the sequel,) without I apprehend in any material degree endangering their general accuracy.

Up to the date of these misfortunes the illuminating pivot had always reposed upon the eastern Y or Pillar; but the damage sustained by the tangent screw above noticed, rendering its motion stiff and uncertain, I was induced to shift the position of the axis—so as to bring the other setting circle into use; accordingly from the 5th November to the present time the position of the Instrument has been "*illuminating Pivot West*."

On the 5th November I put in a new set of Wires, when—from the mean of several Stars situated near to the Pole, the Equatoreal intervals were found to be—

		Seconds.
from	1st wire to centre	+54,840
	2d	
	4th	
	5th	-54,530

hence to reduce the mean of the five wires to the centre wire, for the fixed

In volumes I. and II. the value of the micrometer screw had been determined to be 34",366 for each revolution, whereas for that now in use (which I requested Mr. Barrow to make of nearly the same degree of fineness)—one revolution corresponds to 32",94.

It now only remains for me to state another, though trifling circumstance with regard to the Transit Instrument—namely, that after above six years of constant use, the lacquer had completely disappeared from the eye end of the telescope, and existed in patches only on the other parts;—with a view to arrest the progress of oxidation, as well as to improve its now dingy appearance,—on the 22-25th February 1837, I applied two coats of oil paint over the entire surface, whereby its appearance as well as cfficiency is again restored.

ERROR OF LEVEL OF THE TRANSIT AXIS.

THE error of level of the Transit Axis has been determined as heretofore by the Spirit level, and the necessary correction for error of level applied to each observations; this is true at least for the observations made before the 30th October 1836, and for those made after the 18th January 1837:--for the observations made between these dates-having from time to time adjusted the axis to horizontality, no correction on this account is necessary. The Column (L+P) is obtained from the mean of three readings of the level with the Cross level East, and the same number with Cross level West, viz. one at each extremity, and one in the middle of the pivots; the value of P or half of the apparent defect of the illuminating pivot which is given at page 1-being applied, leaves the values of L which have been employed in the reduc-It must be noticed however that the correction P tion of the Observations. applies with a contrary effect after the 5th November 1836 to what it did before that date, in consequence of the illuminating or smaller pivot having been transferred from the Eastern to the Western Pier, as has already been stated at page 3.

1836.	Pivot.		Remarks, &c.	1836	3.	Pivot.	L+P	REMARKS, &c.
4 6 8 11 13 16 18 20 22 25 27 29 Feb. 1 3 5 8		2,66 ,, 2,84 ,, 3,06 ,,	$Mean = \left\{ \begin{array}{c} 5'', 20E\\ 70 \end{array} \right\} \therefore L = 3,90E$	April May	$ \begin{array}{c} 16\\18\\19\\21\\23\\25\\27\\29\\1\\3\\5\\7\\9\\11\\13\\16\end{array} $		0,55 ,,	
10 12 14 16 18 20 21 22 24 26 28 March 1 3 5 7 9 12		2,92, 2,50, 2,39, 1,99, 1,60, 1,96, 2,15, 2,29, 2,15, 2,29, 2,29, 2,20, 2,20, 2,20, 2,20, 2,20, 2,20, 2,20, 2,20, 2,21, 1,90, 1,90, 2,20, 2,21, 1,90, 1,90, 2,20, 2,21, 1,90, 1,90, 2,20, 2,21, 1,90, 1,90, 2,20, 2,21, 1,90, 2,20, 2,15, 1,72, 1,63, 1,63,	$Mean = \begin{cases} 2,65E \\ ,70 \end{cases} L = 3,35E$	June	$ \begin{array}{c} 18\\20\\23\\25\\27\\29\\31\\2\\4\\6\\8\\10\\12\\14\\16\\18\\20\\22\\29\end{array} $		2,02 ,, 1,25 ,, 1,47 ,, 1,32 ,, 1,53 ,, 1,53 ,, 1,53 ,, 1,53 ,, 1,53 ,, 1,53 ,, 1,53 ,, 1,53 ,, 1,27 ,, 1,26 ,, 1,21 ,, 1,27 ,, 1,29 ,, 0,82 ,, 0,52 ,, 0,17 ,, 0,43 ,,	
3 5 7 9 12 14 16 18 21 23 25 28 30 April 2 4 7 9 10 11 13	• • • • • • • • • • • • • • • • • • • •	1,32 ,,	Mean= $\left\{ \begin{array}{c} 1,93E\70 \end{array} \right\}$.: L=2,63E	July	1 4 8 10 13 15 18 20 23 27 29		0,93 ,, 0,85 ,, 1,05 ,, 0,15 E 0,46W 0,11 ,, 0,62 ,, 0,66 ,, 0,73 ,, 0,19 ,, 0,19 ,, 0,26 E 0,14W 0,54 E	$Mean = \begin{cases} 1,13W \\ ,70 \\ ,70 \end{cases} : L = 0,43W$ Heavy rain on the 2nd.

ERROR OF LEVEL OF THE TRANSIT AXIS.

* This is omitted in taking the Mean.

1836.	Illmtg. Pivot.	L+P	Remarks, &c.	1837	•	Pivot.	L-P	Remarks, &c.
ugustl: 18		0,64 E 1,06 ,,	$Mean = \begin{cases} ",05W \\ ,70 \end{cases} \therefore L = 0,65E$	Feb.	4	Vest	" 2,50 E 2,47 ,,	$Mean = \left\{ \begin{array}{c} \frac{1}{2}, 47E\\ ,70 \end{array} \right\} \therefore L = 1,77E$
22 Sept. 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		1,53 ,, 1,20 ,, 1,57 ,, 2,21 ,, 1,83 ,, 1,78 ,, 1,87 ,, 2,01 ,, 2,15 ,, 1,93 ,,		March	27 4	••• •• ••	4,76 ,, 3,91 ,, 3,21 ,, 3,35 ,, 2,70	11
Oct.	3	1,65 ,, 2,52 ,, 2,59 ,, 2,12 ,, 2,23 ,, 2,92 ,, 2,23 ,, 1,69 ,, 1,44 ,,		April	31 3 6 9	9 4 <i>7 8</i> 8 8	1,91 ,, 1,70 ,, 1,62 ,, 1,17 ,, 1,95 ,, 1 ,90 ,,	$Mean = \left\{ \begin{array}{c} 3,65E\70\end{array} \right\} \therefore L = 2,95E$
2 2 2	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,17 ,, 1,81 ,, 1,97 ,, 2,03 ,, 1,92 ,, <u>3,73 ,,</u> L-P	Mean= $\begin{cases} 1,93E \\ ,70 \end{cases}$ \therefore L=2,63E	May	$ \begin{array}{c} 12\\ 15\\ 18\\ 21\\ 24\\ 27\\ 30\\ 3\\ 6\\ 9\\ 12\\ 15\\ 18\\ 21\\ 24\\ 27\\ \end{array} $	••• ••• ••• ••• •••	0,75 ,, 0,66 ,, 0,27 ,,	$Mean = \begin{cases} 1',57E \\ ,70 \end{cases} \therefore L = 0',87E$
] Decr.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,50 H 2,00 ,, 7,50 H 1,37 W 1,90 W 0,00 , 1,70 V 0,10 J	Do.Do.Very heavy rain and high wind— there fell 17 inches in 36 hours.E Adjusted for Level.Do.Do.Do.Do.Do.Do.Do.Do.Do.Do.Do.Do.Do.Do.Do.E	June	30 2 5 8 11 14	•••	1,84 ,, 2,69 ,, 0,93 ,, 0,78 ,, 0,55 ,, 0,07 ,,	$Mean = \begin{cases} 0,56E \\ ,70 \end{cases} \therefore L = 0,14W$ Hot Land Winds.
1837. Jany.	24 2 9 18 25 31	0,80V 2,00 2,67	W ,, Adjusted for Level. E	July	$17 \\ 20 \\ 23 \\ 26 \\ 29 \\ 2$	•••	1,12, 0,58, 1,28, 1,23, 0,97, 0,72,	

ERROR OF LEVEL OF THE TRANSIT AXIS.

	P. REMARKS, &c.	1837	Illmtg. Pivot.	L—P.	Remarks, &c.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$Mean = \begin{cases} 0,88E \\ ,70 \end{cases} : L=0,18E$	Oct. 6 9 12 15 18 21 24 27 30	West	" 2,26 E 2,13 ,, 1,90 ,, 1,87 ,, 2,27 ,, 2,60 ,, 2,50 ,, 2,38	$Mean = \begin{cases} 2,27E\70 \end{cases} \therefore L = 1,57E$
August 1 0,84 4 1,82	22 29	Nov. 2 5 8 11 14 17 20 23 26		6,78 ,, 6,82 ,, 6,74 ,, 5,90 ,, 5,56 ,, 5,10 ,, 4,78 ,, 5,18 ,,	There fell 8,6 Inches of rain.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		29 Decr. 2 5 8 11 14 17 20 23 26 29		5,00 ,, 5,09 ,, 4,99 ,, 5,33 ,, 5,70 ,, $\overline{3,58}$,,	$Mean = \begin{cases} \overset{''}{5,27E} \\ ,70 \end{cases} \therefore L = \overset{-}{4,57E}$ Fine weather.

ERROR OF COLLIMATION OF THE TRANSIT INSTRUMENT.

والموردية المراقبة والرابات تتقاعين أخرا تتقدمون والمتكرينين

Having found from experience that the determination of the error of Collimation by inversion of the axis was sometimes liable to uncertainty, (by reason of the great care which is necessary, but which cannot always be afforded, in placing the pivots on their Y's), I have in the present volume, as heretofore, had recourse to inversion for this purpose but very seldom, and then only have employed it as a check upon other methods. In the early part of 1836 the error of Collimation was determined by measuring with the micrometer

ERROR OF COLLIMATION OF THE TRANSIT INSTRUMENT.

screw, the horizontal angular distance between the North and South Meridian Marks, and comparing this result with the previously known true angular distance; thus,—if C represent the collimation error, N^1 , $-S^1$ the observed azimuths of the centre wire as affected by C, and N,—S the azimuths as not so affected, we have

the reading of the North Mark =
$$+ N^{1} = +N + C$$

South do. = $-S^{1} = -S + C$

taking the sum, $N_1 - S_1 = N - S + 2C$; in which N-S, the true angular distance between the marks being known, we immediately obtain the value of C:-for the value of N-S (= θ) there were several measures made in the early part of 1835 (see Vol. III p. 8.) in which it came out 180° 0' 26",03 and from 5 Inversions on the 13th January 1836 it came out 180° 0' 25",77; the former result however is that which has been employed in the computations. For the observations after 20th March and up to 30th October 1836, the azimuth of the centre wire from the North Mark only has been observed, and in place of the other, an observation has been made on every second or third day with the "Reflecting Collimator." The observation with the "Reflecting Collimator" which has been explained already in Vol. III; -- consists in measuring the angular distance with the micrometer, between the direct image of the centre wire, and its image as reflected from a basin of quicksilver: to accomplish this, I drilled a small hole in the side of the telescope, at about 6 inches from the eye end, so that the light from a lamp after passing through it, might fall uninterruptedly upon the wires; -I now introduced a silver spe_ culum into one of the eye pieces in front of the lens, so that by varying its inclination, the light from the lamp could be thrown perpendicularly upon the wires, whereby their image as reflected from a basin of quicksilver placed underneath the Transit, was nearly as well defined as the direct image; the speculum was suspended upon an axis passing through the sides of the eye piece, by which it could be adjusted to the proper angle, and was furnished with a small elliptical hole (about ,07 of an In. diameter) through which the wires were seen. In the employment of this method, it is indispensably necessary that the centre wire should describe a vertical circle, and that the moveable wire be parallel to it; this latter precaution however would not be necessary—could the bisection be made at the exact point of its intersection with the horizontal wire; but this not being accomplishable in practise, in consequence of the want of light at this part of the field, by reason of the shadow of the aperture through which the observation is made;—it becomes necessary when parallelism cannot be obtained, to allow for its effect :—In the case of the Madras Transit ;—since the application of the steel pivots, the adjustment of the moveable wire for parallelism has proved insufficient; hence the readings of the Reflecting Collimator which now follow, are not those immediately read off from the instrument, but the readings as corrected for want of parallelism.

In the table which follows, these corrected readings of the Reflecting Collimator divided by 2, or C + L * are given; —in which C (as noted above) represents the error of collimation, and L the error of Level. The quantity L+P, is taken from the level observations at pages 5-7, save that for the days intermediate between those on which the level was observed, I have employed corresponding intermediate values. For the observations between the 1st November 1836 and 18th January 1837—having been deprived of the means of measuring angular distances, by the loss of the micrometer, I now placed a small Mark upon the pier which had hitherto supported the old North Meridian Mark, and as nearly as possible in the direction of the meridian; my object was with the level, to render the amount L=0 by adjustment; and then, the reflecting collimator allowing me to adjust for any amount of Collimation C, the azimuth error would remain the only unknown: hence the observations made in the interval just stated do not require correction for error of Collimation. On the 18th January 1837 having applied the new micrometer, and for convenience sake produced a small collimation error-I recommenced the measurement of the errors of Collimation as they had previously been conducted before the Storm.

Illuminating Pivot East, the reading was $+13^{\prime\prime}, 81 = (C+L) \times 2$

West, $-5,43 = -\overline{C + L - 2P \times 2}$

^{*} In Vol. III. page 17 line 34 et seq., I have committed an unaccountable mistake and an oversight;—1st in stating the reading of the Reflecting Collimator tolbe $(C+L+P) \times 2$,—and 2ndly, in omitting a correction due to the want of parallelism of the centre and moveable wires. As the numbers stand in Vol. III. they are however right, or very nearly so, in consequence of the correction for want of parallelism amounting to 7 or 8 tenths of a second—nearly that of P;—thus, the reading of the last column or 2 P, should be P+...,75. P=-0...,77. And for lines 1—5 page 18 the following should be substituted—

assuming P = -0'', 80, we get L = 1'', 29 E. and C = 5, "61; whereas from the level Observations we find L = 2'', 11 E; and, from the Observation of the N. and S. Marks C = 6, "15, and from inversion 6", 39.

ERROR OF COLLIMATION, &c.

	Observed	Azimuth	$N+S+\theta$		Ref. Col.	TID	D:0	
1836.			2	Remarks, &c.	2	L+P	Diff or C-P	Р
	N.	S.	or		or	1		
			Ĉ		C + L			
	"	"	"		"	17	"	11
	1 + 38,35	-44,24	+10,07					4
	2 38,15 3 38,18	44,41 44,68	9,89 9,77		+14,65	+3,52	+11,13	-1,36
	4 38,15	44,51	9,84		14,45	3,49	10,96	1,12
	5 38,18	44,75	9,73			0,10	10,00	-,.~
	38,08	44,61	9,75		Ì			
	7 38,18	44,41	9,90		14,42	2,82	11,60	1,70
	8 38,15	44,58	9,80			ļ		
	9 38,25	44,53	9,85	7.4 04 04	1404	0.07	11.07	1 7 50
10		44,58	9,78	Mean=9",84	14,24	2,87	11,37	1,59
1 19		$ \begin{array}{c c} 44,55 \\ 44,45 \end{array} $	9,71				1	1
1:		44,45	9,93		§ 1 4,61	3,54	11,17	1,24
Ĩ.		44,20	9,99		14,82	,01	1	.,~.
1.		44,03	10,02		14,49	3,51	10,98	0,96
1		44,06	10,07		14,16	3,48	10,68	0,61
1		44,10	10,07					
1		43,82	10,16		10.07	0.11	10 54	0.43
1		43,82	10,13	Mean=9″,99	13,65 12,69		10,54	0,41
20 2		44,17	9,90	Mean=9,99	12,09	$3,11 \\ 3,12$	9,58	$ +0,32 \\ -0,02$
29		44,10	10,13		10,20	0,12	10,17	
2		43,90	10,21					
24	4 38,39	44,31	10,06		12,36	3,03	9,33	+0,73
2.		44,03	10,07					
20		44,07	10,10		12,53	3,15	9,38	+0.72
2		43,97	10,31		14,32	3,28	11,04	-0,73
23 29		$ \begin{array}{c c} 44,21 \\ 44,41 \end{array} $	10,07		13,13	3,22	9,91	+0,16
30		44,41	9,95	Mean=10",10	12,70	2,88	9,82	+0.13
3		44,51	9,87		12,87	2,88	9,99	_0,12
Feb.	1 38,25	44,24	10,02		12,78	2,60	10,18	0,16
	2 38,15	44,27	9,96		10.00			
	3 38,32	11.00	10.10		13,29	2,66	10,63	-0,56
	4 38,36 5 38,12	44,00 44,17	10,19 9,99		13,47 12,77	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	10,72 9,93	-0,53 +0,06
	6 38,36	44,17	10,07		1~,//	2,04	3,30	0,00
	7 38,43	44,07	10,19		13,29	2,95	10,34	015
	8 38,33	44,14	10,11		13,47	3,06	10,41	030
	9 38,18	44,31	9,95					{
1		44,17	10,09	Mean=10",05		1		l
1		44,31	10,02					
1		44,37	10,11		12,95	2,45	10,50	0.52
1		44,71	10,12		12,95	2,49 2,39	10,38	0,53 0,26
1		44,85	9,96		-~,//	~,00	10,00	0,20
1	6 38,65	44,85	9,91		12,43	2,21	10,22	0,31
]	7 38,69	44,85	9,93		12,60	2,10	20,50	-0,57
1		44,88	9,86					
1		44,65	9,77	SI took out the	ł	1.00	0.00	
2	$\begin{array}{c cccc} 0 & 39,32 \\ 1 & 39,76 \end{array}$	45,27	10,04 10,30	object glass. Mean=9″,90	11,40 12,43	1,60 1,60	9,80	$ +0,24 \\ -0,53$

		Observed	Azimuth	$ N+S+\theta $	anna an	Ref. Col.			
18	36.			2	Remarks, &c.	2	L+P	Diff. or C—P	P
		N.	S.	or C		$\mathbf{C} \stackrel{\mathrm{or}}{+} \mathbf{L}$			
	·····	"	"	"	uidinanayennesidin gereer	"	"	"	11
Feb.	22	+39,59		+					
[23	39,66	$45,\!64$	10,03		12,08	+2,05	10,03	0 ,00
	24	38,98	45,34	9,84		[Į		-0,24
ļ	25	39,15	45,47	9,86		12,43	2,40	10,13	-0,27
	26	39,01	45,37	9,84		13,12	2,66	10,46	0,62
	27	38,91	45,55	9,69		13,29	2,47	10,82	1,13
	28	38,84	45,45	9,72					
	29	38,87	45,19	9,86					
Mar.		38,87	45,00	9,95	75 04 05	13.65	2,19	11,46	1,51
1	2	38,98	45,02	10,00	Mean=9",91	12,95	2,40	10,55	0,55
1	3	38,87	45,27	9,82		12,43	2,60	9,83	0,01
	4	38,94	45,12	9,93		13,12	2,60	10,52	0,59
	5	38,87				13,02	2,60	10,42	
l	6	39,08				12,69	2,37	10,32	
	7	38,87		10.00		12,26	2,15	10,11	
Ì	8	38,87	44,75	10,08		11.00	1 1 70	0.51	
	9	39,01	44,92	10.00		11,23	1,72	9,51	1069
l	10 11	39,01 38,81	44,92	10,06		11,06 11,06	1,68 1,68	9,38	+0,68
	12	38,94				10,54	1,63	8,91	1
1	12^{12}	38,91				10,54	1 1,00	0,91	
	14	38,91				10,71	1,32	9,39	
ļ	15	38,77	45,05	9,88		10,71	1,0~	0,00	1
	$\overline{16}$	38,77	45,37	9,72		10,94	1,38	9,56	+0,16
1	17	38,52				10.71	1,56	9,15	1
	18	37,88	H anger (1997)		ļ	10,02	1,74	8 28	
	19	38,08			Mean of 67	10,20	1,48	8,72	
	20	38,59			$= +9^{\prime\prime},96$	10,20	1,48	8,72	
	21	38,49	45,02	9,75					

The extreme difficulty which has hitherto attended the keeping in view of the South Meridian Mark, by reason of the rapid growth of the trees which intervene between it and the Observatory, has at length determined me to give it up altogether; I do this with less reluctance than I otherwise should have done, from the consideration of its instability, and from the persuasion I feel of the Reflecting Collimator being well qualified to supersede the use of two Marks. If we now take the mean of the values in the last column we get $P = -0^{"}$, 40 whereas from a similar number of observations in 1836, Vol. III. it came out—0", 77, and from observations at various times with the spirit level (page 1), we obtained for the value of P,—0", 83; hence the assumption of P, to be—0", 70 which has been done in the following computations, cannot be far from the truth.

1836.		L+P	$\begin{array}{c c} \hline Ref. Col. \\ \hline 2 \\ or \\ C+L \\ \end{array}$	Diff. C—P	Remarks, &c.
March April	23 25 26 28 29 1 2 4 6 7	" + 0,88 0,80 0,72 0,86 1,05 1,10 0,87 0,41 0,05	$\begin{array}{c} '' \\ +10,02 \\ 10,02 \\ 9,85 \\ 9,85 \\ 9,85 \\ 9,51 \\ 9,85 \\ 10,02 \\ 10,54 \\ 11,23 \end{array}$	" +9,14 9,05 9,13 8,99 8,46 8,75 9,15 10,13 11,28	Mean of $10 = +9,32$
May	$\begin{array}{c} 9\\11\\12\\14\\15\\16\\19\\20\\21\\22\\24\\256\\27\\28\\1\\234\\6\\7\\9\end{array}$	0,15 + 0,13 0,60 0,49 0,38	$\begin{array}{c} 10,72\\ 9,16\\ 9,68\\ 10,89\\ 11,23\\ 9,94\\ 10,89\\ 10,02\\ 10,37\\ 10,20\\ \hline 10,71\\ 10,20\\ 9,51\\ 10,37\\ 10,19\\ 10,20\\ -10,10\\ 10,10\\ 10,10\\ 10,10\\ 10,44\\ 9,08\\ 9,16\\ \end{array}$	8,71 $8,77$ $9,33$ $9,66$ $10,42$ $9,54$ $10,58$ $9,31$ $9,26$ $9,44$ $10,53$ $10,13$ $9,62$ $10,52$ $10,06$ $-9,60$ $9,61$ $9,72$ $9,83$ $10,24$ $8,83$ $9,66$	$\therefore C = +8,62$ Mean of $10 = +9,50$ $-0,70$ $\therefore C = +8,80$ Mean of $12 = +9,86$ $-,70$ $\therefore C = +9,16$
June	$ \begin{array}{c} 11\\ 13\\ 16\\ 20\\ 23\\ 25\\ 27\\ 31\\ 2\\ 5\\ 11\\ 15\\ \end{array} $	$ \begin{array}{c} 1,70\\ 0,55\\ 1,25\\ 1,47\\ 1,32\\ 1,53\\ 1,53\\ 1,12\\ 1,47\\ 1,23\\ 1,07\\ 1,33\\ \end{array} $	12,95 $12,26$ $12,60$ $10,56$ $10,97$ $12,43$ $11,23$ $9,68$ $10,89$ $11,23$ $12,07$ $14,16$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	∴ C= +9,16 Hot land winds set in Mean of 6= +1 [%] ,21 <u>-0,70</u> ∴ C +12,51

* This is omitted in taking the mean.

1836.	L+P	$\begin{array}{c} \text{Ref. Col.} \\ 2 \\ \text{or} \\ C + L \end{array}$	Diff. c— P	Remarks, &c.
June 17 18 20 21 25	0,17 0,43 0,68	$ \begin{array}{r} " \\ + 12,60 \\ 11,75 \\ 11,06 \\ 11,40 \\ 10,89 \\ \end{array} $	$ \begin{array}{r} $	Mean of $10 = +12,15$ - 0,70 $\therefore C = +11,45$
29 July 1 4 7 8 12 13 13 18 19 20 21	$ \begin{array}{c} 1,05 \\ +0,15 \\ -0,16 \\ 0,46 \\ 0,62 \\$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	11,39 12,28 *10,87 12,17 12,54 13,57 12,88 13,33 11,35 11,62 11,74	Mean of $10 = +\frac{12,29}{-0.70}$ $\therefore C = -\frac{0.70}{+11,59}$
23 28 27 29 31 August 1	5 0,26 0,10 +0,26 0,06 -0,14 +0,54	10,37 11,45 11,57 10,71 10,46 11,40 12,43 11,45	10,80 11,71 11,67 10,45 10,40 11,54 11,89 10,86	Mean of $6 = +$ ^{"11,10} - 0,70 $\therefore C = -10,40$ The observations with the reflecting col- limator from the 11th to the 27th August
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccc} 4 & & & & \\ 5 & & 0,64 \\ 6 & & 0,85 \\ 7 & & & \\ 8 & & 1,06 \\ 9 & & & \\ 2 & & 1,53 \\ \end{array} $	12,07 11,57 10,97 11,31 10,80 10,45 10,80	11,48 10,98 10,33 10,46 9,74 9,27	were made by my assistant Annutachary, to whom I had confidently entrusted them during my absence from Madras;—having on the 29th discovered a strange difference from the observation made on the 27th by the Assistant; I requested him to examine my bisection, when—the cause of disagree- nent was fully explained, by his reading off the complimental number of divisions
	$\begin{array}{c ccccc} 4 & 1,20 \\ 6 & 1,38 \\ 7 & 1,57 \\ 8 \\ 9 & 1,39 \\ 6 & 1,39 \\ 7 & 2,21 \end{array}$	10,28 10,37 10,71 10,63 14,32 14,24	8,92 9,17 9,33 9,06 12,93 12,85	from the micrometer head instead of the true;—I might readily by allowing for this set the matter right, but since the collima- tion error appear unchanged, I have pre- ferred cancelling the ref. coll. observations.
	$\begin{array}{c ccccc} 9 & 1,83 \\ 1 & 1,78 \\ 3 & 1,83 \\ 5 & 1,87 \\ 7 & 2,01 \\ 9 & 2,15 \end{array}$	14,32 14,49 14,83 15,18 15,18 15,36	12,49 12,71 13,00 13,31 13,17 13,21	

183	6.	L+P	Ref. Col. 2 or C+L	Diff. C-P	Remarks, &c.
				<i>"</i>	
Sept.		+1,93	+ 15,36	+ 13,43	
	23 26	1,65	15,01	12,49	
	20	2,52 2,59	14,83	12,49	
Oct.			14,00	12,-1	
000	1 2 3 6 8	2,36			
	3	2,12	15,18	13,06	
1	6	2,23	15,01	12,78	Mean of $14 = +12,86$
	8	2,23 2,92	15,35	12,43	$\therefore C = \frac{-0.70}{+12,16}$
	_				$\therefore C = +12,16$
	10	2,23	12,60	10,37	
	12		13,38	11,69	
	14 1 6	1,44	13,12	11,68	
	10	1,17 1,81	13, 12 12,95	11,95 11,14	
	21	1,97	12,95	10,98	
	$\tilde{24}$	2,03	13,21	11,18	
	24 26 29	1,92	13,29	11,37	Mean of $9 = +11,25$
1	29	3,73	14,66	10,93	- 0,70
	30				$\therefore C = +10,55$

A hurricane had shattered the S. E. door of the Observatory to pieces, and broken the micrometer screw of the Transit Instrument-

1836.

Nov. 5, Put in a new set of wires and adjusted the collimation of the centre wire by means of the reflecting collimator.

9, Exar	nined the posi	ition of the a	kis of collima	ation by the re	ef. coll.—found	correct.
12,	do.	do.	do.	do.		
17,	do.	do.	do.	do.		
22,	do.	do.	found	l the wire a lit	tle to the E. ad	usted it.
Dec. 1,	do.	do.	found	l the wire a lit	tle to the E. ad	usted it.
6,	do.	do.	do.	found	d correct.	
9,	do.	do.	do.	dò.	do.	
13,	do.	do.	do.	do.	do.	
21,	do.	do.	do.	do.	do.	
24,	do.	do.	do.	do.	do.	
1837						
Jany. 2,	do.	do.	found	l the wire a lit	tle to the E. ad	justed it.
9,	do.	do.	do.	found	correct.	
14,	do.	do.	found	the wire a lit	tle to the E. ad	justed it
18. I pu	arposely move	ed the wires a	about 10" to	the East.		-

18, I purposely moved the wires about 10 to the East.

183	7.	LP	$\begin{array}{c c} Ref. Col. \\ \hline 2 \\ or \\ C+L \\ \hline \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	$\begin{array}{c} \text{Diff.} \\ \text{or} \\ \text{C+P} \end{array}$	Remarks, &c
Jany.	$\frac{22}{25}$	+2,67	-10,78 9,45 10,34	-13,45 12,06 12,89	
Feb.	31 4 7	2,15 2,50 2,47	9,51 8,31 7,00	11,66 10,81 9,47	Mean of 7 = $-1^{''}_{1,48}$ P = $-0,70$
	10 10 14	4,20 4,20 4,37	5,84 10,62 10,63	10,04 14,82 15,00	C = -10,78 By invers. $C = -10,04Increased the coll. error.$
Marcl	$16 \\ 21 \\ 27 \\ 1 4$	4,02 3,20 4,11 4,76	11,28 10,63 10,52	15,30 14,74 15,28	Painted the Transit Instrument.
WEATCH	9 13 17	3,9 1 3,2 1 3,35	$11,11 \\ 11,60 \\ 10,95$	15,02 14,81 14,30	Inverted the axis twice, when C was found
	21 24 28 31	2,70 2,79 3,16 1,91	$11,93 \\ 12,59 \\ 11,76 \\ 13,27$	14,63 15,38 14,92 15,18	-14",82 I took out the object glass to remove a screw which was ratling about on the inside of the telescope;—the screw appeared to be
April	3 6 9 12	1,70 1,62 1,17 1,95	13,58 14,90 14,65 13,66	15,28 16,52 15,82 15,61	long to the rackwork motion employed for moderating the light;—after which . by inversion I found $C = -14'',50$.
	15 18 81 24	1,90],36 2,41 1,04	13,08 13,08 11,44 14,44	14,98 14,44 13,85 15,48	Mean = -15,07 P = -0,70 Q = -0,70 R = -
May	$27 \\ 30 \\ 3 \\ 6 \\ 9 \\ 12$	0,88 1,38 0,78 0,75 0,66 0,27	11,93 11,93 12,35 12,35 12,93 12,93 12,43	12,81 13,31 13,13 13,10 13,59 12,70	$\therefore C = -14,37$ Mean of $7 = -13,09$
	15	0,25 +0,07	13,25 11, 44	13,00 11,51	P = -0,70 $\therefore C = -12,39$ Hot land winds set in.
June	21 24 27 30	0,74 1,00 0,16 1,84 2,69	10,83 10,67 10,94 11,52 10,73	$11,57 \\ 11,67 \\ 11,10 \\ 13,36 \\ 13,42$	
0 4110	2 5 8 11 14	0,93 0,78 0,55 0,07	11,19 11,44 11,11 10,70	$12,12 \\ 12,22 \\ 11,66 \\ 10,77$	Mean of $10 = -1^{''}_{1,94}$ P = -0.70 $\therefore C -11.24$
	17	1,12	11,35	12,47	

1837	7.	L+P	$\begin{array}{c} \text{Ref. Col.} \\ 2 \\ \text{or} \\ C + L \end{array}$	Diff. or C + P	Remarks, &c.
June July	20 23 26 29 2 5 8 11 14	$\begin{array}{c} & \\ + 0,58 \\ 1,28 \\ 1,23 \\ 0,97 \\ 0,72 \\ 1,10 \\ 0,74 \\ 0,95 \\ 1,21 \end{array}$	$\begin{array}{c} \\ & 11,27 \\ 11,77 \\ 11,44 \\ 11,10 \\ 11,44 \\ 10,45 \\ 11,60 \\ 11,11 \\ 10,86 \end{array}$	$\begin{array}{c} & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $	Mean of $10 = -\frac{12,23}{P = -0,70}$
Augus	17 20 23 26 29 st 1 4 7 10 13 16 19 22 25 28 31		$11,11 \\11,60 \\10,37 \\10,29 \\10,13 \\10,94 \\10,62 \\10,29 \\10,29 \\10,29 \\10,29 \\10,29 \\10,29 \\10,29 \\10,45 \\9,46 \\10,86 \\11,27 \\$	11,99 $13,07$ $11,85$ $11,71$ $11,16$ $11,78$ $12,44$ $12,70$ $11,93$ $12,51$ $13,27$ $13,42$ $11,83$ $10,96$ $12,72$ $13,09$	$\therefore C = -\overline{11,53}$ On this day I left Madras, for the purpose of making observations of the magnetic dip and intensity, towards the South, along the coast of India; the observations of the reflecting collimator were made during my absence by Ragavachariar Bramin. Mean of $16 = -12,28$ P = -0.70 $C = \overline{11,58}$
Sept.	$3 \\ 6 \\ 9 \\ 12$	1,05 1,75 1,45 1,40	13,58 13,17 13,99 13,83	$ \begin{array}{r} $	I should hesitate to employ these numbers, from the strong probability they exhibit of error having been committed in the readings of the reflecting collimator—were it not that
Oct.	$ \begin{array}{r} 15 \\ 18 \\ 21 \\ 24 \\ 27 \\ 30 \\ 3 \\ 6 \\ 9 \\ 12 \\ 15 \\ 18 \\ 21 \\ 24 \\ 27 \\ 15 \\ 24 \\ 27 \\ 27 \\ 24 \\ 27 \\ 27 \\ 24 \\ 27 \\ 27 \\ 24 \\ 27 \\ 27 \\ 27 \\ 24 \\ 27 \\ 2$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	12,10 $12,27$ $11,62$ $10,29$ $11,60$ $11,44$ $11,77$ $12,11$ $11,52$ $11,44$ $11,19$ $11,69$ $10,62$ $10,86$ $11,02$	13,49 13,53 12,53 11,13 13,20 11,94 13,94 14,37 13,65 13,34 13,96 13,22 13,36 13,40	the following note is appended to the observa- tion of the 3d September by the Assistant Ragavachariar Bramin. "The equal distances from wire to wire is broad than before."*
Nov.	30 2 5	2,60	10,94 5,67 5,67	13,54 12,45 12,49 	Mean of $18 = -\frac{13,14}{P = -0.70}$ $\therefore C = -12,44$

* Given verbatim et litteratim from the Level Book.

1837.	L+P	$\begin{array}{c c} Ref. Col. \\ \hline 2 \\ or \\ C+L \end{array}$	Diff. or C+P	Remarks, &c.
Nov. 8 11 14 17 20 23 26 29 Dec. 2 5 8 11 14 17 20 23 26 29	5,90 5,56 5,10 4,78 5,18 5,29 5,00 5,09 4,99 5,33 5,70 3,58 2,85 2,25 2,50 2,40	$ \begin{array}{c} " \\ 5,18 \\ 5,34 \\ 5,18 \\ 6,00 \\ 6,50 \\ 5,89 \\ 5,51 \\ 5,67 \\ 5,51 \\ 5,51 \\ 5,43 \\ 5,95 \\ 7,90 \\ 7,98 \\ 10,12 \\ 9,79 \\ 9,79 \\ 9,79 \\ 9,79 \\ 9,46 \\ \end{array} $	" 	Mean of $18 = -11'', 29$ P = $-0'', 70$ C = $-10'', 59$

In the reduction of the observations, these mean values of C, together with the reduction to the centre wire (given at pages 1-3), and the correction for Diurnal Aberration, have been applied to each observation; thus, for any day in December 1837, the correction in time $= -\frac{.706 + .053 + .020}{\sin N. P. D.} = \frac{0.779s}{\sin N. P. D.}$

ERROR OF AZIMUTH.

If the Transit Telescope be directed to the north horizon, the divisition of the centre wire from the meridian mark is represented by $N + C_{,}$ (where C represents the error of collimation); and, if a represent the angular deviation of the meridian mark from the meridian,—

In Volume III p. 20, the value of $a - a^1$ was found 93",52, and, since we have found (page 5) the value of $a + a^1$ to be 26",03, we may state the North Mark to be situated 33",74 to the West of the Meridian, and the South Mark to be situated 59",77 to the East of the Meridian.

The observations of 1836 furnish a few transits of Polaris with which we will now re-examine the above values—

102	-	(bser	ved	ck	or.	ation 3.	Correct	ion for		Mean Right Ascension January 1, 1836.		on		
183	0		Trans	sit.	G	Error.	Aberration &c.	Level.	Colli- mation.						
ĺ		h.	m.	s.	m.	s.	s.	s.	s.		m				1
Dec.	24	1	2	2,87	 I,	10,27	+3,99	-2,47	+23,75	1	1	17,87	+a	×	2,370
1	25			2,99		12,90	4,81	,				16,19	$a^{\mathbf{i}}$		
1	26			7,27		15,15	5,61					19,01	$a^{\mathbf{ii}}$		
	27			7,17		15,98	6,38					18,85	$a^{ ext{iii}}$		
	28			8,99	l	17,37	7,13					20,03	a^{iv}		
	29	1		9,71		18,10						20,71	av		
	30	1		8,75	}	19,10	8,50					19,43	a^{vi}		
1	31			6,82		20,80	9,20					16,50	a^{vii}		
183	36			•		•	,					·			
Jan.	2			8,53		21,83	10,64	-2,31	+25,44			21,47	a^{ix}		
1	3	ļ		8,08		22,82	11,40	, í				19,79	$a^{\mathbf{x}}$		
	4			9,50	[23,48	12,19					21,34	$a^{ ext{xi}}$		
	6			4,33		23,23	13,91					18,14	$a^{ m xiii}$		
1	7			3,83		22,20	14,80	ţ				19,56	$a^{{ imes}{ im$		
1	8			59,27	1	20,62						17,47	$a^{\mathbf{x}\mathbf{v}}$		
ł	10			56,67		18,08	17,39		1			19,11	a^{xvi}		
		1			[

POLARIS.

where a^{i} , a^{ii} , &c. represent the Azimuth errors in seconds of space.

POLARIS. S. P.

183	5.	Observed Transit.	Clock Error.	Aberration &c.	Correction for Level. Colli- mation.		Mean Right Ascension January 1, 1836.				
Dec. 183 Jan.	25 26 27 23 29 30 6 1	22,95 23,31 21,48	16,67 17,73 18,55 19,90		s +1,95 +1,83	s. —23,75 —25,44	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	× · 2,408			
	3 5 6	27,67 26,88	23,24 23,30	11,80			$\begin{array}{cccccccccccccccccccccccccccccccccccc$				

We have found above, that any value $a = \frac{a \pm a'}{\frac{2}{2}} + \frac{N \pm S}{\frac{2}{2}}$; in which,—substituting for $\frac{N-S}{2}$, the values found at page 10 &c. we determine.

1835	December	24	a	$=42,27-\frac{a-a'}{2}$
		25	\sim a^{i}	= 42,27
		26	a ⁱⁱ	= 41,25
		27	$ a^{iii}$	= 41,33
		28	$ a^{\mathrm{iv}}$	= 41,45
		29	$ a^{v}$	= 41,43
		30	$ a^{\mathrm{vi}}$	= 41,26
			$ a^{\mathrm{vii}}$	= 41,23
1836	January		$ a^{\text{vili}}$	= 41,29
	-		$ a^{ix}$	= 41,28
		-	<u> </u>	= 41,43
			<u> </u>	= 41,33
			$ a^{xii}$	= 41,46
			$ a^{\text{xiii}}$	= 41,34
		7	$ a^{xiv}$	= 41,30
		_ ~	a ^{xv}	= 41,36
		10	$ a^{\text{xvi}}$	= 41,35

employing these values of a, a^{1} &c. with the above observations, we obtain the

MEAN A. R. OF POLARIS, JAN. 1, 1836.

From observations at the superior culmination. h. m. s. " *1 1 19,03 + $(41,46 - \frac{a-a^{1}}{2}) \times 2,370 = 1$ 0 53,10 - $(41,45 - \frac{a-a^{1}}{2}) \times 2,408$ from which we readily deduce $a - a^{1} = 93^{"},76$; or $a = 33^{"},87$ and $a^{1} = -59^{"},89$, agreeing very nearly with the hitherto supposed values. In the reduction of the Observations from January 1st to March 16th 1836, the Azimuth correction has consequently been computed from the formulæ $\frac{N-S-93^{"},76}{2}$

For the remaining days of the month of March, and up to the end of October 1836,—in consequence of the difficulty of keeping the South Mark in view, (as has been already explained), the distance of the centre wire from the North Mark, or $a \pm N \pm C$ only, was observed; (in which, a has been assumed 33", 87 as just found, and the values of C have already been given at page 11 &c). On the 3d November 1836,—being deprived of the means of measuring the distance of the centre wire from the meridian mark,—as a temporary measure, I adjusted it to the eastern side of it, (as being more nearly in the meridian than its centre); finding however that the azimuth corrections was still inconveniently large,—on the 22d November the Instrument was adjusted to a temporary circular disc, which I had caused to be affixed to the pier which had hitherto supported the old mark; I had intended to have placed this new mark " in the meridian", but from some mistake in the measurement, an alteration of only half the required amount was made;—to remedy this, on the Sth December

h. m. s. Mean A. R. January 1, { 1836 1 1 6,06 1837 22,15

1836, I adjusted the instrument to another mark—(a parallelogram), which I had caused to be permamently affixed to the pier, at a still further distance from the old mark, towards the east; this being conveniently situated,—from the 8th December 1836 I have continued to adjust the centre wire when necessary to the mark, instead of measuring as hitherto its distance from it. Calling a^n , the azimuth from the meridian, of the side of the old mark, to which the instrument was adjusted from the 3d to the 22d November inclusive; a', the azimuth of the circular disc employed from 23d November 1836 to 17th January 1837, and a, the azimuth of that since employed we can,—from the observations of *Polaris* made about this time, compute their values.

1836	Observed	Clock Error.	ation c.	Correct	ion for	Mean Right Ascension
1030	Transit.	Brick	Aberration &c.	Level.	Colli- mation.	January 1, 1837.
Nov. 9 10 11 12	0 45,00 0 47,00		s. 17,55 16,92 16,58 16,23 15,87	 	·····	h. m. s. 1 1 49,80 $-\alpha'' \times 2,368$ 50,07
	5 1 18,00 6 1 23,65 7 1 31,67	0 19,50		· · · · ·	• • • • •	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

POLARIS.

POLARIS S. P.

	1000	Observed -		ł.	j	ation	Correct	ion for	Mean Right Ascension
	1836	Trai	osit.	Clo	Error.	Aberration &c.	Level.	Colli- mation.	January 1, 1837.
	ec. 20 26 1837 an. 2 3 4 5 6 7 8	$ \begin{array}{r} 13 & 0 \\ 12 & 59 \\ 12 & 59 \\ 59 \\ 59 \end{array} $	4,33 59,00 52,17 51,25	+1 1 1 1 1 1 1 1 1 2	53,75 55,00 56,32 3,63 1,95 0,62 59,32	s. +5,92 10,37 15,81 16,61 17,41 18,20 18,99 19,80 20,59	· · · · · · · · · · · · · · · · · · ·		h. m. s. 13 1 17,11 $-a \times 2,408$ 16,37 $-$ 23,56 $-$ 24,61 $-$ 16,97 $-$ 18,90 $-$ 16,04 $-$ 11,35 $-$ 12,52 $-$
etas da segundara d	9 10 11	1 1 1	,	0	56,21	21,38 22,17 22,97	0 	••••	$ \begin{array}{c} 18,78 \\ 16,71 \\ 18,84 \\ \end{array} $

Taking the mean, we have from

Mean A. R. Polaris January 1, 1837.

					m.					
5	observations above F	Pole		 1	1	51,50	<u>+</u> a'	'×	2,368	
3	andre management and a second second state and a second second second second second second second second second			 1	1	40,81	<u>+</u> a'	×	2,370	
23	and the second		• • • •	 1	1	30,28	<u>+</u> a	×	2,370	
12	below			 13	1	17,65	<u>+</u> a	×	2,408	
-								-		

for the determination of a'' and a' we must now employ the already found mean plan for January 1, 1837 = 1h. 1m. 22,15s.

when	a″		12″,40	West
	a'	_	7″,87	
	a		2″,64	

As a confirmation of the value of a, I have lately measured the angular distance between the old mark and the one now in use, when, from the mean of several measures —

The new mark appeared to be situated 31",29 to the East of the old mark. The old mark we have found to be West of the meridian. 33",87 ... The new mark is situated 2",58 West of the meridian. And for a confirmation of the situation of the mark which gave rise to the value a'',—this I find to be situated 21",97 East of the old mark. The old mark is situated 33",87 West of the meridian. $a^{\prime\prime}$ 11".90 West of the meridian. ____ **.**•.

We will now proceed with the values of N & S given at page 11 &c. to compute the values of (A,) the deviation in Azimuth—

1836	N_S	A or NS-93",76 2	Remarks, &c.	1836	n—s	A or NS93'',76	Remarks, &c.
Jan. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 Feb. 1 2	$ \begin{array}{c} & & \\ & & $	5,63 5,56 5,51 5,70 5,84 5,76 5,72 5,91 5,94 5,82 5,67 5,72	Mean of $10 = -5^{*}, 21$ Mean of $10 = -5^{*}, 74$ Mean of $10 = -5^{*}, 64$	Feb. 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 23 24 25 26 27 28 29 March 1 2 3 4 8 10 15 16		4,59 4,40 4,23 4,72 4,57 4,69 4,65 4,74 4,85 4,94 4,88 4,81 4,85 5,07 4,91 4,97	Mean of $10 = -5^{\prime\prime},63$ Mean of $9 = -5^{\prime\prime},26$ I took out the object glass to clean it. Mean of $17 = -4^{\prime\prime},75$

The South Mark being invisible (by reason of trees having grown in the way) the observation of the North Mark only will be attended to in future.

1836	N	С	N-C- 33",87 = A	Remarks.	1836	N	С	N-C- 33'',87 = A	Remarks.
Mar. 22 23 24 25 26 28 29	38,39 38,32 38,42 38,18	•••	$ \begin{array}{c} $		Mar. 30 31 April 1 2 3 4 5	38,39 38,39 38,32 38,18	•••	"-4,17 .4.20 4,10 4,10 4,17 4,31 4,31	Mean of 10 = - 4″,20

Error of Azimuth.

1836	N	С	N-C- 33 ^{''} ,87 = A	Remarks.	1836	N	С	N-C- 33'',87 = A	Remarks.
7 8 9	38,15 38,22 38,46	8,80 ••	$4,34 \\ 4.45 \\ 4,01$		30 31 June 1	43,13 43,21	 11,45 	3,07 2,19 2,11	Mean of $11 = -3^{\prime\prime}, 45$
· 10 11 12 13 14 15	38,36 37,91 37 98 38,29	••	4,42 4,31 4,76 4,69 4,38 4,25	Mean of 10 = - 4",27	2 3 4 5 6 7	43,06 43,34 43,95 43,56	•••	1,98 2,19 2,26 1,98 1,37 1,76	
16 17 18 19 20 21	38,35 38,65 38,39 38,42	••	$\begin{array}{r} 4,32\\ 4,02\\ 4,28\\ 4,28\\ 4,25\\ 4,38\\ 4,49\end{array}$	Mean of 10 == 4″,38	8 9 10 11 12 13	$\begin{array}{r} 43,56\\ 43,56\\ 43,24\\ 43,49\end{array}$	•••	1,87 1,76 1,76 2,08 1,83 2,01	
22 23 24 25 26	38,49 38,46 38,70 38,78 38,81	9,16 	4.18 4,57 4,33 4,25 4,22	Mean of 10 == 4",00	14 15 16 17 18	43,13 42,65 42,62 42,83 42,96	•••	2,19 2,67 2,70 2,49 2,36	
27 28 29 30 May 1 2	38,66 38,52 38,66	•••	4,16 4,37 4,51 4,37 4,74 4,81	Mean of 10 = - 4″,37	19 20 21 22 23 24	$\begin{array}{r} 43,\!13\\ 42,\!99\\ 43,\!28\\ 42,\!86\end{array}$	•••	2,43 2,19 2,33 2,04 2,40 2,46	Mean of $10 = -2^{"},39$
3 4 5 6 7 8	38,66 38,49 38,42 38,35 38,35	••• •• ••	4,37 4,54 4,61 4,68 4,68 4,09		25 26 27 28 29 30	42,76 42,96 42,96 42,99 42,99	 11,59		
9 10 11 12 13	38,84 41,07 41,97 41,68	12,51	4,19 5,31	Mean of 10 = — 4",57	July 1 2 3 4 5	$\begin{array}{r} 42,62 \\ 43,21 \\ 43,13 \\ 42,89 \end{array}$	•••	2,57 2,84 2,25 2,33 2,57 2,40	Mean of $10 = -2'', 47$
14 15 16 17 18	42,24 41,79 41,61 41,93 42,30	· · · · · · · · · · · · · · · · · · ·	4,14 4,59 4,77 4,45 4,08	Mean of 8 = - 4″,39	6 7 8 9 10	43,17 43,14 43,31 43,31	•••	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
19 20 21 22 23 24	42,65 42,72 42,86 42,86		4,05 3,73 3,66 3,52 3,52 3,52 3,42	Mean or 6 = - 4,59	11 12 13 14 15 16	43,31 43,59 43,41 43,66	 	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Mean of $10 = -2^{\prime\prime}, 23$
25 26 27 28	42,89 42,93 42,96	•••	3,49 3,45 3,52 3,35		17 18 19 20	43,83 43,91 43,76	•••	1,63 1,55 1,70 1,73	

1836	N	С	N—C— 33",87 = A	Remarks.	1836	N	С	N—C— 33'',87 = A	Remarks.
July 2 1 22 23 24 25 26 27 28	43,54 43,38 43,56 43,59 43,63	10,40 	// 1,92 0,73 0,89 0,71 0,68 0,64 0,68	Mean of 9 — — 1″,77	Sep. 9 10 11 12 13 14 15 16	$\begin{array}{r} 43,31 \\ 43,13 \\ 43,00 \\ 42,89 \\ 42,77 \\ 43,28 \end{array}$	••	2,72 2,90 3,03	Mean of $10 = -2'',75$
30 31 Aug. 1 2 3 4 5 6	43,87 43,69 43,48 43,66 43,63 43,31 43,34 43,32	• • • • • • • • • • • • • • • • • • •	0,40 0,58 0,79 0,61 0,64 0,96 0,93 0,75	Mean of 10 <u>—</u> — 0″,67	$ \begin{array}{c c} 17 \\ 18 \\ 19 \\ 20 \\ 21 \\ 22 \\ 23 \\ 24 \\ \end{array} $	43,17 43,20 43,03 43,31 43,03 43,38 43,38 43,31 43,34	•••	2,86 2,83 3,00 2,72 3,00 2,65 2,72 2,59	Mean of 10 = - 2",88
7 8 9 10 11 12 13 14 15	$\begin{array}{r} 43,17\\ 43,69\\ 43,69\\ 43,34\\ 43,41\\ 44,01\\ 43,66\\ 43,52\end{array}$	· · · • · • ·	$0,26 \\ 0,61 \\ 0,75$	Mean of 10 == - 0″,83	25 26 27 28 Oct. 2 3 4 5 6 7	43,31 43,03 43,06 42,88 43,39 43,00	••• •• •• ••	2,66 2,72 3,00 2,97 3,15 2,64 3,03 2,65 3,07	
16 17 18 19 20 21 22 23 23 24	43,80 43,83 43,90 43,80 43,69 43,59 43,59	•••	0,58 0.47 0,44 0,37 0,47 0.58 0,68 0,37 0,64	Mean of 10 = - 0",52	8 9 10 11 12	43,31 43,62 39,18 39,28 39,45 39,55 39,55	10,55 	$2,90 \\ 2,72 \\ 2,41 \\ 5,24 \\ 5,14 \\ 4,97 \\ 4,87 \\ 4,90 \\ 466$	Mean of 13 — — 27,81
25 26 27 28 29 30 31 Sep. 1	43,63 43,69 45,30 44,34 44,07 44,14 44,07	12,16	0,64 0,58	Mean of 5 = - 0",59	16 17 18 19 20 21 22 23	40,46 39,76 39,93 39,79 39,52 39,93 39,86		*3,96 4,66 4,49 4,63 4 90 4,49 4,49 4 56 4,63	
2 3 4 5 6 7 8	43,87 43,90 43,21 43,48 43.55	· · · · · · · · · · · · · · · · · · ·	2,16	Mean of 7 = - 1",96	24 25 26 27 28 29	39.59 39,67 40,03 40,18 40,36	•••	4,83 4,65 4,39 4,24 4,06	Mean of 19 — — 4″,68

* This is omitted in taking the Mean.

- On the 3rd November 1836 the centre wire was brought to touch the edge of the North mark; hence, from this date up to the 21st November 1836 the Instrumental error in Azimuth was NORTH 12",40 WEST.
- On the 22d November I adjusted the centre wire to bisect a mark which had been erected to the East of the above;—hence, as has already been shewn; —from this date up to the 7th December 1836 the Instrumental error in Azimuth was NORTH 7",87 WEST.
- On the 8th December the Instrument was adjusted to a perman ent mark, which I had caused to be erected nearly in the direction of the meridian, upon the old Northern Pier; hence;—

from the 8th December 1836 to 17th January 1837 the Instru-N 2",64 W. mental error in Azimuth was In the intervals just alluded to, the coincidence of the centre wire with the mark was examined every day at Sun rise and Sun set, and on two occasions —On January 6th, and 8th, a small correction of the bisection was made for a deviation to the East of the meridian.

Since the 18th January 1837, the coincidence of the centre wire with the mark has been examined every day at Sun rise and Sun set, and adjustment made when necessary; hence, if C represent the error of Collimation, the Azimuth error A=C+2'',64; thus—

1837.	C		1
Jan. 18 to Feb. 10	—10,78	- 8,14	I increased the Collimation, and consequently the Azimuth- al error.
Feb. 10—April 26	14,37	11,73	In this interval no adjustment to the mark was found neces- sary.
April 27—May 15	12,39	9,75	On the 27th April an adjustment was made for a deviation of about 2" to the East of the N. Meridian.
May 16-June 14	11,24	8,60	In this interval no adjustment to the mark was found neces- sary.
June 15—July 14	11,53	8,89	
July 15-Aug. 31	11,58	8,94	Observed by my head assistant Ragavachariar-No ad- justment to the meridian was necessary during this pe- riod.
Sep. 1-Sep. 12	1 <i>5</i> ,06	12,42	
Sep. 13—Nov. 5	12,44	9,80	

Nov. 6-Dec. 3110,597,95then existed; but on the evening of the same day he remarks-
" 22nd We can not find that difference but it was seen
right as before."Nov. 6-Dec. 3110,597,95An adjustment was made on the 13th for a deviation of
about 1" to the West.

REDUCTIONS EMPLOYED.

The places of the known stars have been corrected for Aberration, Nutation, and Precession, from the values of a, b, c, d, &c. given in the Royal Astronomical Society's Catalogue, in conjunction with those of A, B, C, D, furnished in the Nautical Almanac; save that a correction has been made when necessary to adapt these latter values to the instant of the Star's Transit.

The table of Refractions employed, is that constructed by Mr. Henry Atkinson, and printed in the 2d Volume of the Astronomical Society's Memoirs, using the "in door" thermometer:—The remaining corrections for the Sun or Planets, have been derived either from the Nautical Almanac, or from Mr. Baily's Astronomical Tables.

In the reduction of the Moon's Place, the ratio of the Polar and Equatoreal Axes of the Earth has been taken at 299: 300

ERROR AND RATE OF THE TRANSIT CLOCK.

The error of the Transit Clock has been determined with reference to the Madras Results given in Vol. II; selecting those stars only which have been frequently observed—which are situated near to the Equinoctial, and which differ less than one tenth of a second from the Greenwich Catalogue.*

In general it has been my custom to divide the hours of observing into "watches" of three hours each, and to observe during each watch three of these

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^{*} The Greenwich Catalogue here alluded to, refers to that of 720 Stars for 1830, published in 1829 or 1830—there have I believe been later catalogues issued from the Greenwich Royal Observatory, but I have not been so fortunate as to obtain a copy.

stars for the determination of the Clock Error; —by this arrangement, any irregularity in the going of the Clock is rendered of little consequence, since the rate is trusted only for one and a half or two hours at most; with regard to the Sun, and the Planets Mercury and Venus, —it frequently happens from clouds or haze that no star has been observed within 6 or 8 hours of their passage; in this case—when the rate has appeared irregular, I have cancelled the observation. In the comparison of the errors of the Clock on one night, with those of another, for the rate, as well as in their employment for the determination of the places of the unknown Stars, it has always been my custom to compare the results of each observer with his own observations only; by which means, the *direct* influence of *personal equation* is avoided; from a recent examination however, I am happy to find, that this perplexing and unaccountable source of error, reaches to a very trifling amount in the observations composing the present volume.

In a former volume I mentioned having endeavored to exclude insects from the works of the clock, by making the case as nearly as practicable air tight; in this particular however I have since been compelled to relax a little, in consequence of the extremely faint beat of the clock being lost by the unavoidable noise of the observer at the circle, or by the least noise of natives or conveyances passing in the road; the result has been that on two occasions during the last two years, I have been able satisfactorily to account for the ill going of the clock by finding a spider's line attached to the pendulum; at other times -other causes apparently have operated; thus, on the 27th January 1836 the clock was cleaned, when from some cause not apparent, it continued to lose on its rate until the 8th March, when it was regulated; after this it continued to lose further upon its rate until the 1st May, when the thick state of the oil upon the escapement was the only apparent circumstance to account for the previous ill going; the oil I had applied was ordinary salad oil, but the temperature of from 95 to 105 Fahrenheit (which is usual for several hours during the day at this time of the year) fully accounts for its having become thick.

1836 Daily Rate.	Remarks.	1836	Daily Rate.	Remarks.
Jan.3 $+1,01$ $0,68$ 6 $-0,09$ 7 $1,17$ $1,17$ 8 $1,67$ 9 9 $1,26$ 10 $1,23$ 11 	On cleaning the Clock I found a spider's line attached to the pendulum. Wound up the Clock.	Feb. 25 26 27 28 29 Mar. 1 2 3 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 25 26 27 28 29 30 31 April 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 29 30 31 4 5 6 7 8 9 10 11 12 23 25 26 27 28 29 30 31 4 5 6 7 8 9 10 11 12 23 25 26 27 28 29 30 31 4 5 6 7 8 9 10 11 12 23 4 5 6 7 8 9 10 11 12 13 14 15 16 17 13 14 15 16 17 13 14 15 16 17 13 14 15 16 17 17 13 14 15 16 17 13 14 15 16 17	s. -4,88 3,96 3,72 4,71 4,92 5,18 4,99 4,81 5,44 5,48 5,46 +1,01 +0,31 0,85 3,70 5,53 5,61 2,69 2,33 3,09 3,16 2,32 2,33 3,48 4,92 4,81 -0,31 0,85 3,70 5,53 5,61 2,32 2,33 3,48 4,99 4,99 4,99 4,92 2,33 3,09 3,16 2,32 2,33 3,48 4,59 4,72 4,99 4,94 5,85 5,536 5,259 4,599 4,855 5,50 5,536 5,259 4,599 4,855 5,959 4,459 4,459 4,599 4,599 4,595 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,536 5,595 4,599 4,855 5,074 5,10	I regulated the Clock.

1836	Daily Rate.	Remarks.	1836	Daily Rate.	Remarks.
19 20 21 22 23 24 25 26 27 28 29 30	s. -5,77 5,38 4,77 4,57 4,57 4,88 4,98 5,05 5,38 5,51 5,04 +2,51 2,33 2,86 3,40 5,75 4,27 4,02 4,27 4,00 3,99 4,29 3,97 4,36 3,99 4,36 3,99 4,36 3,99 4,36 3,99 4,36 3,99 4,36 3,99 4,36 3,99 4,36 3,99 4,69 4,00 5,17 5,38 5,04 5,75 4,17 4,02 4,00 5,04 5,04 5,05 5,75 4,17 4,02 4,00 5,04 5,04 5,00 5,04 5,04 5,00 5,04 5,04 5,00 5,00	<pre>{ Oil thickcleaned and re- gulated the clock. { Wound up the clock, put it back 3 minutes and re- gulated it.</pre>	June 19 20 28 30 July 3 4 9 10 14 15 16 17 18 19 22 26 27 28 30 Aug. 2 4 9 10 11 14 16 17 19 21 23 27 28 Sep. 6 7 8 9 10 11 14 15 16 17 18 19 22 26 27 28 30 Aug. 2 4 9 10 11 14 15 16 17 18 19 22 26 27 28 30 Aug. 2 4 9 10 11 14 15 16 17 18 19 22 26 27 28 30 Aug. 2 4 9 10 11 14 15 16 17 18 19 21 23 27 28 Sep. 6 7 8 9 10 11 12 3 27 28 27 28 30 21 23 27 28 27 28 27 28 9 10 11 14 15 16 17 19 21 23 27 28 5 27 28 5 27 28 5 27 28 5 27 28 5 27 28 5 27 28 5 27 28 5 20 21 23 24 25 26 20 21 23 24 25 26 20 21 23 24 25 26 20 21 23 24 25 26 26 20 21 23 24 25 26 26 20 21 23 24 25 26 26 20 21 23 24 25 26 26 20 21 23 24 25 26 30 0 0 11 15 16 20 21 23 24 25 26 30 0 0 10 11 15 16 20 21 23 24 25 26 30 0 0 11 15 16 20 21 23 24 25 26 30 0 0 0 11 15 16 20 21 23 24 25 26 30 0 0 0 11 15 16 20 21 23 24 25 26 30 0 0 16 17 17 18 19 21 23 24 25 26 30 0 0 10 11 15 16 20 20 21 25 26 30 10 10 11 15 16 20 20 21 25 26 26 26 26 26 26 26 26 26 26	s. -4,67 4,25 4,95 4,73 3,05 3,84 4,25 3,52 3,95 4,70 4,35 5,22 2,25 2,47 2,90 1,63 0,90 0,92 0,03 +0.96 1,72 1,45 1,65 2,21 2,59 3,51 4,88 4,54 -4,26 3,64 2,54 1,94 1,55 1,80 0,59 1,75 2,02 1,96 2,75 2,06 1,75 2,06 1,75 2,06 1,75 2,02 1,96 2,75 2,06 1,75 2,06 1,75 2,06 1,75 2,06 1,75 2,06 1,75 2,06 1,75 2,06 1,75 2,06 1,75 2,06 1,75 2,06 1,75 2,06 1,75 2,06 1,75 2,006 2,66	Regulated the Clock.

1836	Daily Rate.	Remarks.	1836	Daily Rate.	Remarks.
Oct. 2 3 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 25 26 27 28 Nov. 7 8 9 10 11 12 22 23 25 26 27 28 Nov. 7 8 9 10 11 12 23 25 26 27 28 Nov. 7 8 9 10 11 12 13 18 22 23 25 26 27 28 Nov. 7 8 9 10 11 12 13 18 22 23 24 25 26 27 28 23 24 25 26 27 28 27 28 20 21 11 12 13 18 22 23 24 25 26 27 28 27 28 26 27 28 26 27 28 26 27 28 26 27 28 26 27 28 26 27 28 26 27 28 26 27 28 29 Dec. 1 2 3 4 5 6 10 11 12 17 18	s. -3,12 3,88 2,53 1,70 1,62 2,12 1,69 2,16 2,61 3,16 3,33 2,91 3,10 2,97 0,61 1,33 1,52 1,47 1,70 2,24 2,65 2,80 +2,38 3,53 4,28 4,20 1,26 1,78 3,00 3,20 1,06 1,00 0,92 0,52 0,38 0,78 3,00 2,65 4,38 3,99 4,75 5,13 2,85 0,58 0,70 -3,64	<pre>{ Mostly cloudy weather. It blew a hurricane on the 31st. { Wound up the clock and applied oil to the pallets. Wound up the clock.</pre>	22 23 24 25 26 27 28 29 30 31 Feb. 2 30 31 Feb. 2 30 31 11 5 6 7 8 9 10 11 12 12	s. -3,10 3,43 3,60 3,66 3,28 3,43 2,96 1,72 1,59 1,72 1,59 1,42 1,22 0,87 1,37 1,59 1,17 1,59 1,30 0,94 0,90 1,35 1,30 0,62 1,07 0,38 1,20 -0,07 0,09 1,73 0,45 0,57 0,53 0,38 -0,28 0,24 0,38 -0,28 0,24 0,38 -0,28 0,24 0,38 -0,28 0,38 -0,28 0,24 0,38 -0,28 0,38 -0,28 0,38 -0,28 0,38 -0,28 0,38 -0,28 0,38 -0,28 0,38 -0,28 0,38 -0,28 0,38 -0,28 0,38 -0,38 -0,38 -0,38 -0,28 0,38 -0,38 -0,28 0,38 -0,38 -0,28 0,38 -0,38 -0,38 -0,38 -0,28 0,38 -0,38 -0,38 -0,28 -0,28 -0,38 -0,38 -0,38 -0,38 -0,38 -0,38 -0,38 -0,38 -0,38 -0,38 -0,38 -0,38 -0,38 -0,38 -0,38 -0,57 0,38 -0,57 0,38 -0,57 0,38 -0,57 0,38 -0,57 0,57 0,57 0,57 0,57 0,58 -0,57 0,58 -0,57 0,58 -0,57 0,58 -0,57 0,58 -0,57 0,58 -0,57 0,58 -0,57 0,57 0,58 -0,57 0,58 -0,57 0,58 -0,57 0,57 0,57 0,57 0,57 0,58 -0,57 0,58 -0,57 0,57 0,57 0,57 0,57 0,57 0,57 0,57 0,57 0,57 0,57 0,57 0,57 0,57 0,58 -0,57 0,58 -0,57 0,57 0,57 0,57 0,57 0,57 0,58 -0,58 -0,58 -0,58 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0,59 -0	{ Put clock backward three minutes. Wound up the clock.

1837	Daily Rate.	Remarks.	1837	D iily Rate.	Remarks.
Feb. 19 20 21 26 27 28 Mar. 1 2 4 5 6 7 8	$\begin{array}{c} \text{s.} \\ +0,19 \\ 1,38 \\ +0,22 \\ -3,00 \\ 3,49 \\ 3,74 \\ 4,78 \\ 5,00 \\ 5,00 \\ 4,18 \\ 4,41 \\ 4,73 \\ 3,81 \end{array}$	E Continued cloudy weather.	21 22 23 24 25 26 27 28 29 30	s. -1,80 1,76 1,41 1,51 2,00 1,97 2,35 2,20 2,31 2,25 2,36 3,00 1,68	
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 April 1 2 3 4 5 7 8 9 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 12 12 12 12 12 12 12 12 12 1	3,96 3,32 4,42 4,90 5,35 4,77 4,69 3,95 3,35 4,20 4,46 3,53 3,12 4,77 5,62 5,16 4,51 4,51 6,44 5,94 5,75 7,30	I examined the clock and re- moved a fine thread which had been attached to the pendulum by some mis- chievous spider.		2,76 2,45 1,91 1,69 2,16 2,36 2,41 2,90 2,47 2,75 2,68 2,60 2,204 3,07 3,98 2,204 3,07 3,98 2,49 2,204 3,07 3,98 2,40 2,82 3,249 2,80 2,82 3,249 2,80 2,82 3,245 3,445 3,445 3,445 3,445 3,445 3,445 3,445 3,455 3,445 3,455 3,455 3,455 3,455 3,455 3,455 3,555 4,366	Mostly cloudy weather, pe- culiar to the S. W. Mon- soon.

1837	Daily Rate.	Remarks.	1837	Daily Rate.	Remarks.
$ \begin{array}{c} July & 16 \\ 19 \\ 20 \\ Aug. & 2 \\ 8 \\ 9 \\ 10 \\ 11 \\ 12 \\ 13 \\ 20 \\ 21 \\ 22 \\ 23 \\ 27 \\ 28 \\ 29 \\ 30 \\ 21 \\ 22 \\ 23 \\ 26 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \\ 20 \\ 21 \\ 22 \\ 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ 28 \\ 0ct. & 10 \\ \end{array} $	s. -4,41 4,59 4,65 1,50 1,56 1,51 1,50 1,56 1,63 1,16 1,54 1,50 1,65 2,31 1,33 0,58 2,34 1,43 0,65 2,34 1,43 0,65 2,09 1,77 1,40 1,78 1,71 1,88 1,71 1,88 1,71 1,51 0,96 1,22	{ Continued cloudy weather.		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	<pre>{ The seconds hand tript in winding. { Continued cloudy weather. { The seconds hand went backwards in winding.</pre>

METEOROLOGICAL INSTRUMENTS EMPLOYED.

The Barometer employed at the commencement of 1836 and up to the end of October of that year, was a Standard (No. 6.) by Gilbert which—as has been explained in Vol. III., I had been allowed to select from several, which were supplied to the Surveyor General's Department at Calcutta;—the diameter of the tube was 0,22 inches and the zero correction—0,006 inches; rendering necessary to the registered observations, the correction for temperature +0,051 - 0,006; or, where in the table of refractions allowance is made for

the temperature of the quicksilver,---the correction +,045 is simply necessary.---The thermometers employed during this period were, a Standard by Troughton (which when in England I had carefully compared with the Royal Society's Standard) and one by Jones, which agreed to identity with it; the former being employed outside and the other inside the building. During the Storm on the 31st October neither of these Instruments escaped destruction, so that I had now no remedy left, but that of filling a tube; -accordingly I availed myself of two unbroken glass tubes and cisterns, and the brass scales of the barometers hitherto employed, and set to work as follows; the quicksilver was purified by repeated washings in diluted nitric acid, and was then heated to a temperature little short of boiling water to drive off moisture: the tube was now heated—the hot mercury gradually poured in, and a small air bubble sent up in the usual way to collect stray bubbles :-- after filling two tubes in this way with as much care as it was possible to bestow—finding that a difference of less than one hundredth of an inch existed between them, I concluded that with the exception of finding the specific gravity of the mercury; all that was necessary to ensure a good barometer, and accurate results, had been done; accordingly on the 11th December 1836 I commenced to employ one of these barometers, making an allowance of +0,051 for capilliary action (corresponding to abore of 0,22 inches). In the interim between 1st November and this date, a barometer by Tagliabue was employed, whose correction then appeared to be 0,002 inches subtractive.

The Storm had passed away, and its effects had been forgotten in the busy mornings and evenings of the fine months of January and February, and, with the exception of an occasional glance at the two barometers and a feeling of pleasure at their coincidence—no further thought of them was given until the 10th of May: On this day to oblige a friend I had undertaken, after purifying the mercury in his barometer,—to *boil it in the tube*; (a precaution I had feared to undertake with my own, having no spare tubes): On comparing the barometer thus constructed with the two "Standards", to my utter astonishment, a correction 0,125 inches additive to both of mine, appeared necessary; —at first I felt convinced that the error lay with the newly constructed barometer, but *after boiling the mercury in the tubes* of the two hitherto *supposed* Standards, they both exhibited increased readings to the above amount—S ince this time I have frequently filled barometer tubes, and have found a coincidence between them and the *now* considered "Standards" which leaves me confident to fon the being above 0,01 inches in error. To ascertain at what date this correction ought to commence, or if its progress had been gradual. I compared the meteorological observations of November 1836 with those of former years* when it was at once evident that the correction was due to all observations since the storm. Hence, in the observations of November 1836, and up to 10th May 1837 the correction \pm ,125 is necessary for zero error, and \pm ,051 for capilliary action, and for subsequent observations, the latter correction only should be employed.

The Thermometers employed since the Storm, are two by Bate, of an ordinary description, which at my request had been sent out to this country for rough purposes by the Honorable Court of Directors: I took the precaution on receiving them (which was a few days before the Storm) to note their difference (at 75°) from the Standard hitherto in use, when neither of them differed more than two tenths of a degree: with this testimony of their accuracy, there need be no fear of their errors at any point in the scale being of importance.

OF THE MURAL CIRCLE.

= (C) =

This Instrument having been minutely described in Vol. I., it is only necessary here to state, that the focal length of the telescope is 49 inches, with a clear asserture of $3\frac{3}{4}$ inches; and that the diameter of the circle is four feet:— The divisions are beautifully cut on a slip of gold (let in upon the circumference of the wheel) to every 5 minutes, and the sub-division of these is effected by four Microscopes situated at 90° apart, viz. two horizontally and two vertically —the readings of each microscope are registered to a tenth of a second, but the error of making a single bisection at either microscope, arising from *false light* principally, may in some cases amount to 1",5 but generally, I think that the half of this may be stated to be the probable mean error of reading of each microscope.

^{*} The regularity of the barometer in inter-tripical climates will permit this mode of proceedure, whereas in a high Latitude; one, or even two tenths of an inch might be lost sight of in the varied amount of atmospheric pressure which is experienced.

The eye piece is supplied with five vertical and one horizontal fixed wires, and one horizontal moveable wire;—the power employed for astronomical observations is about 120, and for the observation of the collimation, about 70— The stability of the Instrument is equal to any thing that could be desired, a fact, which is well attested, from the circumstance that during the last 4 years I have not had occasion to adjust it either for level or azimuth—and a late examination of the axis, enables me to speak with confidence of its being now after 7 years use, in as good a condition as when it was first erected.

OBSERVATIONS MADE WITH THE MURAL CIRCLE.

In the years 1836 and 1837 the Mural Circle has continued to be employed as heretofore in the measurement of North Polar Distance-taking the mean of the four microscopes at each observation. In the Computation of the Index Error, I have employed the *Madras Catalogue* published in Vol. II., giving always a preference to those stars which differed the least from the Greenwich Catalogue, and restricting the limit of observations for this purpose to within 20° of the zenith; by this arrangement, the anomaly which has been shewn to exist in the Cambridge Mural Circle (depending probably upon flexure of the horizontal wire)—would here necessarily have but a very trifling effect upon the Index Error; to discover its amount when the telescope was directed to the horizon,—in the year 1835 I availed myself of a plan which has already been described in Vol. III., thus—"I directed the Circle Telescope to the North horizon and opposite to it, (in the window sill of the observatory) placed a 46-inch telescope by Dolland, with its object glass presented to that of the circle telescope, and its whole length disposed in a right line with it ;-turning the circle through 180° to the South horizon, I in a similar way disposed another telescope (Dolland's 5 feet):—into the focus of the 46 telescope I had fitted a pair of cross lines, and the 5 feet telescope was supplied with a double wire micrometer-matters thus arranged, I took out the circle eye piece and slide, and unscrewed the object glass, leaving a clear aperture of two inches through the circle telescope, by which means, with the assistance of the micrometer wire,

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I was unable to adjust the line of collimation of the 5 feet telescope to parallelism with that of the 46-inch placed in the opposite window, this done I replaced the eye piece, screwed in the object glass, and immediately measured the angular distance between the telescopes; to guard against movement of the telescopes, the observation was not considered complete, till the object glass of the circle telescope had again been removed, and the parallelism of the two other telescopes again examined; but the telescopes having been very securely fixed, no movement whatever was detected during the time of making the observations (about three hours)".

The result of several measurements in this way shewed that the angular distance between the two marks was,—(reckoning from the South horizon in the direction through the $Nadir^*$ = 180° 0′ 0″,38 exhibiting a negative flexure to the amount 0",19. Whether this remained constant or no during the early part of 1836, I have now no means of ascertaining; but on the 27th August, some rain having leaked through the roof, broken the wires, and wetted the inside of the object glass; I availed myself of the necessity of taking out the object glass to repeat the above experiment. Having put in a new set of silk lines;—from the mean of 5 separate measurements; the angle between the South Telescope through the Nadir up to the North Telescope, was 179° 59' 58",88: exhibiting a positive flexure of 0",56 when directed to the horizon :---Since this period no further observations to this end have been made, which has arisen from a desire of not interrupting the observations, and from a fear of accident in taking out the object glass ;--enough however has been done, to shew, that the reduction of the observations by using a common Index Error, entails a very triffing amount of error upon the Madras Results-In addition to the Index Error computed from the observed places of known stars, the observations with the Reflecting Collimator have continued to be made three or four times every day; viz. at 0, 6, 12 and 18 hours; by this means a severe check has always been kept upon the Index Error by the stars, and a very accurate knowledge of the difference between the one method and the other determined, of which I have now some idea of availing myself, by giving up the observation of known stars altogether.

^{*} Erroneously stated per zen in Vol. III.

Date.	No. of ob- servations.	Index Error by Stars.	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
$\begin{array}{c ccccc} 1836\\ Jan. & 1\\ & 2\\ & 3\\ & 4\\ & 5\\ & 6\\ & 7\\ & 8\\ & 9\\ & 10\\ & 11\\ & 12\\ & 13\\ & 14\\ & 15\\ & 16\\ & 17\\ & 18\\ & 19\\ & 20\\ & 21\\ & 22\\ & 23\\ & 24\\ & 25\\ & 26\\ & 27\\ & 28\\ & 29\\ & 30\\ & 31\\ Feb. & 1\\ & 12\\ & 23\\ & 24\\ & 25\\ & 26\\ & 27\\ & 28\\ & 29\\ & 30\\ & 31\\ Feb. & 1\\ & 15\\ & 6\\ & 7\\ & 8\\ & 9\\ & 10\\ & 11\\ & 12\\ & 13\\ & 14\\ & 15\\ & 16\\ & 17\\ & 18\\ & 19\\ & 20\\ \end{array}$	8 5 7 9	$\begin{array}{c}2 & 11,26 \\ 10,13 \\ 9,22 \\ 17,26 \\ 14,31 \\ 12,89 \\ 12,48 \\ 12,83 \\ 12,91 \\ 11,56 \\ 10,55 \\ 10,01 \\ 8,91 \\ 9,02 \\ 9,19 \\ 9,02 \\ 9,19 \\ 9,02 \\ 9,19 \\ 9,28 \\ 9,34 \\ 9,68 \\ 10,11 \\ 10,16 \\ 9,88 \\ 10,11 \\ 10,16 \\ 9,88 \\ 10,11 \\ 10,16 \\ 9,88 \\ 10,11 \\ 10,16 \\ 9,88 \\ 10,17 \\ 9,54 \\ 10,29 \\ 9,97 \\ 9,91 \\ 9,98 \\ 10,42 \\ 9,85 \\ 10,24 \\ 9,59 \\ 9,28 \\ 8,54 \\ 8,59 \\ 7,98 \\ 8,54 \\ 8,59 \\ 7,98 \\ 8,54 \\ 8,39 \\ 5,36 \\ 5,66 \\ 6,07 \\ 5,95 \\ \end{array}$	I took out the axis—cleaned it, and applied fresh oil. Mean = $2' 12'',78$ Mean = $2' 9'',24$ Mean = $2' 9'',24$ Mean = $2' 10'',01$ Mean = $2' 8'',55$ Mean = $2' 5'',75$	5555225533 4444443234354443353444424454455554444543	$\begin{array}{c} & & & & & & & & & & & & & & & & & & &$	$ \begin{array}{c} -0,36\\+1,20\\\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$

INDEX ERROR OF THE MURAL CIRCLE FOR 1836 AND 1837. 37

Date		No. of ob.	ation			Remarks.	No. of ob- servations.	1	Difference.
1836 Feb.	$\begin{array}{c} 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 1\\ 2\\ 3\\ 4\\ 5\\ 6\\ 7\\ 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\end{array}$	2575	6 6 7 6 7 6 7 5 5 5 9 6 9 7 7 5 5 5 9 6 9 7 7 5 5 5 9 6 9 7 7 6	2	" 6,43 6,97 7,62 7,78 6,95 6,95 6,29 6,77 7,17 7,59 6,62 7,33 7,12 7,11 7,88 6,89 7,06 6,72 6,96 6,68 7,02 6,71		55445555555544534253544444345	5,055,506,024,724,735,04	$\begin{array}{c} -0.43 \\ -1,10 \\ -1,69 \\ -2.72 \\ -0.99 \\ -0.02 \\ -0.93 \\ -0.86 \\ -1.79 \\ +0.04 \\ -1.77 \\ -2.02 \\ -2.17 \\ -3.64 \\ -1.89 \\ -1.99 \\ -1.99 \\ -1.99 \\ -1.99 \\ -1.98 \\ -1.98 \\ -1.98 \\ -1.98 \\ -1.96 \end{array}$
April			6 5 5 6 6 6 6 5 5 5 7 7 6 7 7 6 5 6 6 5 5 7 7 6 7 6		6,73 5,97 6,27 5,73 6,16 6,00 6,98 5,58 6,24 6,50 6,19 5,71 6,65 5,62 6,35 6,44 6,02		$ \begin{array}{c} 4 \\ 5 \\ 3 \\ 3 \\ 5 \\ 4 \\ 2 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{ c c c c c } & -1,97 \\ & -1,97 \\ & -1,95 \\ & -1,07 \\ & -1,34 \\ & -1,67 \\ & -1,95 \\ & -1,66 \\ & -0.53 \\ & -1,42 \\ & -0.65 \end{array}$

38 INDEX ERROR OF THE MURAL CIRCLE FOR 1836 AND 1837.

Dat	е.	No. of ob- servations.	Index Error by Stars.	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
183 April	$6 \\ 11 \\ 12 \\ 13$	}10 5	2 6,04 	Mean = $2' 6'',09$	4 4 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	}—1,81 —1,35
	14 15 16 17 18 19	7 5 7 8 8	1,69 1,82 1,76 1,85 2, 76		5 5 4 5 4 5 4 5	$\begin{array}{r} 2,16\\ 0,72\\ 0,23\\ 1,79\\ 1 59,36\\ 1 59,86\end{array}$	+0,47 -1,10 -1,53 -0,06 -2,85
nanova Schwarzanian	20 21 22 23 24 25 26) 6 5 2 5	2,13 1,51 1,89		3 2 4 5 3 4	$\begin{array}{c ccccc} 2 & 0,50 \\ 2 & 2,09 \\ & 0,33 \\ & 0,12 \\ & 0,50 \\ & 0,37 \\ 1 & 59,90 \end{array}$	$ \begin{array}{c} -2,01 \\ -1,01 \\ -1,76 \end{array} $
May	20 27 28 29 30 1 2	6 5 5	1,39 0,58 1,50		3 4 5 4 3	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	}-1,53 }-0,21 1,77
	3 4 5 6 7	} ¹⁰	0,88	Mean == 2' 1",72	3 4 4 3 4	$\begin{array}{cccc} 2 & 0,22 \\ 2 & 0,44 \\ 1 & 58,87 \\ 1 & 58,91 \\ 1 & 59,60 \end{array}$	}-1,45
na anna - Charlonna anna ann ann an	8 9 10 11 12 13	} 9	2,27		5 5 4 5 3 2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	} −1,64
	14 15 16 17 18 19	} 9 } 8	2 ,21 1 ,06		2 4 3 4 4 5	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	}1,73 }-0,83
	19 20 21 22 23 24	7 8	1,7 <i>5</i> 1,86		4 2 4 4	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	}-1,87 }-1,52
	24 25 26 27 28 29	7	0,90		$\begin{vmatrix} 3\\4\\3\\2\\3\\3\end{vmatrix}$	0,36 0,37 1,14 0,15 0,16 0,21) - 0,49

INDEX ERROR OF THE MURAL CIRCLE FOR 1836 AND 1837. 39

Date.		No. of ob- servations.	Index Error by Stars.	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
1836		1	1 11			1 11	
	30 31 1 2 3 4	6	2 0,80		2 3 2 3 3 3 3 3	$\begin{array}{c cccc} -2 & 1,13 \\ 1 & 58,18 \\ 1 & 58,98 \\ 1 & 57,71 \\ 1 & 59,56 \\ 2 & 0,30 \end{array}$	1,49
	4 5 6	37	0,25		3	0,16 0,03	} —0,16
	7 9 10 11 12 13 14	6 6 6 7 7	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		2 4 3 2 3 3 3 3 3	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c}0.04 \\ +0.22 \\ +0.44 \\1.02 \\0.53 \\ +0.11 \end{array} $
	15 16	8	59,24			56.30 57,64	, -2,01
	17	} 9 } 7	59,19		43	57,28 57,87	}-1,73
	$18 \\ 19 \\ 20 \\ 21 \\ 22 \\ 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ 28 \\ 29 \\ 29 \\ 29 \\ 29 \\ 29 \\ 29 \\ 29$	<pre> 7 8 8 9 9 9 9 9 9 9 9</pre>	59,20 1 58,94		4 4 3 3 2 2 3 3 2 3 3 3 3	58.65 57,49 57,07 57,44 58,81 58,36 58,07 58,12 58,23 57,76	}0,94 }-1,01
July	29 30 1 2 3	57	59,70		443	58,18 58,87 59,43 59,89	\$ -0,61
	4 5 6 7 8 9 10	8	58,82		$ \begin{array}{c} 2 \\ 2 \\ 1 \\ 2 \\ 2 \\ 2 \\ 3 \end{array} $	$\begin{array}{c} 60,37\\ 59,50\\ 59,30\\ 59,74\\ 59,86\\ 59,04\\ 50,26\end{array}$	+0,82
	10 11 12 13 14	8	59,58		3 3 3 4	59,26 60,29 59,90 59,13 59,93	+0,12
	14 15 16 17 18 19	6 7	59,25 $1 59,33$ $2 0,01$ $1 59,64$		$\begin{vmatrix} 4\\5\\3\\4\\2\end{vmatrix}$	59,93 60,19 58,64 57,87 58,79 59,51	$\begin{vmatrix} J \\ +0,17 \\ -1,46 \\ -1,22 \\ -0,13 \end{vmatrix}$

Date.	No. of Ob- servations.	Index Error by Stars.	Remarks.	No. of Ob- servations.	Index Error by Reflecting Collimator.	Difference.
July 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	23456789011234567890123456	2 0,30 1 58,84 58,36 1 58,61	Continued cloudy weather peculiar to the S. W. Monsoon. Continued cloudy weather peculiar to the S. W. Monsoon.	4223224241332323213333 2222242231	$\begin{array}{cccc}1 & 60.61 \\ & 60,64 \\ & 60,23 \\ & 58,67 \\ & 59,82 \\ & 59,27 \\ & 60,78 \\ & 59,06 \\ & 59,64 \\ & 59,15 \\ & 59,90 \\ & 59,11 \\ & 59,26 \\ & 60,09 \\ & 59,39 \\ & 59,69 \\ & 59,39 \\ & 59,69 \\ & 59,95 \\ & 59,72 \\ & 59,69 \\ & 59,95 \\ & 59,72 \\ & 59,72 \\ & 59,69 \\ & 59,39 \\ & 59,72 \\ & 59,26 \\ & 59,39 \\ & 59,47 \\ & 59,79 \\ & 60,08 \\ & 59,45 \\ & 59,39 \\ & 59,69 \\ & 59,39 \\ & 59,47 \\ & 59,72 \\ & 59,69 \\ & 59,39 \\ & 59,69 \\ & 59,39 \\ & 59,69 \\ & 59,39 \\ & 59,45 \\ & 59,26 \\ & 59,39 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & 59,59 \\ & $	}0, 5 5 }+0,51 }+0,36
1 1 1	8 5 9 5 0 5 1 7 2 6 3 5 4 6	0 45,15 46,23 45,98 44,91 46,16 47,26	wires;—I put in a new set.	3 4 5 4 5 4 4	$\begin{array}{ccc}0 & 46,90 \\ & 47,38 \\ & 45,73 \\ & 44,15 \\ & 44,61 \\ & 46,81 \\ & 45,95 \end{array}$	+1,99 0,50 1,83 0,30 +0,65 1,31

INDEX ERROR OF THE MURAL CIRCLE FOR 1836 AND 1837. 41

Date		No. of ob- servations.	Index Error by Stars	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
183 Sep.	$\begin{array}{c}6\\15\\16\\17\end{array}$	5 5	0 46,11 45,20		$\begin{vmatrix} 3\\4\\3 \end{vmatrix}$	-0 47,49 46,65 45,66	$^{+1,38}_{+1,45}$
	18 19 20 21	5	46,51 45,85		4 3 3 3 3	$\begin{array}{r} 46,79\\ 47,18\\ 44,62\\ 45,13\\ 46,32\end{array}$	+0,67 }-0,97 +0,20
	22 23 24 25 26	55	46,12 46,27 45,53		5 3 3	46,15 46,53 46,61	-0,12 +1,25
	27 28 29	} 6	47,64		3 3 4 3	46,95 45,23 46,48 46,84	}0,74
Oct.	30 1 2 3 4	5 5 5 5	47,07 47,64 46,22		5 5 4 4 3	46,96 48,00 47,27 46,09 47,15	+0,93 -0,37 -0,13
	5 6 7 8 9	5 6 6 6	$\begin{array}{r} 46,68\\ 46,49\\ 45,98\\ 45,83\end{array}$		3 4 4 5 4	$\begin{array}{c} 45,71\\ 46,90\\ 46,92\\ 46,85\\ 46,63\\ 46,63\end{array}$	+0,43 +0,87 +0,80
	10 -11 -12 -13 -14	6	$\begin{array}{r} 45,72\\ 45,94\\ 45,96\\ 45,41\\ 46,07\end{array}$		5 4 5 5	47,16 47,32 45,74 46,42 45,06	$\begin{array}{c c} +1,38 \\ -0,22 \\ +1,01 \\ -1,01 \end{array}$
	15 16 17 18	5 5 6 6	$\begin{array}{r} 47,27\\ 47,81\\ 47,35\\ 47,25\\ 40,022\end{array}$		4 3 4 4	46,42 45,93 45,50 45,65	-1,88 -1,85 -160
	19 20 21 22	4 5 6	$\begin{array}{r} 46,86\\ 47,19\\ 46,30\\ 46,47\end{array}$		4 2 4 5 3	44,88 45,92 46,23 45,32 45,62	$ \begin{array}{c c} -1,27 \\ -0,07 \\ -1,15 \end{array} $
contraction of the second s	23 24 25 26	5	46,15		3 4 2 4	45,40 44,44 44,01	} —1,00
	27 28 29 30		45,81	The violence of the wind,	42		$\{ \} = 1,48$
Nov.			44,76 44,36 43,02	prevented observation.	3 2 2 3	43,83 43,86	}0,51

INDEX ERROR OF THE MURAL CIRCLE FOR 1836 AND 1837. 43

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Date.	No. of ob- servations.	Index Error by Stars.	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
	$ \begin{array}{c} 6\\ 7\\ 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ Dec. 1\\ 2\\ 23\\ 24\\ 5\\ 6\\ 7\\ 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 20\\ 21\\ 22\\ 23\\ 24\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 20\\ 21\\ 22\\ 23\\ 24\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 20\\ 21\\ 22\\ 23\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 10\\ 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 20\\ 21\\ 22\\ 23\\ 24\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 10\\ 11\\ 12\\ 22\\ 23\\ 24\\ 24\\ 25\\ 26\\ 27\\ 28\\ 29\\ 30\\ 10\\ 11\\ 12\\ 20\\ 20\\ 21\\ 22\\ 23\\ 24\\ 24\\ 25\\ 20\\ 20\\ 21\\ 22\\ 23\\ 24\\ 24\\ 25\\ 20\\ 20\\ 21\\ 22\\ 23\\ 24\\ 24\\ 25\\ 26\\ 27\\ 20\\ 20\\ 21\\ 22\\ 23\\ 24\\ 24\\ 25\\ 26\\ 27\\ 20\\ 20\\ 20\\ 21\\ 22\\ 23\\ 24\\ 24\\ 25\\ 26\\ 27\\ 20\\ 20\\ 21\\ 22\\ 23\\ 24\\ 24\\ 25\\ 26\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20\\ 20$	$ \begin{array}{c} 5 \\ 6 \\ 6 \\ 5 \\ 5 \\ 5 \\ 7 \\ 6 \\ 6 \\ 6 \\ 6 \\ 6 \\ 7 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 9 \\ 6 \\ 9 \\ 9 \\ 9 \\ 9 \\ 9 \\ 9 \\ 9 \\ 9 \\ 9 \\ 9$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		3453455442234223244444235555253223554333252244344	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c} +0,06\\-0,55\\-0,71\\-0,27\\-1,91\\-0,07\\+0,41\\+0,35\end{array}\\\\-0,10\\-0,89\\-1,12\\-0,16\\-0,89\\-1,51\\\\-0,89\\-1,51\\\\-0,99\\-0,47\\-2,13\\-1,69\\-3,92\\-3,15\\\\\end{array} $

Date.	No. of ob- servations.	Index Error by Stars.	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
1836 Dec. 26 27 28 29 30 31	9	0 42,87		5 2 3 3 2 5	0 42,72 42,37 41,91 42,94 42,80 41,93	-0,43
1837 Jan. 1 2 Jan. 1 2 3 4 5 6 7 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 Feb. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 Feb. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 7 8 9 10 11 12 13 14 15 16 7 8 9 10 21 22 23 24 25 26 27 28 29 30 31 Feb. 1 2 3 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 19 10 11 12 13 14 15 16 17 18 19 20 21 22 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 Feb. 1 12 13 14 15 16 17 18 10 10 10 11 12 13 14 15 16 17 18 19 10 10 11 12 13 14 15 16 17 18 19 10 10 11 12 13 13 10 10 11 12 13 13 14 15 16 17 18 10 10 10 11 12 13 13 15 10 10 10 10 11 12 13 13 15 10 10 10 10 11 12 13 13 13 13 13 13 13 13 13 13	5 8 5 5 5 6 8 6 6 7 8 6 5 6 5 4 6 6 7 6 7 7 5 6 8 7 6 7 8 1 5 8 7 6 6 6 6 6	42,80 44,01 44,22 44,00 44,28 43,89 44,44 43,26 42,80 43,46 43,36 43,36 44,07 43,57 43,57 43,62 43,51 43,93 44,07 44,02 43,79 42,75 43,81 43,93 43,93 43,93 43,58 43,93 43,58 43,93 43,58 43,93 43,65 43,41 43,63 43,65 43,41 43,65 43,65 43,18 43,33		154554555354222334452333443344322432334333455	$\begin{array}{c} 42,15\\ 42,20\\ 42,55\\ 42,25\\ 42,28\\ 43,27\\ 43,81\\ 43,47\\ 42,97\\ 42,97\\ 42,49\\ 42,77\\ 41,75\\ 42,95\\ 41,88\\ 41,65\\ 40,57\\ 40,37\\ 41,37\\ 40,37\\ 41,37\\ 40,37\\ 41,37\\ 40,37\\ 41,06\\ 41,49\\ 41,14\\ 41,07\\ 42,72\\ 42,26\\ 42,59\\ 43,22\\ 42,96\\ 43,02\\ 43,14\\ 42,91\\ 44,39\\ 43,61\\ 44,27\\ 42,30\\ 43,14\\ 42,91\\ 44,39\\ 43,61\\ 44,27\\ 42,30\\ 43,61\\ 44,27\\ 42,30\\ 43,61\\ 44,27\\ 42,30\\ 43,61\\ 44,27\\ 42,25\\ 41,78\\ 42,09\\ 41,92\\ 42,81\\ \end{array}$	$\begin{array}{c} -0,60\\ -1,61\\ -1,94\\ -0,73\\ -0,47\\ -0,42\\ -1,47\\ -0,77\\ -0,03\\ -1,71\\ \end{array}$ $\begin{array}{c} -1,60\\ -3,70\\ -2,20\\ -3,25\\ -2,45\\ -2,44\\ -2,93\\ -2,95\\ -2,45\\ -2,44\\ -2,93\\ -2,95\\ -2,45\\ -2,44\\ -2,93\\ -2,95\\ -1,07\\ -0,62\\ -2,13\\ -0,64\\ +0,64\\ +0,64\\ -1,35\\ -0,75\\ -0,22\\ -2,11\\ -2,34\\ -2,13\\ -1,26\\ -0,52\\ \end{array}$

Date.		No. of ob- servations.	Index Error by Stars.	REMARKS.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
1837 Feb.	14 15 16	6 5	0 43,32 43,37		5 4 3	-0 43,07 42,77 43,00	0,25 0,60
	17 18 19 20 21 22 23 24 25	8 6 5 7	44,41 44,06 44,13 43,87	Mean—43",83 I took out the axis;—cleaned it—applied fresh oil, and adjusted the microscopes.	4 4 3 2 3	42,58 42,11 42,76 42,58 42,80	<pre>{1,62 1,95 1,37 }1,18</pre>
Mar.	20 26 27 28 1 2 3	5 6 5	41,17 41,23 41,19		$ \begin{array}{c} 3 \\ 3 \\ 4 \\ 4 \\ 4 \end{array} $	41,82 41,18 40,38 40,81 43,00 43,44	+0,65 0.05 0,81
	4 5 7 8 9 10 11 12 13	<pre>8 8 6 6 6 7 5 9</pre>	41,15 40,42 40,02 39,61 39,94 39,24 39,08 39,64 39,70	Mean—41″,18	5 5 4 4 4 5 5 5 5 3	$\begin{array}{c} 39,78\\ 40,06\\ 39.58\\ 41,93\\ 40,54\\ 40,25\\ 40,66\\ 40,62\\ 40,62\\ 40,44\\ 40,06\end{array}$	$ \begin{array}{c} -1,23 \\ -0,84 \\ +1,91 \\ +0.93 \\ +0.31 \\ +1,42 \\ +1.54 \\ +0,80 \\ \end{array} $
	14 15 16 17 18 19 20 21 22 23 24	9 9 7 8 8 8 5 8 6	$\begin{array}{r} 39,52\\ 40,07\\ 40,08\\ 40,60\\ 40,39\\ 40,59\\ 40,59\\ 40,50\\ 39,86\\ 39,58\end{array}$		4 4 4 5 5 5 3 3 4 2 3 3 3	39,29 39,19 39,30	$ \begin{vmatrix} +0.63 \\ -0.62 \\ -0.83 \\ -0.82 \\ -0.71 \\ -1.30 \\ -1.31 \\ -0.56 \\ 0.00 \end{vmatrix} $
	25 26 27	\$ 9	40,12 40,48		3 4 4 4	40,14 39.65	}−0,65 -0,59
	28 29 30 31	5	40,82 40,16	Mean-40",44	22	40,44 40.75 40,08	-0,48 +0,26
April	1 2 3 4	3 7	39,03 40,38			4 38.97 4 38,70 4 38,78	-0,26

INDEX ERROR OF THE MURAL CIRCLE FOR 1836 AND 1837. 45

Date.	No of oh-	tio.	Index Error by Stars.	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
1837 April	678	6	0 38,75		4 4 2 2	0 39,07 38,30 37,15 37,48	}-0,07 }+0,07
	9 } 10 ∫ 11	8	37,58 37,75		4 5	38,32 37,62	∫ -0,13
		10	37,84		44	38,95 38,10	<pre>}+0,69</pre>
	$ \begin{array}{c c} 14 \\ 15 \\ 16 \\ 16 \end{array} $	- 9	37,58		3 2 2	37,82 37,76 37,90	+0,25
	17 18 19 20 21	6 6 6 6 6	36,81 37,09 37,06 38,19		4 4 3 3	38,37 38,26 37,72 37,65 38,12	+1,45 +0,63 +0,59 -0,07
	22 23	5 8	38,88 38,07		5	37,35 37,69	-1,53 -0,38
	24 25 26		38,04		5 5 5	38,43 37,76	}+0,05
	20 27 28	6 } 8	37,01 38,73	Mean 37#,36	4 3	38,01 37,53 36,97	+1,00 -1,48
	29 30				3	37,64 38,50	
May	1 2 3	8 }10	38,54 39,99		43	37,73 38,07	0,81 {2,29
	4	<u>}</u>	38,19		5	37,33 37,78	} 0,89
	5 6 7) ר			442	36,56	
	8 9	8	38,00		3	37,47	-0,50
	10	6	37,63	Mean — 38*,47	3	37,45	
	11 12 13	8	37,08		3	37,67	}+0,53
	13 14 15	37	37,98		433	38,10	}_0,11
	16 17	8	38,39		4	37,33	-0,90
	18 19 20 21				4	37,49 36,87 37,81 38,23	
	22 23 24	8 {	37,03			4 38,12	12

46 INDEX ERROR OF THE MURAL CIRCLE FOR 1836 AND 1837.

Date		No. of ob- servations.	Index Error by Stars.	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
183 May	25 26 27 28 29	8	0 37,70	Mean 37″,63	2 2 2 2 2 2 2	0 38,14 37,82 37,65 37,95 38,02	}+0,17
June	30 31 1 2 3 4	} 7	36,69		3 3 2 2 2 2 2 2	38,73 38,34 38,28 38,26 37,07 37,72	} +1,84
	5 6 7 8 9 10 11 12	6 6 5 5 5 5 8 4	36,66 36,85 36,07 35,75 35,90 37,37 36,53 36,92		2 3 3 3 3 2 2 3 2 3 3 2 3 3 2 3 3 2 3 3 3 2 3 3 3 3 2 3 3 3 3 2 3	37,49 37,10 37,46 37,46 37,69 37,37 37,66 37,67	+0,83 +0,25 +1,39 +1,71 +1,79 0,00 +1,13 +0,75
	13 14 15 16	5	36,16 	Mean — 36″,49	2 2 3	38,01 37,36 37,02	+1,20
	17 18 19 20				2 2 2 2 2 2 3	36,86 37,10 37,43 37,36 36,12	}+0,30
	21 22 23 24 25 26 27	<pre> 6 4 6 7 6 </pre>	35,96 36,31 34,95 36,68 36,95		3 3 3 3 3 3 3 3 3 3	35,65 36,33 36,24 36,01 36,44 35,30 35,82	$ \begin{array}{c} +0,03 \\ -0,07 \\ +1,06 \\ -0,24 \\ -1,65 \end{array} $
July	28 29 30 1	57	36,60		2 2 2 3 2 2 2 3 2	36,62 36,71 36,78 36,82 36,65	5-0,12
	2 3 4 5 6	7	35,74			37,03 37,20 37,13 35,88 35,61	+1,29
	7 8 9	7	35,33 36,14	Mean 36*,12	1	35,38 35,30	+0,05
	10 11		35,52		4 5	35,47 36,41	+0,89

INDEX ERROR OF THE MURAL CIRCLE FOR 1836 AND 1837. 47

Da	ite.	No. of ob- servations,	Index Error by Stars.	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
18			1 17	and have a set of a set of a set of the design of the set		-0 35.78	
July	12 13	5	0 35,95		4 4	-0 35,78 35,45	0,50
	14	}10	36,18		3	35,57	}-0,15
	15 16	5			4 3	36,49 36,08	-
	10	Э	36,12		3	36,08	0,04
	18		1		2	35,76	
	19				3	36,34	
	20 21				2	36.35 36,12	
	22		36,13		2 3	36,55	+0,42
	23 24				3	36,38	
	$\frac{24}{25}$				2 3	36,32 35,99	
	26				3	35.78	
	27				3	36,19	
1	28 29				$\begin{array}{c} 2\\ 2\end{array}$	36,41 35,80	
4	30				2	36,10	
A	31	~			$\begin{vmatrix} 2 \\ 0 \end{vmatrix}$	36,63	
Aug.	1 2				$\begin{array}{c} 2\\ 2\end{array}$	35,66 36,33	ר
	3		,		2	36,62	 −1,06
1	4 5		37,11		2	35,66	1,00
	о 6				$\begin{vmatrix} 2\\ 2 \end{vmatrix}$	35,95 36,10	
Ì	7	6	36,56		3	36,22	}-0,41
	8 9	5 6			4	36 09))
	10	: 1	37,42		4	35,59 35,60	-1,83
	11	} 9	36,58		4 3	35,35	$\{-1,11\}$
1	12	5	37,32		4	35,20	2,12
	$\frac{13}{14}$		1		$\begin{vmatrix} 2\\ 2 \end{vmatrix}$	35,00 35.41	
l	15				2	37,42	
	$\frac{16}{17}$	$\left \right\rangle 5$	38,09		$\begin{array}{c} 2\\ 2\end{array}$	37,31	-1,74
	18				$\frac{2}{2}$	36,65 36,60	
	19				2	36,51	7
1	$\begin{array}{c} 20\\ 21 \end{array}$				$\begin{array}{c} 2\\ 2\end{array}$	35,93 36,20	ļ
	$\tilde{2}^1$	6	38,50		$\begin{vmatrix} 2\\ 3 \end{vmatrix}$	36,75	-2,03
	23				$\begin{array}{c} 2\\ 2\end{array}$	36,27	,
	$\frac{24}{25}$	17				35,70)
	25 26	8	36,52		$\begin{vmatrix} 2\\ 2 \end{vmatrix}$	36,06 36,30	>-0,10
ļ	27)			2 3	37,61)
1	28 29	6 6	37,71 38,04		$\begin{vmatrix} 3\\ 4 \end{vmatrix}$	37,10	-0,61
	23				4	36,46	-1,58

INDEX ERROR OF THE MURAL CIRCLE FOR 1836 AND 1837. 49

Date.	No of ob- servations.	Index Error by Stars.	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
1837 Aug. 30 31 Sep. 1 $ 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 Oct. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19 10 1 12 13 14 15 16 17 18 19 10 1 $	6 12 6657666698569 7 10 6586 8 8	0 38,45 37,18 38,03 37,96 37,81 38,00 39,34 38,73 37,55 38,29 39,29 39,29 38,97 38,36 38,45 38,17 37,74 37,74 37,76 39,05 38,34 38,42 38,32	Continued cloudy weather.	322222222222222222222222222222222222222	, , , , , , , , , , , , , , , , , , ,	$\left\{\begin{array}{c} -2,37\\ +0,10\\ -1,11\\ -1,27\\ -0,72\\ -1,12\\ -2,19\\ -1,57\\ -0,58\\ -0,82\\ -0,56\\ +0,75\\ -0,71\\ -0,60\\ +0,75\\ -0,71\\ -0,60\\ +0,75\\ -0,71\\ -0,60\\ +0,24\\ +0,28\end{array}\right\}$

Date.	No. of ob- servations.	Index Error by Stars.	Remarks.	No. of ob- servations.	Index Error by Reflecting Collimator.	Difference.
1837 Oct. 20 21 22 23 24 25 26 27 28 29 30 31 Nov. 1 2 3 4 4 5 6 7 7 8 9 10 11 12 13	} 7 6	0 37,91 37,82 35,33	o the N. E. Monsoon.	232434222122222112222	-0 37,38 38,41 38,17 37,98 37,78 37,78 37,10 37,49 38,39 37,49 37,49 37,20 37,49 37,20 37,20 37,20 37,38 36,71 35,75 35,23 34,57 34,63 34,70 34,76 34,32	}0,03 0,72 }_0,67
$ \begin{array}{c} 11\\ 12\\ 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 22\\ 23\\ \end{array} $	} 9 6	34,46 34,55 34,21 34,55	Continued cloudy weather peculiar to the N.	$ \begin{array}{c} 2 \\ 4 \\ $	34,97 34,37 34,29 34,22 33,24 34,17 34,41 33,46 34,38 34,27 34,86	+0,21 -0,82 +0,20 -0,06
22 23 24 25 26 27 28 29 30 Dec. 1 2 3 4 5 6 7 7 8 9	8877	35,15 34,91 35,77	Continue	3 3 4 3 4 3 3 4 3 3 3 4 3 3 3 2 3 2 3 2	$\begin{array}{r} 34,53\\ 3.1,77\\ 3.5,17\\ 34,46\\ 34,47\\ 35,03\\ 34,53\\ 34,53\\ 34,53\\ 34,53\\ 34,56\\ 34,98\\ 35,12\\ 34,56\\ 34,98\\ 35,12\\ 34,76\\ 34,44\\ 34,21\\ 34,21\\ 34,22\\ \end{array}$	}-0,69 +0,12 }-0,95

Dat	e.	No. of Ob- servations.	Index Error by Stars.	Remarks.	No of Ob- servations.	Index Error by Reflecting Collimator.	Difference.
183	7		1 M	anna a ann an Anna ann an Anna ann ann a	11	1 11	
Dec.	10				2	0 32,76	
l l	11				3	33,02	
	12				3	33,67	Í
	13		0 04 00		3	32,53	
	14	5	-0 34,98		3	33,89	1,09
	$\frac{15}{16}$	§ 9	35,27		$\begin{vmatrix} 3\\2 \end{vmatrix}$	32,95 33,17	-2,21
	17					33,02	R I
	18	57	35,13		4	32,91	-2,17
ļ	19	,			3	32,91	1
Į	20	{ 9	34,55		4	33,03	} -1,58
ł	21	1 1	ĺ		2	33,72	1
	22	57	34,37		2	32,80	
}	23)			4	33,74)
1	24					33,55	
İ	25	5	33,54			33,09	-0,45
	26	6	34,97		3	33,71	
1	27 28	{ 11	34,77	1		33.61 33,56	
	28 29	7	35,42			34,34	ען א
ł	29 30	2	1		2	36,64	
	31	1	36,17		2	37,20	
	~~	<u>ا</u>]				1

INDEX ERROR OF THE MURAL CIRCLE FOR 1836 AND 1837. 51

Taking the means of the column "difference", and putting d L for the error of the Assumed Latitude, and E for the error of the four divisions employed, we get

from 260	Observations in	1835	$\mathbf{E} + d \mathbf{L} = -0''$,06
190		1836	= - 0	,65
171		1837	= - 0	,55
Mean			= - 0	,37

The discordance here found between the result for 1835 as compared with that for 1836 and 1837, is, as far as our present knowledge extends, chargeable alone to error of observation: it adds one to determine the facility with which an accuracy of one or two seconds may be attained, (even by a single observation) still, how little control continued observation gives us over the fraction of a second.

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RESULT OF OBSERVATIONS MADE WITH THE TRANSIT INSTRUMENT AND MURAL CIRCLE.

It has hitherto been a constant source of regret to me, —that whilst the observations of the fixed Stars and Planets, have come out-in a manner creditable to the Madras Instruments and Observers-still, that the observations of the Sun have been discordant to a degree little calculated to confer credit upon either—It is not that the *mean results* have differed much at any time, from those determined at other observatories; but the discordance found among individual results reaches to an amount (occasionally 5 or 6 seconds + or -) which could hardly be credited: during the past two years this subject has occupied no small share of my attention, and the result has been I am sorry to say but little satisfactory. During the Autumn of 1835 and in 1836 and 1837, it had generally been my custom, to compute the Sun's N. P. D.-set the instrument, and read off the 4 Microscopes previously to opening the shutters for the meridian observation; the comparison of these readings with those made at the time of meridian passage, shews that no change is ever effected upon the relative position of the microscopes by the Sun shining upon the Instrument: to discover if the lndex Error remained constant under these circumstances,-I made two or three observations with the Reflecting Collimator at a few minutes before Noon; and then, opening the shutter,—allowed the Sun to shine upon the Instrument for 5 minutes before the meridian passage, immediately after which, the Observation with the Reflecting Collimator was repeated; the result shewed, that no appreciable change had occurred from the action of the am reluctantly compelled to proceed, and leave this matter still unexplained-In the table which follows, the meridian observations of the Sun at the Transit have it will be observed, on many occasions been omitted, which has arisen in consequence of no known star having been observed during the day timewhen the uncertainty of the clock's rate would not permit its error to be interpolated from the evening observations.

The observed transit of the 1st and 2d limb over the five wires, furnishes us with the value of the apparent semidiameter; from which, the mean horizontal semidiameter = $\left(\frac{\operatorname{Sun's 2 L} - 1 L}{2}\right) \times 15 \left(1 + \frac{a'-a}{48}\right) \sin N. P. D. \times \operatorname{dist.}(\operatorname{Earth} - \operatorname{Sun})$

At the Circle it has been usual to observe either the North limb alternately with the South limb at consecutive transits, or to observe on the same day the N. P. D. of the one limb at 30 seconds *before* the meridian passage, and that of the other at 30 seconds after it—whereby the mean *vertical* semidiameter of the Sun has been computed from the formulæ—

M. V. Semid. =
$$\frac{N. P. D. Sun's South L. - N. P. D. Sun's North L. + dr. \pm d D. - C - T.}{2} \times dist.$$
 (Sun-
Earth.) where α', α , represent the A. R. of the Sun at the noon following, and pre-
ceding the day of observation; dr , the difference of the refractions due to the
N. and S. limbs; d D, the change of Declination in 1^m of time (the interval be-
tween the observations), C a correction due to a small inclination of the hori-
zontal wire; which, up to the 19th June 1836 amounted to $1'', 46$ but has since
been reduced to 0; and T = $2'', 42$ is the value of the diameter of the wire.

	0.00	Right Ascension			ision	Error of	Nor	th F	Polar Di	stance	Error of	Mean Semidiameter.		
	836			from N.A.	Tables.	Tables. from		from N. A.	Tables.	Horizontal.		Vertical.		
Jan	. 2	h. 18	m. 47 52	s. 45,02 9,79	s. 44,60 9,30		。 113 112	0 55	" 25,15 8,28	″ 28,60 12,50	+ 3,45 + 4,22	16	2,01	
	4 6	19	56 5	$34,21 \\ 21,47$	33,70 21,10	-0,51 -0,37	112 112	49 36	28,38 37,82	29,00 40,90	+ 0,02 + 3,08		0,27 1,96	
	7 8		14	44,65 7,04	44,20 6,90	0,14		29 22	32,95 5,58	36,70 5,70			1,87 3,72	
	9 10 11		18 22 27	28,92 50,95 12,31	29,00 50,60 11,80		112 112 111		5,82 43,26 52,36	8,40 44,80 55,40		15	3,68 2,68 59,90	
	$13\\14$			52,80 11,93	52,30 11,80		111	37 27	58,00 50,49	59,70 53,90	+ 1,70		59,80 55,96	
	15 16				3 0,40 4 8,60	0,31	111	6	28,03	23,20	0,13	16	3,58 2,32	
	17 18 19	20	53 57 1	6,12 22,85 39,05	5,90 22,70 38,70	-0,15		43	7,89 25,71 16,97	8,30 24,80 17,80	- 0,91	15	59,66 58,27 1,18	
	19 20 21	20	5 10	54,20	53,90	- 0,30	110		55,61	54,00			1,67	
ļ	22	l	14				109		37,44			}	0,47	

Comparison of the Observed A. R. and N. P. D. of the Sun, with the places interpolated from the Nautical Almauac, &c.

		Right Ascension			sion	Error of	Nor	h I	Polar D	istance	Error of	Mean Sem	idiameter.
183	16		fron erva	n tion.	from N. A.	Tables.			ation.	from N. A.	Tables	Horizontal	Vertical.
Jan.	23		18	s. 35,36	s. 35,00	<i>—</i> 0,36	0 109	, 39	″ 1,40	<i>"</i> 0,50		15 58,70	
ľ	$\begin{array}{c} 24 \\ 25 \end{array}$			47,23	$47,10 \\ 58,40$	-0,13 -0,16	100	10	34,83	39,30	+4,47	16 2,14 1,10	
Ì	26		20 31	58,56 9,09	8,90	-0,10 -0,19	103	10	04 ,00	09,00		0,80	
	$\tilde{27}$			19,22	18,60	-0,62	108	40	54,70	53,90	-0,80	1,96	
	28			27,64	27,50	-0,14			26,81	30,60	+3,79	1,82	
1	29	.	43		35,40		108		44,31	47,60	+3,29	0,90	
	30		47	43,14	42,60	-0,54	107	53	42,30	45,00	+2,70	15 59,93	
1	31			49,04	48,90	-0.14						16 2,30	
Feb.	1			54,70	54,30 58,90	-0,40 -0,45	107	2	46,33	44.90		2,48 2,16	
.	2 3	21	59 4	59,35 3,31		-0,45 -0,61			40,33 26,44	44,80	+1,86	1,50	
ļ	4	21	8	6,38	5,80	-0,51			54,05	54,40	+0,35	0,30	
1	5		12	8,81	8,00	-0,81	106		2,81	3,50	+0,69	0,00	
1	6					0,87			55,22	55,80	+0,58	1,66	
	7		20	10,04	9,90	-0,14			33,47	31,70	- 1,77	4,30	
	8			10,32	9,70	-0,62			54,66	51,70	-2,96	1,20	
	9		28	9,47	8,70	-0,77	104	56	58,82	56,20	-2,62	0,68	
1	10		32	7,77		-0,77	104		15 55	00.00	1 1 4 45	0,47	
	$\frac{11}{12}$		36 40	4,72 1,54	4,50 1,20	-0,22 -0,34	104		15,55 37,19	20,00	+ 4,45 + 3,11	15 58,98	
,	12		40 43		57,20	-0,32	103		41,35	46,70	+ 5,35	59,86	
	14		47	52,40			103		37,35	39,60	+2,25	16 2,28	
	15		51		46,80		102		14,93	19,40		1,15	
	16		55		1 1		102	37	42,53	46,70	+4.17	0,06	
	17		59				102		58,93	1,80	+2,87	15 59,75	
Ĩ	18					-0,54	101			5,20	+4,42	16 2,17	
	19		7	17,63	17,30	-0,33	101	34	55,24	57,30		1,10	
1	20		11		8,10 58,40	-0,57 -0,07	1101	13	37,89	38,20	+ 0,31	0,75	
ļ	$21 \\ 22$			58,47 48,41	47,80	-0,61	1.00	92	0,00	9,00	+ 3,44	3,18	
į.	23			36,87								1,00	
Į	$\tilde{24}$			25,28			99	46	39,58	42,60	+3,02	2,90	
1	25			12,42			99	24	34,42	35,80		0,24	
	26			\$ 59,81			99	2	16,49	20,80	+4,31	1,48	
1	27			46,16					58,42	57,80		1,38	
	28		41				98		25,31	27,40		1,52	
Ма	29	1	40 49	5 17,22 0 2,15			97		48,64	49,70		1,42	
Mai	r. 1 2			2,10 2 46,02			97			5,30		2,30	'
	3			529,69					16,18	17,50	+ 1,32	1,16	
ł	4						96	23	10,62	15,20		1,32	
	5	5	3	3 55,67	55,50	-0,17	96	; C	5,74			2,48	
	6	3	7	37,60) 37,90	+ 0,30	95	36	55,59	54,80	0,79	3,38	
	7		11						40,00			1,12	
	8		15) 15,41	16,30		2,78	
	9 1 (342,63					52,79			0,62	
1	10		22 26	2 23,56 5 3,86			94		8 21,03 9 49,34			0,67	ļ
		2) 3,80) 44,36			9	, JE 1 1 A	512,32	50,40		2.72	
		3		3 24,33					38,95			2,42	
L) کر ۱۹۹۹ میشاریونس	- 1 [.]			-1 ~ 1					1 00,10	1 -1- 0+10	1 2,40	

Result of Observations in 1836 and 1837. 55

100	6	Right Ascer	sion	Error of	North Polar D	istance	Error of	Mean Semi	diameter.
183	0	from observation.	from N. A.	Tables.	from observation.	from N. A.	Tables.	Horizontal.	Vertical.
Mar.	14	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	s. 3,90	<i>"</i> - 0,66	92 28 57,96	<i>"</i> 0,20	+2,24	16 1,70	15 58,02
	15 16	$\begin{array}{r} 40 \ 43, 49 \\ 44 \ 22, 73 \end{array}$	43,30 22,50	-0,19 -0,23	91 41 35,63	38,10	+2,47	1,68 0,70	16 2,16 1,80
	17	48 1,66	1,50	-0,16	91 17 53,09	55,70		4,14	1,82
	18	51 40,74	40,30	-0,44	90 54 12,09	12,80		2,14	$0,\!64$
	19	55 19,27	18,90	0,37	90 30 31,33	29,90	-1,43	2,56	0,34
	20	58 57,11	57,50	+0,39	90 6 46,88	47,40	+0,52	1 10	2,94
	$\begin{vmatrix} 21\\ 22 \end{vmatrix}$	$\begin{array}{rrrr} 0 & 2 & 35,87 \\ & 6 & 14,33 \end{array}$	$35\ 80\ 14,10$	-0,07 -0,23	89 19 26,96	25,10		1,42	
	$\frac{22}{23}$	9 52,53	52,20	-0,23 -0,33	88 55 45,58	46,10	+0,52	0,86 1,80	
	24	13 30,13	30,20	+0,07	88 32 7,26	8,90	+1,64	1,92	
	25	17 8,63	8,20	-0,43	88 8 31,58	33,90	+2,32	1,86	1,92
	26	20 46,28	46,10		87 44 59,28	1,60	+2,32	2,34	5,68
	28	28 2,61	2,00	-0,61	87 58 5,42	6,20	+0,78	2,28	1,80
	29 30	31 40,04 35 18,07	$39,90 \\ 17,90$	-0,14 -0,17	86 34 41,78 86 11 24,35	43,80 25,50	$^{+2,02}_{+1,15}$	3,65 2,05	
	31	38 56,02	55,90	-0,12	85 48 14,09	11,40	-2,69	2,03	
April	1	42 34,32	34,10	-0,22	85 25 2,72	2,30	-0,42	1,32	
	2	46 12,53	12,30	0,23	8 5 I 56,19	57,90	+ 1,71	1,06	
	3	49 50,90	50,70	0,20	84 39 1,80	58,90	-2,90	1,37	
	4		7 00	1 0 22	84 16 5,44 83 53 13,11	5,40	-0,04	3,42	
	5 6	57 7,57 1 0 47,01	7,90	+ 0,33 0,31	83 30 30,82	17,70 36,10	+4,59 + 5,28	0,82 3,54	
	7	4 25,77	25,90	+ 0,13	83 7 57,50	1,00	+3,50	15 59,34	
	8	8 5,59	5,20	0,39	82 45 27,54	28,90	+1,36] = = = = = = =	
	9	11 45,03	44,90	0,13	82 23 8,94	12,00	+3,06	16 1 92	
	10	15 24,87	24,70	-0,17	82 0 55,77	58,70	+2,93		
	$\frac{11}{12}$	19 5,31 22 45,55	4,90 45,40	-0,41 -0,15	81 38 51,77 81 16 55,56	53,50 56,40	+1,73 + 0,84	1,44 2,14	2,58
	13	26 26,35				7,90		0,90	~ <i>2</i> ,00
	14	30 7,41	7,20	-0,21				3,52	
}	15	33 49,00	48,70	0,30	80 12 2,37	57,80	-4,57	3,82	
	16	36 30,48	30,60	+0,12	79 50 41,31	37,20	4,11	1,24	
1	17	41 13,38	12,80	-0,58	79 29 27,63 79 8 24,31	26,50		2,88	
	18 19	44 55,39 48 38,52	55,29	-0,10 -0,22	79 8 24,31 78 47 32,44	26,20	+ 1,89 + 4,06	3,14 1,62	
	20	52 22,09	21,70	-0,22 -0,39	10 11 02,11	00,00		16 1,20	
ľ	21	56 5,86	5,50	0,36	78 6 28,12	31,10	+2,98	0;64	
ļ	22	59 49,95	49,70	0,25	77 46 14,53	15,80	+1,27	2,94	
Ì	23		34,40		77 26 11,17	12,50	-+ 1,33	0.18	ľ
	24 95	7 19,45	19,50	+ 0.05 - 0.65	77 6 20,10 76 46 41,94	19,90 44,10	-0,20 + 2,16	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
	$\frac{25}{26}$	11 5,65 14 51,63	5,00 51,10	-0.03 -0.53	76 27 18,05	19,30	+ 1,25	10 3,72	0,34
	27	18 38,01	37,40	-0,61	76 8 6,94	8,10	+1,16	0,84	
	28	22 25,29	24,50	0,79	75 49 11,80	10,50	1,30	1,64	3,98
	29	26 12,51	11,70	0,81	75 30 26,44	26,90	+0,46	1,52	
	30	30 0,48	0,00	-0,48	75 12 0,12	57,80	-2,32	010	
May	$\frac{1}{2}$	33 48,65 37 38,19	48,60 37,70	-0,05 -0,49	74 53 44,38	43,10	-1,28 + 2,19	2,10 1,40	
	2 3		26,40		74 17 57,39	58,60		1,10	
	5				73 43 9,71	16,10			

1000	Right As	cension	Error of	North Polar Di	stance	Error of	Mean Semi	diameter.
1836	from observation	from N.A.	Tables.	from observation.	from N. A.	Tables.	Horizontal.	Vertical.
	h. m. s.		"	0 / //	"	11	1 11	1 11
May 6	2 52 59,			73 26 14,79	18,80	+4,01	20 204	15 59,28
7 8	$\begin{array}{c} 56 51, \\ 3 0 44, \end{array}$			73 9 33,19 72 53 11,53	37,80 13,40	+4,61 +1,87	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	57,26
9	5044,	44,20		72 37 1,25	6,10	+ 4,85	3,28	59,78
10	8 31,	35 31,20	- 0,45	72 21 13,83	16,00	+2,17	2,21	
11	22 25,	48 25,40	- 0,08	72 5 41,78	43,60			
13				71 35 31,09	32,50	+1,41	0,70	
$\begin{array}{c} 14\\ 15\end{array}$	28 8,	12 8,60	+0,18	71 20 55,31	54,60	-0,71	0,86	
16	32 6,			70 52 31,89	35,30	+ 3,41	5,40	16 1,64
17						,	5,32	,
18	40 1,						3,56	
19		87 0,90			32,60		6,78	
20 21		18 0,40 10 0,30		$69 59 55,80 \\69 47 33,68$	51,80 31,40	-4,00 -2,28	5,96 5,96	
22		84 0 ,90		69 35 33,21	31,80	-1,41	3,74	1,2
23		56 1,90		69 23 51,81	53,20	+1,39	4,62	2,8
24	4 3,			69 12 34,03	35,90	+ 1,87	5,76	0,1
25		52 5,40		69 1 35,19			5,58	2,5
26 28	12 8, 20 14,	12 7,80 56 14,30		68 51 1,85 68 30 58,41	5,80 3,10	+ 3,95 + 4,69	1,18 1,40	
20	20^{14} , 24 18,			00 00 00,41	0,10	1 4,00	2,82	1
30	28 22			68 12 25,59	30,20		2,45	0,5
31	33 27			67 33 44,01	47,30		2,70	
June 1	36 33,			67 55 23,61	27,30	+3,61	1,46	1
4 5	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						3,78 1,94	
6		35 4,60		67 19 31,42	34,90	+3,48	1,34	
7	5 1 11,			67 13 31,71	35,20	+3,49	1,46	
8		69 19,70	+ 0,01	67 7 53,48	59,20	+5,72	2,38	1,1
9	9 27			67 2 45,78 66 58 0,04	47,30		15 59,40	15 58,1
10 11	13 36 17 44			66 58 0,04 66 53 35,48	36,30		16 1,28	
12				66 49 34,49	37,20	+2,71	2,10	16 1,3
13		19 2,50	0,69	66 46 2,33	2,60	+0,27	2,82	
15				66 40 2,00	7,40	+5,40	2,82	
16 17				66 37 45,86 66 35 48,77	46,80 50,90		3,60	1 1 2
18				66 34 18,84	19,80	+ 2,13 + 0,96	2,76 2,60	1,3
19				66 33 11,35	13,50	+2,15	2,02	
20	55 9	29 8,70		66 32 32,33	32,20	-0,13	2,28	1
21				66 32 12,88	15,70		0,38	3,4
22 28		74 23,10	-0,64	66 32 21,88 66 41 53,58	23,90	+2,02 + 0.42	2,22	
30		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, 0,04	66 48 19,60	54,00 20,60	+0,42 +1,00		3,3
July 1	1			66 52 9,97	10,30	+0,33	1,98	
1 7	44 56			66 56 23,07	23,40	+0,33	1,98	1,8
3		,49 4,10) - 0,39				4,45	
4				67 11 28,29	30,90	+2,61	1,34	
				67 17 21,20	20,80		0,44 0,47	

Result of Observations in 1836 and 1837. 57

		Right Ascension		Error of	North Polar D	istance	Error of	Mean Sem	idiameter.		
183	6	obs	fror serva	n ation.	from N. A.	Tables.	from observation,	from N. A.	Tables.	Horizontal.	Vertical.
		h.	m.	s .	\$.	"	67 02 00 29	<i>"</i> 34,40	+5,02	16 1,62	, ,
July	7 9	7	13	44,69	44,00	0,69	67 23 29,38 67 37 11,21	12,20	+0,99	0,92	15 59,95
	10	•		4 9,94	49,40	-0,54	67 44 33,17	36,00	+2,83	15 59,88	58,30
	11			,		ŗ	67 52 21,46			16 2,18	16 1,75
	12						68 0 27,90 68 9 3,34	32,50 5,00	+4,60 + 1,66	$0,78 \\ 3,34$	
	13 14		34	7,47	6,80	-0,67	68 17 54,87	59,80	+4,93	1,40	
ļ	15		38	10,26	10,00	-0,26	68 27 13,12	16,90	+3,78	2,52	
	16		42	13,09	12,70	0,39	68 36 55,13	56,10	+0,97	1,90	
	17		4 6	15,22	14,80	-0,42	68 46 53,39	57,10	+3,71 +4,59	2,02	
1	18 19		51	17,89	17,40	-0,49	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,60 3,70	+1,26	0,70	
	20		53		17,40	-0,45	69 19 8,42	8,80	+0,38	1,68	
	23		,	·			69 54 30,55	28,40	-2,15	1,26	1,06
	26	8	22	8,02	8,20	+0,18	70 32 48,15	48,70	+0,55	$\begin{array}{c} 0,72\\15 57,72\end{array}$	
1	27 28		26 30	4,95 0,50	$4,60 \\ 0,20$	-0,35 -0,30	70 46 18,08 71 0 0,38	$14,40 \\ 59,10$	-3,68 -1,28	16 1,86	15 59,12
Į	$\frac{20}{30}$		30	0,00	0,20	-0,00	71 28 23,94	24,50	+0,56	-2,18	,
Aug.	2			1			72 13 22,47	18,90	3,57	1,70	
	4						FA 0 446	2 10	1,36	$1,64 \\ 1,30$	16 0,88
	9 10						74 8 4,46 74 25 34,69	3,10 30,40	-4,29	0,86	10 0,00
1	14						75 37 52,73	47,30	-5,43	-,	
	15					1	75 56 28,58	26,80	-1,78	1,40	15 58,20
	16	_				0.10	76 15 19,51	19,70	+0,19	$2,40 \\ 0,62$	
	17 18	9	46	32,10 15,95	32,00 15,70	-0,10 -0,25	76 34 22,57 76 53 43,25	$25,60 \\ 44,30$	+3,03 +1,05	1,92	16 0,75
1	19		50	10,00	10,70	0,20	77 13 18,33	15,30	3,03	2,64	
	21	10	1	24,21	23,90	0,31				3,68	
	22		~	4	10.00	0.00	78 12 56,01	59,80	+3,79	2,4 2 2,05	
	23 25		8	47,00	46,80	0,20	78 33 19,40 79 14 25,41	17,20 24,10		1,80	
	27		23	27,74	27,60	-0,14	79 56 17,95		6,25	2,30	
Sep.	7	11	3	22,55	22,40	0,15		i	r	1,28	
	8			58,69	58,60	-0,09	94 41 49 17	38,70	A 17	$2,25 \\ 1,26$	
	9 11		10 17	34,77 46,79	34,80 46,70	+0,03 -0,09	84 41 43,17 85 27 14,99	13,90	-4,47 -1,09	2,00	
	$11 \\ 12$		21		22,50	+0,03 +0,22	85 50 11,29	8,90	-2,39	1,62	15 59,72
	16			44,70	44,60	-0,10	87 22 31,57	29,00	2,57	1,64	52,62
	17						87 45 41,96	4 2,40	+0,44 + 3,20	1,02	16 0,84
	18 19		46	30,82	30,90	+0,08	88 8 55,10	58,30	70,20	15 58,00	
	20		5 0			-0,12	88 55 36,69	36,80	+0,11	59,72	1,66
	21		53	42,03	41,80	0,23	89 18 59,54	58,40	-1,14	16 1,38	0.00
	22	10		17,44	17,40	-0,04	89 42 24,65	21,60	3,05	0,98 3,52	3,02
	23 24	12		53,26 28,85		-0,26 -0,05				15 58.60	
	$\frac{24}{25}$		8	4,59	4 ,60	+0,01	90 52 32,54	35,20		58,20	
	26			40,99	40,70	-0,29	91 16 2,37	0,00	2,37	16 0,32	
	27						91 39 25,30	24,70		15 57,96 16 1,98	
	28	1			1]	92 2 51,39	48,60	2,79	1 10 1,30	names triteretter

1000		Right Asce	nsion	Error of	North Polar D	istance	Error of	Mean Sem	idiameter.
1836		from observation.	from N. A.	Tables.	from observation.	from N A.	Tables.	Horizontal.	Vertical.
1 3	29	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7,30	0,00	92 26 12,20	<i>"</i> 11,60	— 0,60	16 0,84 15 59,20	* "
Oct.	1 4 5 6 7 8 9	$\begin{array}{r} 29 & 45,01 \\ 40 & 38,40 \\ 47 & 56,08 \\ 51 & 35,55 \\ 55 & 15,20 \\ 58 & 55,83 \\ 10 & 200 \\ \end{array}$	38,40 56,10 35,50 15,40 55,60	$ \left \begin{array}{c} 0,00\\ +0,02\\ -0,05\\ +0,20\\ -0,23 \end{array}\right $	94 22 40,39 94 45 51,21 95 9 0,74 95 55 2,68 96 17 54,45	0,10 54,50	+0,19 -2,64 -2,58 +0,05	0,88 0,80 3,32	
	10 11 12 13 14 15 16 17	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{ } -0,18 \\ -0,37 \\ -0,29 \\ +0,33 \\ 0,00 \end{array}$	96 40 45,03 97 3 23,18 97 26 2,62 97 48 36,53 98 10 59,48	38,00	+4,62 +3,38 +1,47 +4,22	1,40 2,16 1,70 3,67 3,84 2,92	
	18 19 20 21 22 23 24	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6,40 52,60 39,30 26,80	$\begin{array}{c c} + 0,07 \\ - 0,10 \\ - 0,04 \\ - 0,21 \end{array}$	99 39 33,70 100 1 19,10 100 23 0,87 100 44 25,38 101 5 44,16	44,30	$\begin{vmatrix} +0,10 \\ -3,77 \\ +0,22 \\ +0,14 \end{vmatrix}$	3,57 2,50 1,92 15 58,50	
	24 25 26 28	58 53,74 14 10 26,49		1	101 47 50,21 102 8 38,39 102 29 13,10		+0,71	2,82	
Nov.	2 5 6 7 8 9 10		47,90 47,80 48,60 50,20	+0,49 -0,48 -0,06 -0,16	104 47 43,31 105 43 38,11 106 1 46,61 106 19 37,40 106 54 34,34 107 11 34,52	47,80 39,40 32,90	+1,99 +1,19 +2,00 -1,44	4,10 6,34 6,50 4,77	16 1,6
	10 11 12 13 22 23 24	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	7 56,00 2 0,20 0 27,30	-0,57 -0,32 -0,70	107 11 34,52 107 44 39,18 108 0 45,82 110 10 48,53 110 23 29,13	34,00 42,20 48,70 47,70 27,40	+3,02 +2,88 -0,83	3,94 4,66 4,45 3,40 5,62 5,54 2,32	
	25 26 27 28 29 1	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3 24, 50 3 40,60 8 57,60	-0,16 -0,26 -0,08	110 59 8,64 111 10 14,52 111 21 1,82 111 31 20,53 111 50 44,48	9,90 17,30 0,70 20,10 44,90	+2,78 -1,12	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	
		34 12,48 42 53,42 47 15,18 51 37,10 55 59,78	$2 \mid 53,50 \\ 3 \mid 15,00 \\ 0 \mid 37,10 $	+0,08 -0,18 0,00	111 50 14,45 111 59 47,39 112 16 43,69 112 24 29,91 112 31 51,23 112 38 49,79	$\begin{array}{c c} 43,30\\50,00\\43,30\\31,20\\52,90\\48,10\end{array}$	$ \begin{array}{c c} +2,61 \\ -0,39 \\ +1,29 \\ +1,67 \end{array} $	8,86 4,00 5,02 4,76	0,5 15 59,5

183	16	1	Righ	t Ascer	nsion	Error of	Nor	th I	Polar D	istance	Error of	Mea	n Semi	diam	eter.
100	0	ob	frc serv	em ation.	from N. A.	Tables.	ob	fro serv	om ation.	from N. A.	Tables.	Hori	zontal.	Ver	tical.
Dec.	12	h. 17	13	s. 34,99 59,84	s. 34,70 59,50	<i>"</i> 	o 113 113		″ 57,36 38,05	″ 0,30 40,00	<i>"</i> + 2,94 + 1,95	16	" 5,14 5,12	,	"
	13 16 17 19		40 49	7,85 0,82	7,60 0,20		113	22	38,91 57,07 16,19	41,60 2,00 18,20	+2,69 +4,93 +2,01		1,38 5,16 4,85 3,14		
	20 23 24 27 28	18	6	27,01 46,87 13,37	26,70 46,30 13,00	-0,31 -0,57 -0,37	$\begin{array}{c}113\\113\end{array}$	26 20	10,92 13,43 31,57 41,18	$11,50 \\ 14,10 \\ 32,70 \\ 42,70$	+ 0,58 + 0,67 + 1,13 + 1,52		4,00 4,07 4,40 4,60	16 15 16	2,43 0,26 59,65
183	29 31		42	15,54	15,60	+ 0,06		14	24,88 20,17	24,50 24,30	+ 1,32 0,38 + 4,13		2,17 3,14	10	0,48 2,54
Jan.	2 3 5 6 7	19	4	30,60 18,87 42,53 5,30	30,50 18,50 41,90 4,80	-0,10 -0.37 -0,63 -0,50	112	50 38	29,64 55,34 19,13 22,36 1,01	33,10 56,30 20,80 22,60 57,60	+ 3,46 + 0,96 + 1,67 + 0,24 - 3,41		5,17 8,18 7,34 6,85 5,85	16 15	59,44 0,37 57,41 58,15
	8 9 10 11 12 13		17 21 26 30 34	27,68 49,45 11,03 31,52 51,76 10,99	27,50 49,10 10,40 31,20 51,40 10,80	-0,18 -0,35	111	16 7 59 49	8,08 45,93 3,92 55,77 20,05	6,20 48,60 4,90 55,50 20,60	$ \begin{array}{c} -1,88 \\ +2,67 \\ +0,98 \\ -0,27 \\ +0,55 \end{array} $	15	6,13 3,82 3,37 3,54 2,82 57,40	16	1,96 59,73 0,98 59,07
	15 16 17 18		00	10,00	10,00	0,10	110	46	3,41 52,15 11,47 15,28	5,90 52,00 14,30 12,90	-0,15 + 2,83	16	0,52 2,16 3,34		57,07
		20	9 13 17 21	53,92 7,82 21,38 34,63 46,83 58,45	53,30 7,70 21,40 34,40 46,60 58,00	$ \begin{array}{c c} -0,12 \\ +0,02 \\ -0,23 \end{array} $	109	21 9	51,43 2,85 54,25 21,28 24,67 5,85		3,03	15 16	2,47 59,93 59,37 1,52 1,80 2,74	16	59,07 57,84 0,17 1,19 2,06
	25 26 27 28 29 30		38 42 46	8,79 18,46 27,78 36,22 43,54 50,31	8,60 18,40 27,50 35,70 43,10 49,70	$ \begin{array}{r}0,19 \\0,06 \\0,28 \\0,52 \\0,44 \\0,61 \end{array} $	108	44 29 13 57	29,49 12,39 34,71	$\begin{array}{c c} 32,10 \\ 34,50 \\ 16,50 \\ 38,30 \\ 40,40 \\ 23,20 \end{array}$		15 16	2,28 2,05 5,32 2,02	16	58,02 58,97 1,00
Feb.	31 1 2 3 4 5 6	21	19	4,66 8,55 10,75 12,96 13,84	0,50 4,60 8,00 10,60 12,40 13,30	$ \begin{vmatrix} - & 0,30 \\ - & 0,06 \\ - & 0,55 \\ - & 0,15 \\ - & 0,56 \\ - & 0,54 \end{vmatrix} $		50 33 15	17,07	52,40 39,60 9,10 21,30 16,70 55,70	+4,24 + 2,95 + 4,23 - 1,41		2,45 2,08 5,02 2,52 1,62 2,14 1,00		59,12
	7 8 9			13,43 12,69	13,30 12,60	-0,13 - 0,09	104		31,0 4 21,02	26,00	= 5,04 = 2,72		1,98 3,30		4,0 1,9

100		Right Ascensio		nsion	Error of	North Polar D	istance	Error of	Mean Sem	idiameter.	
1837		obs		m ation.	from N. A.	Tables.	from observation.	from N.A.	Tables.	Horizontal.	Vertical.
	10 11 12 13 14 15 16 17 18	h. 21 22	35 39 46 50 54 58 2 6	23,08	45,40 38,50 30,90 22,20	-0,25 -0,71 -0,89 -0,88	3 1,25 102 42 33,40 21 56,40 1 2,63 101 39 58,03	7,80 38,50 57,00 3,90 59,50	+ 6,55 + 5,10 + 0,60 + 1,27 + 1,47	16 2,40 1,27 2,02 1,70 1,70 1,44 2,90 0,86	16 3,24 15 59,50 16 2,55 15 59,47 16 3,02 15 59,15 16 1,15 16 1,67
	19 20 21 24 25			3,94 53,19	3,30 52,80	-0,44 -0,64 -0,39	100 57 14,04 35 41,40	42,10	+3,96 + 0,70	2,58 1,52 3,00 0,35 2,20	4,00 0,68
]	26 27 28 1 2 3 4 5	23	40 44 48 52 55	22,94 7,99 52,19	37,10 22,70 7,80 52,30	$ \begin{array}{r} -0,33 \\ \hline 0,24 \\ -0,24 \\ \hline 0,19 \\ +0,11 \\ +0,13 \\ +0,10 \\ -0,03 \\ \end{array} $	0 15,85	54,70 18,40 35,10	$\begin{array}{r} + 3,94 \\ + 4,33 \\ + 2,55 \\ + 1,47 \\ + 0,73 \\ - 2,48 \\ + 0,04 \\ - 0,37 \end{array}$	$\begin{array}{c c} & 4,76 \\ & 1,40 \\ & 1,70 \\ 15 & 55,37 \\ & 57,38 \\ & 59,08 \\ 16 & 0,99 \\ & 1,20 \end{array}$	0,92 15 59,84 16 0,81 15 57,64 16 3,67 2,61
	6 7 8 9 10 11 12 13		6 10 14 17 21 25 28	45,61	45,40 27,40 9,20 50,60 31,60 12,40 52,60 32,60	-0,21 + 0,08 -0,02	95 42 26,66 19 11,27 94 55 52,63 32 23,38 8 55,18 93 45 20,21 21 42,75 92 58 9,92	26,70 9,40 47,90 22,60 53,90 22,30 48,10 11,70	$ \begin{array}{r} + \ 0,04 \\ - \ 1,87 \\ - \ 4.73 \\ - \ 0,78 \\ - \ 1,28 \\ + \ 2,09 \\ + \ 5,35 \\ + \ 1,78 \end{array} $	$15 58,74 \\ 16 1,90 \\ 0,04 \\ 2,34 \\ 1,80 \\ 1,58 \\ 2,58 \\ 2,47 \\ $	$\begin{array}{r} 1,62\\ 15 57,75\\ 16 1,50\\ 3,07\\ 4,78\\ 15 59,45\\ 16 1,28\\ 15 58,46\end{array}$
	14 15 16 17 18 19 20		47	9,35	9,80	+ 0,45	$\begin{array}{c} 34 & 31,86 \\ 10 & 53,36 \\ 91 & 47 & 10,81 \\ 23 & 29,01 \\ 90 & 59 & 47,86 \\ 36 & 14,59 \\ 12 & 29,46 \\ \end{array}$	33,40 53,70 12,90 31,40 49,60 7,80 26,30	$\begin{array}{r} + 1,54 \\ + 0,34 \\ + 2,09 \\ + 2,39 \\ + 1,74 \\ - 6,79 \\ - 3,16 \end{array}$	0,50 3,37 2,05 0,98 15 59,45 16 1,48 2,82	59,6659,7416 1,470,6215 59,6216 1,84
	21 22 23 24 25 26	0	12 14	59,74 37,77 15,17	59,70 37,70 15,60	-0,04 -0,07 +0,43	89 48 45,32 25 5.56 1 24,70 88 37 47,97 14 12,12 87 50 44,10	45,50 6,00 26,70 51,00 16,20 43,80	$\begin{array}{c c} + 0,18 \\ + 0,44 \\ + 2,00 \\ + 3,03 \\ + 4,08 \\ - 0,30 \end{array}$	15 55,82 16 1,88 1,40 15 59,34 16 0,68 1,44	1,15 0,37 15 59,86
	27 28 29 30 31 1		27 30 34 38 41	$\begin{array}{c} 31,73 \\ 8,95 \\ 46,71 \\ 25,55 \\ 3,24 \\ 41,90 \\ \end{array}$	31,40 9,30 47,30 25,40 3,50 41,60	-0,33 + 0,35 + 0,59 - 0,15 + 0,26 - 0,30	27 13,12 3 45,31 86 40 21,81 17 4,74 85 53 47,78 30 33,72	14,00 47,30 23,70 4,00 48,20 36,80	$\begin{array}{r} + 0,88 \\ + 1,99 \\ + 1,89 \\ - 0,74 \\ + 0,42 \\ + 3,08 \end{array}$	0,87 0,84 0,48 1,25 1,97	16 1,30 2,84 1,32 15 58,95 59,87
à	2 3			19,99 58,45	20,00 58,50	+0,01 + 0,05	7 33,40 84 44 34,53	30,10- 28,50	-3,30 -6,03	0,64 0,35	16 1,40

1837	Right Ascer	nsion	Error of	North Polar D	istance	Error of	Mean Sem	idiameter.
1057	from observation.	from N. A.	Tables.	from observation.	from N.A.	Tables.	Horizontal.	Vertical.
April 4 5 6 7 8 9 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 May 1 2 2 23 24 25 26 27 28 29 30 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 11 12 20 21 22 23 24 25 26 27 28 29 30 11 12 20 20 21 22 23 24 25 26 27 28 29 30 11 12 20 21 22 23 24 25 26 27 28 29 30 11 12 20 21 22 23 24 25 26 27 28 29 30 11 12 20 21 22 23 24 25 26 27 28 29 30 11 12 20 21 22 23 24 25 26 27 28 29 30 11 12 20 21 22 23 24 25 26 27 28 29 30 11 12 20 21 22 23 24 20 21 22 23 24 25 26 27 28 29 30 11 12 2 3 3 4 5 5 6 8 9 10 11 12 2 3 3 4 5 5 6 8 9 10 11 12 2 3 3 4 5 6 8 9 10 11 12 2 3 3 4 5 6 8 9 10 11 11 22 2 3 24 23 24 23 24 23 24 25 26 27 28 29 30 10 11 11 22 23 24 20 20 21 22 23 24 29 30 10 11 11 22 23 24 29 30 10 11 11 22 23 24 29 30 10 11 11 22 23 24 29 30 10 11 11 22 23 24 29 30 10 11 11 22 23 24 29 30 10 11 11 22 23 24 29 30 10 11 11 22 23 24 29 30 10 11 11 22 23 24 29 30 31 29 30 31 31 29 30 31 31 31 31 31 31 31 31 31 31 31 31 31	3 7 35,42 11 29,69 15 24,40 4 3 4,28 7 6,37 27 23,03	55,90 19,50 19,50 1,80 44,50 27,60 11,20 55,10 39,60 24,50 9,90 55,80 42,10 29,10 16,60 4,60 53,10 42,20 31,90 22,20 35,40 29,40 24,10 35,40 29,40 24,10 22,20 35,40 29,40 24,10 22,20 35,40 22,20 35,40 22,20 35,80 22,20 32,00 22,20 32,00 22,20 32,00 22,20 32,00 22,20 32,00 22,20 32,00 22,20 32,00 22,20 32,00 22,20 32,00 22,20 32,00 22,20 32,00 22,20 32,00 22,20 32,00 22,20 20,20	0,02 0,29 0,30 0,38 0,57 0,33	$\begin{array}{c} \circ & & & & & & & & & & & & & & & & & & $	$\begin{array}{c} '' \\ 32,50 \\ 42,40 \\ 58,50 \\ 21,00 \\ 50,60 \\ 27,50 \\ 4,70 \\ 5,70 \\ 15,50 \\ 34,20 \\ 23,0 \\ 40,30 \\ 26,70 \\ 35,80 \\ 26,70 \\ 35,80 \\ 26,70 \\ 35,80 \\ 26,70 \\ 35,80 \\ 27,10 \\ 10,00 \\ 4,60 \\ 11,50 \\ 30,90 \\ 48,10 \\ 46,70 \\ 55,80 \\ 27,10 \\ 10,00 \\ 46,0 \\ 11,50 \\ 30,90 \\ 25,70 \\ 6,60 \\ 2,30 \\ 13,10 \\ 39,30 \\ 21,30 \\ 19,40 \\ 59,00 \\ 25,70 \\ 6,60 \\ 23,30 \\ 21,30 \\ 19,40 \\ 53,30 \\ 21,30 \\ 19,40 \\ 53,30 \\ 21,50 \\ 58,60 \\ 10,40 \\ 45,50 \\ 43,10 \\ 20,70 \\ 19,50 \\ 25,60 \\ 51,30 \\ 51$	$\begin{array}{c} +3,99\\ +4,26\\ +4,44\\ +4,19\\ +2,54\\ +1,93\\ +0,95\\ +1,03\\ +2,26\\ +1,63\\ +1,29\\ +3,37\\ -6,55\\ -0,29\\ +0,85\\ +0,65\\ +4,89\\ \end{array}$	$ \begin{array}{c} & & & & \\ 16 & 0,77 \\ 15 & 59,50 \\ & 59,20 \\ & 59,80 \\ 16 & 0,37 \\ & & 1,96 \\ & & 1,43 \\ & 2,00 \\ & & 0,60 \\ & & 0,90 \\ & & 1,62 \\ & & 0,28 \\ 15 & 59,84 \\ 16 & 1,57 \\ & & 4,45 \\ & & 2,18 \\ & & 0,15 \\ & & 1,42 \\ & & 2,07 \\ & & 0,92 \\ & & 0,95 \\ 16 & & 1,70 \\ & & 0,97 \\ & & 1,30 \\ & & 0,92 \\ & & 0,92 \\ & & 0,95 \\ 16 & & 1,40 \\ 15 & 59,54 \\ 16 & & 1,10 \\ & & 0,60 \\ & & 1,98 \\ & & 1,37 \\ & & 0,46 \\ & & 1,90 \\ & & & 2,05 \\ & & 0,64 \\ 15 & & 59,62 \\ 16 & & 2,56 \\ & & 1,82 \\ & & 0,48 \\ & & 2,78 \\ & & 2,47 \\ \end{array} $	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
June 1				67 57 27,01	25,10		1,04	1

		Right Ascer	nsion	Error of	North Polar Di	stance	Error of	Mean Sem	idiameter.
183	37	from observation.	from N. A.	Tables.	from observ ation	from N. A.	Tables.	Horizontal.	Vertical.
June	3 4	h. m. s. 4 39 38,21	s. 38,30	s +0,09	$\begin{array}{c} 0 & , & , \\ 67 & 49 & 18,24 \\ & 41 & 42,13 \\ & 34 & 20,93 \end{array}$	21,90 41,90 25,20	+4,27	16 0,82 1,02 1,37	15 50 97
	5 6 7	$\begin{array}{r} 4 51 57,48 \\ 56 4,75 \\ 5 0 12,30 \\ 4 20,40 \end{array}$	4,80 12,30	+0,22 +0,05 0,00 -0,40	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	32,20 2,70 57,10 15,40	+3,47 +3,04	1,06 2,22 1,35 1,66	15 58,87 58,76
	8 9 10 11	$\begin{array}{r} 4 & 20,40 \\ 8 & 28,32 \\ 12 & 36,58 \\ 16 & 45,11 \\ 00 & 50 \\$	27.90 36,20 44,60	$ -0,42 \\ -0,38 \\ -0,51 $	3 55,99 66 59 5,40 54 34,62	57,90 4,60 35,60 31,10	+1,91 -0,80 +0,98	4,40 1,66 3.54 2,82	
	12 13 14 15 16 17	20 53,30 25 2,12 25 10,98 33 20,60 37 29,79 41 38,61	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c} 0,00 \\ -0,02 \\ +0,02 \\ -0,40 \\ -0,39 \\ +0,09 \end{array} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	51,00 35,10 44,40 18,20 16,50	+6,36 -1,09 +0,60 +2,48 +1,76	1,75 0,86 0,57 0,02 0,72	
	18 19 22 23 24 25 26	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	35,60 45.10 54.40		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	39,60 27,50 19,20 46,00 37,60 54,00 35,10		$ \begin{vmatrix} 15 & 59,84 \\ 16 & 3,54 \\ & 2,52 \\ & 0,75 \\ 15 & 59,50 \\ 16 & 1,22 \\ & 0,75 \end{vmatrix} $	
July	27 29 30 1 2	23 12,43 31 30,61 35 39,58	12,90 30,80 39,40	+0,47 +0,19 -0,18	38 41,04 44 2,47 47 24,98 51 11,67 55 20,18	40,80 6,20 25,70 9,70 18,00	+0,72	16 0,88 15 59,95 57,82 59,20 59,95	
	34567	48 4,92	4,00	0,92	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	47,00 8,60 52,00 0,10	+1,81 -0,86	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
	8 9 10 11 12 13	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	44,80 50,30 55,30 59,80	-0,19 +0,15 -0,13 -0,04	28 23,87 35 26,79 42 39.51 50 28.30 58 25,29	32,90 27,00 45,40 26.80 30,90	+0,21 +5,89 -1,50 +5,61	0,86 1,35 1,77 1,30 2,45	
	13 14 15 16 17	28 4,02 33 8,11 37 11,58 41 13,36	7,50 10,70	0,61	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	57,80 47,10 58,60 32,10 27,40	+4,85 +0,59	$15 59,34 \\ 16 1,44 \\ 1,12$	
	18 19 20	49 17,40 53 18,52 57 18,51	16,90 18,00 18,40	-0,52 -0,11	44 25,30 54 35.59 69 5 21,21	27,40 44,30 22,60	+2,10 +1,39	15 59,50 16 2,30	
	23 24 25 27	8 9 16,77	16,50		$51 28,40 \\70 3 48,69 \\16 24,97 \\42 54,41$	25,00 47,90 29,90 51,80	-0,79 + 4,93	1,06 0,08	
	28	29 3,04	2,30	0,74	56 29,16			0,37	

183	277]	Righ	nt Ascen	nsion	Error of	Nor	th	Polar I	Distance	Error of	Me	an Semi	diameter.
100)1	ob	fro serv	m ation.	from N. A.	Tables.	ob	fro serv	m vation.	from N. A.	Tables.	Hor	izontal.	Vertical.
		h.	m.	<i>s</i> .	5.	S	0		"	"	#	10	"	والاستوارين والبارية والبرية
July	29 30						71		34,87 47,94	$32,60 \\ 50,60$	-2,27 + 2,66	16	$1,62 \\ 2,14$	
	31								26.92	26,10	-0,82	16	2,27	
Aug.	2		48	34,21	33,70	-0,51	72	9	30,94	33,10	+2,16	15	59,56	
-	3							-0			1 0 50		59.07	
	5 7	9	7	49,62	49,40	-0.22	72		$53,21 \\ 50,51$	$54,00 \\ 51,20$	+0,79 +0,69	16	$0,70 \\ 0,82$	
	9	9		27,73		-0,22 -0,23			53,13	51,20 52,10	-1,03		1,50	
	10			16,00	15,70	-0,30	• •		13.34	16,60			1,24	
	11		23	3,65	3,30	0.35		38	55,51	54,10			0,95	
	12			50,67	50,20	-0,47	~~~~		50,33	47,30	3,03	16	1,06	
	13 20		30	36,80	36,70	-0,10		15 28	1,03 1,20	54 90	+ 3,60	16	$0,20 \\ 58,74$	
	$\tilde{21}$	10	0	29,38	28,90	-0,48	11	<i></i> 0	1,20	4,80	T 0,00			
	22	- •	4	10,69	10,80	+0,11	78	7	54,37	59,80	+ 5,43	16		
	23			52,48	52,20	-0,28		28	9,16	13,50	+ 4,34	16	0,24	
	24		11	33,31	33,20	0,11	20		38,59	40,30	+1,71		$59,84 \\ 59,12$	
	$\frac{25}{28}$		26	13,48	13,40	0,08	79	9	13,15	16,90	+ 3,75	16	0,64	
	$\tilde{29}$		$\overline{29}$	52,51	52,50	-0,00		33	22,19	24,80	+2,61		1,44	
	30			-				54	55,36	50,50	-4,86		0,28	
~	31						81		20,96	24,90	+3,94	16		
Sep.	$\frac{1}{2}$			•				38		7,70	+0,50 + 1,59	15	59,92	
	4						82		$56,01 \\ 0,57$	57,60 2,00	+1,33 +1,43	16	1,10	
	5						83	6	•	15,00	+ 3,64	16	2,98	
	6								42 06	35,70			58,65	
	7								57,29	0,80	+3,51	16	1.80	
	8 9	11	g	43,18	42,70		84		32,39 11,18	33,00 11,90			$59,64 \\ 59,70$	
	10		Ŭ	10,10	T ~910	0,40 			57,69	53,90		16	2,20	
	11						85		44,47	42,00			59,82	9
	12	11		30,11	30,00	-0,11			40,46	35,80		16	0,86	
	13		24	5,72 41,20	5,50	-0.22	86		32,11	32,10			0, 60 [°]	
	14 15			16,69	40,90	-0,30 -0,29			$36,22 \\ 37,86$	33,40 38.40	-2,82 + 0,54		$1,17 \\ 0,52$	
	16			51,78	51,70	-0,23 -0,08	87		48.83	47,00			0,37	
	17		38	27,60	27,00	- 0,60		39	55,75	58,70	+2,95	ł	1,15	
	18		42		2,40	- 0,30	88		11,53	13 30	+1.77		0,66	
	19 20			37,76 13,46	37,80	+ 0,04 - 0,26			31,04	31,60	+ 0.56 - 1.01	l	$1,37 \\ 0,20$	1
	20 21			48,59	48,70		89		51,21 14,71	50,20			0,20	
	$\tilde{2}\hat{2}$		56	24,38	24,20	-0,18	1 0	36	39,94	34,70		16		
	23	12			0.00	-0,02	90	0	2,65	59,10	- 3,55		59,77	
	24		3		35,90	+0,25			29,99	24.30		16		
	25 26			12,08 48,25	11,80 48,10	-0,28 -0.15	01		51.60	50,30 16,20		16 15	0,55 59.97	
	20 27	12		24,73		-0.13 -0.23	1 31		41.44	42,20		16		
	28		18			-0,04	1	57	11,49	7,70			ŕ	
Oct.					-			40	21,17	19,50	- 1,67	{	0.22	
	6	1			1	I	95	5 3	31,37	27,10	- 4,27		0,48	1

1007	Right Ascension		Error of	North Polar Dis	stance	Error of	Mean Semi	diameter.
1037	from Observation	from N. A.	Tables.	from observation.	from N. A.	Tables.	Horizontal.	Vertical.
	Observation h. m. s. 13 1 $43,52$ 9 $6,76$ $12,47,81$ 16 $30,42$ $23,56,83$ 15 46 $13,36$ 15 46 $13,36$ 16 $30,42$ $23,56,83$ 17 $47,55,27$ $52,21,83$ 56 $48,22$ $56,48,22$ 18 $10,8,56$ $14,35,43$ 19 $2,04$ $23,28,67$	N. A. s. 43,10 5,50 47,40 29,80 56,50 13,30 38,70 38,70 55,00 21,60 48,20 5,50 21,60 21,60 21,60 21,60 21,60 21,60 21,60 21,70 28,10 5,50 21,60 21,70 28,10 5,50 21,60 21,70 28,20 5,50 21,60 21,70 28,20 5,50 21,60 21,70 20,7	Tables. s $-0,42$ $-1,26$ $0,41$ $0,62$ $0,062$ $0,033$ 0 $-0,06$ 0 $-0,78$ 0 $-0,27$ 0 $-0,23$ 0 $-0,23$ 0 $-0,23$ 0 $-0,57$	observation. 0 $'$ 95 25 $34,32$ 96 12 $34,75$ 35 $18,17$ 57 $58,43$ 97 20 $41,73$ 43 $5,97$ 98 1 $34,99$ 50 $4,12$ 99 12 $7,14$ 34 $9,93$ 100 39 $14,10$ 101 0 $36,05$ 21 $38,86$ 42 $48,59$ 102 3 $35,41$ 105 57 $35,31$ 107 56 $52,56$ 108 54 $43,63$ 110 32 $55,07$ 44 $54,35$ 56 $25,09$	N. A. 30,90 25,30 15,00 59,30 37,80 10,30 36,40 8,20 12,90 9,60 10,10 31,60 43,30 45,10 36,20 30,70 55,40 10,50 49,20 49,20 49,20 49,20 49,20 40,50 55,80 55,80 33,20 44,20 35,00 48,50	Tables. Tables. -3,42 -3,42 -3,93 +4,33 +1,41 +4,08 +5,76 -0,33 -4,00 -4,45 +4,44 -3,49 +0,79 -4,61 +2,324 -2,322 -2,422 -2,242 -2,325 -4,011 +1,58 +3,283 -3,27 -1,09 -0,37 +0,27	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Vertical.
2333	32 21,35			15 15,39 11 34,39 7 32,70	16,40 36,70 29,10	+2,31		

In conformity with the plan followed in former volumes, I have here computed the value of the Mean Semidiameter of the Sun, from the observed transits—not that I have ever for a moment expected to obtain a very accurate determination by this means,—but rather from a desire of tracing the changes, if any, which might result in the method of estimating time from continued practice: the result has been simply this,—that the observer who at first observed a larger diameter than myself, has, after two or three years practice in observing, continued to observe the same larger diameter; and another Assistant who appeared to note the Diameter in defect, has continued to do so: Among the circle observations too, there appears to be the same cause in operation,—each observer either sees the Sun under a different angle, or forms a different judgment with regard to his being in contact with the wire; the results altogether are as follows—

					ın's Mean rizontal.		iameter. ertical.
				1	11	/	11
From 965 Obs	servations in f	former years	 But when the second second	16	1,48		
141	and the second se		 Control of the second			16	1,59
489	-	1836 and 1837	 		1.72		,
150	Model Contractions and Annual State	produktion for the formation of the second state	 		- ,		0,77

Selecting from the above observations those made near to the Solstices, we will proceed to compute the value of the Obliquity of the Ecliptic-

Observations of the Sun made near to the Summer Solstices of 1836 and 1837 applied to the determination of the Obliquity of the Ecliptic.

1836	N. P. D.	Reduction.	⊙'s Lat.	Solsticial N. P. D.	Correction for $\begin{array}{c} & & \\ & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $		Mean Solsticial N. P. D. Reduced to Jan.1.
June	0 % 21 69 47 33,68 22 69 35 33,21 23 69 23 51,81 24 69 12 34,03 25 69 1 35,19 26 68 51 1,85 28 68 30 58,41 30 68 12 25,59 31 68 3 44,01 1 67 55 23,69 6 67 19 31,42 7 67 13 31,71 8 67 7 53,48 9 67 2 45,78 10 66 58 0,04 11 66 53 35,48	0 30 31,00 0 25 43,39	$\begin{array}{c c} & & \\ & & \\ + 0,93 \\ & 0,95 \\ & 0,93 \\ & 0,89 \\ & 0,81 \\ & 0,72 \\ & 0,48 \\ & 0,21 \\ & 0,09 \\ - 0,02 \\ & 0,13 \\ & 0,04 \\ + 0,05 \\ & 0,18 \\ & 0,30 \end{array}$	$17,70 \\ 13,28 \\ 14,74 \\ 11,38 \\ 12,81 \\ 11,86 \\ 12,47 \\ 13,60 \\ 14,07 \\ 13,08 \\ 12,88 \\ 10,56 \\ 14,83 \\ 16,83 \\ 16,83 \\ 16,83 \\ 10,56 \\ 14,83 \\ 16,83 \\ 16,83 \\ 10,56 \\ 14,83 \\ 16,83 \\ 10,56 \\ 14,83 \\ 16,83 \\ 10,56 \\ 14,83 \\ 16,83 \\ 10,56 \\ 14,83 \\ 16,83 \\ 10,56 \\ 14,83 \\ 16,83 \\ 10,56 \\ 14,83 \\ 16,83 \\ 10,56 \\ 14,83 \\ 16,83 \\ 10,56 \\ 14,83 \\ 16,83 \\ 10,56 \\ 14,83 \\ 10,56 \\ 10,56 \\ 14,83 \\ 10,56 \\ 10,5$	+6,05 ,06 ,07 ,08 ,09 ,09 ,10 ,11 ,12 ,17 ,18 ,19 ,20 ,20 ,2	-0,51 ,52 ,53 ,53 ,54 ,55 ,57 ,58 ,60 ,61 ,67 ,68 ,69 ,71 ,71 ,72	0 , , 66 32 23,45 23,24 18,81 20,28 16,92 18,35 17,38 17,99 19,11 19,58 18,58 18,38 16,06 20,32 22,32 21,03 21,03

					Correct	tion for	Mean Solsticial
1836	N. P. D.	Reduction.	⊙'s Lat.	Solsticial N. P. D.) r Nut.	$ \bigcirc r \text{ Nut.} \\ + \frac{t \cdot 0'', 46}{365} $	N. P. D. Reduced to Jan. 1
June 12 13 15 16 17 18 19 20 28 July 2 9 10 14 15 16 17 19	$\begin{array}{c} \circ & \prime & \prime \\ 66 & 49 & 34,49 \\ 66 & 46 & 2,33 \\ 66 & 40 & 2,00 \\ 66 & 37 & 45,86 \\ 66 & 37 & 45,86 \\ 66 & 35 & 48,77 \\ 66 & 34 & 18,84 \\ 66 & 33 & 11,35 \\ 66 & 32 & 32,33 \\ 66 & 41 & 53,58 \\ 66 & 56 & 23,07 \\ 67 & 37 & 11,21 \\ 67 & 44 & 33,17 \\ 68 & 17 & 54,87 \\ 68 & 27 & 13,12 \\ 68 & 36 & 55,13 \\ 68 & 46 & 53,39 \\ 69 & 8 & 2,44 \end{array}$	$\begin{array}{c} \circ & \prime & \checkmark \\ 0 & 17 & 20,82 \\ 0 & 13 & 46,15 \\ 0 & 7 & 51,77 \\ 0 & 5 & 31,20 \\ 0 & 3 & 35,42 \\ 0 & 2 & 4,43 \\ 0 & 0 & 58,40 \\ 0 & 0 & 16,83 \\ 0 & 9 & 38,20 \\ 0 & 24 & 8,50 \\ 1 & 4 & 57,63 \\ 1 & 12 & 21,32 \\ 1 & 45 & 46,15 \\ 1 & 55 & 2,56 \\ 2 & 4 & 42,26 \\ 2 & 14 & 42,40 \\ 2 & 35 & 48,40 \end{array}$		13,71 11,79	,31 ,33 ,36 ,36 ,38 ,38 ,39 ,39	$\begin{array}{c} "\\ -0,72\\ ,73\\ ,74\\ ,74\\ ,75\\ ,75\\ ,75\\ ,75\\ ,75\\ ,75\\ ,76\\ ,74\\ ,68\\ ,67\\ ,68\\ ,67\\ ,68\\ ,61\\ ,60\\ ,58\end{array}$	0 / 66 32 19,60 21,24 16,51 21,02 19,75 20,84 19,38 21,89 20,92 19,89 19,60 18,01 15,27 17,15 19,49 17,58 20,52
19 20 1837 May 24 25 31 June 2 5 6 7 8 9 10 11 12 13 14 15 16 17 22 23		$\begin{array}{cccccccccccccccccccccccccccccccccccc$,54	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$,42 +7,97 7,97 8,01 ,02 ,03 ,03 ,03 ,03 ,04 ,04 ,04 ,04 ,04 ,05 ,05	$ \begin{array}{c c} ,57\\ -0,53\54\60\62\66\67\68\69\71\71\71\end{array} $	$\begin{array}{c} 20,52\\ 19,84\\ 66 \ 32 \ 22,70\\ 23,40\\ 17,02\\ 18,17\\ 19,95\\ 18,57\\ 19,15\\ 20,85\\ 20,55\\ 23,23\\ 21,51\\ 24,07\\ 15,76\\ 22,81\\ 21,72\\ 19,95\\ 21,33\\ 19,95\\ 20,27\\ \end{array}$
24 25 26 27 29 30 July 8 9 10 11 12 13 14		$\begin{array}{ c c c c c c c c c c c c c c c c c c c$,07 + 0,03 ,15 ,29 ,55 ,66 ,72 ,61 ,49 ,35 ,22 ,10 ,01	$\begin{array}{c c} 7,63\\ 16,68\\ 10,79\\ 14,41\\ 11,04\\ 13.82\\ 5,59\\ 8,12\\ 9,00\\ 15,90\\ 8,94\\ 6,73\end{array}$,10 ,10 ,11 ,11 ,12 ,12 ,12 ,14 ,14 ,14 ,14 ,15 ,15	,76 ,76 ,76 ,75 ,75 ,69 ,68 ,67 ,66 ,66 ,65 ,64	$\left \begin{array}{c} 14,97\\ 14,97\\ 24,02\\ 18,14\\ 21,76\\ 18,41\\ 21,19\\ 13,04\\ 15,58\\ 16,47\\ 23,38\\ 16,43\\ 13,23\\ 12,03\\ \end{array}\right $

1837	N. P. D.	Reduction.	⊙'s Lat.	Solsticial N. P. D.	Correc) r Nut.	tion for 0 r Nut. + <u>t. 0",46</u> 365		
July 15 16 18 19 23	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-0,10 ,17 ,22 ,20 + ,13	$\begin{array}{c} 0 & 7 & 7 \\ 66 & 32 & 11,77 \\ & 7,97 \\ & 4,47 \\ & 11,38 \\ 17,06 \\ \end{array}$	* +8,16 ,17 ,17 ,18 ,21	" 0,62 ,61 ,59 ,58 ,54	0 / <i>"</i> 66 32 19,31 15,53 12,05 18,98 24,73	

Observations of the Sun made near to the Winter Solstices of 1836 and 1837 applied to the determination of the Obliquity of the Ecliptic.

											Corre	ction for	Mea Solsti	
183	6	N.	P.	D.	Re	duc	tion.	⊙'s	Solsti		5 -	🛈 r Nut.	N. P.	
								Lat.	N. P.	ן .ע.)r Nut.	_t. 0",46	Reduc	
											INUL,	365	Jan.	1.
1		0	,	11	0	/	17	"	0 /			"	0 /	
Jan.	2	113	0	25,15	+0	27	14,78	+0,07	113 27	40,00	5,08	+0,49	113 27	35,41
	3	112		8,28	0	32	30,79	+0,18		39,25	,09	,48		33,84
1	4		49	28,38	0	38	14,19	+0,29		42,86	,10	,47		38,23
	6	112	36	37,82	0	41	1,94	+0,42		40,18	,11	,45		36,52
	7		29	32,95	0	58	6,45	+0,44		39,84	,12	,44		35,16
Į	8		22	5,58	1	5	37,05	+0.44		43,07	,13	,43		38,37
	9		14	5,82	1	13	33,98	+0,40		40,20	,13			35,50
	10	112		43,26	1		58,35	+0,33		41,94	,14			37,22
	11	111		52,36	1	-	48,50			41,09	,15	,41		36,25
	13		37	58,00	1	49	44,63	0,00		42,63	,16	,39		37,86
	14		27			59	50,06			40,41	,17			35,62
	16	111	6	28,03	2		16,79			44,45	,18	,37		39,64
	17	110		7,89		32	35,98	-0,47		43,40	,19	,34		38,55
	18	110					19,65	-0,55		44,81	,10	,33		39,94
	19	110		16,97	2		27,53	1 1		42,88	,21	,31		37,98
1 77	21	110	5	55,61	3		51,55			46,51	,23	,27		41,55
Nov.	22	110			3		54,52			42,86	-7,11			36,43
	23	110			3	4	15,40			44,47	,1]			38,06
	26	110		8,64		28 17	33,48	+0,23		42,35	,13	,75		35,97
1	$\frac{27}{28}$]]]]		14,52		6	26,00 42,67		}	40,82	,14			34,45
	28 29	111		1,82			22,90	+0,32 +0,33		44,81	,14 ,15			$38,46 \\ 37,41$
Dec.	$\frac{29}{2}$			20,53 47,39				+0,35 +0,15		43,76			ŀ	34,82
Dec.	2 4	112		43,69			1,18			44,79			1	38,48
	5	112		29,91						42,69	,18			36,39
Ì	6	112		51,23			51,70		1	42,58				36,28
	7	112		49,79						45,87	,19		ļ	39,58
	11	113		57,36			44,77			41,32				35,05
	12	113		38,05						42,20				35,94
	$\tilde{17}$	113					43,08		N	39,66				33,40
	19	113				_				42,52				36,26
	23	113					-)			44,10				38,82
	24) 1				44,04				38,76
	31	1		5 20,17) 2]		3 -0,06		40,57				34,24
	Noncom anti-content	ا مەربەر بىرىنىيىتىن	and the second	, sangerangerangerangerangerangerangeranger	i - Täheneyyentiite		and the second second second	بالاستياد المراجعة (1920) والا		enn lässendnasthärinnister	ana		يح الصادينية والالتينية	

			هر الروسي			annan di ann dra					Correc	tion for	Me: Solsti	
183	7	N.	Р.	D.	Re	duc	tion.	⊙'s Lat.	Solsti N. P.) r Nut.	$ \bigcirc r \text{ Nut.} \\ + \frac{t. 0'', 46}{365} $	N. P. Reduc Jan.	D. ed to
		0	1	"	0	/	11	11	0 /	"	"	11	0 /	11
Jan.	3	112	50	55,34	0	36	49,08	-0,43	113 27	43,99	-7,32	+0,49	113 27	37,16
ļ	5	112	38	19,13		49	25,07	,65		43,55	,33	,46		36,68
	6	112	31	22,36		56	23,83	,73		45,46	,34	,45		38,57
1	7	112	24	1,01	1	-	47,85	,79	Į	48,07	,34	,44		41,17
	8	112	16	8,08		11	40,08	,82		47,34	,35	,43	ļ	$40,\!42$
	9	112	7	45,93		19	57,60	,81		42,72	,36	,43		35,79
	10	111	59	3,92		28	41,81	,78	1	44,95	,37	,42		38,00
		111	49			37	50,82			45,87	,38	,41		38,90
		111	40			47	26,00	0,63		$45,\!42$,38	,40		38,44
		110	21	51,43	3	-	58,15		Í	49,79	,40	,31		42,70
l.	20		9	2,85		18		+0,29		47,19	,41	,30		40,08
Dec.	19	113	25	•		1	44,67	-0,04		44,20		+0,99		$36,\!54$
	20	113		4,85		0				46,47	,65			38,81
	21	113				0				42,46		,99	}	34,79
	24					1	13,77			45,96		,99		38,27
	26		23			4				45,37	,69			37,66
	27		21			6				43,38				35,67
1	29	l	15	15,39	I	12	30,70	,92		45,17	,71	,98		37,44

Taking the means, which it will be observed are the mean values for the commencement of the respective years, and employing the annual variation, (-0'',46) we have determined altogether as follows—

				January			
	Su	mm	er Obs.	Wi	nter	Ob	s.
No. obs.	0	1	11	No. obs.	0	1	11
In the year 1831 from 33	23	27	38,57	36	23	27	37,14
<u> </u>			42,21	40			37,82
1833 33			40,37	47			38, 15
1834 28			41,67	22			37,00
1835 32			4 0,58	30			36,56
1836 34			40,96	34			37,41
1837 37			41,70	18			39,09
Mean ==	23	27	40,87	-	23	27	37,57

Whence, The MEAN OBLIQUITY JAN. 1st $1835 = 23^{\circ} 27' 39'', 22$

1836	3	Observed N. P. D.	Cor.	N. P. D. corrected for O's Latitude.	Computed A. R.	Observed A. R.	Error of Eq. Point.	Remarks.
	13 14	0 / / / 103 58 37,19 103 38 41,35 103 18 37,35	0,28 0,36	103 58 37,01 103 38 41,07 103 18 36,99	$\begin{array}{c cccc} h & m. & s. \\ 21 & 40 & 1.85 \\ & 43 & 58.25 \\ & 47 & 52.83 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-0,31 -0,73 -0,43	
	16 17 18	102 58 14,93 102 37 42,53 102 16 58,93 101 56 0,78	0.45 0,46 0,44	101 56 0,34	51	$51 47,18 \\ 55 41,20 \\ 59 34,09 \\ 3 26,24 \\ 7 120 \\ 7 $	-0,53 - 0,33 0,01 0,41	
	19 20 21 24	101 34 55,24 101 13 37.89 100 52 5.56 99 46 39,58	$ \begin{array}{c} 0,31 \\ -0,21 \\ +0,16 \end{array} $	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 7 & 17,76 \\ 11 & 8,35 \\ 14 & 59,08 \\ 26 & 25.58 \\ 26 & 25.58 \end{array}$	$\begin{array}{c} 7 & 17 & 63 \\ 11 & 8,67 \\ 14 & 58,47 \\ 26 & 25,28 \\ 20 & 40 \\ 14 & 60 \\ 10 & 40$	-0.13 +0.32 -0.61 -0.30	
	25 26 27 28	99 24 34,42 99 2 16,49 98 39 58,42 98 17 25.31	0 27 0,39 0,50 0,57	99 24 34,69 99 2 16,88 98 39 58,92 98 17 25,88	$\begin{array}{r} 30 \ 12,85 \\ 34 \ 0,28 \\ 37 \ 45,80 \\ 41 \ 32,00 \\ 41 \ 50 \end{array}$	30 12,42 33 59,81 37 46,16 41 32,06	$ \begin{array}{r} -0,43 \\ -0,47 \\ +0,36 \\ +0,06 \\ +0,06 \end{array} $	
Mar.	29 1 2 3	97 54 48,64 97 32 3,40 97 9 12,18 96 46 16,18	0,63 0,65 0,66 0,64	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	45 17,06 49 1.88 52 46,11 56 29 65	$\begin{array}{c ccccc} 45 & 17,22 \\ 49 & 2,15 \\ 52 & 46,02 \\ 56 & 29,69 \\ \end{array}$	+0.16 +0.27 -0.09 +0.04	
	4 5 6 7	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0,50 0,40 0,31	96 23 11,21 96 0 6.24 95 36 55,99 95 13 40,31	23 0 13,36 3 55 67 7 37,54 11 19,27	0 13,01 3 55,67 7 37,60 11 20,16	$ \begin{array}{c c} -0 35 \\ 0,00 \\ +0,06 \\ +0,89 \\ 0,89 \end{array} $	
	8 9 10 11	94 50 15,41 94 26 52,79 94 3 21,03 93 39 49,34	-0,05 0,16	94 26 52,86 94 3 20,98 93 39 49,18		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	+0,58 +0,51 +0,11 -0,03	
	12 13 14 16	93 16 12,32 92 52 38,95 92 28 57,96 91 41 35.63	0,30	92 52 38,65 92 28 57,63 91 41 35,30	$\begin{array}{c} 33 \ 24,00 \\ 37 \ 4,03 \\ 44 \ 22,58 \end{array}$	$\left \begin{array}{cccc} 29 & 44.36 \\ 33 & 24.33 \\ 37 & 4,56 \\ 44 & 22,73 \end{array}\right $	$ \begin{array}{c c}0,23 \\ +0,33 \\ +0,53 \\ +0,15 \end{array} $	
	17 18 19 20	91 17 53,09 90 54 12,09 90 30 31,33 90 6 46,88	0,22	90 54 11,87 90 30 31,20	48 1,81 51 40,37 55 18,71 58 57,50	48 1,66 51 40,74 55 19,27 58 57,11	-0,15 +0,37 +0,56 -0,39	
	22 23 24 25	89 19 26,96 88 55 45,58 88 32 7 26 88 8 31.58	0,23 0 36 0,47	89 19 27,19 88 55 45,94 88 32 7,73	0 6 13,74 9 52,22 13 30,47 17 8,59	6 14,33 9 52.53 13 30,13 17 8,63	+0,59 +0,31 -0,34 +0,04	
	26 28 29 30	87 44 59 28 86 58 5,42 86 34 41,78 86 11 24,32	0.66 0.76 0,76	87 44 59,94 86 58 6,18 86 34 42,54	20 46,50 28 2,10 31 40,22 35 18,06	20 46,20 28 2,61 31 40,04 35 18,07	-0.30 +0.51 -0,18 +0,01	
April	31	85 48 14,09 85 25 2,79 85 1 56,19	$\begin{array}{c c} 0 & 0.70 \\ 0 & 0.62 \\ 0 & 0.53 \\ \end{array}$	85 48 14.79 85 25 3,34 85 1 56,72	38 55,50 42 33,93 46 12,50	38 56,02 42 34,32	+0,52 + 0,39 + 0,03 + 0,85	
	3 5 6 7	83 53 13,1 83 30 30,89	1 + 0,19	83 53 13,30 83 30 30,89	57 8,48	57 7.57 0 47,01	-0,91 -0,50 -0,61	

Observations of the Sun made near to the Vernal Equinoxes of 1836 and 1837 applied to the determination of the error of the assumed Equinoctial Point.

OBSERVATIONS OF THE SUN, &c.

1836	Observed N. P. D.	Cor.	N. P. D. corrected for • 's Latitude.	Computed A. R.	Observed A. R.	Error of Eq. Point.	Remarks.
April 8 9 10 11 12 13 15 16 17 18 19	0 / 82 45 27,54 82 23 8,94 82 0 55,77 81 38 51,77 81 16 55,56 80 55 9,64 80 12 2,37 79 50 41,31 79 29 27,63 79 8 24,31 78 47 32,44	$ \begin{array}{c} "\\0,13\\ 0,19\\ 0,24\\ 0,26\\ 0,25\\ 0,21\\0,06\\ +0,04\\ 0,17\\ 0,28\\ 0,40\\ \end{array} $	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	+0,75 +0,91	obsd. by V. A. B.
$\begin{array}{c} 1837\\ Feb. 13\\ 14\\ 15\\ 16\\ 17\\ 18\\ 19\\ 20\\ 21\\ 26\\ 27\\ 28\\ Mar. 1\\ 2\\ 3\\ 4\\ 5\\ 6\\ 7\\ 8\\ 9\\ 10\\ 11\\ 12\\ 13\\ 17\\ 23\\ 24\\ 25\\ 27\\ 28\\ 29\\ 30\\ 31\\ \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} +0,06\\ 0,17\\ 0,27\\ 0,34\\ 0,39\\ 0,41\\ 0,40\\ 0,38\\ 0,32\\ -0,20\\ 0,31\\ 0,41\\ 0,50\\ 0,56\\ 0,59\\ 0,59\\ 0,57\\ 0,51\\ 0,45\\ 0,59\\ 0,5$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{vmatrix} -0,75 \\ -1,03 \\ -0,93 \\ +0,55 \\ +0,77 \\ +0,34 \\ +0,09 \\ -0,18 \\ 0,00 \\ -0,63 \\ -0,73 \\ -0,26 \\ +0,07 \\ 0,00 \\ +0,57 \\ +0,37 \\ +0,43 \\ +0,55 \\ +0,39 \end{vmatrix} $	
April 1 2 3 7 8 9	85 30 33,72 85 7 33,40 84 44 34,53 83 13 21,02 82 50 49,49	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	85 30 33,25 85 7 32,98 84 44 34,18 83 13 21,12 82 50 49,71	41 42,01 45 19,34 48 57,38 1 3 33,87 7 13,38	38 3,24 41 41,90 45 19,99 48 58,45 3 33,78 7 13,40 10 52,96	$\begin{array}{c c} -0,11 \\ -0,11 \\ +0,65 \\ +1,07 \\ -0,09 \\ +0,02 \\ -0,03 \end{array}$	

* Omitted in taking the Mean.

OBSERVATIONS OF THE SUN, &c.

1837	Observed N. P. D.	Cor.	N. P. D. corrected for O's Latitude.	Computed A. R.	Observed A. R.	Error of Eq. Point.	Kemarks.
A	0 / //		01 44 0.04	h. m. s.	m. s. "	10.95	
April 11 12		+0,52	81 44 6,04	1 18 12,58 21 53,01	18 12,83 21 52,92	+0,25 -0,09	
	,	1 '	81 22 6,65	· · ·			
13	81 0 17,62		81 0 18,24	25 33,35	25 33,83	+0,48	
14	80 38 38,25	0,63	80 38 38,88	29 15,97	29 15,06	-0,91	
15	80 17 4,54	0,61	80 17 5,15	32 55,59	32 55,94	+0,35	
17	79 34 33,32			40 18,61	40 19,31	+0,70	
18	79 13 25,28			44 2,07	44 2,02	-0,05	

Observations of the Sun made near to the Autumnal Equinoxes of 1836 and 1837 applied to the determination of the error of the Equinoctial Point.

1836	Observed N. P. D.	Cor.	N. P. D. corrected for • 's Latitude.	Computed A. R.	Observed A. R.	Error of Eq. Point.	Remarks.
Sep. 9 11 12 16 20 21 22 25 26 29 Oct. 4 6 8 9 10 11 12 13 14 18 19 20 21 22 25 26 29 0ct. 4 10 20 21 22 25 26 29 10 11 12 22 25 26 29 0ct. 4 10 10 20 29 0ct. 4 10 10 20 20 20 20 20 20 20 20 20 2	97 48 36,53 98 10 59,48 99 39 33,70 100 1 19,10 100 23 0,87 100 44 25,38 101 5 44,16	$ \begin{array}{c} 0,57\\ 0,41\\ 0,32\\ +0,04\\ 0,43\\ 0,43\\ 0,31\\ 0,22\\ 0,11\\0,01\\ 0,14\\ 0,27\\ 0,38\\ 0,66\\ 0,67\\ 0,65\\ 0,60\\ 0,52\\ \end{array} $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} -0,79\\ -0,02\\ -0,54\\ -0,31\\ +0,15\\ +0,10\\ -0,37\\ +0,20\\ -0,14\\ +0,38\\ +0,01\\ -0,40\\ -0,69\\ +0,60\\ +0,89\\ +0,60\\ +0,88\\ +0,60\\ +0,38\\ +0,60\\ +0,38\\ +0,76\end{array}$	
1857 Sep. 9 12 13 14 15 16 17 18 19 20	85 44 40,46 86 7 32,11 86 30 36,22 86 53 37,80 87 16 48,83 87 39 55,75 88 3 11,53 88 26 31,04	$\begin{array}{c c} 0,29 \\ 0,24 \\ 0.16 \\ 0,06 \\ +0,05 \\ 0,17 \\ 0,2 \\ 0.39 \end{array}$	85 44 40,17 86 7 31,87 86 30 36,06 86 53 37,80 87 16 48,88 87 39 55,92 88 3 11,81 88 26 31,43	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{vmatrix} 20 & 30,11 \\ 24 & 5,72 \\ 27 & 41,20 \\ 31 & 16,69 \\ 34 & 51,78 \\ 38 & 27,60 \\ 42 & 2,70 \\ 45 & 37,76 \end{vmatrix} $	$\begin{vmatrix} +0,38 \\ -0,82 \\ +0,15 \\ -0,25 \\ +0,40 \\ -0,21 \\ +1,04 \\ +0,63 \\ -0,02 \\ +0,16 \end{vmatrix}$	

1837	Observed N. P. D.	Cor.	N. P. D. corrected for O's Latitude.	Computed A. R.	Observed A. R.	Error. of Eq. Point	Remarks.
Sep. 21 22 23 24 25 26 27 28 Oct. 10 12 13 14 16	0 " 89 13 14.71 89 36 39.94 90 0 2.65 90 23 29,99 90 46 51.60 91 10 17.76 91 33 41,44 91 57 11.49 96 35 18.17 97 20 41.73 97 43 5.97 98 5 34,99 98 50 4,12	$\begin{array}{c c} 0,66\\ 0,66\\ 0,64\\ 0,59\\ 0.51\\ 0,42\\ -0,39\\ 0,22\\ 0,11\\ \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 3 \ 35,65 \\ 7 \ 12,18 \\ 10 \ 48 \ 25 \\ 14 \ 24.73 \\ 18 \ 1,04 \\ 1 \ 43,52 \\ 9 \ 6,76 \\ 12 \ 47,81 \\ 16 \ 30,42 \end{array}$	$ \begin{vmatrix} -0.52 \\ -0.72 \\ -0.67 \\ -1.03 \\ +0.06 \\ +0.01 \\ +0.45 \\ -1.05 \\ -0.15 \\ -0.15 \\ +0.57 \\ +1.05 \\ +0.71 \\ +0.97 \end{vmatrix} $	

Taking the means and refering to former Vols. we have determined altogether as follows—

ERROR OF THE ASSUMED EQUINOCTIAL POINT. **Observation**

ns	in	Spring.	Observations	in	Autumn.
----	----	---------	---------------------	----	---------

	S		S
from 19 observations in 1831	+ 0,055	from 17 observations in 1831	+0,267
50 1832	,140	<u> </u>	,399
<u> </u>	,046, —	<u> </u>	,325
56 1835	+ ,392	<u> </u>	,376
<u> </u>	+,003	<u> </u>	,052
<u> </u>	,001	<u> </u>	,050

In Vol. III, I had proposed to reject the result derived from the Spring Observations of 1835; but the results from the Autumnal Observations of 1836 and 1837, when compared with former results, exhibiting a similarly large discordance, it would appear preferable to retain it; accordingly we have Error of the assumed Equinoctial Point.

> From the Observations in Spring + 0,043 ----- Autumn + 0,245

... MEAN ERROR OF THE ASSUMED EQUINOCTIAL POINT + 0,144

The results here obtained from the Observations at the Vernal and Autumnal Equinoxes, as well as those arrived at for the Obliquity, at page 68, exhibit a discordance, such as would be explained by attributing an error to the assumed place of the pole (the Latitude in fact); to understand this matter clearly, it is necessary to recollect, that every measure of North Polar Distance which is contained in this and the previous volumes of the Madras Results, has been derived from the Greenwich Catalogue of 720 Stars for 1825; which catalogue reckoned the N. P. D. from a point (supposed to be the pole) situated at an altitude of 51° 28' 38",5 above the north horizon of the Greenwich Royal Observatory; hence, the error (if any) of this assumption, necessarily affects by its whole amount, the N. P. D. of every Star of the above catalogue, and consequently each and every measure of N. P. D. which has been made at Madras: thus, to render the Solsticial Observations at Madras accordant, we must diminish the Latitude of Greenwich 1",65; and to reconcile the Observations at the Equinoxes, we must diminish the Latitude 0",66,—rendering it exceedingly probable, that the Latitude of Greenwich as above stated, must be diminished by about one second.*

OBSERVATION OF SPOTS UPON THE SUN'S DISC.

The following observations of the various spots which have from time to time passed over the Sun's disc—have been made at the time of Transit with the Meridianal Instruments, so as not to prevent the ordinary observation of the Limb; at the Transit, one or two wires have mostly been taken; and at the Mural Circle, only two Microscopes could be read off; they are however on the whole, I apprehend—little inferior to the other observations.

Mad	lras	М.	т.	Ар	pare	nt A	A. R.	Apparent Decn.		Geocentric Longitude. Latitude			ude.	Lon			entric Latitude.		e.		
1835	Ð.	h.	m.	1	h.	m.	- <u></u>	0	/	"	0	1	#	1 '	11	0	1	11	0	1 1	·
Dec.				(1)	18	8	8,25	-23	22	8,5	271	52	3,2	+4	46,6	76	17	31	+17	5	13
	25		0,0	$\left \left(1\right)\right $		12	19,41	23	20	32,8	272	49	42,6	+5	21,1	90	41	25	18	55	3
	26	0	0,5	(1)		16	29,93	23	18	39,0	273	47	15,0	+5	49,2	105	28	4 0	21	0	53
1	27	0		iàń			41,78			18,5										45	25
	29	0		làń		29	10,78	23		50,9										18	17
	30	0		(1)			28,37	23	7	34,2	277	41	29,3	+6	44,3	163	52	17	24	32	11
1830			-	l` í											,						
Jan.	4	0	4,9	i	18	55	39,23	22	41	52,0	282	49	1,5		48,0	157	8	8		37	28^{\dagger}
	8	0		(5)			31,72			43,1		1			6,9				-22		
Į	20	-	11,1	1 8 4	20		12,24	1		20,5		10		+7		175	23	23	+26	56	18
	21		11,4	1			16,36				300								+30		10
	23		12,0				10,58			55,3									+22	38	37

Apparent Right Ascension and Declination of Spots observed upon the Sun's Disc, together with their Geocentric and Heliocentric Places.

* In Vol. II. page 84, I had arrived at very nearly the same result,—a result which has lately been completely verified by the observations at Greenwich.

Mad				Арр			19	Ge	eocent	tric			He	lioc	entric					
	1109	MI. I.	Pi	Pure			De	ecn.		Lon	gitu	de.	Latit	ude.	Long	gitue	de.			
1836	D.	h. m.		h.	m.	s.	0	/	11	0	7	11	1 '	"	0	1 1	1	0	19	
Jan.		012,7	(1)	20	30	10,22	-18	52	56,0	305	12	32,2	+6	17,2	184	17	34	+22	5I	18
	31	0 13,7	(2)			57,69			49,4		31	15,8		54,0	125			-10	19	10
Feb.	1	013,8	(2)			49,54	17	24	47,5			32,2	3	35,3	139	56	58	-12	48	41
	$\overline{2}$	0 13,9	(2)			40,58	17		48,3			57,2	3		153		56	-12	52	58
İ	3	014,0	(2)	21	3	32,39	16		33,5			42,6	1	47,5		0	17	-13	32	94
	$\tilde{4}$	0 14,2	(2)			24,72			53,6			46,2		48,5		6	38	13	36	58
	$\hat{5}$	014,3	(2)			19,86			54,9			39,0		5,1	195		59	14	37	37
	8	0 14,5	(5)			19,76			44,2			44,5					0	20	28	49
	ğ	014,5	(5)			17,16	15		48,9			2,3		28,0		1	41	19	47	2
1	15	0 14,5			51		13		51,8					53,7		2	42	i_ 6	44	15
1	16	014,4	(3)			57,15			33,2			56,5			137			17	48	18
1	17	014,4				36,70			48,2	327		2,8	4	45,1	1	39		_17	7	44
Í	18	0 14,3		22		16,50	12		59,5			17,4		45,6				_17	9	25
	19	0 14,2	(3)	~~~		56,16	11	42				23,7			1			1-19	37	52
	20^{10}	014,1	(3)			37,05	11		51,7			22,0			1			4	14	26
	$\tilde{2}$	0 13,6	(2)			15,96	9	46				50,7		4,2						59
	$\tilde{26}$	0 13,3				28,53	9	3	-			54,1						<u> _11</u>		51
	$\tilde{27}$	0 13,2			38		8	41				51,9	1	2,6				_10		
	$\tilde{29}$	0 12,8				40,84	7	57				42,5		24,1				15		
Mar.		0 12,6				13,23	7	35				36,3							17	14
	3	0 12,2				16,06	6	52		342		2,4	1	17,1				15		
	7	011,2				53,40	5	19				12,7		26,0				- 8	42	45
	8	011,0				24,77	4					10,8						-10	14	
	10	010,5			21		4	8				53,8		-				+ 1	49	
	31	0 4,3			39		4		-			11,2							22	
Apri		0 3,9			43		4									14		1	57	12
1 PIL	2	0 3,6			46		4		46,8								57			
1	ĩ	0 3,3			49		5						1		•		40		11	11
	4	0 3,0				42,99	5		30,7			31,0		28,2			50			$\overline{49}$
2	5	0 2,7				14,08	6		38,0		30			17,0		41				0
	7	0 2,2	(9)	1			6	55	46,1		22			24,4		52				
	8	0 1,9				10,21	7		35,0			24,2					58			-
	9	0 1,6				54,29			24,8	1 19	11	3.2	-3	56.7	279	50	57	-14	2ľ	
1	14					51,91			35,2	24	$\overline{20}$		1+0		204					79
Į	15^{1-1}					22,89			40,0			23,4					47			
		23 58,7		2					13,2			26,3			242					
		23 56,9				50,58			56,9			35,8								
May		23 56,8				25,94			4,4		49		+3	31,7	227			+12		
iSen		23 51,3				14,74	i 1											+12		
	27	23 50,7	17			27,35	2		39,0							11		+10		
1		23 50,3				28 06	1		36,3			50,1		4,7			30			57
		23 50,0				5 53,17			13,5			42,3		53,7			24			
Oct		23 46,5						21		199		8,2		36.2	346	12	8			
1-00		2346,1		,		44,67		4										+31		
1	10	~~~~,I			• •	,	<u>،</u>		,,	1~00		1,0	110	~~,~						

The numbers (1), (2), &c. are supplied—to shew when the same spot has been re-observed: If we compare the cases in which the same spot has been re-observed after a complete revolution, we determine approximately.

from No.	1, t	hat the	Sun rot	tates on	his axis	at the	rate of	14º	2'	in 24	hours.
12 manual canon	9,	(international sectors)	Construction and	Property and the second second second second second second second second second second second second second se		47	(management)	14	4 <u>‡</u>		

The observation on the 30th April, shews that the position of the spot had shifted 6 or 7 degrees (apparently 1' 50"), or that another spot had sprung up in its neighbourhood; and the observation of No. 1 on the 29th December and 23rd January, shews a variation of 2 degrees in the Heliocentric Latitude :* the observation of No. 9, which—embracing 7 revolutions, should be a good one, seems to confirm 1 and 2 in giving a rate of rotation of 14° 4' a day; or it would appear, that the Sun makes one complete *sidereal revolution* on his axis in 25 days 14 hours. With regard to the position of the Solar Axis, the above observations are sufficient only to furnish a rude approximation: it would appear that the inclination of the Solar Axis to the Pole of the Ecliptic is between 6 and 7 degrees; and that the Heliocentric Longitude of the intersection of the Solar Equator with the Plane of the Ecliptic is about 95°.

Observed Right Ascension and North Polar Distance of MERCURY, compared with the places interpolated from the Nautical Almanac.

1836	Madras Mean Time of Observation.	A. R. from Observation.	A. R. from N. A.	Error of N.A.	N. P. D. from Observation.	N. P. D. from N. A.	Error of N. A.	Remarks.
	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	24,95 42,34 43,11 38,92 30,92 36,68 5,68	$ \begin{array}{c} " \\ -0,60 \\ -0,30 \\ -0,36 \\ +0,16 \\ +0,05 \\ +0,04 \\ -0,40 \\ -0,40 \\ \end{array} $	0 / // 110 33 15,93 109 33 26,60 109 0 58,46 108 27 22,78 106 38 29,92 105 59 53,09 104 05	33 8,44 33 17,43 1 3,30 27 23,91 38 29,62 59 50,46	$ \begin{array}{c} $	faint
Feb.	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{vmatrix} 45 & 37,90 \\ 22 & 8 & 15,89 \\ 13 & 14,11 \\ 17 & 51,54 \\ 22 & 6,29 \\ 25 & 54,92 \\ 32 & 5,70 \\ 34 & 23,30 \\ 36 & 5,58 \end{vmatrix} $	$\begin{array}{c c} 37,54\\ 15,45\\ 13,80\\ 51,41\\ 5,77\\ 54,59\\ 5,23\\ 22,46\\ 4,97 \end{array}$	$\begin{vmatrix} -0,36 \\ -0,44 \\ -0,31 \\ -0,13 \\ -0,52 \\ -0,33 \\ -0,47 \\ -0,84 \\ -0,61 \end{vmatrix}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{r} -0,31 \\ -0,51 \\ -2,88 \\ -3,66 \\ -7,65 \\ -0,29 \\ +1,52 \\ -0,01 \\ -0,34 \end{array} $	
April	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	4,37 33,83 59,05 41,89 8,65 4,65 43,83 20,31	$ \begin{array}{c} -0,01 \\ +0,07 \\ -0,35 \\ -0,28 \\ +0,08 \\ +0,15 \\ -0,01 \\ -0,13 \end{array} $	89 10 43,41 85 14 16,18 81 52 3,19 80 8 17,06	$ \begin{array}{c} 0 & 10.09 \\ 10 & 51,63 \\ 14 & 22,09 \\ 52 & 4,70 \\ 8 & 13,18 \\ 53 & 1,61 \\ \end{array} $	+8,22 +5,91 +1,51 -3,88	

* In case these spots are not situated upon the illuminated *surface* of the Sun, some part of the discrepancy here found may be explained; but the observation of the Solar spots, are, by reason of their varied figure—so subject to inaccuracy, that nothing conclusive with regard to their situation or movements, can be expected from the above few observations.

1836	Madras Mean Time of Observation.	A. R. from Observation.	A. R. from N. A.	Error of N. A.	N. P. D. from Observation.	N. P. D. from N. A.	Error of N. A.	Remarks.
July 19 Oct. 6 Nov. 22 25 Dec. 4	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccc} h, m. s. \\ 6 & 31 & 45, 13 \\ 14 & 12 & 30, 79 \\ 15 & 5 & 28, 70 \\ 15 & 24 & 0, 09 \\ & 21 & 46, 49 \end{array}$	% 45,09 30,65 28,36 59,94 46,01	-0,04 -0,14 -0,34 -0,15 -0,48	68 47 2,94 106 19 48,47 107 53 51,48 111 52 12,85	47 7,34 19 53,30 53 55,13 52 13,01	+4,40 +4,83 +3,65 +0,16	
1837 Jan. 3 7 8 9 10 24		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	48,91 29,35 14,22 52,29 23,99 12,82	-0,14+0,21-0,28-0,33-0,68	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	-0,86 +2,09 +0,53	
Feb. 19 20 Mar. 1 5 6 7 8	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4,27 47,24 29,78 11,12 58,73 53,08 53,62	-0,91 -0,29		$ \begin{array}{r} 1 & 18,11 \\ 52 & 18,07 \\ 9 & 48,84 \\ 55 & 38,74 \\ 40 & 5 & 19 \\ 23 & 8,58 \\ \end{array} $	$ \begin{array}{r}$	invisible to the Circle observer.
9 10 13 16 22 23	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0,10 11,70 15,80 58,36 59,29 1,29	$ \begin{array}{c} -0,28 \\ -0,69 \\ -0,33 \\ -0,03 \\ -0,22 \\ -0,35 \\ -0,22 \\ -0,35 \\ \end{array} $		4 49,95 45 10,10 38 8,71 19 19,42 7 26,26 31 8,69	$\begin{vmatrix} +2,19 \\ +2,19 \\ +7,80 \\ +2,95 \\ +4,49 \end{vmatrix}$	
24 26 27 28 29 30 April 19	4 41,6 6 57,3 9 19,9 11 47,6 14 16,6	$\begin{array}{c ccccc} 10 & 6,59 \\ 22 & 28,21 \\ \hline & 28 & 42,92 \\ 35 & 2,34 \\ 41 & 25,93 \\ 47 & 52,60 \\ 2 & 5 & 24,23 \end{array}$	$\begin{array}{c} 6,65\\ 27,66\\ 43,39\\ 2,50\\ 25,69\\ 52,58\\ 24,26\end{array}$	$ \begin{array}{r} +0,06 \\ -0,55 \\ +0,47 \\ +0,16 \\ -0,34 \\ -0,02 \\ +0,03 \\ \end{array} $	96 35 3,11 95 54 2,12 95 11 56,44 94 28 40,79 93 44 7,86	$\begin{array}{r} 35 & 6,14 \\ 54 & 4,68 \\ 11 & 54,40 \\ 28 & 36,44 \\ 44 & 11,98 \end{array}$	+2,56 -2,04 -4,35	
20 21 25 26 30	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} 24,20\\ 24,32\\ 26,18\\ 30,67\\ 24,71\\ 2,11\\ 2,11\\ 27,70\end{array}$	$\begin{vmatrix} -0.22 \\ -0.01 \\ +0.10 \\ -0.34 \\ +0.33 \\ +0.06 \end{vmatrix}$	$\left \begin{array}{ccccc} 76 & 19 & 5,37 \\ 75 & 26 & 59,47 \\ 72 & 12 & 54,94 \\ 71 & 29 & 1,52 \\ 68 & 56 & 13,28 \end{array}\right $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	-4,18 -1,79 +1,56 -1,58	
1 July 1 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	23,84 32,38 15,03 54,86 4,12 25,38	$\begin{vmatrix} +0,14 \\ +0,22 \\ +0,09 \\ +0,62 \\ +0,58 \\ -0,24 \end{vmatrix}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c} -4,04 \\ -1,67 \\ -2,58 \\ -1,32 \\ \end{array} $	
2 Sep. 1	9 23 25 0,3 7 0 46 38,3 9 0 53 1,4 8 1 28 33,4	7 16 19,23 9 49 5,48 10 3 22,51 11 53 54,96 12 57 3,46 13 11 7,39	19,72 6,04 22,81 54,87 3,34 7,04	$\begin{vmatrix} +0,49 \\ +0,56 \\ +0,30 \\ -0,09 \\ -0,12 \end{vmatrix}$	76 27 28,78 90 6 38,28	27 32,40 6 34,25	+3,62 -4,03	the Circle observer.
2 2		11 59,81 12 31,71	59,52 31,26 40,16	$ \begin{array}{c c} -0,35 \\ -0,29 \\ -0,45 \\ -0,89 \\ \end{array} $	101 39 19,31 101 45 19,56	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	+2,10 +3,42	

18	36	Madras Mean Time of Observation.	A. R. from Observation.	A. R. from N A	Error of N. A.	N. P. D. from Observation.	N. P. D. from N. A.	Error of N. A.	Remarks.
Jan.	4 7	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	33,38 59,49	-0.37 +0.08	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	14,20 12,44	//////////////////////////////////////	
	8 16	45 22,0 53 47,2	53 5,58 21 33 5,09	5,48 4,89	-0,10 -0,20	109 13 27,65 106 16 23,19	24,00 21,53	-3.65 -1,66	
	19 20 21	56 34,6 57 27 6 58 20,0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	42.47	-0,17 +0,12	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c} 17,75\\ 47,18\\ 53,26 \end{array} $	7,93 -3,86	
	21 22 23	59 9,9	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	21.01 8,38 54,51	-0,47 +0,56 +0,12	104 10 51,89 103 44 34,62 103 17 59,75	36,51 58,10	+1,37 +1,89 -1,65	
	25 26	$ \begin{array}{r} 2 & 1 & 35,1 \\ & 2 & 20,9 \end{array} $	$\begin{array}{ccc} 16 & 23,00 \\ 21 & 5,49 \end{array}$	23.06 5,60	+0.06 + 0,11	102 23 40,78 101 56 2,01	39,50 0,70	-1,28 -1,31	
Fab	28 29	4 31,5	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	26,86	-0,34 -0,39	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	48,04 16,03	-1,45 -3,66	
Feb.	2 3 4	7 10,3 7 48,2 8 25,0	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	32,39 6,60 39,78	-0,18 +0,34 -0,11	98 34 33,01 98 4 48,52 97 34 51,72	34,73 49,90 52,91	+1,72 +1,38 +1,19	
	5 6	9 0,5 9 35,5	7 12,25 11 43,88	$12,16 \\ 43,72$	-0,09 -0,16	97 4 45,74 96 34 26,82	44,13 24,72	-1.61 -2,10	
July	8 9 31	10 43,1 11 15,9 23 20 5,7	$\begin{array}{r} 20 \ 24,61 \\ 25 \ 14,25 \\ 7 \ 59 \ 34,83 \end{array}$	24,63 14,03 35,17	$+0,02 \\ -0,22 \\ +0,34$	95 33 21,26 95 2 37,72	16,75 30,44	-4,51 -7,28	
Sep.	9 12	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 22 & 15,69 \\ 31 & 14,47 \end{array}$	15,65 14.83	-0.04 + 0.36	74 48 24,60 74 56 36,90	13,06 26,73	11,54 10,17	
Oct.	20 3	20 57 33,9 20 54 50,7	$\begin{array}{c} 8 57 \ 44.39 \\ 9 \ 46 \ 16.22 \\ 12 \ 20 \ 5 \ 47 \end{array}$	44,21	-0,13 -0,06	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	36,74 42,15	-8,13 -2,64	
Nov. Dec.	$\begin{bmatrix} 25 \\ 1 \\ 5 \end{bmatrix}$	21 9 40.0 13 12,8 15 51,8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5,03 16,68 43,60	-0,44 -0,58 -0,55	97 13 36,36 99 44 53,99 101 22 49,65	$35,56 \\ 52,74 \\ 50,25 $	-0,80 -1,25 +0,60	
	6 19	16 33,7 27 29,1		22;87 35;96	-0,51 -0,37	101 46 48,75 106 33 37,93	50,21 38,03	+1,46 +0,10	
183 Jan.	7 2 19	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	16 33 20,37 18 3 25,93	19,96 25,13	-0,41 -0,80	110 27 13,29 112 41 24,05	13,19 30,49	-0,10 + 6.44	
Feb.	$\begin{vmatrix} 10\\ 3\\ 5 \end{vmatrix}$	27 24,0 30 9,4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,82 40,89	-0,51 -0,58	111 59 44,08 111 42 36,87	47,71 43,17	+3,63 +6,30	
	6 7	$\begin{array}{c c} 31 & 42.4 \\ 32 & 51.8 \\ \end{array}$	39 59,78 45 17,64	59,48 17,91	-0,30 -0,63	111 33 5,82 111 22 55,20 111 12 6.07	11,83 61,78	+6,01 +6,58	
	8 9 10	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	19 50 34,46 55 50,99 20 1 6,34	34,30 50,52 5,91	-0,16 -0,47 -0,43	111 12 6,97 111 0 42,45 110 48 42,37	13,17 46.77 42,56	+6,20 +4,32 +0,19	
	17 19	45 33,9 47 56,0	37 28.03 47 41.74	27,18	-0,85 -0,45	109 7 20,18 108 33 14,10	25,18 20,44	+5,00 + 6,34	
Mar.	20 26 1	49 3.5 55 32,7 58 30,1	52 46.87 21 22 55,79 37 45,51	46,38 55,74 45,35		108 15 24,82 106 17 43,98 105 12 37,33	49,02	+6.12 +5.04 +0.79	
174UI 8	5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 37 & 43,51 \\ 57 & 16,83 \\ 22 & 6 & 55,58 \end{array}$	16,26 55,36	-0,57 -0,22	103 39 46,00 102 51 4,85	52,31 12,00	+6,31 +7,15	T
	8 9	4 55,1 5 44,2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	43,33 30,37	0,36	102 26 16,34 102 1 5,07 101 25 21 25	20,00 7,88	+3,66 +2,81	
	10	6 32,7	21 16,90	16,37	0,53	101 35 31,35	36,21	+4,86	

Observed Right Ascension and North Polar Distance of VENUS, compared with the places interpolated from the Nautical Almanac.

1837 Time of from from of from fr	in of REMARKS.
	A. N. A.
h. m. s. h. m. s. "	,08 -2,18
15 10 21,7 44 53,00 53,07 +0,07 99 23 32,11 3	,34 +0,23
	42 + 2,56 66 + 1,98
20 13 58,9 8 8,96 8,68 -0,28 97 5 11,93 1	,88 -0,05
	4,56 + 0,13 5,53 + 0,60
	3,49 - 1,44
	0,90 -3,81
	$\left \begin{array}{c} 0,43 \\ 9,03 \end{array} \right \left \begin{array}{c} -0,60 \\ +1,54 \end{array} \right \left\{ \begin{array}{c} \text{Clock er-} \\ \text{ror doubt-} \end{array} \right\}$
28 19 6,7 44 50,68 50,30 -0,38 93 14 29,68 3	2,12 + 2,44 ful
$\begin{bmatrix} 29 & 19 & 44,9 \\ 20 & 20 & 50 \end{bmatrix} = \begin{bmatrix} 49 & 24,55 \\ 57 & 57 & 49 \end{bmatrix} = \begin{bmatrix} 24,41 \\ -0,14 \\ 20 & 15 \end{bmatrix} = \begin{bmatrix} 92 & 45 & 6,70 \\ 20 & 15 & 20,20 \end{bmatrix}$	7,28 +0,58
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
7 25 6,7 30 16,31 16,33 $+0,02$ 81 18 10,83 1	1,70 + 0,87
	$7,74 3,71 \\8,14 5,94 $
	8,14 5,94 3,76 5,29
14 29 18 5 1 2 5,36 5,44 +0,08 84 51 31,81 2	5,02 -6,79
	$\begin{array}{c c} 0,08 & -0,87 \\ 1,57 & -3,22 \end{array}$
	0,88 -6,00
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	2,85 -6,04
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c ccccc} 0,32 & -7,02 \\ 6,35 & -9,50 \end{array}$
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	6,83 -8,83
	1,56 -471
$ \begin{vmatrix} 27 & 38 & 2,2 \\ May & 1 & 41 & 8,1 \end{vmatrix} $	1,36 -2,22
3 42 45,8 2 30 29,33 29,84 +0,51	
	4.79 -3,44
	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
9 24 12,5 33 58,77 58,48 $-0,29$ 66 15 9,93	8,88 -1,05
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
13 29 54,4 55 27,50 27,77 $+0,27$ 65 58 14,69	3,86 0,83
	6,37 -0,32
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	0,04 -0,10 1,28 -1,07
18 37 6,7 22 23,88 23,57 -0,31 65 53 5,23	5,49 + 0,26
	6,25 -0,40
	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
12 9 8,9 29 8,75 9,08 +0,33 69 30 45,00	5,33 +0,33
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
23 20 37,5 24 2,09 2,11 +0,02 73 8 5,48	0,24 +4,76
28 25 2,9 48 10,58 10,01 0,57 75 6 9,28 Aug. 9 33 44,5 10 44 12,29 11,97 0,32 80 26 37,46	6,79 - 2,49 36,35 - 1,11
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	58,86 - 0,68

1837.	Madras Mean Time of Observation.	A. R. from Observation.	A. R. from N. A.	Error of N. A.	N. P. D. from Observation.	N P.D. from N.A.	Error of N. A.	Remarks.
Sep. 13 14 20 21 22 23	$ \begin{array}{c cccc} h. & m & s. \\ 1 & 51 & 29,6 \\ 52 & 1,6 \\ 55 & 26,0 \\ 56 & 2,6 \\ 56 & 40,2 \\ 57 & 18,5 \end{array} $	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	" 59,53 28,00 32,14 5,39 39,48 14,44	$\begin{array}{c} "\\0,36\\ -0,49\\ -0,61\\ -0,38\\ -0,60\\0,57 \end{array}$	$ \begin{vmatrix} 0 & 7 & 11 \\ 98 & 10 & 51,32 \\ 98 & 40 & 38,49 \\ 101 & 35 & 30,98 \\ 102 & 3 & 53,62 \\ 102 & 31 & 54,74 \\ 102 & 59 & 40,23 \end{vmatrix} $	<i>*</i> 56,26 46,27 35,58 55,49 59,69 47,34	" +4,94 +7,78 +4,60 +1,87 +4,95 +7,11	

Observed Right Ascension and North Polar Distance of MARS, compared with the places interpolated from the Nautical Almanac.

	Madras Mean	A. R.	A. R.	Error	N, P. D.	N. P. D.	Error	
1836	Time of	from	from	of	from	from	of	Remarks.
	Observation.	Observation.	N. A.	N. A.	Observation.	N. A.	N. A.	
				1		1	1	
	h. m. s.	h. m. s.		11	0 / //	1	"	
July 18	20 40 19,2	4 28 9,90	9,52	-0,38	68 28 40,56	41.29	+ 0,73	
19	39 19,2	31 4,83	4,54	-0,29	68 21 27,46	26,03	-1,43	
Aug. 26	19 58 22,0	6 19 50,07	49.99	-0,08				
Sep. 9	19 41 7,5	6 57 44,13	43,59		66 39 51,28	45,95	- 5,33	
11	38 30,3	7 2 59,07	59,28	+0,21	66 45 16,85	15,46	-1,39	
12	37 11,4	7 5 36,35	36,40	+0.05	66 48 18,11	11,23	- 6,88	
13	35 49,6	7 8 12,34	12,64	+0,30	66 51 21,35	16,36	- 4,99	
Oct. 13	18 50 10,4	8 20 40,78		+0,27	69 14 52,77	51,19	- 8,58	
14	18 48 26,1	22 52,91	53,46	+0,55				1
1837 Jan. 26	12 16 49 4	9 40 18,18	18,00	010	71 19 39,84	07 27	10 47	
Jan. 20 27	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	38 53,01		0,18			-12,47	
28	13 11 22,4 13 5 58,4	37 25,45	52,48 25,10	-0,53 -0,35	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	21,41	-11,43	
20 29	13 0 34,3	35 56,24	55.99	-0,35 -0,25	70 55 18,18	6,21	-9,64 -11,97	
	12 49 40,2	32 53,67	53,27	-0,20 -0,40	39 11,00	58,35	-12,65	
Feb. 2	$12 \ 49 \ 40,2$ $12 \ 38 \ 42,2$	29 46,43	45,64	-0,40 -0,79	23 19,06	4,87	-14,19	
reo. 2 3	$12 \ 33 \ 42,2$ $33 \ 10,5$	28 10,84		-0,39	15 31,87	16,21	-15,66	
4	27 38,4	26 35,03		-0,33 -0,44	7 49,57	34.20	-15,00 -15,37	
5	22 6,5	24 58,66		-0,40	0 16,20	0,04	-16,16	
6	16 34,7			-0,56	69 52 50,49	34,66	-15,83	
7	11 0,9	21 45,46		-0,57	45 32,92	18,51	-14,41	
8	5 20,5	20 8.44		-0.24	38 26,93	14,16	-12,77	
9	11 59 58,1	9 18 32,49		-0,75	69 31 32,82	20,48	-12,34	· .
10	54 27,3	16 56.68		-0,58	25 50,37	38,95	-11,42	
Îĩ	48 55,6			-0,39		11,67	- 9,03	
12		13 47,21		-0,50	12 4,45	55,18	-9,27	
13		12 13,99		0,46		53,89	- 7,47	
14		10 41,96		0,69		7,57	- 6,00	
15		9 11,37		0,50	68 54 42,75	35,07	- 7,68	
17		6 14,73		_0,33	44 23,73	18,02	- 5,71	
18		4 49,42		0,57		32,66	- 4,41	1
19		3 25,69	25,21	0,48	35 8,82	2,22	- 6,60	
26	10 29 25,9	8 44 46,47		0,77	11 24.99	17.89	- 7,10	
27	24 25,6	53 42,33		0,28	9 5.45	59,41	- 6.04	
28	19 29,8	52 42,18		0,86	7 2,50	57,11	- 5,39	
Mar. 1	14 36,1	51 34,21		0,61	5 14,93	10,55	- 4,38	
4	9 59 14,5	49 9,21		0,76	1 28,08	24,94	- 3,14	
5		48 23,88		-0,75	0 43,10	40,23	- 2,87	

1837.	Madras Mean Time of Observation.	A. R. from Observation	A. R. from N. A.	Error of N. A.	N. P. D. from Observation.	N. P. D. from N. A.	Error of N. A.	Remarks.
Mar. 6 7 8 9 10 11 12 13	28 33,5 24 15,6 19 59,8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	# 40,96 2,06 26,44 54,05 24,91 59,03 36,41 17,00 37,90	$\begin{array}{c} "\\0,66\\ -0,67\\ -0.67\\ -0,49\\ -0,62\\ -0,50\\ -0,53\\ -0,53\\ -0,75\\ \end{array}$	$ \begin{smallmatrix} 0 & i & i' \\ 68 & 0 & 12,89 \\ 67 & 59 & 56,98 \\ 67 & 59 & 55,96 \\ 68 & 0 & 8,36 \\ 0 & 35,87 \\ 1 & 15,99 \\ 2 & 11,06 \\ 3 & 18,38 \\ 7 & 53,22 \\ \end{smallmatrix} $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{vmatrix} & & \\ & -2,60 \\ & -2,23 \\ & -2,29 \\ & -1,69 \\ & -2,16 \\ & -1,48 \\ & -2,32 \\ & -2,67 \\ & -0,16 \end{vmatrix} $	
16 17 18		$\begin{array}{r} 43 & 38,03 \\ 43 & 31,69 \\ 43 & 28,16 \end{array}$	31,13 27,45	-0.56 -0.71	9 50,11 11 58,38	48,55	$ -1,56 \\ -2,30 $	

Apparent Right Ascension and North Polar Distance of VESTA, compared with the places interpolated from the Nautical Almanac.

1837	Madras Mean Time of Observation.	A. R. from Observation.	A. R. from N. A.	Error of N. A.	N. P. D. from Observation.	N. P. D. from N. A.	Error of N. A.	Remarks.
Mar. 11 12 13 14 15 16 17 20 21 22 25 26 28 29 April 1 2 5 6 7 8 9 10 11 12 13 14 15 16 17 20 21 22 25 26 28 29 April 1 12 12 20 21 22 25 26 28 29 10 21 20 21 22 25 26 28 29 10 11 20 21 22 25 26 28 29 10 21 20 21 20 21 22 25 26 28 29 10 11 20 21 25 26 28 29 10 11 20 21 25 26 28 9 10 11 12 10 11 20 21 25 26 28 9 10 11 12 10 11 12 10 11 12 10 11 20 21 25 26 28 9 10 11 12 11 12 10 11 12 10 11 12 10 11 12 10 11 12 10 11 12 13 14 15 16 17 10 10 11 12 13 14 15 16 17 17 10 10 11 12 10 11 12 13 14 15 16 17 17 18 19 20 22 25 26 28 29 10 11 12 15 16 17 17 18 19 20 22	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	" 11,57 19,88 27,64 34,44 40,81 46,72 52.21 7,03 11,76 16,49 31,54 21,50 31,89 21,50 31,89 21,50 36,59 10,45 29,32 11,14 33,82 58,77 8,52,52 49,51 11,14 33,82 58,77 8,52,52 58,77 8 52,52 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	* + 2,05 2,34 2,04 2,28 2,39 2,21 2,44 1,98 2,36 2,36 2,36 2,36 2,57 2,36 2,36 2,57 2,36 2,57 2,63 2,57 2,63 2,57 2,36 2,36 2,57 2,44 2,48 2,33 2,40 2,40 2,40 2,40 2,46 2,40 2,11 2,35 2,11 2,17	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	* 46,81 46,11 50,17 60,48 17,49 43,80 14,24 41,87 56,85 18,52 34,70 40.64 46,51 38,38 39,13 27,53 31,35 23,32 31,24 55,36 34,82 30,61 42,69 10,88 55,23 55,71 13,79 45,02	* + 14.50 15,83 15,75 14,52 14,84 17,25 12,70 12,13 13,42 12,03 11,57 7,20 11,11 11,05 11,10 8,19 11,53 9,13 9,29 8,54 7,94 8,06 7,57 8,32 6,54 8,34 6,77	

1836	Madras Mean Time of Observation	A. R. from Observation.	A. R. from N. A.	Error of N. A.	N. P. D. from Observation.	N. P. D. from N. A.	Error of N. A.	Remarks.
April 23 26	h. m. s. 9 30 59,0 18 19,7	h. m. s. 11 37 50,11	Places given approxim- ately only in the N. A.	"	° / <i>"</i> 75 21 45,89 75 27 19,66	"	"	
$\begin{array}{r} 27\\28\\1837\end{array}$	$\begin{array}{ccc} 14 & 6,5 \\ 9 & 59,1 \end{array}$	36 45,21 36 33,34	Places approately (the 1		75 29 37,78 75 32 10,81	Ĩ		
Aug. 27 28 29	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{r} 23 \ 15 \ 14,52 \\ 14 \ 22,13 \\ 13 \ 30,21 \end{array}$	16,13 24,39 32,04	+1,61 2,26 1,83	106 3 37,22 106 11 42,15 106 19 44,08	20,34 26.14 26,87	-16,88 16,01 17,21	
Sep. 13 14 21	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	22 59 56,73 59 4,39 53 16,73	58,60 6,02 18,77	1,87 1,63 2,04	108 3 35,34 108 9 5,66 108 41 15,29		$11,62 \\ 12,63$	
22 23	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	52 31,02 51 46,33	32,88 48,09	1,86 1,76	108 44 55,29 108 48 20,64	$44,56 \\ 10,45$	10,93 10,73 10,19	
2-1 27	$\begin{array}{ccc} 37 & 44,3 \\ 24 & 12,6 \end{array}$	51 2,68 48 59,38	4,51 1,00	1,83 1,62	108 51 31,98 108 59 40,51	21,98 29,75	$10,00 \\ 10,76$	

Apparent Right Ascension and North Polar Distance of JUNO, compared with the places interpolated from the Nautical Almanac.

18:	36	Madras Mean A. R. Time of from Observation. Observatio		A. R. from N. A.	Error of N. A.	N. P. D. from Observation.	N. P. D. from N. A.	Error of N. A.	Remarks.
1	1	h. m. s.	1 h. m. s.	/ //	11	0 / 11	1 "	1 "	
Jan.	2	11 50 55,7		35,76	-3,60	89 25 24,11	44,32	+20,21	
	3	46 6,8	35 46,55	42,97	3,58	89 20 5,30	28,33	23,03	
]	6	31 44,		7,59	3,66	89 2 40,10		21,35	
}	7	26 57,7		17,09	3,48	88 56 18,76	41,00	22,24	
1	8	22 12,4		27,42	3,47	88 54			{ served by
1	11	8 0,7		3,29	3,55	88 28 27,83		23,95	(mistake.
1	13	10 58 39,0	27 36,25	32,42	3,83	88 13 14,16		21,52	
	14	53 58,6	26 52,38	48,77	3,61	88 5 17,82	38,50	20,68	(a Star ob-
1	16	44 43,2	25 28,83	25,29	3,54	87 54			{served by
	24	8 43,4	20 54,73	51,09	3,64	86 36 32,10	53,17	21,07	(mistake.
1	31	9 38 42,7	18 24,98	21,73	3,25	85 27 43,67	2,69	19,02	Í
Feb.	1	$34 \ 30,0$	18 10,90	7,79	3,11	85 17 41,71	58,31	16,60	
	2	30 22,9	17 58,61	55,75	2,86	85 7 33,56	51,80	18,24	
183	7								
April	11	12 27 41,2		44,93	4,36	89 53 47,86		— 7,43	very faint.
Î.	12	22 58,3		57,86	4,10	89 47 26,13	18,41	- 7,72	1
1	18	11 54 38,7		14,27	3,29	89 3 54,29	51,62	- 2,67	
	23	31 7,5	37 25,15	21,33	3,82	88 31 21,51	20,65	- 0,86	
	27	12 24,0		-		88 7 41,12	35,05	- 6,07	

Apparent Right Ascension and North Polar Distance of PALLAS, compared with the places interpolated from the Nautical Almanac.

1836	Madras Mean Time of Observation.	A. R. from Observation.	A. R. from N. A.	Error of N. A.	from Observation,	N. P. D. from N. A.	Error of N. A.	Remarks.
Aug. 17 Sep. 10 1837 Oct. 13 16 23 25	$ \begin{array}{c ccccc} h. & m. & s. \\ 11 & 13 & 55,3 \\ 9 & 24 & 53,9 \\ 12 & 48 & 29,5 \\ & 35 & 32,4 \\ & 2 & 36,2 \\ 11 & 53 & 7,6 \\ \end{array} $	20 43 46,11 2 18 4,00 15 54,80 10 29,23	29,49 47,46 7,73 58,13 32,96 56,21		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	" 3,04 30,85 25,58 42,43 44,09 19,07	$ \begin{array}{c} $	

1836	Madras Mean Time of Observation.	A. R. from Observation.	A. R. from N. A.	Error of N. A.	N. P. D. from Observation.	N. P. D. from N. A.	Error of N. A.	Remarks.
Sep. 12 Oct. 1 3 6 7 8	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccc} h. & m, & s. \\ 23 & 28 & 10,79 \\ & 13 & 7,18 \\ 11 & 45,90 \\ & 9 & 50,94 \\ & 9 & 14.92 \\ & 8 & 40,05 \end{array}$	" 10,70 7,04 45,67 51,04 14,95 39,89	$ \begin{array}{c} $	$\begin{array}{c} \circ & \cdot & ' \\ 110 & 44 & 57,12 \\ 111 & 42 & 16,52 \\ & 44 & 4,82 \\ & 45 & 20,87 \\ & 45 & 24,46 \\ & 45 & 10,90 \end{array}$	" 48,64 10,08 1,21 15.63 16,01 4,27	$ \begin{array}{c} $	
1837 Dec. 17 18	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4 59,17,27 57 17,05	18,35 17,87	+1,08 +0,82	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	28,96 58,38	-7,81 +21,94	[obsd. at circle. Probably a star

Apparent Right Ascension and North Polar Distance of CERES, compared with the places interpolated from the Nautical Almanac.

Apparent Right Ascension and North Polar Distance of JUPITER, compared with the places interpolated from the Nautical Almanac.

		Madras Mean		A. R.	Error	N. P. D.	N. P. D.	Error	D
183	6	Time of	from	from	of	from	from	of	REMARKS.
		Observation.	Observation.	N. A.	N. A.	Observation.	N. A.	N. A.	
1		hm. s.	h. m. s.	11	// [0 / #	11	11	
Jan.	2	$12 \ 2 \ 22,3$	6 46 57,33	57,62	+0,29	66 54 53,56	56,62	+3,06	
1 Juni	6	11 43 9,0	44 37,85	38,19	+0,34	51 50,89	49,94	-0,95	
	7		44 3,14	3,55	+0,41	51 3,99	4,82	+0,83	
i	8	34 8,3	43 28,57	29,04	+0,47	50 20,34	20,40	+0,06	
{	9	29 38,4	42 54,34	54,70	+0,36	49 35,37	36,77	+1,40	
	11		41 46,14	46,60	+0,46	48 9,87	11,62	+1,75	i [
	13		40 39,09	39,48	+0,39	46 47,54	48,81	+1,27	
]	14	7 9,7	40 6,08	6,34	+0,26	46 8,92	8,69	-0,23	
[16		39 0,08	0,72	+0,64	44 50,35	51,05	+0.70	
	19	44 50,6	37 25,43	25,98	+0,55	43 3,52	0,41		
	20		36 54,52	55,15	+0,60	42 27,22	25,10	-2,12	
	24		34 ——			40 12,65	12,45	-0,20	
	31	9 52 6,8	31 51,27	51,39	+0.12	36 51,96	52,39	+0,43	
Feb.	1		31 27,27	27,50	+0,23	36 27,52	27.05	-0,47	
ļ	2		31 3,90	4,24	+0,34	36 0,43	2,54	+2,11	
	3		30 41,60	41,67	+0.07	35 38,71	38,82	+0,11	
	4		30 19,84	19,82	-0,02	35 14,70	15,81	+1,11	
	5	1 /	29 58,75	58,68	-0,07	34 53,3 ;	53,40	+0.07	
l	7		29 18,81	18,64	-0,17	34 11,73	11,47	-0,26	l l
	8		29 0,09	59.74	-0,35	33 51,93	51,56	0,37	
	10		28 24,60	24.29	-0,31	33 14,51	13,83	-0,68	
	11		28 8,03	7,74	-0,29	32 55,86		+0,16	Ì
Ì	13		27 37,10	36,97	0,13	32 23,25	22,58	-0,67	
	14	1	27 23,24	22,86	1 - 0,38	32 6,65	6,91	+0.26	
1	15	1 /	27 9,76	9,57	-0,19	31 53,05	51,84	-1,21	
	16	1 /	26 57,69	57,12	-0.57	31	37,47		
	18			45,52	-0,40	31 25,73	23,61	-2,12	
1	2		26 35,06	34,76	-0,30	31 13,23		-2,69	
ł	23			7,61	-0,52	29 37,60	35,13	-2,47	
1	<u>کر</u>		1 20 04,10	53,81		30 13,28	14,53	+1,25]

Appar	rent	Righ t	Ascen	sion	and	Nort	th Polar	Dis	tance	of	Jup	IT	ER CO	ntinue	d.	
_																
	Made	Maan		D		TD	Eman	٦.T	ת ת	,	NT TO	D		1	*******	1

1836	Madras Mean Time of Observation.	A. R. from Observation.	A. R. from N. A.	Error of N. A.	N. P. D. from Observation.	N. P. D from N. A.	Error of N. A.	Remarks.
Feb. 26 27 Mar. 14	7 59 43,6	$\begin{array}{c ccccc} h. & m. & s. \\ 6 & 25 & 39,63 \\ & 25 & 36,69 \\ & 26 & 43,43 \end{array}$	" 39,62 35,82 43,41	" 0,01 0,87 0,02	0 / <i>"</i> 66 29 49,59 29 40,27 28 55,84	" 49,03 40,62 57,65	-0,56 +0,35	
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 20 & 43,43 \\ 27 & 19,37 \\ 27 & 32,89 \\ 27 & 47,77 \end{array}$	19,43 32,87 46,90	+0,02 +0,06 -0.02 -0.87	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	6,15 10,16 14,88	+1,81 -1,10 +1,91	
June 18 Sep. 9 19 20	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	30,55 54,35 15,83	$ \begin{array}{c} -0,26 \\ -0,28 \\ +0,21 \\ 0,54 \end{array} $	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	54,34 42,30 21,51	-3,18 -2,09 -3,60	
Oct.	20 13 17,3 3 20 10 0,2 5 20 0 7,5	52 19,45 9 0 39,90 1 18,98 3 13,54	18,91 39,82 18,92 13,25	-0,54 -0,08 -0,06 -0,29	55 14,36 72 27 37,17 30 13,32 37 48,45	$ \begin{array}{c c} 13,07 \\ 38,85 \\ 10,76 \\ 49,23 \end{array} $	-1,29 + 1,68 - 2,56 + 0,78	
	36 46,0 33 24,3	6 49,94 7 24,98 7 58,53	49,89 24,25 58,16	-0,05 -0,73 -0,37 0,58	52 14,50 54 35,48 56 50,97	15,62 35,05 50,71	+1,12 -0,43 -0,26	
1837	10 21,1	10 40,39	39,81	0,58	73 7 46,61	44,83	-1,78	
Jan. 20 27 28 29 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	9 6 49,00 6 17,72 5 46,19 5 14,30 4 10,71	48,29 16,93 45,41 13,76 10,16	0,71 0,79 0,78 0,54 0,55	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	14,28 50,01 25,70 1,49 13,57	1,23 1,26 0,05 0,33 1,78	
Feb.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 6,95 2 35,13 2 3,31	6,31 34,41 2,53	0,64 0,72 0,78	$\begin{array}{rrrr} 12 & 32,37 \\ 10 & 8,34 \\ 7 & 46,85 \end{array}$	27,37 5,06 43,75	5,00 3,28 3,10	
	5 11 58 42,8 6 54 16,4 7 49 46,8 8 45 21,5	0,27,79	$\begin{array}{c} 30,68 \\ 58,90 \\ 27,21 \\ 55,64 \end{array}$	$0,42 \\ 0,66 \\ 0,58 \\ 0,54$	$5 24,68 \\ 3 6,13 \\ 0 44,61 \\ 71 58 28,37$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,69 3,00 0,34 1,86	
1	$\begin{array}{c cccc} 9 & 40 & 53,7 \\ 0 & 36 & 27,1 \\ 1 & 31 & 59,2 \end{array}$	59 24,85 58 53,50 58 22,30	24,20 52,93 21,81	$0,65 \\ 0,57 \\ 0,49$	56 9,43 53 55,91 51 44,00	10,05 54,79 40.93	$ +0,62 \\ -1,12 \\ 3,07$	
1	2 26 26,3 3 23 6,8 4 18 39,5 5 14 14,9	57 21,05	50,97 20,33 49,80 19,72	$\begin{array}{c} 0,42 \\ 0,72 \\ 0,72 \\ 0,72 \\ 0,74 \end{array}$	49 28,67 47 18,95 45 9,30 43 3,05	28,57 17,80 8,05 1,60	$ \begin{array}{c c} 0,10\\ 1,15\\ 1,25\\ 1,45 \end{array} $	
	7 5 22,3 8 0 58,4 9 10 56 33,7	55 21,05 54 52,10 55 23,22	20.49 51,38 22,63	0,56 0,72 0,59	38 53,68 36 53,07 34 52,83	52,60 51,05 51,59	1,08 2,02 1,24	
2	0 52 9,7 1 47 45,5 6 24 53,7 7 20 32,3	50 13,59	54,26 26,29 13,04 47,84	0,40 0,55	32 52,66 31 2,09 21 57,26 20 16,65	54,14 58,73 56,45 15,34	+1,48 -3,36 -0,81 -1,31	

1836	Madras Mean Time of Observation.	A. R. from Observation.	A. R. from N. A.	Error of N. A.	N. P. D. from Observation.	N. P. D. from N. A.	Error of N. A.	Remarks.
April 13 14 15 16 17 19 20 22 23 24 26 28 29 May 1 4 5 7 8 9 11 15 18 19 23 28 June 10 11 12 13 14 17 20 28 June 10 11 12 13 14	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{c ccccc} & & & & & & \\ & & & & & & & \\ & & & & $	$\begin{array}{c} +0,02\\ +0,13\\ +0,05\\ +0,09\\ +0,15\\ +0,13\\ +0,23\\ -0,26\\ -0,09\\ +0,67\\ -0,24\\ +0,03\\ -0,21\\ +0,09\\ +0,04\\ +0,01\\ +0,04\\ +0,01\\ +0,04\\ +0,01\\ -0,27\\ -0,10\\ -0,26\\ -0,08\\ -0,13\\ -0,26\end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ $	" + 16,29 16,51 17,57 17,65 17,69 18,05 17,21 19,10 17,39 19,83 18,68 19,32 20,73 19,77 21,67 22,02 20,94 17,96 20,65 19,26 20,74 20,65 19,26 20,74 20,43 21,20 23,71 23,84 24,90 23,94 21,74 23,87 22,63 22,08 22,37	haze.
1837 Mar. 2 May 1 2 3 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	27,17 6,15 31,85 14,15 56,42 38,68 24,94	$-0,29 \\ -0,45 \\ -0,65 \\ +0,02 \\ -0.25 \\ -0,33 \\ -0,40$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	6,56 19,72 39,22 20,41 59,80 41,39	$18,07 \\ 15,99 \\ 23,94 \\ 24,54 \\ 22,98 \\ 23,67 \\ 22,78 \\ 23,67 \\ 22,78 \\ 23,7$	
11 12 14 15 30 July 11 Aug. 8	$ \begin{array}{r} 16 & 40.0 \\ 12 & 27 & 7 \\ 10 & 9 & 26.3 \\ 7 & 18 & 13.1 \end{array} $	$\begin{array}{r} 46 & 35,43 \\ 46 & 17,91 \\ 45 & 43,12 \\ 45 & 25,98 \\ 41 & 23,17 \\ 35 & 17,05 \\ 37 & 3,82 \end{array}$	$\begin{array}{c} 34,94 \\ 17,42 \\ 42,14 \\ 25,38 \\ 22,23 \\ 16,77 \\ 3,12 \end{array}$	$\begin{array}{c}0,49 \\0,49 \\ -0,98 \\ -0,60 \\0,94 \\0,28 \\0,70 \\ \end{array}$	$ \begin{array}{r} 23 19,44 \\ 22 4,95 \\ \hline 1 38,44 \\ 102 42 43,60 \\ 102 58 55,10 \\ \end{array} $	$ \begin{array}{r} 42,22\\ 26,81\\\\ 58,32\\ 3,22\\ 15,56\\ \end{array} $	$ \begin{array}{c} 22,78\\21,86\\ \\ \hline 19,88\\19,62\\20,46\\\end{array} $	

Apparent Right Ascension and North Polar Distance of SATURN, compared with the places interpolated from the Nautical Almanac.

183	6	Madras Time Observa	of	A. R. from Observation.	A. R. from N. A.	Error of N. A.	N. P. D. from Observation.	N. P. D. from N. A.	Error of N. A.	Remarks.
		h. m.	s.	h. m. s.	11	11	0 / //	11	"	
Sep.	16	10 33	18,2	22 16 0,62	4,23	+3,61	101 37 29,65	21,93	- 7,72	
	23		51,0	15 5,11	8,76	3,65	42 34,57	26,20	8,37	
Oct.	1		26,9	14 7,93	11,49	3,56	47 43,17	36,12	7,05	
	3	24		13 54,96	57,39	2,43	48 53,13	46,28	6,85	
1	6	12		13 35,99	39,73	3,74	50 32,85	25,72	7,13	
1	7	8	14,2	13 30,22	33,79	3,57	51 2,40	57,20	5,20	
1	8	4	11,3	13 24,49	28,03	3,54	51 33,63	27,78	5,85	
	10	8 56	9,4	13 13,40	16,83	3,43	52 35,21	26,44	8,77	
ļ	11	52		13 7.90	11,48	3,58	53 3,26	54,52	8,74	
	12	48	6,4	13 2,60	6,30	3,70	53 29,29	21,70	7,59	
	13	44	6,2	12 57,72	1,26	3,54	53 55,54	47,88	7,66	
ļ	14	40	5,3	12 52,90	56,39	3,49	54 21,03	13,06	7,97	
	15	36	4,8	12 48,43	51,68	3,25	54 44,75	37,37	7,38	
183	37			, , , , , , , , , , , , , , , , , , ,		1				
Aug.	28	12 11	20,8	22 34 28,67	32,89	+4,22	99 51 42,94	27,19	-15,75	
	29	3	18,0	22 34 19,78	23,92	4,14	52 37,60	20,30	17,30	
Sep.	13	11 2	$5,\!5$	32 6,16	10,41	4,25	100 5 36,65	21,10	15,55	
· ·	14	10 58	1,0	31 57,58	1,81	4,23	6 26,69	10,88	15,81	
	21	29	31,7	30 59,38	3,33	3,95	12 3,89	47,80	16,09	
1	22	25	27,9	30 51,50	55,27	3,77	12 49,62	33,96	15,66	
1	23	21		30 43,32	47,29	3,97	13 38,22	19,62	18,60	
1	24	17	20.3	30 35,38		3,92	14 20,42	4,78	15,64	
	27	5	9,0	30 12,10	16,14	4,04	16 33,32	16,26	17,06	

Apparent, Right Ascension and North Polar Distance of GEORGIAN, compared with the interpolated place from the Nautical Almanac.

Comparison of the Observed Right Ascension and North Polar Distance of the Moon, with the interpolated place from the Nautical Almanac.

1836	Madras Mcan Time.	Limb Observed.	Observed A. R. of)'s Centre.	A. R. from N. A.	Error of Tables.	N. or S. Limb.	Observed N. P. D. of D's Centre.	N. P. D. from N. A.		Remarks.
Jan. 2 3 25 26 27 28 31 Feb. 1 2 26 27 28 26 27 28 29 Mar. 1 2	8 27 34,0 9 19 24,1 10 10 40,3 11 0 38,8 11 49 4,4		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} s.\\ 58,73\\ 18,03\\ 14,92\\ 0,48\\ 21,09\\ 52,66\\ 34,73\\ 29,17\\ 18,91\\ 10,45\\ 38,51\\ 32,95\\ 53,31\\ 55,57\\ 24,61\end{array}$	$ \begin{vmatrix} -, 43 \\ +, 17 \\ +, 30 \\ -, 12 \\ -, 33 \\ -, 66 \\ -, 56 \\ -, 33 \\ -, 06 \\ +, 13 \\ -, 61 \\ -, 78 \\ -, 93 \\ -, 78 \end{vmatrix} $	N. S. N. N. N. N.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	14,6 35,2 35,9 7,5 43,0 28,3 57,9 14,9	$\begin{array}{c} - & 2,8 \\ 0,0 \\ - & 4,6 \\ + & 2,8 \\ + & 6,6 \\ - & 0,1 \\ - & 2,0 \\ - & 0,4 \\ - & 6,0 \\ - & 5,0 \end{array}$	
3 25		$\begin{vmatrix} 2\\ 1 \end{vmatrix}$	11 23 40,54 6 31 20,65	39,90 20,19	1 1		81 8 28,2 63 1 6,8	27,1 2,6	-1,1 -4,2	

N. P. D. Error Ob.erved in A. R. Error Observed Observed Limb. Limb Madras from of REMARKS. N. P. D of from of A. R. of 1836 Mean Time. Tables. N. A. D's Centre. N. A. Tables. ż D's Centre. 11 0 1 11 ś. h. m. s. S. h. – m. 8. - 2,5 63 35 38,7 36,2+0,18Ν. 45,74 9 30,7 7 26 45,56 7 1 Mar. 26 - 6,7 7,6 + ,27 Ν. 65 31 14,3 53,11 21 52,84 0 33,21 8 8 2738,0 - 4,1 68 43 42,1 ,35 N. 59,53 8 50 35.21 9 15 59,88 2814,2_ 1,8 73 5 16,0 ,94 N. 46,42 20,5 8 47,36 _____ 9 39 1 10 2940,0 ____1,8 ,64 Ν. 78 24 41,8 23,25 10 26 53,2 1 0 23,89 11 30 3,8 ,52 43,0 84 27 46,8 24,29 Ν. ____ 11 13 49,9 24,81 1 11 51 31 ,37 2.524,7Ν. 90 57 27,2 44,54 9,242 44,91 April 12 2 Cent. 12 1 22,6 - 2,2 67 4 24,8 ,21 Ν. 1,10 1,31 6 41 35,1 1 4.53 24 ,21 75 43 26,6 22,6 - 4,0 Ν. 29,28 -----10 36 29,49 16 52,9 1 8 2681 23 26,6 25,2- 1,4 ,62 N. 50,96 3 11,1 11 26 51,58 279 1 - 1,1 ,42 87 40 1,1 N. 2,2 12 17 21,58 9 49 36,8 21,16 -----28 1 0,9 ,26 94 16 18,0 17,1 6,59 ____ Ν. 10 37 18,4 13 9 6,85 29 1 + 4,0 +,01 N. 100 59 31,1 35,125,0 21,87 11 27 3 21,86 14 30 1 Ν. 1 44,2 43,7 0,5 ----,11 91 25 39,3 33,86 12 43 33,97 May 26 8 1 + 2,1 103 5211,7 -,29 Ν. - 9,6 44,96 37,5 14 30 45,25 28 10 4 1 -----S. 1 26,9 31,1 + 4,215,50 ,07 117 July 26 10 35 18,7 18 54 15,57 1 2,7 3 25,6 22,9 ----Ν. 116 17,21 ,01 **,....** 15 25,1 17 16 17,22 Aug. 21 7 1 117 18 36,3 -----35,2 1,1 11,70 ,09 N. -----6 10 1 11,79 Sep. 18 7,3 1 18 +,09 s. 117 10 -9,69,6 0,0 7 58,87 12 46,9 19 7 58,78 1 19 - 8,2 + S. 4 37,2 29,0 42,76 ,03 115 8 14 24,9 20 13 42,79 1 20 S. 7 14,0 -10,3 106 3,7 7 26,7 51,80 ,47 22 10 22 14 51,33 1 ++ 36,2 S. 6 47,9 -11,7,41 100 9 34,23 34,64 2310 58 6,6 1 232 34,1 ,07 S. 116 34,1 0,0 Oct. 17 5 8 37,8 1 19 54 1,84 1,91 +S. 112 45 50,6 52.4+ 1,846,20 ,17 7 17,020 56 46,03 18 7 1 +S, -5.3-5,555 20,36 ,28 108 6 2,557,2 20,64 19 8 49,3211 1 52 20,8 ,06 s. 102 28 12,3 6,820 54,68 49 54,74 8 221 + ,20 s. 96 16 32,0 39 44,0 20,47 25,6 - 6,4 23 41 20,27 21 9 1 s s. +7,1 ,0289 52 31.4 -12,046,97 19,4 2210 25 0 30 46,95 1 ++ ,12 23 25 32,91 98 15 1,9 Nov. 17 37 48,6 33,03 0,5 - 1,4 7 1 91 58 54,9 - 3,8 S. 3 22 54,1 0 14 40,50 40,53 ,03 51,118 1 ,26 N. 11 21 41,3 3 29 45,94 45,68 69 41 2,513,9 +11,4221 -----12 12 28,7 ,79 N. 1 25,7 234 22 28,07 27,28 66 24,5 2 - 1,2 **S**. 87 30 7,8 5 57,4 ,31 Dec. 16 0 47 54,87 54,56 -----4,0 - 3,6 7 1 +,09 S. 81 28 23,6 7 49 25.3 35 25,93 18,5 1 26,02 -- 5,1 17 1 -,15 S. 75 55 31,6 33 18,6 2 23 25,05 24,9027,6-- 4,() 18 8 1 9 18 38,8 S. 4 20,5 19 3 12 48,90 48,78 - ,12 71 14,1 -- 6,4 1 7 29,7 20 10 5 58,7 4 13,34 — ,58 — ,58 ,58 s. 6725,54 12,76 - 4,2 1 21 10 55 20,5 4 57 42,05 N. 64 17 12,1 1 41,47 11,1 - 1,0 C First obs. 1837 of P. M 8 51 51,2 Jan. 17 1 4 40 18,98 19,22 + ,24 s. 64 52.) at Tran. ,75 426,0 34 42,28 41,53 18 9] $\mathbf{5}$ Ν. 63 0 4,6 ------ 0,2 4,4 (sit. 62 24 30,5 19 10 33 19,6 1 6 29 58,78 58,09 ,69 N. + 1,131,6 20 11 24 16,6 1 7 250,20 - ,74 59,46 Ν. 63 11 1,3 1,3 0,0 ,68 2114 58,5 Cent. 8 18 40,27 1239.59 Ν. 65 15 43,5 42,4-------- 1,1 Feb. 12 5829,5 ,31 5 3 295,36 1 5,05 S. 69 13 13,9 12,0 --- 1,9 13 6 47 16,4 21 51,26 ,08 1 4 51,18 S. 65 38 27,8 27 6 - 0,2 37 27,3 ,01 14 7 16 7,48 1 5 7,47 S. 63 17 21,4 25'6 +4,28 28 35,5 15 6 11 20,74 20,70] ,04 62 16 32,0 -----Ν. 31,3 { 0,7

Comparison of the Observed Right Ascension and North Polar Distance of the Moon continued.

· · ·	Comparison of the Observed	l Right Ascension	and North Polar	Distance of the Moon	continued.
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183	37	Madras Mean Time.	Limb Observed	Observed A. R. of)'s Centre.	A. R. from. N. A.	Error of Tables.	N. or S. Limb.	Observed N. P D. of D's Centre.	N. P. D. from N. A.	Error of Tables.	Remarks.
Feb.	18 19 21	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	s. 41,23 56,03 56,17 12,48	s. 0,80 0,99 0,94 0,42	N. N. N. S.	0 ' '' 64 19 52,2 67. 14 26,8 71 11 36.0 81 24 14 3	<i>7</i> 54,8 33,3 38,1 15,5	+ 2,6 + 6,5 + 2,1 + 1,2	
Mar.	17 18 19 20	9 39 37,2 10 24 12,7 11 7 8,8	1 1 1 1 Cent.	7 40 57,83 8 33 57,39 9 24 43,98 10 13 22,10 11 0 20,55 11 46 25,71	57,89 57,20 43,42 21,47 19,74 25,25	+0.06 -0,19 -0,56 -0,63 -0,81 -0,46	N. N. N. N. N.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 20,5\\ 56,3\\ 7,1\\ 43,7\\ 53,0\\ 33,8 \end{array}$		
April	27 28	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 2 1 1 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	25,25 56,90 47,48 14,46 28,72 25,54	$ \begin{array}{r} 0,40 \\ +0,10 \\ 0,00 \\ -0,68 \\ -0,39 \\ -0,35 \end{array} $	S. N. N. N.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	39,0 62,2 58,8	+ 4,0 + 10,4 + 6,3 + 7,8	
May	20 15 16 17 23	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Cent. 1 1 1 2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	30,13 59,85 0,90 49,28 19,81	$-0,24 \\ -0,17 \\ -0.56 \\ -0,35 \\ -0.71$	N. N N. N.	101 3 51,6 85 58 56,8 92 5 38,7 98 17 54,1 116 50 31.4	58,5 59,5 39,7 58,9 27,2	$ \begin{array}{r} + & 6,9 \\ + & 2,7 \\ + & 1,0 \\ + & 4,8 \\ - & 4,2 \end{array} $	
June	13 14 15	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c}2\\1\\1\\1\\1\\1\end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	39,79 27,19 27,65 0,17 30,39	+0.08 -0.06 -0.42 -0.57 -0.95	N. N. N. N.	113 42 21,6 89 31 95 35 16,3 101 36 45,3 107 17 52,1 110 12 25 4	20,4 19,1 50,2 59,7	+ 7,6	
July	21 23 24 11 13 14	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 2 1 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5,40 23,61 58,21 33,23 47,83 21,01	$\begin{array}{c}0.45 \\ -0.29 \\ -0.29 \\ -0.29 \\ -0.31 \\ -0.47 \end{array}$	S. N. N. N N	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	30,8	-13,0 -6,1 +4,2	
Aug.	15 16 8 9 10	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 1 1 1 1 1 1 1 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	43,79 25,01 38,65 16,65 43,70	$\begin{array}{c} -0.27 \\ -0.20 \\ -0.13 \\ -0.30 \\ +0.23 \end{array}$	N. S. N. N. N.	117 10 38,9 117 58 20,3 103 8 1,9 108 2.5 22,9 112 57 32,4	45,9 26,9 5,5 19,1 38,8	+ 7,0	
	11 12 13 20 21	7 28 12,2 8 30 10,4 9 35 15,1 16 2 55,2 16 51 39,0	$ \begin{array}{c} 1 \\ 1 \\ 2 \\ 2 \end{array} $	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	42,95 49,96 2,77 2,23 50,59	$\begin{array}{c} 0.00 \\ -0.08 \\ +0.17 \\ -0.25 \\ -0.25 \end{array}$	N. S. S. N. N.	116 18 50,5 118 0 27,2 117 39 1,5 77 10 54,9 71 36 54,3	55,1 38,9 3,2 56,4 51,1	$ \begin{array}{r} + 4,6 \\ +11.7 \\ + 1,7 \\ + 1,7 \\ - 3,2 \end{array} $	
Sep.	22 9 12 13 14	17 41 45,2 7 19 5,6 10 22 39,3 11 17 38,4 12 11 52,7	2 1 1 1 2	3 44 58,30 18 33 56,93 21 49 46,48 22 48 49,50 23 44 54,88	58,79 56,84 46,46 49,61 54,89	$\begin{array}{r} +0,49 \\ -0,09 \\ -0,02 \\ +0,11 \\ +0,01 \end{array}$	N. S. S. N.	67 8 16,7 118 14 38,6 107 53 25,8 101 25 42,4 94 17 35,6	$ \begin{array}{c c} 14.6 \\ 33.2 \\ 17.5 \\ 40.5 \\ 26.5 \end{array} $	$ \begin{array}{r} - & 2,1 \\ - & 5,4 \\ - & 8,3 \\ - & 1,9 \\ - & 9,1 \\ \end{array} $	
	15 16 17 18	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2 2 2 2	$\begin{array}{ccccccc} 0 & 39 & 0.32 \\ 1 & 32 & 26.80 \\ 2 & 26 & 21.28 \\ 3 & 21 & 29.36 \end{array}$	0,37 26,80 21,07 29,20	$\begin{array}{c} +0,05 \\ 0,00 \\ -0,21 \\ -0,16 \end{array}$	N. N. N. N.	87 1 49,0 80 5 58,0 73 53 34,2 68 44 19,0	$\begin{array}{c}43,6\\28,3\end{array}$	$ \begin{array}{c c} -11,2 \\ -14,4 \\ -5,9 \\ -6,0 \\ \end{array} $	

183	7			lras Time.	Limb Observed.		4. R	rved of entre.	A. R. from N. A.		N. or S. Limb.		P . 3	rved D. of ntre.	N.P D. from N.A.	Error of Tables.	Remarks.
1	1	h.	\overline{m} .	s.		h.	\overline{m}	<u>s.</u>	S .	S.	1	U	1	11	11	/ //	
Sep.	19			41,1	2	4	18	6,05	5,76	0,29	N.	64	53	5,1	56,2	- 8,9	
1	20	17	18	17,3	2	5	15	47,13	46,89	0,24	N.	62	29	37,8	35,7	- 2,1	
Oct.	9	8	10	17,9	1	21	23	30,59	30,90	+0,31	S .	110	22	37,4	34,4	- 3,0	1
	10	9	4	50,6	1	22	22	6,68	6,25	-0,43	S .	104	34	14,6	3,7	—10,9	
	12	10	46	17,3]	0	11	41,71	41,41	-0,30	S .	90	42	$42,\!6$	36,0	- 6,6	
]	13	11	35	26,4	1	1	4	54,41	54,50	+0,09	S .	83	35	17,4	10,1	- 7,3	1
Nov.	6	6	58	41,0	1	22	2	3,49	3,23	0,26	S .	106	40	57,l	53,6	- 3,5	
	7	7	49	34,2	1	22	56	59,54	59,40	-0,14	S .	100	26	36,5	37,3	+ 0,8	
Dec.	16	15	54	22,6	2	9	34	45,03	44,25	—0,78	S .	70	56	54.3	55,3	+ 1,0	

Comparison of the Observed Right Ascension and North Polar Distance of the Moon continued.

On looking over the observations of the last seven years; there have I find been a few observations of the Transit of both limbs of the Moon over the Meridian, which, in the former volumes of the Madras Results I had omitted; they are as follows.

Date.		Madras Mean Time.	Sidereal Time of ('s Diam. passing.
1831		h. m s.	m, s.
February	26	12 17 48,7	27,48
April	26	11 53 47,9	3,06
May	26	12 5 34,1	7,80
Septembe 1833	r 21	11 51 30,6	12,48
May	3	11 49 32,2	14,26
July	3 1	11 50 39,6	15,70
1834	-	11 00 00,0	10,70
February 1835	23	12 15 27,8	23,48
March	14	12 9 11,4	18,16
April	13	12 30 47,8	20,02
May	12	12 6 2,7	26,62
June	10	11 46 29,1	31,68
1836		,	
February	2 1	12 20 17,1	15,68
April	1	12 2 9,2	13,16
1837			,
January	21	12 14 45,5	14,70
March	21	11 50 11,2	5,32
April	20	11 54 58,4	12,08

In addition to the above,—observation of the Moon, and of several Stars culminating near to her (Moon culminating Stars), have been made, as follows.

1836.	Names.	0	Obse Trar		1836.		ΝΑΜΕ	.s.	Observed Transit,
Jan. 2	۲ Tauri c ——		h. m. 5 29 5 44	s. 13,01 23,67	March	2	Moon n Leonis	lst Limb	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	Moon	1st Limb	5 47	15,50			۰		11 13 35,05
3	μ Geminor.		$\begin{array}{c} 6 & 14 \\ 6 & 14 \end{array}$	$24,52 \\ 25,56$		3	n Leonis		11 5 24,89
0	μ- <u>Moon</u>	lst Limb	6 42	25,50 35,02			Moon	2nd Limb	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
25	Moon	1st Limb	2 7	8,55	2	25	Moon	1st Limb	6 29 4,45
	38 Arietis		2 35	55,38			δ Geminor.		7 9 10,07
	π		2 40	2,41	_		٤		7 15 22,75
26	38		2 35	47,93	2	26	ð		7 9 6,03
	π <u> </u>	lst Limb	2 39 2 53	$54,60 \\ 44,84$			Moon	lst Limb	7 14 18,59 7 24 25,30
	n Tauri	ISC LIMO	3 37	30,60			6 Caneri	ISt LIND	$7 \ 24 \ 25,30$ 7 52 12,86
27	η		3 37	24,78			λ		8 9 33,42
	Moon	1st Limb		58,60	2	27	6		7 52 8,63
	ε Tauri		4 18	42,89			λ		8 9 29,20
28	δ'		4 13	7,20			Moon	lst Limb	8 19 29,62
Ì	ε <u> </u>	lst Limb	$\begin{array}{r}4 & 18\\4 & 32\end{array}$	40,86 26,88			ق Cancri		8 58 37,92 9 8 32,11
31	τ Geminor.	ISL LAMO	$\frac{4}{7}$ 0	16,26	9	28	$q = \frac{1}{Moon}$	lst Limb	9 8 32,11 9 13 32,27
01	δ		79	54,75		29	η Leonis		9 56 57,56
	Moon	1st Limb	7 16	3,47			Moon	lst Limb	10 6 16,16
	ø Geminor.		7 43	2,67			γ Leonis		10 9 29,95
· · · · ·	6 Cancri		7 53	1,65	1 3	30	k		10 36 13,85
Feb. 1	φ Geminor.		$\begin{array}{c} 7 & 43 \\ 7 & 52 \end{array}$	0,29		İ	Moon v Virginis	lst Limb	10 47 48,80
	6 Cancri Moon	1st Limb	8 11	59,29 55,77			b virginis		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	٤ Caneri	ISC DIMO	8 59	28,24	3	31	υ		11 35 50,90
2	ž —		8 58	25,24			Moon	1st Limb	11 48 45,11
ļ	Moon	Cent.	97	49,79			b Virginis		11 49 58,01
26	c Tauri		5 41	38,08			с, ——		12 10 26,53
	Moon	lst Limb	556 632	40,18	Annil	1	γ^1 ——		12 31 46,41
27	۶ Geminor.		632	26,57 22,59	April		γ^1		$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
21	ε Moon	1st Limb	6 52	3,55			Moon	Cent.	12 40 33,93
28	ø Geminor.		741	55,38			a Virginis		13 14 53,68
	Moon	1st Limb	7 47	54,28	_		<i>m</i> ——		13 31 20,80
	η Caneri		8 21	41,19	2	24	Moon	lst Limb	8 53 33,70
	γ		$\begin{array}{c}8&23\\8&21\end{array}$	15,22			λ Leonis ψ ——		9 23 59,84
29	η		8 21	$36,24 \\ 10,50$		26	Ψ		9 36 26,37 10 12 44,47
	γ <u> </u>	1st Limb	8 43	10,00		- 1	ρ		10 23 59,39
	λ Leonis		9 20	44,34		1	Moon	lst Limb	10 37 14,02
March 1	λ		9 20	39,32	2	27	σ Leonis		11 14 35,98
		1st Limb	9 37	8,50		į	7		11 21 25,43
	y Leonis		10 9	13,46	1		Moon	lst Limb	11 27 42,33
2	ρ		$\begin{array}{ccc} 10 & 23 \\ 10 & 9 \end{array}$	28,33 8,38			o Virginis		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
z	γ <u> </u>		10 9	23,21		28	0		12 13 20,73
							Norman approximation and a statements		

Moon Culminating Stars.

$\begin{array}{c} 1 \\ 29 \\ \overline{\delta} \\ \overline{\theta} \\ \overline{\theta} \\ \overline{\theta} \\ \overline{\theta} \\ k \\ \iota \\ 30 \\ \iota \end{array}$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Oct. 20 21 22	 δ Aquarii Moon 1st Limb n Piscium ψ³ Aquarii Moon 1st Limb 	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
29 8 8 8 30 1 1 29 8 8 1 20 1 1 20 1 20 1 20 1 20 1 20 1 20 1	Moon 1st Limb Virginis Moon 1st Limb	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		Moon 1st Limb	
k 30 ι α	Moon 1st Limb Virginis Moon 1st Limb	13 10 8,52 14 6 17,56	22		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
ια		14 9 33.62 1		t Piscium Moon 1st Limb e Piscium	0 28 25,60 0 58 39,88
1 1	* 115 mmo	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	Nov. 17	φ Aquarii Ψ ³ Moon lst Limb	
May 26 γ	²² Libræ ² ¹ Virginis	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18	t Piscium Moon 1st Limb m Ceti	0 15 57,44 0 12 36,69 0 43 39,31
28 k	Moon 1st Limb & Virginis	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	22	¢ Piscium Moon 1st Limb A¹ Tauri	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	Moon 1st Limb ¹ Libræ y ¹	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	23	ω ² <u> </u>	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
	λ Sagittarii σ <u> </u>	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Dec. 16	Moon 2nd Limb <i>m</i> Ceti Moon 1st Limb	
1	9 Sagittarii c —— θ Ophiuchi Moon 1st Limb	19 46 12,30 19 51 53,71 17 11 38,30 17 14 44,29	17	μ Piscium γ —— Moon 1st Limb ξ ¹ Ceti	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	$\begin{array}{ccc} \text{Moon} & \text{Ist Limb} \\ \lambda & \text{Sagittarii} \\ \gamma^2 & \underline{\qquad} \\ \text{Moon} & \text{Ist Limb} \end{array}$	18 17 33,19 17 55 20,02	18	ξ ² ξ ¹	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	σ Sagittarii ζ ——	18 45 8,33 18 52 13,07	19	Moon 1st Limb € Arietis	2 21 15,27 2 48 47,25
20 22	Moon lst Limb , Aquarii	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	20	δ Moon 1st Limb A' Tauri Moon 1st Limb	3 10 34,98 3 53 50,16
	θ Moon lst Limb δ Aquarii	23 45 50,72	21	Moon 1st Limb ω² Tauri τ ——	4 6 29,17 4 31 10,42
Oct. 17	$ \begin{array}{c} \phi & \hline \\ Moon & 1st Limb \\ h^2 Sagittarii \\ c & \hline \\ \end{array} $	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1837 Jan. 17 18	Moon 1st Limb Moon 1st Limb β Tauri	ŕ
	Moon 1st Limb 4 Capricorni 7		19	ζ —— Moon lst Limb & Aurigæ	5 28 56,52
18	ψ Moon lst Limb δ Capricorni	20 35 11,16		μ Geminor. Moon 1st Limb δ Geminor.	6 14 4,46
19	γ — δ — Moon lst Limb	21 29 47,86 21 36 47,08	20	a^2	7 25 10,10 7 11 18,54
20	7 ² Aquarii δ τ ²	22 39 42,49 22 44 44,72 22 39 40,93	21	6 Cancri Moon Cent. ρ ⁴ Cancri ξ ——	7 54 25,57

183'	7	Name	.s.	Observed Transit.	183	7	NAMES.	Observed Transit.
Feb.	13	ω² Tauri ν'		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Mar.	27	a Scorpii	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	1	Moon	lst Limb	4 21 21,24			Moon 2nd Limb	16 59 26,5
		n Tauri	Itte Linns	5 10 5,32			p Sagittarii	17 35 37,0
	14	<i>د</i> ،		4 53 57,88		28	p ——	17 35 31,34
		n		5 10 5,82			γ^2 —	17 53 33,00
	l	Moon	lst Limb	5 15 37,09	A	10	Moon 2nd Limb	18 4 12,64
		c Tauri 1 Geminor.		$5 \ 43 \ 42,76 \\ 6 \ 5 \ 39,08$	April	16	Moon 1st Limb n Leonis	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
	15	c Tauri		5 43 42,05			π Leoms τ	11 18 26,0
		η Geminor.		6 5 39,37		18	• Virginis	11 55 43,6
	ĺ	Moon	1st Limb	6 10 50,37			Moon 1st Limb	12 11 15,79
		F Geminor.	Î	6 34 31,45		ĺ	γ Virginis	12 32 13,6
	17	β ——		7 35 57,51		10	$\delta - \gamma^1 - \gamma^1$	12 46 13,0
	1	φ <u> </u>	lst Limb	7 44 8,44 8 0 13,00		19	δ	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
		δ Cancri	ISC LAIMD	8 36 2,36			Moon 1st Limb	
		ρ ⁴ ——		8 46 30,95		j	a Virginis	13 15 24,4
	18	δ δ	1	8 36 2,18			ζ	13 25 11,1
	ļ	ρ4		8 46 30,55		20	α	13 15 22,9
		Moon	1st Limb	8 52 29,17		ĺ	ζ	13 25 .9,9
		λ Leonis		9 23 2,01 9 33 4,26			Moon Cent. λ Virginis	13 48 14,9
	19	λ		9 23 2,24		25	Moon 2nd Limb	14 9 3,9 14
		0		9 33 4,35	May	15	^{gi} Virginis	11 36 37,6
	ĺ	Moon	1st Limb	9 42 30,76			β	11 41 57,0
		γ Leonis		10 11 36,36			Moon 1st Limb	1
	21	x ——	i	10 57 15,45		16	n Virginis	12 11 15,9
		Moon	2nd Limb	11 16 4,41 11 18 51,23			Moon 1st Limb θ Virginis	12 37 40,4 13 1 12,9
		o Virginis		11 57 33,16				13 16 18,6
Mar.	16	Moon	1st Limb	7 39 57,32		17	0	13 1 10,3
	17	λ Cancri		8 9 52,44			α	13 16 16,2
		\$\$^2	N to X inche	8 15 57,80			Moon 1st Limb	13 25 24,3
	1	Moon E Cancri	lst Limb	8 31 53,89 8 59 1,28			k Virginis λ	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
		9		9 8 54,95		23	h ² Sagittarii	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
	18	ξ		8 58 57,76			Moon 2nd Limb	
		g		9 8 51,64		24	ψ Capricorni	20 35 46,5
	10	Moon	lst Limb	9 22 38,51	Ť	10	Moon 2nd Limb	
	19	π Leonis		9 50 30,56 9 58 35,96	June	12	Moon 1st Limb	1
		a Moon	lst Limb	10 11 13,53			$\begin{array}{c c} \kappa & \text{Virginis} \\ \delta & \underline{} \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
		k Leonis		10 36 41,88		13	Moon 1st Limb	
		c		10 51 12,55	}		α Virginis	13 15 0,3
	20	k		10 36 37,58		14	α	13 14 57,4
		C	1 . T L	10 51 8,22			Moon 1st Limb	
		Moon v Leonis	1st Limb	10 58 8,36 11 27 26,64			λ Virginis a² Libræ	
		β Virginis		11 27 20,04		15	λ Virginis	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
	21	v Leonis		11 27 22,94			Moon 1st Limb	
		β Virginis		11 41 59,06			y Libræ	14 52 50,4
		Moon	Cent.	11 45 11,15		. -	β	15 6 32,2
		n Virginis		12 10 20,88	ł	21	ψ Capricorni	20 34 25,1

183	17	Names.	Observed Transit.	1837	Names.	Observed Transit.
June	21	ζ Capricorni Moon 2nd Limb	$\begin{array}{c cccc} h. & m. & s. \\ 21 & 15 & 20,04 \\ 21 & 18 & 12,62 \\ 21 & 55 & 36,10 \end{array}$	Aug. 13 20	Moon 1st Limb ο Piscium γ' Arietis	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	23 24	ι Aquarii Moon 2nd Limb τ Piscium	23 14 4,70 23 53 7,21		Moon 2d Limb ε Arietis	$\begin{array}{c} 1 \ 58 \ 25,88 \\ 2 \ 49 \ 14,24 \end{array}$
July	11	Moon 2nd Limb ι Ceti α Virginis	$\begin{array}{cccc} 0 & 5 & 32,47 \\ 0 & 10 & 38,41 \\ 13 & 15 & 14,62 \end{array}$	21	$\begin{array}{ccc} \pi & & \\ & Moon & 2d \text{ Limb} \\ q \text{ Arietis} \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
0 4.5		Moon 1st Limb Virginis	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	22	η Tauri g Arietis	3 37 5,83 3 13 58,30 3 37 4,87
	13	λ α ² Libræ 20	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		η Tauri Moon 2d Limb υ ¹ Tauri	3 45 20,55 4 15 50,06
		$\begin{array}{cc} Moon & 1st Limb \\ \pi & Scerpii \\ \beta^1 & \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	23 Sep. 9	Moon 2d Limb λ Sagittarii Moon 1st Limb	4 40 57,52 18 16 48,50 18 31 34,67
	14	π β^1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		$ \begin{array}{c} \pi \text{ Sagittarii} \\ h^2 \end{array} $	18 58 57,58 19 25 40,86
		Moon 1st Limb Α Ophiuchi θ	17 3 49,01 17 10 29,43	12	ζ Capricorni δ <u>Moon</u> 1st Limb	21 16 9,59 21 36 50,65 21 47 21,92
	15	A —— θ —— Moon 1st Limb	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	13	σ Aquarii δ —— Moon 1st Limb	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	16	γ ² Sagittarii δ	17 54 45,23 18 8 58,36 17 53 40,77	14	ψ ³ Aquarii n Piscium Moon 2d Limb	23 9 12,22 23 38 17,04
	10	δ Moon lst Limb	18 8 53,95 18 26 27,22		n Ceti δ Piscium	0 20 26,43 0 38 57,03
Aug.	8	 τ Sagittarii Moon 1st Limb α² Libræ 	14 41 29,89	15	n Ceti Moon 2d Limb µ Piscium	$\begin{array}{c} 0 \ 20 \ 24,07 \\ 0 \ 38 \ 43,56 \\ 1 \ 20 \ 19,36 \end{array}$
	9	$\begin{array}{c} 20 & \\ \alpha^2 & \\ \hline Moon & 1st Limb \end{array}$	14 54 10,36 14 41 28,15 14 50 45,90	16	ν — μ Moon 2d Limb	1 31 37,50 1 20 16,30 1 32 6,86
		20 Libræ k Libræ	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1.7	ξ ¹ Coti ν Arietis	2 2 59,07 2 28 11,46
	10	b Scorpii k Libræ b Scorpii	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	17	gι Ceti Moon 2d Limb δ Arietis	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
		$\begin{array}{ccc} Moon & 1st Limb \\ \alpha & Scorpii \\ \tau & \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	18	g g	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	11	a 7 Moon 1st Limb	16 18 59.27 16 25 18,69		Moon 2d Limb A' Tauri	3 21 7,74 3 53 37,56
		θ Ophiuchi γ² Sagittarii	17 11 34,35 17 54 55,80	19	A ¹ Tauri v ¹ —	4 15 7,11 3 53 35,70 4 14 5,41
	12	θ Ophiuchi Moon 1st Limb γ² Sagittarii	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		Moon 2d Limb ν Tauri β ——	4 17 43,20 4 51 51 07 5 14 30,80
	13	φ σ φ Sagittarii	18 35 1,31 18 44 42,38 18 35 59,71	20	β —— Moon 2d Limb c Tauri	5 14 29,09 5 15 22,79 5 41 34,29

183	37	NAMES.	Observed Transit.	1837	Names.	Observed Transit.
Sep.	21	C Tauri k Aurigæ Moon 2d Limb ₅ Geminor.	$\begin{array}{ccccccccc} h. & m. & s. \\ 5 & 41 & 32,93 \\ 6 & 3 & 27,21 \\ 6 & 13 & 7,87 \\ 6 & 32 & 21,52 \end{array}$	Oct. 13 Nov. 6	Piscium γ ¹ Arietis ε Capricorni δ ——	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Oct.	9	η Capricorni ζ — Moon 1st Limb ι Aquarii θ ——	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7	Moon 1st Limb σ Aquarii λ σ λ	21 57 38,79 22 18 46,53 22 40 52,00 22 18 45,02
	10	θ — Moon Ist Limb λ Aquarii	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	Dec. 14	Moon 1st Limb n Piscium a ^e Geminor.	22 52 34,96 23 36 18,13 7 23 21,05
	12	$ \begin{array}{cccc} \psi^{3} & & \\ n & \text{Piscium} \\ r & & \\ & Moon & \text{1st Limb} \\ \end{array} $	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	16	$\begin{array}{ccc} k & \\ Moon & 2d Limb \\ \phi^2 Cancri \\ q Cancri \\ \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	13	* Piscium & * & Moon 1st Limb	$\left \begin{array}{ccccc} 0 & 37 & 50,63 \\ 0 & 52 & 29,60 \\ 0 & 37 & 50,12 \\ 0 & 52 & 29,12 \\ 1 & 1 & 45,73 \end{array}\right $		$ \begin{array}{c c} \lambda & \text{Leonis} \\ Moon & 2d & \text{Limb} \\ \alpha & \text{Leonis} \\ \gamma & \\ \end{array} $	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$

Observation	OF 7	THE	Ecli	PSES	OF .	JUPITER'S	SATELLITES
	in	the	Years	1836	and	1837.	

1836	1836 Satellite. Im. or En		Telescope.	Power.	Madras Mean Time.	Remarks.
Jan. 27	II	Emersion.	5 feet.	110	h. m. s. 8 10 54,3	
Feb. 1	I	Emersion.	5 feet.	150	7 56 28,3	
3	11	Emersion.	5 fect.	110	10 47 15,9	
15	I	Emersion.	42 inches.	75	11 46 49,6	
27	III	Immersion.	5 feet.	110	6 35 20,4	
27	III	Emersion.	5 feet.	110	9 48 27,2	
28	11	Emersion.	42 inches.	75	8 0 22,6	
Mar. 2	I	Emersion.	5 feet.	110	10 5 27,8	
5	III	Immersion.	5 feet.	110	10 32 57,9	
6	II	Emersion.	5 feet.	110	10 33 14,3	
9	I	Emersion.	5 feet.	110	12 0 59,1	
18	I	Emersion.	5 feet.	150	8 25 15,6	
25	I	Emersion.	5 feet.	110	10 20 41,6	Moon near the Planet.
29	IV	Emersion.	5 feet.	150	8 39 35,8	
31	11	Emersion.	5 feet.	150	7 41 19,2	
April 10	I	Emersion.	5 feet.	110	8 40 40,3	
10	III	Emersion.	5 feet.	110	9 53 28,6	
17	111	Immersion.	5 feet.	110	10 33 49,7	Planet low. Clear-observation satis- factory.

	1836		Satellite.	Im. or Em.	Telescope.	Power.	Madras Mean Time.	Remarks.
Í	1	.7	I	Emersion.	5 feet.	110	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Planet low. Clear observation satisfac- tory.
	May]	19	I	Emersion.	42 inches.	75	7 17 1,7	601 ý.
	-	12	п	Immersion.	5 feet.	480	15 49 2,9	
Ì]	13	III	Immersion.	42 inches.	75	14 13 5,6	
	Nov.	6	11	Immersion.	42 inches.	75	12 49 10,1	
	9	25	III	Immersion.	5 feet.	110	14 1 23,6	
	Nov.	25	111	Emersion.	5 feet.	110	17 32 11,7	
	Dec.	1	I	Immersion.	5 feet.	110	15 47 30,0	
		5	IV	Emersion.	5 feet.	110	16 8 20,6	
ļ		10	I	Immersion.	5 feet.	110	12 8 40,6	
		17	I	Immersion.	5 feet.	110	14 2 39,6	
		26	I	Immersion.	5 feet.	110	10 24 13,6	
	183'	7						
	Jan,	9	Ľ	Immersion.	5 feet.	110	14 9 37,3	
		11	I	Immersion.	5 feet.	60	8 38 7,8	Unsatisfactory; planet near the horizon.
	Feb.	10	I	Emersion.	5 feet.	110	12 57 20,5	
í		10	II	Emersion.	5 feet.	110	14 49 40,0	Dewrapidly deposited on the O.G.
Í		12	I	Emersion.	5 feet.	110	7 25 50,4	good observation.
		12	III	Emersion.	5 feet.	110	13 13 43,5	good observation.
		17	I	Emersion.	5 feet.	110	14 51 6,9	very good obs.
		19	I	Emersion.	42 inches.	75	9 19 35,3	The proximity of the Moon unfavorable.
		21	11	Emersion.	5 feet.	110	6 44 31,3	very good obs.
		26	I	Emersion.	5 feet.	110	11 14 2,1	good observation.
		27	IV	Emersion.	5 feet.	110	10 13 58,6	
	Mar.	7	I	Emersion.	5 feet.	110	7 36 53,9	good observations.
		7	I	Emersion.	42 inches.	70	7 36 54,9	Sour observations.
		7	II	Emersion.	5 feet.	110	11 58 36,2	good observations.
		7	II	Emersion.	42 inches	. 70	11 58 41,2	Sood obbervations.
		7	I	Emersion.	5 feet.	70		good observations.
		7		Emersion.	42 inches		1)
		14	11	Emersion.	42 inches	1		good observation.
		20	III	Emersion.	5 feet.	110		
		21	I	Emersion.	5 feet.	110		
		25		Emersion.	5 feet.	60		good observation.
	I	`27		Emersion.	5 feet.	60		
	.	28	-	Emersion.	5 feet.	60		
	Apr			Emersion.	5 feet.	6(1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
	ł	6	- i - î	Emersion.	5 feet.	60	,-	1
		18		Immersion		110		
		52		Emersion.	5 feet.	60		
		29) I	Emersion.	5 feet.	14	0 9 58 5,3	very good obs.

1837		Satellite.	atellite. Im. or Em. Tele		Power.	Madras Mean Time.	Remarks.
Мау	2	III II	Emersion. Emersion.	5 feet. 5 feet	110 110	$\begin{array}{rrrr} h. m. s. \\ 9 & 4 & 27,5 \\ 1 & 54 & 30,2 \end{array}$	
	3 5	IV	Emersion.	5 feet.	110	10 22 45,2	
	9 15	III I	Immersion. Emersion.	5 feet. 5 feet.	110 110	9 31 17,1 8 15 59,4	
Dec.	16	II	Immersion.	5 feet.	60	16 24 5,3	1
1	17	111	Immersion.	5 feet.	110	12 47 22,4	
	17	III	Emersion.	5 feet.	110	16 12 8,2	
	29		I Immersion.	5 feet.	110	13 25 8,3	1

Occultation of Stars by the Moon.

		•	N	Iadr	as
			Meə	$\mathbf{n} \mathbf{T}$	ime.
1836			h.	m.	\$,
March :	23	Immersion of <i>Tauri</i> behind the Moon's dark limb, observed with 5 feet Achromatic power 60 at	8	6	32,7
Oct.	13	Immersion of δ Scorpii behind the Moon's dark limb, observ- ed with 5 feet Achromatic power 110 at	6	32	41,3
	15	Immersion of a star in Sugittarius behind the Moon's dark limb, observed with 42 inch, power 75 at		48	19,1
1837	1				
Jan.	4	Immersion of A Ophiuchi behind the Moon's enlightened limb, observed with 5 feet Achromatic power 110, at		42	39,5
March	9	Immersion of <i>o Piscium</i> behind the Moon's dark limb, ob- served with 5 feet Achromatic power wheel at		59	34,3
*	•10	Immersion of a small star behind the Moon's dark limb, ob- served with 5 feet Achromatic power		6	37,0
-1	11	Immersion of a small star behind the Moon's dark limb, ob- served with 5 feet Achromatic power 60		48	15,5
A pril	12	Immersion of v Geminorum behind the Moon's dark limb observed with 5 feet Achromatic power 110 a	,) 10	19,7

LUNAR ECLIPSES.

Observation of the Eclipse of the Moon on the 24th Octobe	er 1836.
	Madras
	Mean Time.
Beginning of the Eclipse	h. m, s. 6 0 37 9
End of the Ecipse	7 15 25,7

^{*} I was watching the approach of this star to the Moon's dark border, when my attention was arrested by the appearance of a nebulosity, about as bright as a star of the 6th magnitude,—situated upon the Moon's disc, at about 4 minutes from the unenlightened edge;—on referring to a chart of the Moon, the phenomenon evidently proceeded from the spot Aristarchus; I have frequently looked for this appearance during the early age of the Moon, but have never before seen any thing to compare with the brilliancy which I have this evening witnessed.

[†] The same appearance continues.

The state of the air was unfavorable for accurate observations, in consequence of which, these times are little to be depended upon. Observed with 5 feet Achromatic power 60.

Observation of the Eclipse of the Moon on the 20th April	118	337	•
		adra	
	Mea		
		m.	
Beginning of the Eclipse			50,6
Touches Grimaldus	•		30,3
Covers do			53,1
Covers Gallilius			36,5
Covers Aristarchus		28	3,8
Touches Tycho.		34	51,7
Covers do		35	46,5
Touches Plato		48	56,3
Covers do		50	16,1
No. 28 disappeared		52	53,7
Censorinus do.			17,0
Proclus do.			53,6
Touches Mare Christium			45,5
Covers do. do.			1,0
Totally Eclipsed			46,6
End of total darkness			
Covers Grimaldus,			13,7
			17,5
			34,5
Leaves Aristarchus			
Tycho covered			9,9
Leaves Tycho		19	
End of the Eclipse	•	-50	46,8

The Earth's shadow was exceedingly well defined, and the air particularly clear : the times of beginning and end as well as those of contact with the various spots, are I believe, as accurate as observations of this nature will permit; but the times of "To-tally Eclipsed," and "End of total darkness,"—from the rapidity with which the last thread of light was dissolved and formed, are by far the most accurate portion of the observations; these cannot I think be more than two seconds in error-

Observed with the 5 feet Achromatic with a power of 60.

Observation of the Eclipse of the Moon on the 13th October 1837.

	Mac	
	Mean	Time.
	h. m	. s.
Beginning of the Eclipse	14 5	2 18,6
First total Immersion in dark shadow	15 5	2 18,8
Last total Immersion in dark shadow		

This observation was made during my absence from Madras-by Ragavachariar, the head assistant; he states that flying clouds prevented very accurate observation-Observed with 5 feet Achromatic power 60.

		Madras		Th	er- leter.	Observed	Remarks.
1837	NAMES.	Mean Time.	Bar.	in	out	N. P. D.	REMARKS.
Jan. 26	δ Centrum * x η Leonis	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Inches. 30,050	° 71,2	66,7	$\begin{array}{c} 0 & 7 & 7 \\ 71 & 20 & 27,8 \\ 71 & 12 & 6,2 \\ 72 & 27 & 31,2 \end{array}$	
27	* w & Centrum	13 11,4	30,066 30,050	71,0	67,0 76,0	71 8 48,5 71 12 20,8 72 27 30,3	
28	* p δ Centrum η Leonis	13 6,0	30,096 30,064	74,0 72,4	71,7 69,0	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	
29	* 9 8 Centrum 9 Leonis	13 0,6	30,128	75,2	73,7	70 53 16,0 70 56 6,4 72 27 30,3	
31	 δ Centrum * t η Leonis 	12 49,6	30,110 30,094	74,8 74,8	71,0 69,8	70 39 59,4 70 35 1,3 72 27 31,7	
Feb. 2	* k E Centrum 7 Leonis	12 38,6	30,100 30,090	73,5	68,6 68,0	70 15 19,2 70 24 7,7 72 27 31,7	
3	* k 3 Centrum 7 Leonis	12 33,2	30,144 30,126 30,124	75.6 74,7 74,5	70,6 70,0 69,7	70 15 17,9 70 16 20,6 72 27 32,0	
4	* 2 3 Centrum	12 27,6	30,114 30,102	75,0 74,0	73,0 72,3	70 1 16,7 70 8 38,4	
5	δ Cancri * n δ Centrum	12 22,1	30,032 30,010	74,2 74,0	70,6 69,7	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
6	δ Cancri * n 3 Centrum	12 16,6	30,024 30,020	74,2 74,0 73,8	71,7 70,0	71 15 52,4 69 50 36,6 69 53 39,5	
7	 δ Cancri δ Centrum r 	12 11,1	30,072 30,064	76,0 75,8	74,3 73,7	$\left \begin{array}{cccc} 71 & 15 & 52,6 \\ 69 & 46 & 22,1 \\ 69 & 41 & 18,0 \end{array}\right $	
8	 ∂ Cancri * 1141 A. S. C. ∂ Centrum 	12 5,5	30,116 30,084	76,0 76,0	74,3 73,7	71 15 53,1 69 31 36,9 69 39 16,2	
9	 ^δ Cancri * 1141 A. S. C. ³ Centrum 	12 0,0	30,094 30,078	75,3	72,0 72,0	71 15 52,7 69 31 36,1 69 32 22,2	
10	δ Cancri δ Centrum * ο	11 54,5	30,092 30,080 30,070	77,2 76,9 76,5	75.5 75,2 74,0	71 15 51,3 69 25 39,8 69 17 24,8	
11	δ Cancri δ Centrum * 0	11 49,0	30,012 29,994	77,5	74,6	71 15 51,2 69 19 10,2 69 17 24,6	
12	8 Cancri		29,944	78,0	76,6	71 15 51,2	

Observed North Polar Distance of the Planet Mars and of Stars situated near to his path at the opposition of 1837.

Observed North Polar Distance, of Mars, &c. continued.

1		<u> </u>		The	r-		ann an an an an an an an an an an an an
1837	Names.	Madras Mean Time.	Bar.	mome	eter.	Observed N. P. D.	REMARKS.
		Lime.		in	out		
Feb. 12	of Centrum	$\begin{array}{c c} h. m. \\ 11 43,5 \end{array}$	Inches.	° 77,7	o 76,0	0 / <i>"</i> 69 12 54,0 69 10 6,5	
13	δ Cancri		30,056	79,7	79,8	71 15 51,5	
10	3 Centrum	11 38,0	30,046	79,4	79,5	69 6 51,0 68 57 23,5	
14	γ Cancri & Centrum	11 32,6	30,110	79,5	77,6	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
15	γ Cancri & Centrum *	11 27,1	30,130 30,120	78,2	77,0	67 57 47,4 68 55 32,6 68 47 0,0	
17	γ Cancri * & Centrum	e 11 16,3	30,160	78,2	76,2 76,0	67 57 47,8 68 40 19,4 68 45 13,7	
18	γ Cancri ð Centrum	11 11,0	30,140 30,136	78,5 78,3	75,0 74,0	67 57 47,2 68 40 27,1	
19	γ Cancri & Centrum *	g 11 5,7	30,110	76,0	72,0	67 57 46,4 68 36 58,9 68 30 58,3	
20	γ Cancri δ Centrum	g 11 0,4	30,152	76,8	72,0	67 57 48,2 68 31 46,7 68 31 5,2	
21	γ Cancri & Centrum	$f \mid 10 55,2$	30,186 30,184	78,1 77,9	75,0 76,2	67 57 47,9 68 27 49,6 68 26 20,9	
26	γ Caucri * ∂ Centrum	b 10 29,4	4 30,044	78,0	75,3	67 57 45,1 68 13 4,3 68 12 12,8	
27	γ Caneri δ Centrum	10 24,	4 30,034	77,9	74,3	67 57 45,8 68 9 53,3	
28	*	a	30,078	78,2	74,8	68 13 6,6	Observed by mistake.
	8 Centrum	10 19,			1	68 7 50,4	
Mar. 1	γ Cancri * 8 Centrum	a 10 14,	6 30,116	78,2	77,3	$\left \begin{array}{rrrrr} 67 & 57 & 44,1 \\ 68 & 13 & 6,6 \\ 68 & 6 & 2,9 \end{array}\right $	
4	y Cancri	1	30,096	79,7	78,8		
	a Centrum	a 10 0,	3	79,5	78,6	68 2 21,6 68 2 16,1	
5	γ Cancri		30,116	80,2	77,5		
	ð Centrum	a 9 55,	6			68 2 22,1 68 1 31,1	
e	ο γ Cancri δ Centrum *	a 9 51.	,0 30,120) 79,5	76,5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
7	γ Cancri	1	30,116	3 80,0	76,9	67 57 43,1	

1837	Names.	Madras Mean Time.	Bar.	Ther- mometer. in out	Observed N. P. D.	Remarks.
Mar. 7	ð Centrum	$\begin{vmatrix} h. m. \\ 9 46,4 \\ a \end{vmatrix}$	Iuches.	0 0	0 / // 68 0 44 3 68 2 19,3	
8	γ Cancri & Centrum *	a 9 41,9	30,106	79,9 78,0	67 57 42,6 68 0 43,3 68 2 20,0	
9	γ Cancri 3 Centrum *	a 9 37,4	30,124	79,9 77,7	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
10	γ Cancri δ Centrum	a 9 33,0	30,072	79,7 78,5	67 57 41,7 68 1 23,2 68 2 20,2	
11	γ Cancri 3 Centrum	9 28,7	30,024	80,3 80,2	67 57 42,6 68 2 3,3	
12	γ Cancri & Centrum	9 24,4	30,076	80,2 79,7	67 57 41,4 68 2 58,4	
13	γ Cancri & Centrnm	a 9 20,2	30,076	81,0 79,0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
14	γ Cancri δ Centrum *	a 9 16,0	29,990 29,986	81,8 80,0 80,5 79,8	68 5 24,5	-
15	γ Caneri 3 Centrum *	b 9 10,7	29,960 29,958	80,6 79,5	67 57 42,4 68 6 57,8 68 13 2,9	
16	γ Cancri 3 Centrum	b 9 7,6	30,000	80,5 79,6	67 57 43,3 68 8 40,5 68 13 4,1	
17	or Centrum	b 9 3,5	30,044	80,4 80,0	68 10 37,4 68 13 3,3	
18	γ Cancri & Centrum	b 8 59,4	30,054	80,7 78,2	67 57 42,6 68 12 45,7 68 13 2,8	
19	γ Cancri & Ce ntrum	b 8 55,5	29,998 30,010	82,3 81,8 81,2	67 57 42,3 68 15 1,2 68 13 4,2	
20	E Centrum	8 51,6		82,0 80,0	-	

Observed North Polar Distance, of Mars, &c. continued.

The above observations have been given here—out of their proper place, to enable me (without loss of time) to avail myself of the corresponding observations made at the Cape of Good Hope Observatory, with which, through the kindness of the Astronomer Royal I have just been favoured : thus, putting p', p'', &c. to represent the equatoreal horizontal parallax of the Planet *Mars*; and computing the values of dr, (the difference of refraction between the Planet and Star) and of $\Delta \delta$, the change of Declination in the interval occupied by the Planet in passing from one meridian to the other, we get

		MAD	RAS OBS	SERVATIONS.		CAPE OF	Good H	LOPE OBSE	RVATIONS.
1837	N _A mes.	Observed diff.	dr.	Р		Observed diff.	dr.	P	Δδ
Jan. 26	δ Cent. & x Leonis δ — & η —	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	" +0,13 1,12	r + ,0990 p - ,0990	= 0 = 1			- ,7963 p - ,7963	+ 1 23,5 - 1 23,5
27	δ & ω δ & η	$\left \begin{array}{rrrr} 0 & 3 & 32,3 \\ 1 & 15 & 9,5 \end{array}\right $	$0,07 \\ 1,25$	$+,1013p^{i}$,1013	= (= 1) 1 56,86 16 44,33		+ ,7978p ⁱ - , 7 978	+ 1 23,5 - 1 23,5
28	δ & P δ & η	$\begin{array}{c ccccc} 0 & 3 & 34,9 \\ 1 & 23 & 20,8 \end{array}$	0,07 1,37	$^{+}$,1037 p^{ii} $^{-}$,1037	= 0 = 0	$\begin{array}{rrr} 2 & 2,04 \\ 24 & 50,02 \end{array}$		+ ,7992p ^u - ,7992	+123,6 -123,6
Feb. 5	ð — & n Cancri	0 10 27,9	0,17	\pm ,1219 p^{iii}	= 0	9 1,32	0,24 -	+ ,8100p ⁱⁱⁱ	+ 1 17,00
6	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,36 0,07	$-,1242p^{iv}$ +,1242	= 1 = 0	23 37,61 1 37,26		- ,8114 p'' + ,8114	-115,40 +115,40
7	$ \overset{\circ}{\longrightarrow} \overset{\&}{\longrightarrow} \overset{\circ}{\longrightarrow} \overset{\circ}{\to} \circ$	1 29 30,5 0 5 4,1	1, 47 0,08	$-,1262p^{v}$ +,1262	= 1 = 0	30 53,98 3 48,67		- ,8128p* - ,8128	-113,77 +113,77
8	ð <u> </u>	1 36 36,9	1,60	— ,1282p ^{ri}	= 1	37 55,50	2,48 -	- ,8141p ^{vi}	- 1 11,8
9	ð <u> </u>	1 43 30,5	1,71	— ,1302p ^{vii}	= 1	44 48,36	2,66 -	- ,8149 <i>p</i> ***	- 1 9,78
11	δ <u> </u>	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,91 0,02	$-,1340p^{viit}$ +,1340		57 52,81 0 30,61		^{۱۱} (171, - 8171, +	-1 5,3 +1 5,3
12	δ & δ δ & m	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,33 0,04	,1360p ^{ix} + ,1360	$=$ $\frac{2}{=}$ 0	4 4,60 1 35,53	3,14 0,04 +	- ,8183 <i>p</i> ^{ix} - ,8183	-1 3,03 +1 3,03
14	δ & γ δ & i	1 3 16,4 0 3 36,7	1,04 0,07	$+,1392p^{x}$ +,1392	=1 = 0	2 9,75 2 32,20	1,57 - 0,08 -	- ,8201 <i>p</i> * - ,8201	+ 0 57,99 + 0 57,99
15	δ & γ δ & h	0 57 45,2 0 8 32,6	0,92 0 ,1 4	$+,1423p^{xi}$ +,1423		56 35,63 7 24,60	1,41 - 0,17 -	+ ,8220p ^{xi} - ,8220	+055,40 + 055,40
18	ζ ζ γ ζ	0 42 39,9	0,69	$+,1452p^{xii}$	= 0	41 44,53	1,01 -	F ,823000	
20	δ — & γ — δ — & g -	0 33 58,5 0 0 41,5	0,54 0,09	$+,1478p^{xiii}$ +,1478		33 9,15 0 4,97		- ,8251p ^{xisi} - ,8251	+ 0 41,80 - 0 41,80
21	δ & γ δ & f	$\begin{array}{cccc} 0 & 30 & 1,7 \\ 0 & 1 & 28,7 \end{array}$	0,53 0,02	$+,1490\mu^{xiv}$ +,1490		29 15,17 0 43,58	0,70 <u>+</u> 0,01 +	- ,8258 <i>p</i> ^{xiv} - ,8258	+ 0 39,00 + 0 39,00
28	δ & γ	0 10 5,0	0,25	+ ,1547p**	== 0	9 36,10	0,22 -	+ ,8290pxv	+ 0 19,40
Mar. 4	δ — & γ — δ — & α —	$\begin{array}{cccc} 0 & 4 & 37,2 \\ 0 & 0 & 5,5 \end{array}$	0,08 0,00	$+,1561p^{xvi}$ -+,1561	= 0 = 0		0,11 +	- ,8298p ^{xvi} - ,8298	+ 0 8.73 - 0 8.73
6	<u> </u>	0 1 21,8	0,02		= 0	1 33,53	0,03 -	- ,8300p"	· <u> </u>
7	δ — & γ — δ — & α —	0 3 1,2 0 1 35,0	0,07 0,02	$+,1567 p^{xviii}$,1567	= 0 = 0	2 52,17 1 44,33	0,06 + 0,04	- ,8302p ^{xvi} ,8302	+ 0 1,22 + 0 1,22
10	δ <u> </u>	$\begin{array}{cccc} 0 & 3 & 41,5 \\ 0 & 0 & 57,0 \end{array}$	0,07 0,01	$+,1564p^{xix}$ -,1564	= 0 = 0	,		- ,8300 <i>p</i> ¹¹ * - ,8300	
12	2 γ 3 5	0 5 17,0	0,08	+ ,1561p ^{xx}	= 0	5 17,39			- 0 10,59
13	δ & γ , δ & α ,	0 4 22,6 0 1 46,8	0,08 0,02	$+,1556p^{xxi}$ 		6 25,31 1 47,64	0,14 +		-012,79 + 012,79
18	δ — & γ — δ — & b —	0 15 3,1 0 0 17,1	0,25 0,00	$+$,1533 p^{xxii} - ,1533	= 0 = 0	$\begin{array}{c} 15 \ 18,25 \\ 0 \ 8,16 \end{array}$	0,34 ~		-022,80 + 022,80
19	δ & γ δ & b	0 17 18,9 0 1-57,0	0,26 0,02	$+$,1524 p^{xxii} + ,1524		17 36,01	0,39 -		$ \frac{11}{-024,91} -024,91 $

Observed North Polar Distance of Mars, &c.

Resolving the above equations, and employing the log. distance of the Planet from the Earth—furnished in the Nautical Almanac—for the moment intermediate between the transit of the Planet over the two Observatories; we get π , the Equatoreal Horizontal Parallax of the Sun.

		17			HT	*	
Jan.	26	10,88 = 1,81	,6973p ,6973p	.•. p	= 15,61 or	$\pi = 10,68$	Probably another Star instead of z has been observed by one or the other.
	27	11,95 10,58	,6965p ⁱ ,6965p ⁱ		= 17,16 = 15,20	= 14,71 = 10,37	(has been observed by one of theother.
	28	9,26 4,89	$,6955p^{ m ii},6955p^{ m ii}$		= 13,31 = .7,03	= 9,05 = 4,78	
Feb.	5	9,51	,6881 $p^{ m in}$		= 13,82	= 9,31	
	6	10,01 10,21	,6872 $p^{ m iv}$,6872 $p^{ m iv}$		= 14,57 = 14,86	= 9,82 = 10,02	
	7	$10,67 \\ 1,64$,6866p* ,6866p*		= 15,54	== 10,49	$\int r$ badly observed either at Madras or h the Cons
	8	7,67	,6859p ^{vi}		<u> </u>	7,55	the Cape.
	9	9,03	, $6847p^{vii}$		<u> </u>	8,92	
	11	7 ,46 10,24	,6831 p^{viii} ,6831 p^{viii} ,6831 p^{viii}		= 10,92 = 14,99	7,41 10,18	
	12	5,18 8,94	,6823p ^{ix} ,6823p ^{ix}		= 7,59 = 13,10	5,17 9,12	
	14	8,13 6,47	,6809 <i>p</i> ,6809 <i>p</i>		= 11,94 = 9,50	8,17 6,65	
	15	13,68 12,57	, $6807p^{xi}$, $6807p^{xi}$		= 20,09 = 18,47	13,80 12,68	
	18	7,71	,6784p ^{≭µ}		<u> </u>	7,89	
	20	7,28 4,67	,6773p ^{xiii} ,6773p ^{xiii}		= 10,75 = 6,89	7,53 4,83	
	21	7,36 6,14	,6768p ^{xiv} ,6768p ^{xiv}		= 10,87 = 9,07	7,66 6,39	
	28	9,53	,6743p**		<u> </u>	10,37	
Mar.	4	12,36 6,86	,6737p ^{xvi} ,6737p ^{xvi}		= 18,34 = 10,18	13,85 7,69	
	6	8,01	,6736p***		11,8 9	9,11	
	7	7,82 8,13	,6735p ^{xviii} ,6735p ^{xviii}		= 11,61 = 12,07	8,96 9,31	
	10	8,43 6,33	,6736p ^{xix} ,6736p ^{xix}		= 12,51 = 9,40	9,89 7,42	
	12	10,17	,6737 <i>p</i> **		== 15,10	12,13	
	13	10,02 13,71	,6739 <i>p**</i> i ,6739 <i>p**</i> i		= 14,87 = 20,35	12,04 16,48	The Madras Obs. of α is too small.
	18	7,56 13,86	,6749p ^{xxii} ,6749p ^{xxii}		= 11,20 = 20,54	9,46 17,34	The Cape Obs. of a is too small.
	19	7,67 4,79	,67 <i>53p</i> ^{xxiii} ,67 <i>53p</i> ^{xxiii}		= 11,36 = 7,09	9,67 6,04	The Cape Obs. of a is too large.

Mean 💳	Mean 💳						
Whereas from a s opposition of 1832- Do.	9 ,912						
Do.) 8 ,595						
Giving to each so the mean Equatorea	eries the sar 1 Hor. Pa. d	ne weight, we obtair of the Sun, or $\pi =$	9 ,331				

OBSERVATIONS OF THE FIXED STARS.

⇔☆⊂

THE observations of the Fixed Stars in 1836 & 1837 have been principally confined to a Catalogue of 2070 Stars, which, with those given in Vols. II. & III. completes the re-observation of Piazzi's Catalogue. It was my intention in 1836 to have made four observations of each Star at each Instrument two in the first year, and two in the second, whereby any error in the observation or reduction would readily be detected; —this plan has for the most part been accomplished,---the principal deviation therefrom being in the hours XX & XXI, where, having to encounter a large number of Stars (from 140-150 in each hour) and that too at a time of the year little favorable to Observation,—I have been unable to make more than two or three, and in some cases only one observation of each Star; but, taking into account the accuracy to which each single observation may lay claim, I have thought it proper, rather to give this single observation, than to omit the Star from the Catalogue. The Magnitudes are from the mean of all the observations at both instruments. save that in the case where half a magnitude had to be decided between the two instruments, I have given it in favor of the Transit, as being derived from the better instrument of the two, and from the most skilful observers. The Corrections which have been employed, are those resulting from the values of a, b, c, d, of the Catalogue in conjunction with the values of A, B, C, D, given in the Nautical Almanac;—these values of a, b, c, &c. have been computed for the year 1840, by applying to the A. R. and Declination given in Piazzi's Catalogue-the amount of 40 times the annual precession there given, whereby the places for 1840, are for this purpose obtained to a sufficient degree The formulæ employed (which has been explained at full length of accuracy. by Mr. Bailly in the appendix to the second volume of the Memoirs of the Royal Astronomical Society), is as follows

103

 $a = + \cos \alpha . \sec \delta$ $b = + \sin \alpha . \sec \delta$ $c = + 46''024 + 20'',042 \sin \alpha . \tan \delta$ $d = + \cos \alpha . \tan \delta$ $a' = + \tan \omega . \cos \delta - \sin \alpha . \sin \delta$ $b' = + \cos \alpha . \sin \delta$ $c' = + 20'',042 \cos \alpha .$ $d' = - \sin \alpha .$

and the values of A, B, C, D from the Nautical Almanac are computed from the formulæ

$$A = -18^{*},6768 \ cos. \odot$$

$$B = -20^{*},3600 \ sin. \odot$$

$$C = t - 0,02495 \ sin. 2 \odot - 0,34362 \ sin. \Im + 0,00413 \ sin. 2 \Im - 0,004 \ sin. 2 (100)$$

$$D = -0^{*},54470 \ cos. 2 \odot - 9^{*},25000 \ cos. \Im + 0^{*},09030 \ cos. 2 \Im - 0^{*},090 \ cos. 2 (100)$$

from which we deduce

Apparent A. R. in arc. =
$$a + A a + B b + C c + D d$$
.
Apparent Declination = $\delta + A a' + B b' + C c' + D d'$

where t denotes the time from the beginning of the year, α represents the A. R. of the Star, δ its Declination, and ω the Obliquity of the ecliptic. To guard against mistakes, the computations of these values as well as the places for 1840—have all been performed in duplicate, thus;—when the first computation had once been completed, the resulting values properly arranged —were neatly registered in a book which it was intended should be eventually employed in the ulterior computations, and the said book together with the details of the computation carefully locked up;—the computation was now again gone over anew, the results carefully compared with those registered in the fair book, and the discrepancies set right by a re-examination of each of the original computations; when the error, if occurring in the first computation, was rectified by neatly erasing the erroneous figures in the fair book: in the examination of the press, the proof sheet has always been compared with this original document, by which means, errors (with the exception of those given in the errata) have I hope been completely avoided.

SUBSIDIARY CATALOGUE (No. 2.)

A

 \mathbf{OF}

THE FIXED STARS

REDUCED TO JANUARY 1, 1836.

Together with the values of a, b, c, d, &c.

COMPUTED FOR THE YEAR 1840.

&c.

No.	Star's name and I	Mag.	No.	Right Ascension Jan. 1, 1836.		Annual Preces- sion.	Logarithms of			
			Obs.				a	Ь	. с	d
1 2 3 4 5	Andromedæ Ceti θ App. Sculp. Andromedæ	7.8 9 var. 6.7 7.8	6 4 4 3 4	h. 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2 3,065 5 3,067 9 3,053	,8346 ,8250 ,9161		,4847	-8,1762 -7,6915
6 7 8 9 10	Ceti App. Sculp. Andromedæ Piscium Andromedæ	8 8 8.9 7.8	3 4 3 3		4 49,44 4 57,00 6 0,7 6 32,7 6 36,6	0 3,044 7 3,098 5 3,073	,9316 ,9403 ,8279	,2818 ,3727 ,2960	,4834 ,4911 ,4876	-8,7278 +8,7496 +7,9669
11 12 13 14 15	Andromedæ Piscium App. Sculp. Cassiopeæ	7.8 7.8 7.8 7 7	3		$\begin{array}{c} 6 & 41,2 \\ 6 & 54,1 \\ 7 & 39,5 \\ 7 & 50,7 \\ 8 & 11,7 \end{array}$	7 3,063 1 3,073 3 3,039	3 8,8270 3 8,8271 9 8,8968	,3161 ,3629 ,4435	,4861 ,4876 ,4827	$\begin{array}{r} -7,9149 \\ +7,9262 \\ -8,6250 \end{array}$
16 17 18 19 20	Piscium Ceti Piscium Ceti	7.8 8.9 7 7.8 7.8	3 3 3		8 15,3 8 45,6 9 13,1 9 25,1 9 54,9	2 3,05 5 3,04 3 3,06	5,8347 9,8504 6,8240	,4258 ,4636 ,4464	,4851 ,4842 ,4866	
21 22 23 24 25	Phœnicis	7.8 8 6 8 7.8	3 3 3		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5,8328 8,9673 9,8681	,5009 ,6382 ,5523	,4850 ,4783 ,4912	$\begin{array}{c} +8,5959 \\8,1447 \\8,8100 \\ +8,5032 \\8,2185 \end{array}$
26 27 28 29 30	App. Sculp. Ceti App. Sculp.	7.8 7.8 8 8 8			12 58,0 13 2,9 13 17,1 13 34,1 13 56,9	$ \begin{array}{c cccc} 01 & 3,01 \\ .7 & 3,04 \\ 0 & 3,03 \end{array} $	0 8,9190 4 8,8428 3 8,8620	0 ,6821 0 ,6124 0 ,6422	,4780 ,4834 ,4819	-8,3112 -8,4693
31 32 33 34 35	Ceti App. Sculp. Andromedæ	9 7 7 7.8 8	3 4 3 4 3 4		$\begin{array}{c} 14 \ 21, \\ 14 \ 45, \\ 14 \ 59, \\ 16 \ 4, \\ 16 \ 30, \end{array}$	9 3,04 5 3,01 1 3,12	4 8,8420 3 8,8941 4 8,8874	,6566 ,7164 ,7393	4834 ,4790 ,4947	-8,3038 -8,6173 +8,5927
36 37 38 39 40	Piscium	8 7.5 7.5 7.5 7	8 3 8 4		16 35, 17 32, 17 32, 18 29, 18 43,	13 3,05 56 3,10 52 3,11	1,828 4,847 7,862	3 ,7177 5 ,7371 2 ,7756	1 ,4919 5 ,4937	-8,0336 +8,3661 7 +8,4741
43 45 45 44 44	2 Ceti 3 Andromedæ 4 Ceti	7. 7. 7 8 7	8 3 3 4		18 55, 19 41, 20 15, 20 51, 21 6,	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2,832 3,914 1,832	8,7718 3,866 5,797	8,483 3,498 2,483	

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logaritl	oms of		zi No.	Annual	P. M.
	0.05.		sion.	<i>a'</i>	b'	c'	d'	Piazzi	A. R.	Decn.
$\begin{vmatrix} 1\\2\\3\\4\\5 \end{vmatrix}$	4 4 3 4 4	$\begin{array}{c} \circ & , & , & , \\ +27 & 44 & 25,21 \\ -12 & 41 & 52,32 \\ -4 & 13 & 59,77 \\ -36 & 3 & 4,44 \\ +27 & 41 & 53,98 \end{array}$	$\begin{array}{c} & & \\ + 20,042 \\ & 20,042 \\ & 20,041 \\ & 20,041 \\ & 20,041 \end{array}$	+9,5798 +9,6284 +9,6375 +9,5563 +9,5763	+9,6682 9,3415 8,8664 9,7695 +9,6675	+ 1,3019 ,3019 ,3019 ,3019 ,3019 ,3019	7,9822 7,9822 8,1072 8,1961 8,2119	2 3 4 7 8	s. +,015 +,017 +,007 +,020 +,012	" ,12 ,01 + ,01 + ,15 ,13
6 7 8 9 10	4 3 2 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	20,038 20,038 20,036 20,035 20,035	+9,6345 +9,5478 +9,4983 +9,6294 +9,5539	$\begin{array}{c}9,0286\\9,7961\\ +9,8091\\ +9,1388\\ +9,7072 \end{array}$	+ 1,3019 ,3019 ,3018 ,3019 ,3018	8,3387 ,3502 ,4322 ,4680 ,4723	10 11 13 17 18	+,004 +,010 +,010 +,008 +,020	,03 + ,11 ,14 ,06 ,08
11 12 13 14 15	3 3 3 3 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	20,035 20,034 20,032 20,031 20,030	+9,5752 +9,6385 +9,6307 +9,5866 +9,2577	+9,6478 9,0877 +9,0988 9,7279 +9,9400	+1,3018 ,3018 ,3017 ,3017 ,3017 ,30J7		19 21 22 23 25	+,011 +,016 +,007 +,018 +,019	+,00 +,01 ,00 -,03 +,02
16 17 18 19 20	3 4 4 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	20,030 20,028 20,026 20,026 2 0 ,024	+9,6365 +9,6355 +9,6253 +9,6385 +9,6385	+ 8,2268 9,3496 9,5323 8,6807 8,7037	+1,3017 ,3016 ,3016 ,3016 ,3015	8,5674 ,5907 ,6128 ,6219 ,6454	26 29 31 34 36	+,014 +,016 +,001 +,005 +,011	$^{+,01}_{+,07}_{-,09}_{-,05}_{+,02}$
21 22 23 24 25	3 2 2 3 5	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	20,024 20,022 20,022 20,020 20,015	+9,5441 +9,6385 +9,5378 +9,5682 +9,6375	+9,7067 9,3114 9,8422 +9,6345 9,3815	+1,3015 ,3015 ,3015 ,3015 ,3014	8,6539 ,6677 ,6704 ,6837 ,7212	38 39 40 41 44	+,016 +,017 +,004 +,011 +,007	+ ,03 + ,04 - ,02 + ,18 - ,01
26 27 28 29 30	4 3 5 3 5	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	20,010 20,010 20,009 20,007 20,005	+9,4914 +9,5832 +9,6355 +9,6243 +9,1875	+9,7817 -9,7755 -9,4677 -9,6065 +9,9424	+1,3012 ,3012 ,3012 ,3012 ,3012 ,3011	8,7601 ,7623 ,7688 ,7794 ,7898	47 48 49 51 52	$^{+,014}_{-,001}$ $^{+,014}_{+,028}$ $^{+,032}$	-,01 ,00 -,03 -,10 +,10
31 32 33 34 35	1 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	20,003 20,001 19,998 19,993 19,990	+9,1818 +9,6375 +9,6053 +9,5289 +9,6434	+9,9427 9,4609 9,7222 +9,6985 9,3376	,3010 ,3010	8,8019 ,8137 ,8213 ,8507 ,8630	54 56 57 59 62	+,015 +,009 ,000 +,011 +,003	,00 + ,01 - ,04 - ,08 + ,06
36 37 38 39 40	4 4 4 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,976	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		+1,3008 ,3007 ,3007 ,3005 ,3005		63 67 66 71 72	+,022 +,012 +,014 +,006 +,009	,06 + ,01 ,09 ,04 ,11
41 42 43 44 45	[°] 4 3 4 4 4	$ \begin{array}{r} + 1 54 22,70 \\ -12 33 57,32 \\ +35 59 32,66 \\ -12 30 22,15 \\ - 4 22 39,17 \end{array} $	19,967 19,964 19,958	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$,3003	8,9211 ,9374 ,9503 ,9628 ,9682	73 78 80 82 83	+,006 +,006 +,005 +,016 +,006	

No.	Star's name and 1	Maor.	No.	R Asc	ght ension	Annual Preces-		Logarit	lims of	
		Ð	Obs.		, 1836.	sion.	a	ь	с	d
46 47 48 49 50	App. Sculp. Piscium Andromedæ App. Sculp. Ceti	7.8 7.8 7 7 8	2 3 3 4 3	2	1 20,45	3,085 3,191 2,950	+ 8,9479 ,8261 ,9580 ,9496 ,8297	+7,9221 ,8017 ,9546 ,9462 ,8302	+0,4708 ,4893 ,5039 ,4698 ,4832	
51 52 53 54 55	Piscium Ceti Andromedæ Cassiopeæ	7 7.8 7.8 7 8	3 2 2 3 2 3 2	2 2 2	$\begin{array}{cccc} 3 & 5,04 \\ 5 & 23,97 \\ 3 & 49,50 \\ 4 & 11, \\ 4 & 22,73 \end{array}$	3,078 3,020 3,142	8,8731	+7,8463 7,8369 7,8698 7,9020 8,1505	+0,4921 ,4883 ,4800 ,4972 ,5202	+8,2537 +7,6626 -8,3609 +8,5361 +9,0541
56 57 58 59 60	Ceti Piscium Cassiopeæ	7.8 8 8 8 7	2 1 4 2 3		4 50,04 5 5,98 5 14,09 6 4,55 6 24,01	3,064 3,078 3,343	8,8214 8,8223 9,1352	+7,8634 7,8655 7,8688 8,1964 +8,1114	,4883 ,5241	7,7393 -7,2345 +7,6731 +9,0771 +8,9489
$ \begin{array}{r} 61 \\ 62 \\ 63 \\ 64 \\ 65 \end{array} $	Andromedæ Piscium Andromedæ Piscium Andromedæ	8 8 8 7	3 4 2 2 3		86 46,98 86 59,84 87 32,67 88 35,49 88 35,59	1 3,099 3,137 2 3,056	,8288 ,8572 ,8217	7,9421	,4965 ,4851	+8,1081 +8,4517 -7,6949
66 67 68 69 70	Ceti Piscium ——— Ceti	9 7 7.8 7.8 7			29 36,42 30 29,73 30 39,43 31 8,5 31 27,5	2 3,090 8 3,075 7 3,102	,8233 ,8203 ,8274	7,9524 7,9513 7,9659	,4900 ,4878 ,4916	+7,9112 +7,4110 +8,0941
71 72 73 74 75	Ceti	7.8 8 7.8 8 7.8			32 22,0 33 0,7 33 4,6 33 19,4 34 7,5	5 3,109 0 3,135 2 2,992	,829 I ,8443 ,8497	7,993 1 8,0092 8,0180	,4926 ,4962 ,4760	+8,3628 -8,4076
76 77 78 79 80	Piscium Ceti Cassiopeæ	7 7.8 7.8 7.8 7.8	$\begin{array}{c c} 3 & 2 \\ 3 & 3 \end{array}$		35 34,7 36 44,5 36 44,6 36 54,9 37 3,8	5 3,066 7 3,018 7 3,369	8,8183 8 8,8295 9,0535	,0293 ,0406 ,2669	,4866 ,4797 ,5275	-6,8502 -8,1822 +8,9638
81 82 83 84 85	Ceti Andromed. 7 seg	·	8 2		37 11,2 37 29,8 37 37,2 37 40,2 39 0,1	$\begin{array}{c c} 2 & 3,000 \\ 2 & 3,193 \\ 2 & 3,193 \\ 2 & 3,193 \\ \end{array}$) ,8381 5 ,8807 5 ,8808	,0578 ,1020 3,1028	,477] ,5048 ,5048	-8,3110 +8,5806 +8,5808
86 87 88 89 90	7 <u>—</u> 3 <u>—</u> 0 Ceti	7. 8 9 6 8	333		$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	7 3,14 89 3,09 2 3,00	2,837 8,820 6,830	6,0883 2,0803 7,0923	3 3 491 3 478	2 + 8,3145 1 + 7,9112 0 - 8,2273

No.	No.	Declination	Annual Preces-	Mula	Logarith	ims of		zi No.	Annual	P. M.
	Obs.	Jan. 1, 1836.	sion.	a'	br	<i>c'</i>		Piazzi	A. R.	Decn.
46 47 48 49 50	3 4 2 3 3	-41 34 20,66 + 7 53 52,85 +43 2 23,45 -41 50 49,72 -10 59 27,68	19,955 19,952 19,952	+9,5877 9,6201 +9,3979 +9,5899 +9,6484	9,8198 +9,1371 +9,8321 9,8220 9,2771	+1,3001 ,3000 ,2998 ,2998 ,2998 ,2998	8,9723 ,9736 ,9945 ,9945 ,9983	84 85 93 94 96	s. +,009 +,015 +,001 +,006 +,015	- ,09 - ,01
51 52 53 54 55	2 3 3 2 1	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,940 19,936 19,935 19,930 19,928	+9,5933 +9,6294 +9,6474 +9,5263 +9,1038	+9,4145 +8,8376 9,5124 +9,6605 +9,9335	+ 1,2997 ,2996 ,2995 ,2995 ,2995 ,2995	9,0070 ,0119 ,0204 ,0264 ,0299	97 98 100 103 104	+,006 ,000 +,010 +,0011	$\begin{array}{c} - ,22 \\ - ,02 \\ + ,01 \\ + ,02 \\ - ,16 \end{array}$
56 57 58 59 60	3 3 2 2 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,922 19,920	+9,6444 +9,6405 +9,6284 +9,0414 +9,2201	$\begin{array}{c} -8,9139 \\ -8,4104 \\ +8,8481 \\ +9,9389 \\ +9,9012 \end{array}$	+1,2994 ,2993 ,2993 ,2991 ,2990	9,0380 ,0415 ,0437 ,0583 ,0637	106 107 108 112 114	+,016 +,013 +,002 +,004 +,018	,14 ,02 + ,07 + ,06 ,02
$ \begin{array}{c} 61 \\ 62 \\ 63 \\ 64 \\ 65 \end{array} $	3 2 2 3 3 3	+24 12 2,07 +10 56 30,52 +23 7 17,18 - 4 18 13,79 +34 29 42,83	19,897 19,885	+9,5416 +9,6053 +9,5465 +9,6454 +9,4564	+9,6099 +9,2762 +9,5914 	+1,2989 ,2989 ,2988 ,2985 ,2985 ,2985	—9,0702 ,0734 ,0818 ,0981 ,0981	116 119 121 129 128	+,016 ,000 +,019 +,010 +,010 +,010	,14 ,10 ,00 ,04 ,03
66 67 68 69 70	3 3 3 3 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,862 19,856	+9,6503 +9,6180 +9,6325 +9,6031 +9,6561	9,0749 +9,0840 +8,5868 +9,2626 9,3143	+1,2983 ,2981 ,2980 ,2979 ,2978	9,1128 ,1252 ,1271 ,1345 ,1390	132 135 137 140 142	+,011 +,007 +,059 +,018 +,013	,01 ,01 + ,22 ,08 ,16
71 72 73 74 75		$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,834 19,833 19,829	+9,5539 +9,5955 +9,5587 +9,6609 +9,6191	+9,3163 +9,5139	+1,2976 ,2974 ,2974 ,2973 ,2971	-9,1516 ,1603 ,1603 ,1637 ,1739	145 149 150 151 153	-,006 +,013 +,018 +,010 +,007	,13 ,09 ,07 + ,04 ,20
76 77 78 79 80	4 2 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	19,784 19,783 19,781	+9,6609 +9,6395 +9,6618 +9,0828 +9,5092			9,1911 ,2053 ,2061 ,2077- ,2092	161 167 169 168 170	-,007 +,027 +,016 +,023 +,018	,15 ,16 + ,14 ,02 ,09
81 82 83 84 85	33	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	19,773 19,771 19,770	+9,6304 +9,6656 +9,4683 +9,4669 +9,5038	-9,4670 + 9,6939 + 9,6941	,2961 ,2960 ,2960	,2161	173 174 175 176 184		
86 87 88 86 90		$ \begin{vmatrix} - & 6 & 53 & 17,24 \\ +17 & 25 & 8,33 \\ + & 7 & 3 & 35,8 \\ -14 & 27 & 7,7 \\ - & 8 & 44 & 39,3 \end{vmatrix} $	2 19,733 8 19,719 9 19,717	+9,5587 +9,6117 +9,6674	+9,4702 +9,0839 -9,3895	,2952 ,2949 ,2948	,2439 ,2531 ,2544	188 191 197 198 200	-,004 +,016 +,019	+ ,08 _ ,01 _ ,09

No.	Star's name and M		0.		Righ cens		Annual Preces-		Logarith	ims of	
			bs.	Jan.	. 1, 1	836.	sion.	a	b	c	d
91 92 93 94 95	Piscium Phœnicis Piscium	8 7.8 8 7.8 7.8 7.8	32343	h. 0	42	s. 1,22 22,07 25,47 34,95 0,31	s. +3,139 2,827 3,099 3,094 3,121	+8,8339 ,9614 ,8198 ,8187 ,8256	+8,1040 ,2357 ,0940 ,0950 ,1061	+0,4968 ,4513 ,4512 ,4905 ,4943	
96 97 98 99 100	Piscium Ceti	8 8.9 8.9 8.9 8	4 3 3 3 3 3		44 44 45	48,76 51,99 53,40 29,76 30,06	3,151 3,083 3,091	,8161	+ 8,1365 ,1354 ,1155 ,1221 ,1351	,4984 ,4890 ,4901	+8,3332 +8,3151 +7,5652 +7,7528 -8,2372
101 102 103 104 105	Andromedæ Cassiopeæ Piscıum Cassiopeæ Andromedæ	8 7.8 8 7.8 7.8 7.8	3 4 4 3 2		47 47 48	23,00 53,12 55,89 27,89 45,72	3,417 3,201 3,419	+8,8494 9,0188 8,8586 9,0177 8,8426	,3475 ,1874 ,3513	,5336 ,5053 ,5339	
106 107 108 109 110	Piscium Andromedæ Piscium	8.9 7 8 8 8	3 2 3 4 4		49 49 49	49,56 16,21 18,79 35,60 53,60	3,254 3,125 3,176	,8905 ,8220 ,8421	,2315 ,1636 ,1860	,5124 ,4948 ,5019	+8,6276 +8,1097 +8,3871
111 112 113 114 115	Messoris Piscium 	8.9 8 7 8 8	33 2 3 3 3 3		50 51 52	44,93 59,65 43,88 39,98 41,21	3,068 3,179 3,124	8,8129 8,8407 8,8193	,1705 ,2035 ,1901	,5021 ,4947	-5,9756 +8,3827 +8,0724
116 117 118 119 120	Cassiopeæ	8 8.9 7 6.7	24 33 2	a pagan panén na ké na mana mana mana manén kana manén ké na ké na ké na ké na ké na ké na ké na ké na ké na k	55 55 56	46,92 17,01 18,53 39,72 54,90	1 3,101 8 3,103 8 3,710	8,8133 8,8131 9,1521	,2141	,4915 ,4918 ,5694	+7,8253 +7,8453 +9,1017
121 122 123 124 125	Piscium seq. Ceti Piscium Ceti	8 8.9 7.8 8	3 3 1 3 3		57 58 58	22,75 27,74 13,80 21,96 48,01	3,200 3,005 3,186	,8419 ,8171 ,8346	,2519 ,2329 ,2520	,5051 ,4778	+8,4095 8,0825 +8,3535
126 127 128 129 130	Phœnicis Piscium Cassiopeæ Piscium	7.8 8 7.8 8 7.8	2 4 3 3 3	1	${0 \\ 0 \\ 0 \\ 2 \\ 2}$	17,67 32,65 35,25 4,28 19,24	3,210 3,207 3,809	8,8415 8,8404 9,1681	,2750 ,2745 ,6136	,5065 ,5061 ,5808	-8,7681 +8,4160 +8,4086 +9,1223 +7,9923
131 132 133 134 135	Piscium App. Sculp. Piscium	8 7 8 7.8 8	3 3 3 3 3 3 3 3		2 3 5 5 5	50,60 58,63 9,51 11,68 38,53	3,274 2,795 3,112	,8657 ,8983 ,8090	,3247 ,3653 ,2764	,5151 ,4464 ,4930	+8,5543 -8,6681 +7,8770

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		$\mathbf{Logarit}$	hms of		zi No.	Annual	Р . М.
		Jan. 1, 1030.	sion.	a'	<i>b'</i>	c'	ď	Piazzi	A. R.	Decn.
91 92 93 94 95	4 2 4 3	+16 5 53,93 -44 17 24,07 + 7 9 13,47 + 6 0 19,43 +11 53 33,44	'' + 19,704 19,697 19,697 19,695 19,688	$\begin{array}{ c c c c c } +9,5635 \\ +9,6434 \\ +9,6107 \\ +9,6159 \\ +9,5866 \end{array}$	+9,4360 9,8363 +9,0895 +9,0140 +9,3071	+1,2946,2944 ,2944 ,2943 ,2942	9,2627 ,2667 ,2667 ,2687 ,2727	202 205 204 206 208	s. +,008 +,006 +,010 ,001 +,016	,04 ,00 ,00 ,00 ,00 ,00 ,00 ,00
96 97 98 99 100	4 4 3 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,658 19,657 19,657 19,647 19,647	+9,5453 +9,5502 -+9,6253 +9,6180 +9,6730	+9,4869 +9,4705 +8,7406 +8,9273 -9,3986	+1,2935 ,2935 ,2935 ,2933 ,2933 ,2933	9,2902 ,2909 ,2909 ,2965 ,2965	214 215 216 218 219	+,005 +,003 +,015 +,007 +,014	+ ,03 -,0 -,1 -,1 -,1 -,1 -,1 -,1 -,1
101 102 103 104 105	2 1 3 3 3	$\begin{array}{r} +22 \ 31 \ 25,79 \\ +51 \ 21 \ 4,28 \\ +25 \ 26 \ 59,64 \\ +51 \ 14 \ 56,75 \\ +20 \ 35 \ 55,94 \end{array}$	19,631 19,603 19,603 19,593 19,587	+9,5105 +9,0334 +9,4800 +9,0334 +9,5198	+9,5747 +9,8831 +9,6238 +9,8823 +9,5367	+1,2929 ,2923 ,2923 ,2921 ,2921 ,2920	—9,3052 ,3191 ,3191 ,3238 ,3267	224 233 236 237 239	+,028 +,012 +,013 +,021 +,026)0, + 0, + 0, - 1, -
106 107 108 109 110	2 2 2 2 4 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,587 19,578 19,577 19,572 19,566	+9,6355 +9,3927 +9,5843 +9,5185 +9,5843	+7,9308 +9,7269 +9,2775 +9,5347 +9,2804	+1,2920 ,2918 ,2917 ,2916 ,2915	9,3267 ,3307 ,3313 ,3336 ,3365	240 242 244 245 245 247	+,001 +,008 +,004 +,008 ,003	,2 ,1 ,0 ,0 ,0
111 112 113 114 115	2 3 2 3 2 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,549 19,542 19,531 19,512 19,511	+8,6721 +9,6375 +9,5172 +9,5866 +9,6042	+9,9152 7,1517 +9,5307 +9,2414 +9,0844	+1,2911 ,2910 ,2907 ,2903 ,2903	9,3438 ,3466 ,3515 ,3591 ,3597	248 251 253 255 256	+,022 +,005 +,010 +,012 +,004	+ ,0 - ,3 - ,0 - ,1 - ,0
116 117 118 119 120	3 4 4 2 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,510 19,458 19,436 19,430 19,424	$\begin{array}{r} +9,5821 \\ +9,6096 \\ +9,6074 \\ -8,3222 \\ +9,5038 \end{array}$	+9,2708 +8,9991 +9,0189 +9,9360 +9,5327	+1,2902 ,2891 ,2886 ,2885 ,2883	9,3602 ,3801 ,3877 ,3902 ,3922	257 269 271 272 276	+,011 +,007 +,021 +,014 +,005	+ ,09 ,00 ,00 ,00 ,00
121 122 123 124 125	3 4 4 3	$\begin{array}{r} + 4 & 2 & 3,91 \\ +21 & 40 & 17,07 \\ -10 & 38 \\ + 19 & 16 & 17,29 \\ + 9 & 1 & 48,53 \end{array}$	19,414 19,412 19,396 19,392 19,360	+9,6180 +9,4928 +9,6749 +9,5145 +9,5888	+8,8351 +9,5537 -9,2511 +9,5045 +9,1817	+1,2881 ,2881 ,2877 ,2876 ,2869	9,3957 ,3961 ,4015 ,4030 ,4130	281 282 288 289 297	,003 +,019 +,905 +,011	
126 127 128 129 130	4 3 2 3 3	$\begin{array}{r} -42 \ 21 \ 57,64 \\ +22 \ 1 \ 52,60 \\ +21 \ 42 \ 8,32 \\ +64 \ 8 \ 6,49 \\ + \ 8 \ 40 \ 42,65 \end{array}$	19,350 19,344 19,342 19,306 19,302	+9,6964 +9,4829 +9,4857 	$\begin{array}{r}9,8130 \\ +9,5591 \\ +9,5527 \\ +9,9379 \\ +9,1634 \end{array}$	+1,2867 ,2865 ,2865 ,2857 ,2857 ,2856	9,4163 ,4181 ,4186 ,4292 ,4305	303 302 304 312 4	,005 +,005 +,024 +,011 +,010	-,1 +,1 -,0 +,2
131 132 133 134 135	4 3 3 2 3	$ \begin{vmatrix} +21 & 50 & 59,81 \\ +29 & 11 & 32,53 \\ -36 & 4 & 38,72 \\ + & 6 & 42 & 35,10 \\ +18 & 15 & 24,86 \end{vmatrix} $	19,234 19,232	$\begin{array}{r} +9,4800 \\ +9,3874 \\ +9,7126 \\ +9,5999 \\ +9,5092 \end{array}$	-9,7518	,2847 ,2841 ,2840	9,4341 ,4417 ,4490 ,4495 ,4525	7 11 18 17 21	+,006 +,014 +,019 +,019 +,017	+ ,0 ,1 ,0 + ,0 + ,0 + ,0

		- 1	Obs.	Ascen	ht sion	Annual Preces-		Logarit	hms of	
	ويستعمروني المادينة الشابية المتهار والمتعاون المراجع		UDS.	Jan. 1,	1836.	sion.	a	Ъ	c	d
136- 137 138 139- 140	Ceti Piscium Cassiopeæ Piscium Cassiopeæ	8 7.8 7 8 7.8	3 3 2 2 3	8	s. 7,20 1,88 16,32 50,72 36,27	s. +3,009 3,109 3,660 3,094 3,694	+8,8106 8,8074 9,0661 8,8049 9,0714	+8,2845 ,2877 ,5483 ,2970 ,5692	+0,4784 ,4926 ,5635 ,4905 ,5675	
141 142 143 144 145	Cassiopeæ Piscium	8 7.8 8 8 7.8	3 4	10 10 11	12,78 -23,42 25,28 0,63 13,83	3,890 3,095 3,115 3,116 3,106	+8,1587 ,8039 ,8058 ,8055 ,8043	+8,6600 ,3066 ,3085 ,3121 ,3126	+0,5899 ,4907 ,4935 ,4936 ,4922	+9,1117 +7,6253 +7,8652 +7,8693 +7,7712
146 147 148 149 150	Andromedæ Piscium Andromedæ Phœnicis Piscium	8 7.8 7.8 8 7.8	44	13 14 15	14,31 53,26 45,84 10,24 19,55	3,101 3,459 2,645	+8,9635 ,8021 ,9313 ,9464 ,8012	+ 8,4784 ,3274 ,4621 ,4793 ,3353	,4915 ,5389 ,4224	+8,7595
151 152- 153 154 155	Persei Piscium	7 6.7 8 8 7	2 3 2 3 4	17 17 19	50,20 34,06 36,73 52,19 22,16	2,618 3,617 3,125	+8,8791 ,9516 ,9992 ,8002 ,8373	,4992 ,5475 ,3617	,4180 ,5583 ,4948	+8,6238 -8,8037 +8,8895 +7,8943 +8,4542
156 157 158 159 160	Piscium	7.8 8 7.8 7.8 7.8	4 4 3	21 24 26	31,48 13,42 49,98 10,91 17,15	3,351 3,425 3,170	8,8645 8,8877 8,8015	,4778 ,3991	,5252 ,5347 ,5011	
$ \begin{array}{r} 161 \\ 162 \\ 163 \\ 164 \\ 165 \end{array} $	Piscium App. Sculp.	8 7 7.8 8.9 7.8	9 3	27 28 29	8 48,08 7 42,41 8 57,94 9 27,64 9 25,77	3,616 3,169 2,822	,9623		,5582 ,5009 ,4506	+8,8306 +8,0895
166 167 168 169 170	Piscium Phœnicis Piscium	7 7.3 8 8.9	3	32 32 32	35,96 10,48 2 27,38 2 47,76 2 53,30	3,312 2,653 3,145	8,8925	,5239	,5201 ,4237 ,4976	
171 172 173 174 174	Andromedæ Arietis Camelop. Piscium	7.3 8.9 7.3 7.1	93 83	33 32 30	3 22,88 3 34,44 5 56,52 6 18,16 3 27,66	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	8,9766 8,8090 9,5971	8,4582 9,2484	,5678 ,5127 ,8180	-8,4046 +8,8596 +8,3227 +9,5919
17(17) 17) 17) 18)	7 Arietis 8 Persei 9 Fornacis	7 8 8 7		3 3 4	9 19,07 9 28,6 9 49,54 1 1,14 1 20,16	7 3,232 4 3,858 6 2,776	8,7991 9,0163 8,8304	,4661 ,6853 ,5053	,5095 ,5864 ,4434	+8,5751 +8,2451 +8,9265 -8,4882

viii

No.	No.	Declination	Annual Preces-	n na hand a san a san a san a san a san a san a san a san a san a san a san a san a san a san a san a san a sa	Logarith	nms of		zi No.	Annual	P. M.
	Obs.	Jan. 1, 1836.	sion.	a'	b'	c'	d'	Piazzi	A. R.	Decn.
136 137 138 139 140	3 3 3 4 2	$\begin{array}{r} \circ & \cdot & \cdot & \cdot \\ - & 8 & 47 & 35,27 \\ + & 6 & 5 & 13,03 \\ + & 56 & 45 & 52,91 \\ + & 3 & 47 & 53,16 \\ + & 57 & 20 & 37,10 \end{array}$	$\begin{array}{c} '' \\ + 19,210 \\ 19,187 \\ 19,180 \\ 19,142 \\ 19,119 \end{array}$	$\begin{array}{r} +9,6739 \\ +9,6021 \\ -7,6990 \\ +9,6159 \\ -8,2787 \end{array}$	-9,1646 +9,0074 +9,9034 +8,8051 +9,9048	+1,2835 ,2830 ,2828 ,2820 ,2815	9,4555 ,4614 ,4630 ,4721 ,4773	22 28 27 34 35	$\begin{array}{c} s. \\ +,021 \\ +,015 \\ -,010 \\ +,016 \\ +,006 \end{array}$	$ \begin{array}{c} + ,33 \\ - ,05 \\ + ,07 \\ - ,05 \\ + ,02 \end{array} $
141 142 143 144 145	3 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,103 19,100 19,100 19,084 19,076		+9,9322 +8,8004 +9,0384 +9,0424 +8,9454	+1,2811 ,2810 ,2810 ,2807 ,2807 ,2805	9,4805 ,4817 ,4817 ,4853 ,4869	39 42 43 45 46	+,077 +,011 +,019 +,022 +,013	$\begin{array}{c} - ,01 \\ - ,07 \\ + ,02 \\ ,00 \\ - ,07 \end{array}$
146 147 148 149 150	4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,050 19,004 18,980 18,970 18,964	+8,8633 +9,6117 +9,0212 +9,7292 +9,6107	+9,8380 +8,8634 +9,8045 -9,8214 +8,8674	+1,2799 ,2788 ,2783 ,2781 ,2779	9,4927 ,5022 ,5071 ,5089 ,5101	49 54 61 65 64	+,020 +,007 +,006 +,024 +,013	+,11 -,11 +,03 +,02 -,07
151 152 153 154 155	4 3 4 3 5	$\begin{array}{r} +33 \ 43 \ 39,18 \\ -45 \ 23 \ 6,12 \\ +50 \ 57 \ 17,48 \\ + \ 7 \ 6 \ 25,19 \\ +24 \ 25 \ 25,33 \end{array}$		+9,2504 +9,7340 +8,1461 +9,5899 +9,4031	+9,7197 9,8266 +9,8647 +9,0670 +9,5895	,2765 ,2764 ,2749	9,5181 ,5221 ,5228 ,5344 ,5372	70 78 71 87 90	+,038 ,000 +,005 +,009 +,013	$\begin{array}{c} - ,12 \\ - ,04 \\ ,00 \\ + ,02 \\ - ,02 \end{array}$
156 157 158 159 160	4 3 4 8 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,793 18,678 18,638	$\begin{array}{c}9,2253 \\ +9,2787 \\ +9,1271 \\ +9,5428 \\ +9,5821 \end{array}$	+9,6884 +9,7429 +9,2766	,2740 ,2713 ,2703	,5413 ,5595 ,5660	86 93 104 112 114	+,025 +,012 +,007 +,012 +,005	- ,02 + ,09 + ,07 - ,04 - ,04
161 102 163 164 165	44	$\begin{array}{r} +47 & 28 & 29,98 \\ +47 & 34 & 22,85 \\ +11 & 14 & 25,10 \\ -25 & 51 & 16,96 \\ +15 & 47 & 27,61 \end{array}$	$ \begin{array}{c c} 18,587 \\ 18,547 \\ 18,531 \\ \end{array} $	+8,3010 +8,2304 +9,5465 +9,7459 +9,4955	+9,8355 +9,2572 -9,6052	,2 683 ,2679	,5733 ,5788 ,5810	115 121 128 134 135	+,013 +,029 +,027 +,028 +,006	$\begin{array}{c} - ,03 \\ + ,05 \\ + ,02 \\ - ,02 \\ - ,06 \end{array}$
166 167 168 169 170	3 3 4	$\begin{array}{r} +59 \ 42 \ 53,84 \\ +24 \ 54 \ 49,94 \\ -38 \ 18 \ 20,43 \\ + \ 8 \ 14 \ 25,08 \\ +59 \ 36 \ 20,65 \end{array}$	18,434 18,427 18,417	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	+9,5886 -9,7550 +9,1209	,2657 ,2655 ,2652	,5937 ,5948 ,5963	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	+,008 +,006	-,09 -,09 +,17 +,01 -,05
171 172 173 174 175	$\begin{vmatrix} 2 \\ 5 \\ 3 \end{vmatrix}$	+81 8 31,4	8 18,388 1 18,305 9 18,291	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$2 + 9,845^{\circ}$ 5 + 9,474 6 + 9,955	5,2645 4,2620 1,2622	5) 5) 5) 5) 5) 5) 5) 5) 5) 5) 5) 5) 5) 5		+,027 +,006 +,137	-,20 -,01 +,06
176 177 178 179 180	4 3 4 3 4	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 18,178 6 18,163 0 1×,118	+9,475 -8,959 +9,763	$7 +9,403 \\ 0 +9,867 \\ 4 -9,613$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5,6246 2,6262 1,6311	17- 17: 18:	+,001 +,020	(+,08) (-,06) (+,02)

No.	Star's name and N		No. Obs.	Right Ascension Jan. 1, 1836.	Annual Preces- sion.		Logarit	hms of	
					~~~~~	a	b	с	d
$181 \\ 182 \\ 183 \\ 184 \\ 185$	Piscium Ceti MESARTHIM Cassiopeæ Andromedæ	9 8 8 7.8 7.8	2 4 2 4 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	s. +3,102 3,171 3,265 5,315 3,703	+8,7789 8,7846 8,8000 9,3676 8,9345	9,0644	+0,4916 ,5012 ,5139 ,7255 ,5685	+7,5434 +8,0250 +8,3018 +9,3529 +8,7938
186 187 188 189 190	Ceti Piscium Cassiopeæ Ceti Andromedæ	8 8 7.8 7.8	5 4 2 3 2	51 36,77 51 50,53 52 54,97 53 13,16 53 52,61	3,135 3,108 4,345 3,147 3,634	+8,7726 8,7706 9,1209 8,7718 8,8937	,4966 ,8520		+7,8025 +7,5705 +9,0731 +7,8638 +8,7156
191 192 193 194 195	Arietis Ceti Persei Ceti	7.8 8 8 8.9 8	4 2 5 4 8	55 4,63 55 11,12 58 56,85 59 5,80 59 38,64	3,162 3,969	,7682 ,7667 ,9885	,5091 ,5244 ,7470	,4786 ,5000 ,5987	+8,4381 -7,7171 +7,9147 +8,8940 +7,9140
196 197 198 199 200	$\begin{array}{c} 62  \text{Ceti} \\ \text{Arietis} \\ 66  \overline{\text{Ceti} \ pr x}. \end{array}$	8 8 var. 8	4 2 4 4 3	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3,324 3,306 3,030	,7875 ,7814 ,7569	,5594 ,5605 ,5383	,5217 ,5193 ,4814	-7,4939 +8,3342 +8,2955 -7,4969 +7,5467
201 202 203 204 205	Persei Ceti Persei Andromedæ Persei	7.8 7 7.8 8 8.9	3 5 2	5 22,59  5 25,43  5 27,52  5 54,30  6 2,12	3,022 4,113 3,847	8,7561 9,0106 8,9301	,5417 ,7968 ,7180	,6142 ,5851	-7,5756 +8,9306
206 207 208 209 210	Persei Trianguli	7.8 7 8 8 7.8	$\begin{vmatrix} 1 \\ 4 \\ 3 \end{vmatrix}$	$\begin{array}{cccc} 6 & 10,72 \\ 7 & 37,01 \\ 7 & 55,24 \\ 7 & 55,59 \\ 8 & 0,26 \end{array}$	4,133 3,445 3,445	9,0093 8,8062 8,8062	,6026 ,6026	,6163	+8,9298 +8,4778 +8,4778
211 212 213 214 214 215	Eridani Ceti	8 9 7.8 7.8 11	2	$\begin{array}{c} 8 & 33,10 \\ 8 & 44,04 \\ 8 & 46,63 \\ 8 & 47,98 \\ 11 & 11,67 \end{array}$	3,125 2,431 2,977	,7526 ,8788 ,7547	,5523 ,6788 ,5547	,3858 ,4738	+7,6584 8,7028 7,8597
216 217 218 219 220	Ceti	7.8 8 9.10 8.9 7.8	4 3 3	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,158 3,020 3,054	,7494 ,7464 ,7457	,5664 ,5656 ,5645	,4994 ,4800 ,4849	+7,8364 -7,5562 -7,0223
221 222 223 224 225	2 Ceti 9 Persei 4 Arietis	7.8 8.9 8 7.8 7	44	15 56,06 16 43,66 16 51,71 16 55,02 17 23,15	3,067 4,026 3,198	,7413 ,9501 ,7474	,5741 ,7837 ,5810	,4867 ,6049 ,5049	5,9040 + 8,8456 +7,9776

No.	No. Obs.	Declination Jan. I, 1836.	Annual Preces-		Logarit	hms of		zi No.	Annual	P. M.
			sion.	<i>a</i> ′	<i>b'</i>	c'	d'	Piazzi	A. R.	Decn.
181 182 183 184 185	4 4 2 4 4	$\begin{array}{c} & & & \\ + & 3 & 18 & 51,23 \\ + & 9 & 59 & 44,00 \\ + & 18 & 29 & 32,36 \\ + & 75 & 8 & 52,66 \\ + & 46 & 17 & 30,49 \end{array}$	" + 18,040 18,033 17,987 17,945 17,859	$\begin{array}{r} +9,6107 \\ +9,5453 \\ +9,4330 \\ -9,5051 \\ -8,4472 \end{array}$	+8,7187 +9,1944 +9,4548 +9,9373 -+9,8091	+1,2562 ,2560 ,2549 ,2539 ,2518	9,6395 ,6403 ,6447 ,6488 ,6570	189 191 196 195 207	s. +,005 +,011 +,007 +,037 +,005	,00 -,22 +,15 -,07 +,09
186 187 188 189 190	$\begin{array}{c c}4\\4\\4\\4\\2\end{array}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	17,706 17,695 17,647 17,639 17,612	+9,5821 +9,6053 -9,3655 +9,5705 +7,9031	+8,9761 +8,7458 +9,8969 +9,0365 +9,7657	+1,2481 ,2478 ,2467 ,2465 ,2458	9,6709 ,6718 ,6759 ,6766 ,6789	227 228 230 234 237	+,008 ,000 +,009 +,021 +,017	+ ,05 + ,03 + ,06 - ,08 - ,08
191 192 193 194 195	3 4 4 5	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	17,562 17,556 17,396 17,387 17,367	+9,2742 +9,6767 +9,5563 -9,1523 +9,5563	+9,5710 8,8914 +9,0865 +9,8438 +9,0858	+1,2446 ,2445 ,2404 ,2402 ,2397	9,6830 ,6835 ,6961 ,6968 ,6983	245 246 258 255 261	+,014 +,018 +,014 +,035 +,011	,17 -,07 ,00 ,14 ,10
196 197 198 199 200	4 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	17,311 17,252 17,177 17,154 17,147	+9,6628 +9,3560 +9,3838 +9,6637 +9,6031	$\begin{array}{r}8,6694 \\ +9,4815 \\ +9,4471 \\8,6723 \\ +8,7220 \end{array}$	+1,2383 ,2368 ,2350 ,2343 ,2342	-9,7024 ,7067 ,7120 ,7137 ,7141	265 1 12 17 19	+,001 +,031 +,007 +,028 +,009	,02 + ,02 ,08 ,08 ,02
201 202 203 204 205	2 3 4 4 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	17,108 17,108 17,102 17,084 17,078	9,2833 +9,6693 9,2856 8,9956 9,3117	+9,8512 8,7507 +9,8511 +9,8026 +9,8553	+1,2332 ,2332 ,2330 ,2326 ,2324	—9,7168 ,7168 ,7173 ,7185 ,7189	21 26 22 25 24	+,013 +,013 +,014 +,017 +,002	+,03 +,05 +,11 -,01 +,03
206 207 208 209 210	4 3 3 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	17,074 17,005 16,992 16,994 16,988	+9,6284 9,3032 +9,1271 +9,1271 +9,6232	+8,1422 +9,8491 +9,5999 +9,5999 +8,3461	+1,2323 ,2305 ,2302 ,2302 ,2302 ,2301	9,7193 ,7238 ,7246 ,7246 ,7248	$31 \\ 35 \\ 38 \\ 39 \\ 40$	+,014 +,002 +,028 +,019 +, <b>0</b> 09	,05 + ,10 + ,29 ,09 + ,07
211 212 213 214 215	2 4 3 2 6	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	16,964 16,954 16,954 16,951 16,842	+9,6693 +9,5911 +9,8319 +9,6972 +9,6702		+1,2295 ,2293 ,2292 ,2292 ,2292 ,2292 ,2263	9,7264 ,7270 ,7272 ,7272 ,7272 ,7343	44 45 50 48 57	+,009 +,019 ,009 ,004	+ ,03 - ,12 + ,03 + ,03 - ,17
216 217 218 219 220	4 4 4 4 4	$\begin{array}{r} +40 \ 43 \ 38,09 \\ + \ 6 \ 59 \ 54,75 \\ - \ 3 \ 42 \ 47,68 \\ - \ 1 \ 6 \ 14,24 \\ + \ 0 \ 12 \ 55,87 \end{array}$	16,732 16,734	$-8,4624 \\+9,5611 \\+9,6712 \\+9,6474 \\+9,6355$	$\begin{array}{r} +9,7372 \\ +9,0092 \\ -8,7314 \\ -8,1983 \\ +7,5315 \end{array}$	+ 1,2244 ,2242 ,2236 ,2237 ,2236	9,7388 ,7392 ,7407 ,7405 ,7407	62 63 67 66 68	+,040 +,002 +,001 +,008 +,007	,01 + ,07 + ,07 ,14 ,13
221 222 223 224 225	4 4 4 4 4	+29 8 8,31 -0 6 32,94 +51 48 26,73 + 9 45 35,00 + 9 54 15,81	$ \begin{array}{c} 16,571\\ 16,561\\ 16,561 \end{array} $	+9,0253 +9,6385 -9,2430 +9,5211 +9,5185	+9,6062 7,0801 +9,8127 +9,1474 +9,1533	+1,2204 ,2193 ,2191 ,2191 ,2191 ,2185	9,7479 ,7502 ,7507 ,7507 ,7520	74 81 78 82 83	+,014 +,016 +,010 +,016 +,008	- ,05 - ,21 + ,08 - ,17 - ,34

No.	Star's name and I		No.	 A	Rigi	nt sion	Ann Prec			Logarit	hms of	
1(0.	Star 5 humo una 1		Obs.			1836.	sio		a	Ъ	с	d
226 227 228 229 230	Trianguli Persei Ceti Trianguli	8 10 8 9 8	5 3 4 5 3	h. 2	$19 \\ 22 \\ 24$	s. 35,21 8,74 12,35 20,50 55,43	3,5		+ 8,7977 ,7962 ,8152 ,7337 ,8104	+8,6380 ,6387 ,6704 ,5971 ,6801	+0,5431 ,5428 ,5553 ,4989 ,3569	+8,4853 +8,4813 +8,5624 +7,7706 +8,5582
231 232 233 234 235	Persei Ceti Arietis Persei Ceti	8 8.9 8 7.8 9	4 3 4 4 4		28 29	6,64 18,64 53,16 18,26 22,25	3, 3, 3,	016 010 234 997 887	+8,9171 ,7282 ,7335 ,9059 ,7313	+8,7918 ,6032 ,6151 ,7891 ,6226	+0,6038 ,4786 ,5097 ,6017 ,4604	-7,5894 +8,0357 +8,7828
236 237 238 239 240	Ceti Trianguli Ceti Persei	7.8 8 9 8.9 8.9	3 3 4 5 4		34 35 35	30,10 53,84 20,11 55,89 41,90	1 3 1 3 9 3	146 528 099 141 108	+8,7213 ,7730 ,7154 ,7158 ,9129	,6780 ,6220 ,6247	,5475 ,4912 ,4971	+8,4556 +7,2863 +7,6547
241 242 243 244 244	Ceti Arietis	7 9 7.8 7.8 8	3 2 2 4 4		37 37	45,4( 42,1( 36,9) 58,7? 4,8	$egin{array}{c c} 0 & 4 \\ 6 & 3 \\ 2 & 3 \end{array}$	,128 ,029 ,141 ,243 ,149	+8,7140 ,8903 ,7132 ,7200 ,9162	,8061 ,6286 ,6368	,6052 ,4971 ,5109	+8,7649 +7,7462 +8,0233
246 247 248 249 250	Persei Fornacis	8.9 8.9 9 8.9 9	44		$40 \\ 42 \\ 42$	24,3 32,0 26,5 29,5 5 26,5	$   \begin{array}{c cc}     7 & 4 \\     4 & 2 \\     9 & 2 \\   \end{array} $	,395 ,154 ,503 ,536 2,920	+8,8108 ,9131 ,7805 ,7729 ,7049	,8399 ,7143 ,7070	,6183 ,3983 ,4041	5 +8,8068 5 -8,5168
25 25 25 25 25 25 25	2 Persei 3 4 248	7 8.9 7.8 7.8	8 5 8 3		4		0     4       07     3       56     3	4,651 4,210 3,760 3,715 2,277	8,9003 8,7919 8,7785	,7543 5,7454	5 ,624 5 ,575 4 ,570	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
25 25 25 25 25	7 Arietis 8 <del>-</del> 9 Persei	7.3 8 8. 7. 7.	9 <u>1</u> 8 3		3	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} 02 & \vdots \\ 51 & \vdots \\ 76 & 4 \end{array}$	2,470 3,273 3,351 4,110 4,112	,6829 ,690 ,8399	6839 6939 2,848	9,515 2,525 1,613	$0 + 8,0090 \\ 2 + 8,1479 \\ 8 + 8,7069$
20	Camelop.           52         Eridani           53         Tauri           54            55	7. 6. 8. 8. 7.	7 9 9	4 5 4 3		3 15, 4 55, 5 22, 7 57, 10 27,	68   1 36   73	5,132 2,517 3,625 3,366 3,398	8,724 8,724 8,724 8,676	9 8,744 8 8,746 8 8,707	4 ,400 0 ,559 8 ,527	3 + 8,4231 1 + 8,1422
2 2 2	66Arietis67Persei68Camelop.69Camelop.70Persei	8 8 8	8 .9 .9	4 5 1 5 1	-	13 52, 15 58, 16 25, 17 44, 18 19,	,19 ,61 ,81	3,44( 4,23; 4,21; 4,21; 4,51( 4,17(	2,823 1,818 0,875	7,885 0,881 99,944	66 ,620 6 ,624 14 ,654	55  +8,7019 14  +8,6924 12  +8,78~3

No.	No.	Declination	Annual Preces-	ana ang ang ang ang ang ang ang ang ang	Logarith	ms of		zi No.	Annual	Р. М.
	Obs.	Jan. 1, 1836.	sion.	a'	b'	¢'	d'	Piazzi	A. R.	Decn.
226 227 228 229 230	$\begin{vmatrix} 4\\ 2\\ 4\\ 3\\ 4 \end{vmatrix}$	$\begin{array}{c} \circ & , & , & , \\ +29 & 7 & 59,73 \\ +28 & 56 & 54,30 \\ +33 & 56 & 53,69 \\ + & 6 & 13 & 47,29 \\ +34 & 0 & 13,33 \end{array}$	$ \begin{array}{r} & \\ +16,477 \\ 16,452 \\ 16,295 \\ 16,188 \\ 16,140 \end{array} $	+9,0086 9,0128 8,5401 9,5647 8,4314	+9,6026 9,5994 9,6572 8,9441 9,6527	+1,2169 ,2162 ,2120 ,2092 ,2070	—9,7553 ,7568 ,7652 ,7706 ,7747	89 92 103 111 117	s. +,017 +,008 +,030 +,035	" 
231 232 233 234 235	4 4 2 4	$\begin{array}{r} +49 \ 46 \ 22,00 \\4 \ 10 \ 43,13 \\ +11 \ 33 \ 12,77 \\ +48 \ 50 \ 51,86 \\12 \ 27 \ 34,61 \end{array}$	16,039 16,032 15,948 15,926 15,819	9,2504 +9,6785 +9,4829 9,2355 +9,7451	$\begin{array}{r} +9,7861 \\ -8,7644 \\ +9,2028 \\ +9,7770 \\ -9,2302 \end{array}$	+1,2052 ,2051 ,2027 ,2021 ,1991	9,7779 ,7781 ,7823 ,7833 ,7884	119 127 134 133 145	+,007 ,016 ,024 ,024 ,013	$\begin{array}{c} - ,17 \\ + ,04 \\ + ,04 \\ + ,02 \\ ,00 \end{array}$
236 237 238 239 240	4 5 2 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$15,754 \\ 15,625 \\ 15,602 \\ 15,569 \\ 15,525$	+9,5729 +8,8921 +9,6138 -+9,5775 9,3365	+8,8677 9,5744 8,4621 8,8291 9,7787	+1,1974 ,1938 ,1932 ,1923 ,1909	9,7911 ,7968 ,7978 ,7992 ,8013	$151 \\ 160 \\ 163 \\ 165 \\ 169$	+,002 ,007 ,006 ,016 ,004	,06 ,04 ,05 ,17 + ,04
$ \begin{array}{c c} 241 \\ 242 \\ 243 \\ 244 \\ 244 \\ 245 \\ \end{array} $	<b>พ</b> พ <del>4</del> 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,459	+9,5899 9,2765 +9,5775 +9,4728 9,3674	+8,7362 9,7621 8,8207 9,1904 9,7796		9,8010 ,8034 ,8030 ,8040 ,8066	171 172 174 177 180	+,016 ,013 ,023 ,019 ,006	,04 ,08 ,23 + ,01 + ,17
246 247 248 249 250	5 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,309 15,207 15,203	+9,8686 9,3711 +9,8567 +9,8513 +9,7300	$\begin{array}{r} -9,6728 \\ + ,7767 \\ - ,6164 \\ - ,5976 \\ - ,0926 \end{array}$	,1849 ,1820	9,8094 ,8099 ,8139 ,8140 ,8205	187 184 196 197 209	+,025 ,021 ,007 ,004 ,004	+,01 +,09 +,24 +,04 -,07
251 252 253 254 254 255	2 4 4	$\begin{array}{c} +60 & 37 & 31,65 \\ +51 & 41 & 40,02 \\ +37 & 28 & 25,27 \\ +35 & 27 & 38,65 \\ -40 & 57 & 52,78 \end{array}$	14,805 14,772 14,702	$\begin{array}{c}9,5658 \\9,4150 \\8,8261 \\8,6232 \\ +9,8893 \end{array}$	+9,8128 +,7633 +,6520 +,6292 -,6803	+1,1745,1704 ,1695 ,1674 ,1657	9,8237 ,8287 ,8298 ,8323 ,8342	211 222 223 227 239	+,012 -,006 -,006 +,002 -,007	$  + ,10 \\ - ,05$
256 257 258 259 260	4 4 3	$ \begin{vmatrix} -33 & 9 & 47,92 \\ +12 & 13 & 37,17 \\ +16 & 37 & 56,72 \\ +47 & 29 & 17,27 \\ +47 & 33 & 15,82 \end{vmatrix} $	14,157           14,132           14,032	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		,1509 ,1502 ,1470	,8500 ,8507 ,8539	243 263 266 268 269	,000 +,013 ,010 ,000 ,008	-,08  -,02  -,14
261 262 263 264 <b>2</b> 64	2 4 3 4 4 4	$ \begin{vmatrix} +65 & 2 & 26,76 \\ -29 & 46 & 56,94 \\ +29 & 56 & 23,31 \\ +16 & 57 & 55,28 \\ +18 & 28 & 32,24 \end{vmatrix} $	4 13,852 1 13,822 3 13,657		- ,5354 + ,5369 + ,2989	,1415 ,1406 ,1353	,8590 ,8598 ,8645	1 10 9 21 33	$\begin{vmatrix} + .001 \\010 \\001 \\ + .015 \\ .012 \end{vmatrix}$	-,09  -,10 +,06
266 267 268 269 270	7 2 8 1 9 4	$\begin{array}{r} +20 & 22 & 43,1 \\ +49 & 1 & 10,6 \\ +48 & 28 & 57,0 \\ +54 & 47 & 57,1 \\ +47 & 24 & 13,9 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-9,4579 -9,4456 -9,5694	,694 ,689 ,724	5 ,1183 8 ,1173 9 ,1145	,8782 ,8790 ,8810	52 53 58	-,002 +,008 +,008	2 + ,01 3 - ,09 5 + ,10

No.	Star's name and	Mag.	No. Obs.	Right Ascension	Annual Preces-		Logarit	hms of	
		, ,	Ubs.	Jan. 1, 1836	. sion.	a	Ь	С	d
316 317 318 319 320	Eridani Tauri Persei	9.10 8 9 8	$2 \\ 3 \\ 5 \\ 4 \\ 3$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	7 3,287 3,187 7 3,207	+8,5100 ,5128 ,5015 ,4997 ,6756	,7745 ,7710	+0,4652 ,5168 ,5084 ,5061 ,6544	+7,7782 +7 5061
$321 \\ 322 \\ 323 \\ 324 \\ 325$	Tauri Horologü Tauri Camelop. Tauri	9 6.7 8 9 7.8	$\begin{vmatrix} 2\\4 \end{vmatrix}$	12 26,1 14 5,7 16 35,8 17 38,4 18 17,3	1     1,886       1     3,532       2     10,067	+8,4787 8,6206 8,4928 9,2237 8,4864	8,9238 8,8085 9,5466	+0,4867 ,2755 ,5480 1,0029 0,5488	-6,2212 +8,4674 +8,0494 +9,2202 +8,0457
326 327 328 329 330	Tauri Camelop. Tauri Persei Tauri	8 8 9.10 9 8	3 3 4 4 4	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 10,208. 6 3,379 7 4,194	+8,4701 9,2206 8,4548 ,5724 ,4492	9,5579 8,7968 ,9177	+0,5331 1,0090 0,5288 0,6226 0,5447	7,8490
331 332 -333 334 335	Tauri Eridani	9 8.9 9.10 7.8	) 2	26 35,2 27 27,6 29 17,1 29 29,0 30 29,2	72,88292,878963,004		,7926 ,7942 ,7898	,4597	-7,5973 -7,1228
<b>3</b> 36 337 338 339 340	Eridani  τ' Tauri Eridani	8 7 8.9 8.9 6.8	4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	9 2,796 7 2,303 6 3,585	,4106 ,4697 ,4295	,8611,8263	+0,4597 ,4465 ,3623 ,5545 ,4026	-8,1906 +8,0147
$341 \\ 342 \\ 343 \\ 344 \\ 345$	Tanri Eridani	7.8 9 8 8 7		35 43,3 35 54,9 36 31,4 37 56,1 38 1,3	00 2,993 58 3,485 .6 2,396	,3784 ,3976 ,4230	,8176 ,8506	,4761 ,5422	
346 347 348 349 350	Tauri Camelop. Orionis	8 8 7.8 8 8.9	4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	)8 3,419 )2 6,109 34 3,215	,7684 ,3521	8,8135 9,2153 8,8010	,7860 ,5072	+8,7200 +7,8026 +8,7341 +7,4169 -8,1913
351 352 353 354 355	Cel. Sculp. Camelop. Orionis	8 8 7.8 7.8 9		43 37,9 43 56, 45 55, 46 16,4 46 25,9	0 2,172 1 7,447 1 2,991	,4248 ,8788 ,3225	8,8882 9,3568 8,8020	,3367 ,8720 ,4758	+8,8613 -7,1092
356 357 358 359 360	Orionis Camelop. Orionis	9 8 8.9 9	9 3	48 1, 48 24, 48 46, 49 36, 49 39,	4  3,135 78  5,289  7  3,099	,3110 ,6107 ,3034	8,8031 9,1063 8,8033	+0,4689 ,4962 ,7234 ,4912 ,5306	+7,3460 +8,5490 +6,6965

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	ms of		zi No.	Annual	Р. М.
		Jan. 1, 1050.	sion.	a'	<i>b'</i>	¢'	<i>d'</i>	Piazzi	A. R.	Decn.
316 317 318 319 320	4 4 5 3	$\begin{array}{r} & & & & & \\ & - & 7 & 15 & 32,02 \\ & + & 10 & 36 & 13,10 \\ & + & 5 & 47 & 10,52 \\ & + & 6 & 44 & 51,33 \\ & + & 50 & 27 & 31,31 \end{array}$	" +9,651 9,625 9,492 9,430 9,068	+9,7332 +9,4232 +9,5353 +9,5145 9,6149		+0,9846 ,9834 ,9774 ,9748 ,9575	9,9427 ,9431 ,9448 ,9456 ,9503	15 16 24 28 44	s. +,024 +,010 ,001 +,009 +,018	" +0,06 ,10 ,29 ,07 + ,17
321 32 <b>2</b> 323 324 325	4 2 4 4 4	$\begin{array}{r} - & 0 & 19 & 25,37 \\ - & 44 & 40 & 3,36 \\ + & 21 & 5 & 32,03 \\ + & 80 & 12 & 4,43 \\ + & 21 & 14 & 56,21 \end{array}$	9,048 8,928 8,723 8,608 8,587	+9,6425 +9,9722 +8,9085 -9,9117 +8,8808	7,3973 9,4956 +9,1953 +9,6265 +9,1914	+ 0,9568 ,9507 ,9407 ,9349 ,9338	—9,9505 ,9520 ,9544 ,9557 ,9560	52 65 76 5 <b>9</b> 82	+,014 +,022 +,018 +,022 +,019	
326 327 328 329 330	3 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	8,534 8,375 8,301 8,248 7,965	+9,2253 9,9154 +9,2878 9,4757 +9,0043	+9,0682 +9,6148 +9,0113 +9,4461 +9,1256	+0,9311 ,9230 ,9191 ,9163 ,9012	9,9566 ,9583 ,9591 ,9597 ,9627	86 77 106 107 119	+,009 +,032 +,010 -,008 +,011	+ ,07 — ,11 — ,03 — ,07
331 332 333 334 335	3 4 3 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	7,928 7,858 7,713 7,697 7,616	+9,4330 9,7536 9,7551 9,6821 9,9289	+8,8311 8,7698 8,7683 8,2983 9,2920	+0,8999 ,8953 ,8872 ,8863 ,8817	—9,9630 ,9638 ,9652 ,9653 ,9661	127 131 141 142 151	+,006 +,001 +,005 +,006 -,010	,16 + ,02 + ,18 + ,07 ,04
336 337 338 339 340	2 3 2 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	7,579 7,557 7,541 7,460 7,215	+9,7536 9,7945 9,9325 8,6335 9,8865	8,7498 8,9094 9,2964 +9,1560 9,1567	+0,8796 ,8783 ,8774 ,8727 ,8583	9,9665 ,9667 ,9669 ,9676 ,9699	152 154 156 158 171	,004 +,012 +,008 ,001 +,014	+ ,02 + ,04 - ,08 + ,06
341 342 343 344 345	3 2 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	7,188 7,172 7,123 7,014 7,003	+9,7604 9,6893 9,0607 9,9164 9,8745	8,7537 8,3352 +9,0522 9,2191 9,1090	+0,8566 ,8556 ,8527 ,8460 ,8453	9,9701 ,9702 ,9707 ,9716 ,9717	173 174 177 188 186	,010 +,023 +,002 +,014 +,016	+,04 +,03 -,01 +,08 +,03
346 347 348 349 350	3 3 4 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6,976 6,828 6,746 6,718 6,580	-9,8338 +9,2175 -9,8476 +9,5079 +9,9542	+9,5028 +8,9624 +9,4927 +8,5901 9,2788	+0,8436 ,8343 ,8290 ,8272 ,8183	9,9720 ,9732 ,9739 ,9741 ,9752	180 194 193 205 220	-,037 +,026 -,009 +,012 +,019	,00 ,01 + ,06 + ,09 + ,03
351 352 353 354 355	3 2 2 4 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	6,324 6,321	$\begin{array}{c c} +9,7202 \\ +9,9547 \\ -9,8976 \\ +9,6911 \\ -9,8338 \end{array}$	$ \begin{array}{r} - 8,5070 \\ - 9,2748 \\ + 9,4817 \\ - 8,2845 \\ + 9,4554 \end{array} $	,8010	9,9755 ,9757 ,9772 ,9772 ,9772 ,9775	219 223 218 238 225	+,023 +,030 -,030 +,017 -,006	$ \begin{array}{c} - ,01 \\ + ,01 \\ - ,03 \\ + ,08 \\ - ,06 \end{array} $
356 357 358 359 360	4 2 4 4 1	$\begin{array}{r}5 & 35 & 23,97 \\ + & 3 & 1 & 16,02 \\ +60 & 10 & 15,31 \\ + & 1 & 24 & 58,22 \\ +14 & 17 & 29,19 \end{array}$	6,144 6,100 6,044	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	+7,8724	,7813	,9789 ,9793	248 249 242 258 255	$\begin{vmatrix} +,012 \\ +,020 \\ -,013 \\ +,015 \\ +,014 \end{vmatrix}$	

No.	Star's name and		No.	A	Right scension	Annual Preces-		Logarit	.hms of	
			Obs.	Jan	1. 1, 1836.	sion.	C	Ь	¢	d
361 362 363 364 365	Orionis Eridani Orionis	8.9 7 8.9 8 8.9	3 3 3 4 2	h. 4	m. s. 50 59,82 51 19,89 51 28,95 53 28,81 53 31,67	3,280 2,652 3,086	+8,3016 ,2987 ,3138 ,2794 ,2791	+8,8109 ,8102 ,8262 ,8055 ,8056	+0,5180 ,5159 ,4236 ,4894 ,4912	+7,5140 -7,8050
366 367 368 369 370	2 Leporis Orionis Aurigæ Orionis	5 9 8.9 8.9 8.9	3 4 4 3 4	5	54 18,92 57 59,08 58 50,73 59 31,40 2 1,12	3,208 2,947 4,439	+8,3020 ,2520 ,2458 ,4024 ,2221	+8,8337 ,8105 ,8103 ,9728 ,8110	+0,4140 ,5062 ,4694 ,6473 ,4736	$\begin{array}{r} -7,8420 \\ +7,2854 \\ -7,2181 \\ +8,2646 \\ -7,0729 \end{array}$
371 372 373 374 375	Orionis Camelop. Orionis	7.8 7 8 9 7.8	4 3 4 4 4		2 54,87 3 11,95 4 17,46 5 5,23 5 40,56	9,237 9,079 2,880	+8,2240 ,8960 ,8766 ,2024 ,1978	+8,8197 9,4976 9,4868 8,8159 8,8163	+0,4465 ,9655 ,9580 ,4594 ,4591	7,5365 + 8,8866 + 8,8667 7,3592 7,3589
376 377 378 379 380	Tauri Orionis Tauri Cel. Sculp. Columbæ	7 7 7.8 7.8 7.8	4 4 2 2 3		7 9,19 7 11,49 7 49,26 7 57,46 8 2,83	2,909 3,541 2,122	+8,2038 ,1841 ,2024 ,2669 ,2250	+ 8,8347 ,8156 ,8396 ,9047 ,8634	,3267	+7,7357
381 382 383 384 385	Aurigæ Orionis	8 9 9 9 7.8	3 4 4 4 4		8 35,02 8 59,63 9 37,71 10 48,52 11 15,90	2,905 3,379 3,378	+8,2493 ,1694 ,1724 ,1620 ,1469	+8,8935 ,8165 ,8254 ,8259 ,8145	,4631 ,5288 ,5287	-7,2624 +7,5374 +7,5259
386 387 388 389 390	Aurigæ Orionis	8.9 8 7.8 8.9 8	4 4 4 3		$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,107 3,094 3,145	+8,1887 ,3986 ,1161 ,1040 ,0991	9,0824 8,8155	,7082 ,4905 ,4976	+6,4123 +6,8728
391 392 393 394 395	Orionis Tauri Leporis	8.9 7.8 9 7.8 8	4 3 4 4 4		$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,109 3,442 2,758	+8,0967 ,0955 ,0981 ,0929 ,0883	+8,8162 ,8165 ,8336 ,8284 ,8282	,4926 ,5368 ,4406	+6,5886 +7,5357 -7,4536
396 397 398 399 400	Tauri Orionis Tauri Orionis	8.9 9 9 8 9	4 5 4 4 4		19 13,44 19 50,96 20 21,96 20 51,14 21 14,54	2,873 3,611 2,871	+ 8,0972 ,0676 ,0911 ,0575 ,0476	+ 8,8450 ,8220 ,8515 ,8224 ,8178	,5576 ,4580	-7,2348 + 7,6722 - 7,2280
401 402 403 404 405	Orionis Tauri Orionis Camelop. Tauri	7.8 8.9 8 6.7 7.8	3 4 4 3 4		21 20,51 22 13,81 22 28,97 23 8,17 24 44,30	3,735 3,142 4,974	+ 8,0468 ,0857 ,0346 ,2595 ,0557	+ 8,8178 8,8676 8,8188 9,0532 8,8684	,5723 ,4972 ,6967	+7,7405 + 6,7836 + 8,1845

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarit	hms of	an da an an an an an an an an an an an an an	zzi No.	Annua	1 P. M.
		-	sion.	a'	b'	c'	d'	Piazzi	A. R.	Decn.
361 362 363 364 365	4. 2 4 4 4	+10 8 10,37 + 9 26 48,70 -18 3 44,48 + 0 48 9,45 + 1 21 51,71	" +5,927 5,899 5,888 5,721 5,715	+9,4133 9,4330 9,8506 9,6232 9,6138	+8,7169 +8,6842 8,9591 +7,6094 +7,8378	,7700		265 267 268 277 279	$\begin{vmatrix} s. \\ -,022 \\ +,018 \\ +,011 \\ +,021 \\ -,001 \end{vmatrix}$	" ,22 ,12 + ,05 + ,09 ,20
<b>3</b> 66 367 368 369 370	4 4 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,653 5,340 5,272 5,200 5,001	+9,8692 +9,5145 +9,7177 -9,6085 +9,7007	$\begin{array}{r}8,9902 \\ +8,4589 \\8,3923 \\ +9,2766 \\8,2479 \end{array}$	+0,7523 ,7275 ,7220 ,7164 ,6991	—9,9820 ,9840 ,9844 ,9848 ,9860	285 299 306 301 2	+,012 +,034 +,023 +,013 +,007	,04 ,01 ,16 + ,17 ,00
371 372 373 374 375	4 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,928 4,866 4,776 4,741 4,690	+9,7952 9,9345 9,9330 +9,7543 +9,7559	8,7032 +9,3758 +9,3671 8,5308 8,5304	+0,6927 ,6872 ,6790 ,6759 ,6712	9,9865 ,9868 ,9873 ,9875 ,9878	4 311 317 12 15	+,025 +,019 +,010 +,030 +,012	$\begin{array}{c} - ,01 \\ + ,05 \\ - ,02 \\ + ,03 \\ + ,04 \end{array}$
376 377 378 379 380	4 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,565 4,560 4,503 4,497 4,492	+9,0294 9,7396 8,8751 9,9657 9,9196	+8,8533 9,4418 +8,8849 9,1202 9,0097	+0,6595 ,6589 ,6535 ,6530 ,6524	—9,9884 ,9885 ,9887 ,9888 ,9888	20 24 25 30 29	+,017 +,002 +,006 +,006 +,007	+ ,10 + ,08 - ,14 - ,04 + ,10
381 322 383 384 385	2 4 5 6 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,435 4,406 4,350 4,247 4,213	$\begin{array}{r}9,2601 \\ +9,7419 \\ +9,2923 \\ +9,2923 \\ +9,5955 \end{array}$	+9,0904 8,4352 +8,7015 +8,6901 +7,9354	+0,6469 ,6441 ,6384 ,6281 ,6246	—9,9891 ,9892 ,9895 ,9900 ,9902	$27 \\ 33 \\ 38 \\ 46 \\ 49$	+,002 +,007 -,007 +,008 +,015	,01 ,08 ,02 ,08 ,07
386 387 388 389 390	3 3 4 4 4	$\begin{array}{r} +28 \ 18 \ 14,44 \\ +57 \ 18 \ 42,32 \\ + \ 1 \ 7 \ 39,25 \\ + \ 3 \ 21 \ 38,10 \\ - \ 2 \ 39 \ 14,63 \end{array}$	4,087 4,065 3,928 3,813 3,773	8,9138 9,7708 +9,6180 +9,5740 +9,6794	+8,9853 +9,2322 +7,5883 +8,0481 -7,9397	+0,6114 ,6090 ,5941 ,5813 ,5767	—9,9908 ,9909 ,9915 ,9920 ,9922	53 50 67 73 82	+,015 +,006 +,018 +,007 -,050	+ ,04 + ,06 + ,07 + ,08 ,00
391 392 393 394 395	4 4 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,756 3,744 3,624 3,624 3,590	+9,6191 9,6053 9,1703 9,8116 9,8096	+7,5288 +7,7644 +8,6949 8,6180 8,6068	+0,5747 ,5734 ,5592 ,5592 ,5592 ,5550	—9,9922 ,9923 ,9928 ,9928 ,9929	83 84 89 93 96	+,013 -,001 +,012 +,009 +,007	,00 ,03 + ,01 ,06 + ,28
396 397 398 399 400	4 4 3 4	$\begin{array}{r} + 20 \ 17 \ 59,52 \\ - 8 \ 28 \ 12,90 \\ + 22 \ 24 \ 14,29 \\ - 8 \ 30 \ 57,11 \\ - 1 \ 19 \ 29,84 \end{array}$	3,526 3,475 3,429 3,394 3,354	+8,8129 9,7589 8,4150 9,7597 9,6599	+8,7859 8,4061 +8,8142 8,3993 7,5849	+0,5473 ,5409 ,5351 ,5307 ,5256	—9,9932 ,9934 ,9935 ,9937 ,9938	100 104 105 109 110	+,012 +,006 +,006 +,018 +,020	,17 + ,06 + ,06 + ,09 ,17
401 402 403 404 405	4 4 3 4	$\begin{array}{r} - & 0 & 56 & 13,40 \\ + & 26 & 51 & 13,49 \\ + & 3 & 13 & 16,87 \\ + & 54 & 18 & 31,16 \\ + & 26 & 51 & 27,37 \end{array}$	3,348 3,268 3,251 3,181 3,049	+9,6532 	-7,4269 +8,8671 +7,9590 +9,1157 +8,8372	+0,5248 ,5143 ,5120 ,5026 ,4842	—9,9938 ,99:;8 ,9942 ,9945 ,9949	111 115 121 117 131	+,010 +,011 +,004 -,035 +,013	,07 + ,08 ,05 ,05 ,00

No.	Star's name and	Mag.	No. Obs.	Α	Rig	sion	Annual Preces-		Logarit	hms of	• ••• ••••••
			0.03.	Jan	. 1,	1836.	sion.	a	ь	С	<i>d</i>
406 407 408 409 410	Camelop. Aurigæ Orionis	8.9 7 8 8.9 9	3 4 4 4 2	h. 5	30	s. 32,46 2,71 13,41 20,76 31,88	s. +5,507 4,851 3,922 3,162 3,006	+8,2899 8,1868 8,0083 7,9329 7,9294	9,0445 8,8957 8,8214	,6858 ,5935 ,5000	$\begin{array}{r} + 8,2339 \\ + 8,0915 \\ + 7,7420 \\ + 6,7819 \\ - 6,5998 \end{array}$
411 412 413 414 415	Orionis Columbæ Orionis	7 7 8 8	3 5 2 2 3		30 3 <b>1</b> 32	33,41 58,54 14,65 10,02 46,42	3,006 2,945 2,342 2,335 3,515	+7,9294 ,9248 ,9760 ,9625 ,9174	,8223 ,8775 ,8786	+0,4780 ,4691 ,3696 ,3683 ,5459	6,8890 7,6576 7,6472
416 417 418 419 420	Orionis Columbæ Orionis Camelop. Orionis	9 9 8.9 9 9	4 2 3 4 3		32 34	50,04 56,14 38,80 38,68 7,66	2,308 3,519 4,895	+7,9171 7,9547 7,8868 8,0736 7,8139	8,8826 8,8450 9,0519		+7,9813
421 422 423 424 425		8 8.9 7 9	3 3 4 3 4		40 42 43	16,22 7,98 11,01 39,67 22,79	3,539 3,212	,6736	,8352 ,8482 ,8253	,5311 ,5489 ,5068	7,2576 6,7047
426 427 428 429 430	Orionis Columbæ Aurigæ	9 7 8.9 8 7,8	2		44 46 48	36,76 38,87 11,50 47,46 42,81	3,214 2,101 3,764	,6459 ,6908 ,5545	,8255 ,9148 ,8756	,5070 ,3224 ,5756	+6,6817
431 432 433 434 434	Geminor. Orionis	9 8 8 8 8.	444		53 53 53	11,41 23,72 42,58 42,59 45,96	2 3,493 3,765 3,249	,2908 ,2942 ,2506	,8761 ,8277	,5432 ,5758 ,5117	6,7730 6,9595 6,3776
436 437 438 439 440	Orionis Aurigæ Orionis	8 6. 7. 8. 7	7 4 8 4 9 3	normal generation destination and thermological particulation of	56 56 56	i 10,88 i 13,56 i 15,87 i 48,48 i 54,13	3,195 4,116 3,364	7,0138 7,1077 6,9415	8,8258 8,9279 8,8343	<b>,5045</b> <b>,6145</b> <b>,5269</b>	5,9901 6,8980 6,2768
441 442 443 444 444	Leporis Camelop. Columbæ	7 8 8 8	4 4 4 3	6			2,499 5,314 2,061	5,8010 7,0261 6,8167	9,1152 8,9216	,3978 ,7254 ,3141	+ 6,3446 + 5,3944 - 6,9603 + 6,5964 - 6,9721
446 447 448 449 450	7 Lyncis O Orionis	9 8 7 8	3		4	4 7,81 4 4 26,09 5 16,28 7 46,64	3,663 5,345 3,453	7,1464 7,4410 7,2240	8,8631 9,1198 8,8411	,5638 ,7279 ,5382	-6,7557 -7,3768

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logaritl	hms of		zi No.	Annua	P. M.
		Jun. 1, 1000.	sion.	a'	b'	c'	d'	Piazzi	A. R.	Decn.
406 407 408 409 410	4 4 3 4 2	$ \begin{array}{c} \circ & , & , & , \\ +61 & 30 & 20, 19 \\ +53 & 24 & 14, 80 \\ +32 & 47 & 54, 55 \\ + & 4 & 2 & 17, 88 \\ - & 2 & 42 & 0, 19 \end{array} $	$\begin{array}{r} '' \\ +2,795 \\ 2,755 \\ 2,576 \\ 2,570 \\ 2,553 \end{array}$	$\begin{array}{c c}9,8215 \\9,7292 \\9,2355 \\ +9,5599 \\ +9,6803 \end{array}$	+9,0884 +9,0428 +8,8307 +7,9569 -7,7754	,4109	9,9957 ,9959 ,9964 ,9964 ,9964	143 146 168 170 173	s. ,023 +,011 +,016 +,017 +,005	+0,11 -,51 -,08 -,08 +,04
411 412 413 414 414 415	4 2 4 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2,553 2,518 2,495 2,414 2,356	+9,6803 9,7185 9,9335 9,9345 8,9731	-7,7754 -8,0632 -8,7767 -8,7654 +8,5743	+0,4070 ,4010 ,3970 ,3827 ,3721	9,9964 ,9965 ,9966 ,9968 ,9970	174 175 181 190 187	-,001 +,010 +,008 -,007 -,003	+ ,07 - ,05 + ,08 + ,07 + ,08
416 417 418 419 420	2 4 4 2 4	$\begin{array}{r} +18 53 59,16 \\29 48 38,62 \\ +18 45 11,58 \\ +53 57 43,76 \\ +15 39 11,26 \end{array}$	2,350 2,350 2,194 2,094 1,886	+8,9494 +9,9400 +8,9638 -9,7396 +9,1732	+8,5799 	+0,3711 ,3711 ,3412 ,3212 ,2756	—9,9970 ,9970 ,9974 ,9976 ,9981	189 193 198 199 218	+,013 +,026 +,013 +,012 +,010	- ,15 - ,28 + ,03 + ,04 - ,07
421 422 423 424 425	4 4 4 4 4	$\begin{array}{r} +31 \ 43 \ 33,14 \\ +13 \ 51 \ 43,21 \\ +19 \ 28 \ 11,32 \\ + \ 6 \ 9 \ 49,69 \\ +13 \ 50 \ 52,22 \end{array}$	1,788 1,717 1,538 1,410 1,346	$\begin{array}{r}9,1903 \\ +9,2601 \\ +8,8808 \\ +9,5105 \\ +9,2601 \end{array}$	+8,6712 8,3126 8,4080 7,8783 8,2066	+0,2523 ,2350 ,1869 ,1491 ,1290	—9,9983 ,9984 ,9987 ,9989 ,9990	225 232 245 255 258	+,003 +,019 +,009 +,025 +,011	+ ,05 - ,03 - ,01 + ,06 ,00
426 427 428 429 430	2 4 3 4 4	$\begin{array}{r} -20 \ 53 \ 10,16 \\ + \ 6 \ 12 \ 44,78 \\ -35 \ 57 \ 11,72 \\ +27 \ 32 \ 18,61 \\ + \ 1 \ 49 \ 59,26 \end{array}$	1,328 1,323 1,195 0,955 0,880	+9,8808 +9,5092 +9,9717 	8,3730 +7,8552 8,5437 +8,3433 +7,1476	+0,1233 ,1214 ,0772 9,9804 ,9445	—9,9990 ,9990 ,9992 ,9995 ,9996	263 260 270 279 282	+,019 +,010 +,010 +,004 +,024	,27 ,04 ,11 + ,04 + ,01
431 432 433 434 435	4 4 2 4 4	$\begin{array}{r} +11 \ 44 \ 33,16 \\ +17 \ 39 \ 32,32 \\ +27 \ 34 \ 6,12 \\ + \ 7 \ 41 \ 29,39 \\ +15 \ 27 \ 3,97 \end{array}$	0,838 0,559 0,530 0,530 0,530 0,3 <i>5</i> 0	$\begin{array}{r} +9,3463 \\ +9,0414 \\$	+7,9302 7,9281 8,0833 7,5498 7,6674	+9,9239 ,7479 ,7247 ,7247 ,5438	—9,9996 ,9998 ,9998 ,9998 ,9998 ,9999	284 300 303 305 317	+,009 +,015 +,012 +,015 +,001	+ ,07, + ,07 + ,09 - ,11 - ,04
436 437 438 439 440	4 4 4 4	$\begin{array}{r} +26 & 31 & 55,48 \\ + & 5 & 25 & 18,79 \\ +38 & 5 & 24,38 \\ +12 & 29 & 9,58 \\ +69 & 30 & 32,98 \end{array}$	0,315 0,305 0,303 0,257 0,058	8,7708 +9,5276 9,4409 +9,3181 9,8949	+7,8461 ,1643 ,9700 ,4425 ,4354	+9,4981 9,4899 9,4817 9,4091 8,7657	9,9999 9,9999 9,9999 0,0000 0,0000	319 321 318 324 326	+,013 -,003 +,006 +,013 ,000	+,08 ,06 ,04 +,02 ,06
441 442 443 444 445	2 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	+0,058 0,017 0,163 0,158 0,268	9,6684 +9,8982 9,8041 +9,9768 9,6284	+7,6747	+8,7657 -8,2428 -9,2128 -9,1970 -9,4284	0,0000 0,0000 0,0000 0,0000 0,0000 0,0000	333 345 343 4 1	+,026 +,012 +,006 -,001	,00 ,06 + ,09 + ,19
446 447 448 449 450	5 4 4 4 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	0,379 0,383 0,420 0,483 0,699	8,0414 8,0414 9,8 <b>0</b> 32 +9,1461 +9,7308	7,8865 7,8925 8,2569 7,8253 + ,5739	9,5786 ,5×52 ,6230 ,6847 ,8448	—9,9999 ,9999 ,9999 ,9999 ,9999 ,9997	13 14 10 24 44	+,022 ,0 +,008 ,000 +,013	,06 ,09 ,12 + ,14 ,01

No.	Star's n	ame and	Mag.	No.	Rig Ascer		Annual Preces-		Logarit	hms of	
			U	Obs.	Jan. 1,	1836.	sion.	a	Ъ	с	d
$\begin{array}{r} 451 \\ 452 \\ 453 \\ 454 \\ 455 \end{array}$	Auri	gæ is. Maj.	9 9.10 9.10 8.9 6.7	3 4	$ \begin{array}{c ccc} h. & m. \\ 6 & 8 \\ 8 \\ 8 \\ 8 \\ 10 \end{array} $	23,67 24,31	s. +2,768 2,767 2,925 4,813 2,511	+7,3986 ,4055 ,4006 ,6212 ,5127	+8,8343 8,8344 8,8261 9,0400 8,8583	,4661	+6,7476 +6,4294 7,5211
$\begin{array}{r} 456 \\ 457 \\ 459 \\ 459 \\ 460 \end{array}$	Can Lyn	iocer. is. Maj.	8.9 7.8 8.9 8 9	4	10   12   12	10,12 29,70 7,21 17,35 45,41	2,748	7,8399 ,5018 ,5644 ,8504 ,6078	9,1051	,5263 ,4390 ,7197	$\begin{array}{r}7,7925 \\6,8319 \\ +6,9326 \\7,7811 \\ +6,1396 \end{array}$
$\begin{array}{r} 461 \\ 462 \\ 463 \\ 464 \\ 465 \end{array}$	Ger Col	ninor. umbæ ninor.	7.8 9 8 9 9.10	3 3 4		17,45 5,14 5,23,59 5,33,44 7,59,24	3,176 3,404 2,177	7,6248 ,6505 ,6969 ,7672 ,7528	,8362 ,9031	,5019 ,5320 ,5379	6,4499 6,5624 7,0861 +7,5124 7,3049
466 467 468 469 470	Car Lyr	nocer. iis. Maj icis ninor.	9 8 . 8 9.10 9	$ \begin{array}{c c} 4\\2\\2\\4\\4\\4\end{array} $		3 14,39 3 20,33 3 25,15 9 56,48 9 55,85	3,080 2,079 5,311	-7,7369 7,7312 7,8267 8,0635 7,8179	8,8225 8,9180 9,1144	,4×85 ,3178 ,7252	
471 472 473 474 475	Ger Moi 20 Ger	is. Maj. ninor. nocer. uinor. nocer.	8 8 9 8 7.8	3 2 4 2 4 2 4	23 23 24		3,448 3,303 3,497	,8290 ,8187 ,8462	,8389 ,8286 ,8432	,5189 ,5437	-7,2680 -7,0605
476 477 478 479 480	Ger	igæ ninor.  iis. Maj	7.8 8 7.8 7.8 9	$\begin{vmatrix} 3\\ 4 \end{vmatrix}$	2 2 2	5 <b>22,</b> 38 5 27,21 6 23,71 8 16,22 9 11,15	3,471 3,462 3,674	,8913 ,906 <b>0</b>	,8394 ,8618	,5404 ,5393 ,5651	
481 482 483 484 485	12 Lyr Car	nis. Maj ncis <i>pr</i> . nis. Maj nocer.	8 8	4 3 3	3333	0 19,49 0 52,13 1 42,76 1 50,84 2 35,02	3 2,238 5 5,323 4 2,637	7,9903	8,8919 9,1155 8,8416	,3499 ,7262 ,4211	+7,7509 8,1999 +7,4814
485 487 488 489 490	Mo Ca Au	ncis nocer. nis. Maj rigæ nis. Maj	8	$\begin{array}{c c}1\\9&3\\4\end{array}$		6 28,56 7 16,58 7 20,22 7 52,28 8 55,4	3,129 7 2,676 3 4,450	,0359 ,0546 ,2042	8,8185 8,8365 8,9790	,4954 ,4275 ,6484	-6,7035 +7,5117 -8,0638
491 492 493 494 495		nis. Maj	9 8. 8. 8. 6.	9 4 9 2 9 <b>1</b>	34	9 2,04 9 5,03 0 5,09 1 22,99 1 43,98	$\begin{array}{c c c} 3 & 2,574 \\ \hline 2,565 \\ 0 & 2,735 \\ \end{array}$	,0843 ,0954 ,0932	8 ,8461 ,8468 8 ,8302	,4106 ,4091 ,4370	5 + 7,6303 + 7,6484 + 7,4835

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-	an an an an an an an an an an an an an a	Logarith	ims of		zzi No.	Annua	I P. M.
		van. 1, 1000.	sion.	<i>a′</i>	b'	c'	d'	Piazzi	A. R.	Decn.
451 452 453 454 455	8 1 4 4	$\begin{array}{r} & & & & & \\12 & 40 \\12 & 41 & 22,93 \\6 & 8 & 11,50 \\ +52 & 34 & 51,48 \\22 & 38 & 55,92 \end{array}$	$-\overset{''}{0,734}\\0,746\\0,752\\0,764\\0,903$	+9,8082 +9,8082 +9,7308 9,7243 +9,8949	+7,9056 +7,9130 +7,6029 8,4808 +8,2395	9,8660 ,8728 ,8762 ,882) ,9559	9,9997 ,9997 ,9997 ,9997 ,9996	46 48 47 39 59	s. +,016 +,010 +,014 +,027	" + ,02 + ,05 - ,07 - ,19
456 457 458 459 460	$\begin{array}{c}3\\4\\2\\4\end{array}$	$\begin{array}{r} + 63 \ 42 \ 44,18 \\ + 12 \ 21 \ 13,74 \\ - 13 \ 29 \ 27,96 \\ + 58 \ 29 \ 47,27 \\ - 1 \ 57 \ 27,66 \end{array}$	0,921 0,923 1,072 1,113 1,218	$\begin{array}{r}9,8414 \\ +9,3222 \\ +9,8162 \\9,7952 \\ +9,6702 \end{array}$	$\begin{array}{c}8,6148 \\7,9979 \\ +8,0965 \\8,6753 \\ +7,3154 \end{array}$	9,9642 9,9697 0,0303 ,0465 ,0856	—9,9995 ,9995 ,9994 ,9993 ,9992	50 58 72 61 76	+,027 +,016 +,005 +,013 +,026	,05 + ,03 + ,03 ,02 ,08
461 462 463 464 465	2 3 1 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	1,264 1,340 1,450 1,462 1,590	+9,5635 9,5453 9,2480 9,9614 8,6990	7,6250 7,7371 - 8,2488 + 8,6081 8,4514	0,10 <b>1</b> 9 ,1271 ,1615 ,1650 ,2014	—9,9991 ,9990 ,9989 ,9988 ,9986	77 85 94 97 99	+,010 ,004 +,012 +,014 +,013	,07 ,30 ,07 +,07
466 467 468 469 470	3 4 2 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	1,613 1,619 1,619 1,776 1,851	+9,3927 +9,6284 +9,9745 -9,8028 +8,7559	$\begin{array}{c}8,1629 \\6,8762 \\ +8,6829 \\8,8819 \\8,5102 \end{array}$	0,2077 ,2093 ,2093 ,2494 ,2675	—9,9986 ,9986 ,9986 ,9983 ,9981	102 105 112 106 120	+,019 +,026 -,001 +,001 +,023	,18 ,12 ,06 ,18 + ,15
471 472 473 474 475	4 2 4 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	1,950 1,950 2,008	+9,9528 ,1584 ,4031 ,0294 ,4814	+8,6892 -,4271 -,2299 -,4881 -,1462	0,2661 ,2900 ,2900 ,3028 ,3412	—9,9981 ,9979 ,9979 ,9978 ,9978 ,9974	127 129 131 134 149	+,015 +,005 +,014 ,000 +,016	- ,08 - ,06 - ,12 + ,04 + ,06
476 477 478 479 480	4 4 4 4 2	+31 36 10,58 +16 53 6,42 +16 34 17,01 +24 35 3,10 -18 31 49,89	2,240 2,321 2,483	$\begin{array}{r}9,1818 \\ +9,1004 \\ +9,1238 \\8,2553 \\ +9,8609 \end{array}$	$\begin{array}{r} -8,7665 \\ -,5113 \\ -,5188 \\ -,7121 \\ +,6082 \end{array}$	0,3491 ,3502 ,3657 ,3950 ,4080	9,9973 ,9973 ,9971 ,9966 ,9964	150 153 157 168 178	+,013 +,005 +,017 +,009 +,009	+,02 +,07 +,03 -,06 +,09
481 482 483 484 484 485	3 4 3 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2,703 2,795 2,795	+9,9499 + ,9557 - ,8021 + ,8573 + ,5551	+8,8437 +8,8551 9,0802 +8,6356 8,0275	0,4243 ,4318 ,4464 ,4464 ,4562	9,9961 ,9960 ,9957 ,9957 ,9955	187 191 184 196 200	+,019 +,035 -,005 +,014 +,016	,13 ,03 ,10 + ,14 ,13
486 487 488 489 490	$\begin{vmatrix} 4 \\ 4 \\ 4 \\ 3 \\ 3 \end{vmatrix}$	$ \begin{vmatrix} +53 & 12 & 16,50 \\ + & 2 & 39 & 49,87 \\ -16 & 34 & 1,68 \\ +46 & 21 & 37,52 \\ -20 & 36 & 25,96 \end{vmatrix} $	3,262 3,268 3,320	$\begin{array}{c c} -9,7243 \\ + ,5877 \\ + ,8432 \\ - ,6180 \\ + ,8768 \end{array}$	$\begin{array}{r}9,1073 \\7,8792 \\ +8,6673 \\ -9,0787 \\ +8,7759 \end{array}$	,5135 ,5143 ,5211	9,9944 ,9942 ,9941 ,9940 ,9937	215 221 225 220 233	+,018 +,015 +,011 +,017 +,023	$ \begin{array}{c} - ,03 \\ - ,17 \\ - ,05 \\ - ,03 \\ + ,01 \end{array} $
491 492 493 494 495	5	$ \begin{vmatrix} -20 & 26 & 19,65 \\ -20 & 35 & 6,50 \\ -20 & 55 & 43,69 \\ -14 & 12 & 38,49 \\ +39 & 3 & 20,68 \end{vmatrix} $	3,417 3,498 3,612	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	+8,7777 +8,7948 +8,6460	,5337 ,5438 ,5578	—9,9936 ,9936 ,9933 ,9928 ,9927	235 236 242 249 249 244	+,014 +,029 +,027 +,016 +,013	

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xxiv

Mean Right Ascension and Declination of 2050 Stars

No.	St	ar's name and	Mag.	No. Obs.		ision	Annual Preces- sion.		Logari	thms of	
					Jan. 1,	1000.	SIUII.	a	Ь	c	d
496 497 498 499 500	h2	Canis. Maj.	8 7.8 8.9 8.9 8	3 4 4 4	44	s. 24,66 58,25 14,69 36,04	s. 2,237 2,621 2,264 5,150 5,142		+8,8894 8,8397 8,8850 9,0889 9,0892	,4185 ,3549 ,7 <b>1</b> 18	+7,6387 +7,8960 -8,3143
501 502 503 504 505		Geminor. Canis. Maj. Lyncis Canis. Maj.	8 8.9 9 8.9 8	3 3 4 4	51	8,00 17,13 31,83 38,56	3,490 2,181 2,637 4,488 2,355	—8,1388 ,1986 ,1503 ,3451 ,2396	+ 8,8369 ,8973 ,8373 ,9829 ,8694	,3387 ,4211 ,6520	+7,9473
506 507 508 509 510		Geminor. Lyncis Canis. Maj. Lyncis Geminor.	8 8.9 8 8 8.9	4 4	54 58 58	22,17 28,48 • 4,90 28,38 37,87	3,562 4,600 2,731 4,618 3,436		+8,8408 9,0008 8,8240 9,0028 8,8264	,6644	-8,2702 +7,5413
511 512 513 514 515	and a second second second second second second second second second second second second second second second	Navis Can. Min.	8 9 3.9 9 8	4 4 3 3		57,33 48,17 43,03 48,97 1,78	1,846 3,229 3,211 3,205 3,203		+ 8,9480 ,8117 ,8105 ,8103 ,8101	,5091 ,5066	-7,3393 -7,2956 -7,2785
516 517 518 519 520		Can. Maj. Geminor. Can. Min. Camelop.	8 9 8 9	3 3 4 4 4	3 3 4	59,47 16,97 27,95 46,03 34,06	2,470 3,445 3,305 3,316 5,288		+8,8498 8,8249 8,8142 8,8142 9,1065	+0,3927 ,5372 ,5192 ,5207 ,7233	+ 7,9262 7,7286 7,5286 7,5581 8,5152
521 522 523 524 525		Can. Min. Lyncis. Can. Min. Camelop.	9 8 8.9 var.	4 4 4 3 4	6 6 7	40,14 15,04 31,43 8,26 25,34	3,255 4,190 3,288 5,396 5,338		+8,8103 8,9290 8,8116 9,1222 9,1139	+0,5126 ,6222 ,5169 ,7321 ,7274	
526 527 528 529 530	19	Can. Min. Lyncis Can. Maj.	9 8 8 8.9 8	4 3 4 3 2	8 9 9	36,20 1,21 26,50 28,91 24,44	3,284 3,287 4,927 4,932 2,485		+ 8,8108 8,8107 9,0511 9,0518 8,8433	+0,5164 ,5160 ,6837 ,6930 ,3953	-7,5176 -7,5254 -8,4648 -8,4649 +7,9790
531 532 533 534 534 535	М.	Navis Geminor. Navis Lyncis	7 8.9 7.8 8 .8	3 9 3 3 3 3	14 15 15	59,96 33,61 33,86 55,80 40,82	1,855 3,611 3,864 2,288 4,406	8,4613 ,3666 ,4081 ,4072 ,5279	+8,9423 ,8371 ,8723 ,8698 ,9614	-1-0,2683 ,5576 ,5870 ,3595	+8,3007 7,9626 8,1349 +8,1279 8,3911
536 537 538 539 540	1.a	Geminor. Monocer. Geminor. Can. Min.	8.9 6.7 4.5 8 8	4 4 3 2 4	21 9 24 25	14,43 27,67 7,38 8,98 20,17	3,733 2,909 3,854 3,756 3,190	8,4194 ,3700 ,4529 ,4431 ,3926	+8,8497 ,7992 ,8665 ,8511 ,7943	+0,5721 ,4637 ,5859 ,5747	

together with their ann	ial precessions and	proper motions, &c.
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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	ms of		zi No.	Annua	I P. M.
	UDS.	Jan. 1, 1050.	sion.	a'	b'	c'	d'	Piazzi	A. R.	Decn.
496 497 498 499 500	4 4 2 3 2	$\begin{array}{c} -32 & 21 & 26,53 \\ -18 & 49 & 28,07 \\ -31 & 30 & 50,91 \\ +57 & 47 & 19,94 \\ +57 & 49 & 52,96 \end{array}$	" —3,784 3,836 3,859 3,905 3,922	+9,9508 +9,8621 +9,9460 9,7774 9,7774	+9,0046 +8,7909 +9,0028 9,2171 9,2191	0,5780 ,5839 ,5864 ,5916 ,5935	9,9921 ,9919 ,9918 ,9916 ,9915	258 260 262 255 256	s. +,010 ,054 +,007 +,008	$ \begin{array}{c}                                     $
501 502 503 504 505	4 4 3 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,939 3,933 4,036 4,498 4,577	+9,0492 +9,9586 +9,8567 -9,6284 +9,9269	-8,7806 +9,0414 +8,7997 -9,2185 + ,0407	0,5954 ,5947 ,6059 ,6530 ,6606	9,9914 ,9915 ,9910 ,9888 ,9884	265 268 272 298 307	+,017 +,020 +,012 +,016	,04 + ,09 + ,18 + ,02 + ,19
506 507 508 509 510	4 4 4 1	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,730 4,747 5,041 5,081 5,075	+8,7853 -9,6628 +9,8228 -9,6674 +9,1818	8,9236 9,2569 + 8,8030 9,2891 8,8407	0,6749 ,6764 ,7025 ,7059 ,7054	9,9876 ,9875 ,9858 ,9856 ,9856	311 309 328 326 329	+,005 ,009 +,010 ,063 +,009	[-,11] [-,08] [-,16]
511 512 513 514 515	1 4 4 2 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,109 5,272 5,351 5,365 5,379	+9,9908 9,4941 9,5119 9,5185 9,5198	+9,2433 	0,7083 ,7220 ,7284 ,7289 ,7307	9,9854 ,9844 ,9839 ,9839 ,9838	337 342 345 347 1	-,007 +,015 +,017 +,060 +,012	+,11 -,22 ,00
516 517 518 519 520	3 4 4 3 4	$\begin{array}{r} -24 56 55,88 \\ +16 21 11,90 \\ +10 27 51,64 \\ +10 57 49,14 \\ +59 58 51,70 \end{array}$	5,452 5,485 5,497 5,609 5,687	+9,9025 +9,1614 +9,4014 +9,3838 9,7875	+9,0597 	0,7365 ,7392 ,7401 ,7489 ,7549	—9,9833 ,9831 ,9830 ,9823 ,9818	14 9 12 23 20	$\begin{vmatrix} -,003 \\ +,013 \\ +,014 \\ +,015 \\ +,021 \end{vmatrix}$	+,03 -,21
521 522 523 524 525	3 4 4 3 4	+ 8 18 32,03 +41 13 44,67 + 9 46 34,39 +61 13 24,36 +60 37 14,61	5,681 5,737 5,754 5,816 5,838	$\begin{array}{r} +9,4639 \\9,4843 \\ +9,4249 \\9,7993 \\9,7931 \end{array}$		0,7545 ,7587 ,7600 ,7646 ,7662	,9814	26 28 34 30 33	+,008 +,019 +,004	-,05 +,21
526 527 528 529 530	5 4 1 4 3	$\begin{array}{r} + 9 \ 37 \ 6,21 \\ + 9 \ 44 \ 50,07 \\ +55 \ 34 \ 58,80 \\ +55 \ 38 \ 23,08 \\ -24 \ 39 \ 36,82 \end{array}$	5,843 5,877 6,010 6,010 6,238	$\begin{array}{r} +9,4281 \\ +9,4249 \\ -9,7340 \\ -9,7340 \\ +9,8982 \end{array}$		,7789 ,7789	9,9807 ,9805 ,9795 ,9795 ,9779	40 43 47 49 73	+,012 -,013 +,034 +,024 -,004	-,04   -,11   -,13
531 532 533 534 535	4 3 4 4	$ \begin{vmatrix} -43 & 41 & 23,49 \\ +23 & 14 & 26,54 \\ +32 & 12 & 45,62 \\ -31 & 44 \\ +46 & 52 & 26,43 \end{vmatrix} $	6,288 6,426 6,509 6,531 6,932	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c} +9,3359 \\ -9,1020 \\ -9,2384 \\ +9,2338 \\ -9,4021 \end{array}$	,8079 ,8135 ,8150	,9758 ,9756	89    93	+,016 -,005 +,005	5 - 10 + 08 - 00 - 01
536 537 538 539 540	5 4 4 3	$\begin{array}{r} +27 57 31,16 \\7 13 28,04 \\ +32 14 26,26 \\ +28 58 \\ +5 38 56,01 \end{array}$	6,992 7,215 7,297	-9,1173 - 8,8513	+8,6427 -9,2833 -9,2463	,8446 ,8583 ,8631	,9718 ,9699 ,9691	120 127 136	+,012 ,00  +,012	$2 + ,19 \\ - ,08 \\ 8 \\ - ,08 \\ 8 \\ - ,08 \\ 8 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 \\ - ,08 $

XXV

Mean Right Ascension and Declination of 2050 Stars

No.	Star's name and M	[ag.	No. Obs.	As	Right cension	Annual Preces-		Logari	thms of	
			0.05.	Jan.	1, 1836.	sion.	CS	Ь	c	d
541 542 543 544 545	Canis Min. Navis Canis Min. Navis	7.8 7 7 7.8 8.9	3 5 4	7	m.         s.           26         22,02           27         18,52           27         50,87           28         37,53           28         57,59	s. +3,146 2,403 3,203 3,193 2,538		,7926	,3807	-7,1933 +8,1249 -7,4349 -7,4058 +8,0348
546 547 548 549 550	Camelop. pre. seq. K ² Navis Canis Min. Geminor.	8.9 9 7.8 8 9	4 4 5 3		30 14,04 30 14,44 32 32 10,68 34 4,05	5,778 5,778 2,457 3,163 3,629		+ 9,1718 9,1718 8,8357 8,7889 8,8274	+0,7618 ,7618 ,3904 ,5001 ,5598	
551 552 553 554 555	Monocer, Navis 2 ¹ 2 ²	8 8.9 7.8 8.9 7.8	3 4		34 40,38 37 38,24 37 49,16 37 56,30 37 56,57	3,080 2,955 2,190 2,758 2,758 2,758		,7850 ,8741	+0,4885 ,4706 ,3404 ,4406 ,4406	6,4236 + 7,4082 + 8,3000 + 7,8483 + 7,8485
556 557 558 559 560	Camelop. Navis Lyncis Monocer.	5.6 8.9 8 7.8 8	23	1	38 38,74 38 38,78 40 20,04 40 29,26 42 17,94	9,876 2,142 2,139 3,872 2,881	9,2032 8,5445 ,5525 ,5324 ,4649	+9,5378 8,8818 8,8815 8,8601 8,7841	+0,9946 ,3308 ,3302 ,5879 ,4595	9,1964 +8,3273 +8,3372 8,2758 +7,6487
$561 \\ 562 \\ 563 \\ 564 \\ 565$	Monocer. Navis Geminor. Monocer. Camelop.	7.8 8 8.9 7.8 8.9	2 4 3		42 18,81 44 26,01 44 27,24 44 42,01 45 7,66	3,001 2,680 3,838 2,963 5,655	8,4607 ,4897 ,5435 ,4708 ,8482	+ 8,7796 8,7986 8,8518 8,7784 9,1530	+0,4773 ,4281 ,5841 ,4717 ,7524	+7,2075 +7,9781 8,2761 +7,4125 8,8060
566 567 568 569 570	Monocer. Canis Min. Navis Lyncis Monocer.	8.9 7.8 9 8.9	2 2		46 18,45 48 21,88 49 28,20 49 55,91 50 18,40	3,019 3,257 2,575 4,733 3,002		+8,7756 8,7787 8,8068 9,0083 8,7721	,5128 ,4108	+7,0945 -7,6861 +8,1061 -8,6371 +7,2375
571 572 573 574 575	Cancri Navis Cancri Monocer,	7.8 8 7.8 8	4 3 4 3 2		51 14,26 52 31,81 53 1,53 53 27,10 56 45,97	3,504 3,500 2,571 3,391 3,006	8,5213 ,5259 ,5355 ,5173 ,5133	+8,7981 ,7965 ,8043 ,7840 ,7653	+0,5446 ,5441 ,4101 ,5303 ,4780	
576 577 578 579 580	Lyncis Cancri Monocer. Cancri Monocer.	8 9 8.9 8 8	4 4 4 4	8	$\begin{array}{cccc} 59 & 30,11 \\ 0 & 5,72 \\ 0 & 22,77 \\ 1 & 22,93 \\ 2 & 4,38 \end{array}$	3,907 3,292 3,086 3,263 2,942	8,6137 ,5317 ,5249 ,5343 ,5328	+ 8,8534 ,7691 ,7608 ,7658 ,7615	+0,5918 ,5175 ,4894 ,5136 ,4686	$\begin{array}{r}8,3822 \\7,8110 \\6,7368 \\7,7579 \\ +7,5720 \end{array}$
581 582 583 584 585	Cancri Navis Cancri Lyncis Cancri	8 9 8 7 8	2 4 3 4 2		2 48,25 3 43,07 4 34,20 5 35,96 6 16,56	3,444 2,685 3,297 4,674 3,439	8,5547 ,5584 ,5466 ,7790 ,5656	+ 8,7802 ,7803 ,7646 ,9923 ,7760	+0,5371 ,4289 ,5181 ,6697 ,5364	

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	ams of		zzi No.	Annual	P. M.
			sion.	a'	b'	c*	d'	Piazzi	A. R.	Decn.
541 542 543 544 545	4 4 4 4 2	$\begin{array}{r} & & & & & & \\ & + & 3 & 37 & 38,16 \\ - & 28 & 12 & 57,90 \\ & + & 6 & 13 & 11,63 \\ & + & 5 & 45 & 55,05 \\ - & 23 & 11 & 22,97 \end{array}$	" 7,390 7,470 7,514 7,579 7,660	+9,5729 +9,9143 +9,5198 +9,5302 +9,8831		0,8686 ,8733 ,8759 ,8796 ,8808	9,9683 ,9675 ,9671 ,9665 ,9663	143 148 150 158 165	s. +,018 +,013 +,001 +,013 +,003	" + 0,02 + ,05 + ,14 + ,02 + ,05
546 547 548 549 550	1 7 3 2 4	$\begin{array}{r} + 65 & 32 & 13,62 \\ + 65 & 32 & 21,66 \\ - 26 & 26 & 4,51 \\ + & 4 & 27 & 4,75 \\ + 24 & 37 & 35,06 \end{array}$	7,724 7,724 7,853 7,863 8,024	9,81959,8195+9,9025+9,5575+8,1139	9,5450 9,5450 +9,2416 8,4818 9,2221	0,8878 ,8878 ,8950 ,8956 ,9044	9,9651 ,9651 ,9638 ,9637 ,9621	159 160 177 174 182	,018 ,013 +,007 +,001	+ ,15 + ,08 + ,12 + ,10 - ,07
551 552 553 554 555	4 4 3 4 4	$\begin{array}{r} + & 0 & 34 & 16,72 \\ - & 5 & 17 & 14,34 \\ - & 35 & 49 & 47,52 \\ - & 14 & 17 & 33,84 \\ - & 14 & 17 & 50,11 \end{array}$	8,062 8,296 8,307 8,317 8,322	+9,6284 ,7126 ,9469 ,8102 ,8102	7,6000 +8,5824 +9,3849 +9,0107 +9,0110	0,9064 ,9188 ,9194 ,9200 ,9202	—9,9617 ,9592 ,9591 ,9590 ,9589	189 202 206 204 205	+,010 +,011 +,017 +,019 +,007	,03 ,11 ,04 ,12 ,15
556 557 558 559 560	4 2 4 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	8,418 8,375 8,508 8,529 8,665	9,9124 + ,9523 + ,9523 ,1492 + ,7536	$\begin{array}{r} -9,6164 \\ +9,4038 \\ +9,4126 \\ -9,3723 \\ +8,8197 \end{array}$	0,9252 ,9230 ,9298 ,9309 ,9378	9,9579 ,9583 ,9569 ,9566 ,9551	187 209 218 215 228	,017 +,046 +,013 +,008 +,018	-,16 +,01 +,01 ,00
561 562 563 564 565	4 4 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	8,671 8,833 8,844 8,854 8,901	+9,6839 + ,8395 - ,0792 + ,7076 - ,8000	+8,3829 +9,1330 -9,3773 +8,5869 -9,6053	0,9381 ,9461 ,9466 ,9472 ,9495	9,9550 ,9531 ,9530 ,9528 ,9523	227 241 238 242 236	+,009 +,017 ,013 +,005 +,022	+,15 -,10 -,17
566 567 568 569 570	5 4 3 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	8,980 9,146 9,229 9,276 9,291	+9,6730 + ,4609 + ,8704 - ,6730 + ,6830	+8,2702 8,8568 +9,2475 9,5764 +8,4129	0,9533 ,9612 ,9652 ,9673 ,9681	9,9513 ,9493 ,9483 ,9477 ,9475	$247 \\ 258 \\ 264 \\ 260 \\ 268$	+,005 +,006 +,029 +,007 +,014	,00 - ,05 + ,05 - ,11 + ,08
571 572 573 574 575	4 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	9,368 9,471 9,502 9,538 9,925	+9,0043 ,0128 ,8710 ,2648 ,6803	-9,2123	0,9717 ,9764 ,9778 ,9795 ,9907	9,9465 ,9451 ,9447 ,9442 ,9408	272 280 287 286 300	+,003 +,013 +,025 +,009 +,014	-,08 -,15 +,04 -,05 +,18
576 577 578 579 580	4 4 1 4 1	$\begin{array}{r} +35 56 21,18 \\ +10 58 58,13 \\ + 0 55 57,61 \\ + 9 38 39,70 \\ - 6 15 57,88 \end{array}$	10,067 10,142	$\begin{array}{r}9,1987 \\ + ,4166 \\ + ,6232 \\ + ,4533 \\ + ,7202 \end{array}$	<u>     8,9791</u>   <u>     7,9128</u>	1,0001 ,0018 ,0029 ,0061 ,0083	9,9378 ,9372 ,9369 ,9358 ,9350	308 313 315 322 2	+,022 +,019 +,004 +,004 +,026	$ \begin{array}{c} - ,27 \\ - ,01 \\ + ,04 \\ - ,06 \\ - ,04 \end{array} $
581 582 583 584 584 585	1 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	10,313 10,382 10,462	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		1,0106 ,0134 ,0163 ,0196 ,0217	9,9342 ,9333 ,9321 ,9309 ,9301	6 12 13 15 20	+,016 +,019 +,010 +,014 +,012	-,37 +,03  -,01  -,15  -,05

## xxviii

Mean Right Ascension and Declination of 2050 Stars

No.	Star's name and	Mag.	No. Obs.		Annual Preces- sion.		Logari	thms of	
Í				Jan. 1, 1000.	sion.	a	в	c	d
586 587 588 589 590	Cancri Lyncis	7 8 8 8 8	3 3 3 1	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	s. +1,884 3,266 3,660 4,610 3,260		,8051 ,9799	,5140 ,5635 ,6637	7,7886 8,2642 8,6816
591 592 593 594 595	Navis Cancri	8 8 8.9 9	3 4 3 4 5	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,259 2,750 3,288 3,443 3,670		,7538 ,7681	,4393	+8,0056 7,8600 8,0948
596 597 598 599 600	Navis Monocer.	7.8 7.8 6 8 8		$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,584 3,226 2,589 3,031 2,697		,7773	+0,5544 ,5087 ,4131 ,4816 ,4309	-7,7343 + 8,2166
601 602 603 604 605	Hydræ Cancri	8.9 8.9 7.8 8 7.8	4	24 24,09 25 16,31 26 52,13 29 40,79 29 41,71	3,019 3,023 3,129 3,459 3,764	8,5951 ,5973 ,6017 ,6357 ,6860	+ 8,7315 ,7302 ,7283 ,7513 ,8013	,4804 ,4954	+7,2253 -7,3597
606 607 608 609 610	Cancri Pixid. Naut. 4 Leo. Min. Cancri	8 7,8 7 8 8	1 2 2 3 2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,457 2,555 3,742 3,466 3,445		+8,7509 ,7689 ,7969 ,7515 ,7490	+0,5387 ,4074 ,5731 ,5398 ,5372	$\begin{array}{r}8,1728 \\ + ,2945 \4134 \1853 \1742 \end{array}$
611 612 613 614 615	Cancri Monocer. Cancri 10 Hydræ Lyncis	8 9 8 7 9.10	4 2 3 3 5	31 47,06 35 33,42 36 8,89 36 19,90 36 33,36	3,473 2,948 3,433 3,182 4,468		+8,7504 ,7177 ,7392 ,7162 ,9389	,4695 ·	
616 617 618 619 620	Hydræ pre. 	8 7.8 8.9 9 8	4 3 2 3 3	37 3,46 37 3,80 37 29,13 38 53,33 39 43,76	3,032 3,032 3,272 2,142 3,308		+ 8,7127 ,7127 ,7202 ,8389 ,7199	,4817  - ,5148  - ,3308  -	+ 7,1724 + 7,1724 -7,9227 + 8,5847 -8,0015
621 622 623 624 625	Lyncis Cancri Navis Pixid. Naut.	8 9 7 7 6.7	4 3 3 4 4	40 39,64 41 39,57 42 14,54 43 10,21 43 11,98	4,207 3,410 2,159 2,511 2,432		+ 8,8826 ,7285 ,8324 ,7604 ,7752	+0,6240 - ,5327 - ,3342 - ,3998 - ,3860 -	
626 627 628 629 6 <b>3</b> 0	3 H Navis Cancri Hydræ pre.	7.8 8 7.8 9 8	4 3 8 4 4	43 32,97 44 31,91 44 35,04 44 37,73 45 9,93	2,229 3,445 3,397 -9,337 3,227	-8,7542 ,6710 ,6647 ,6578 ,6491	+8,8163 ,7291 ,7225 ,7153 ,7049	,5372 - ,5311 -	+ 8,5598 8,2167 8,1582 8,0713 7,8443

together	with	their	annual	precessions	and	proper	motions,	&c.	

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-	alah yang persentakan pertakan	Logarith	ms of		zi No.	Annual	Р. М.
		Jan. 1, 1000.	sion.	a'	<i>b'</i>	c'	d'	Piazzi	A. R.	Decn.
586 587 588 589 590	3 4 4 3 4	$\begin{array}{c} \circ & \cdot & \cdot & \cdot \\ -46 & 9 & 18,92 \\ + & 9 & 54 & 10,25 \\ +27 & 32 & 56,11 \\ +53 & 42 & 4,49 \\ + & 9 & 40 & 0,61 \end{array}$	" 	+9,9605 +9,4487 7,9031 9,6294 +9,4564	+9,5791 8,9581 9,3881 9,6302 8,9523	1,0229 ,0247 ,0249 ,0260 ,0292	9,9297 ,9290 ,9289 ,9285 ,9272	29 26 24 23 34	s. +,016 +,007 +,010 +,004 +,010	" +0,03 -,20 -,01 -,03 -,10
591 592 593 594 595	4 1 2 3 4	$\begin{array}{r} + 9 & 39 & 14,55 \\15 & 46 & 56,30 \\ +11 & 10 & 47,32 \\ +18 & 39 & 24,39 \\ +28 & 35 & 32,12 \end{array}$	10,742 10,774 11,033 11,082 11,276	+9,4579 +9,8109 +9,4216 +9,1614 8,1761		1,0314 ,0324 ,0427 ,0446 ,0521	9,9263 ,9259 ,9216 ,9208 ,9174	36 39 48 51 61	+,007 +,024 +,016 +,023 +,003	,14 ,08 +-,04 +-,02 +-,01
596 597 598 599 600	34 33 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$11,290 \\ 11,362 \\ 11,368 \\ 11,530 \\ 11,796$	+8,6335 9,4955 9,8615 9,6646 9,8280	9,3778 8,9059 +9,3550 +8,2990 +9,2816	1,0527 ,0555 ,0556 ,0618 ,0717	9,9171 ,9158 ,9157 ,9127 ,9077	66 70 74 81 94	,003 +,010 +,005 ,001 +,001	,25 ,06 ,02 ,02 + ,07
601 602 603 604 605	4 4 4 2 4	$\begin{array}{r}2 & 37 & 38,78 \\2 & 25 & 18,28 \\ + & 3 & 18 & 9,78 \\ +20 & 14 & 47,66 \\ +33 & 17 & 59,65 \end{array}$	11,823 11,884 11,997 12,192 12,197	+9,6721 +9,6702 +9,5877 +9,1238 8,8573	+8,4330 +8,4010 8,5351 9,3230 9,5237	1,0727 ,0750 ,0791 ,0861 ,0862	9,9071 ,9059 ,9037 ,8997 ,8996	97 100 107 118 117	+,018 +,011 +,004 +,021 +,009	
606 607 608 609 610	3 4 4	$ \begin{vmatrix} +20 & 9 \\ -25 & 50 & 52,38 \\ +32 & 30 & 59,00 \\ +20 & 39 & 32,10 \\ +20 & 6 & 19,29 \end{vmatrix} $	12,197 12,216 12,225 12,234 12,280	+9,1271 +9,8669 8,7781 +9,1038 +9,1367	$\begin{array}{r}9,3214 \\ + ,4247 \\ - ,5155 \\ - ,3326 \\ - ,3230 \end{array}$	1,0862 ,0869 ,0872 ,0876 ,0892	9,8996 ,8992 ,8990 ,8988 ,8978	119 125 120 121 128	+,015 +,006 +,005 +,015 +,019	- ,03 + ,05 ,00 - ,14
611 612 613 614 615	1 4 3	$ \begin{array}{c ccccc} +21 & 3 & 15,01 \\ \hline - & 6 & 38 & 0,48 \\ + & 19 & 24 & 24,55 \\ + & 6 & 16 & 14,69 \\ + & 53 & 31 & 28,64 \end{array} $	12,340 12,597 12,613 12,650 12,641	+9,0864 9,7168 9,1790 9,5366 9,5623	+9,8609 -9,3212 -8,8382	,1002 ,1018 ,1021	,8899 ,8897	135 151 156 157 153	+,004 ,009	+,08 -,05 -,05 +,04 -,06
616 617 618 619 620	4 4 3 3	$ \begin{vmatrix} - & 2 & 0 & 34,83 \\ - & 2 & 0 & 34,21 \\ +11 & 11 & 15,93 \\ -42 & 1 & 44,45 \\ +13 & 11 & 46,41 \end{vmatrix} $	12,700 12,727	+9,6637 ,6637 ,4407 ,9227 ,3944	+8,3482 9,0904 +9,6316	,1038 ,1047 ,1078	,8885 ,8879 ,8858	159 160 161 169 171	+,004 +,001 +,024	$[-,03]{-,41}$
621 622 623 624 624	$     \begin{array}{c c}       2 & 2 \\       3 & 2 \\       4 & 2     \end{array} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	13,008 13,039 13,106	$\begin{array}{c c}9,4472 \\ +9,2253 \\ 9,9191 \\ 9,8722 \\ 9,8865 \end{array}$	-,3164 +,6377  +,4992	<b>,11</b> 42 , <b>1</b> 152 2, <b>1</b> 174	,8813 ,8805 ,8789	174 181 187 188 190	+,021 +,023 +,023 +,023 +,003	+,06 +,05 +,12 -,02
620 622 622 622 622	$   \begin{array}{c cccccccccccccccccccccccccccccccccc$	$\begin{array}{r} +20 & 34 & 56, 12 \\ +18 & 9 & 38, 43 \\ +15 & 1 & 22, 53 \end{array}$	2 13,198 3 13,203 3 13,207	,1523 ,2504 ,3502	$\left \begin{array}{c},3649\3121\\ 2 \2323\end{array}\right $	<b>120</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>	8766 8765 8,8763 8,8763	<b>1</b> 98 <b>1</b> 96 197	$5  ,004 \009 \\ +,009 \\ 7   +,023 $	-,01  -,01  -,13

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No.	Star's name and	Mag.	No. Obs.	A	Right scensio		Annual Preces-		Logarit	hms of	
		, j	Ubs.	Jan	. 1, 18	36.	sion.	a	Ь	c	d
$631 \\ 632 \\ 633 \\ 634 \\ 635$	2,17 Hydræ seq. Cancri Hydræ	9 9 7 9 9	4 4 4 4	h. 8	45 10	,55 ,09	s. +3,227 2,940 3,393 3,036 3,036		+8,7049 ,6991 ,7175 ,6885 ,6881	+0,5088 ,4683 ,5306 ,4823 ,4823	-7,8443 +7,7593 -8,1632 +7,1820 +7,1847
636 637 638 639 640	Hydræ Cancri	8.9 8 8.9 9 8	3 4 3 4 2		53 9 53 18 53 56 54 14 54 22	5,18 1,70	3,175 3,054 2,937 3,324 3,594		+ 8,6882 ,6854 ,6882 ,6983 ,7397	+0,5017 ,4849 ,4679 ,5217 ,5556	+6,8321 +7,7958 -8,0851
$\begin{array}{c} 641 \\ 642 \\ 643 \\ 644 \\ 645 \end{array}$	Lyncis Monocer. 74 Cancri Hydræ Navis	9.10 8 9 8.9 8.9	3 3 4	9	55 28 55 52 59 3 59 43 0 37	2,49 3,95 3,61	3,849 2,833 3,328 3,038 2,196	8,7750 ,6785 ,6878 ,6735 ,8097	+ 8,7915 ,6934 ,6906 ,6737 ,8067	+0,5853 ,4522 ,5222 ,4826 ,3416	-8,5747 +8,0555 -8,1105 +7,1746 +8,6423
646 647 648 649 650	Pix. Naut. Hydræ Monocer. Hydræ	7 8 8 7 9	4 4 4 4 1	ar Levis a second a second a second a second a second a second a second a second a second a second a second a s	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,18 9,31 8,42	2,627 2,630 2,967 2,748 3,140		+ 8,7136 ,7114 ,6672 ,6889 ,6650	,4200 ,4723 ,4390	+7,7225 +8,2211
	Cancri Hydræ Navis	9 7.8 8 8 7.8	4 4		$\begin{array}{cccc} 4 & 54 \\ 5 & 14 \\ 6 & 17 \\ 6 & 31 \\ 6 & 59 \end{array}$	1,22 7,41 1,62	3,511 2,825 2,839 3,006 2,355		,6775 ,6739 ,6612	,4510	+8,1038
656 657 658 659 660	Cancri Hydræ Navis Hydræ Leonis	8 7 7.8 7 8.9	4		$\begin{array}{ccc} 7 & 14 \\ 7 & 30 \\ 9 & 19 \\ 9 & 21 \\ 10 & 25 \end{array}$	),90 9,87 1,25	3,391 2,939 2,388 2,844 3,543		+ 8,6844 ,6625 ,7521 ,6675 ,7057	+0,5303 ,4682 ,3780 ,4539 ,5494	
661 662 663 664 665	Hydræ  Leonis	7.8 6.7 7 7 7.8	3 4 4	and a subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the subscription of the	11 13 11 48 12 11 12 20 12 21	8,85 1,72 1,95	3,160 2,826 3,081 2,928 3,287		+8,6530 ,6648 ,6486 ,6536 ,6610	+0,4997 ,4512 ,4887 ,4666 ,5168	-6,8754
666 667 668 669 670	Hydræ  Ursœ Maj. Hydræ	8.9 9 9.10 8.9 9	$\begin{vmatrix} 2\\ 3 \end{vmatrix}$		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,13 3,32 1,76	2,831 3,133 2,996 4,056 3,144		+ 8,6615 ,6443 ,6424 ,8186 ,6403	+0,4519 ,4960 ,4765 ,6081 ,4975	+8,1228 -7,5658 $\pm7,6134$ -8,7546 -7,6424
$\begin{array}{c} 671 \\ 672 \\ 673 \\ 674 \\ 675 \end{array}$	Leonis h Ursæ Maj. Hydræ	9 8 7 8.9 8.9			$   \begin{array}{r}     17 & 18 \\     17 & 31 \\     18 & 31 \\     20 & 49 \\     22 & 44   \end{array} $	,55 ,84 ,61	2,981 3,340 4,821 3,038 2,995		+8,6396 ,6573 ,9890 ,6298 ,6269	+0,4744 ,5237 ,6831 ,4826 ,4764	9,0133

Declination Jan. 1, 1836.

11

No. Obs.

No.

			andija paninakan nanakan dan ma				ang ang ang ang ang ang ang ang ang ang
Annual Preces-		Logarit	hms of		zzi No	Annua	I P. M.
sion.	a'	b'	c'	<i>d′</i>	Piazzi	A. Ŗ.	Decn.
$\begin{array}{c} '' \\ -15,237 \\ 13,390 \\ 13,394 \\ 13,661 \\ 13,746 \end{array}$	+9,4928 ,7202 ,2553 ,6609 ,6609	9,0150 +8,9318 9,3173 +8,3578 +8,3605	-1,1218 ,1268 ,1269 ,1355 ,1382	9,8756 ,8716 ;8715 ,8644 ,8620	201 215 213 228 235	s. +,007 +,019 +,008 -,005	$ \begin{array}{c}     '' \\      +0,04 \\      -,08 \\      +,02 \\      +,02 \\      +,01 \\   \end{array} $
13,759 13,768 13,803 13,828 13,834	+9,5453 9 6484 9,7226 9,3692 8,5441	-8,8758 + 8,0082 + 8,9679 - 9,2465 - 9,5184	-1,1386 ,1388 ,1400 ,1407 ,1410	9,8616 ,8614 ,8603 ,8597 ,8595	236 237 238 240 239	+,021 +,018 +,012 +,045 +,010	+ ,04 - ,14 - ,06 - ,17 - ,03
13,902 13,928 14,128 14,169 14,223	9,0682 +9,7723 9,3617 9,6090 9,9015	9,6408 +9,2189 9,2709 +8,3504 +9,6836	1,1431 ,1439 ,1501 ,1513 ,1530	9,8575 ,8568 ,8509 ,8496 ,8480	243 246 257 260 266	-,020 +,010 +,039 +,010 ,000	+ ,11 + ,16 - ,13 + ,03 + ,1]
14,275 14,341 14,450 14,458 14,479	+9,8401 ,8388 ,7050 ,8035 ,5786	+9,4815 +9,4830 +8,8960 +9,3726 -8,7518	1,1546 ,1.66 ,1599 ,1601 ,1607	9,8463 ,8442 ,8407 ,8405 ,8398	$268 \\ 5 \\ 10 \\ 13 \\ 15$	+,001 +,018 +,020 +,011 +,019	,12 ,11 ,07 + ,06 ,09
14,487 14,502 14,567 14,583 14,607	+ 8,9638 9,7752 9,7686 9,6803 9,8825	-9,4956 +9,2653 +9,2456 +8,6889 +9,6514	1,1610 ,1614 ,1634 ,1638 ,1646	—9,8395 ,8390 ,8369 ,8363 ,8355	$     \begin{array}{r}       12 \\       16 \\       21 \\       22 \\       26 \\       \end{array}   $	+,015 +,009 +,007 +,014 +,014	-,01-,01+,05-,02+,02
14,627 14,643 14,747 14,750 14,817	+9,2577 9,7210 9,8774 9,7664 8,8388	$\begin{array}{r}9,3863 \\ +9,0108 \\ +9,6457 \\ +9,2479 \\9,5382 \end{array}$	1,1651 ,1656 ,1687 ,1688 ,1707	—9,8349 ,8343 ,8308 ,8306 ,8283	$25 \\ 27 \\ 44 \\ 39 \\ 45$	+,001 -,001 +,015 +,016 -,011	- ,02 + ,07 ,00 + ,04 - ,02
14,860 14,897 14,918	·+9,5599 ,7738 ,6274	-8,8808 +9,2887 -8,0515	1,1720 ,1730 ,1737	9,8268 ,8255 ,8247	49 52 54	+,012 +,017 +,015	-,01 +,17 ,00

631 632 633 634 635	3 4 3 4 4	$\begin{array}{r} \circ & 7 & 7 \\ + & 9 & 2 & 4,75 \\ - & 7 & 20 & 49,85 \\ + & 18 & 6 & 21,48 \\ - & 1 & 54 & 49,83 \\ - & 1 & 55 & 15,68 \end{array}$	13,394	,2553	+8.93:8 -9.3173	,1269 ,1355	;8715	201 215 213 228 235	s. +,007 +,019 +,008 -,005	$ \begin{array}{c}     '' \\      +0,04 \\      -,08 \\      +,02 \\      +,02 \\      +,01 \\   \end{array} $
636 637 638 639 640	4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	13,759 13,768 13,803 13,828 13,834	+9,5453 9 6484 9,7226 9,3692 8,5441		1,1386 ,1388 ,1400 ,1407 ,1410	,8597	236 237 238 240 239	+,021 +,018 +,012 +,045 +,010	+ ,04 - ,14 - ,06 - ,17 - ,03
$\begin{array}{c} 641 \\ 642 \\ 643 \\ 644 \\ 645 \end{array}$	1 3 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	13,902 13,928 14,128 14,169 14,223	9,0682 +9,7723 9,3617 9,6090 9,9015	9,6408 +9,2189 9,2709 +8,3504 +9,6836	-1,1431 ,1439 ,1501 ,1513 ,1530	,8568 ,8509 ,8496	243 246 257 260 266	-,020 +,010 +,039 +,010 ,000	+ ,11 + ,16 - ,13 + ,03 + ,1]
$\begin{array}{c} 646 \\ 647 \\ 648 \\ 649 \\ 650 \end{array}$	3 4 4 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$14,275 \\ 14,341 \\ 14,450 \\ 14,458 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 14,479 \\ 1$	+9,8401 ,8388 ,7050 ,8035 ,5786	$\begin{array}{r} +9,4815 \\ +9,4830 \\ +8,8960 \\ +9,3726 \\ -8,7518 \end{array}$	1,1546 ,1.66 ,1599 ,1601 ,1607		268 5 10 13 15	+,001 +,018 +,020 +,011 +,019	- ,12 - ,11 - ,07 + ,06 - ,09
651 652 653 654 655	3 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,487 14,502 14,567 14,583 14,607	+ 8,9638 9,7752 9,7686 9,6803 9,8825	$\begin{array}{r} -9,4956 \\ +9,2653 \\ +9,2456 \\ +8,6889 \\ +9,6514 \end{array}$	—1,1610 ,1614 ,1634 ,1638 ,1646	—9,8395 ,8390 ,8369 ,8363 ,8355	12 16 21 22 26	+,015 +,009 +,007 +,014 +,014	$\begin{array}{c} - ,01 \\ - ,01 \\ + ,05 \\ - ,02 \\ + ,02 \end{array}$
$\begin{array}{c} 656 \\ 657 \\ 658 \\ 659 \\ 660 \end{array}$	4 4 1 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,627 14,643 14,747 14,750 14,817	+9,2577 9,7210 9,8774 9,7664 8,8388	9,3863 +9,0108 +9,6457 +9,2479 9,5382	—1,1651 ,1656 ,1687 ,1688 ,1707	—9,8349 ,8343 ,8308 ,8306 ,8283	25 27 44 39 45	+,001 -,001 +,015 +,016 -,011	$\begin{array}{c} - ,02 \\ + ,07 \\ ,00 \\ + ,04 \\ - ,02 \end{array}$
661 662 663 664 665	4 4 4 4 4	$\begin{array}{r} + 5 54 19,27 \\ -15 8 41,30 \\ + 0 52 23,41 \\ - 8 55 3,37 \\ + 13 48 24,11 \end{array}$	14,860 14,897 14,918 14,927 14,927		$\begin{array}{r}8,8808 \\ +9,2887 \\8,0515 \\ +9,0623 \\9,2494 \end{array}$	1,1720 ,1730 ,1737 ,1739 ,1739	—9,8268 ,8255 ,8247 ,8244 ,8244	49 52 54 56 55	+,012 +,017 +,015 +,013 +,018	$\begin{array}{c} - ,01 \\ + ,17 \\ ,00 \\ + ,03 \\ - ,06 \end{array}$
666 667 668 669 670	2 4 4 4	-14 55 19,84 + 4 12 - 4 39 46,03 + 48 28 35,68 + 4 59 13,07	14,973 15,006 15,123 15,142 .15,182	+9,7716 + ,5855 + ,6866 - ,3053 + ,57 <b>40</b>	+9,2840 8,7407 +8,7881 9,7523 8,8168	1,1753 ,1780 ,1796 ,1802 ,1814	—9,8227 ,8193 ,8171 ,8164 ,8147	59 64 71 70 76	+,022 +,010 -,006 -,002 +,004	- ,26 - ,04 - ,02 - ,08
671 672 673 674 675	4 4 2 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,213 15,226 15,287 15,413 15,518	+9,6964 + ,3424 ,5888 + ,6599 + ,6875	+8,8773 9,3559 9,8352 +8,4395 +8,8248	—1,1823 ,1826 ,1843 ,1879 ,1908	9,8136 ,8131 ,8108 ,8056 ,8014	80 79 82 95 102	+,009 +,017 +,055 +,021 +,012	,09 + ,08 ,01 ,05 ,16

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No.	Star's name and M	ag.	No. Obs.	Asce	ght nsion	Annual Preces-		Logarit	thms of	
			UDS.	Jan, l	, 1836.	sion.	a	Ь	c	d
676 677 678 679 680	Leonis Hydræ Sextantis Leo. Min.	5 8 9 6.7 8.9	4 4 4 4	24 25	41,26 12,59 57,75 57,93	s. +3,536 3,105 3,198 3,582 3,556	,7230	+8,6815 ,6223 ,6228 ,6862 ,6763	+0,5485 ,4921 ,5049 ,5541 ,5510	
$\begin{array}{c} 681 \\ 682 \\ 683 \\ 684 \\ 685 \end{array}$	Hydræ Leo. Min. Leonis Sextantis	8.9 8 7 8 9	5 4 4 4 4	29 31 33	13,37 50,12 52,04 6,08 56,40	3,102 3,104 3,570 3,544 3,114		+8,6101 ,6086 ,6744 ,6662 ,5961	+0,4916 ,4919 ,5527 ,5495 ,4933	7,3479 7,3750 8,5 <b>2</b> 23 8,5041 7,4979
686 687 688 689 690	Leonis Antl. Pneum. Sextantis	7 8 7.8 7 7.8	3	31 31 31 31 31	7 4,86 7 28,61 7 55,78	3,371 2,753 2,673 3,102 3,101	8,7641 ,7665 ,7838 ,7352 ,7354	+8,6203 ,6227 ,6386 ,5879 ,5874	+0,5278 ,4398 ,4270 ,4916 ,4915	8,3230 +8,3404 +8,4393 7,3778 7,3664
691 692 693 694 695	Sextantis Leonis Sextantis	8 8 7 8.9 7	4 4 4 4 4		) 24,98 ) 50,82 L 4,03 2 57,86 5 18,20	3,227 3,054	,7825	+ 8,5837 ,6234 ,5852 ,5738 ,5729	+0,4742 ,5350 ,5088 ,4849 ,4695	+7,8003 8,4133 8,0609 +7,0248 +7,9514
696 697 698 699 700	Sextantis Leonis Sextantis Leonis	8 8.9 7.8 7.8 8.9	34	40 47 47	5 29,32 5 14,45 7 12,21 7 14,99 8 59,95	3,170 2,935 3,176	,7497 ,7538 ,7516	,5688 ,5663	+0,4972 ,5011 ,4676 ,5019 ,5428	7,7438 7,8879 +8,0055 7,9179 8,5157
701 702 703 704 705	Sextantis pre. 	7.8 8 7.8 7.8 7.8	4 3 4 3 4	4 5 5	9 23,26 9 28,06 0 14,72 2 41,28 4 36,46	3,053 3,138 3,038	,7496 ,7525	+8,5554 ,5552 ,5548 ,5457 ,55 <b>0</b> 0	+0,4847 ,4847 ,4966 ,4826 ,4645	+7,0675 +7,0646 -7,7393 +7,3788 +8,1025
706 707 708 709 710	Leonis Sextantis Ursœ Maj. Sextantis Leonis	8 7.8 8 8 8	4 4 4 3 4	5 5 10 5	5 46,18	3,125 4,104 3,118		+8,5462 ,5393 ,7929 ,5299 ,5238	+0,5049 ,4948 ,6132 ,4939 ,5073	
711 712 713 714 715	Urs. Min. Leo. Min. Camelop. Leonis Ant. Pneum.	8 7.8 8 8 8.9	4 4	1	9 29,30 9 38,15 0 9,99 0 54,00 1 36,23	3,215 10,371 3,306	8,7847 9,8518	+ 8,9491 8,5011 9,5631 8,5148 8,5364		-8,1492 -9,8503
716 717 718 719 720	Antl. Pneum. Hydræ Sextantis	8.9 8 neb 8.9 9	3	1		2,744 2,882 3,049	,7999 ,7812	+8,4970 ,5267 ,4830 ,4509 ,5152	,4384 ,4597 ,4842	+8,5159 +8,2860 +7,3018

No.	No. Obs.	D classica Jan. 1, 1938.	Arrinal Preces-	n stantansasanan asintan	Logarithn	as of		zi No.	Annual	Р. М.
			sion.	a'	b'	c'	d'	Piazzi	A. R.	Decn.
676 677 678 679 680	5 3 4 4 4	$\begin{array}{r} +29 & 5 & 2 & 3 & 0 \\ + & 2 & 35 & 12 & 75 \\ + & 8 & 54 & 46 & 76 \\ + & 31 & 53 & 34 & 92 \\ + & 30 & 53 & 13 & 85 \end{array}$	" 	+8,8751 9,6085 9,5224 8,6128 8,7634	9,5871 8,5422 9,0834 9,6181 9,6088	—1,1924 ,1931 ,1958 ,1973 ,2005	—9,7990 ,7979 ,7937 ,7913 ,7860	109 114 119 124 131	s. ,004 +,014 +,007 +,002 +,027	$\begin{array}{c} & & \\ - & ,01 \\ & ,00 \\ - & ,02 \\ - & ,02 \\ - & ,01 \end{array}$
$\begin{array}{c} 681 \\ 682 \\ 683 \\ 683 \\ 684 \\ 685 \end{array}$	4 3 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,872 15,905 16,017 16,078 16,171	+9,6107 9,6096 8,6902 8,8261 9,6010	8,5236 8,5507 9,6268 9,6140 8,6734		9,7858 ,7843 ,7790 ,7761 ,7715	134 138 145 155 161	+,007 -,007 +,005 -,001 +,004	+ ,04 + ,05 + ,11 + ,05 + ,08
686 687 688 689 690	4 3 3 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	16,280 16,280 16,298 16,324 16,335	+9,2856 ,7924 ,8129 ,6117 ,6117	$\begin{array}{r}9,4686 \\ +9,4836 \\ +9,5657 \\8,5534 \\8,5420 \end{array}$	1,2117 ,2117 ,2121 ,2128 ,2131		165 167 170 171 172	+,018 -,018 +,015 +,004 +,015	+,06 -,01 ,00 -,03 -,01
691 692 693 694 695	444444	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	16,449 16,472 16,485 16,578 16,688	+9,6964 ,1732 ,4885 ,6474 ,7126	+8,9735 9,5456 9,2276 +8,2008 9,1219	1,2161 ,2167 ,2171 ,2195 ,2224	,7550 ,7498	180 183 184 192 203	+,021 +,010 +,010 +,003 +,018	+,02 -,02 -,09 -,05 +,02
696 697 698 699 700	4 4 4	$\begin{array}{r} + 5 \ 43 \\ + \ 7 \ 56 \ 34,24 \\ -10 \ 15 \ 45,08 \\ + \ 8 \ 27 \ 8,53 \\ +30 \ 18 \ 44,70 \end{array}$	16,698 16,736 16,781 16,784 16,870	+9,5763 ,5490 ,7202 ,5428 ,0128		—1,2227 ,2237 ,2248 ,2249 ,2271		204 206 210 208 214	+,008 +,017 +,025 +,013 +,017	[-,14] -,07 ,00
701 702 703 704 705	4 4 4	$ \begin{array}{c}1 & 9 & 50,84 \\1 & 10 & 4,47 \\ + & 5 & 35 & 23,42 \\ & 2 & 24 & 17,09 \\12 & 30 & 31,08 \end{array} $	$16,889 \\ 16,926$	+9,6474 ,6474 ,5798 ,6590 ,7300	+8,2405 +8,2406 8,9134 +8,5545 +9,2682	—1,2275 ,2276 ,2286 ,2315 ,2337	,7312 ,7288 ,7214	219 220 222 228 232	+,010 +,011 +,012	$[,01]{,05}$ $[,01]{,01}$
706 707 708 709 710	4 4 4	$\begin{array}{r} +10 \ 41 \ 20,69 \\ + \ 4 \ 45 \ 32,89 \\ + \ 56 \ 27 \ 9,11 \\ + \ 4 \ 16 \ 20,90 \\ + \ 12 \ 50 \ 30,71 \end{array}$	17,119 17,150 17,183 17,278 17,488	+9,5185 + ,5899 -,2765 + ,5966 + ,4983	9,8539 8,8054		,7139 ,7116 ,7048	234 235 236 243 4	+,012 +,004 -,001	2 - ,14 + ,02 - ,18
711 712 713 714 714	2 4 3 4 3 3	$ \begin{vmatrix} +69 & 44 & 44,48 \\ +13 & 26 & 25,43 \\ +85 & 13 & 44,30 \\ +21 & 13 & 31,79 \\ -28 & 8 & 22,75 \end{vmatrix} $	17,770 17,824 17,821	-,6228 +,3802	- ,3133 - ,9475 - ,9475 - ,5072	,2510	,6651 ,6602 ,6605	34 14 3'	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
716 717 718 718 719 720	7 3 3 4 9 4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	17,977 18,056 18,158	,7730 ,7372 ,6513	+9,6349 +9,4407 +9,4407 +8,4776	,254 ,256 ,259	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5 6 8 8	$\begin{vmatrix} 6 \\ +,01 \\ 8 \\ +,03 \\ 1 \\ +,01 \end{vmatrix}$	$2 + ,16 \\ 8 - ,07 \\ 2 - ,10 \\ 10$

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Mean Right Ascension and Declination of 2050 Stars

No.	Star's name and M		No. Obs.	$\mathbf{A}$	Rigi	sion	Annual Preces-	، (۱۹۹۵) ۱۹۹۵ - ۲۰۰۵ - ۲۰۰۵ - ۲۰۰۵ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ ۱۹۹۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ - ۲۰۰۹ -	Logarit	hnis of	
				Jan	. 1,	1836.	sion.	a	Ъ	c	d
721 722 723 724 725	Ursæ Maj. Hydræ 52 Navis Antl. Pneum.	8 8 6.7 8	4 4 3 4 4	ћ. 10	22 23 24 24	s. 28,51 42,44 38,07 58,27 22,19	s. +3,837 3,715 2,842 2,545 2,726	9,0187 8,9765 ,8206 ,9304 ,8601		+ 0,5840 ,5701 ,4536 ,4057 ,4355	
726 727 728 729 730	Antl. Pneum. Hydræ Leonis Sextantis	8 8.9 8 9 8	4 4 4 4 4 4		29 31 32	11,54 1,27 9,65 53,66 39,35	2,727 2,807 2,916 3,197 3,115		,4598 ,4194 ,4071	,4648 ,5047	+8,5989 +8,4926 +8,2686 -8,2143 -7,7768
731 732 733 734 735	Leo. Min. Antl. Pneum. Hydræ Sextantis Hyd. & Crat.	8 8 8 7	4 4 4 4	and a second second second second second second second second second second second second second second second	37 38 42	45,98 22,57 55,05 0,86 44,02	2,809 2,945 3,004		,3776 ,3507	,4485 ,4691	+8,5362 +8,2213 +7,9544
736 737 738 739 740	Sextantis Leonis Ursæ Maj. Leonis	8 8.9 7 8.9 8	4 4 4 4	and the second second second second second second second second second second second second second second second	43 46 47	25,43 37,76 51,47 24,28 53,12	3,132 3,456 3,130	,8040 ,9365 ,8067	,4542 ,3210	,4958 ,5386 ,4955	7,9643 8,7692 7,9781
741 742 743 744 745	Leonis  Ursæ Maj.	8 8.9 7.8 8 8	4 4 4 4		52 53 54	58,84 45,63 59,95 9,28 35,79	3,178 3,135 3,073	,8124 ,8059	,3005 ,2827 ,2751	,5021 ,4962 ,4876	8,2592 8,0535 6,9323
746 747 748 749 750		8 7.8 8 7.8 7.8	14		55 58 58		3,156 3,118 3,137	,8190 ,8120 ,8164	,2756 ,2560 ,2530	,4991 ,4939 ,4965	7,9555 8,1003
751 752 753 754 755	Leo. Min. Leonis	7 7 8.9 8	4 4 4 5 3	11	59 0 3 5 6	14,05 55,92	3,181 3,323 3,077	,9126 ,8120	,2575 ,3137 ,1912	,5026 ,5215 ,4481	8,3229  8,6997  7,3010
756 757 758 759 760	Leonis Crateris	7.8 7 8 8 8	3 4 3 4 4		9 9 10 11 13	47,63 26,23 26,02	3,134 3,037 3,038	,8245 ,8162 ,8166	,1703 ,1559 ,1472	4961 ,4824 ,4826	-8,1716 +7,8378 +7,8382
761 762 763 764 765	2 Hydræ 3 Ursæ Maj. 4 Hydræ	7.8 8 7 7 8	4 3 4 2		14 15 15	37,21 53,75 26,96 51,61 14,70	5 <b>2,</b> 883 5 3,369 1 <b>2,</b> 888	8,9041 9,0030 8,9036	1 ,2021 0 ,2951 6 ,1923	4598 5278 3 ,4600	3 + 8,6666 5 - 8,8840 5 + 8,6646

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-	n di mana di Kababata di kang bang mana mina mina.	Logarith	ms of		zi No.	Annual	P. M.
	Ubs.	Jan. 1, 1050.	sion.	a'	<i>b'</i>	c*	d'	Piazzi	A. R.	Decn.
721 722 723 724 725	4 5 3 4 3	+54 25 35,81 +50 1 14,71 -22 45 32,96 -44 13 29,33 -32 31 33,32	18,350		9,8699 9,8449 +9,5494 +9,8053 +9,6928	—1,2616 ,2626 ,2634 ,2636 ,2640	9,6147 ,6096 ,6056 ,6045 ,6027	88 96 103 107 108	$\begin{array}{r} s. \\ +,011 \\ +,027 \\ +,007 \\ -,004 \\ +,022 \end{array}$	$ \begin{array}{c}     " \\     -,10 \\     -,07 \\     +,04 \\     -,10 \\     +,06 \end{array} $
726 727 728 729 730		$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,490 18,561 18,619	+9,7619 ,7490 ,7202 ,5119 ,5988	+9,6989 +9,6193 +9,4259 -9,3758 -8,9509	1,2655 ,2669 ,2686 ,2699 ,2713	9,5945 ,5865 ,5767 ,5685 ,5599	115 120 130 132 140	+,020 +,019 +,016 +,020 +,026	+,08 ,00 -,01 -,16 -,18
731 732 733 734 735	4 4 3	$\begin{array}{r} +31 \ 29 \ 19,37 \\28 \ 49 \ 24,41 \\14 \ 52 \ 14,19 \\8 \ 7 \ 25,46 \\8 \ 1 \end{array}$	18,760 18,807	+9,2672 ,7404 ,7059 ,6785 ,6776	9,6885 +9,6548 +9,3825 +9,1260 +9,1203	,2732 ,2743 ,2764	9,5497 ,5467 ,5389 ,5224 ,5185	146 151 156 168 174	+,017 +,020 +,029	+,08 -,22 -,07
736 737 738 739 740	3 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,946 19,038 19,051	+9,6776 ,5821 ,0212 ,5832 ,4579	-9,1358 -9,8103	,2775 ,2796 ,2799	,5137 ,4954 ,4923	195	+,013 +,009 +,017	-,15  -,08  -,11
741 745 745 745 744	2 5 3 4 4 4	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	1 19,192 5 19,223 8 19,226	+9,569 <b>4</b> ,5289 ,5775 ,6335 ,2122	9,4184 9,2229 8,1084	,2831 ,2838 ,2839	,4597 ,4521 ,4512	213 220 221	+,008 +,008 +,008 +,008 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,017 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,008 +,	$ - ,29 \\ - ,16 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,09 \\ - ,$
74 74 74 74 75	7 4 8 3 9 4	$\begin{array}{r} + 0 51 6,1 \\ + 13 32 59,9 \\ + 8 1 19,1 \\ + 11 5 54,3 \\ + 55 2 12,8 \end{array}$	2 19,270 4 19,311 8 19,334	+9,6335 ,5539 ,5944 ,5740 8,5563	9,352 9,1274 9,268	<b>1</b> ,2858 2,2863	,4394 ,4278 ,4209	$   23 \\    23 \\    23 \\    24$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 2 & - & ,03 \\ 8 & + & ,03 \\ 6 & - & ,06 \\ 9 & - & ,28 \end{array}$
75 75 75 75 75	$     \begin{array}{c cccccccccccccccccccccccccccccccc$	$\begin{array}{r} +18 & 5 & 41,9 \\ +37 & 46 & 53,6 \\ + & 1 & 46 & 47,9 \end{array}$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	,285	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0,287 7,288 8,289	$ \begin{array}{c} 0 \\ 6 \\ ,3877 \\ 9 \\ ,3671 \end{array} $	$\begin{bmatrix} 5 \\ 7 \\ 1 \end{bmatrix} \begin{bmatrix} 25 \\ 1 \end{bmatrix}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
75 75 75 75 76	57 4 58 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	,574 ,657 ,657	0 = -9,336 1 = +9,011 1 = +9,011	5,291 5,291 9,292	5 ,335 8 ,329 2 ,320	3    3 6    3 8    3 0    4	$\begin{array}{c c} 26 +,01 \\ 31 +,01 \\ 35 +,00 \\ 39 +,00 \\ 45 +,00 \\ 45 +,00 \\ \end{array}$	5 - ,15 4 - ,12 3 - ,08 6 - ,08
70	5 <b>2</b> 8 53 4 64 4		58 19,665 22 19,670 11 19,674	669, 01,133 51,667	3  +9,75  5  -9,872  4  +9,75	41 ,293 27 ,293 29 ,293	7 ,289 8 ,283 9 ,280	6	$\begin{array}{c} 47 \\ 51 \\ -,00 \\ 52 \\ -,00 \\ 57 \\ +,0 \\ 66 \\ +,0 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

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Mean Right Ascension and Declination of 2050 Stars

No.	Star's name and	Mag.	No. Obs.	A		sion	Annual Preces-		Logarit	.hms of	
				Jan	. 1,	1836.	sion.	a	Ь	С	d
766 767 768 769 770	Leonis 17 Hydræ Crateris	8 6.7 8 8 7.8	44	h. 11	24 24	s. 30,50 9,19 22,98 17,51 1,26	s. +3,046 2,956 2,948 3,048 3,052	8,8240 ,8742 ,8815 ,8211 ,8206	- -8,0345 8,0698 8,0754 8,0016 7,99 <b>2</b> 5	+0,4837 ,4707 ,4695 ,4840 ,4846	+7,8275 8,5513 8,5816 7,8143 7,7295
771 772 773 774 775	Hydræ Ursæ Maj. Crateris Hydræ	9 7.8 8 7.8	4		30 33 33	43,54 13,97 2,69 34,42 37,61	2,943 2,957 3,206 3,007 2,974		+8,0493 8,0088 8,0196 7,9132 7,9508	,4708	+8,6470 +8,6281 -8,7774 +8,4224 +8,6101
776 777 778 779 780	Leonis Ursæ Maj. Leonis Virginis Leonis	9 8 8 8 8	2 4 4 4 4		41 44 45	22,07 59,71 3,06 4,42 25,57	3,103 3,171 3,096 3,067 3,090	8,8389 ,9697 ,8417 ,8236 ,8379	+7,8104 ,8608 ,6790 ,6323 ,6367		8,8158 8,3014 +7,5424
781 782 783 784 785	Virginis 65 Ursæ Maj. Leonis Virginis	7 7.8 9.10 8			46 46	39,99 26,91 32,47 56,64 0,72	3,076 3,068 3,151 3,089 3,070		,5884 ,7533 ,5901	+0,4880 ,4869 ,4984 ,4898 ,4871	+6,8054 8,8591
786 787 788 789 790	Leonis Virginis Leonis Virginis	7.8 7.8 9.10 7 8.9	4 3 3		48 49	46,35 29,00 13,27 21,10 6,27	3,089 3,081 3,087 3,076 3,073	8,8418 ,8321 ,8436 ,8276 ,8253	+7,5636 ,5266 ,5090 ,4875 ,4507	+0,4898 ,4887 ,4895 ,4880 ,4876	8,2981 8,1286 8,3173 7,9639 7,7854
791 792 793 794 795	Ursæ Maj. Virginis Corvi Leonis Hydræ	8.9 8 8 8 7.8	3 4 4		53	11,19 ⁻ 4,32 53,49 2,46 53,89	<b>3,1</b> 46 3,073 3,060 3,073 3,068	-9,1280 8,8274 ,8513 ,8461 ,9042	+7,6488 7,2955 7,0859 6,9227 5,6690	+ <b>0</b> ,4978 ,4876 ,4857 ,4876 ,4869	9,0666 7,9372 +8,3884 8,3404 +8,6493
796 797 798 799 800	Ursæ Maj. Corvi Virginis	8.9 7.8 7 9.10 8	4 3	12	0 5 5 7 9	51,62	3,070 3,080 3,071 3,059 3,053	9,0146 8,8529 ,8253 ,8329 ,8393	6,1773 7,2252 ,2482 ,3498 ,4555	,4856	8,8980 +8,4023 +7,7509 8,1417 8,2616
801 802 803 804 805	*1 Virginis Comæ Ber. Virginis	7 8 9 7.8 8	5 4 4 4 3		9 14 16	44,74 45,08 40,88 10,39 18,02	3,071 3,048 3,041 3,060 3,058		7,4613 ,4859 ,6553 ,6800 ,6840	,4840 ,4830 ,4857	+7,5525 8,3686 8,3119 7,7833 7,8395
806 807 808 809 810	Virginis Centauri Virginis	7.8 8 9 8 8.9	3 4 4		18 19 19	33,04 44,63 17,83 22,85 53,94	3,059 3,137 3,057 3,071 3,033		7,7138 ,8115 ,7544 ,7541 ,7853	,4965 ,4853 ,4873	

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	uns of	ner i ner di venerali di seran di seran di seran di seran di seran di seran di seran di seran di seran di seran	zi No.	Annual	P. M.
	0.03.	Jan. 3, 1050.	sion.	<i>a</i> ′	<i>b'</i>	د'	d'	Piazzi	A. R.	Decn.
766 767 768 769 770	4 4 4 3	$ \begin{array}{c} & & & & & \\ - & 5 & 48 & 55,68 \\ - & 28 & 21 & 51,31 \\ - & 30 & 4 & 6,57 \\ - & 5 & 37 & 56,65 \\ - & 4 & 37 & 22,27 \end{array} $		+9,6513 ,6590 ,6551 ,6503 ,6484	+9,0013 ,6717 ,6948 8,9883 ,9041	],2962 ,2967 ,2967 ,2970 ,2972	9,2092 ,1903 ,1887 ,1756 ,1672	91 95 97 104 108	s. +,021 +,002 +,013 -⊢,008 +,011	" 0,06 + ,17 ,19 ,17 ,11
771 772 773 774 775	4 4 4 4	$\begin{array}{r} -33 52 47,08 \\ -32 41 51,28 \\ +42 8 53,89 \\ -21 44 37,22 \\ -31 34 \end{array}$	19,847 19,877 19,907 19,913 19,913	+9,6415 ,6385 ,3874 ,6484 ,6335	+9,7422 + ,7291 - ,8237 + ,5663 + ,7165	1,2977 ,2983 ,2990 ,2991 ,2991	9,1444 ,1099 ,0659 ,0572 ,0572	112 127 137 142 143	+,023 +,012 +,051 +,005 +,015	,00 ,02 ,07 ,06
776 777 778 779 780	4 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,957 19,982 19,996 20,002 20,004	+9,5933 ,4065 ,5977 ,6365 ,6064	9,4353 9,8447 9,4587 +8,7179 9,4098	1,3001 ,3007 ,3009 ,3011 ,3011		155 165 169 173 177	,003 +,026 +,012 +,009 +,007	,00 ,10 ,07 ,04 ,17
781 782 783 784 785	$     \begin{array}{c}       3 \\       4 \\       1 \\       3 \\       3     \end{array}   $	$\begin{array}{r} + 5 \ 47 \ 26,33 \\ - 0 \ 31 \ 33,81 \\ +47 \ 23 \ 22,81 \\ +16 \ 1 \ 26,63 \\ + 2 \ 0 \ 39,83 \end{array}$	20,005 20,009 20,010 20,011 20,012	+9,6345 ,6385 ,4014 ,6042 ,6375	$\begin{array}{r} -9,0012 \\ +7,9815 \\ -9,8660 \\ -9,4396 \\ -8,5385 \end{array}$	1,3011 ,3012 ,3012 ,3013 ,3013		180 182 183 186 187	+,018 +,015 +,016 +,022 +,018	,09 ,47 ,00 ,07 ,04
786 787 788 789 789 790	3 4 4 4	+16 38 38,71 +11 26 30,09 +17 20 39,71 + 7 53 23,50 + 5 15 17,53	20,015 20,019 20,021 20,022 20,026	+9,6031 ,6191 ,6021 ,6274 ,6314	9,4557 ,2960 ,4732 ,1358 8,9597	1,3014 ,3014 ,3015 ,3016 ,3017		194 197 198 201 205	+,021 +,006 +,025 +,021 +,002	-,06 -,02 -,01 -,14 -,23
791 792 793 791 795	4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	20,032 20,036 20,040 20,041 20,043	-+-9,2695 ,6294 ,6159 ,6107 ,5575	$\begin{array}{r} -9,9384 \\ -,1097 \\ +,5371 \\ -,4942 \\ +,7451 \end{array}$	1,3019 ,3019 ,3019 ,3019 ,3019 ,3020	-8,5205 ,4680 ,2346 ,0765 +6,7648	$210 \\ 215 \\ 225 \\ 229 \\ 240$	+,018 +,016 +,005 +,006 -,006	,12 ,01 ,19 ,11 + ,13
796 797 798 799 800	4 4 4 4	+49 52 48,87 -20 43 21,41 -4 48 36,73 +11 46 49,73 +15 21 19,08	20,043 20,038 20,037 20,035 20,027	+-9,4456 ,5999 ,6345 ,6355 ,6325	9,8834 +9,5402 +8,9255 9,3086 9,4219	1,3020 ,3018 ,3018 ,3017 ,3016	+7,1627 8,3722 ,4227 ,5167 ,6159	242 14 17 23 30	,000 -+-,023 ,004 +,009 -+,003	- ,25 - ,11 - ,01 + ,04 - ,10
801 802 803 804 805	4 3 4 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	20,025 20,025 20,001 19,994 19,991	+9,6355 ,6263 ,6375 ,6425 ,6425	+8,7279 -9,5195 9,4683 8,9575 9,0133	1,3016 ,3016 ,3011 ,3008 ,3008	+-8,6368 ,6368 ,8117 ,8513 ,8578	32 34 62 72 73	-+-,007 +-,011 +-,014 -+-,014 -+-,013	+,05 -,08 -,07 -,22 -,31
806 807 808 809 810	$\left \begin{array}{c}4\\2\\1\\4\end{array}\right $	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,983 19,975 19,971 19,971 19,966	+9,6425 ,5366 ,6434 ,6365 ,6444		1,3007 ,3005 ,3004 ,3004 ,3003		77 82 86 89 94	-+-,004 ,005 +,015 +,002 +,010	-,20 ,00 -,25 +,04

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Mean Right Ascension and Declination of 2050 Stars

No.	Star's name and Ma	.g.	No. Obs.			Annual Preces-	Logarithms of				
			Obs.			sion.	a	ь	c	d	
811 812 813 814 815	Comæ Ber. Corvi Virginis Corvi	8 6 7.8 8 8	4 4 2 4 2	h. 12	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,041 3,037		—7,8291 ,8396 ,8429 ,8472 ,9025	+0,4781 ,4944 ,4850 ,4824 ,4955	+8,4459 8,1163 8,1855	
816 817 818 819 820	Can. Ven. 1 Comæ Ber. Corvi Virginis	7 7 8 9 6	4 4 4 4 1		$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,013 3,114 3,022		7,9595 ,9202 ,9290 ,9403 ,9590		-8,3644 + 8,2636 - 8,2525	
821 822 823 824 825	Virginis Can. Ven. Comæ Ber. Virginis	7.8 7 7.8 8.9 7.8	4 3 3		32 28,62 34 30,29 34 35,75 35 10,69 35 46,58	2,854 2,955 3,055	,8780	8,1662	,4554		
826 827 828 829 830	Virginis Comæ Ber. pre. Can. Ven.	$8.9 \\ 8 \\ 8 \\ 10 \\ 10 \\ 10$	4 2 4		38 8,79 38 16,62 43 47,63 43 55,93 44 46,98	2 3,068 5 2,975 2 2,970	,8178 ,8430 ,8458	,0468 ,1316	,4869 ,4735 ,4728	6,3954 8,3777 8,4007	
831 832 833 834 834 835	Virginis 9	9.10 7.8 8.9 7.8 8	3 4		45 57,18 47 17,31 47 17,52 48 27,22 49 55,90	3,008 3,002 3,178	,8247 ,8268 ,8448		,4783 ,4774 ,5021	-8,1561 -8,1961 +8,4050	
836 837 838 839 840	Virginis Centauri Comæ Ber. Virginis	7 8 7 9 7.8	4 4 4 3 4		53 8,63 54 1,38 55 3,50 55 47,53 55 47,79	3,276 5 2,926 3,034	,8515	8,1872 ,2722 ,2414 ,2100 ,2176	,5153 ,4663	+8,6313 -8,4608 -7,8361	
841 842 843 844 845	Virginis Ursæ Maj. Virginis	8 9 8.9 9	4 4 4 4 3		56 22,48 56 49,96 57 16,34 57 25,79 57 54,91	3,110 2,598 3,038	8,8138 9,0495 8,8116		,4928 ,4146		
846 847 848 849 850	Centauri Virginis Ursæ Maj. Virginis Comæ Ber.	7.8 8.9 8		13	57 56,35 58 42,24 59 33,89 0 20,07 1 27,89	<b>3</b> ,099 <b>2</b> ,519 <b>3</b> ,146			,4912 ,4012 ,4978		
851 852 853 854 855	Can. Ven. Virginis Ursæ Maj. Virginis pre. 	8 6.7 7 8	3 5 3 4 4		3 36,78 4 44,07 5 50,04 6 21,62 6 24,38	3,152 2,569 3,139			,4986 ,4098	+8,1562 -8,9246	

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarit	zi No.	Annual P. M.			
			sion.	a'	В′	c'	d'	Piazzi	A. R.	Decn.
811 812 813 814 814 815	2 3 2 3 3	$\begin{array}{c} \circ & , & , \\ +26 & 48 & 32,74 \\ -22 & 47 & 16,84 \\ +11 & 10 & 47,04 \\ +13 & 2 & 4,43 \\ -22 & 36 & 13,20 \end{array}$	" —19,961 19,952 19,942 19,937 19,920	+9,6314 ,5599 ,6484 ,6484 ,5539	+,5866 -,2841	1,3002 ,3000 ,2997 ,2997 ,2993	+8,9559 8,9803 9,0107 ,0120 ,0437	96 105 113 114 117	s. +,014 +,015 -,007 +,021 +,024	" +0,04 - ,03 ,00 - ,16 - ,07
816 817 818 819 820	4 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,915 19,904 19,892 19,883 19,859	+9,6263 ,6522 ,5866 ,6551 ,6170	$\begin{array}{r} -9,7477 \\ -,5154 \\ +,4236 \\ -,4133 \\ +,0910 \end{array}$	—1,2992 ,2989 ,2987 ,2985 ,2979	+9,0527 ,0712 ,0890 ,1011 ,1317	124 132 134 138 147	-,003 +,012 +,019 -,011 +,011	,16 ,13 ,12 ,10 ,16
821 822 823 823 824 825	4 4 4 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,843 19,815 19,814 19,805 19,796	+9,6580 ,6096 ,6561 ,6454 ,6325	9,3669 9,8573 9,6837 8,7805 +8,5301	1,2976 ,2970 ,2969 ,2968 ,2966	+9,1498 ,1781 ,1797 ,1871 ,1943	154 164 165 167 170	-, +,006 +,011 +,013 +,008	- ,09 + ,08 - ,19 - ,03 - ,03
826 827 828 829 830	$\begin{array}{c c} 4\\ 4\\ 6\\ 4\\ 4\\ 4\end{array}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,764 19,762 19,675 19,674 19,658	+9,6375 ,6375 ,6748 ,6758 ,6464	6,9347 7,5715 9,5267 9,5469 9,8602	1,2959 ,2958 ,2939 ,2939 ,2939 ,2935	+9,2214 ,2229 ,2806 ,2819 ,2902	174 176 201 203 209	+,024 +,014 +,036 +,027 +,012	,15 ,16 ,17 ,17 ,09
831 832 803 834 835	3 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,637 19,615 19,615 19,594 19,566	+ 9,6107 ,6702 ,6721 ,5159 ,3979	+9,0602 	1,2931 ,2926 ,2926 ,2921 ,2915	+9,3015 ,3131 ,3131 ,3238 ,3365	216 221 222 225 233	+,016 +,022 +,026 +,019 +,011	,16 + ,04 ,11 ,03 ,07
836 837 838 539 840	4 4 3 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,504 19,486 19,464 19,447 19,447	+9,6464 ,3674 ,6937 ,66 <b>0</b> 9 ,6758	8,6071 +9,7288 9,5974 9,0097 9,3083	1,2901 ,2897 ,2892 ,2889 ,2889	+9,3629 ,3698 ,3781 ,3837 ,3837	246 247 252 256 257	+,023 +,015 +,011 +,004 +,014	$\begin{array}{c} - ,06 \\ + ,08 \\ - ,02 \\ - ,01 \\ + ,02 \end{array}$
841 842 843 844 845	4 4 4 5 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,435 19,425 19,417 19,412 19,402	·+9,6429 ,6021 ,6561 ,6571 ,6571	8,2892 +9,0894 9,8986 8,9220 8,9100	1,2886 ,2884 ,2882 ,2881 ,2878	+9,3882 ,3917 ,3947 ,3961 ,3996	258 259 261 260 265	+,007 +,027 +,005 +,025 +,024	$\begin{array}{c} - ,01 \\ - ,13 \\ - ,23 \\ - ,02 \\ - ,26 \end{array}$
846 847 848 849 850	3 4 4 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,402 19,386 19,367 19,348 19,324	+9,3522,6117 ,6522 ,5647 ,6955	+9,7249 +8,9442 -9,9129 +9,3228 -9,4822	1,2878 ,2875 ,2870 ,2866 ,2861	+9,3996 ,4049 ,4111 ,4167 ,4242	263 271 275 277 282	+,002 +,005 +,023 +,002 +,025	- ,03 - ,13 - ,09 + ,14 - ,07
851 852 853 854 855	4 4 5 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,272 19,244 19,218 19,203 19,203	+9,7093 ,5599 ,6893 ,5729 ,5729	-9,6437 + ,3216 - ,8826 + ,2520 + ,2420	—1,2849 ,2843 ,2837 ,2837 ,2834 ,2834	+9,4390 ,4465 ,4533 ,4572 ,4572 ,4572	10 19 24 25 26	+,016 +,001 +,003 -,002 +,008	,05 ,06 + ,02 ,36 ,17

No.	Star's name and I	Mag.	No.	 A	Right Ascension		Annual Preces-	Logarithms of				
			Obs.	Jan. 1, 1836.		836.	sion.	a	в	C	d	
856 857 858 859 860	Virginis Ursæ Maj. Virginis	8 8.9 7.8 8.9 8	5 3 4 3 4	ћ. 13		s. 7,78 8,28 9,77 7,41 2,54	s. +3,117 3,110 3,154 2,382 2,964			+0,4937 ,4928 ,4989 ,3769 ,4719	+7,9065 +7,8319 +8,1433 -9,0454 -8,2198	
861 862 863 864 865		8 8 8 7.8	4 4 3 4 4		$   \begin{array}{ccc}     10 & 2 \\     10 & 5 \\     10 & 5   \end{array} $	3,07 0,92 0,26 8,73 87,59	3,107 3,153 3,143 3,152 3,135	8,8051 ,8123 ,8097 ,8116 ,8072	8,3056 ,3145 ,3155 ,3182 ,3245	+0,4923 ,4987 ,4973 ,4986 ,4962		
866 867 868 869 869	Hydræ Virginis Comæ Ber. Hydræ Virginis	6 8 8.9 7	3 3 3 4		12 8 13 4	41,80 57,63 49,29 58,49 0,62	3,149 2,925 3,199			+0,5064 ,4982 ,4661 ,5050 ,4925	+8,0800 8,3283 +8,2910	
871 872 873 974 875		eq. 6.7 7.8 8 7 7			18 19 19	19,76 22,50 18,68 27,68 52,03	3,108 3,248 3,275	,8377	,3523 ,3870 ,3968	,4925 ,5116 ,5152	+7,7484 +8,3941 +8,4535	
876 877 878 879 880	Hydræ Ursæ Min.	8 7 7 8	4 2 4 4 3		$20 \\ 21 \\ 21$	52,11 26,57 9,01 57,26 16,63	2,931 3,233 1,515	8,8148 8,8216 9,3349	,3904 ,9080	,4670 ,5096 ,1804	-8,2696 +8,3447 -9,3160	
881 882 883 884 885	Ursæ Maj. Hydræ	8 9 8 8.9	3 3 4 9 4		$22 \\ 22$	44,51 48,39 49,98 48,21	2,223 3,291	8,7950 9,1059 8,8385	,3731 ,6840 ,4170	,4885 ,3469 ,5173	-9,0466 + 8,4690	
886 887 888 889 890	Virginis	7 8 8 9	4 4 4 3 4		26 27	38,25 54,73 17,18 14,84 6,17	3,104 3,146 3,209	8,7928 ,7968 ,8071	8,3945 ,4003 ,4160	0,4919 ,4978 ,5064	+7,6489 +7,9895 +8,2376	
891 892 893 894 894		9 8 8.5 7. 7.	9 4 9 4 8 4		30 30 30	30,85 2,69 10,59 44,29 50,92	) 3,093 ) 3,049 ) 3,010	,7899 ,7895 ,7915	,4082 ,4089 ,4137	,4904 ,4842 ,4780		
89) 897 899 899 899	Can. Ven. Virginis	9 9 7 7 7.			34 35 35	16,95 54,61 0,82 3,94 23,09	$   \begin{vmatrix}     2,769\\     2,3,101\\     4,991   \end{vmatrix} $	8,8437 8,7864 8,7896	,4875 ,4302 ,4345	,442 ,491 ,475	$\begin{array}{c} 6 \\ + 8,0532 \\8,5295 \\ 5 \\ + 7,5679 \\ 8 \\7,9394 \\ 0 \\9,1282 \end{array}$	

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	ms of		zi No.	Annual	P. M.
		•	sion.	a'	b'	c'	d'	Piazzi	A. R.	Decn.
856 857 858 859 860	3 3 3 4 4	$\begin{array}{r} & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\$	" 19,188 19,154 19,154 19,154 19,123	+9,5955 ,6031 ,5587 ,6730 ,6946	+9,0791 +,0055 +,3093 -,9185 -,3816	1,2830 ,2823 ,4823 ,2823 ,2815	+9,4609 ,4692 ,4692 ,4692 ,4692 ,4765	28 34 33 39 43	s. +,016 +,011 +,018 -,035 ,000	-0,06 - ,10 - ,09 - ,11 - ,14
861 862 863 864 865	444	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,109 19,102 19,087 19,084 19,039	+9,6064 ,5599 ,5717 ,5599 ,578 <u>6</u>	+8,9542 9,2×98 9,2 <b>3</b> 11 9,2×33 9,1799	1,2812 ,2811 ,2807 ,2807 ,2796	+9,4797 ,4813 ,4845 ,4853 ,4950	46 47 49 50 58	+,012 +,007 +,011 +,006 -,006	,15 ,04 ,10 ,06 + ,06
866 867 868 869 870	4 4 2 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,038 19,031 19,008 19,002 19,002	+9,4928 ,5647 ,7093 ,5065 ,6042	+9,4825 +9,2542 9,4811 +9,4473 +8,9464	1,2796 ,2795 ,2789 ,2788 ,2788	+9,4954 ,4965 ,5015 ,5026 ,5026	59 60 63 64 67	,000 +,012 +,026 -,004 +,005	+,04 -,11 +,04 -,11 -,32
871 872 873 874 875	3 4 3 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,849 18,844	+9,7143 ,6053 ,4456 ,4065 ,6375	$\begin{array}{r}9,8921 \\ +8,9228 \\ +9,5387 \\ +9,5890 \\6,4367 \end{array}$		+9,5206 ,5267 ,5316 ,5323 ,5344	79 81 86 87 89	+,050 +,005 +,012 +,018 +,018	$ \begin{array}{c} - ,04 \\ - ,12 \\ - ,01 \\ - ,02 \\ - ,52 \end{array} $
876 877 878 879 880	4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,817 18,794 18,772	+9,5752 ,7109 ,4669 ,6628 ,5740	+9,1633 9,4268 +9,4952 9,9526 +9,1592			88 92 97 109 103	+,019 +,010 -,010 +,004 +,007	$ \begin{array}{c} - ,01 \\ - ,02 \\ - ,05 \\ - ,02 \\ + ,06 \end{array} $
881 882 883 883 884 885	44	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	18,745 18,745 18,743	+9,6284 ,6284 ,7168 ,3830 ,6893	+8,3691 -9,9117	,2729 ,2729	,5490 ,5494	104 108 113 107 116	+-,013 ,008	+,03 -,11
880 887 888 889 890	7 3 3 5 9 4	$ \begin{vmatrix} +79 & 29 & 28,79 \\ -4 & 5 & 19,18 \\ -8 & 56 & 30,79 \\ -15 & 36 & 24,80 \\ -5 & 48 & 52,79 \end{vmatrix} $	8 18,612 2 18,601 0 18,565	+9,6415 ,6085 ,5694 ,5011 ,5944	+9,1603 +9,3973	,2698 ,2695 ,2688	,5695 ,5711 ,5758		+,016 +,004	$  + ,06 \\ + ,13 \\ - ,16$
891 892 893 893 893	$   \begin{array}{c c}     2 & 5 \\     3 & 3 \\     4 & 4   \end{array} $	$ \begin{vmatrix} - & 0 & 44 & 11,44 \\ - & 2 & 52 & 1,16 \\ + & 2 & 5 & 33,34 \\ + & 6 & 24 & 2,66 \\ +20 & 50 & 46,1 \end{vmatrix} $	18,511       5     18,594       1     18,486	,6758	+8,6695 -8,5223 -9,0109	,2674 ,2673 ,2668	,5837 ,5847 ,5871	148 149 153	+,006 +,006 +,020	$\begin{vmatrix} + & , 12 \\ + & , 02 \\ + & , 01 \end{vmatrix}$
89 ( 897 898 898 899	7 2 3 4 9 4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 18,341 7 18,339 9 18,337	,6117	-9,6473 +8,7429 -9,1111	,2635 ,2636 ,2636	6053 6059 6062	172    171    175	+,010 +,000 +,000 +,020	$\begin{vmatrix} - & , 12 \\ - & , 02 \\ - & , 00 \\ 00 \end{vmatrix}$

No.	Star's name and	Mag	No.		Rigl scen		Annual Preces-		Logarit	hms of	
1.0.		Ling.	Obs.			1836.	sion.	a	b	c	d
901 902 903 904 9 <b>0</b> 5	Virginis  Solittarii	9 7 7 8 7.8	4 4 4 3 4	<i>h</i> . 13	36 38 38	s. 42,27 53,89 51,92 52,29 57,28	s. +3,092 3,180 3,126 3,084 3,280	8,7843 ,7926 ,7843 ,7822 ,8068		+ 0,4902 ,5024 ,4950 ,4891 ,5159	+ 7,4240 + 8,0954 + 7,7963 + 7,2371 + 8,3446
906 907 908 909 910	k ³ Centauri Bootis Virginis Bootis	7 7.8 7.8 7 8			42 42 43	23,90 36,28 39,26 50,69 58,98	3,432 2,834 2,833 2,936 2,913		8,5328 ,4940 ,4944 ,4768 ,4812	,4522 ,4678	8,386 8,3×6
911 912 913 914 915	Bootis Virginis ———— Camelop.	7.8 8.9 8 8 7			46 46 46	15,18 13,49 40,25 59,56 23,09	2,925 2,9×0 2,978 3,025 2,258	8,7799 8,7796 8,7756	8,4836 8,4796 8,4814 8,4791 9,4269	,4739 ,4807	
916 917 918 919 920	Bootis	8 8 7 7 7.8	4 2 3 3 4		<b>47</b> 49 49 49 50	59, <b>20</b>		,7805 ,7911	8,4871 ,4871 ,4960 ,5082 ,5079	,4939 ,5038 ,4592	+7,687 +8,071 -8,250
921 922 923 924 925	Virginis Draconis	9 9 8 8 9	4 1 3 3 4		51 52 53 54 56	3 <b>4</b> ,68 35,53	3,149 3,194 1,683	8,7730 8,7765 9,1439	,5005 ,5102 ,8817	,5013	+7,877 +8,066 -9,10
926 927 928 929 930	Virginis Solittarii Hydræ	8 7.8 1.( 9 8			57 58 58 59 59	18,78 57,29	3,250 3,296 3,391	,7790 ,7865 ,8079	,5337 ,5442	,5119 ,5180 ,5303	+8,203 +8,297 +8,447
931 932 933 934 935		7.8 8 8.9 8.9 8	$\begin{vmatrix} 3\\2 \end{vmatrix}$	14	$\frac{1}{2}$	11,06 25,43 35,11 43,23 2,69	2,937 3,185 3,006	,7677 ,7647 ,7599		,5031 ,4780	-8,049 +7,999 -7,71
936 937 938 939 939 940	κ ¹	7 8 8 8.9 7.5	$\begin{array}{c c} 2\\ 3\\ 4\\ 4\end{array}$		6 7 0	′ 35,09	2,962 2,146 2,914	,7594 ,9686 ,7599	,5476 ,7630 ,5633	,3316 ,4645	$ \begin{array}{ } -7,94 \\ -7,93 \\ -8,86 \\ -8,08 \\ -7,63 \end{array} $
941 942 943 944 944	2 Virginis 3 Hydræ 4	7.1 8 9 8 7.	3 2 4		11 13	) 22,77 27,82 58,32 30,35 30,35	2,984 3,445 3,446	,7509 ,7952 ,7942	,5618 ,6166 ,6180	3,4748 5,5372 0,5373	-7,81 +8,45 +8,45

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-	A an aite grant a provi stra sugar	Logarithr	ns of		czi No.	Annua	P.M.
			sion.	a'	b′	c'	d'	Piazzi	A. R.	Decn.
901 902 903 904 905	4 4 4 4 4	$\begin{array}{c} & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & &$	" 	+9,6180 ,5340 ,5899 ,6253 ,4133	+8,5997 9,2625 8,9700 8,4130 9,4932	1,2620 ,2619 ,2601 ,2601 ,2573	+9,6130 ,6141 ,6221 ,6221 ,6345	182 183 192 193 212	s. ,000 +,013 +,007 +,011 +,015	+,06 +,02 -,06 +,01 -,14
906 907 908 909 910	5 3 5 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,054	+9,1367 ,7520 ,7520 ,7168 ,7259	+ 9,6816 9,5293 9,5295 9,2962 9,3612		+9,6364 ,6371 ,6374 ,6421 ,6426	217 219 220 223 224	-,009 +,011 +,004 +,003 +,014	$ \begin{array}{c} - ,02 \\ + ,07 \\ + ,08 \\ - ,05 \\ - ,26 \end{array} $
911 912 913 914 915	3 5 4 5 2	$\begin{array}{r} +13 \ 33 \ 17,40 \\ + \ 8 \ 21 \ 13,48 \\ + \ 8 \ 29 \ 4,85 \\ + \ 4 \ 54,65 \\ + \ 83 \ 34 \ 27,99 \end{array}$	17,922 17,904 17,890	+9,7210 ,6937 ,6946 ,6665 ,6955	9,3215 9,1126 9,1181 8,7996 9,9480	-1,2543 ,2534 ,2529 ,2526 ,2527	+9,6475 ,6510 ,6528 ,6541 ,6535	232 236 239 241 263	$ \begin{vmatrix} -,017 \\ +,009 \\ +,005 \\ +,008 \\ -,069 \end{vmatrix} $	,01
916 917 918 919 920	4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	17,808 17,787 17,772	+9,5502 ,5966 ,5263 ,7404 ,7332	+9,1559 +8,8621 +9,2390 -9,4133 -9,3692	,2501 ,2498	+9,6575 ,6617 ,6538 ,6649 ,6683	245 252 256 259 265	+,010 +,030 +,010	-,07 -,19 +,08
921 922 923 924 924 924	4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	17,681 17,625 17,587	+9,7380 ,5694 ,5224 ,7910 ,5563	+9,2343 -9,9011	,2475 ,2461 ,2452	,6730 ,6779 ,6810	$   271 \\ 278 \\ 285$	+,020 +,039 +,019	-,06 -,05 +,14
926 927 928 928 928 929		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	,3997	9,3638 9,4496 9,5779	,2412 ,2404 ,2401	,6939 ,6961 ,6970	300 304 304	$\begin{vmatrix} 0 \\ +,00 \\ +,02 \\ 5 \\ +,00 \end{vmatrix}$	1 - ,18 9 - ,06 1 - ,12
931 932 932 932 934 934	$   \begin{array}{c c}     2 & 3 \\     3 & 2 \\     4 & 2   \end{array} $		$\begin{array}{c cccc} 0 & 17,287 \\ 8 & 17,237 \\ 5 & 17,228 \end{array}$	,5340	-9,2170 +9,1613 -8,888	237 3,236 3,236 3,236	7078, 5 2, 7084			$\begin{array}{c c} 2 & - & , 21 \\ 7 & - & , 06 \\ 5 & - & , 10 \\ 7 & - & , 12 \end{array}$
93) 93 93 93 93 94	$   \begin{array}{c ccc}     7 & 4 \\     8 & 2 \\     9 & 4 \\   \end{array} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	7 17,080 )6 17,013 54 16,914	,705 ,834 ,729	$   \begin{array}{c ccc}     9 & 9,106 \\     4 & 9,828 \\     2 & 9,247 \\   \end{array} $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5,718 8,723 92,729	$\begin{bmatrix} 7 \\ 2 \\ 6 \\ 3 \end{bmatrix} = \begin{bmatrix} 2 \\ 3 \\ 3 \end{bmatrix}$	$\begin{array}{c c} 8 & +,00 \\ 21 & -,00 \\ 30 & +,02 \\ 35 & +,02 \\ 39 & +,02 \end{array}$	
94 94 94 94 94	$     \begin{array}{c c}       2 & 4 \\       3 & 3 \\       4 & 3     \end{array} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	9    ,693 6    ,130 8    ,133	$\begin{array}{c c} 7 &8,986 \\ 03 & +9,579 \\ 05 & +9,577 \\ \end{array}$	$   \begin{array}{c cccccccccccccccccccccccccccccccccc$	29,742 21,744	9 23 10	$\begin{array}{c c} 38 +, 0 \\ 47 +, 0 \\ 61 +, 0 \\ 63 -, 0 \\ 74 +, 0 \end{array}$	$ \begin{array}{c c} 06 & ,00 \\ 02 & - ,25 \\ 14 & - ,08 \end{array} $

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No.	Star's name and	Mag.	No.	As	Right cension		Annual Preces-		Logarit	lims of	
		0	Obs.	Jan.	1, 183	6.	sion.	a	Ъ	c	d
946 947 948 949 950	Bootis Hydræ Virginis Bootis	8 8 1.0 7 7.8	4	h. 14	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	70 47 77	s. +2,026 3,438 3,027 2,982 2,944		8,8067 ,6221 ,5781 ,5865 ,5940	+ 0,3066 ,5363 ,4874 ,4745 ,4689	
951 952 953 954 955	Virginis Centauri Virginis 	8 8 8 8	3 3 2 4 2		22 12, 24 28, 24 42, 25 2, 27 22,	92 09 10	3,101 3,878 3,153 3,153 3,010	8,7344 ,8872 ,7332 ,7327 ,7281	8,5°93 ,7511 ,5979 ,5987 ,6033	,4987	+7,3534 +8,7423 +7,7678 +7,7626 -7,5893
956 957 958 959 960	Virginis Solittarii Virginis	7 9 8 8 9.10	$\begin{vmatrix} 3\\2\\1\\3\\2 \end{vmatrix}$	فسيعتصب كالبديس ينسبك لكي مستكليك وبينفد وم	27 32, 27 38, 28 39, 30 23, 30 24,	,78 ,02 ,43	3,194 3,111 3,403 3,140 3,225	8,7319 ,7272 ,7593 ,7242 ,7304	8,6080 ,6035 ,6399 ,6115 ,6177		+ 7,9222 + 7,4579 + 8,3419 + 7,6717 + 8,0071
961 962 963 964 965	Virginis Libræ  Virginis	8 7 8 8 8	4 2 2 3 4		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	,67 ,51 ,81	3,151 3,237 3,236 3,445 3,149	-8,7218 ,7273 ,7267 ,7582 ,7167	8,6167 ,6253 ,6260 ,6586 ,6248	<b>,5100</b> ,5372	+8,0272 +8,0251 +8,3747
966 967 968 969 970	Bootis Libræ Lupi Libræ	7 8 8 8 8	3 3 2 4 3		39 52 42 51	,11 ,27	2,827 3,258 3,634 3,315 3,065		,6424 ,7150 ,6568	,5129 ,5604 ,5205	+8,0520 +8,5152 +8,1519
971 972 973 974 975	Virginis Bootis	9 8 7 8 7	3 2 4 4 4		45 53 48 55 50 20 50 32 53 54	5,85 9,65 1,97	3,480 3,538 3,137 2,906 3,349		,6705 ,6559 ,6619	,5235 ,4965 ,4633	+7,5701 -7,9432
976 977 978 979 980	Serpentis	8 8. 8. 8	9 2 3		54 24 54 53 55 39 55 58 56 42	65 9,94 9,95	3,306	,6949 ,6805	,6670 ,6792 ,6661	,5024 ,5193 ,4874	
981 982 983 984 985	Libræ Ursæ Min.	7 7. 8 8 8.	8 4 4 3		58 13 58 22 59 11 59 14 59 37	2,11 1,45 1,39	3,205 3,258 0,295	8,6806 8,6832 9,1673	8,6753 8,6809 9,1645	0,5058 0,5129 5 9,4698	8 +7,8400 +7,9797 8 -9,1436
986 987 988 988 989	3 Serpentis Scorpii	9 7. 7 7. 8	8 4 4 8 2		-3 54	1,01 5,50	3,279 3,011 3,510	,6790 ,6675 ,7071	,6883 ,6806 ,7227	5157 ,5157 ,4787 ,5455	7 + 8,0126 7 - 7,4448 8 + 8,3281

No.	No.	Declination Jan. 1, 1836.	Annual Preces-		Logarit	hms of		zi No.	Annual	P. M.
			sion.	a'	Ъ′	c'	d'	Piazzi	A. R.	Decn.
946 947 948 949 950	4 4 4 4 4	$\begin{array}{c} & & & & \\ +54 & 16 & 11,78 \\ -26 & 6 & 13,34 \\ - & 0 & 20 & 35,75 \\ + & 6 & 25 & 12,65 \\ + & 9 & 5 & 16,02 \end{array}$	$\begin{array}{c} '' \\ -16,587 \\ 16,544 \\ 16,498 \\ 16,395 \\ 16,304 \end{array}$	+9,8513 ,1492 ,6345 ,6964 ,7168	9,8272 +9,5604 +7,7014 8,9610 9,1086	-1,2198 ,2168 ,2174 ,2147 ,2123	+9,7492 ,7515 ,7542 ,7598 ,7647	79 78 81 93 99	s. +,018 +,009 +,033 +,006 +,016	-0,10 + ,90 - ,16 + ,02 - ,04
951 952 953 954 955	4 4 4 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	16,297 16,181 16,171 16,153 16,032	+9,6117 ,0792 +,5670 ,5659 ,6776	+8,5291 +9,7621 +8,9413 +8,9362 -8,7644	—],2121 ,2090 ,2087 ,2083 ,2050	+9,7650 ,7709 ,7709 ,7723 ,7783	100 106 108 111 120	+,012 +,006 +,012 +,010 +,020	+,08 +,02 -,12 -,13 -,13 -,13
956 957 958 959 960	4 4 *4 5 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	16,021 16,017 15,962 15,869 15,869	+9,5276 ,6031 ,2279 ,5775 ,4928	+9,0930 +8,6333 +9,4836 +8,8460 +9,1753	1,2047 ,2046 ,2031 ,2006 ,2006	+9,7788 ,7790 ,7816 ,7859 ,7859	121 122 129 139 138	+,004 +, <b>0</b> 06 -,050 +,014 +, <b>0</b> 29	-,04 +,07 +,02 -,16 -,08
961 962 963 964 965	4 4 4 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,766 15,722 15,704 15,690 15,580	+9,5682 ,4786 ,4800 ,1399 ,5670	+8,8978 +9,1954 +9,1925 +9,5100 +8,8889	1,1977 ,1965 ,1960 ,1956 ,1926	+9,7906 ,7925 ,7933 ,7940 ,7987	144 146 151 153 162	+,009 +,029 -,005 +,003 +,020	,08 ,03 ,04 ,07 ,02
966 967 968 969 970	4 3 4 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,437 15,350 15,180 15,142 15,034	+9,7716 9,4564 7,9031 9,3801 9,6395	9,3220 +9,2178 +9,6150 +9,3114 7,4850	1,1885 ,1861 ,1813 ,1802 ,1771	+9,8047 ,8082 ,8149 ,8164 ,8204	178 181 192 195 205	+,018 +,002 ,000 +,005 +,001	,03 ,02 ,02 ,09 ,18
971 972 973 974 975	4 4 4 5 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,828 14,746	+9,0569 ,3483 ,5809 ,7380 ,3304	+9,4995 +9,3276 +8,7450 -9,1124 +9,3258	-1,1763,1711 ,1687 ,1683 ,1623	+9,8214 ,8279 ,8308 ,8312 ,8381	208 223 229 230 246	+,019 ,004 ,003 +,003 +,013	,17 ,07 ,16 ,18 ,09
976 977 978 979 980	4 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,503 14,474 14,426 14,406 14,365	·+9,3747 ,5403 ,3944 ,6345 ,8457	+9,2985 +8,9404 +9,2522 +7,5244 -9,5074	1,1614 ,1606 ,1591 ,1585 ,1573	+9,8390 ,8399 ,8415 ,8422 ,8435	252 254 256 257 264	+,016 +,019 +,007 ,000 +,006	,03 ,02 ,07 ,27 + ,02
981 982 983 984 985	4 4 3 3 4	$\begin{array}{r} + 3 38 50,26 \\ - 8 17 23,00 \\ - 11 24 46,25 \\ + 71 15 30,31 \\ + 0 34 41,14 \end{array}$	14,272 14,259 14,210 14,217 14,185	+9,6785 ,5172 ,4563 ,9063 ,6444	$\begin{array}{r}8,6544 \\ +9,0115 \\ +9,1471 \\9,8271 \\7,8451 \end{array}$	1,1545 ,1541 ,1526 ,1528 ,1518	+9,8464 ,8468 ,8483 ,8481 ,8491	271 272 276 285 <b>2</b> 78	+,016 +,004 -,001 ,000 +,007	-,10 +,01 -,05 +,17 -,07
986 987 988 989 990	4 3 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,057 14,019 14,021 13,912 13,910	+9,1553 9,4314 9,6785 8,9685 9,9248	+9,4093 +9,1784 8,6201 +9,4625 9,7710	-1,1479 ,1467 ,1448 ,1435 ,1433	+9,8530 ,8541 ,8559 ,8572 ,857 <b>3</b>	289 1 4 5 12	,000 +,013 +,009 ,019 +,009	,05 + ,01 ,01 ,19 ,01

No.	Star's name and	Mag.	No. Obs.	Right Ascension	Annual Preces-	   	Logarit	hms of	
			0.05.	Jan. 1, 1836	sion.	a	Ь	с	d
991 992 993 994 995	Scorpii 2 Libræ Serpentis Lupi	8 9.10 8 8 var.	4 4 4	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	3,380 3,114 3,074	—8,7032 ,6843 ,6620 ,6547 ,7977		,5289 ,4933	+ 8,3088 + 8,1704 + 7,3456 + 6,4986 + 8,6422
996 997 998 999 1000	Libræ  Cor. Bor. Libræ	8.9 8 8 8.9 8	4 4	$\begin{array}{c} 11 & 36,19 \\ 11 & 49,04 \\ 12 & 26,95 \\ 12 & 47,26 \\ 12 & 51,8 \end{array}$	3,330 3,173 2,489	,7106	8,7019 ,7096 ,6984 ,7597 ,6993	,5015 ,3960	+7,9157 +8,0714 +7,6722 -8,4115 +7,6856
1001 1002 1003 1004 1005	Cor. Bor. Libræ Serpentis Libræ	8.9 8 8 9.10	3 3 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,246       3,068       4     2,899	,6522 ,6406 ,6464	8,7617 ,7049 ,7019 ,7080 ,7075	,5113 ,4869	—5,4053 —7,8632
1006 1007 1008 1009 1010	Serpentis Draconis Libræ Bootis Libræ	8 8 8 8.9	3 2 4 2 3	16 21,6 16 31,9 16 37,2 18 18,8 18 28,3	$\begin{array}{c c c} 8 & 1,651 \\ 2 & 3,453 \\ 9 & 2,275 \\ \end{array}$	,8756 ,6683 ,7384		,2193 ,5382 ,3570	-7,8710-8,7863+8,2190-8,5269+7,5982
1011 1012 1013 1014 1015	Libræ  Cor. Bor. Serpentis	7.8 8 var. 6.7 8.9	$\begin{vmatrix} 3\\4\\2 \end{vmatrix}$	18 49,4 19 16,1 19 42,4 19 52,3 21 19,3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	,6410 ,6342 ,7181		,5137 ,50 <b>0</b> 4 ,3714	+7,6119
1016 1017 1018 1019 1020	Libræ Scorpii Libræ	8.9 8 8 8 8 8	5 1 3 4 3	$\begin{array}{c} 21 \ 41,6\\ 21 \ 53,2\\ 22 \ 12,7\\ 23 \ 10,9\\ 24 \ 15,1\end{array}$	5 3,350 9 3,609 0 3,422	,6429 ,6789 ,6481		,5250 ,5574	+8,1466 +8,0643 +8,3450 +8,1574 +7,8485
1021 1022 1023 1024 1025	Serpentis Libræ Lupi Serpentis Libræ	7.8 8.9 7.8 7.8	3 4	25 5,3 29 5,1 29 30 3,0 30 41,7	6 3,323 4,094 7 2,742	,6224 ,7524 ,6274	8,7173 ,7346 ,8669 ,7432 ,7369		+7,9927 +8,5948 8,0950
1026 1027 1028 1 <b>02</b> 9 1030	Libræ Scorpii Serpentis Draconis 29 Serpentis	8 7.8 8 8 7.8	5 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7 3,566 9 3,013 2 0,597	,6417 ,5944 ,9870		<b>0,4</b> 790 9,7760	+8,2660 -7,3059 -8,9488
1031 1032 1033 1034 1035	31º Serpentis ^{\$2} Lupi Serpentis Lupi	7 6.7 var 8 8		$\begin{array}{c} 39 \ 40,5\\ 46\\ 46 \ 54,6\\ 49 \ 50,0\\ 53 \ 31,6\end{array}$	3,807 9 2,890 6 2,710	,6425 ,5682 ,5749		,4609	+8,3842 -7,7657

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarit	hms of		zi No.	Annua	I P. M.
	0.05.	Jan. 1, 1000.	sion.	a'	b'	c'	<i>d'</i>	Piazzi	A. R.	Decn.
991 992 993 994 995	4 1 4 4 4	$\begin{array}{c} \circ & 7 & 7 \\ -23 & 45 & 24,70 \\ -17 & 49 & 10,56 \\ -2 & 44 & 49,85 \\ -0 & 22 & 45,78 \\ -44 & 20 & 14,88 \end{array}$	" 13,890 13,834 13,788 13,575 13,493	+9,0253 +9,2810 +9,6010 +9,6325 -9,3139	+9,4463 +9,3251 +8,5212 +7,6747 +9,7727	1,1427 ,1410 ,1395 ,1327 ,1301	+9,8579 ,8595 ,8608 ,8667 ,8689	8 15 17 28 30	s. +,007 +,005 +,009 +,010 -,012	" +0,01 ,10 ,04 ,13 ,06
996 997 998 999 1000	4 4 5 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	13,424 13,422 13,373 13,350 13,347	+9,4654 9,3617 9,5478 9,8751 9,5453	+9,0845 +9,2328 +8,8459 -9,5245 +8,8591	-1,1279 ,1275 ,1262 ,1255 ,1254	,8711 ,8721	38 40 43 46 45	+,016 +,001 +,009 ,006 +,017	,17 ,17 ,05 ,15 ,06
1001 1002 1003 1004 1005	4 3 3 4 4	$\begin{array}{r} +30 \ 20 \ 18,76 \\ -10 \ 3 \ 36,68 \\ + \ 0 \ 2 \ 26,75 \\ + \ 9 \ 29 \ 29,16 \\ - \ 8 \ 47 \ 26,90 \end{array}$	13,303 13,290 13,141 13,136 13,123	+9,8768 9,4713 9,6375 9,7419 9,4955	$\begin{array}{c} -9,5251 \\ +9,0641 \\ -6,5814 \\ -9,0333 \\ +9,0007 \end{array}$	1,1239 ,1235 ,1186 ,1185 ,1180	+9,8739 ,8742 ,8780 ,8781 ,8784	51 48 60 62 61	+,003 +,002 +,020 +,006 +,011	,13 ,32 ,20 ,11 ,08
1006 1007 1008 1009 1010	4 3 2 3	$\begin{array}{r} + 9 \ 40 \ 28,71 \\ +54 \ 31 \ 2,10 \\ -20 \ 47 \ 52,83 \\ +37 \ 55 \ 32,23 \\ - 5 \ 14 \ 22,18 \end{array}$	13,114 13,110 13,092 12,986 12,973	+9,7443 9,9385 9,1367 9,9085 9,5575	9,0409 9,7263 +9,3657 9,6000 +8,7725	1,1177 ,1176 ,1170 ,1135 ,1130	+9,8786 ,8788 ,8792 ,8818 ,8821	66 68 65 74 70	+,011 +,028 +,012 ,008 +,005	,16 ,11 ,04 +-,01 ,18
1011 1012 1013 1014 1015	4 4 4 4	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	12,950 12,919 12,922 12,885 12,785	+9,1367 9,4487 9,5563 9,8998 9,6674	+9,3577 +9,0853 +8,7860 -9,5656 -8,4113	1,1123 ,1112 ,1103 ,1100 ,1067	+9,8826 ,8834 ,8840 ,8842 ,8866	71 77 79 81 85	,027 +,009 +,008 +,014 +,033	,01 ,08 ,11 ,14 ,10
1016 1017 1018 1019 1020	4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	12,754 12,744 12,717 12,654 12,587	+9,2304 9,3324 8,4314 9,2041 9,4742	+9,3002 +9,2247 -+9,4685 +9,3096 +9,0185	1,1056 ,1053 ,1044 ,1022 ,0999	+9,8873 ,8875 ,8881 ,8896 ,8911	87 88 90 94 101	,017 +,007 +,017 -+,017 +,015	$ \begin{array}{c} + ,01 \\ - ,13 \\ - ,06 \\ - ,01 \\ - ,14 \end{array} $
1021 1022 1023 1024 1025	4 1 5 5	$\begin{array}{r} + 3 52 56,77 \\ -13 33 17,40 \\ -44 4 \\ +17 4 33,86 \\ -13 30 49,22 \end{array}$	12,527 12,253 12,211 12,188 12,141	+9,6866 +9,3729 9,3802 +9,8116 +9,3711	$\begin{array}{c}8,6248 \\ +9,1565 \\ +9,6272 \\9,2515 \\ +9,1515 \end{array}$	1,0979 ,0882 ,0867 ,0859 ,0843	+9,8924 ,8984 ,8993 ,8997 ,9007	107 127 129 137 139	+,013 +,010 +,005 ,000	-,10 +,05 +,05 +,02
1026 1027 1028 1029 1030	4 3 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	12,039 11,950 11,800 11,719 11,568	+9,3729 8,7404 9,6767 9,9624 9,8082	+9,1452 +9,3997 -8,4814 -9,7287 -9,2025	1,0806 ,0774 ,0719 ,0689 ,0632	+9,9028 ,9046 ,9076 ,9091 ,9120	144 149 159 168 171	+,015 +,009 +,005 +,022 +,011	+,02 -,11 -,12 +,03 -,05
1031 1032 1033 1034 1035	3 3 4 4 4	$\begin{array}{r} +14 & 37 & 30,26 \\ -33 & 28 & 34,12 \\ + & 9 & 4 & 18,86 \\ +17 & 39 & 43,95 \\ -34 & 59 & 14,18 \end{array}$	11,511 11,009 10,985 10,769 10,487	+9,7973 8,9956 +9,7490 +9,8254 9,1271	-9,1616 +9,4815 -8,9363 -9,2107 +9,4773	1,0611 ,0417 ,0408 ,0322 ,0207	+9,9131 ,9220 ,9224 ,9260 ,9305	173 205 209 223 236	+,005 +,023 +,001 ,000	,11 + ,01 + ,02 ,22

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No.	Star's name and I	Mag.	No. Obs.		Right scension	Annual Preces-		Logarit	hms of	
			0.05.	Jan	. 1, 1836.	sion.	a	Ь	c	d
1036 1037 1038 1039 1040	Libræ Scorpii Draconis	8 8.9 8 8	4 3 3 4 4	h. 15	m. s. 53 51,21 54 26,06 55 20,47 55 36,74 56 25,10	s. +3,229 3,229 3,494 3,442 1,433		8,7590 ,7596 ,7847 ,7788 ,9987	+0,5091 ,5091 ,5433 ,5368 ,1562	+7,6925 +7,6898 +8,1088 +8,0507 -8,6888
1041 1042 1043 1044 1045	Scorpii 1 Lupi Herculis Scorpii	8 7.8 8 8 8.9	1 4		56 55,02 57 36,67 58 18,72 59 33,67 59 50,14	3,660 3,989 2,949 3,457 3,468			+0,5635 ,6009 ,4697 ,5387 ,5401	+8,2446 +8,4330 7,5384 +8,0497 +8,0604
1046 1047 1048 1049 1050	κ ² Serpentis Herculis Scorpii Serpentis	8 8 9 8 8,9	4 3 4 3 4	16	0 36,07 0 40,96 2 44,52 3 12,55 3 49,22	2,702 3,681 3,472			+0,4697 ,4317 ,5660 ,5406 ,4281	7,5298 8,0185 + 8,2334 + 8,0503 8,0302
1051 1052 1053 1054 1055	Ophiuchi Herculis Scorpii Regulæ	8 8 7 8 7	2 4 4 4 1		5 10,62 5 16,21 6 10,21 9 10,29 9 28,50	2,935 2,938 3,766	,5040 ,5552		,4680 ,5759	-7,5577 -7,5455
1056 1057 1058 1059 1060	Herculis Scorpii seq. —— præc —— seq. Herculis	8 8 8.9 8.9			9 41,16 10 30,74 10 55,11 10 55,69 11 19,82	3,492 3,494 3,494	,5104 ,5104		+0,4239 ,5431 ,5433 ,5433 ,5433 ,4320	
$1061 \\ 1062 \\ 1063 \\ 1064 \\ 1065$	Herculis Regulæ Serpentis	7.8 8.9 7 8 8			$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,807 4,029 3,000	,4876 ,5848 ,4734			7,4994 7,8172 +8,3820 7,2291 7,2545
1066 1067 1068 1069 1070	Herculis Scorpii  Ophiuchi	8 8.9 8 9 8	) 3 3 4 4		14 19,12 15 24,28 15 35,04 15 48,41 16	3,735 3,580	,5253 ,5028 ,5128		,5539	+8,2111 +8,0961 +8,1578
1071 1072 1073 1074 1075	Serpentis Scorpii Regulæ Ophiuchi Herculis	7.8 8.9 8.9 9 8.9	) 4 ) 4   4		$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,627 3,928 3,016	,4908 ,5237 ,4302		,5595 ,5942 ,4794	+8,2845   -7,0581
1076 1077 1078 1079 1080	Ophiuchi Herculis Ophiuchi Herculis	8 8.9 8.9 8.9	3		28 3,26 28 48,71 30 45,54 31 10,01 31 44,24	2,673 3,224 2,427	,4324 ,4059 ,4521	,7937 ,8421	,4270 ,5084 ,3851	-7,9177 +7,5039 -8,1146

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	ms of		zi No.	Annua	1 P.M.
	0.03.		sion.	a'	<i>b'</i>	c'	ď	Piazzi	A. R.	Decn.
1036 1037 1038 1039 1040	5 2 4 4 4	$\begin{array}{c} \circ & 7 & 7 \\ - & 8 & 1 & 49,29 \\ - & 8 & 1 & 2,00 \\ - & 20 & 26 & 36,12 \\ - & 18 & 4 & 53,22 \\ + & 54 & 58 & 55,53 \end{array}$	" 	+9,4928 +9,4928 +9,0334 +9,1673 +9,9782	+8,8643 +8,8616 +9,2566 +9,2048 9,6236	1,0200 ,0182 ,0153 ,0144 ,0123	+9,9308 ,9315 ,9325 ,9328 ,9356	240 243 244 249 262	s. +,006 +,011 +,011 +,001 +,002	- ,01 ,00 - ,21 + ,01 - ,12
1041 1042 1043 1044 1045	1 2 3 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	10,237 10,182 10,137 10,036 10,017	7,9031 9,2988 +9,7152 +9,1303 +9,1072	+9,3695 +9,5016 8,7122 +9,2026 +9 2121	1,0102 ,0079 ,0059 ,0016 ,0007	+9,9343 ,9352 ,9358 ,9373 ,9376	257 260 269 273 275	+,004 +,011 +,008 +,009 +,015	,02 +,09 ,07 +,02 +,16
1046 1047 1048 1049 1050	4 3 4 3 5	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	9,966 9,961 9,794 9,758 9,717	+9,7160 +9,8280 	8,7036 9,1741 +9,3565 +9,2018 9,1836	0,9985 ,9983 ,9909 ,9893 ,9875	+9,9383 ,9384 ,9408 ,9412 ,9418	$281 \\ 285 \\ \tilde{o} \\ 7 \\ 11$	+,017 +,001 +,005 +,004 -,003	,06 ,03 + ,03 ,01 + ,05
1051 1052 1053 1054 1055	4 5 4 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	9,610 9,605 9,538 9,301 9,276	+ 8,8692 +9,7243 +9,7235 	+9,2537 8,7310 8,7190 +9,3623 +9,4645	0,9827 ,9825 ,9795 ,9685 ,9673	+9,9433 ,9433 ,9442 ,9473 ,9473 ,9477	17 20 24 35 37	+,001 +,013 +,018 ,000 +,005	
1056 1057 1058 1059 1060	4 4 3 5	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	9,265 9,198 9,167 9,167 9,167 9,141	+9,8463 +9,0414 +9,0334 +9,0334 +9,8299	9,1830 +9,1888 +9,1883 +9,1883 9,1254	0,9669 ,9637 ,9622 ,9622 ,9610	+9,9478 ,9486 ,9490 ,9490 ,9490 ,9194	43 45 48 49 53	+,017 ,000 ,000 -,003 -,007	,07 ,10 ,08 ,11 + ,06
1061 1062 1063 1064 1065	4 4 5 4 4	$\begin{array}{r} + 5 56 31,76 \\ + 12 20 18,86 \\ - 38 48 3,00 \\ + 3 16 7,13 \\ + 3 28 38,75 \end{array}$	9,136 9,026 9,006 8,927 8,917	+9,7193 +9,7882 -9,3483 +9,6848 +9,6875		0,9607 ,9555 ,9545 .9507 ,9502	+9,9494 ,9510 ,9510 ,9520 ,9521	52 57 55 62 63	+,012 +,008 +,017 +,003 +,017	,05 ,07 ,06 ,05 ,15
1066 1067 1068 1069 1070	4 4 2 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	8,907 8,813 8,802 8,786 8,718	$\begin{array}{r} +9,8028 \\8,7482 \\ +8,6628 \\7,9031 \\ +9,4409 \end{array}$	$\begin{array}{ } -9,0263 \\ +9,3289 \\ +9,2360 \\ +9,2868 \\ +8,8658 \end{array}$	0,9597 ,9451 ,9446 ,9438 ,9404	+9,9522 ,9533 ,9535 ,9537 ,9544	65 67 68 70 76	+,008 +,001 +,004 +,013	— ,09 + ,04 — ,02 — ,04
1071 1072 1073 1074 1075	4 4 4 4 4	+ 3 14 42,67 24 46 45,40 35 11 15,49 + 2 26 35,23 +22 5 10,37	8,206 8,088	+9,6848 +8,1461 -9,2355 +9,6739 +9,8739	$\begin{array}{c c} -8,3791 \\ +9,2475 \\ +9,3730 \\ -8,2338 \\ -9,1667 \end{array}$	,9268 ,9141 ,9079		85 87 99 109 124	+,008 +,015 -,007 +,010 +,005	,16 + ,01 - ,13
1076 1077 1078 1079 1080	3 4 4 4 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	7,747 7,595 7,562	+9,4983	-9,0725 +8,6766 -9,2391	,8891 ,8805 ,8786	,9648 ,9663 ,9666	122   130   138   141   144		,08 ,01 ,03

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No.	Star's name and	Mag.	No. Obs.	Asc	Right cension	Annual Preces-		Logarit	hms of	
		U	Obs.	Jan.	1, 1836.	sion.	a	Ъ	С	d
1081 1082 1083 1084 1085	Serpentis Herculis Ophiuchi Scorpii Nebules	8.9 7.8 8.9 8 7	3 4 4 4 4	16	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	s. +3,122 2,634 2,974 3,892 2,132			+ 0,4944 ,4206 ,4733 ,5902 , <b>3</b> 288	7,9284 7,2581
1086 1087 1088 1089 1090	Scorpii Herculis Scorpii	9 7.8 8	3 2 4		39 41 18,67 42 22,66 42 28,25 42	4,180 4,182 2,881 4,193 4,187	8,4856 ,4754 ,3493 ,4705 ,4675	8,9225 ,9235 ,8033 ,9257 ,9249		+8,2967 -7,5164
1091 1092 1093 1094 1095	Draconis Scorpii Draconis Scorpii	9 7.8 7.8 7.8 7	3		42 55,40 43 31,88 43 45,45 45 4,42 45 12,22	4,198 3,895 1,214	8,6293 ,4653 ,4139 ,5792 ,4479	9,0862 8,9271 8,8770 9,0492 8,9200	+ 9,9886 9,6230 0,5905 0,0842 0,6184	+8,2893 +8,1524 -8,4961
1096 1097 1098 1099 1100	Scorpii Serpentis Ophiuchi Draconis Scorpii	7.8 7.8 8 8 8	2 3 4 4 1		45 15,90 45 48,60 47 2.84 47 16,96 47 47,58	3,154 3,198 1,497			+0,5908 ,4989 ,5049 ,1752 ,6063	+7,1590 +7,3287 -8,4102
1101 1102 1103 1104 1105	Ophiuchi Draconis Scorpii	7.8 9 9 8 9	3 3 3 3 3 2 3		49 22,35 49 35,71 50 42,20 50 44,56 51 51,30	3,422 3,482 0,273			$\begin{array}{r} +\ 0,5315\\ 0,5343\\ 0,5418\\ 9,4362\\ 0,5874\end{array}$	+7,7477 +7,8073 8,6382
1106 1107 1108 1109 1110	Scorpii Herculis	7.8 9 9 7 8	3 3 3 5 4 4		52 4,95 53 57,73 54 59,19 53 45,21 57 12,03	1,633 3,466 2,602	,4533 ,2894	—8,8130 ,9821 ,8263 ,8340 ,8174	+0,4496 ,2130 ,5398 ,4153 ,5245	-8,3259 +7,7616 -7,8171
$1111 \\ 1112 \\ 1113 \\ 1114 \\ 1114 \\ 1115$	······	9 8 9 8 9	1 4 4 6 1	17	59 33,91 1 13,12 1 26,47 1 59,44 2 24,30	2,399 3,713 3,723	,2700	,8595		+7,9246
1116 1117 1118 1119 1120	Herculis Scorpii	8 7 8 9	4 3 4 3 3		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,479 2,478 3,929	,2453 ,2433 ,2765		,3943 ,3941 ,5943	7,8619
1121 1122 1123 1124 1125	39 Ophiuchi Herculis	9 8 7 7 8	4 3 4 2 6		6 46,94 6 52,36 8 1,17 8 52,21 10 17,87	2,726 3,651 2,490	, <b>21</b> 34 ,2067		,4355 ,5624 ,3962	-7,6035 +7,8244 -7,8146

No.	No.	Declination	Annual Preces-		Logarith	ms of		zi No.	Annual	I P. M.
	Obs.	Jan. 1, 1836.	sion.	a'	<i>b'</i>	c'	d'	Piazzi	A. R.	Decn.
1081 1082 1083 1084 1085	4 4 3 4 4	$\begin{array}{r} \circ & \prime & \prime \\ - & 2 & 30 & 41,61 \\ + & 19 & 14 & 26,44 \\ + & 4 & 19 & 56,92 \\ - & 33 & 23 & 33,20 \\ + & 36 & 49 & 16,87 \end{array}$	7,188	+9,5944 +9,8555 +9,7016 9,1847 +9,9581	+8,2127 9,0796 8,4329 +9,2894 9,3253	0,8721 ,8638 ,8566 ,8507 ,8496	+9,9677 ,9690 ,9701 ,9710 ,9711	148 160 166 167 172	s. ,000 +,021 +,017 +,012 +,007	" - ,35 - ,11 - ,09 + ,05 - ,03
1086 1087 1088 1089 1090	444	$\begin{array}{r} -41 & 32 \\ -41 & 29 & 55,99 \\ + & 8 & 27 & 34,70 \\ -41 & 42 & 43,12 \\ -41 & 32 \end{array}$	6,883 6,729 6,647 6,630 6,603	9,4742 9,4757 +9,7536 9,4829 9,4786	+9,3575 +9,3472 	0,8377 ,8279 ,8226 ,8215 ,8197	+9,9727 ,9740 ,9747 ,9748 ,9750	179 192 208 199 204	<b>—,0</b> 02 +,010 <b>—,</b> 003	— ,01 — ,05 ,00
1091 1092 1093 1094 1095	4 3 4 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6,608 6,542 6,525 6,432 6,404	+0,0137 9,4871 9,1903 +0,0116 9,4564	-9,4509 +9,3377 +9,2511 9,4233 +9,3178	0,8201 ,8157 ,8146 ,808 <b>3</b> ,8064	+9,9750 ,9755 ,9757 ,9764 ,9766	217 209 211 229 218	+,015 -,012 +,020 +,027 +,008	,02 ,09 ,03 ,19 ,15
1096 1097 1098 1099 1100	4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6,399 6,360 6,255 6,249 6,194	$\begin{array}{r} -9,1931 \\ +9,5670 \\ +9,5250 \\ +0,0047 \\ -9,3655 \end{array}$	+9,2431 +8,3341 +8,5025 9,3847 +9,2731	0,8061 ,8034 ,7962 ,7958 ,7919	+9,9767 ,9769 ,9777 ,9778 ,9782	222 226 235 241 237	+,002 +,011 +,019 +,004 +,024	+,11 +,04 -,08 +,05 -,05
1101 1102 1103 1104 1105	4 4 2 4 4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5,949 5,966	$\begin{array}{r} +9,2528 \\ +9,2095 \\ +9,0719 \\ +0,0204 \\9,1430 \end{array}$	+ 8,8825 + 8,9073 + 8,9617 - 9,4326 + 9,1895	,7813 ,7745	+9,9792 ,9793 ,9800 ,9798 ,9807	244 245 254 264 259	+,001 +,014 +,006 +,032 +,001	$ \begin{array}{c} - ,09 \\ - ,23 \\ + ,01 \\ - ,23 \\ - ,05 \end{array} $
1106 1107 1108 1109 1110	444	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,687 5,592 5,446	+9,7860 +0,0017 +9,1106 +9,8669 +9,3444	$\begin{array}{r}8,7513 \\9,3256 \\ +8,9177 \\8,9664 \\ +8,7559 \end{array}$	0,7662 ,7549 ,7476 ,7361 ,7329	,9818 ,9824 ,9833	262 275 274 287 288	+,005 +,015 +,005	-,09   -,15
1111 1112 1113 1114 1114	4 4 8	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5,069 5,047 4,996	+9,1004 +9,9185 8,6434 8,6990 8,6990		,6986	,9856 ,9858 ,9861	300 312 308 311 <b>1</b>	+,001	+ ,05   - ,06   - ,09
1116 1117 1118 1119 1120	4 3 4	$ \begin{array}{r} + 8 & 6 & 2,67 \\ + 24 & 26 & 35,47 \\ + 24 & 27 & 23,15 \\ - 33 & 32 & 23,80 \\ - 27 & 46 & 16,45 \end{array} $	4,815 4,792 4,736	+ 9,9015	+9,1159	,6826 ,6805 ,6754	,9871 ,9872 ,9875	8 11 15 10 12	+,020 +,020 +,011	06, — ,06 — ,11 — ,07
1121 1122 1123 1124 1124 1125	4 2 5	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	6 4,588 6 4,590 8 4,424	$\begin{array}{ c c c c c } +9,8248 \\ -7,3010 \\ +9,8987 \end{array}$	$\begin{array}{ }8,7651 \\ +8,9609 \\8,9517 \end{array}$	,6616 ,6519 ,6458	,9883 9888 9888 9892	26 31 37	+,020 +,003 ,000	$\begin{array}{c c} 0 & - & ,16 \\ 5 & - & ,05 \\ 0 & - & ,01 \end{array}$

No.	Star's name and	Mag.	No. Obs.	Rig Ascen		Annual Preces-		Logarit	hms of	
		U	Obs.	Jan. 1,	1836.	sion.	a	b	с	d
1126 1127 1128 1129 1130	Ophiuchi  Serpentis Ophiuchi	7.8 8 8 8 9	4 4 3 4 4	10 11	s. 20,14 47,47 15,47 46,90 9,22	s. +3,716 3,126 3,715 3,368 3,634	8,2019 ,1510 ,1935 ,1529 ,1767	8,8615 ,8143 ,8617 ,8254 ,8517	+0,5701 ,4950 ,5700 ,5274 ,5604	+6,8021 +7,8405
$1131 \\ 1132 \\ 1133 \\ 1134 \\ 1135$	Herculis Draconis Ophiuchi Herculis	7 9 8 9 7	$     \begin{array}{c}       2 \\       2 \\       1 \\       3 \\       2     \end{array} $	12 12 12 13 13	52,11 6,37	2,847 3,676	8,3259 ,3898 ,1383 ,1722 ,1719	9,0053 9,0699 8,8208 8,8573 8,8573 8,8602	,0453 ,4544 ,5654	-7,3596
1136 1137 1138 1139 1140	Scorpii Ophiuchi  Scorpii	8.9 8 8 8.9 8	$\begin{vmatrix} 2\\ 3 \end{vmatrix}$	14   14   14		2,839 3,642 3,280			,5613 ,5159	+7,7625 +7,3217
1141 1142 1143 1144 1145	Ophiuchi Herculis Ophiuchi Draconis	8 7 8.9 9 8	$\begin{vmatrix} 2\\ 2\\ 2\\ 2\\ 3\\ \end{vmatrix}$	16 16 16 16 16 17	7,59 5 <b>2,</b> 36 55,65	2,860 2,536 3,579	,1270 ,1239		,4564 ,4041 ,5538	
1146 1147 1148 1149 1150	Ophiuchi  Draconis	8.9 9 7.8 9	3	18     18     19     19     19     20	29,00 52,82	2,678 3,285 2,869	,0974 ,0730 ,0677		,4278 ,5165 ,4577	-7,5516 +7,2845 -7,2417
1151 1152 1153 1153 1154 1155		9 7 9 8 8.	2 2 3 2 9 2	20 21 22 22 22 22	l 4,27	7 3,433 1 2,996 3 3,299	,0658 ,0474 ,0519	8,8338 8,8184 8,8244	,5357 ,4765 ,5184	+7,2901
1156 1157 1158 1159 1160	Ophiuchi	9 8 8 9	4 5 2		2 17,69 2 27,98 2 55,21 3 21,29 3 27,99	5   3,130 1   3,123 2   2,648	,0344 ,0289 ,0447	,8186 ,8186 ,8393	6 ,4958 6 ,4940 8 ,4229	5 + 6,7075 3 + 6,6508 - 7,5265
1161 1162 1163 1164 1165	Herculis	9 8. 8 7. 8	9 3 2 8 2	2 2 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	8 3,620 8 2,260 3 2,350	6 ,0499 6 ,0760 8 ,0629	,8543 ,8870 ,8739	3,5594 0,3553 9,372	4   +7,6400 3
1166 1167 1168 1169 1170	Herculis	- 7	.8 5 4 .8 3		6 49,3 7 24,5 8 13,6 8 59,3 9 24,2	$\begin{array}{c c c} 4 & 3,52 \\ 7 & 2,78 \\ 3 & 2,55 \end{array}$	9960 3,9719 7,9820	),843( ),829 ),850	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5  +7,5060 5  7,2951 7  7,5383

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarit	hms of	1	zi No.	Annual	P. M.
			sion.	a'	b'	<i>c'</i>	d'	Piazzi	A. R.	Decn.
1126 1127 1128 1129 1130	4 3 3 4 2	$\begin{array}{c} \circ & 7 & 7 \\26 & 22 & 22,63 \\2 & 34 & 11,87 \\26 & 19 & 37,42 \\12 & 54 & 35,42 \\23 & 24 & 11,33 \end{array}$	$\begin{array}{c} '' \\4,287 \\ 4,253 \\ 4,207 \\ 4,167 \\ 4,144 \end{array}$	$-8,6532 \\+9,5911 \\-8,6532 \\+9,3117 \\+8,0000$	+8,9779 +7,9778 +8,9690 +8,6672 +8,9144	-0,6321 ,6287 ,6240 ,6198 ,6175	+9,9898 ,9900 ,9902 ,9904 ,9906	41 46 48 55 57	s. +,004 +,002 +,005 +,001 +,002	+ ,04 + ,02 - ,02 - ,11 - ,06
1131 1132 1133 1134 1135	4 2 2 2 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,104 4,099 4,076 4,053 4,025	+0,0124 +0,0232 +9,7716 8,2787 +9,9117	$\begin{array}{r} -9,1947 \\ -9,2305 \\ -8,5296 \\ +8,9307 \\ -8,9399 \end{array}$	0,6133 ,6126 ,6102 ,6078 ,6047	+9,9907 ,9907 ,9908 ,9909 ,9911	69 72 66 62 71	+,026 +,014 +,026 +,033 +,017	$ \begin{array}{c} - , 21 \\ - , 04 \\ - , 20 \\ - , 16 \\ - , 07 \end{array} $
1136 1137 1138 1159 1140	3 3 2 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,007 3,973 3,967 3,893 3,819	+8,9395 +9,7745 +7,4771 +9,4330 8,8261	+8,8197 -8,5325 +8,9004 +8,4921 +8,9436	0,6029 ,5991 ,5985 ,5903 ,5819	+9,9911 ,9913 ,9913 ,9916 ,9920	67 74 70 79 82	+,013 +,018 +,008 +,006 +,026	$\begin{array}{c} - \ ,06 \\ - \ ,18 \\ - \ ,01 \\ - \ ,09 \\ + \ ,02 \end{array}$
1141 1142 1143 1144 1145	4 3 2 3 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,802 3,796 3,733 3,727 3,727	+9,8142 +9,7657 +9,8870 +8,6812 +0,0241	8,6477 8,4717 8,8449 +8,8290 9,1885	0,5800 ,5793 ,5720 ,5714 ,5714	+9,9920 ,9921 ,9923 ,9924 ,9924	85 84 92 89 <b>10</b> 1	+,014 +,009 +,006 +,031 +,008	$ \begin{array}{c} - , 14 \\ - , 10 \\ + , 06 \\ - , 05 \\ + , 04 \end{array} $
1146 1147 1148 1149 1150	3 3 4 3 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,635 3,607 3,509 3,475 3,469	+9,8351 +9,8426 +9,4281 +9,7604 +0,0212		-0,5605 ,5571 ,5452 ,5409 ,5402	+9,9927 ,9928 ,9932 ,9934 ,9934	102 104 107 108 116	+,013 +,006 +,021 +,014	$\begin{array}{c} - ,09 \\ + ,04 \\ - ,07 \\ - ,23 \\ - ,18 \end{array}$
1151 1152 1153 1154 1155	4 4 3 2 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,452 3,372 3,348 3,337 3,337 3,337	+9,7752 +9,1903 +9,6875 +9,4082 +0,0212	$\begin{array}{c}8,4707 \\ +8,6527 \\7,9605 \\ +8,4596 \\9,1252 \end{array}$	0,5380 ,5278 ,5248 ,5233 ,5233	+9,9935 ,9938 ,9938 ,9939 ,9939	$111 \\ 114 \\ 119 \\ 118 \\ 124$	+,017 +,010 +,004 +,011 +,015	- ,08 - ,18 - ,27 - ,28 + ,03
1156 1157 1158 1159 1160	3 3 3 2 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,268 3,251 3,210 3,176 3,164	+9,8899 +9,5877 +9,5944 +9,8531 +9,2304	8,7911 +7,8831 +7,8265 8,6816 +8,6017	0,5143 ,5120 ,5065 ,5018 ,5003	+9,9941 ,9942 ,9944 ,9945 ,9945 ,9945	$123 \\ 122 \\ 126 \\ 133 \\ 129$	+,013 +,006 -,010 +,006 +,024	$\begin{array}{c} - ,10 \\ ,00 \\ - ,17 \\ - ,09 \\ - ,17 \end{array}$
1161 1162 1163 1164 1165	2 2 3 3 4	$\begin{array}{r} + & 0 & 10 & 10,02 \\22 & 54 & 17,03 \\ +31 & 17 & 9,22 \\ +28 & 15 & 54,70 \\24 & 30 & 28,07 \end{array}$	3,153 3,107 3,061 3,061 2,980	+9,6345 +8,2041 +9,9464 +9,9299 -8,2304	$-6,6604 \\ +8,7804 \\ -8,8992 \\ -8,8592 \\ +8,7902$	0,4987 ,4923 ,4858 ,4858 ,4742	+9,9946 ,9947 ,9949 ,9949 ,9951	132 134 143 141 142	+,013 +,006 +,017 +,017 -,008	$\begin{array}{c} - ,17 \\ - ,07 \\ + ,02 \\ - ,02 \\ - ,05 \end{array}$
1166 1167 1168 1169 1170	3 4 4 4	+ 9 41 26,49 -18 52 41,28 +12 9 31,07 +21 6 23,03 +11 45 46,71	2,876 2,×18 2,755 2,691 2,651	+9,7738 +8,9590 +9,8007 +9,8814 +9,7973	-8,4613 -8,6843	,4300	,9957 ,9958 ,9960	149 152 158 163 165	+,010 +,016 +,016 +,018 +,005	$\begin{array}{c} - ,22 \\ - ,05 \\ + ,05 \\ - ,01 \\ + ,03 \end{array}$

No.	Star's name and	Mag.	No. Obs.	Right Ascension	Annual Preces-		Logari	thms of	
			0.05.	Jan. 1, 1836.	sion.	a	в	c	d
1171 1172 1173 1174 1175	Ophiuchi Herculis Ophiuchi	8 8.9 8 9 7.8	3 2 2 2 1	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	<i>s.</i> +2,792 3,329 2,568 3,651 3,019		8,8295 ,8286 ,8492 ,8589 ,8207	+0,4459 ,5223 ,4096 ,5624 ,4799	-7,2531 +7,2262 -7,5069 +7,5674 -6,4917
1176 1177 1178 1179 1180	Ophiuchi ———— Herculis Ophiuchi	7 8 7.8 7.8 8	4 3 2 3 2 3	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,752 2,753 3,097 2,463 2,845	7,9279 ,9165 ,8974 ,9340 ,8714	8,8326 ,8327 ,8209 ,8619 ,8273	,3915	-7,2805 +6,2587 -7,5520
1181 1182 1183 1184 1185	Ophiuchi Herculis 83	8 7.8 7 7 6	3 2 2 2 2 2	34 49,89 34 56,44 34 59,31 35 32,29 35 45,14	2,654 2,370	7,8923 ,8617 ,8786 ,9021 ,8858		+0,5567 ,5093 ,4239 ,3747 ,3906	+7,4646 +6,9476 7,3523 7,5699 7,5060
1186 1187 1188 1189 1190	Draconis Ophiuchi 61 su Draconis	8 8 7.8 7.8 8	5 5 4 2	36 36 14,24 36 21,34 36 48,22 36 53,67	$\begin{array}{r} -0,376 \\ +2,933 \\ 3,007 \\ 2,740 \\ 1,277 \end{array}$		-9,2652 8,8238 8,8221 8,8346 9,0465	9,5752 +0,4673 ,4781 ,4377 ,1062	6,4988
1191 1192 1193 1194 1195	Ophiuchi  Telescopii	8.9 7.8 8.9 8 7	3 1 2 2 3	37 31,91 38 8,84 38 44,51 39 0,46 40 0,91	2,933 2,935 2,936 2,934 4,214	7,8129 ,8010 ,7888 ,7834 ,8787	8,8241 ,8241 ,8242 ,8243 ,9426	+0,4673 ,4676 ,4678 ,4675 ,6247	$\begin{array}{r}6,8162 \\6,7993 \\6,7820 \\6,7842 \\ +7,6932 \end{array}$
1196 1197 1198 1199 1200	Sagittarii Tauri Pon. Herculis	7 8 8 7 8	3 5 3 4	41 26,17 42 1,99 42 38,43 42 38,54 42	3,979 3,545 2,897 1,949 3,992	7,8081 ,7383 ,7024 ,8165 ,7757	8,9057 ,8488 ,8262 ,9386 ,9080	,5496 ,4619	+7,2664 6,8064 7,6248
1201 1202 1203 1204 1205	Ophiuchi ↓ ¹ Draconis Ophiuchi	9 8 8 7 7	2 3 3 3 3	43 43,35 44 3,96 44 53,95 45 3,53 45 33,73	3,522 3,549 -1,093 +3,632 3,104	7,6932 7,6868 8,1588 7,6675 7,6159		+0,5468 +,5501 -,0386 +,5601 +,4919	—8,1376 +7,2585
1206 1207 1208 1209 1210	Serpentis Telescopii Herculis Serpentis Ophiuchi	7.8 7 7.8 8 8	4 3 2	45 46,82 46 9,03 46 47 22,99 47 47 <b>,2</b> 3	3,342 4,256 1,564 3,440 3,525	7,6185 ,7238 ,7687 ,5733 ,5668	8,8320 8,9499 9,0013 8,8397 8,8474	,1942 ,5366	+6,9219 +7,5466 -7,6427 +7,0043 +7,0772
1211 1212 1213 1214 1215	Tauri Pon. Ophiuchi Herculis	7 7 7.8 7 8	3 2 1 2 4	47 57,07 48 46,98 49 11,74 49 13,11 49 59,09	2,947 2,951 3,472 2,625 1,705	7,5396 ,5092 ,5079 ,5115 ,6157	8,8251 ,8251 ,8425 ,8461 ,9785	,5406 ,4191	-6,4510 +6,9697

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	nms of		zi No.	Annua	Р. М.
	0.05.		sion.	<i>a'</i>	Ъ′	c'	<i>d'</i>	Piazzi	A. R.	Decn.
1171 1172 1173 1174 1175	4 3 2 3 3	$\begin{array}{c} \circ & , & '' \\ +11 & 47 & 33,18 \\ -11 & 10 & 1,20 \\ +20 & 42 & 3,71 \\ -23 & 44 & 20,86 \\ + & 2 & 7 & 44,61 \end{array}$	$\begin{array}{c} '' \\2,581 \\ 2,564 \\ 2,564 \\ 2,524 \\ 2,524 \\ 2,524 \end{array}$	+9,7973 +9,3692 +9,8785 -7,4771 +9,6730	8,4200 +8,3940 8,6550 +8,7051 7,6675	0,4119 ,4089 ,4089 ,4020 ,4020	+9,9964 ,9964 ,9964 ,9965 ,9965	171 170 175 173 177	s. +,004 +,014 +,013 +,012 +,048	" ,02 ,11 ,01 ,01 + ,02
1176 1177 1178 1179 1180	3 2 4 3 3	$\begin{array}{r} +13 \ 25 \ 34,89 \\ +13 \ 22 \ 52,34 \\ \hline 1 \ 18 \ 16,59 \\ +24 \ 30 \ 33,58 \\ + \ 9 \ 32 \ 2,27 \end{array}$	2,477 2,414 2,373 2,350 2,205	+9,8142 +9,8136 +9,6075 +9,9069 +9,7730	-8,4576 -8,4450 +7,4347 -8,6871 -8,2606	0,3940 ,3827 ,3753 ,3711 ,3434	+9,9966 ,9968 ,9969 ,9970 ,9973	183 185 187 191 199	+,013 +,010 +,016 +,014 +,011	+ ,01 ,00 — ,06 — ,06 — ,14
1181 1182 1183 1184 1185	4 4 2 2 3	$\begin{array}{r}21 & 56 & 30,42 \\6 & 59 & 48,99 \\ +17 & 18 & 53,66 \\ +27 & 43 & 39,23 \\ +24 & 39 & 4,61 \end{array}$	2,176 2,170 2,170 2,124 2,101	+8,5051 +9,4914 +9,8513 +9,9279 +9,9079	+8,6081 +8,1205 8,5083 8,6930 8,6406	0,3377 ,3365 ,3365 ,3272 ,3224	+9,9974 ,9974 ,9974 ,9975 ,9976	197 202 205 212 213	,006 +,014 +,011 +,019 +, <b>0</b> 02	- ,07 - ,06 + ,02 - ,06 - ,19
1186 1187 1188 1189 1190	1 1 3 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2,083 -2,060 2,049 2,008 2,008 2,008	+0,0350 +9,7269 +9,6803 +9,8189 +0,0245		0,3188 ,3139 ,3115 ,3028 ,3028	+9,9976 ,9977 ,9977 ,9978 ,9978	232 214 216 219 224	+,021 ,001 +,007 ,035	+,11 -,08 -,11 +,02 -,14
$1191 \\ 1192 \\ 1193 \\ 1194 \\ 1195$	2 3 3 3 3 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	1,944 1,892 1,840 1,816 1,724	+9,7259 +9,7251 +9,7243 +9,7259 -9,5065	-7,9901 -7,9733 -7,9560 -7,9581 +8,7489	0,2887 ,2769 ,2648 ,2592 ,2364	+9,9979 ,9980 ,9982 ,9982 ,9982	222 230 234 235 236	+,016 +,005 +,017 +,012 +,009	$\begin{array}{c} - ,05 \\ - ,19 \\ - ,12 \\ - ,10 \\ - ,17 \end{array}$
1196 1197 1198 1199 1200	4 5 4 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	1,596 1,549 1,503 1,509 1,474	$\begin{array}{r}9,3096 \\ +8,8573 \\ +9,7459 \\ +9,9881 \\9,3243 \end{array}$	+8,6525 +8,4163 -7,9789 -8,6850 +8,6223	0,2030 ,1901 ,1769 ,1786 ,1684	+9,9986 ,9987 ,9988 ,9988 ,9988	248 251 260 262 256	,016 +,015 ,003 +,008	— ,03 — ,16 — ,05 — ,02
1201 1202 1203 1204 1205	3 4 2 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	1,404 1,375 1,323 1,287 1,241	+8,9494 +8,8388 +0,0342 +8,0414 +9,6096	+8,3543 +8,3672 -8,7982 +8,3988 +7,2286	0,1473 ,1383 ,1214 ,1098 ,0938	+9,9989 ,9990 ,9990 ,9991 ,9992	263 264 287 ≇68 274	+,026 +,002 +,013 +,004 ,000	+,09 -,07 -,27 +,04 -,02
1206 1207 1208 1209 1210	3 4 1 2 2	$\begin{array}{c} -11 & 35 & 41,88 \\ -41 & 40 & 57,42 \\ +48 & 26 & 31,26 \\ -15 & 39 & 6,88 \\ -18 & 54 & 23,82 \end{array}$	1,224 1,189 1,171 1,084 1,049	+9,3502 9,5315 +0,0149 +9,1732 +8,9445	+8,0890 +8,5959 -8,6407 +8,1640 +8,2292	0,0876 ,0751 ,0686 ,0350 ,0208	+9,9992 ,9992 ,9992 ,9994 ,9994 ,9994	276 272 288 284 290	+,013 +,006 +,002 +,018	,04 ,03 ,04 ,06
1211 1212 1213 1214 1214	3 3 4 3 3	$\begin{array}{r} + 5 11 34,62 \\ + 5 0 42,00 \\ -16 49 55,31 \\ + 18 21 22,72 \\ +45 34 59,96 \end{array}$	1,037 0,967 0,927 0,927 0,868	+9,7177 +9,7152 +9,1004 +9,8609 +0,0077	7,6698 7,6254 +8,1268 8,1630 8,4906		+9,9994 ,9995 ,9995 ,9995 ,9996	292 296 297 300 306	+,005 +,010 +,006 +,015 +,024	$\begin{array}{c} - , 10 \\ - , 06 \\ - , 03 \\ - , 04 \\ + , 03 \end{array}$

No.	Star's name and Ma	ag.	No. Obs.	As	Rig!		Annual Preces- sion.		Logarith	ums of	
				Jan	. 1,	1030.	51011.	a	Ь	c	
1216 1217 1218 1219 1220	Serpentis Draconis Sagittarii	7.8 7.8 8 7.8 7.8	3 3	//. 17	50 51 52	s. 21,03 27,33 28,13 35,65 17,36	s. +3,186 0,715 3,503 3,670 3,971	7,4384 ,7466 ,4064 ,3571 ,3560	8,8252 9,1303 8,8456 ,8638 ,9054	+0,5032 9,8543 0,5444 ,5647 ,5989	+6,3816 -7,6860 +6,8979 +6,9706 +7,1041
$1221 \\ 1222 \\ 1223 \\ 1224 \\ 1225$	Herculis Sagittarii Tauri Pon. Sagittarii Herculis	8 8.9 8.9 9 8			53 54 54	38,33 6,82 19,87 33,74	2,732 3,639 2,965 3,540 2,507	7,2694 ,2830 ,2183 ,2270 ,2205	8,8371 ,8601 ,8250 ,8493 ,8591	+0,4365 ,5610 ,4720 ,5490 ,3991	$\begin{array}{r}6,6571 \\ +6,8773 \\6,1015 \\ +6,7497 \\6,8085 \end{array}$
1226 1227 1228 1229 1230	Herculis Telescopii Sagittarii	8 7.8 8 8 8.9	3		55 56	35,31 49,24 23,89 27,59 50,95	3,790 3,872	7,1020 7,1972 7,0423 6,8861 6,7824	8,8389 ,9626 ,8795 ,8909 ,8563	+0,4330 ,6367 ,5786 ,5879 ,5568	
1231 1232 1233 1234 1235	Tauri Pon. Sagittarii Tauri Pon.	7.8 7 7 7.8 8	$\begin{vmatrix} 2\\ 2 \end{vmatrix}$		58 58 59 59 59	4,27 18,62	3,594 3,723 2,911	6,6800 6,4650 6,3344 6,1937 5,2936	8,8360 ,8551 ,8707 ,8269 ,8299	,5556 ,5709 ,4640	+6,0284 -5,9780 -5,2607
1236 1237 1238 1239 1240	100 Herculis præc.	9 7.8 6.7 8 8.9	7 5 3	18	0 0 1 1 1	55,74 13,01	3,714 2,414 2,441			,5698 ,3827 ,3876	-6,2021 +6,2996 +6,3395
$1241 \\ 1242 \\ 1243 \\ 1244 \\ 1244 \\ 1245$	Sagittarii	7 8 7.8 8.9 7.8	9 4		4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	,2512	,9079 ,9009 ,8632	,3324 ,5954 ,5640	+6,9701 -6,9888 -6,8399
$     \begin{array}{r}       1246 \\       1247 \\       1248 \\       1249 \\       1250 \\     \end{array} $	Tauri Pon. Cly. Sob. Sagittarii	8 7. 8.9 7.	8 4 9 4 8 3			7 29,20 9 22,23 9 34,29 9 53,38 9 14,53	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	,4525 ,4736 ,5793	,8331 ,8423 ,9335	,4447 ,5402 ,6183	+6,7709 -6,9324 -7,3790
1251 1252 1253 1254 1255	Sagittarii	8. 8 8. 7. 8.	9 3 8 3		1 1 1	$\begin{array}{cccc} 1 & 46,99 \\ 1 & 51,5 \\ 2 & 8,60 \\ 3 & 10,59 \\ 4 & 29,9 \end{array}$	1 3,462 3 3,733 2 3,982	,5632 ,6051 ,6762	,8414 ,8714 ,9060	,572 ,600	3  7,0149 1  7,2544 1  7,4282
$1256 \\ 1257 \\ 1258 \\ 1258 \\ 1259 \\ 1260 \\$	7 Tauri Pon. 8 Sagittarii	7. 7 8 8 8			1 1 1	5 21,4 7 4,3 8 50,4 9 11,7 9 13,8	9 <b>2,</b> 951 7 3,693 8 3,954	,7022 ,7867 ,8307	,8243 ,8656 ,9020	5674 5970	0 + 6,6425 4 - 7,4148 0 - 7,5743

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	ms of		zi No.	Annua	1 P. M.
			sion.	a'	Ъ'	<i>c</i> ′	ď	Piazzi	A. R.	Decn.
1216 1217 1218 1219 1220	4 2 2 3 3	$\begin{array}{c} -5 & 1 & 37,57 \\ +60 & 25 & 39,26 \\ -18 & 3 & 28,05 \\ -24 & 14 & 43,66 \\ -34 & 2 & 51,10 \end{array}$	0,728	+ ⁺ 9,5366 +0,0346 +9,0128 8,1461 9,3010	+7,5560 8,5553 +8,0521 +8,1066 +8,1986	—9,9148 ,9179 ,8625 ,7950 ,7524	+9,9996 ,9996 ,9997 ,9998 ,9998	305 315 308 319 325	s. +,012 +,004 -,007 -,017 +,019	" - ,24 - ,09 ,00 - ,01 ,00
1221 1222 1223 1224 1224 1225	$2 \\ 3 \\ 2 \\ 3 \\ 4$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{c} 0,543 \\ 0,530 \\ 0,496 \\ 0,476 \\ 0,462 \end{array}$	+9,8228 +7,7781 +9,7067 +8,8808 +9,8960	7,8199 +8,0170 7,2765 +7,9003 7,9493	—9,7341 ,7247 ,6951 ,6795 ,6633	+9,9998 ,9998 ,9999 ,9999 ,9999	336 330 340 338 345	+,014 +,012 +,002 +,016	,12 ,00 ,29 ,16 ,02
1226 1227 1228 1229 1230	3 3 3 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	0,367 0,343 0,291 0,199 0,169	+9,8312 9,5705 8,9685 9,1553 +8,4914	7,6765 +8,0716 +7,8397 +7,7072 +7,4972	—9,5650 ,5365 ,4646 ,2972 ,2281	+9,9999 ,9999 ,9999 0,0000 ,0000	350 346 351 355 360	+,019 +,003 +,016 +,019 +,021	,22 + ,07 + ,04 ,09 ,03
1231 1232 1233 1234 1235	3 3 3 3 2	$\begin{array}{r} +13 \ 28 \ 34,18 \\ -21 \ 27 \ 50,07 \\ -26 \ 7 \ 3,63 \\ + \ 6 \ 41 \ 31,00 \\ + \ 9 \ 28 \ 45,97 \end{array}$	0,058 0,046	+9,8162 +8,5798 8,6990 +9,7388 +9,7730	$\begin{array}{r} -7,2116 \\ +7,1733 \\ +7,1074 \\ -6,4338 \\ -5,6806 \end{array}$	9,1459 8,9118 8,7657 8,6688 7,7657	+0,0000 ,0000 ,0000 ,0000 ,0000	363 364 365 371 376	-,020 +,006 ,000 -,001 +,012	,06 ,01 ,27 ,07 ,22
1236 1237 1238 1239 1240	$     \begin{array}{c}       1 \\       3 \\       2 \\       4     \end{array} $	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	0,099 0,122	$\begin{array}{r} -7,7781 \\ -8,6434 \\ +9,9191 \\ +9,9127 \\ +9,8007 \end{array}$	$\begin{array}{r}6,7686 \\7,3326 \\ +7,4291 \\ +7,4723 \\ +7,2983 \end{array}$	+8,4647 8,9961 9,0879 9,1459 9,2842	+0,0000 ,0000 ,0000 ,0000 ,0000	375 383 389 391 3	+,016 +,014 +,017 +,014 +,001	+ ,10 - ,09 + ,07 - ,17 - ,20
1241 1242 1243 1244 1244 1245	5 3 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	0,408 0,449 0,466	$\begin{array}{r} +9,9445 \\ +9,9652 \\9,2624 \\8,0414 \\ +9,7716 \end{array}$	+7,8311 +8,0621 -8,0878 -7,9766 +7,6590	,6108 ,6521 ,6687	+0,0000 9,9999 0,0000 ,0000 9,9998	6 13 9 12 19	+,016 +,010 +,012 -,001 +,004	,06 ,01
1246 1247 1248 1249 1250	5 4 3 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		$\begin{array}{r}9,4150 \\ +9,8007 \\ +9,1106 \\9,4669 \\ +9,7993 \end{array}$		+9,8301 ,9209 ,9329 ,9474 ,9587	+9,9997 ,9996 ,9996 ,9996 ,9996 ,9995	22 30 29 28 35	-,002 +,009 +,007 +,005 +,023	,08 ,08
1251 1252 1253 1254 1255	$     \begin{array}{c}       3 \\       4 \\       4 \\       4 \\       3     \end{array} $	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$1,055 \\ 1,084 \\ 1,177$	$\begin{array}{r} +9,1271 \\ +9,1271 \\ -8,7559 \\ -9,3139 \\ +0,0362 \end{array}$		,0232 ,0350 ,0708	+9,9994 ,9994 ,9994 ,9992 ,9991	384041414461	+,001 +,012	
1256 1257 1258 1259 1260	4 4 4 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	1,508 1,666 1,695	$\begin{array}{c} +9,6159 \\ +9,7152 \\ -8,4771 \\ -9,2810 \\ -9,2787 \end{array}$	-8,5477	,1786 ,2216 ,2291	,9988 ,9985 ,9984	69	+,013 -,002 +,028	-,15  -,20  -,13

No.	Star's name and	Mag	No.		Rigi		Annual Preces-		Logarit	hms of	
10.	Star 5 hume and	mag.	Obs.			1836.	sion.	a	b	c	d
$1261 \\ 1262 \\ 1263 \\ 1264 \\ 1265$	Serpentis Herculis Sagittarii	8.9 7.8 7.8 8 7.8	3 3 3 3 3 3	ћ. 18	19 20 20	s. 26,58 53,80 5,36 22,83 38,53	s. +3,066 2,408 2,408 3,665 3,953	+7,7569 ,8134 ,8176 ,8168 ,8794		+0,4866 ,3817 ,3817 ,5641 ,5947	+5,0657 +7,4608 +7,4651 -7,4286 -7,6159
1266 1267 1268 1269 1270	Cor. Aust. Sagittarii	8 7.8 7.8 7.8 8.9	5 2 3 2		$25 \\ 25$	4,50 19,86 34,38 37,51 44,86	4,138 3,933 3,577 3,477 3,815		,8983 ,8509	+0,6168 ,5947 ,5535 ,5412 ,5815	-7,6495 -7,4578 -7,3636
1271 1272 1273 1274 1274	Sagittarii Lyræ Sagittarii Cly. Sob. Tauri Pon.	8.9 8 7.8 8 7.8	2 2 3		27 27	49,63	2,003 3,950 3,242	8,0074 7,9893 7,9287	,9288 ,9001 ,8241	,3017 ,5966 ,5108	+7,8039 -7,7325 -7,0424
1276 1277 1278 1279 1280	Sagittarii Tauri Pon. Cly, Sob.	7.8 8 8 8 8	5 3 2 3 3		30 30 31	39,85 28,75 42,73 34,50 325,77	3,854 3,116 3,412	8,0155 7,953 2, 7,979	,8854 ,8202 ,8341	,5859 ,4930 ,5330	-7,7231 -6,5171 -7,3821
1281 1282 1283 1284 1285	Tauri Pon.	- 7.8 - 7.8 7	8 3 8 5 3		33 34 35	$\begin{array}{c} 35,52\\ 51,0'\\ 12,32\\ 541,52\\ 541,52\\ 559,60\end{array}$	$7   2,784 \\ 2,784 \\ 3   2,784 \\ 3   0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ 0,195 \\ $	4 ,0049 4 ,0084 2 ,3948	2 8,8285 1 8,8288 3 9,1984	6 0,4447 8 0,4447 9,283	7   +7,3304 3   +8,3533
1286 1287 1288 1289 1290	Antinoi Draconis	7 8.9 7. 8 7	9 1 8 3	L I	3 3	5 4,4 6 50,4 7 14,4 8 12,0 8 32,6	$2 \begin{vmatrix} 3,14\\ 8 & 3,21\\ 2 & 0,41 \end{vmatrix}$	6 ,031 6 ,037 1 ,396	$5   8,8190 \\ 4   8,8208 \\ 3   9,1704$	0 0,497 3 0,507 4 9,613	86,8025
1291 1293 1293 1294 1294	2 Lyræ 3 Draconis 4 Sagittarii	8. 8 9.1 7. 8	0	332 203 3	3 4	9 7,7 9 10,4 9 55,2 0 25,1 0 48,0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2,142 5,314 7,120	1 8,9032 7 9,0684 6 8,8670	2,332 4,051 0,572	8 +7,8989 1 +8,2327 57,7769
129 129 129 129 129 130	7 Lyræ 8 Antinoi 9	7 8 8 8 8 8		2 3 3 3 2	4 4 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4 2,35 4 3,29 5 3,21	5,134 9,091 7,092	3 8,872 8 8,823 7 8,819	7 ,372 1 ,518 1 ,507	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
130 130 130 130 130	02 Draconis 03 Herculis 04 Sagittarii	8	7 9.9 9	3 3 3 3 3	4 4 4	12 21,6 12 38,9 12 43,6 13 19,6 14 3,6	54 <b>2,</b> 49 00 3,52	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	64 9,141 6 8,854 44 8,841	4 9,794 6 0,396 3 0,54	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	ms of		zi No.	Annual	P. M.
		-	sion.	a'	b'	c'	d'	Piazzi	A. R.	Decn.
1261 1262 1263 1264 1265	4 3 5 4 5	+ 0 6 19.57 +26 22 12,50 +26 21 26,11 -24 9 47,71 -33 2 42,87	$\begin{array}{r} '' \\ + & 1,718 \\ 1,753 \\ 1,770 \\ 1,799 \\ 1,909 \end{array}$	+9,6395 +9,9196 +9,9196 8,0414 9,2528	+6,2418 +8,5892 +8,5935 8,5507 8,7154		+9,9984 ,9983 ,9983 ,9983 ,9983	77 83 84 81 87	s. +,008 +,010 +,012 +,008 +,007	" - ,19 + ,06 + ,08 + ,07 - ,01
1266 1267 1268 1269 1270	2 2 4 4 4	38 49 42,20 53 4 48,88 20 57 41,65 17 6 23,00 29 21 50,11	$1,950 \\ 2,060 \\ 2,251 \\ 2,310 \\ 2,356$	9,4564 9,2528 +8,6902 +9,0899 9,0374		+0,2900 ,3139 ,5525 ,3536 ,3721	+9,9979 ,9977 ,9972 ,9972 ,9970	90 97 110 111 117	+,002 +,002 +,029 +,013 +,009	,04 ,09 ,12 ,16 ,09
1271 1272 1273 1274 1275	3 3 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2,362 2,385 2,443 2,530 2,587	8,1139 +9,9818 9,2742 +9,4786 +9,7924	8,7649 +8,8720 8,8291 8,2148 +8,4024	+0,3732 ,3774 ,5879 ,4030 ,4128	+9,9970 ,9969 ,9967 ,9965 ,9963	118 126 122 130 133	,006 +,028 +,008 ,018 +,007	— ,05 — ,10 — ,02 — ,03
1276 1277 1278 1279 1280	4 3 2 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2,697 2,772	+9,7917 -9,1206 +9,5999 +9,2304 +9,4786	+8,4018 8,8337 7,6929 8,5438 8,2802		,9961 ,9960 ,9958	134 136 138 140 152	+,017 +,001 +,020 +,012 +,017	+,01 -,22 -,08 -,15 -,02
$1281 \\ 1282 \\ 1283 \\ 1283 \\ 1284 \\ 1285$	4 3 3 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{c c} 2,968 \\ 2,997 \\ 3,112 \end{array}$	$\begin{array}{c}9,4786 \\ +9,8000 \\ +9,8007 \\ +0,0326 \\ +9,7589 \end{array}$	-8,9749 +8,4920 +8,4968 +9,1496 +8,3642	+ <b>0,4</b> 700 ,4725 ,4767 ,4931 ,4982	,9952 ,9951 ,9947	148 154 156 173 163	,023 +,009 +,013 +,009 +,011	- ,03
1286 1287 1288 1289 1290	4 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,227 3,256 3,325	+0,0318 +9,5740 +9,5065 +0,0318 +9,9786	$\begin{array}{r} +9,1418 \\7,9779 \\8,2590 \\ +9,1721 \\ +9,0187 \end{array}$	,5089 ,5127 ,5218	+9,9946 ,9943 ,9942 ,9939 ,9938	174 168 171 190 182	+,054 +,002 +,019 -,012 -,009	+ ,04 ,06 ,14 ,04 ,05
1291 1292 1293 1294 1295		$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,423 3,480 3,538	$ \begin{array}{c} +8,8129 \\ +9,9633 \\ +0,0245 \\ -8,7708 \\ +8,3979 \end{array} $	$\begin{array}{c}8,7726 \\ +8,9892 \\ +9,1576 \\8,9031 \\8,8322 \end{array}$	,5416 ,5487	,9936 ,9933 ,9931	180 188 198 191 194	+,018 ,006 +,047 +,010 ,000	,14 ,06 ,14 ,01
1296 1297 1298 1299 1300	2 3 3	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3,601 3,658 3,698	+9,5132 +9,9294 +9,4099 +9,5065 +0,0282	-8,4995 -8,3166	,5633 ,5680	,9929 ,9926 ,9925	197 200 201 204 221	+,012 +,003 +,005 +,010 +,001	,06 ,06 ,15 ,02 ,01
1301 1302 1303 1304 1305	2 2 3	+32 35 55,53 +61 46 1,66 +23 42 51,03 19 18 33,29 +33 9 56,67	3,710 3,727 3,779	$\begin{array}{r} +9,9518 \\ +0,0298 \\ +9,8987 \\ +8,9294 \\ +9,9542 \end{array}$	—8,7946	,5694 ,5714 ,5773	,9924 ,9924 ,9921	207 -212 209 208 216	$ \begin{vmatrix} +,005 \\ -,009 \\ +,017 \\ +,019 \\ +,015 \end{vmatrix} $	,05

No.	Star's name and	Mag.	No. Obs.	As	Rigl	sion	Annual Preces-		Logarit	hms of	
			0.05.	Jan	. 1,	1836.	sion.	a	Ъ	c	d
1306 1307 1308 1309 1310	Sagittarii Lyræ Herculis Lyræ Serpentis	8 8 7.8 8 6.7	2	ћ. 18	47 47	s. 1,95 16,95 23,25 59,94 10,53	s. +3,806 1,826 2,588 1,827 3,016	+8,1766 ,2760 ,1651 ,2819 ,1451		+0,5805 ,2615 ,4130 ,2617 ,4794	-7,8675 + 8,1139 + 7,7026 + 8,1199 + -6,7422
1311 1312 1313 1314 1315	<ul> <li>Draconis pr. Sagittarii Aquilæ Segittarii Aquilæ</li> </ul>	8.9 8.9 8 7.8	$\begin{array}{c} 2\\ 4\\ 4\\ 4\end{array}$		49 51 51	45,46 42,27 2,88 28,40 45,64	3,137	+8,4395 ,2138 ,1705 ,2112 ,1903	9,1047 8,8687 ,8136 ,8502 ,8275		-6,8965 -7,8111
1316 1317 1318 1319 1320	Aquilæ Antinoi pr. Sagittarii Lyræ	8.9 8 8 8.9 8.9	5 2 3		54 54 54	28,84 18,10 19,08 46,38 47,74	3,089 3,090 3,674	+8,1958 ,1958 ,1963 ,2427 ,3629		+0,4357 ,4898 ,4900 ,5651 ,2276	-6,4077 -6,4159 -7,8692
1321 1322 1323 1324 1325	Aquilæ Sagittarii Lyræ Aquilæ	8.9 8 8 8.9 7	3		55 56	32,37 56,41 5,89 30,08 20,44	2,859 3,743 2,071		,8163 ,8628 ,9115	,57 <b>32</b> ,3162	+7,4156 -7,9269 +8,0984
1326 1327 1328 1329 1330		8 7 7.8 8 7.8	2		58 58	57,18 39,01 45,95 13,81 24,99	2,307 2,063 2,041	,2930 ,3315 ,3391	,8741 ,9121 ,9156	,3630 ,3145 ,3098	+7,9985 +8,1195 +8,1332
1331 1332 1333 1334 1335	Lyræ Vulpeculæ	8.9 8.9 7.1 7.1	$\begin{array}{c c} 3\\9 & 1\\8 & 2\end{array}$		59 59 0	30,54 31,89 41,35 18,45 54,74	$\begin{array}{c c} 3,737 \\ 5 & 1,602 \\ 5 & 2,594 \end{array}$	,2870 ,4154 ,2677	,8605 ,9888 ,8361	,5725 ,2047 ,4140	+7,8056
1336 1337 1338 1339 1340	Sagittarii Lyrœ	8 7. 8 7 7.	$  3 \\   2$		1 2	56,63 37,07 39,54 52,64 52,64 3 <b>2,</b> 54	3,552 2,030 2,076	,2786 ,3651 ,3590	,8366 ,9163 ,9087	,5505 ,3075 ,3172	+7,4502 -7,8249 +8,1631 +8,1449 +8,0256
1341 1342 1343 1344 1345	Sagittarii	8.9 8.9 8.9 8.9 8.9	9 2 3 9 3		4	3 3,30 3 26,4; 3 47,8; 4 50,4; 4 51,44	3,553 3,609 1 3,489	,2910 ,2997 ,2930	,8359 ,8422 ,8284	,5506 ,5574 ,5427	-7,8390
1346 1547 1348 1349 1350	7 Săgittarii 8 Aquilæ 9 Sagittarii	7. 8 7 7. 8	8 2		1 6 6	5 5 46,66 5 14,29 5 <b>2</b> 2,69 5 <b>5</b> 8,7	9 2,899 9 3,414	,3044 ,2840 ,2963	,8328 ,8091 ,8206	5485 ,5485 ,4622 ,5335	5 -7,8399 2 +7,3997 3 -7,7121

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-	Antonio de la constanti de la constanti de la constanti de la constanti de la constanti de la constanti de la c	Logaritl	hms of		zi No.	Annua	I P. M.
			sion.	a'	b′	<i>c'</i>	d'	Piazzi	A. R.	Decn.
1306 1307 1308 1309 1310	5 3 4 6 4	$\begin{array}{c}29 & 24 & 41,86 \\ + & 43 & 30 & 47,62 \\ + & 20 & 9 & 26,11 \\ + & 43 & 30 & 55,04 \\ + & 2 & 15 & 55,68 \end{array}$	$\begin{array}{c} '' \\ +3,933 \\ 4,116 \\ 4,127 \\ 4,173 \\ 4,196 \end{array}$	9,0128 +9,9952 +9,8716 +9,9948 +9,6749		+0,5947 ,6145 ,6157 ,6204 ,6228	+9,9915 ,9904 ,9906 ,9904 ,9903	217 235 234 244 244 241	s.+,014+,020+,025+,014+,020	- ,03 - ,04 - ,11 - ,09 - ,10
1311 1312 1313 1314 1315	3 4 4 2 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,236 4,332 4,446 4,486 4,503	+0,0261 	$\begin{array}{r} +9,2589 \\ -9,0102 \\ -8,0720 \\ -8,9497 \\ +8,7622 \end{array}$	+0,6269 ,6367 ,6480 ,6519 ,6535	+9,9901 ,9896 ,9890 ,9888 ,9887	248 246 251 253 259	-,002 +,018 +,010 +,017 +,021	$\begin{array}{c c} - & ,09 \\ + & ,06 \\ - & ,01 \\ + & ,02 \\ - & ,22 \end{array}$
1316 1317 1318 1319 1320	4 5 3 4 4	$\begin{array}{r} +14 \ 41 \ 22,49 \\ - \ 0 \ 56 \ 11,29 \\ - \ 0 \ 56 \ 31,08 \\ -25 \ 3 \ 7,61 \\ + \ 46 \ 43 \ 43,82 \end{array}$	4,565 4,719 4,724 4,764 4,753	$\begin{array}{r} +9,8241 \\ +9,6212 \\ +9,6212 \\ -8,2553 \\ +0,0017 \end{array}$	+8,7615 -7,5837 -7,5919 -9,0025 +9,2372	+0,6595 ,6738 ,6743 ,6780 ,6769	+9,9884 ,9876 ,9876 ,9874 ,9874	263 274 275 277 285	+,013 +,007 +,006 +,003 +,002	,20 ,20 ,10 ,17 ,06
$     \begin{array}{r}       1321 \\       1322 \\       1323 \\       1324 \\       1325 \\       \end{array} $	4 4 3 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,826 4,860 4,877 4,900 4,979	+9,6201 +9,7649 -8,7993 +9,9708 +9,7679	-7,6307 +8,5861 -9,0508 +9,1735 +8,6082	+0,6836 ,6867 ,6882 ,6902 ,6971	+9,9870 ,9868 ,9867 ,9866 ,9862	284 288 286 296 297	+,010 +,010 +,010 +,007 +,018	,12 ,10 ,09 ,12 ,09
1326 1327 1328 1329 1330	00000 00000 00000000000000000000000000	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,030 5,086 5,092 5,137 5,154	+9,7694 +9,9370 +9,9717 +9,9740 +9,7259	+8,6187 +9,1099 +9,1929 +9,2029 +8,4233	+0,7015 ,7064 ,7069 ,7107 ,7121	+9,9859 ,9855 ,9855 ,9852 ,9852 ,9851	304 309 311 317 314	-,001 +,008 +,040 +,005 +,012	$ \begin{array}{c} - , 16 \\ - , 11 \\ - , 12 \\ - , 11 \\ - , 00 \end{array} $
1331 1332 1333 1334 1334 1335	2 2 2 3 4 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,161 5,171 5,171 5,227 5,266	+9,5289 8,7708 +0,0052 +9,8692 +0,0241	8,3992 9,0740 +9,2869 +8,9541 +9,3673	+0,7131 ,7135 ,7135 ,7182 ,7215	+9,9851 ,9850 ,9850 ,9847 ,9845	$313 \\ 310 \\ 319 \\ 320 \\ 6$	+,009 +,011 +,004 +,024 +,008	-,15 +,02 -,01 -,25 +,06
1336 1337 1338 1339 1340	2 4 4 2 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,283 5,345 5,424 5,440 5,458	+9,7642 +8,8261 +9,9740 +9,9694 +9,9345	+8,6208 8,9723 +9,2303 +9,2196 +9,1373	,7356	+9,9844 ,9840 ,9835 ,9834 ,9833	322 324 11 13 14	-,001 +,012 -,008 -,019 +,006	,06 ,11 ,05 ,18 ,13
1341 1342 1343 1344 1345	4 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,457 5,497 5,525 5,609 5,609	$\begin{array}{r} +9,7497 \\ +8,8195 \\ +8,4150 \\ +9,0531 \\ +9,9117 \end{array}$	+8,56768,98619,02928,9407+9,0959	,740 <b>1</b> ,7423 ,7489	+9,9833 ,9830 ,9828 ,9823 ,9823	9 10 12 18 23	+,015 -,004 +,007 +,006 +,009	+,41 -,11 +,02 +,02 -,02
1346 1347 1348 1349 1350	4 4 3 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,631 5,693 5,731 5,743 5,788	$ \begin{vmatrix} +9,9299 \\ +8,8976 \\ +9,7443 \\ +9,2279 \\ +9,7634 \end{vmatrix} $	+9,1427 8,9888 +8,5720 8,8730 +8,6572	,7553 ,7583 ,7591	,9817 ,9815 ,9814	26 25 29 28 31	$ \begin{vmatrix} +,013 \\ +,008 \\ +,001 \\ +,027 \end{vmatrix} $	,00 ,11

No.	Star's name and	Mag.	No.	Rig Ascer		Annual Preces-		Logari	thms of	
		0	Obs.	Jan. 1,	, 1836.	sion.	a	ь	c	d
$1351 \\ 1352 \\ 1353 \\ 1354 \\ 1355$	Sagittarii Antinoi Aquilæ	$8.9 \\ 9 \\ 7 \\ 9.10 \\ 7.8$	3 2 3 2 3 3	h. m. 19 7 7 8 8	s. 30,31 42,02 45,86 16,54 34,36	s. + 3,568 3,134 3,322 2,864 2,927	+8,3191 ,2896 ,2982 ,2982 ,2970	8,8355 ,8051 ,8129 ,8097 ,8067	+0,5524 ,4961 ,5214 ,4570 ,4664	7,8802 6,9986 7,5885 +7,4949 +7,3385
1356 1357 1358 1359 1360	Antinoi Sagittarii Antinoi Aquilæ Sagittarii	8 7.8 8 10 7.8	$2 \\ 1$	8 8 9 9 9	48,74 54,89 5,07 13,43 35,87	3,064 3,506 3,333 2,864 4,101	,3210 ,3072	8,8039 ,8280 ,8129 ,8091 ,9131	+0,4863 ,5448 ,5228 ,4570 ,6129	+5,8737 7,8325 7,6154 +7,5014 8,2101
$1361 \\ 1362 \\ 1363 \\ 1364 \\ 1365$	Antinoi Aquilæ Sagittarii Lyræ Aquilæ	8 7 7.8 7.8 7.8			2,20	3,321 2,960 3,648 2,344 2,969	+8,3112 ,3064 ,3490 ,3761 ,3175		+0,5213 ,4713 ,5620 ,3700 ,4726	-7,6009 +7,2335 -7,9667 +8,0706 +7,2106
1366 1367 1368 1369 1370	Aquilæ Antinoi Sagittarii Antinoi	8 8.9 7.8 8 1.10	2	12		3,009 2,927 3,101 3,513 3,209	,3212 ,3190		+0,4784 ,4664 ,4915 ,5457 ,5064	+7,3650 6,7272
1371 1372 1373 1374 1375	Draconis Anseris Antinoi Draconis	7.8 8 8 7 9	2 3 2 3 1	13 13 14	47,56 54,27 57,78 6,61 32,10	0,352 2,559 3,066 3,314 0,573	+8,6980 ,3583 ,3261 ,3353 ,6732	9,1748 8,8333 8,8008 8,8087 9,1449	+9,5465 0,4081 0,4866 0,5203 9,7581	+8,6553 +7,9302 +5,4888 -7,6159 +8,6235
1376 1377 1378 1379 1380	Sagittarii Aquilæ Antinoi Sagittarii Aquilæ	8 8 7.8 8	2 2 3 3 2	14 15 16	54,67 59,66 25,15 5,62 35,76	2,883 3,283 3,402	,3405 ,3531		,4598 ,5163 ,5317	-7,8744 +7,4961 -7,5641 -7,7613 +6,7638
$     \begin{array}{r}       1381 \\       1382 \\       1383 \\       1384 \\       1385     \end{array} $	Antinoi Anseris Cygni Aquilæ	8.9 8 7 7 8.9	$\begin{vmatrix} 3\\ 3\\ 2\end{vmatrix}$	17	33,99 12,65	3,121 2,618 2,148	,3720 ,4420	8,8000 ,7991 ,8244 ,8909 ,7979	,4943 ,4180	-7,1921-6,9631+7,8983+8,2128-6,9632
1386 1387 1388 1389 1390	Cygni Anseris Sagittarii Cygni Aquilæ	7.8 7 8 7.8 6.7	2 2 3	19 19 19 20 20	18,18 59,08 3,56	2,621 3,566 2,161	+8,3963 ,3810 ,3911 ,4503 ,3601	8,8392 ,8231 ,8285 ,8881 ,7971	,4185 ,5522 ,3346	+8,0182 +7,9063 _7,9581 +8,2181 +7,0196
1391 1392 1393 1394 1395	Cygni Draconis Cygni	7.8 8 8 7 8	43	20 21 22 22 23	29,48 48,47	2,152 2,414	,4610 ,4241 ,6448	8,9880 8,8887 8,8475 9,0670 8,9854	,3827	+ 8,2323 + 8,0899 + 8,5718

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-	and the second second second second second second second second second second second second second second secon	Logarith	nms of		zi No.	Annual	I P. M.
	UDS.	Jan. 1, 1000.	sion.	<i>a</i> ′	δ'	c'	d'	Piazzi	A. R.	Decn.
$   \begin{array}{r}     1351 \\     1352 \\     1353 \\     1354 \\     1355   \end{array} $	3 3 3 3 2	$\begin{array}{r} -21 \ 21 \ 19,05 \\ -2 \ 56 \ 49,60 \\ -11 \ 15 \ 20,23 \\ + \ 9 \ 2 \ 40,16 \\ + \ 6 \ 18 \ 48,07 \end{array}$		+8,7482 +9,5843 +9,3802 +9,7627 +9,7292	-9,0255 -8,1742 -8,7598 +8,6655 +8,5119	+0,7662 ,7671 ,7679 ,7708 ,7724	+9,9807 ,9807 ,9806 ,9803 ,9802	32 34 33 40 44	s. +,012 +,017 +,027 +,008 +,014	,04 + ,01 ,05 ,07 ,03
1356           1357           1358           1359           1360	2 3 2 2 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,944 5,955 5,972 5,977 6,016	+9,6415 +9,0000 +9,3636 +9,7627 -9,4216	+7,0498 8,9844 8,7824 +8,6720 9,2765	+0,7741 ,7749 ,7761 ,7765 ,7793	+9,9800 ,9799 ,9798 ,9798 ,9795	46 43 47 49 48	+,003 +,022 +,001 +,018 +,001	,17 ,01 ,05 ,11
1361 1362 1363 1364 1365	3 3 3 2 3 2 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6,038 6,066 6,111 6,211 6,227	+9,3820 +9,7101 +5,8451 +9,9289 +9,7050	-8,7679 +8,4080 -9,1018 +9,1857 +8,3853	+0,7809 ,7829 ,7861 ,7931 ,7943	+9,9793 ,9791 ,9788 ,9781 ,9780	53 58 59 78 75	+,015 +,019 +,030 -,002 +,013	,01 ,17 ,26 ,16 ,28
1366 1367 1368 1369 1370	3 3 3 3 3 2 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6,244 6,260 6,266 6,299 6,326	+9,6785 +9,7292 +9,6128 +8,9777 +9,5132	+8,1584 +8,5384 7,9032 9,0168 8,5418	+0,7954 ,7966 ,7970 ,7993 ,8012	+9,9778 ,9777 ,9777 ,9774 ,9772	76 80 79 82 83	+,007 -,003 +,017 +,020 +,006	- ,07 - ,08 - ,09 + ,04 - ,26
$1371 \\ 1372 \\ 1373 \\ 1374 \\ 1375$	2 2 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6,343 6,365 6,373 6,388 6,409	+0,0183 +9,8791 +9,6385 +9,3892 +0,0174	+9,4575 +9,0735 +6,6649 -8,7840 +9,4551	+0,8023 ,8038 ,8043 ,8053 ,8068		98 88 87 86 101	+,015 +,014 +,012 +,013 +,019	,07 ,09 ,10 ,01
1376 1377 1378 1379 1380	$   \begin{array}{c}     3 \\     2 \\     1 \\     3 \\     2   \end{array} $	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6,454 6,459 6,492 6,553 6,591	+ 8,9912 +9,7528 +9,4314 +9,2480 +9,6618	$\begin{array}{r}9,0256 \\ +8,6676 \\ -8,7340 \\ -8,9227 \\ +7,9397 \end{array}$	+0,8098 ,8102 ,8124 ,8164 ,8190	+9,9762 ,9762 ,9759 ,9754 ,9751	92 95 97 100 106	+,002 +,004 +,018 +,013 +,014	$ \begin{array}{c} - ,01 \\ - ,10 \\ - ,24 \\ - ,13 \\ + ,06 \end{array} $
$ \begin{array}{c c} 1381 \\ 1382 \\ 1383 \\ 1384 \\ 1385 \end{array} $	4 5 3 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	6,608 6,636 6,669 6,718 6,778	+9,5647 +9,5966 +9,8609 +9,9571 +9,5977	$\begin{array}{r}8,3671 \\8,1388 \\ +9,0484 \\ +9,2960 \\8,1389 \end{array}$	+0,8201 ,8219 ,8240 ,8272 ,8311		109 111 116 121 122	,011 +,014 +,014 ,001 +,013	,16 ,11 ,03 + ,08 ,09
1386 1387 1388 1389 1390	3 1 2 3 2	$\begin{array}{r} +24 \ 43 \ 49,73 \\ +19 \ 34 \ 11,94 \\ -21 \ 40 \ 4,21 \\ +35 \ 51 \ 45,21 \\ + \ 2 \ 36 \ 9,55 \end{array}$	6,800 6,811 6,877 6,872 6,882	+9,8965 +9,8603 +8,7559 +9,9552 +9,6785	+9,1524 +9,0565 9,1024 +9,3029 +8,1952	+0,8325 ,8332 ,8374 ,8371 ,8377	+9,9734 ,9733 ,9728 ,9728 ,9727	127 128 130 134 133	+,007 +,002 +,005 +,019 +,003	,14 ,24 ,01 ,10 ,09
1391 1392 1393 1394 1395	3 4 3 4 2	$\begin{array}{r} +49 55 10,35 \\ +36 11 58,72 \\ +27 35 40,94 \\ +57 41 55,92 \\ +49 48 40,10 \end{array}$	6,882 7,014 7,074 7,090 7,063	+9,9992 +9,9557 +9,9133 +0,0099 +9,9978	+9,4196 +9,3153 +9,2135 +9,4757 +9,4301	+0,8377 ,8460 ,8497 ,8507 ,8490	+9,9727 ,9716 ,9711 ,9710 ,9712	140 149 153 156 154	+,012 ,000 +,007 +,004	,26 ,00 ,08 ,03 ,10

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No.	Star's name and M	ag.	No.	Ri Asce	ght nsion	Annual Preces-		Logarit	hms of	
		0	Obs.	Jan. 1	, 1836.	sion.	a	ь	<i>c</i>	d
1396 1397 1398 1399 1400	Sagittarii Albireo seq. Cygni	8 7 7.8 8 7.8	2 5 3 3 2	$   \begin{array}{ccc}     19 & 2^{4} \\     & 2^{4} \\     & 2^{4}   \end{array} $	4 8,80 4 36,73 4 50,84	s. +3,496 2,415 1,376 2,165 2,408	+8,4037 ,4321 ,6088 ,4746 ,4402		+0,5436 ,3829 ,1386 ,3355 ,3817	-7,9153 +8,0985 +8,5147 +8,2428 +8,1108
$1401 \\ 1402 \\ 1403 \\ 1404 \\ 1405$	Anseris Antinoi Aquilæ Cygni	8 8 7.8 9	2 4 3 1	20 20	5 53,61 5 47,70 5 52,84 7 10,86 7	2,599 3,302 2,982 1,243 1,280	+8,4172 ,4004 ,3941 ,6442 ,6388		+0,4148 ,5188 ,4745 ,0945 ,1072	+7,9649 7,6698 +7,2341 +8,5618 +8,5535
1406 1407 1408 1409 1410	Aquilæ Antinoi  Aquilæ	7.8 7.8 8 8 8	3 2 3 2 3	2	7 37,46 7 38,36 7 47,18	3,073 3,070 3,136 3,304 2,912	+8,3965 ,3965 ,3975 ,4052 ,4056		+0,4874 ,4871 ,4964 ,5190 ,4642	6,0064 5,6384 7,1375 7,6773 +7,5036
1411 1412 1413 1414 1415	Antinoi  Cygni	8 7.8 8 8 7	1 3 3 2	2		3,086 3,068	,4074		+0,4894 ,4883 ,4894 ,4869 ,3440	$\begin{array}{r}6,5738 \\6,3298 \\6,5778 \\4,8711 \\ +8,2505 \end{array}$
1416 1417 1418 1419 1420	Cygni Sagittarii Aquilæ	6 7.8 9 8 8	$\begin{array}{ c c } 2\\2\\2\\2\\2\\2\\2\end{array}$	33	0 5,05 0 30,22 0 30,85 0 39,02 0 39,41	3,539 3,608 2,937	,4397 ,4483 ,4128		-+0,1903 ,5489 ,5573 ,4679 ,4640	+8,4927 7,9924 8,0525 +7,4368 +7,5152
$1421 \\ 1422 \\ 1423 \\ 1424 \\ 1425$	Aquilæ Antinoi Draconis Aquilæ	7.8 9 8 7.8 8	$\begin{vmatrix} 1\\2 \end{vmatrix}$		0 51,67 0 53,80 1 12,05 1 37,33 1 42,41	3,107 3,248 -0,170	,4118 ,4180 ,8633		+0,5116 -9,2304	-7,5792 + 8,8340
$1426 \\ 1427 \\ 1428 \\ 1429 \\ 1430$	Aquilæ Sagittarii Sagittæ	8 7.8 9 8	4 2 3 1 3		$\begin{array}{rrrr} 2 & 1,29 \\ 2 & 44,40 \\ 2 & 50,89 \\ 3 & 38,64 \\ 34 & 5,55 \end{array}$	3,896 2,680 2,678	,5017 ,4409 ,4446	,8078	,5906 ,4281 ,4278	+7,9198
$1431 \\ 1432 \\ 1433 \\ 1434 \\ 1435$	Antinoi Cygni Antinoi Aquilæ Antinoi	8.9 7.8 8 7.8 8	33		34 9,09 34 18,09 34 27,52 34 50,35 35	2,331 2,970	,4934 ,4286 ,4332	,7872	,3675 ,4728 ,4618	+7,3296 +7,5767
1436 1437 1438 1439 1440	Aquilæ	8.9 8.9 8.9 8	) 4		85 18,86 85 28,19 86 17,69 86 25,08 86 46,79	2,680 2,914 2,809	,4526 ,4386 ,4454	,8047 ,7877 ,7937	,4281 ,4645 ,4485	+7,9332  +7,5377  +7,7632

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## together with their annual precessions and proper motions, &c.

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarithr	ns of		zzi No.	Annual	P. M.
			sion.	a'	<i>b'</i>	c'	d'	Piazzi	A. R.	Decn.
1396 1397 1398 1399 1400	4 4 4 3 3	$\begin{array}{c} & & & & & \\ -18 & 57 & 33,53 \\ +27 & 37 & 32,23 \\ +53 & 38 & 0,16 \\ +35 & 53 & 16,07 \\ +27 & 55 & 18,17 \end{array}$	" + 7,205 7,205 7,243 7,264 7,319	+9,0334 +9,9127 +0,0030 +9,9533 +9,9133	-9,0672 +9,2220 +9,4638 +9,3274 +9,2331	+0,8576 ,8576 ,8599 ,8612 ,8644	+9,9700 ,9700 ,9696 ,9694 ,9689	155 162 167 164 169	s. +,026 +,012 +,022 +,010 +,009	
1401 1402 1403 1404 1405	3 3 3 2 1	+20 39 23,98 -10 43 10,79 + 3 57 32,84 +55 47 25,36 +55 14 27,35	7,351 7,427 7,433 7,449 7,460	+9,8645 +9,4048 +9,6964 +0,0052 +0,0043	+9,1121 8,8383 +8,4091 +9,4877 +9,4854	+0,8664 ,8708 ,8711 ,8721 ,8727	+9,9686 ,9679 ,9679 ,9677 ,9676	172 177 178 189 190	+,005 +,012 +,011 +,013	,15
1406 1407 1408 1409 1410	2 3 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	7,492 7,492 7,498 7,508 7,590	+9,6345 +9,6345 +9,5832 +9,4031 +9,7380		,8755	+9,9673 ,9673 ,9673 ,9672 ,9664	182 183 181 185 195	+,019 +,011 +,016 -,010 +,006	-,18 -,12 -,37
1411 1412 1413 1414 1414	333	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7,616 7,665 7,681	+9,6243 +9,6304 +9,6232 +9,6375 +9,9464	-7,5059 -7,7538 -6,0472	,8817 ,8845 ,8854	,9661 ,9657 ,9653	194 198 200 202 202	+,005 +,003 +,015 +,015 +,008	-,08 -,04 -,16
1416 1417 1418 1419 1420	$\begin{vmatrix} 2\\ 2\\ \end{vmatrix}$	$ \begin{vmatrix} +50 & 53 & 16,12 \\ -20 & 55 & 0,42 \\ -23 & 41 & 57,00 \\ + & 6 & 3 \\ + & 7 & 14 & 56,41 \end{vmatrix} $	7,730 7,730 7,735	+9,9961 +8,8808 +8,4150 +9,7234 +9,7372	-9,1389 -9,1903 +8,6105	,8681 ,8881 ,8884	,9650 ,9650	205 204 208	+,017 +,007 +,003 +,016 +,008	-,15 +,02
1421 1422 1423 1424 1424	$   \begin{array}{c c}     2 & 1 \\     3 & 2 \\     4 & 2   \end{array} $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	7,756 7,789 7,800	+9,6074 +9,4698 +0,0065	- 8,0927   - 8,7506   + 9,5609	,8897 3 ,8915 9 ,8921	,9644 ,9643	$   210 \\ 213 \\ 227$	+,014 +,014 -,014	1 - ,10 2 - ,17 5 - ,09
1420 1422 1428 1429 1429 1430	7 3 8 2 9 3	$\begin{array}{r} + 7 11 44,75 \\ -34 1 28,60 \\ +17 31 29,90 \\ +17 37 4,50 \\ +17 48 56,60 \end{array}$	7,912 7,912 6 7,976	-9,1873 +9,8393 +9,8394	5 - 9,344 5 + 9,075 5 + 9,080	1 ,8983 2 ,8983 8 ,9014	3 ,9632 3 ,9632 3 ,9632 3 ,9626	218 228 228	8 +,01 5 +,01 8 +,00	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
143 143 143 143 143	$     \begin{array}{c c}       2 & 3 \\       3 & 2 \\       4 & 4     \end{array} $	$\begin{vmatrix} +31 & 1 & 48,7 \\ + & 4 & 34 & 21,0 \\ + & 7 & 59 & 55,3 \end{vmatrix}$	6 8,024 8 8,037 4 8,072	+9,926 +9,704 +9,745	8 + 9,314 1 + 8,504 8 + 8,748	7,904 3,905 6,907	$\begin{array}{c cccc} 4 & ,962 \\ 1 & ,9619 \\ 0 & ,9616 \\ \end{array}$	$   \begin{bmatrix}     1 & 23 \\     23 \\     5 & 24   \end{bmatrix} $	9 +,01 5 +,01 1 +,00 5	$\begin{array}{c} 3 + ,03 \\ 6 - ,09 \\ 9 - ,09 \\ - ,03 \end{array}$
143 143 143 143 143 144	7 2 8 2 9 3	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	7     8,126       26     8,196       0     8,200	$\begin{array}{c c} 5 & +9,839 \\ 0 & +9,737 \\ 0 & +9,788 \\ \end{array}$	$5 +9,088 \\2 +8,710 \\2 +8,929$	34 ,909 33 ,913 97 ,913	9,961 3,960 8,960	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	7 +,00 8 +,0 0 +,0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

lxv

No.	Star's name and Ma		o.	Rigi Ascens	nt sion	Annual Preces-	renting griphing to digit with Agen	Logaritl	nms of	
1.01		-5' [0]	bs.	Jan. 1,		sion.	a	в	<i>c</i>	<i>d</i>
1441 1442 1443 1444 1445	Aquilæ 16 c Cygni seq. Aquilæ Sagittæ	777	2 2 3 3 2	37 37 38	s. 54,91 29,96 58,97 46,42 47,59	s. +2,842 1,610 2,121 2,852 2,682	+8,4451 ,6333 ,5450 ,4522 ,4664		+ 0,4536 ,2068 ,3265 ,4551 ,4285	+7,7071 +8,5185 +8,3337 +7,6948 +7,9477
1446 1447 1448 1449 1450	Sagittarii Cygni seq. Aquilæ Sagittæ Cygni	7.8 7.8 7 7.8 7.8 7.8	3 3 3 2 2 2	39 39 39	18,66 39,68 41,25 43,70 18,48	4,169 2,198 2,953 2,654 1,229	+8,5786 ,5392 ,4512 ,4731 ,7110		+0,6200 ,3402 ,4703 ,4239 ,0895	8,4062 + 8,3052 + 7,4235 + 7,9809 + 8,6329
1451 1452 1453 1454 1455	Cygni Sagittarii	7.8 7.8 7.8 7.8 7.8 7.8	2 3 3 9 3 3	41 41 42	22,54 28,57 25,05 2,82 25,96	3,014 1,313 3,498	+ 8,4825 ,4570 ,7023 ,4849 ,5398	8,8063 8,7801 9,0264 8,8051 8,8538	+ 0,4204 ,4791 ,1183 ,5438 ,3600	+7,1053 +8,6181 8,0109
1456 1457 1458 1459 1460	Aquilæ Sagittæ	7 8 8 7.8 7.8	2 3 2 2 5	44 44 45	39,45 26,58 37,15 20,55 35,04	2,858 2,692 2,671	+ 8,4910 ,4749 ,4893 ,4943 ,4928		+0,4214 ,4561 ,4301 ,4267 ,4302	+7,7124 +7,9658 +7,9920
1461 1462 1463 1464 1465	Vutpeculæ seq. Aquilæ	7 8 7 7.8 7	3 1 2 3 2	45 46 47	45,23 57,43 11,21 27,94 33,58	2,831 2,635 2,825	,4823 ,5017 ,4884		+0,5119 ,4519 ,4208 ,4510 ,4048	+7,7706 +8,0340 +7,7901
1466 1467 1468 1469 1469	Aquilæ	8.9 8 8 8.9 8	3 3 2 4 3	50 50	39,8( 5,39) 10,09 10,56 18,74	2,652 2,838 5 2,834	,5146 ,4978 ,4981	,7969 ,7795 ,7797	,4236 ,4530	+7,7851
$1471 \\ 1472 \\ 1473 \\ 1474 \\ 1474 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ 1475 \\ $	2 Sagittarii 3 Aquilæ 4 Sagittarii	7,8 9 8 8 9	3 3 3 3 3 3 3 3	5		9 3,529 5 2,940 1 3,571	,5226 ,4947 ,5293	,8015 ,7733 ,8067	,5476 ,4683 ,5528	5 - 8,0825 3 + 7,5258 3 - 8,1224
1476 1477 1478 1479 1480	7 <u> </u>	8 8.9 7.8 8	2 3 3 3 1	5	2 52,8 2 55,7 3 8,4	8 2,912 4 2,924 0 3,99	2,5031 4,5027 7,6057	,7725 ,7719 ,8737	,4649 ,4660 ,601	2 +7,6216 0 +7,5866 7 -8,3980
148 148 148 148 148	2 Antinoi 3 Capricorni 4 ———	8 8 8 6.7	3 3 3 3 3	5 5 5	3 45,7 5 2,2 6 1,7 6 26,5 6 32,7	8 3,078 1 3,42 4 3,400	5,5067 1,529 5,528	,7666 5,7844 5,7819	3 ,487 4 ,534 9 ,531	$ \begin{array}{c c} 8 & -6,3129 \\ 1 & -7,9910 \\ 5 & -7,9654 \end{array} $

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	ms of		zi No.	Annual	. Р. М.
	0.03.		sion.	a'	Ъ′	c'	d'	Piazzi	A. R.	Decn.
1441 1442 1443 1444 1445	3 4 3 2	$\begin{array}{c} +10 & 31 & 22,87 \\ +50 & 8 \\ +37 & 55 & 57,69 \\ +10 & 3 & 49,03 \\ +17 & 37 & 48,45 \end{array}$	" + 8,237 8,280 8,317 8,386 8,386	+9,7738 +9,9899 +9,9547 +9,7671 +9,8376	+ 8,8758 +9,5013 +9,4067 + 8,8641 +9,1029	+0,9158 ,9180 ,9200 ,9236 ,9236	+9,9598 ,9594 ,9590 ,9582 ,9582	253 262 263 268 270	s. -,005 +,003 +,005 +,004 +,017	" + ,13 - ,04 - ,22 - ,08
$1446 \\ 1447 \\ 1448 \\ 1449 \\ 1450$	3 2 3 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	8,434 8,449 8,460 8,460 8,497	9,4609 +9,9455 +9,7143 +9,8482 +9,9978	9,4517 +9,3909 +8,5977 +9,1332 +9,5492	+0,9260 ,9268 ,9 <b>2</b> 74 ,9274 ,9293	+9,9577 ,9575 ,9594 ,9594 ,9570	266 277 272 274 284	-,003 +,008 ,000 +,039 +,024	+ ,01 ,13 ,14 ,04 ,03
1451 1452 1453 1454 1455	2 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	8,592 8,602 8,587 8,650 8,750	+9,8537 +9,6758 +9,9956 +9,0253 +9,9304	+9,1623 +8,2809 +9,5477 -9,1610 +9,3748	+0,9341 ,9346 ,9338 ,9370 ,9420	+ 9,9559 ,9558 ,9560 ,9552 ,9541	287 285 292 288 300	+,023 +,007 +,025 +,006 +,036	— ,17 ,00 — ,15 — ,13 — ,16
1456 1457 1458 1459 1460	4 1 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	8,771 8,839 8,850 8,907 8,922	+9,8519 +9,7649 +9,8344 +9,8414 +9,8338	+9,1674 +8,8819 +9,1215 +9,1454 +9,1242	+0,9430 ,9464 ,9469 ,9497 ,9505	+9,9538 ,9530 ,9529 ,9522 ,9520	301 307 308 312 315	+,020 ,004 +,018 +,015 +,019	,11 ,19 ,10 + ,02 + ,02
1461 1462 1463 1464 1464	2 4	$\begin{array}{r} - 8 & 39 & 25,63 \\ + 11 & 11 & 19,15 \\ + 19 & 54 & 16,05 \\ + 11 & 31 & 58,47 \\ + 23 & 53 & 40,00 \end{array}$	8,943 8,954 8,975 9,073 9,082	+9,4683 +9,7781 +9,8531 +9,7810 +9,8797	8,8268 +8,9384 +9,1833 +8,9573 +9,2637	+ <b>0,</b> 9515 ,9520 ,9530 ,9578 ,9580	+9,9520 ,9517 ,9514 ,9502 ,9501	314 317 321 326 327	-,013 +,017 -,001 +,005 +,012	- ,04 - ,03 - ,17 - ,10 - ,03
1466 1467 1468 1469 1470	3 4 5	+17 27 26,66 +19 21 47,35 +10 58 45,28 +11 9 22,42 +16 42 40,76	9,276 9,286 9,286	+9,8331 +9,8470 +9,7745 +9,7767 +9,8267	+9,1373 +9,1860 +8,9458 +8,9529 +9,1252	+0,9620 ,9673 ,9678 ,9678 ,9693	+9,9491 ,9477 ,9475 ,9475 ,9475 ,9474	335 338 336 337 341	+,015 +,004 +,002 +,005 +,010	,06 ,08 + ,02 + ,13 ,04
1471 1472 1473 1474 1475	3 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		+9,7364 +8,9191 +9,7210 +8,7243 +9,7760	+8,7820 -9,2279 +8,6994 9,2623 +8,9550	+0,9693 ,9700 ,9702 ,9712 ,9712	+9,9471 ,9469 ,9469 ,9466 ,9471	345 339 348 346 350	+,012 +,006 +,006 +,006 +,005	+,01 +,04 -,05 -,03 +,07
1476 1477 1478 1479 1480	4 3 2	$\begin{array}{r} + 6 50 41,90 \\ + 7 32 9,75 \\ + 6 57 58,95 \\ - 38 18 36,97 \\ + 21 59 44,22 \end{array}$	9,492 9,497 9,518	+9,7292 +9,7372 +9,7308 -9,3096 +9,8645	+8,7496 +8,7940 +8,7594 -9,4688 +9,2501	+0,9750 ,9774 ,9776 ,9785 ,9785	+9,9455 ,9448 ,9448 ,9445 ,9445	357 363 364 359 368	+,010 +,005 +,011 -,009 +,002	+ ,01 ,04 + ,02 ,38 + ,07
1481 1482 1483 1484 1485	4 4 5	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	9,743 9,768	+9,1139 +9,6314 +9,2095 +9,2504 +9,8241	-9,1843 -7,4890 -9,1481 -9,1246 +9,1461	,9887 ,9898	,9415 ,9411	367 376 381 387 392	+,005 +,018 +,010 +,006 +,011	,04

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## Mean Right Ascension and Declination of 2050 Stars

No.	Star's name and	Mag.	No. Obs.		Righ	ion	Annual Preces-	• • • • • • • • • • • • • • • • • • •	Logarit	hms of	
				Jan	n. 1,	1836.	sion.	a	Ь	c	d
1486 1487 1488 1489 1490	Antinoi Sagittarii Sagittæ Sagittarii Capricorni	9 7.8 7 8 8	2 3 2 3 2 3 2	h. 19	56 56 56	s. 33,87 42,11 50,03 55,35 37,78	s. +3,212 3,491 2,705 3,542 3,345	+8,5153 ,5393 ,5329 ,5463 ,5278		+0,5068, ,5429 ,4322 ,5492 ,5244	7,6032 8,0719 +-8,0058 8,1221 7,8922
1491 1492 1493 1494 1495	Capricorni Antinoi Vulpeculæ Antinoi Sagittæ	7.8 8 7.8 8 7.8	2 1 2		58 58 58	44,10 1,66 6,43 40,46 22,42	3,334 3,260 2,570 3,095 2,727	+8,5271 ,5230 ,5538 ,5193 ,5394	8,7748 ,7691 ,7999 ,7628 ,7800	+ 0,5230 ,5132 ,4099 ,4907 ,4357	7,8759 7,7345 +8, <b>9</b> 492 6,8860 +7,9906
1496 1497 1498 1499 1500	Antinoi Vulpeculæ Sagıttæ Vulpeculæ	8 8 7.8 8.9		20	59 0 0 1	27,08 1,52 1,77 4,91 28,43	3,028 2,633 2,724 2,654 2,622	+8,5218 ,5523 ,5417 ,5533 ,5584	8,7621 ,7900 ,7797 ,7864 ,7900		+7,0573 +8,0993 +7,9963 +8,0821 +8,1157
1501 1502 1503 1504 1505	Aquilæ Antinoi Vulpeculæ Antinoi	7 8.9 7 7 7	2 3 2 2 2 2		1 1	39,96 45,32 50,65 16,26 21,54	3,202 2,511 3,256	,5750 ,5366	,7622 ,8049	,5054 ,3998 ,5127	7,5947 +8,2140 7,7451
1506 1507 1508 1509 1510	Antinoi 	7 8 7 7.8 7.8		and and a second second second second second second second second second second second second second second se	2 2 2 3 3	51,22 53,68 5,79	3,079	,5357 ,5328 ,5357	8,7580 8,7601	0,5053 0,4884 0,4698	-7,5972 -6,5406 +7,5465
1511 1512 1513 1514 1515	Antinoi Aquilæ Capricorni	8 8 7 7. 8			3 3 3 4	25,17 39,99 44,69	3,074 9 2,746 9 3,297	,5345 ,5516 ,5440	,7574 ,7737 ,7655	,4877 ,4387 ,5181	-6,2287 +7,9835 -7,8362
1516 1517 1518 1519 1520	Vulpeculæ Aquilæ	8 7. 8 8 7.	8 2 2		4 5 5 5	15,47 20,03	2,505 7 2,971 8 2,749	5868 ,5417 ,5567	,8029 ,7569 ,7717	,3988 ,4729 ,4392	+8,2328 +7,4673 +7,9867
1521 1522 1523 1524 1525	2 Aquilæ pr. 3 <u>seq</u> 4 <u>seq</u>		8 2 8 2 3		6	5 55,64 5 7,20 5 7,9 5 39,53 5 44,1	6 2,940 1 2,940 3 3,010	5455 5 5455 5455 5455	,7568 ,7568 ,7542	4692 4692 4786	$\begin{array}{c}6,3072 \\ +7,5719 \\ +7,5731 \\ +7,2518 \\ -8,0243 \end{array}$
1526 152 152 152 152 153	7 Aquilæ 8 Cygni 9	7 8	.9 2 .9 2 .9 2 .9 2 .8 1			7 10,2 7 16,6 7 56,3 8 29,2 8 31,7	9 3,02 6 2,24 8 1,88	2,5469 1,6408 7,7100	,7533 ,8450 ,9117	4804 3504 2758	

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarit	hms of		zi No.	Annua	1 P. M.
			sion.	a'	Ъ′	c'	d'	Piazzi	A. R.	Decn.
1486 1487 1488 1489 1490	3 4 3 3 3	$\begin{array}{c} & & & & \\ & - & 7 & 2 & 40,21 \\ - & 19 & 57 & 8,28 \\ + & 17 & 16 & 38,05 \\ - & 22 & 8 & 6,82 \\ - & 13 & 23 & 24,84 \end{array}$	" +9,773 9,783 9,793 9,799 9,860	+9,5105 +9,0414 +9,8280 +8,8692 +9,3424		+0,9900 ,9905 ,9909 ,9912 ,9939	,9409	389 388 394 390 396	s. +,019 +,001 +,012 +,001 +,007	,07 -,15 -,01 -,17 -,08
1491 1492 1493 1494 1495	3 3 3 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	9,865 9,890 9,890 9,936 9,986	+9,3598 +9,4579 +9,8704 +9,6170 +9,8202	9,0409 8,9048 +9,2887 8,0620 +9,1486	+ <b>0</b> ,9941 ,9752 ,9952 ,9972 ,9994	+9,9398 ,9394 ,9394 ,9388 ,9388	398 399 401 403 409	+,011 +,017 +,005 +,031 +,019	+,03 -,06 +,04 -,15 -,06
1496 1497 1498 1499 1500	3 1 3 3 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	9,991 10,037 10,032 10,117 10,142	+9,6665 +9,8519 +9,8214 +9,8451 +9,8555	+8,2332 +9,2466 +9,1540 +9,2319 +9,2615	+0,9996 1,0016 1,0014 1,0051 1,0061	+9,9380 ,9373 ,9374 ,9361 ,9358	407 415 413 422 424	+,018 +,013 +,009 +,011 +,018	+,05 -,06 +,05 -,17 +,07
1501 1502 1503 1504 1505	3 4 2 3 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	10,158 10,167 10,172 10,208 10,218	+9,8195 +9,5211 +9,8842 +9,4609 +9,5224	+9,1564 -8,7679 +9,3444 -8,9154 -8,7646	+1,0068 ,0072 ,0074 ,0089 ,0094	+9,9355 ,9354 ,9353 ,9348 ,9346	2 423 5 4 6	-,005 +,017 +,007 +,009 +,006	- ,03 - ,05 + ,01 - ,08 - ,10
1506 1507 1508 1509 1510	2 1 2 3	$\begin{array}{r} +20 & 31 & 28,55 \\ - & 6 & 37 & 49,28 \\ - & 0 & 36 & 25,61 \\ + & 5 & 52 & 3,10 \\ + 63 & 13 \end{array}$	10,238 10,253 10,253 10,268 10,278	+9,8500 +9,5211 +9,6284 +9,7160 +9,9827	+9,2533 8,7704 7,7167 +8,7203 +9,6607	+1,0102 ,0108 ,0108 ,0115 ,0119	+9,9343 ,9341 ,9341 ,9339 ,9337	15 8 12 17 30	+,017 +,017 +,016	- ,09 - ,03 - ,19 - ,03
1511 1512 1513 1514 1515	2 3 1 2 1	$\begin{array}{r} + 5 35 26,16 \\ - 0 18 14,75 \\ + 15 41 16,21 \\ - 11 19 28,90 \\ + 20 52 10,14 \end{array}$	10,288 10,293 10,308 10,318 10,338	+9,7126 +9,6335 +9,8129 +9,4116 +9,8513	+8,6997 -7,4047 +9,1437 -9,0038 +9,2645	+1,0123 ,0125 ,0132 ,0136 ,0144	+9,9336 ,9335 ,9333 ,9331 ,9328	19 18 23 20 27	+,014 +,016 +,016 +,011 +,015	-,15 -,14 +,16 -,08 +,01
1516 1517 1518 1519 1520	3 2 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	10,393 10,413 10,428 10,434 10,472	+9,8129 +9,8848 +9,7024 +9,8116 +9,3892	+9,1480 +9,3616 +8,6418 +9,1465 -9,0401	+1,0167 ,0176 ,0182 ,0184 , $G200$	+9,9320 ,9317 ,9315 ,9314 ,9308	32 36 35 38 39	+,020 +,015 +,022 +,014	- ,04 + ,03 - ,18 - ,12
1521 1522 1523 1524 1525	3 2 3 3 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	10,482 10,498 10,498 10,537 10,543	+9,6325 +9,7177 +9,7177 +9,6776 +9,2279	-7,4832 +8,7455 +8,7467 +8,4273 -9,1815	+1,0205 ,0211 ,0211 ,0227 ,0229	+9,9306 ,9304 ,9304 ,9297 ,9297	41 43 44 46 45	+,017 -,010 -,013 +,005 +,016	$ \begin{array}{c} - ,10 \\ - ,03 \\ - ,08 \\ - ,12 \\ - ,12 \\ - ,12 \end{array} $
1526 1527 1528 1529 1530	3 3 1 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	10,572 10,682 10,621 10,666 10,671	+9,5888 +9,6712 +9,9299 +9,9595 +9,9299	-8,4481 +8,3354 +9,4946 +9,5846 +9,4980	+1,0241 ,0246 ,0262 ,0280 ,0282	+9,9292 ,9290 ,9284 ,9277 ,9276	50 51 55 63 61	-,006 +,012 +,016 +,014 +,005	+ ,03 ,00 - ,02 ,00 + ,06

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No.	Star's name and	Mag.	No. Obs.	Right Ascension		-8		Logari	thms of	
			0.05.	Jan. 1, 183	6. sion	•	a	в	c	d d
1531 1532 1533 1534 1535	Aquilæ Capricorni Vulpeculæ Draconis Capricorni	7.8 7.8 7.8 6.7 8.9	3 3 2	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	5 4 7	+ 8,5694 ,5689 ,5846 ,8587 ,5715	8,7660 8,7645 8,7799 9,0523 8,7634	+0,4406 ,5270 ,4206 ,0441 ,5269	+7,9931 -7,9758 +8,1406 +8,7969 -7,9778
1536 1537 1538 1539 1540	Capricorni Vulpeculæ Antinoi Vulpeculæ Antinoi	8 7.8 7.8 7.8 7.8	4 2	$11 \ 36, \\11 \ 40, \\11 \ 41, \\12 \ 19, \\12 \ 23, \\$	34 2,60 96 3,20 85 2,60	5 3 5	+*8,5835 ,5939 ,5629 ,5963 ,5649	8,7715 ,7819 ,7507 ,7811 ,7499		+8,1758
1541 1542 1543 1544 1545	Capricorni Antinoi Cephei Capricorni	7.8 8 8.9 8 8	2	12 28, 13 5, 13 8, 13 14, 13 31,	80 3,39 59 3 <b>,2</b> 0 18 1,38	5 6 7	+8,5962 ,5818 ,5672 ,8208 ,5761	8,7809 8,7637 8,7492 9,0031 8,7564	+0,5478 ,5308 ,5060 ,1421 ,5215	
1546 1547 1548 1549 1550	Capricorni Vulpeculæ Capricorni Antinoi	8 8 8 9	2 2 2 1 4	13 42, 13 43, 13 47, 13 56, 14 16,	51 3,44 89 2,64 27 3,39	18 10 93	+8,5712 ,5895 ,5955 ,5840 ,5696		+0,5120 ,5376 ,4216 ,5306 ,5035	-8,0989 + 8,1502
1551 1552 1553 1554 1555	Vulpeculæ Capricorni Delphini Vulpeculæ	9 8 8 8 7.8	2 1 2 3 2	$\begin{matrix} 14 & 36, \\ 14 & 36, \\ 15 & 34, \\ 15 & 36, \\ 16 & 7, \end{matrix}$	94 3,56 57 2,87	2 6 5	+ 8,5974 ,6073 ,5772 ,6085 ,6099		+ 0,4223 ,5517 ,4588 ,4125 ,4126	+8,1498 -8,2163 +7,8103 +8,2104 +8,2112
1556 1557 1558 1559 1560	Antinoi Vulpeculæ Antinoi Delphini	8 7 7 7.8 9	3 3 2 2 1	16 12, 16 16, 16 18, 16 21, 16 23,	$egin{array}{c c} 04 & 3,05 \ 82 & 2,59 \ 21 & 3,05 \ \end{array}$	5 5 2	+8,5727 ,5726 ,6092 ,5730 ,5808	8,7423 ,7420 ,7783 ,7418 ,7493	,4853 ,4141	-7,1262 + 6,5548 + 8,2038 + 6,7443 + 7,8502
J561 1562 1563 1564 1565	Antinoi Capricorni Vulpeculæ Antinoi	9 7.8 7.8 7.8 7.8	1 3	16 35, 16 55, 17 7, 17 21, 17 25,	11 3,46 98 3,35 68 2,58	53 51 52	+8,5747 ,6007 ,5890 ,6140 ,5772	8,7425 ,7671 ,7546 ,7791 ,7417	,5394 ,5251 ,4120	7,4110 8,1278 7,9837 +8,2194 7,4605
1566 1567 1568 1569 1570	Antinoi Capricorni Antinoi Vulpeculæ Antinoi	8.9 7.8 7 8 7	$4 \\ 1 \\ 2 \\ 2$	$\begin{array}{c} 17 \ 27, \\ 17 \ 34, \\ 17 \ 59, \\ 18 \ 7, \\ 18 \ 21, \end{array}$	91 3,47 46 3,02 37 2,60	'0  2  3	+8,5771 ,6037 ,5780 ,6135 ,5788		+0,4972 ,5403 ,4803 ,4155 ,4830	-8,1391 + 7,2059 + 8,2042
1571 1572 1573 1574 1575	Draconis Vulpeculæ Antinoi	7 8 8 8 7.8	1 1 2 2 3	18 51, 18 51, 18 54, 18 56, 18 57,	68 2,60 99 3,14 28 3,11	0 3 9	+ 8,9213 ,6160 ,5812 ,5806 ,5808	9,0804 8,7748 8,7394 8,7389 8,7388	+0,2835 ,4150 ,4973 ,4940 ,4939	+8,2094 -7,4156

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-	99999999999999999999999999999999999999	Logarith	ims of		zi No.	Annual	P. M.
		Jan. 1, 1650.	sion.	<i>a</i> ′	<i>b'</i>	e'	d'	Piazzi	A. R.	Decn.
1531 1532 1533 1534 1535	3 3 3 3 3 3 3	$\begin{array}{c} & & & & \\ +15 & 22 & 14,68 \\ -14 & 47 & 51,73 \\ +21 & 3 & 55,83 \\ +60 & 8 & 22,08 \\ -14 & 47 & 0,13 \end{array}$	" + 10,754 10,774 10,779 10,808 10,838	+9,8075 +9,3117 +9,8500 +9,9759 +9,3139	+9,1533 -9,1372 +9,2866 +9,6700 -9,1393	+1,0316 ,0324 ,0326 ,0338 ,0349	+9,9263 ,9259 ,9259 ,9254 ,9249	68 66 72 82 73	s. +,004 +,011 +,013 +,030 +,002	" - ,12 - ,14 + ,07 - ,11 - ,13
1536 1537 1538 1539 1540	2 2 3 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	10,907 10,907 10,912 10,965 10,960	+9,1461 +9,8579 +9,5198 +9,8579 +9,5198	9,2443 +9,3176 8,8124 +9,3209 8,8144	+1,0377 ,0377 ,0379 ,0400 ,0398	+9,9237 ,9237 ,9237 ,9228 ,9228 ,9228	80 86 84 91 90	+,011 -,007 +,003 +,007 +,010	,04 + ,06 ,15 + ,04 ,14
1541 1542 1543 1544 1545	3 2 2 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	10,965 11,014 11,014 11,013 11,043	+8,9085 +9,2577 +9,5159 +9,9713 +9,3747	9,3200 9,1890 8,8300 +9,6605 9,0899	+1,0400 ,0419 ,0419 ,0417 ,0431	+9,9228 ,9219 ,9219 ,9220 ,9214	88 94 95 104 96	+,020 +,013 +,003 +,010 .,000	,05 + ,23 ,06 ,32 + ,07
1546 1547 1548 1549 1550	1 3 2 2 1	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	11,052 11,058 11,058 11,058 11,073 11,098	+9,4669 +9,1523 +9,8476 +9,2601 +9,5327		+1,0435 ,0437 ,0437 ,0442 ,0452	+9,9213 ,9212 ,9212 ,9209 ,9205	98 97 101 100 103	+,021 +,017 +,018 +,010 +,015	- ,04 ,00 + ,02 - ,09 - ,02
1551 1552 1553 1554 1555	32	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	11,189 11,189	+9,8463 +8,7634 +9,7559 +9,8633 +9,8627	+9,2963 9,3532 +8,9800 +9,3487 +9,3496	+1,0459 ,0461 ,0488 ,0488 ,0503	+9,9202 ,9201 ,9189 ,9189 ,9182	106 105 110 113 118	+,012 +,027 +,007 +,002 +,001	,07 ,04 ,16 ,04 ,04
1556 1557 1558 1559 1560	2 1 2	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	11,237 11,242 11,247	+9,6064 +9,6454 +9,8597 +9,6493 +9,7634	$\begin{array}{r} -8,3020 \\ +7,7309 \\ +9,3434 \\ +7,9203 \\ +9,0186 \end{array}$	+1,0505 ,0506 ,0508 ,0510 ,0512	,9181 ,9180	115 116 122 117 120	+,015 +,014 +,010 +,005 +,013	- ,08 - ,16 - ,08 - ,06 - ,23
1561 1562 1563 1564 1565	$\begin{vmatrix} 1\\2 \end{vmatrix}$	$\begin{array}{r} -3 56 57,96 \\ -19 40 54,15 \\ -14 23 33,61 \\ +23 45 3,22 \\ -4 23 39,02 \end{array}$	11,291 11,304 11,314	+9,5752 +9,1173 +9,3324 +9,8633 +9,5682	$\begin{array}{c}8,5861 \\9,2778 \\9,1459 \\ +9,3570 \\8,6353 \end{array}$	,0532 ,0536	,9167	121 123 125 130 128	+,005 -,001 +,008 +,014 -,022	$ \begin{array}{c} - , 14 \\ - , 07 \\ - , 09 \\ + , 01 \\ - , 06 \end{array} $
1566 1567 1568 1569 1570	2 2 2	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	11,338 11,368 11,372	$ \begin{vmatrix} +9,5752 \\ +9,0969 \\ +9,6702 \\ +9,8579 \\ +9,6571 \end{vmatrix} $	-9,2880 +8,3816 +9,3445	,0545 ,0556 ,0558	,9157 ,9156	129 127 134 137 136	+,012 +,006 +,011	-,11 -,17 -,03 -,07 -,01
1571 1572 1573 1574 1575	2 3 2	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	7 11,434 4 11,434	+9,5753	+9,3492  -8,5907  -8,4186	0578 ,0582 ,0582	,9147 ,9145 ,9145	141   138   139	+,004 +,019 -,010	-,05  -,06  -,16

lxxi

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Mean Right Ascension and Declination of 2050 Stars

No.	Star's name and l	Mag.	No. Obs.	Ascer	sion	Annual Preces-		Logarit	hms of	
		_	0.05.	Jan. 1,	1836.	sion.	a	Ь	c	d
1576 1577 1578 1579 1580	Delphini Antinoi Aquilæ Antinoi	8.9 8 7.8 7.8 7.8	1 3 2 2 2	h. m. 20 19 19 20 20 20	s. 16,06 58,88 0,71 8,79 14,16	s. +2,858 3,163 3,022 2,916 3,063	+8,5889 ,5847 ,5834 ,5875 ,5838	8,7458 ,7386 ,7374 ,7410 ,7867	+0,4561 ,5001 ,4803 ,4648 ,4861	+7,8629 7,5221 +7,2054 +7,7257 +6,3697
1581 1582 1583 1584 1585	Vulpeculæ Delphini Antinoi	7.8 7.8 8 8.9 8.9	1 2 2 2 2	20 21 21	14,52 35,65 22,86 53,02 56,38		+8,6204 ,5884 ,5884 ,5905 ,5909	8,7736 ,7403 ,7368 ,7367 ,7371	+0,4146 ,4654 ,5001 ,5026 ,5036	+8,2170 +7,7174 
1586 1587 1588 1589 1590	Capricorni <u> </u>	7.8 8 8 8 8	3 4 3 2 2 2	22 22	39,26 42,74	3,271 3,522 3,522 2,692 3,143	+8,5958 ,6249 ,6252 ,6148 ,5929		+0,5147 ,5468 ,5468 ,4301 ,4973	7.8592 8,2111 8,2117 +8,1304 7,4329
1591 1592 1593 1594 1595	Delphini seq. Cygni	7.8 7 8 7 7	3 2 1 1 1	23 23	23,30 26,95 45,67 58,71 49,45	1,853 2,381	,7696 ,7701 ,6703	8,7401 ,9102 ,9094 ,8044 ,9095	+0,4568 ,2669 ,2679 ,3768 ,2660	+7,8689 +8,6433 +8,6434 +8,6434 +8,4011 +8,6541
1596 1597 1598 1599 1600	Aquarii Delphini Aquarii Draconis Aquilæ	8 7.8 8 7 8.9	2 2	26 26 26	55,05 19,26 21,34 21,57 26,70	3,250 2,797 3,248 0,381 3,031	+ 8,6048 8,6131 8,6059 9,0301 8,6003	8,7350 8,7417 8,7343 9,1594 8,7284	0+,5119 0,4467 0,5116 9,5809 0,4816	-7,8276 +8,0018 -7,8258 +8,9980 +7,1358
1601 1602 1603 1604 1605	Delphini Cygni Aquilæ Delphini	8 8.9 8 8 8.9	2 3	26		2,864 2,360 3,116 3,016 2,865	+ 8,6080 ,6795 ,6016 ,6030 ,6106	8,7357 ,8066 ,7279 ,7272 ,7343	+0,4570 ,3729 ,4936 ,4794 ,4571	+7,8794 +8,4212 -7,2583 +7,2867 +7,8827
1606 1607 1608 1609 1610	Cephei Aquilæ Cephei Cygni	6.7 7.8 8 7 7	2 2 3 1 2	28		3,032 3,103	,6051 ,6059 ,9049		+0,1676 ,4817 ,4918 ,0910 ,2639	+8,7779 +7,1370 -7,1188 +8,8419 +8,6709
1611 1612 1613 1614 1615		7.8 7.8 7.8 7.8 8	1 2	29 29 29 30 30	) 30,61 ) 35,21 ) 3,80	1,746	+8,6282 ,6091 ,7874 ,8126 ,6198	8,7448 ,7255 ,9037 ,9271 ,7333	+0,5321 ,4997 ,2702 ,2420 ,4522	+8,6628
1616 1617 1618. 1619. 1620.	Delphini Cephei Delphini	8.9 8,8 7,8 7,8 8	2 2	30 30 30 30 31	35,49 49,29 57,24	2,833 1,147 2,920			+0,5266 ,4522 ,0596 ,4654 ,3908	-8,0535 +7,9654 +8,8700 +7,7569 +8,3740

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-	na an an an an an an an an an an an an a	Logarith	ms of		zi No.	Annual	P. M.
	0.00.	oum 1, 1000.	sion.	a'	Ъ'	c'	d'	Piazzi	A. R.	Decn.
1576 1577 1578 1579 1580	3 4 2 3 3	$ \begin{array}{c} & & & & & & \\ & + 10 & 49 & 14,66 \\ & - & 4 & 58 & 5,16 \\ & + & 2 & 24 & 1,18 \\ & + & 7 & 53 & 55,70 \\ & + & 0 & 20 & 42,57 \end{array} $	" +11,458 11,511 11,511 11,520 11,530	+9,7634 +9,5575 +9,6702 +9,7340 +9,6425	+9,0312 8,6965 +8,3811 +8,8976 +7,5458	+1,0591 ,0611 ,0611 ,0615 ,0618	+9,9141 ,9131 ,9131 ,9129 ,9127	143 148 149 151 152	s. +,020 +,005 +,011 +,007 +,001	$ \begin{array}{c} & , 04 \\ - & , 21 \\ + & , 02 \\ - & , 13 \\ - & , 45 \end{array} $
1581 1582 1583 1584 1585	2 3 2	$\begin{array}{r} +23 \ 15 \\ + \ 7 \ 43 \ 12,94 \\ - \ 4 \ 58 \\ - \ 5 \ 55 \ 59,39 \\ - \ 6 \ 22 \ 9,41 \end{array}$	11,525 11,549 11,611 11,649 11,649	+9,8585 +9,7324 +9,5587 +9,5416 +9,5327	+9,3563 +8,8895 8,7003 8,7787 8,8081	+1,0616 ,0625 ,0649 ,0663 ,0663	+9,9128 ,9124 ,9112 ,9105 ,9105	155 156 158 159 160	+,019 +,010 +,001 +,012 +,005	-,16 -,10 -,02
1586 1587 1588 1589 1590	2 2 3 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	11,653 11,696 11,701 11,701 11,748	+9,4425 +8,9395 +8,9395 +9,8299 +9,5763	9,0278 9,3522 9,3527 +9,2818 8,6077	+1,0664 ,0680 ,0682 ,0682 ,0700	+9,9104 ,9096 ,9095 ,9095 ,9086	161 166 167 171 175	$^{+,010}_{+,011}_{+,021}_{+,005}_{+,012}$	-,14 ,00 -,04 -,11 -,05
1591 1592 1593 1594 1595	3 1 3 3 1	+10 42 48,81 +48 22 $34,24$ +48 19 23,05 +32 32 57,57 +48 39 48,38	11,748 11,748 11,772 11,862 11,917	+9,7612 +9,9513 +9,9508 +9,9031 +9,9494	+9,0374 +9,6417 +9,6422 +9,5030 +9,6499	+1,0700 ,0700 ,0708 ,0741 ,0762	+9,9086 ,9086 ,9081 ,9063 ,9053	178 183 184 190 199	+,005 +,008 -,018 -,003 +,005	,18 ,07 ,23 ,07 + ,03
1596 1597 1598 1599 1600	$     \begin{array}{c}       3 \\       2 \\       1 \\       2 \\       2     \end{array} $	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		+9,4683 +9,7903 +9,4698 +9,8621 +9,6637		+1,0767 ,0777 ,0779 ,0774 ,0781	+9,9050 ,9044 ,9043 ,9046 ,9042	193 198 195 208 197	+,013 +,009 -,006 +,022 +,021	,20 ,09 ,20 +,13 +,02
1601 1602 1603 1604 1605	3	$\begin{array}{r} +10 \ 45 \ 12,04 \\ +33 \ 28 \ 3,15 \\ \ 2 \ 36 \ 39,90 \\ + \ 2 \ 44 \ 38,44 \\ +10 \ 46 \ 44,33 \end{array}$	11,988 12,002 12,038	+9,7597 +9,9052 +9,5977 +9,6730 +9,7308	-8,4340 +8,4623	,0787 ,0792 ,0806	,9036 ,9028	201 204 202 205 206	+,010	-,02 ,00 -,14 +,23
1606 1607 1608 1609 1610	4 3 2	$\begin{array}{r} +56 \ 13 \ 33,05 \\ + \ 1 \ 55 \ 55,95 \\ - \ 1 \ 52 \ 37,81 \\ +59 \ 52 \ 3,01 \\ +49 \ 12 \ 38,91 \end{array}$	12,104 12,127 12,118	+9,9566 +9,6637 +9,6180 +9,9576 +9,9469	+9,6989 +8,3128 8,2947 +9,7185 +9,6620	,0≾38 ,0834	,9010 ,9012	217 214 216 222 226	+,007	[-,03] -,07 [-,07] -,22 [-,12]
1611 1612 1613 1614 1615	32	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	12,178 12,178 12,211	+9,9494	+9,6771	,0856 ,0856 ,0867	,8999 ,8999 ,8993 ,8989	<b>2</b> 36    <b>2</b> 31	+,009 +,016 +,011 -,001	-,17 ,00 +,07 -,02
1616 1617 1618 1619 1620	2 2 2	$ \begin{array}{r} -15 & 32 & 47,39 \\ +12 & 45 & 25,18 \\ +61 & 10 & 48,83 \\ + & 7 & 57 & 2,56 \\ +30 & 0 & 20,18 \\ \end{array} $	12,253 12,263 12,276	+9,3139 +9,7767 +9,9552 +9,7324 +9,8870	+9,7292 +8,9288	,0882 ,0885 ,0890	,8984 ,8982 ,8979	235 252 238	+,024 +,020 +,020	(-,03) (+,04) (-,13)

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No.	Star's name and		No.		Righ scens			nual		Logarit	hms of	an Mille Wildow Brightingana
			Obs.			1836.		on.	a	Ь	c	d
1621 1622 1623 1624 1625	Delphini Aquarii Delphini Cephei	7 7 7.8 7 7 7	1 2 2 2	h. 20	31	s. 28,43 39,80 45,57 0,13	$ +2 \\ 3 \\ 2 \\ 2 \\ 2$	s. ,780 ,127 ,829 ,921 ,179	+8,6279 8,6134 8,6240 8,6179 9,0790	8,7367 8,7214 8,7314 8,7243 9,1859	+ 0,4440 0,4951 0,4516 0,4655 9,2528	+8,0488 7,3602 +7,9689 +7,7551 +7,0519
1626 1627 1628 1629 1630	Delphini Aquarii Delphini	7.8 8 8.9 8 7	2 2 2 1 2		33	8,12 8,57 47,87 20,34 22,97	233	2,828 2,830 3,282 3,115 2,748	+8,6251 ,6249 ,6245 ,6174 ,6363	8,7310 ,7308 ,7278 ,7186 ,7376	+0,4515 ,4518 ,5292 ,4935 ,4390	-7,9248
1631 1632 1633 1634 1635	Vulpeculæ Aquarii Delphini Capricorni Delphini	8. 8 7.8 8 8	1 2 1 2 1 2 1		33 33 34	40,21 42,71 51,45 4,60 11,63		2,569 3,281 2,865 3,586 2,823	+8,6623 ,6268 ,6264 ,6667 ,6305	,7264 ,7253 ,7648	,5546	-7,9276 +7,9070 -8,3147
1636 1637 1638 1639 1640	Cygni Delphini Cygni	9 {7.8 7.8 7.8 8.9	2 1		35	57,04	)         	2,778 2,341 3,004 2,344 2,579	,6228 ,7090	,8018 ,7157 ,8003	,3694 ,4777 ,3700	+8,4661 +7,4085 +8,4663
1641 1642 1643 1644 1645	Aquarii Cephei Aquarii	7.8 8 8.9 8	1	1	36 36 37 37 37	2,70 8,04	0	2,751 3,058 0,891 3,232 2,866	,9923 ,6313	8,7133 9,0798 8,7178	0,4854 9,9499 0,5095	+6,6067 +8,9481 5-7,8272
1646 1647 1648 1649 1650	7 Cygni 8 Cephei 9	8.9 8 7.8 7 8		2	39 39	9 26,4 9 42,3	0 8 0	2,576 2,473 1,074 1,089 3,308	,693 ,970 ,968	0 8,772 5 9,048 9 9,046	3 ,393 8 ,031 1 ,037	2 + 8,3931 0 + 8,9196
1651 1652 1653 1654 1654	2 Vulpeculæ 3 Equulei 4 Vulpeculæ	8		3 2 2 2 3	4 4 4	$\begin{array}{c} 0 & 23,7 \\ 0 & 43,7 \\ 0 & 57,5 \\ 1 & 11,4 \\ 1 & 40,9 \end{array}$	78 54 43	1,094 2,579 2,970 2,573 3,038	678 678 5,636 5,680	9 8,751 7 8,708 8 8,751	6 ,411 2 ,472 6 ,410	4   + 8,3145 8   + 7,6182 8   + 8,3198
165 165 165 165 165	7 Aquarii 8 Capricorni 9 Aquarii	i 8.9 9 8.9	9	1 2 2 2	4 4 4	3 3 10, 3 37, 3 40, 3 47,	33 55	1,62 3,16 3,37 3,16 3,13	3,64 2,659 2,649	5,704 94,720 94,703	6 ,500 8 ,527 8 ,500	$\begin{array}{c c} & +8,7936 \\ \hline & -7,6137 \\ 79 & -8,1195 \\ 00 & -7,6079 \\ 52 & -7,4650 \end{array}$
166 166 166 166	62 Equulei 63 Capricorn 64 Delphini	7.	, 3 .8	2 1 2 1 2	4 4 4	13 50, 13 59, 14 10, 14 26, 14 30,	75 38 29	3,08 2,94 3,57 2,88 2,54	5,64 9,69 8,64	15 ,704 15 ,750 90 ,701	16 ,469 08 ,55 75 ,460	91 +7,7294 38 -8,3473 96 +7,8943

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1640

Declination Jan. 1, 1836.	Annual Preces-		Logarith	ms of		zi No.	Annual	P. M.
-	sion.	a'	<i>b'</i>	c'	<i>d'</i>	Piazzi	A. R.	Decn.
$\begin{array}{r} & & & & & & \\ +15 & 15 & 57,88 \\ - & 3 & 13 & 30,85 \\ +12 & 45 & 25,38 \\ + & 7 & 52 & 24,31 \\ +69 & 58 & 5,08 \end{array}$	12,326 12,336 12,354	+9,7973 +9,5899 +9,7760 +9,7308 +9,9489	+9,2093 8,5357 +9,1341 +8,9270 +9,7624	+1,0903 ,0908 ,0911 ,0918 ,0915	+9,8971 ,8968 ,8966 ,8962 ,8964	247 246 251 253 265	s. +,001 +,006 +,012 +,005	$ \begin{array}{c}     " \\     - ,09 \\     - 08 \\     - 1,18 \\     - ,11 \\     - ,19 \\ \end{array} $
+12 50 44,84 +12 43 51,01 	12,363 12,409 12,445	+9,7767 +9,7760 +9,4314 +9,6010 +9,8089	$\begin{array}{r} +9,1373 \\ +9,1339 \\ -9,0920 \\ -8,4469 \\ +9,2590 \end{array}$	+1,0921 ,0921 ,0937 ,0950 ,0950	+9,8960 ,8960 ,8950 ,8942 ,8942	255 256 259 260 261	+,008 +,010 +,012 +,016 +,017	-,01 -,06 -,07 -,04 +,06
$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	12,473	+9,8621 +9,4314 +9,7597 +8,6232 +9,7789	+9,4281 9,0949 +9,0751 9,4429 +9,1541	+1,0958 ,0960 ,0964 ,0969 ,0969	+9,8937 ,8936 ,8933 ,8930 ,8930	268 262 269 266 271	+,014 +,008 +,016 +,006 +,012	,10 ,05 ,11 ,10 ,05
$\begin{array}{r} +15 \ 32 \ 43,07 \\ +34 \ 57 \ 35,89 \\ + \ 3 \ 29 \ 35,06 \\ +34 \ 52 \ 13,94 \\ +25 \ 14 \end{array}$	12,573 12,591	+9,7973 +9,9036 +9,6812 +9,9031 +9,8591	+9,2252 +9,5557 +8,5838 +9,5564 +9,4298	+1,0990 ,0994 ,1001 ,1010 ,1018	+9,8917 ,8914 ,8910 ,8904 ,8899	275 278 277 283 287	+,036 +,010 +,005 +,001	-,09 -,17 [,] -,07 -,20
$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		+9,8075 +9,6444 +9,9474 +9,4885 +9,7589	+9,2662 +7,7828 +9,7571 	+1,1022 ,1025 ,1033 ,1039 ,1053	+9,8896 ,8894 ,8889 ,8884 ,8875	288 286 295 290 292	+,015 ,000 +,011 +,026	+ ,02 - ,02 + ,15 - ,09
$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{c} 12,830 \\ 12,848 \\ 12,866 \end{array}$	+9,8591 +9,8808 +9,9450 +9,9445 +9,3927	+9,4395 +9,5063 +9,7559 +9,7559 9,1673	,1082 ,1088	,8851 ,8847	300 308 315 317 311	+,010 +,007 +,046 +,005 +,002	$ \begin{array}{c} - , 11 \\ - , 15 \\ - , 07 \\ + , 27 \\ + , 04 \end{array} $
$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	12,947 12,963 12,978	+9,9440 +9,8579 +9,7033 +9,8591 +9,6618	+9,7576 +9,4457 +8,7923 +9,4502 +8,3214	,1121 ,1127 ,1132	,8829 ,8823 ,8820	326 319 318 324 327		-,12  -,06
$\begin{array}{r} +54 57 \\5 24 22,17 \\16 46 29,85 \\5 18 52,15 \\3 49 45,75 \end{array}$	3 13,141 3 13,141	+9,9390 +9,5575 +9,2945 +9,5587 +9,5821	+9,7285 8,7879 9,2768 8,7822 8,6402	,1176 ,1186 ,1186	,8788 ,8780 ,8780	349 -340 343 344 344 346	+,017 +,012 +,019	+,22 -,16
$\begin{array}{r} - 0 \ 43 \ 50,5 \\ + \ 6 \ 58 \ 22,3 \\ -26 \ 55 \ 47,1 \\ + 10 \ 7 \ 8,2 \\ + 27 \ 38 \ 23,3 \end{array}$	3   13,163 2   13,176 9   13,189	+8,6628	-9,4736 +9,0636	2 ,1193 3 ,1198 5 ,1209	8,8774 8,8771 8,8768	348	+,010 +,013 +,017	0 - ,01 3 - ,15

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No.	Star's name and	Mag.	No.	Right Ascension	Annual Preces-		Logari	thms of	
		0	Obs.	Jan. 1, 1836.	sion.	a	Ь	¢	d
1666 1667 1668 1669 1670	Equulei pre. seq. Capricorni Aquarii	8.9 9 7.8 6.7 7.8		h. m s. 20 44 38,92 44 40,06 44 41,46 45 45 26,54	s. +2,949 2,950 3,562 3,200 3,158	+ 8,6456 ,6457 ,6899 ,6476 ,6461		+0,4697 ,4698 ,5517 ,5051 ,4994	+7,7147 +7,7138 8,3346 7,7623 7,5992
1671 1672 1673 1674 1675	Capricorni Cephei Microscopii Capricorni Equulei	8.9 8 8.9 8 7.8	1 2 1	45 36,74 45 37,24 45 45,54 45 47,41 45 54,05	3,572 0,408 3,697 3,353 3,010	+8,6939 9,0970 8,7175 8,6621 8,6461		+ 0,5529 9,6107 0,5678 0,5254 0,4786	
1676 1677 1678 1679 1680	Aquarii Delphini Aquarii Equulei Capricorni	8 9.10 8 7.8 8.9	1 2	46 18,58 46 46 48,48 47 3,42 47 35,47	3,204 2,877 3,047 2,947 3,362	+8,6503 ,6548 ,6474 ,6510 ,6673		+0,5057 ,4589 ,4839 ,4694 ,5266	7,7820 +7,9289 +6,9684 +7,7318 8,1199
1681 1682 1683 1684 1685	Equulei Capricorni Aquarii Microscopii Aquarii	8 9 8 8 7.8	2 1 1 2 2	47 44,40 48 0,27 48 19,74 48 25,80 48 27,53	2,944 3,367 3,191 3,694 3,049	+8,6526 ,6689 ,6539 ,7239 ,6509		+0,4689 ,5272 ,5039 ,5675 ,4842	+7,7426 8,1294 7,7449 8,4519 +6,9407
1686 1687 1688 1689 1690	Aquarii Cephei Aquarii Capricorni Aquarii	7 7.8 7 8 8	2 3 2 2 2 2	48 55,60 49 43,73 50 10,02 50 14,43 50 15,61	3,378	,6750	8,6940 ,9763 ,6923 ,7114 ,6917	+0,4962 ,1605 ,4975 ,5287 ,4964	7,4796 +8,8693 7,5454 8,1531 7,4919
1691 1692 1693 1694 1695	Capricorni Cygni Aquarii Cygni	-7.8 8 9.10 8 8	2	50 32,12 50 56,18 51 52 0,97 52 20,97	2,43 3,096 3,170	+8,7092 ,7306 ,6569 ,6605 ,7791		+0,5550 ,3897 ,4908 ,5011 ,3479	<b>8</b> ,3803 +8,4628 7,1118 7,6785 +8,5937
1696 1697 1698 1699 1700	Cygni Delphini Equulei Aquarii	8 7.8 9 8 8	2 2 5 2 1	52 21,79 52 36,72 52 47,64 53 24,37 53 35,82	2,947 2,907 2,907 2,957 3,271	,6654		,4634 ,4708	+7,8753 +7,8769
1701 1702 1703 1704 1705	Equulei Vulpeculæs Aquarii Capricorni Aquarii	7.8 8 7.8 7.8 8.9	2 2 3	53 39,84 54 25,22 54 32,45 54 45,98 54 59,28	3,535 2,707 3,094 3,395 3,184	+8,7067 ,6913 ,6633 ,6873 ,6672		+0,5484 ,4325 ,4905 ,5308 ,5030	7,0955
1706 1707 1708 1709 1710	Microscopii Vulpeculæ Cygni Equulei Vulpeculæ	7.8 7 7 7 8	$\begin{vmatrix} 1\\ 2\\ 2\\ 2\\ 2\\ 2\\ 2 \end{vmatrix}$	55 55,65 55 56,84 56 3,90 56 24,65 56 30,51	2,549 2,294	+ 8,7951 ,7215 ,7748 ,6672 ,7229	8,8095 ,7361 ,7893 ,6801 ,7356	+0,5947 ,4064 ,3606 ,4814 ,4062	+8,3983

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarit	hms of		zi No.	Annua	P. M.
			sion.	a'	<i>b'</i>	c'	d'	Piazzi	A. R.	Deçn.
1666 1667 1668 1669 1670	2 2 2 1 2	$\begin{array}{c} & & & & \\ & + & 6 & 43 & 6,30 \\ & + & 6 & 42 & 31,27 \\ & -26 & 11 & 24,36 \\ & - & 7 & 30 & 13,48 \\ & - & 5 & 9 & 35,68 \end{array}$	$ \begin{array}{r}     " \\     + 13,203 \\     13,207 \\     13,211 \\     13,242 \\     13,255 \\   \end{array} $	+9,7152 +-9,7152 +8,7559 +9,5211 +9,5623	+8,8878 +8,8869 -9,4636 -8,9347 -8,7735	+1,1206,1208,1209,1219,1224	+9,8765 ,8763 ,8762 ,8755 ,8751	355 356 353 360 364	$ \begin{array}{c} s. \\ +,019 \\ -,060 \\ +,033 \\ +,001 \end{array} $	" + ,03 - ,04 - ,12 - ,09 - ,16
1671 1672 1673 1674 1675	2 2 1 2	$\begin{array}{r} -26 \ 43 \ 48,23 \\ +69 \ 19 \\ -32 \ 10 \ 16,42 \\ -15 \ 54 \ 2,98 \\ + \ 3 \ 20 \ 17,42 \end{array}$	13,273 13,255 13,281 13,281 13,281 13,286	+8,7076 +9,9320 -8,4914 +9,3243 +9,6785	-9,4738 +9,7916 -9,5473 -9,2589 +8,5881	+ 1,1229 ,1224 ,1232 ,1232 ,1232 ,1234	+9,8747 ,8751 ,8745 ,8745 ,8743	361 374 363 367 368	+,032 +,057 +,007 +,007 +,011	- ,08 - ,04 - ,14 - ,17
1676 1677 1678 1679 1680	2 2	$\begin{array}{r} -7 & 47 \\ +10 & 49 \\ + 1 & 12 \\ + 6 & 54 & 38,17 \\ -16 & 28 & 28,75 \end{array}$	13,317 13,337 13,347 13,363 13,406	+9,5172 +9,7528 +9,6532 +9,7168 +9,3117	8,9541 +9,0972 +8,1444 +8,9047 9,2778	+1,1244 ,1251 ,1254 ,1259 ,1273	+9,8736 ,8730 ,8728 ,8723 ,8713	369 371 372 373 375	+,014 +,008 +,012 +,009	,02 ,00
1681 1682 1683 1684 1685	1 2 2 2 2 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	13,407 13,428 13,446 13,455 13,455	+9,7185 +9,3032 +9,5302 8,4624 +9,6513	+-8,9154 9,2866 8,9176 9,5549 +8,1167	+ 1,1273 ,1280 ,1286 ,1289 ,1289 ,1289	+9,8712 ,8706 ,8702 ,8699 ,8699	378 377 385 384 388	+,002 +,018 +,013 +,020 +,009	— ,09 — ,05 ,00 — ,10 — ,16
1686 1687 1688 1689 1690	2 4 3 2 3	$\begin{array}{r} -3 51 42,72 \\ +58 41 11,27 \\ -4 28 20,48 \\ -17 30 34,75 \\ -3 56 47,59 \end{array}$	13,485 13,532 13,563 13,567 13,572	+9,5832 +9,9325 +9,5752 +9,2878 +9,5821		+ 1,1298 ,1312 ,1323 ,1325 ,1326	+9,8691 ,8680 ,8670 ,8669 ,8668	390 400 396 394 397	+,013 +,015 +,007 +,027 +,014	+ ,01 + ,06 - ,06 + ,06 - ,10
1691 1692 1693 1694 1695	3 3 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	13,588 13,610 13,640 13,682 13,699	+8,5798 +9,8814 +9,6170 +9,5514 +9,9058	9,5025 +9,5643 8,2877 8,8522 +9,6493	+ 1,1333 ,1338 ,1348 ,1362 ,1367	+9,8662 ,8658 ,8649 ,8638 ,8633	398 407 408 416 420	+,015 +,016 +,008 +,020	,11 + ,03 ,11 + ,03
1696 1697 1698 1699 1700	3 2 1 1 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	13,699 13,677 13,729 13,772 13,784	+9,9042 +9,7380 +9,7380 +9,7110 +9,4425	+9,6434 +9,0456 +9,0472 +8,8942 -9,1481	+ 1,1367 ,1360 ,1376 ,1390 ,1394	+9,8633 ,8639 ,8625 ,8613 ,8609	421 419 422 427 426	+,011 +,018 +,015 +,010 +,019	,12 ,09 ,05 ,06 ,08
1701 1702 1703 1704 1705	32 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	$\begin{array}{r} -25 & 42 & 57,50 \\ +20 & 27 & 48,98 \\ -1 & 33 & 57,23 \\ -18 & 45 & 13,89 \\ -6 & 52 & 56,19 \end{array}$	13,788 13,835 13,843 13,860 13,873	+ 8,8808 + 9,8189 + 9,6180 + 9,2528 + 9,5378	9,4747 +9,3830 8,2714 9,3465 8,9178	+1,1395 ,1410 ,1412 ,1418 ,1422	+9,8608 ,8595 ,8592 ,8588 ,8584	425 434 432 433 438	+,019 +,019 +,005 +,003 +,014	,13 ,03 + ,06 ,00 + ,05
1706 1707 1708 1709 1710	1 1 2 1 2	$\begin{array}{rrrrr} -42 & 1 & 58,26 \\ +28 & 20 & 28,68 \\ +38 & 51 & 55,43 \\ + & 2 & 17 & 42,30 \\ +28 & 26 & 46,02 \end{array}$	13,936 13,932 13,935 13,961 13,965	9,2014 +9,8591 +9,8971 +9,6656 +9,8591	9,6678 +9,5188 +9,6399 +8,4496 +9,5213	+1,1441 ,1440 ,1441 ,1449 ,1450	+9,8566 ,8567 ,8566 ,8558 ,8557	442 447 452 448 453	-,037 +,009 -,002 +,014 -,001	,15 ,06 ,02 ,00 ,25

### lxxviii

Mean Right Ascension and Dechnation of 2050 Stars

No.	Star's name and	Mag.	No. Obs.	Ascension	Annual Preces-		Logari	thms of	
				Jan. 1, 1836.	sion.	a	Ь	c	d
1711 1712 1713 1714 1714 1715	Cygni Vulpeculæ Microscopii Vulpeculæ Capricorni	6.7 7.8 8 8		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	s. +2,319 2,659 3,657 2,664 3,352	+ 8,7710 ,7047 ,7397 ,7056 ,6885	8,7829 ,7151 ,7473 ,7129 ,6953	+0,3653 ,4247 ,5631 , <b>42</b> 55 52,53	+8,5607 +8,2998 8,4603 +8,2968 8,1448
1716 1717 1718 1719 1720	Capricorni Vulpecalæ Capricorni Aquarii	7.8 7 7 8 7	2 2 3 2	58 5,15 58 11,98 58 30,28 58 50,57 59 2,10	3,348 3,409 2,553 3,345 3,171	+8,6882 ,6996 ,7268 ,6894 ,6744	8,6945 ,7027 ,7319 ,6929 ,6775	+0,5248 ,5327 ,4070 ,5240 ,5012	8,1386 8,2251 +8,4050 8,1367 7,7090
1721 1722 1723 1724 1724 1725	Equulei Vulpeculæ Cygni Vulpeculæ Microscopii	8 8 8.9 7.8	${3 \\ 1 \\ 2 \\ 1 \\ 2 \\ }$	$59  5,41 \\ 59 \ 15,43 \\ 59 \ 32,25 \\ 21 \ 0 \ 7,12 \\ 0 \ 14,18$	3,010 2,600 2,310 2,672 3,620	+8,6728 ,7196 ,7803 ,7092 ,7383		+0,4786 ,4150 ,3636 ,4268 ,5587	+8,3659 +8,5762 +8,2972
1726 1727 1728 1729 1730	Capricorni Equulei Cygni Microscopii Cygni	7.8 7 8 7.8 9	2 2 1 2 1	0 14,71 0 22,08 0 33,47 0 42,01 0 49,48	3,361 2,963 1,863 3,592 2,310	+8,6943 ,6771 ,8851 ,7339 ,7839		+0,5265 ,4717 ,2702 ,5553 ,3636	+7,7220 +8,7816
1731 1732 1733 1734 1735	Capricorni Equulei Cygni Equulei Aquarii	8 9 8 7.8	] 1 3 2	1 1,26 1 10,65 1 1 41,03 1 56,21	3,344 3,010 2,060 3,030 3,233	+8,6936 ,6769 ,8435 ,6772 ,6840	8,6890 ,6717 ,8370 ,6702 ,6760	+0,5243 ,4786 ,3139 ,4814 ,5096	+7,4647 +8,7083 +7,2807
1736 1737 1738 1739 1740	Cygni Equulci Piscis Aust. Capricorni Aquarii	8 8 8 7-8	2 1 1 1	2 12,88 2 16,77 2 2 42,60 3 1,96	2,534 2,902 3,562 3,426 3,321	+8,7391 ,6847 ,7324 ,7087 ,6950	8,7302 ,6756 ,7217 ,6976 ,6826	+0,4038 ,4627 ,5517 ,5348 ,5213	-8,4028 -8,2627
]741 1742 1743 1744 1744 1745	Cygni Aquarii Picis Aust. Equulei Cygni	7.8 9.10 7.8 7.8 7.8	2 2	$\begin{array}{cccc} 3 & 8,87 \\ 4 & 4,02 \\ 4 & 9,29 \\ 4 & 18,57 \\ 4 & 19,39 \end{array}$	2,601 3,195 3,610 2,886 2,598		8,7158 ,6692 ,7289 ,6730 ,7145	+ 0,4151 ,5045 ,5575 ,4603 ,4146	-7,8180 -8,4484 +7,9757
1746 1747 1748 1749 1750	Vulpeculæ Capricorni Aquarii Cygni	8 8.9 7.8 6		$\begin{array}{r} 4 & 23,94 \\ 4 & 33,93 \\ 4 & 38,20 \\ 4 & 49,80 \\ 5 & 11,60 \end{array}$	2,676 2,686 3,418 3,174 1,847	,7164 ,7115	8,7003 ,6984 ,6930 ,6664 ,8827	+0,4275 ,4291 ,5338 ,5016 ,2665	+8,2980 -8,2605 -7,7439
1751 1752 1753 1754 1755	Equulei Capricorni Equulei Aquarii	8 8.9 7 9 8	3 2 1 2 2	5 25,39 5 37,72 5 38,68 6 17,44 7 0 <del>,2</del> 9	2,896 3,429 3,449 2,897 3,226	+8,6911 ,7153 ,7185 ,6921 ,6931	8,6699 ,6931 ,6963 ,6688 ,6688	+0,4618 ,5352 ,\$377 ,4619 ,5087	-8,2781 -8,3007 +7,9534

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- 1	VYIY	
- 44	and and and	

No.	No. Obs.	Declination	Annual Preces-		Logarith	ums of		zi No.	Annual	P. M.
	0.03.	Jan. 1, 1836.	sion.	<i>a'</i>	Ъ′	c'	d'	Piazzi	A. R.	Decn.
1711 1712 1713 1714 1715	1 1 2 2 2	$\begin{array}{c} \circ & , & ' \\ +38 & 0 & 43,46 \\ +23 & 10 & 32,99 \\ -31 & 42 & 50,84 \\ +22 & 57 & 2,58 \\ -16 & 37 & 27,31 \end{array}$	" + 13,976 14,002 14,048 14,053 14,061	+9,8938 +9,8331 -7,7781 +9,8312 +9,3263	+9,6331 +9,4394 -9,5662 +9,4371 -9,3024	+1,1454 ,1462 ,1476 ,1478 ,1480	+9,8553 ,8546 ,8532 ,8531 ,8529	455 457 459 464 460	s. +,017 +,025 +,011 +,027	$ \begin{array}{c}     " \\     -,02 \\     +,15 \\     +,09 \\     -,02 \\     +,03 \end{array} $
1716 1717 1718 1719 1720	5 3 1 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,069 14,074 14,090 14,114 14,123	+9,3324 +9,2253 +9,8573 +9,3385 +9,5490	9,2966 9,3749 +9,5251 9,2950 8,8825	+1,1483 ,1484 ,1489 ,1497 ,1499	+9,8526 ,8525 ,8520 ,8512 ,8510	461 462 467 466 470	,008 ,005 +,003 +,005 +,025	,09 ,11 ,04 ,11 + ,12
1721 1722 1723 1724 1725	4 1 1 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$14,127 \\ 14,136 \\ 14,152 \\ 14,189 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 14,202 \\ 1$	+9,6776 +9,8470 +9,8932 +9,8280 +8,2553	+8,6338 +9,4946 +9,6447 +9,4380 -9,5539	+1,1501 ,1503 ,1508 ,1520 ,1523	+9,8509 ,8506 ,8501 ,8490 ,8486	471 473 480 482 477	+,009 +,008 ,003 +,015 ,009	,06 + ,05 ,01 ,15
1726 1727 1728 1729 1730	1 2 1 2 1	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,205 14,206 14,214 14,231 14,234	+9,3117 +9,7067 +9,9149 +8,5563 +9,8921	9,3225 +8,8954 +9,7472 9,5386 +9,6488	+1,1523 ,1525 ,1527 ,1532 ,1533	+9,8486 ,8485 ,8482 ,8477 ,8476	481 484 490 483 489	+,010 +,010 ,011 +,014 ,002	- ,07 + ,03 ,00 - ,06 + ,07
1731 1732 1733 1734 1735	1 3	$\begin{array}{r} -16 & 21 & 40,79 \\ + & 3 & 30 & 5,39 \\ +47 & 4 & 34,33 \\ + & 2 & 16 & 51,98 \\ -11 & 0 & 56,43 \end{array}$	14,247 14,262 14,279 14,288 14,304	+9,3385 +9,6776 +9,9079 +9,6646 +9,4843	$\begin{array}{c}9,3012 \\ +8,6399 \\ +9,7175 \\ +8,4565 \\9,0932 \end{array}$	+1,1537 ,1542 ,1547 ,1550 ,1556	+9,8472 ,8469 ,8462 ,8459 ,8454	487 488 3 492 493	+,010 +,016 +,015 +,017	$ \begin{array}{c} - , 10 \\ - , 03 \\ + , 05 \\ - , 03 \\ - , 23 \end{array} $
1736 1737 1738 1739 1740	1 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,317 14,321 14,345 14,353 14,373	+9,8597 +9,7396 +8,7482 +9,1903 +9,3729	+9,0972 -9,5251	,1560 ,1567 ,1569	+9,8450 ,8449 ,8441 ,8438 ,8432	9 5 4 8 11	+,027 +,037 +,028 +,015	$ \begin{array}{c} - , 11 \\ - , 16 \\ - , 08 \\ - , 16 \end{array} $
1741 1742 1743 1744 1745	3 2	$\begin{array}{r} +26 \ 38 \ 11,84 \\7 \ 49 \\30 \ 19 \ 59,96 \\ +11 \ 6 \ 50,64 \\ +26 \ 53 \ 13,97 \end{array}$	$14,433 \\ 14,437 \\ 14,447$	$\begin{array}{c} +9,8451 \\ +9,5263 \\ +8,3979 \\ +9,7482 \\ +9,8457 \end{array}$	-8,9900 -9,5606 +9,1436	,1594 ,1595 ,1598		13 16 14 19 22	+,006 +,003 +,045 +,014 +,008	,00 ,15 ,02 + ,03
1746 1747 1748 1749 1750	2 2 2	$\begin{array}{r} +22 55 1,35 \\ +22 24 52,64 \\ -20 45 40,16 \\ -6 34 56,54 \\ +52 53 44,18 \end{array}$	$ \begin{array}{c c} 14,463 \\ 14,471 \\ 14,483 \end{array} $	+9,8261 +9,8228 +9,2068 +9,5465 +9,9101	+9,4339 -9,4075 -8,9171	,1602 ,1605 ,1608	,8403 ,8401 ,8398	23 25 20 94 32	+,002	,05 ,02 ,16 ,01 ,07
1751 1752 1753 1754 1755	3 2 2	$\begin{array}{r} +10 & 32 & 25,18 \\ -21 & 27 & 28,06 \\ -22 & 29 & 18,34 \\ +10 & 30 & 44,52 \\ -9 & 47 & 55,74 \end{array}$	5 14,531 14,531 2 14,547	+9,7435 +9,1818 +9,1399 +9,7427 +9,4941	-9,4231 -9,4425 +9,1221	,1623 ,1623 ,1628	,8381 ,8381 ,8375	29 28 27 36 39	+,031 ,001 +,010 ,007 ,002	-,07  -,13

No.	Star's name and N	Iag.	No. Obs.	Ascension	Annua Preces		Logarit	hms of	
			0.05.	Jan. 1, 183	S. sion.	a	Ь	С	d
1756 1757 1758 1759 1760	Aquarii Capricorni Piscis Aust. Cephei Equulei	8 7 7 6.7 7	2 1 2 1 2	h. m. s. 21 7 5,8 7 21,2 7 33,4 7 37,3 8 5,1	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	,7167 ,7564 ,9797		+0,5092 ,5334 ,5593 ,1847 ,4634	7,9354 8,2677 8,4733 +-8,9142 +7,9356
1761 1762 1763 1764 1765	Equulei Cephei Piscis Aust. Cygni	8 7.8 7.8 7 7	2 2 2 1 1	8 11,0 8 34,7 8 36,7 9 12,1 9 13,1	$\begin{array}{c c c} 0 & 2,998 \\ 1 & 1,529 \\ 6 & 3,579 \end{array}$	5,6908 9,9832 9,7506		+0,4628 ,4764 ,1844 ,5538 ,3562	+7,9467 +7,5934 +8,9183 -8,4421 +8,6351
1766 1767 1768 1769 1770	Pegasi Aquarii Piscis Aust. Pegasi Equulei	8.9 7.8 7.8 7.8 7	$\begin{vmatrix} 1\\ 2 \end{vmatrix}$	9 29,1 9 33,4 10 12,3 10 17,9 10 33,7	2 3,27 5 3,54 8 2,79	5,7022 4,7458 5,7117		+0,4423 ,5152 ,5495 ,4461 ,4679	+8,2104 8,0515 8,4155 +8,1768 +7,8568
1771 1772 1773 1774 1775	Pegasi Aquarin Pegasi Cygni	7.8 8 7.8 7 7.8	1 1 2	$\begin{array}{c} 10 \ 45,6 \\ 10 \ 54,3 \\ 11 \ 1,9 \\ 11 \ 33,0 \\ 11 \ 58,9 \end{array}$	5 2,788 7 3,16 6 2,79	3,7135 5,6962 2,7143	,6535	,5004	+8,1798 +8,1872 -7,7261 +8,1839 +,84403
1776 1777 1778 1779 1780	Piscis Aust. Aquarii Cephei Aquarii Equulei	7.8 8 7.8 7.8 7.8	2 2 2	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5     3,10       6     1,788       90     3,259	6960 ,9386 ,7061	,6489 ,8913 ,6575	,4915 ,25 <b>2</b> 4	$\begin{array}{r}8,4541 \\7,2634 \\ +8,8527 \\8,0281 \\ +7,5050 \end{array}$
1781 1782 1783 1784 1785	Pegasi Equulei Aquarii Pegasi Capricorni	7 7.8 8 8.9 7.8	3 2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	07 3,009 0 3,133 2 2,69	3,7003 1,7360	,6458 ,6453	+0,4312 ,4784 ,4960 ,4299 ,5443	+8,3097 +7,5228 -7,5668 +8,3 <b>30</b> 6 -8,3:016
1786 1787 1788 1789 1790	Capricorni Aquarii Capricorni Cygni	7 8.9 9 8 7.8	3 2	14 51,3 14 57,0 15 47,0 16 16,9 16 25,9	01 3,459 0 3,263 0 3,493	9,7396 2,7120 3,7486	,6512 ,6857	+ 0,5416 ,5389 ,5135 ,5432 ,3670	$\begin{array}{c}8,3708 \\8,3484 \\8,0456 \\8,3891 \\ +8,6302 \end{array}$
1791 1792 1793 1794 1795	Aquarii Capricorni Cæphei Piscis Aust.	7.8 8 9 7 8	2 2 2 1 2	16 37,1 16 39,4 17 20,9 17 22,0 17 54,7	1 3,478 03 1,740 070,514	5 8,9639 4 9,3303	8,6823 8,8975 9,2647	+0,5413	-7,3713 -8,3751 +8,8858 +9,3179 -8,4381
1796 1797 1798 1799 ⁻ 1800	Capricorni Aquarii Capricorni Aquarii	7.8 8 8.9 8.9 7	22	18 13, 18 24, 18 52, 19 2, 19 11,0	93 3,288 92 3,429 95 3,289	3,7195 4,7407 9,7207	,6487 ,6681	+ 0,5312 ,5169 ,5845 ,5171 ,5133	8,2876 8,1112 8,3217 8,1159 8,0571

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No.	No. Obs.	'Declination Jan. 1, 1836.	Annual Preces-		Logarith	ms of		zi No.	Annua	1 P. M.
			sion.	a'	6'	c'	ď	Piazzi	A. R.	Decn.
1756 1757 1758 1759 1760	2 2 2 3	$\begin{array}{c} & & & & \\ -10 & 4 & 10,64 \\ -20 & 51 & 3,23 \\ -31 & 25 & 31,39 \\ +59 & 18 \\ +10 & 0 & 22,14 \end{array}$	$\begin{array}{c} '' \\ +14,619 \\ 14,635 \\ 14,647 \\ 14,643 \\ 14,643 \\ 14,674 \end{array}$	+9,4885 +9,2095 +8,1461 +9,9074 +9,7364	9,1048 9,4144 9,5806 +9,7982 +9,1050	+1,1649 ,1654 ,1657 ,1656 ,1666	+9,8351 ,8346 ,8342 ,8343 ,8332	40 41 42 51 48	s. +,001 -,012 +,015 +,007 +,014	" ,11 ,18 + ,02 ,18
1761 1762 1763 1764 1765	3 4 1 2 2 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,682 14,707 14,702 14,746 14,738	+9,7388 +9,6866 +9,9063 +8,6532 +9,8887	+9,1158 +8,7681 +9,8005 -9,55×1 +9,6866	+1,1668 ,1675 ,1674 ,1687 ,1684	+9,8330 ,8321 ,8323 ,8308 ,8311	49 53 61 55 63	+,002 ,002 +,018 +,009 +,016	,11 ,17 ,09 ,05 + ;25
1766 1767 1768 1769 1770	] 2 2 3 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,757 14,762 14,801 14,806 14,822	+9,7952 +9,4346 +8,8388 +9,7867 +9,7210	+9,3640 -9,2165 -9,5380 +9,3335 +9,0283	+ J,1690 ,1691 ,1703 ,1704 ,1709	+9,8304 ,8302 ,8288 ,8287 ,8282	62 59 65 67 68	+,002 +,016 +,014 +,020 +,034	+ ,07 + ,07 + ,05 - ,01 - ,11
1771 1772 1773 1774 1775	2 2 2 2 2 2 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,832 14,840 14,853 14,880 14,908	+9,7867 +9,7882 +9,5551 +8,7875 +9,8476	+9,3364 +9,3432 	+1,1712 ,1714 ,1718 ,1726 ,1734	,8275 ,8270	69 73 70 77 80	-,006 +,012 +,007 +,005 +,010	+ ,04 ,02 ,14 + ,01 ,02
1776 1777 1778 1779 1780	3 2 2 3 1	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	14,914 14,918 14,923 14,942 15,008	+8,6434 +9,6117 +9,9009 +9,4533 +9,6767	$\begin{array}{r}9,5684 \\8,4392 \\ +9,7859 \\9,1944 \\ +8,6802 \end{array}$	+1,1736 ,1737 ,1738 ,1744 ,1763	+9,8248 ,8247 ,8245 ,8238 ,8214	78 79 86 82 90	+,021 +,018 +,010 +,015 +,009	,14 ,14 ,16 ,09 ,01
1781 1782 1783 1784 1785	3 4 3 1 2	$\begin{array}{r} +22 \ 11 \ 48,44 \\ + \ 3 \ 47 \ 37,35 \\ - 4 \ 14 \ 26,67 \\ +23 \ 7 \ 49,13 \\ -26 \ 15 \ 29,92 \end{array}$	15,019 15,019 15,038 15,053 15,065	+9,8142 +9,6785 +9,5843 +9,8189 +8,9868	+9,4523 +8,6979 8,7417 +9,4702 9,5215	+ 1,1766 ,1766 ,1772 ,1776 ,1780	+9,8210 ,8210 ,8203 ,8197 ,8193	94 91 95 103 96	+,016 +,022 +,026 ,010 +, <b>0</b> 04	+ ,09 - ,12 - ,07 - ,04 - ,05
1786 1787 1788 1789 1790	3 3 3 2 2 2 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,073 15,085 15,127 15,157 15,158	+9,0531 +9,1106 +9,4518 +9,0170 +9,8774	9,5038 9,4853 9,2114 9,5192 +9,6890	+1,1~92 ,1785 ,1797 ,1806 ,1806	+9,8190 ,8185 ,8169 ,8158 ,8158	98 101 106 108 116	+,030 +,010 +,015 +,020 +,043	,15 ,02 + ,06 ,02 ,10
1791 1792 1793 1794 1795	3 2 2 2 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,177 15,177 15,211 15,199 15,248	+9,6052 +9,0607 +9,8938 +9,8663 +8,8633	8,5469 9,5078 +9,8020 +9,8674 9,5585	+1,1812 ,1812 ,1821 ,1818 ,1818 ,1832	+9,8150 ,8150 ,8137 ,8142 ,8122	112 111 124 137 121	+,009 +,013 +,018 -,064 +,025	,05 ,15 + ,06 + ,08 ,02
1796 1797 1798 1799 1800	2 3 3 3 3 3	$\begin{array}{r} -20 & 54 & 57,07 \\ -14 & 17 & 40,15 \\ -22 & 25 & 20,78 \\ -14 & 24 & 14,54 \\ -12 & 38 & 10,13 \end{array}$	15,268 15,275 15,302 15,309 15,320	+9,2405 +9,4166 +9,1903 +9,4150 +9,4502	9,4341 9,2737 9,4638 9,2781 9,2226	+1,1838 ,1840 ,1847 ,1849 ,1853	+9,8115 ,8112 ,8102 ,8099 ,8094	123 125 127 128 130	+,008 +,015 +,017 +,026 ,005	,11 ,09 ,34 ,12 ,07

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Mean Right Ascension and Declination of 2050 Stars

No.	Star's name and I	Mag.	No. Obs.		Rigl	sion	Annual Preces-		Logarit	thms of	
			0.000	Jar	n. I,	1836.	sion.	a	b	с	d
1801 1802 1803 1804 1804 1805	Aquarii Cygni Aquarii Cephei Aquarii	9.10 9 8 8 7	1 2 2 2	h. 21	19 19 19	s. 14,04 23,64 46,00 49,65	1,634	+8,7182 ,8657 ,7082 ,9969 ,7091	,7915 ,6335 ,9213	,3377 ,4935	-7,4435 +8,9303
1806 1807 1808 1809 1810	Aquarii  Vulpeculæ Capricorni	7.8 8.9 8.9 8	3		20 20 20	50,04 34,66 41,10 56,30 56,80	3,262 3,293 2,635	,7203 ,7240 ,7596	,6410 ,6445 ,6791	,5135 ,5176 ,4208	-8,0647 -8,1289 +8,4149
1811 1812 1813 1814 1814	Cygni Equulei Cephei Aquarii	6.7 6.7 8.9 8 8	2		22 23	8,11 21,06 57,82 43,49 50,84	1,969 2,990 1,878	,923 ,7146 ,952	8412, 6264, 5,8616	,2942 ,4765 ,2737	+8,8208 +7,6432
1816 1817 1818 1819 1820	Capricorni Pegasi Cephei	8.9 8 7 8 8.9	$\begin{vmatrix} 1\\ 2\\ 1 \end{vmatrix}$	1	23 24 24	52,57 56,89 24,78 26,60 32,40	<b>3</b> ,397 <b>3 2</b> ,710 <b>3 1</b> ,189	8,745 8,751 9,105	6 8,6534 7 8,6578 1 9,0114	4 ,531 3 ,4330 4 ,0755	$\begin{array}{c}8,4508 \\8,3074 \\ +8,3460 \\ +9,0656 \\8,4522 \end{array}$
1821 1822 1823 1824 1825	Pegasi Aquarii	8. 7. 8. 8.	8 2 9 2 9 2		24 25 25		$   \begin{array}{c cccccccccccccccccccccccccccccccccc$	,751 2,719 8,718	2 ,6549 6 ,623 9 ,622	9 ,434 3 ,501 1 ,499	3 -7,8106 4 -7,7465
1826 1827 1828 1829 1830	Cygni	8 8 7 7			$rac{2}{2}$	6 16,1	$\begin{array}{c c c} 6 & 3,21 \\ 01 & 3,36 \\ 2 & 2,33 \end{array}$	9,744 1,844	10 ,624 19 ,643 13 ,743	1 ,506 9 ,527 3 ,367	5 8,2775 5 +8,6664
183 1832 1833 1834 1834	2 Pegasi 3 Capricorni 4 Cygni	5	7   3	$\begin{array}{c}1\\3\\1\\3\end{array}$	2 2	7 8 2,0 8 11,9 8 39,9 8 43,6	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	07 8,759 53 8,74 39 8,78	92 ,651 57 ,637 54 ,675	12 ,432 70 ,525 51 ,413	5 + 8,3642 4 - 8,2613
183 183 183 183 183 183	7 Piscis Aust 8 3 Pegasi pre. 9 Cephei	. 8	8 8 8	2 2 3 2		28 45,3 28 57,4 29 33,5 29 30 18,5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	13 8,77 84 8,72 93 9,03	87 ,666 53 ,61 85 ,924	58 ,545 13 ,474 47 ,202	
184 184 184 184 184	42 Cygni 43 Pegasi 44 Cephei		7.8 7.8 8 7.8 7.8	2 2 2 2 2 2 2 2		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{c c} 57 & 2,4 \ 61 & 3,0 \ 37 & 1,3 \end{array}$	23 8,83 48 8,72 50 9,09	823 ,71 259 ,60 976 ,97	43 ,48 63 ,13	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

together with their annual precessions and proper motions, &c.

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No.	No. Obs.	Declination Jan. 1, 1836. Annual Preces- sion.	Preces-		Logaritl	imis of		zzi No.	Annua	1 P. M.
ļ		o / //		a'	Ъ'	c'	d'	Piazzi	A. R.	Decn.
1801 1802 1803 1804 1805	1 3 2 1 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		+ 9,4472 +9,8837 +9,5999 +9,8893 +9,5944	-9,2277 +9,7405 -9,6190 +9,8174 -8,6782	+1,1854 ,1854 ,1856 ,1860 ,1863	,8093 ,8090 ,8084	131 140 135 146 139	s. +,013 +,031 +,031 +,006	" + ,10 - ,55 ,00 - ,07 + ,06
1806 1807 1808 1809 1810	3 3 2 2 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,353 15,399 15,402 15,418 15,418	+9,5977 +9,4502 +9,4099 +9,8299 +9,0864	8,6444 9,2299 9,2905 +9,5414 9,5139	+1,1862 ,1875 ,1876 ,1880 ,1880	+9,8081 ,8062 ,8061 ,8055 ,8055	138 143 144 151 147	+,034 +,013 +,021 +,009 +,028	,03 + ,17 ,16 + ,23 ,21
1811 1812 1813 1814 1815	2 3 3 1 3	$\begin{array}{r} +31 \ 30 \ 40,74 \\ +52 \ 11 \ 19,23 \\ + \ 4 \ 51 \ 39,43 \\ +54 \ 42 \ 7,65 \\ - \ 7 \ 1 \ 40,43 \end{array}$	15,425 15,436 15,529 15,565 15,580	+9,8476 +9,8865 +9,6857 +9,8837 +9,5490	+9,6045 +9,7843 +8,8178 +9,8020 8,9765	+1,1882 ,1885 ,1911 ,1922 ,1926	+9,8052 ,8047 ,8009 ,7993 ,7987	153 156 163 170 167	+,018 +,042 +,008 +,024 +,017	+ ,09 + ,01 - ,19 - ,02 - ,03
1816 1817 1818 1819 1820	2 3 2 2 4	$\begin{array}{r} -28 & 36 & 27,49 \\ -21 & 23 & 49,61 \\ +23 & 7 & 31,68 \\ +65 & 56 & 38,97 \\ -28 & 37 & 10,70 \end{array}$	15,580 15,583 15,610 15,607 15,621	+8,9031 +9,2430 +9,8096 +9,8751 +8,9085	9,5704 9,4525 +9,4857 +9,8519 9,5718	+1,1926 ,1927 ,1934 ,1933 ,1937	+9,7987 ,7986 ,7975 ,7976 ,7970	164 165 174 183 169	+,032 +,044 +,007 +,041 +,013	
1821 1822 1823 1824 1825	3 2 1 2 2	$\begin{array}{r} -14 \ 10 \ 19,08 \\ +22 \ 40 \ 23,88 \\ -7 \ 5 \ 43,80 \\ -6 \ 8 \ 21,10 \\ -0 \ 30 \ 1,57 \end{array}$	15,621 15,642 15,642 15,650 15,672	+9,4281 +9,8069 +9,5490 +9,5611 +9,6325	9,2799 +9,4785 8,9833 8,9201 7,8193	+1,1937 ,1943 ,1943 ,1945 ,1951	+9,7970 ,7960 ,7960 ,7957 ,7948	172 178 175 176 182	+,020 ,004 +,027 +,012 ,001	,04 ,01 ,08 ,45 ,00
1826 1827 1828 1829 1830	3 2 2 1 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,678 15,693 15,708 15,708 15,762	+9,2553 +9,5079 +9,2945 +9,8669 +9,3181	-9,4506 -9,1240 -9,4268 +9,7163 -9,4101	+1,1953 ,1957 ,1961 ,1961 ,1976	+9,7945 ,7938 ,7932 ,7932 ,7908	179 186 187 191 193	+,017 +,012 +,006 +,007 +,011	- ,01 - ,21 - ,15 + ,01 - ,04
1831 1832 1833 1834 1835	1 2 3 3 3	$\begin{array}{r} +58 50 51,64 \\ +23 43 26,73 \\ -19 10 1,86 \\ +30 16 43,01 \\ -26 10 39,44 \end{array}$	15,783 15,805 15,816 15,837 15,843	+9,8756 +9,8096 +9,3201 +9,8351 +9,0755	+9,8287 +9,5019 9,4127 +9,6006 9,5421	+1,1982 ,1988 ,1991 ,2000 ,1999	+9,7898 ,7889 ,7884 ,7874 ,7871	205 200 199 210 204	$^{+,009}_{-,001}$ $^{+,023}_{+,026}$	- ,01 - ,01 - ,08 - ,14 + ,02
1836 1837 1838 1839 1840	2 2 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,848 15,859 15,888 15,883 15,930	+9,3729 +8,9445 +9,6946 +9,8716 +9,4216	9,3627 9,5784 +8,9123 +9,8411 9,3066	+1,2000 ,2003 ,2010 ,2009 ,2022	+9,7869 ,7864 ,7851 ,7853 ,7831	206 207 216 221 218	+,014 +,017 +,019 +,015	,05 + ,03 ,10 ,16
1841 1842 1843 1844 1845	3 3 1 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,933 15,972 15,990 15,987 16,032	+9,8663 +9,8603 +9,6522 +9,8663 +9,2279	+9,8597 +9,6964 +8,2950 +9,8586 -9,4886	,2033 ,2038 ,2037		229 228 227 236 230	+,017 +,017 +,011 +,044 -,010	,16 ,12 ,03 ,13 +,02

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No.	Star's name and	Mag.	No. Obs.	Right Ascension	Annual Preces-		Logarit	hms of	
			Obs.	Jan. 1, 1836.	sion.	a	Ъ	С	d
1846 1847 1848 1849 1850	Capricorni Aquarii Capricorni	8 8 8,9 9	<b>1</b> 3 2 3	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	s. +3,398 3,291 3,067 3,073 3,196	+8,7609 ,7434 ,7276 ,7287 ,7347		+ 0,5312 ,5173 ,4867 ,4876 ,5046	-8,1717 +6,7476 -6,5349
1851 1852 1853 1854 1855	Cygni Cephei Aquarii Cygni Pegasi	6.7 7.8 7.8 <b>8</b> 7		35 6,44 35 16,32 35 49,03 35 57,61 36 26,17	2,520 1,861 3,143 2,402 2,751	+8,8163 ,9932 ,7338 ,8497 ,7658	8,6805 ,8568 ,5951 ,7107 ,6246	+0,4014 ,2697 ,4973 ,3806 ,4395	+8,5726 +8,9160 7,7115 +8,6606 +8,3409
1856 1857 1858 1859 1860	Cygni Cephei Pegasi <i>seq.</i> Aquarii Pegasi	8 7.8 8 8 7	2 2 3 2	37 3,09 37 16,80 37 37 49,34 38 31,01	2,653 1,869 2,751 3,134 2,710	+8,7878 ,9977 ,7677 ,7362 ,7778	8,6442 ,8533 ,6218 ,5894 ,6281	+ 0,4237 ,2716 ,4395 ,4961 ,4330	+8,4601 +8,9213 +8,3447 -7,6648 +8,4013
1861 1862 1863 1864 1865	Capricorni Pegasi Cephei Capricorni Aquarii	8 7 8 9 8.9	2 2 1 3 3	38 52,67 38 56,12 39 44,91 39 50,80 39 58,49	3,301 2,712 1,138 3,402 3,069	+ 8,7551 8,7782 9,1694 8,7752 8,7376		+0,5186 ,4333 ,0561 ,5317 ,4870	+8,4011 +9,1375
1866 1867 1868 1869 1870	Pegasi Capricorni Cephei	7 7.8 7.8 8 8.9	32	40 13,92 41 17,05 41 24,25 42 4,28 43 10,31	2,927 2,593 3,299 3,405 1,907	+ 8,7450 8,8110 8,7587 8,7796 +9,0069	8,5887 ,6503 ,5972 ,6156 ,8386	+0,4664 ,4138 ,5184 ,5321 ,2803	+8,5358 -8,2230 -8,3892
1871 1872 1873 1874 1875	Cephei Capricorni Cygni Pegasi	8 8 7 8.9	2 3 2 3 3 3 3	43 11,42 43 40,26 43 41,97 43 52,30 44 8,50	3,308 2,367 2,810	+9,0081 8,7636 8,8792 8,7671 8,7558		+0,2794 ,5196 ,3742 ,4487 ,4600	+8,2816
1876 1877 1878 1879 1880	Cephei Capricorni Cephei Pegasi Aquarii	7.8 8 7.8 7.8	2 3 1	44 31,09 44 38,41 46 10,84 46 22,64 47 18,47	3,350 1,747 2,546	+ 9,0514 8,7728 9,0580 8,8344 8,7471			
1881 1882 1883 1884 1884	Gruis Cephei Capricorni Pegasi Cephei	8 7 7.8 7.8 8		47 23,78 47 25,09 47 59,97 48 21,32 48	1,824 3,332	8,7746 8,8369	8,6677 ,8570 ,5863 ,6472 ,7839	+0,5622 ,2610 ,5227 ,4070 ,2206	+8,9782 8,3076 +8,5998
1886 1887 1888 1889 1890	Cephei	7.8 7.8 7.8 7	$   \begin{array}{c c}         3 & 2 \\         3 & 2 \\         3 & 3   \end{array} $	48 44,15 48 55,62 49 21,60 49 22,77 51 1,98	2,799 1,655 2,006	9,0920 9,0001		,2188 ,3023	+8,3193  +9,0418  +8,9179

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	ams of		zi No.	Annual	Р. М.
			sion.	<i>a</i> ′	6'	c'	d'	Piazzi	A. R.	Decn.
1846 1847 1848 1849 1850	3 4 3 4 2	$\begin{array}{c} & & & & \\ -22 & 24 & 9,74 \\ -15 & 35 & 2,16 \\ + & 0 & 33 & 54,08 \\ - & 0 & 23 & 50,82 \\ - & 9 & 12 & 28,89 \end{array}$	$\begin{array}{c} '' \\ + 16,032 \\ 16,042 \\ 16,057 \\ 16,097 \\ 16,112 \end{array}$	+9,2380 +9,4099 +9,6434 +9,6335 +9,5224	9,4837 9,3323 +7,9115 7,7109 9,1082	+1,2050 ,2053 ,2056 ,2058 ,2058 ,2071	+9,7783 ,7778 ,7771 ,7751 ,7744	231 232 237 239 239 240	$\begin{array}{c} s. \\ +,036 \\ +,008 \\ +,010 \\ +,014 \\ -,002 \end{array}$	$ \begin{array}{c}     '' & - & ,03 \\             - & ,11 \\             - & ,20 \\             - & ,20 \\             - & ,02 \\ \end{array} $
1851 1852 1853 1854 1855	3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$16,177 \\ 16,184 \\ 16,216 \\ 16,219 \\ 16,246 \\ 16,246 \\ $	+9,8407 +9,8639 +9,5752 +9,8519 +9,7938	+9,6632 +9,8300 	+1,2089 ,2091 ,2099 ,2100 ,2107	+9,7711 ,7708 ,7692 ,7690 ,7676	253 256 254 261 262	+,017 +,002 +,007 +,008 +,006	$ \begin{array}{c} - ,14 \\ + ,01 \\ + ,03 \\ - ,05 \\ + ,02 \end{array} $
1856 1857 1858 1859 1860	1 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{r} 16,277\\ 16,287\\ 16,308\\ 16,318\\ 16,354 \end{array}$	+9,8176 +9,8603 +9,7924 +9,5832 +9,8041		+1,2116 ,2118 ,2124 ,2127 ,2136	+ 9,7661 ,7655 ,7644 ,7639 ,7620	267 277 274 272 272 279	+,010 +,043 +,023 +,013	$\begin{array}{c} - ,12 \\ + ,01 \\ - ,20 \\ - ,17 \\ - ,10 \end{array}$
1861 1862 1863 1864 1864	1 3 3	$\begin{array}{r} -16 & 49 & 57,22 \\ +24 & 48 & 22,82 \\ +68 & 18 & 11,33 \\ -23 & 34 & 34,51 \\ - & 0 & 33 & 19,15 \end{array}$	$\begin{array}{c} 16,375\\ 16,375\\ 16,408\\ 16,422\\ 16,428\\ 16,428\\ \end{array}$	+9,3944 +9,8035 +9,8414 +9,2279 +9,6325	$\begin{array}{ }9,3736 \\ +9,5352 \\ +9,8812 \\ -9,5153 \\ -7,8825 \end{array}$	,2154	+9,7609 ,7609 ,7591 ,7584 ,7584 ,7580	280 284 293 286 287	,013 +,018 +,007 +,013 +,013	$ \begin{array}{c} - ,16 \\ - ,10 \\ - ,10 \\ + ,03 \\ - ,12 \end{array} $
1866 1867 1868 1869 1869 1870	$\begin{array}{c} 2\\ 4\\ 4 \end{array}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	16,532	+9,7251 +9,8261 +9,3079 +9,2201 +9,8500	$\begin{array}{r} +9,1718 \\ +9,6401 \\ -9,3798 \\ -9,5259 \\ +9,8119 \end{array}$	+1,2159 ,2173 ,2175 ,2183 ,2197	+9,7575 ,7546 ,7540 ,7524 ,7494	289 299 296 301 309	+,020 +,012 +,007 +,019 +,004	$ \begin{array}{c} - ,16 \\ + ,09 \\ - ,22 \\ - ,06 \\ + ,03 \end{array} $
1871 1872 1873 1874 1875	4 4 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	16,610 16,607 16,620		-9,4041 +9,7533	,2204	+9,7494 ,7479 ,7481 ,7474 ,7466	310 307 313 312 312 316	+,002 +,021 +,022 +,012 +,012	+ ,03 + ,02 - ,04 - ,01 - ,05
1876 1877 1878 1879 1880	4 3 4	$\begin{array}{r} +60 \ 30 \ 34,89 \\ -20 \ 46 \ 55,83 \\ +60 \ 50 \ 57,10 \\ +35 \ 21 \ 24,93 \\ + 1 \ 35 \ 18,29 \end{array}$	16,659 16,7 <b>27</b> 16,739	$\begin{array}{r} +9,8432 \\ +9,3201 \\ +9,8401 \\ +9,8274 \\ +9,6522 \end{array}$	-9,4694 +9,8627 +9,6845	,2234 ,2237	+9,7459 ,7451 ,7411 ,7404 ,7375	318 317 328 325 330	+,028 +,012 +,017 +,015 -+,008	- ,08 + ,03 + ,04 - ,15 - ,03
1881 1882 1883 1884 1884	$\begin{array}{c c} 2 & 3 \\ 3 & 4 \\ 4 & 4 \end{array}$	$ \begin{array}{c c} -38 & 31 & 56,97 \\ +59 & 33 & 17,04 \\ -19 & 58 & 0,06 \\ +35 & 22 & 19,11 \\ +53 & 13 & 35,86 \end{array} $	16,788 16,819 16,836	$\begin{array}{  } -7,0000 \\ +9,8395 \\ +9,3463 \\ +9,8248 \\ +9,8432 \end{array}$	+9,8587 -9,4568 +9,6871	,2250 ,2258 ,2262	,7355 ,7345	329 334 333 337 337 335	+,029 +,023 +,007 +,004	$ \begin{array}{c} - ,11 \\ - ,02 \\ - ,13 \\ - ,15 \\ - ,02 \end{array} $
1880 1887 1888 1889 1890	$\begin{array}{c c} 7 & 3 \\ 3 & 3 \\ 0 & 2 \end{array}$	$ \begin{vmatrix} +20 & 27 & 48,83 \\ +20 & 22 & 58,62 \\ +62 & 57 & 45,90 \\ +55 & 50 & 11,38 \\ -7 & 3 & 18,41 \end{vmatrix} $	2 16,864 0 16,879 3 16,882	$ \begin{vmatrix} +9,7745 \\ +9,7745 \\ +9,8306 \\ +9,8388 \\ +9,5635 \end{vmatrix} $	+9,4673 +9,8752 +9,8433	,2269 ,2273 ,2274	,7328 ,7318 ,7316	339 342 349 347 350	+,037 +,010	-,10 -,03 -,05

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No.	Star's name and	Mag.	No. Obs.	Α		sion	Annual Preces-		Logarit	hms of	F	
			0.05.	Jan	. 1,	1836.	sion.	a	ь	C	<i>d</i>	
1891 1892 1893 1894 1895	Aquarii  Pegasi	8 8 7.8 8	$\begin{array}{c} 3\\2\end{array}$	h. 21	51 51 52	s. 19,10 36,63 55,66 19,33 38,73	s. +3,301 3,066 3,409 3,301 2,724	+ 8,7739 ,7521 ,7980 ,7755 ,7997		+0,5186 ,4866 ,5326 ,5186 ,4352	$\begin{array}{r}8,2674 \\ +6,2158 \\8,4362 \\8,2720 \\ +8,4418 \end{array}$	
1896 1897 1898 1899 1900	Aquarii Cygni Pegusi Aquarii Cephei	8 7.8 8 8 7.8	$\frac{2}{3}$		53 53 53	18,11 25,84 42,87 47,54 53,98	3,091 2,281 2,726 3,436 1,997	+8,7543 8,9317 8,8011 8,8079 9,0174	8,5439 ,7207 ,5890 ,5955 ,8047	+0,4901 ,3581 ,4355 ,5360 ,3004	-7,2748+8,8051+8,4440-8,4770+8,9405	
1901 1902 1903 1904 1905	Pegasi Aquarii  Piscis Aust.	7 8 7.8 8.9 8			54 55 55	58,17 6,59 1,70 16,06 48,43	2,943 3,088 3,355 3,237 3,459	+8,7617 ,7552 ,7906 ,7691 ,8200	8,5485 ,5414 ,5728 ,5501 ,5939	+0,4688 ,4897 ,5257 ,5101 ,5389	+ 8,0099 -7,2231 -8,3744 -8,1461 -8,5168	
1906 1907 1908 1909 1910	Pegasi Aquarii Pegasi Piscis Aust.	8 7 7.8 7.8 7			57 58	28,22 38,16 6,39 18,31 8,50	3,016	+8,7606 ,7609 ,7956 ,7610 ,8416	8,5322 ,5319 ,5643 ,5292 ,6060	+0,4780 ,4777 ,5257 ,4794 ,5464		
1911 1912 1913 1914 1915	Lacertæ Aquarii Pegasi	7 7 8 8 7.8	$\begin{vmatrix} 2\\1\\3\\2\end{vmatrix}$	22	59 59	12,76 29,41 38,77 49 3,86	$\begin{array}{c c} 3,403 \\ 3,152 \\ 2,621 \end{array}$	+8,9062 ,8095 ,7646 ,8415 ,8017				
1916 1917 1918 1919 1920	Aquarii Cephei Lacertæ Cephei	8 7 8 7.8	3 2 1 3 2 2		0 0 1 2 3		$ \begin{array}{c c} 3,046 \\ 2,011 \\ 2,472 \\ \end{array} $	8,7628		+0,4876 ,4837 ,3034 ,3930 ,3019	+8,9684 +8,7253	
1921 1922 1923 1924 1924 1925	Aquatii Gruis Cephei Pegasi	8 7 6.7 7.8			4 4 5	21,49 36,11 50,36 33,06 50,75	3,650 1,787 2,640	9,1149	8,5262 ,6366 ,8545 ,5840 ,5074	,2521 ,4216	-8,7230 +9,0661 +8,5935	
1926 1927 1928 1929 1930	Aquarii Pegasi Cephei Aquarii	8 7 7.8 7.8 9		and for each of the second second second second second second second second second second second second second	6 7 7		5,138 2,793 1,857	8,7713 8,8069 9,1048		,4966 ,4461 ,2688	-7,8162 +8,4082 +9,0528	
1931 1832 1933 1934 1935	Lacertæ Pegasi	6.' 7.' 7.' 8 7.' 8	8 3 3 8 2		8 9 10 10	) 9,18 ) 14,8(	5 2,733 2,463 8 2,924	8,8268 8,9165 8,7836	,5463 ,6358 ,4989	,4360 ,3912 ,4660	$ +8,50\overline{38} $  +8,7606   +8,1406	

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No.	No.	Declination	Annual Preces-		Logarit	nms of		zi No.	Annual	. Р <b>.</b> М.
	Obs.	Jan. 1, 1836.	sion.	a'	b'	c'	d'	Piazzi	A. R.	Decn.
1891 1892 1893 1894 1894 1895	3 3 2 4	$\begin{array}{r} \bullet & \cdot & \cdot & \cdot \\ -18 & 10 & 3,88 \\ + & 0 & 8 & 26,99 \\ -25 & 47 & 33,26 \\ -18 & 17 & 56,69 \\ +26 & 0 & 1,91 \end{array}$	$ \begin{array}{c} '' \\ + 16,977 \\ 16,988 \\ 17,004 \\ 17,023 \\ 17,035 \end{array} $	+9,3909 +-9,6395 +9,2068 +9,3909 +9,7931	$\begin{array}{r}9,4213 \\ +7,3919 \\9,5668 \\9,4256 \\ +9,5715 \end{array}$	+1,2298 ,2301 ,2305 ,2310 ,2313	+9,7256 ,7248 ,7238 ,7226 ,7218	352 353 354 356 359	s.+,029+,016+,014+,019+,017	" - ,01 - ,08 - ,12 + ,04 + ,02
1896 1897 1898 1899 1900	4 3 2 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$17,065 \\ 17,072 \\ 17,083 \\ 17,088 \\ 17,090$	+9,6191 +9,8319 +9,7924 +9,1461 +9,8293	$\begin{array}{r}8,4507 \\ +9,8037 \\ +9,5735 \\9,5997 \\ +9,8539 \end{array}$	+1,2321 ,2323 ,2326 ,2327 ,2327 ,2327	+9,7197 ,7193 ,7185 ,7183 ,7181	364 368 369 367 373	+,030 +,010 +,006 +,009 +,026	+,06 -,04 -,05 -,06 +,07
1901 1902 1903 1904 1905	3 3 3 3 4	$\begin{array}{r} +10 \ 11 \ 8,85 \\ -1 \ 42 \ 21,08 \\ -22 \ 34 \ 12,21 \\ -13 \ 48 \ 29,44 \\ -29 \ 51 \ 55,35 \end{array}$	17,094 17,102 17,144 17,156 17,231	+9,7160 +9,6222 +9,3053 +9,4742 +9,0864	+9,1791 8,3990 9,5159 9,3095 9,6311	+1,2329 ,2330 ,2341 ,2344 ,2363	+9,7177 ,7173 ,7143 ,7135 ,7082	370 371 377 379 384	+,005 +,012 +,016 +,003 +,003	-,16 +,03 +,02 00 -,10
1906 1907 1908 1909 1910	4 4 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$		+9,6794 +9,6803 +9,3032 +9,6739 +8,9031	+8,8908 +8,9033 -9,5279 +8,8224 -9,6832	+1,2369 ,2371 ,2377 ,2378 ,2388	+9,7065 ,7061 ,7044 ,7040 ,7011	390 391 393 395 395 398	+,012 +,013 -,001 +,006 +,031	,13 ,19 + ,12 ,12 + ,04
1911 1912 1913 1914 1915	3 3 3 3 3 3 3	$\begin{array}{r} +44 \ 18 \ 58,77 \\ -26 \ 34 \ 0,41 \\ -7 \ 10 \ 54,25 \\ +33 \ 43 \ 15,23 \\ +24 \ 13 \ 6,47 \end{array}$	17,329 17,343 17,349 17,355 17,367	+9,8202 +9,2148 +9,5670 +9,8055 +9,7789	+9,7812 9,5874 9,0324 +9,6822 +9,5510	+1,2388 , $2391$ , $2393$ , $2394$ , $2397$	+9,7011 ,7001 ,6996 ,6992 ,6983	404 400 403 409 411	+,018 ,018 +,015 +,008	-,03 +,07 -,05 +,06 +,03
1916 1917 1918 1919 1920	4 3 2 4 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	17,404 17,434	+9,6335 +9,6532 +9,8122 +9,8122 +9,8082	7,8167 + 8,4705 + 9,8681 + 9,7697 + 9,8717	+1,2400 ,2407 ,2414 ,2429 ,2429	+9,6974 ,6954 ,6932 ,6885 ,6885	412 417 4 8 12	-,001 +,010 +,015 +,004 +,021	,19 ,05 ,06 +,07 +,11
1921 1922 1923 1924 1924 1925	4 3 3 3	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	17,510 17,564 17,570 17,602 17,617	+9,4669 -7,0000 +9,7959 +9,7966 +9,6998	9,3548 9,7693 +9,8940 +9,6891 +9,1237	+ 1,2433 ,2446 ,2448 ,2455 ,2459	+9,6872 ,6828 ,6824 ,6796 ,6784	7 18 24 29 30	+,016 + 074 +,018 +,018 +,011	,16 ,61 ,02 ,10 ,05
1926 1927 1928 1929 1930	4 3 2	$\begin{array}{r} -26 & 46 & 41,63 \\ - & 6 & 23 & 47,28 \\ + & 23 & 30 & 10,52 \\ + & 62 & 28 & 57,17 \\ - & 18 & 1 & 3,85 \end{array}$	17,648 17,670 17,672	$\begin{array}{r} +9,2380 \\ +9,5786 \\ +9,7679 \\ +9,7910 \\ +9,4265 \end{array}$	9,5974 8,9896 +9,5465 +9,8933 9,4354	,2472 ,2473	+9,6780 ,6759 ,6740 ,6737 ,6733	25 35 39 42 38	+,008 +,016 +,010 -,005 +,017	+,01 -,06 +,05 +,03 +,08
1931 1932 1933 1934 1935	3 3 4 2 4	$\begin{array}{r} +62 \ 21 \ 2,46 \\ +28 \ 21 \ 26,18 \\ +44 \ 16 \ 26,93 \\ +13 \ 8 \ 1,90 \\ -9 \ 19 \ 25,97 \end{array}$	17,752 17,754	$\begin{array}{c} +9,7882 \\ +9,7803 \\ +9,1028 \\ +9,7226 \\ +9,5490 \end{array}$	+9,8941 +9,6-43 +9,7914 +9,3052 -9,1574	,2493 ,2502	,6608 ,6666 ,6634	53 52 55 57 59	+,017 +,014 +,009 +,013 +,005	+,07 +,01 -,04 -,07 -,09

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Mean Right Ascension and Declination of 2050 Stars

No.	Star's name and M	Jag.	No. Obs.		Righ		Annual Preces-	antan karan dar bardan dan dari bardan dari karan dari karan dari karan dari karan dari karan dari karan dari k	Logariti	ums of	ninkland on an of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source of the source o
			Obs.	Jan	. 1, 1	836.	sion.	a	Ь	c	
1936 1937 1938 1939 1940	Pegasi Lacertæ Pegasi Aquariı	7 7 7 7 7 7	3 2 2 2	h. 22	$     \begin{array}{c}       11 \\       11 \\       12 \\       4     \end{array} $	s. 56,84 45,32 41,37 48,76	s. +2,856 2,925 2,611 2,926 3,142	+8,7977 ,7851 ,8711 ,7863 ,7780	8,5089 ,4942 ,5789 ,4894 ,4805		+8,3140 +8,1459 +8,6502 +8,1460 -7,8660
$     1941 \\     1942 \\     1943 \\     1944 \\     1945     $	Pegasi Aquarii Lacertæ Cephei	7 8 7.8 7.8 7.8	3		$     15 \\     15 \\     15   $	9,95 17,15 27,09 34,92 16,69	2,986 3,009 3,182 2,644 1,964	+8,7792 8,7793 8,7853 8,8685 9,1200		,4784 ,5027	+7,9127 +7,7788 8,0659 +8,6362 +9,0689
1946 1947 1948 1949 1950	Pegasi Cephei Aquarii	$7.8 \\ 8 \\ 7 \\ 8 \\ 8.9$	$\begin{vmatrix} 2\\ 2\\ 3 \end{vmatrix}$		20 20 20	25,66 16,24 18,21 24,93 39,06	2,730 1,987 3,172	+8,7817 8,8486 9,1174 8,7892 8,7893	,5150 ,7838 ,4545	,4:360 ,2982 ,5013	+8,5607 +9,0654 -8,0518
1951 1952 1953 1954 1955	Piscis Aust. Aquarii Pegasi Aquarii	9 8.9 8.9 7.8 8	) 4		22 22 22	45,66 11,38 11,53 22,69 24,66	3,429 3,180 3,034	,7920 ,7843	,5172 ,4487 ,4399	,5352 ,5024 ,4820	-8,5986 -8,0898 +7,5720
1956 1957 1958 1959 1960	1	8 8 7 9 7.8	4 3 4 2 3 3		24 26 26	21,22 12,34 34,65 58,14 24,49	3,247 3,312 3,278	,8076 ,8290 ,8194	,4541 ,4632 ,4515	,5115 ,5201 ,5156	-8,3886
1961 1962 1963 1964 1965	Lacertæ — pre. Piscis Aust.	7.1 8 7 8.9 8	3	a parameter da da esta da esta da esta da esta da esta da esta da esta da esta da esta da esta da esta da esta	28 28 28	51,10 10,48 59,47 46,11	3   2,651   2,652 7   3,346	,8962 ,8968 ,8440	,522? ,5208 ,4659	4234 ,4236 ,5245	$ \begin{array}{r} -8,3926 \\ +8,6927 \\ +8,6938 \\ -8,5197 \\ -7,6814 \end{array} $
1966 1967 1968 1969 1970	Piscis Aust. Pegasi Aquarii	8 8 8 8 8	3		32 32 33	18,93 21,90 45,3€ 21,81 22,35	) 3,333 5 2,947 3,163	8,8459 8,8044 8,8002	,4491 ,4056 ,3982	,5228 ,4694 ,5001	-8,5187 +8,1793 -8,0789
1971 1972 1973 1974 1975		9 9 9 9 8.	$\begin{vmatrix} 3\\4\\4 \end{vmatrix}$		34 36 36	37,33 51,4( 1,5- 31,82 42,9	$\begin{vmatrix} 3,147\\4 & 3,139\\5 & 3,138 \end{vmatrix}$	,7991 ,7989 ,7993	,3887 ,3820 ,3793	4979 ,4968 ,4968 ,4966	-8,0052 -7,9661 -7,9639
1976 1977 1978 1979 1980	7 Lacertæ 8 Aquarii	8 8 7. 9 8	8 2 8 4		39 39 39	56,24 11,54 24,48 30,49 50,19	$\begin{array}{c c} 4 & 2,601 \\ 8 & 3,109 \\ 9 & 3,240 \end{array}$	,950 ,798 ,8252	),5150 3617 2,3879	,4926 5105	1 +8,8025 5 -7,7443 5 -8,3702

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No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-		Logarith	ms of		zi No.	Annua	l P. M.
			sion.	a'	<i>b'</i>	c'	d'	Piazzi	A. R.	Decn.
1936 1937 1938 1939 1940	3 2 3 4 4	$\begin{array}{c} +19 & 8 & 45,05 \\ +13 & 15 & 0,34 \\ +36 & 56 & 52,96 \\ +13 & 12 & 42,36 \\ -7 & 3 & 55,81 \end{array}$	$\begin{array}{r} & \\ & +17,824 \\ & 17,843 \\ & 17,853 \\ & 17,893 \\ & 17,898 \end{array}$	+9,7482 +9,7218 +9,7924 +9,7202 +9,5752	+9,4653 +9,3102 +9,7289 +9,3104 -9,0388	,2517 ,2527	+9,6602 ,6585 ,6575 ,6538 ,6533	$     \begin{array}{r}       60 \\       62 \\       65 \\       69 \\       68     \end{array} $	s. +,016 +,004 +,008 +,005	" ,08 ,11 + ,06 ,01 ,01
1941 1942 1943 1944 1945	44444	$\begin{array}{r} + 7 \ 47 \ 58,66 \\ + 5 \ 42 \ 53,06 \\ -11 \ 1 \ 25,15 \\ +35 \ 49 \ 48,51 \\ +62 \ 44 \ 20,63 \end{array}$	17,913 17,995 18,002 18,005 18,146	+9,6911 +9,6776 +9,5340 +9,7846 +9,7612	+9,0848 +8,9527 -9,2339 +9,7211 +9,9057	+1,2532 ,2551 ,2553 ,2554 ,2588	+9,6518 ,6439 ,6431 ,6429 ,6281	73 82 83 87 109	+,010 +,015 +,004 +,018 +,015	$ \begin{array}{c} - , 15 \\ - , 01 \\ - , 10 \\ 00 \\ + , 03 \end{array} $
1946 1947 1948 1949 1950	4 2 3 2 3	$\begin{array}{r} + 3 \ 41 \ 22,47 \\ +31 \ 0 \ 16,66 \\ +62 \ 29 \ 44,43 \\ -10 \ 34 \ 20,81 \\ -10 \ 29 \ 56,06 \end{array}$		+9,6628 +9,7701 +9,7581 +9,5428 +9,5453	+8,7667 +9,6697 +9,9055 9,2205 9,2180	,2597 ,2597	,6240 ,6240 ,6232	106 113 115 110 114	+,011 +,014 +,002 +,014 +,015	- ,02 - ,04 + ,05 - ,15 - ,08
1951 1952 1953 1954 1955	$     \begin{array}{c}       3 \\       2 \\       4 \\       4 \\       3     \end{array} $	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,239 18,253 18,253 18,260 18,262	+9,3385 +9,1367 +9,5353 +9,6609 +9,5353	$\begin{array}{c}9,5847 \\9,6974 \\9,2572 \\ +8,7473 \\9,2567 \end{array}$	,2613 ,2613 ,2615	,6161 ,6152	119 124 125 127 126	+,010 +,039 +,012 +,007 +,003	,07 +,02 ,01 ,08 ,03
1956 1957 1958 1959 1960	5 3 3 4 2	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,325 18,409 18,423	+9,5024 +9,4548 +9,3579 +9,4099 +9,1931	$\begin{array}{ }9,3565 \\9,4584 \\9,5860 \\9,5325 \\9,6935 \end{array}$	,2630 ,2650 ,2653	,6076 ,5972 ,5954	133 138 146 148 154	+,007 +,003 +,007 +,015 -,002	,01 + ,03 ,11 ,04 + ,01
1961 1962 1963 1964 1965	4 2 1 4 3	$\begin{array}{r} -21 56 14,58 \\ +38 44 19,23 \\ +38 46 51,87 \\ -28 17 33,19 \\ -4 27 27,57 \end{array}$	$   \begin{array}{c c}     18,461 \\     18,475   \end{array} $	$\begin{array}{c} +9,4082 \\ +9,7649 \\ +9,7642 \\ +9,2988 \\ +9,004 \end{array}$	+9,7608 + 9,7616 - 9,6405	,2663 ,2666 ,2669	,5886 ,5868	$   159 \\ 163$	+,014 +,041 +,056 +,014	-,12 -,26
1966 1967 1968 1969 1970	$\begin{vmatrix} 4\\1\\2 \end{vmatrix}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,603 18,614 18,634	+9,6064 +9,3181 +9,7067 +9,5514 +9,7372	$ \begin{array}{c}8,8508 \\9,6404 \\ +9,3428 \\9,2470 \\ +9,8900 \end{array} $	,2696 ,2698 ,2703	,5707 ,5692 ,5663	$   183 \\ 182 \\ 186 \\ 188 \\ 194 $	+,032 +,012	-,02 -,07
1971 1972 1973 1974 1975	444	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,683 18,718 18,735	+9,5763	-9,1353	,2714 ,2723 ,2726	,5589 ,5533 ,5507	191 204 206 208 213	+,018	+,01  -,03 +,04
1976 1977 1978 1979 1980	3 2 4	$\begin{array}{r} +29 & 35 & 49,40 \\ +45 & 21 & 12,67 \\5 & 5 & 35,50 \\20 & 33 & 33,30 \\33 & 40 & 8,50 \end{array}$	18,814 18,821 18,826	+9,7404 +9,6042 +9,4564	$\begin{array}{c} +9,6658 \\ +9,8250 \\8,9187 \\9,5178 \\9,7171 \end{array}$	,2745 ,2747 ,2748	,5375 ,5361 ,5354	$\begin{array}{ c c c } 214 \\ 222 \\ 220 \\ 221 \\ 224 \\ \end{array}$	$ \begin{vmatrix} -,011 \\ +,021 \\ +,018 \\ +,002 \\ +,019 \end{vmatrix} $	-,11  -,24  -,18

No.	Star's name and	Mag.	No.	A	Rig	ht sion	Annual Preces-		Logarit	.hms of	Shipperterun (1995)
		0	Obs.	Jan	. 1,	1836.	sion.	a	ь	c	d
1981 1982 1983 1984 · 1985	Aquarii Pegasi Aquarii Andromedæ	8.9 8 8 9 8	3 4 5 4 3	h. 22	m. 41 44 45 50 50	s. 40,78 12,66 14,73 1,27 2,84	$\begin{array}{r} s. \\ +3,133 \\ 3,048 \\ 3,109 \\ 3,106 \\ 2,749 \end{array}$	+8,8027 ,8003 ,8025 ,8054 ,9101	8,3527 ,3348 ,3304 ,3023 ,4075	+ 0,4960 ,4840 ,4926 ,4922 ,4392	-7,9622+7,4734-7,7841-7,7750+8,7046
1986 1987 1988 1989 1990	Pegasi Cephei Aquarii Pegasi	7.8 8 7.8 7.8	1 4 2 <b>1</b> 4		50 51 51	26,81 52,83 22,16 31,33 31,41	3,023 0,667 +3,091 3,268 3,023	+8,8065 9,7798 8,8049 8,8544 8,8071		+0,4804 9,8241 +0,4901 0,5143 0,4804	
1991 1992 1993 1994 1995	Pegasi Andromedæ Aquarii Pegasi	8 8 8 8	5 1 2 4 4		$\begin{array}{c} 52 \\ 52 \end{array}$	49,82 6,26 33,33 27,80 9,52	3,023 2,580 3,237 2,965 2,955	+8,8073 9,0100 8,8431 8,8218 8,8289	8,2927 ,4936 ,3230 ,2892 ,2695	+ 0,4804 ,4116 ,5101 ,4720 ,4706	+7,8634 +8,9033 -8,4464 +8,2450 +8,3107
1996 1997 1998 1999 <b>20</b> 00	Pegasi Aquarii Pegasi ——— Piscium	8 8.9 8.9 7.8	43	23	59 59 2	23,99 54,45 58,86 24,63 54,11	2,946 3,128 2,878 3,016 3,045	+8,8326 ,8154 ,8663 ,8154 ,8115	8,271 <b>1</b> ,2424 ,2934 ,2234 ,2152	+0,4692 ,4953 ,4591 ,4794 ,4836	+8,5494 + 8,0057
$\begin{array}{r} 2001 \\ 2002 \\ 2003 \\ 2004 \\ 2005 \end{array}$	Aquarii Piscium Aquarii	8.9 7.8 8.9 7.8 8	3	and a second second second second second second second second second second second second second second second	4 5 5	55,63 25,70 11,24 18,49 42,62	3,062 3,127 3,033 3,061 3,243	+8,8110 ,8183 ,8141 ,8116 ,8713	—8,2067 ,2102 ,1999 ,1959 ,2522	+0,4860 ,4951 ,4819 ,4859 ,5109	+7,1135 8,0762 +7,8544 +7,1838 8,5614
2006 2007 2008 2009 2010	Pegasi Piscium Aquarii Pegasi	7.8 8 8 8 8	34 2 3 3	n parameter a state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the stat	7 7 8	51,69 15,03 50,76 58,37 13,41	2,962 3,066 3,238 2,974 2,924	+8,8355 ,8124 ,8732 ,8330 ,8627		+0,4716 ,4866 ,5103 ,4733 ,4660	+8,3430 +6,6911 8,5662 +8,3083 +8,5155
2011 2012 2013 2014 2015	Pegasi Aquarii Piscium Pegasi Andromedæ	7.8 9 8 7 7.8	4 3 2 2 3		10 10 11	27,47 28,73 29,61 35,41 13,66	2,924 3,141 3,046 2,950 2,830	+ 8,8629 ,8275 ,8151 ,8500 ,9359		+0,4660 ,4971 ,4837 ,4698 ,4518	+ 8,5159 
2016 2017 2018 2019 2020	Pegasi Aquarii Pıscium Pegasi Aquarii	7.8 8.9 9 8			14 16	38,25	2,940 3,122 3,045 2,964 3,128	,8244 ,8178		+0,4683 ,4944 ,4836 ,4719 ,4953	+8,4982 8,1296 +7,7847 +8,4355 8,2079
2021 2022 2023 2024 2025	Aquarii Piscium Gruis	8,9 8,9 8,9 8 8 8	4		21		3,126 3,047 3,048	+8,8497 ,8297 ,8191 ,8195 ,9528		,4840	$ \begin{array}{r} -8,4245 \\ -8,2072 \\ +7,7764 \\ +7,7796 \\ -8,7855 \end{array} $

n

No.	No. Obs.	Declination Jan. 1, 1836.	Annual Preces-	-	Logarith	ms of		zi No.	Annual	. Р. М.
	0.05.		sion.	<i>a'</i>	b'	c'	d'	Piazzi	A. R.	Decn.
1981 1982 1983 1984 1985	4 4 4 3 4	$\begin{array}{c} & & & & \\ - & 8 & 19 & 28,87 \\ + & 2 & 41 & 0,03 \\ - & 5 & 31 & 40,98 \\ - & 5 & 22 & 43,20 \\ + & 38 & 30 & 48,24 \end{array}$		+9,5809 +9,6513 +9,6042 +9,6064 +9,7210	-9,1337 +8,6490 -8,9582 -8,9492 +9,7740	+1,2762 ,2779 ,2786 ,2815 ,2815	+9,5242 ,5104 ,5045 ,4765 ,4769	228 237 242 259 260	s. +,012 +,018 +,029 +,014 -,006	" + ,13 - ,13 - ,04 - ,09 + ,02
1986 1987 1988 1989 1990	2 3 3 1 5	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,155 19,160	+9,6665 +9,5331 +9,6191 +9,4048 +9,6674	+9,0325 +9,9775 	+1,2817 ,2819 ,2823 ,2824 ,2824 ,2824	+9,4745 ,4729 ,4688 ,4676 ,4676	263 280 269 270 271	+,008 ,000 +,010 +,023 +,012	- ,08 + ,03 - ,01 - ,17 - ,08
1991 1992 1993 1994 1995	4	$\begin{array}{r} + \ 6 \ 30 \ 22,88 \\ + 51 \ 25 \ 35,35 \\ - 23 \ 40 \ 3,80 \\ + 15 \ 21 \ 3,11 \\ + 17 \ 37 \ 51,53 \end{array}$	19,174 19,188 19,233	+9,6674 +9,6972 +9,4487 +9,6928 +9,6937	+9,0367 +9,8740 -9,5844 +9,4053 +9,4658	,2840	+9,4659 ,4643 ,4609 ,4495 ,4246	273 276 277 283 300	+,009 +,006 +,029 +,013 +,024	-,01 +,09 +,03 -,16 +,05
1996 1997 1998 1999 2000	4 4 3 3 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,363 19,363 19,418	+9,6955 +9,5832 +9,7024 +9,6693 +9,6532	$\begin{array}{c} +9,4980 \\ -9,2196 \\ +9,6681 \\ +9,1765 \\ +8,8443 \end{array}$	,2882	+9,4228 ,4120 ,4120 ,3942 ,3902	301 307 309 3 5	+,029 +,018 +,008 +,019 +,005	,02 ,20 + ,17 + ,01 ,06
2001 2002 2003 2004 2005	3 4 4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,461 19,477 19,480	+9,6425 +9,5843 +9,6599 +9,6425 +9,4216	+8,2895 9,2451 +9,0279 +8,3598 9,6779	,2892 ,2895 ,2896	+9,3827 ,3791 ,3734 ,3718 ,3687	10 12 13 15 16	+,021 +,012 +,020 +,005 +,019	+ ,03
2006 2007 2008 2009 2010	4 4 4	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,519 19,531 19,533	+9,6866 +9,6385 +9,4249 +9,6821 +9,6857	+9,4953 +7,8672 -9,6818 +9,4641 +9,6426	,2905 ,2907 ,2907	,3515 ,3510	20 21 25 27 38	+,008 +,014 +,033 +,019 +,014	- ,04
2011 2012 2013 2014 2015	2 2 2	$\begin{array}{r} +26 \ 42 \ 42,69 \\14 \ 20 \ 47,42 \\ + \ 4 \ 30 \ 50,01 \\ +22 \ 55 \ 51,44 \\ +40 \ 51 \ 31,24 \end{array}$	19,581 19,581 19,601	+9,6848 +9,5647 +9,6532 +9,6830 +9,6656	+9,5813	,2918 ,2918 ,2923	,3296 ,3296 ,3197	44 41 43 48 54	,000 +,045 +,063 +,015 +,016	-,06  -,26  -,09
2016 2017 2018 2019 2020	4 4 3	$\begin{array}{r} +25 \ 42 \ 52,96 \\11 \ 40 \ 26,48 \\ + \ 5 \ 17 \ 8,41 \\ + 22 \ 34 \ 50,14 \\13 \ 51 \ 1,80 \end{array}$	19,653 19,679 19,688	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	-9,2967 + 8,9589 + 9,5769	,2934 ,2940 ,2942	,2934 ,2780 ,2727	60 64 72 74 79	+,031 +,013	+,21 -,02 +,07
2021 2022 2023 2024 2025	3 5 3	$\begin{array}{r} -22 & 5 & 28,88 \\ -13 & 49 & 45,35 \\ + & 5 & 10 & 20,83 \\ + & 5 & 11 & 58,52 \\ -42 & 53 & 14,13 \end{array}$	19,725 19,741 19,760	$ \begin{array}{ } +9,5237 \\ +9,5786 \\ +9,6513 \\ +9,6513 \\ +9,3117 \end{array} $	$ \begin{array}{r} -9,3706 \\ +8,9507 \\ +8,9539 \end{array} $	3,2950 2954 2958 2958	,2489 ,2382 ,2243	80 85 93 98 98	+,008 +,016 +,025	$  + ,03 \\ - ,19 \\ - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 \\   - ,43 $

#### xciv Supplimentary Catalogue

In addition to the foregoing catalogue—in the years 1836-1837, the places of several Stars—whose names only occur in Vols. II and III—have been determined;—and several more—where the result of one observation only had been given, or where discord-ance among several observations had, occurred or where a large proper motion was observed;—in all these cases, a re-examination of former results has been instituted, and further observations (when necessary) made, as follows.

#### SUPPLIMENTARY CATALOGUE OF THE A. R. OF THE FIXED STARS.

Reference.	Names.		R. Jan. 1, —from	Concluded Mean A. R	Ann	nal	Remarks.
No. Vol.		former obs	present obs.	Jan. 1, 1836	Precesn.	Р. М.	
2 of II 2 . III 5 . III 21 . II 41 . II	11 Cassiopeæ (= 61 Andromed. 96 Piscium Tucanæ 2 15 Cassiopeæ s	3 = 1,22 3 = 58.10 6 = 27,49	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	h. m. s. 0 0 28,32 5 1,20 8 58,05 11 23 44,31	s. +3.069 3,090 3.075 2,920 3,324	$\begin{vmatrix} s \\ +0,081 \\ -,007 \\ -,010 \\ +,027 \end{vmatrix}$	<ul> <li>Piazzi's P. M. is too small.*</li> <li>The Paramatta observations reduced to 1836 give the place of this star 23'46s: Can the proper motion amount to, 536s.?</li> </ul>
44 . II 45 . II 46 . II 51 . II 27 . III	Tucanœ β ¹ β ² Piscium 117 Andromed.		$\begin{array}{c} 2 \underline{=} 59,83 \\ 2 \underline{=} 0,54 \\ 2 \underline{=} 13,53 \\ 1 \underline{=} 8,02 \\ 3 \underline{=} 30,10 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,786 2,786 2,771 3,064 3,139		m s
55 . II 56 . II 31 . III 66 . II 91 . II	Ceti Piscium 128 Andromed. Ceti Cephei	$\begin{array}{c} 4 = 55.00 \\ 5 = 4.16 \\ 1 = 55.28 \\ 5 = 30.66 \\ 4 = 37.24 \end{array}$	$\begin{array}{c} 3 = 55,01 \\ 2 = 4,16 \\ 3 = 55,02 \\ 1 = 30,73 \\ 3 = 38,14 \end{array}$	28 55.00 29 4,16 32 55,09 34 30,67 47 37,63	2,988 3,074 3 150 2,991 6,468	+,110 +,019 +,027 +,007 +,197	
96 . 11 108 . 11 67 . 111 69 . 11 109 . 111	38 Andromed. , 74 Piscium ψ μ Cassiopeæ 190 Piscium† 27 Ceti		$\begin{array}{c c} 1 = 27,71 \\ 1 = 54,08 \\ 2 = 24,87 \\ 1 = 20,32 \\ 1 = 24,35 \end{array}$	48 27,89 56 54,27 57 24,87 57 20,53 57 24,37	3,183 3,191 3,526 3,092 3,005	-,003 +,403	Piazzi says the P. M. $= +5,70$
110 . II 112 . II 81 . IU 123 . II 132 . II	28 — Phœnicis A 181 Andromed. Phœnicis Z Piscium Z	1 = 1,95 2 = 28,35	$\begin{array}{c c} 2 = 51,73 \\ 3 = 45 16 \\ 2 = 1,73 \\ 2 = 28,55 \\ 1 = 10,32 \end{array}$	57 51.62 58 45.35 1 1 1,80 1 28,45 5 10,28	3,005 2,698 3.377 2.542 3,112	006	
91 . III 135 . II 97 . III 98 . III 147 . II	b Ceti 88 Piscium φ Cassiopeæ 119 ——— 37 ———	$3 = 8,59 \\6 = 11,00 \\3 = 48,94 \\2 = 12,98 \\9 = 9,02$	$3 = 8,53 \\1 = 10,99 \\1 = 49,25 \\2 = 14,97 \\4 = 9,16$	6 8,56 6 11,00 9 49,02 10 14,97 15 9,06	3,009 3,108 3,696 3,890 3,790	+ ,009 + ,008 + .087	The star observed in 1835 was Piazzi No. 39-
102 . III 158 . II 161 . II 164 . II 167 . II	242 Piscium Phœnicis Cetu Phœnicis	$3 = 14,41 \\ 5 = 47,59 \\ 6 = 14,34 \\ 5 = 58,05 \\ 5 = 24,99$	1 = 14 71 $2 = 47.55$ $2 = -14.27$ $3 = -57 73$ $3 = -24.95$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	3,096 3,124 2,619 2,836 2,497	+ ,006 + ,017	

* This may arise from a variation of the proper motion having taken place.

† See errata.

Reference.	Names.	Mean A. R 1836.—		Concluded Mean A. R.	Ann	ual	Remarks.
No. Vol.		former obs.	present obs.	Jan. 1, 1836.	Precesn.	P. M.	
170 of II 176 . II 178 . II 133 . III 135 . III	$100^{1}$ Piscium $51$ Andromed. $\mathbb{R}^{2}$ $102$ Piscium $\pi$ $g$ Cassiopezo $49$ Mach. Elect.	$\begin{array}{c} 6 = 57.82 \\ 10 = 24.86 \\ 3 = 21.09 \end{array}$	s. 3 = 9,60 1 = 57,92 2 = 24.93 3 = 20,59 2 = 8,35	h. m. s. 1 26 9,60 27 57,84 28 24,87 30 20,84 31 8,25	s +3,169 3.617 3,168 4,468 2,817	s. + ,010 + ,017 + ,004 + ,044 + ,021	N. P. D. 20,13
138 . III 146 . IiI 194 . II 167 . III 170 . III	137 Cassiopeæ c Rangifer. 53 Ceti x² 147 Cassiopeœ 150 ———	$\begin{array}{c} 3 = 39,92 \\ 6 = 32,12 \\ 2 = 57,26 \end{array}$	$3 = 17.83 \\ 4 = 40,53 \\ 6 = 31,97 \\ 2 = 57,53 \\ 3 = 5,43$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,960 5.572 2,952 5,624 5,435	+,032 +,105 +,005 +,088 +,020	N. P. D. $14,42$ : diff.=3,6 of arc
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	57 Andromed. $\gamma$ 37 Arietis 6 Andromed. 262 $$ Mach. Elect. $\beta$	$\begin{array}{c} 3 = 21,75 \\ 1 = 5823 \\ 2 = 16,29 \end{array}$	$\begin{array}{c} 2 = 51,92 \\ 3 = 21,89 \\ 3 = 58,14 \\ 2 = 16,49 \\ 1 = 41,26 \end{array}$	$53 51,70 \\54 21,82 \\2 2 58,16 \\4 16,39 \\5 41,11$	3,630 3,369 3,717 3,835 2,641	+,012 +,015 +,009 -,024 +,005	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	62 Arietis 41 Persei 265 Andromed. 68 Ceti o 24 Arietis g ¹	1 = 8,99 6 = 4,18	I = 23,57 $I = 46,09$ $I = 9.50$ $6 = 4,26$ $I = 2,27$	$\begin{array}{cccc} 6 & 23.58 \\ 7 & 46,09 \\ 10 & 9,25 \\ 11 & 4,22 \\ 16 & 2,19 \end{array}$	3,395 4,14] 3 908 3,021 3,197		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	12 Trianguli c 46 Messoris Eridani s Ceti 46 Trianguli	4=13,35 8=58,36	3 = 31 30  4 = 11.24  3 = 58,43  4 = 16 53  3 = 51,94	18 34,35 19 13,80 20 58,38 23 16,53 25 51,94	3,487 5,236 2,199 2,846 3,604	+,005 +,027 -,001 +,034	N. P. D. 19,27 A wrong star observed in 1835.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c} \text{Ceti} \\ d^{1} \\ 418 \\ \hline 34 \\ \text{Arietis} \\ \mu \end{array} $	2 = 7,08 4 = 37,66	5 = 5.97 $1 = 6.86$ $4 = 18.74$ $5 = 37.07$ $3 = 8.07$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$3.153 \\ 3,009 \\ 3,167 \\ 3,145 \\ 3,357$	-,005 +,021 -,010	{ the mean is erroneously stated to be 37,83s. in Vol. 11.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Hydrae Fornacis β 98 Persei Horologii β Eridant θ	5=13 72 3=13,60	$4 = 6,00 \\1 = 13,77 \\3 = 13,27 \\2 = 2,47$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	0,868 2,502 4,208 1,222 2,277	+ ,009 + ,005 - ,008	differs 12s. from A. S. C. Not now visible !
337       .       II         340       .       II         346       .       II         356       .       II         317       .       III	Fornacis Persei Arietis 14 Eridani 140 Persei	5=43,73 5=-39,45	3 = 16,40 $4 = 43,80$ $3 = -39,20$ $4 = 29,20$	$55 \\ 57 - 16,43 \\ 3 - 0 - 43,76 \\ 8 - 39,36 \\ 10 - 29,15 \\ \end{cases}$	2,663 4,138 3.535 2,899 3,981	+ ,146 + ,019 + ,002	Not now visible ! ditfers 4,28s. from A. S. C.
318 . 111 321 . 111 329 . 111 331 . 111 332 . 111	63 Cuss. Mess. 142 Persei 15 Tauri 16 ———	$\begin{array}{c c} 3 = -20, 25 \\ 3 = -1, 05 \\ 3 = 27, 48 \end{array}$	3 = 31,33  3 = 58,38  2 = 1,36  3 = 27,95  2 = 31,09	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5,095 4,195 4,179 3,366 3,116	+ ,018 + ,018 + ,010 + ,006 + ,005	A wrong star observed in 1835. { Former observations discordant: 27,8s. is pro- bably nearer the truth than the mean.
333 . 111 337 . 111 341 . 111 399 . 11 358 . 111	Porsei 149 Eridani Persei 41	3 = 4,93 4 = 21,19 9 = 4.68	$\begin{array}{c} 4 = 35,12 \\ 3 = 5,27 \\ 3 = 20.97 \\ 3 = 4,77 \\ 3 = 43,80 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,690	+,004 -,001 -,003 +,019 -,002	

## SUPPLIMENTARY CATALOGUE.

Reference.	Names.		Mean A. R 1836.—	from	Concluded Mean A. R.	Ann	ual	Remarks.
No. Vol.		f	ormer obs. p	resent obs.	Jan. 1, 1836.	Precesn.	Р. М.	
363 of III 365 . III 369 . III 373 . III 424 . II	27 Psalt. Georg. 12 Pleiadum 118 Tauri 132 – 28 Eridani		$ \begin{array}{c c}     s. \\     \hline     4= \\     1=14,19 \\     5=36,75 \end{array} $	s. 4=33,75 4=37,00 2=28,75 2=14,47 8=36,82	h. m. s. 3 36 33,75 37 37,00 39 28,75 40 14,38 40 36,80	s. +3,053 3,543 3,541 3,504 2,571	s. + ,007 + ,017 + ,016 + ,011 - ,003	A wrong star observed in 1835.
374 . III 378 . III 380 . III 445 . II 403 . III	Fornacis 206 Eridani H Camelop. 35 Eridani 171 Tauri		$ \begin{array}{c}                                     $	2 = 42,07 $2 = 39,60$ $3 = 1,35$ $1 = 13,49$ $3 = 4,38$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{c} 2,436\\ 2,251\\ 5,200\\ 3,028\\ 3,224\end{array}$		{ The place of this star as given in Vol. III. is erro- neous to the amount of a years precession.
455 . II 454 . II 421 . III 432 . III 433 . III	Reticuli Tauri 205 — o' Eridani Z	Ŷ	8 = 32,79 6 = 36,42 2 = 45,54 1 = 4,47	3 = 32,82 $1 = 36,45$ $1 = 45,15$ $3 = 51,35$ $3 = 4,44$	58 2,80 $58 36,43$ $4 6 45,41$ $12 51,35$ $13 4,45$		+ ,007	Piazzi properly places this star in the constella- tion Taurus.
436 . III 500 . II 503 . II 508 . II 445 . III	220 Persei Reticuli 71 Tauri 75 265	θ	*3 = 0,43 4 = 51,29 4 = 0,62 5 = 4,29 1 = -	$\begin{array}{r} 4 = 0.44 \\ 3 = 51.65 \\ 3 = 0.54 \\ 1 = 4.41 \\ 4 = 11.00 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0,643 3,395 3,414	+,025 +,001	
447 . III 529 . II 463 . III 465 . III 467 . III		d	4=38,88	$\begin{array}{c} 4 = 24,32 \\ 1 = 39,08 \\ 3 = 29,77 \\ 1 = 57,56 \\ 3 = 39,67 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,280 2,393 2,877	+,007  -,001  -,005	
555 . II 499 . III 577 . II 515 . III 518 . III	52 Camelop, 10 <u>Eridani</u>	K d ¹	5 = 21,53 3 = 4,30 6 = 51,51 1 = 57,58	$\begin{array}{c} 2 = 21,66 \\ 4 = 4,75 \\ 2 = 52,29 \\ 3 = 40,41 \\ 3 = 57,83 \end{array}$	$\begin{array}{r} 40 \ 21,56 \\ 44 \ 4,56 \\ 48 \ 51,71 \\ 51 \ 40,41 \\ 51 \ 57,77 \end{array}$	7,429 5,286 2.829	-,018 +,005 +,003	
523 . III 530 . III 610 . II 622 . II 554 . III	b Doradus Columbæ	ζ	$\begin{array}{r} 4 = 30,87 \\ 7 = 42,53 \\ 5 = 49,99 \\ 1 = 54,00 \end{array}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	58 30,94 5 2 42,58 8 49,91	4,439 1,021 2,400	+ ,014	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	22 Orionis Eridani 367 Tauri	0 X ¹	5 = 8,50 $6 = 2,78$ $4 = 49,63$ $12 = 3,61$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	13 23,6 15 2,7 20 49,5	3 3,058 3 2,459 7 3,609	016, +   5 011, +   6 006, +   6	The place now observed agrees with Piazzi, bu
594 . III 679 . II 597 . III 691 . II 609 . III	I 41 Orionis I 84 Camelop. I 47 Orionis	ω ω	4 = 3,72		27 13.2 29 3,8 30 31,8	8 2,94 1 5,49 4 3,16	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	The place now observed agrees with Piazzi, bud differs nearly 5s. from the A. S. C.
626 . III 743 . II 658 . III 677 . III 447 . IV	I Aurigæ I n Camelop. I Columbæ	eq.	$1 = 5,63 \\ 5 = 42,21 \\ 1 = 45,72 \\$	2=42,11 3=29,06	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	8 3,76 6 4,75 5 1,73	5 + ,000	6 5 1

xcvi

* See errata.

Reference.	Names.	Mean A. I 1836	· · · ·	Concluded Mean A. R.	Ann		Remarks.
No. Vol.		former obs.	present obs.	Jan. 1, 1836.	Precesn.	P. M.	
785 of II 452 . IV 703 . III 710 . III 716 . III	Orionis Monocer. 25 Monocer. 31 Geminor. 9 Lyncis	$\begin{array}{c c} s. \\ *5 = 4.65 \\ 2 = 60.70 \\ 1 = 33.46 \\ 4 = 29.06 \end{array}$	s. 4 = 4,15 3 = 18,65 3 = 52,04 3 = 33,44 2 = 29,52	h. m. s. 6 8 4,43 8 18,65 9 52,04 11 33,44 12 29,21	s. +3,303 2,767 2,\$17 3,586 5,243	$\begin{array}{r} \text{s.} \\ + \ ,010 \\ + \ ,008 \\ - \ ,017 \\ + \ ,007 \\ - \ ,001 \end{array}$	The results in each year agree very well inter- se:—this star must be re-examined. These observations were omitted. In 1835 a wrong star appears to have been ob served ;—on the present occasion the sma star mention by P. was observed; precedin 25 min. 15,05s.
718 . III 793 . II 799 . II 799 . II 728 . III	Canis Maj. Monocer. Geminor. 15 – 11 Navis	*1 = 55,90 6 = 39,90 3 = 59,24 5 = 0,07 4 = 19,94	$\begin{array}{c} 2 \underline{\ } 56,17 \\ 1 \underline{\ } 39,73 \\ 6 \underline{\ } 59,20 \\ 6 \underline{\ } 0,12 \\ 2 \underline{\ } 19,95 \end{array}$	$\begin{array}{rrrr} 14 & 56,08 \\ 14 & 39,88 \\ 17 & 59,21 \\ 18 & 0,10 \\ 18 & 19,94 \end{array}$	2,300 3,158 3,576 3,576 2,078	+ ,005 + ,012 + ,009	
805 . 11 739 . 111 758 . 111 760 . 111 770 . 111	<ol> <li>17 Geminor.</li> <li>120 Camelop.</li> <li>50 Geminor.</li> <li>26 Navis</li> <li>6v¹ Canis præc.</li> </ol>	$     *3 = 26,42 \\3 = 12,14 $	2 = 25,28 3 = 23,56 4 = 32,33 3 = 44,05 3 = 12,26	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,588 30,934 3,474 2,047 2,624	+ ,066 + ,007 + ,002 + ,005	This Star is now of the 9,10 mag. N. P. D. = $2^{\circ},44'$ diff. = $2'',04$ of arc.
772 . III 774 . III 783 . III 835 . II 794 . III	22 <u>Lyncis</u> 22 <u>Camelop</u> . 43 <u>Monocer</u> .	$\begin{array}{c c} 1 = 20,05 \\ \hline \\ \hline \\ 0 = 58.92 \\ 1 = 51,29 \end{array}$	5 = 20,63 3 = 27,78 3 = 52,60 6 = 59,29 3 = 51,47	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5,326 5,114 6,291 6.522 3,254		This — P. M. partly accounts for the difference (nearly 2") from the A. S. C.
795 . III 840 . II 807 . III 848 . II 855 . II	<ul> <li>49 Navis</li> <li>18 Monocer.</li> <li>29 Lyncis-</li> <li>13 Can Maj.</li> <li>Geminor.</li> </ul>	$\begin{array}{c cccc} k & 1 = 54,82 \\ 6 = 18,56 \\ 4 = 10,95 \\ \kappa^2 & 19 = 43,04 \\ 6 = 44,21 \end{array}$	$\begin{array}{r} 2 \underline{-} 55,08 \\ 1 \underline{-} 18,28 \\ 3 \underline{-} 11,24 \\ 1 \underline{-} 43,04 \\ 3 \underline{-} 44,17 \end{array}$	$\begin{array}{c} 37 & 54.99 \\ 39 & 18.52 \\ 43 & 11.07 \\ 43 & 43.04 \\ 46 & 44.20 \end{array}$	1,999 3,128 5 148 2,238 3,492	+ ,014 + ,004	
814 . III 897 . III 832 . III 888 . II 901 . II	Lyncis 131 Camelop. Monocer. 51 Geminor. Piscis. Vol.	$\begin{vmatrix} 3 = 6,34 \\ *3 = 54,07 \\ 12 = 56,99 \\ 6 = 6,92 \end{vmatrix}$	1 = 6,69 $3 = 56,23$ $4 = 18,50$ $1 = 57,25$ $4 = 6,48$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,447	-,036 +,013 +,007	N. P. D. = $8^{\circ}, 27'$
881 . III 891 . III 910 . III 925 . III 936 . III	Lyncis 144 Geminor. Navis 153 Camelop.	1 = 48,03 $1 = 9,63$ $5 = 47,51$	$\begin{array}{c c} 2 = 48,31 \\ 3 = 20,90 \\ 3 = 9,49 \\ 3 = 49,02 \\ 3 = 33,56 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 '	+ ,011 + ,014 + ,198	
954 . III 966 . III 974 . II 980 . III 982 . II	Off. Typ. 11 Argus. Camelop. A rgus.	$\begin{array}{c c} 1 = 51,54 \\ 6 = 48,72 \\ 4 = 43,11 \\ x \\ 8 = 36,26 \end{array}$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	44 51,53 49 48,73 51 43,23	2,578 4,972	+,011 +,003 +,005	
988 . II 993 . III 997 . II 1024 . II 1029 . II	55 Camelop. Navis Cancri Argus		$\begin{array}{c c} 3 = 23,77 \\ 2 = 11,51 \\ 6 = 19,62 \\ 6 = 51,22 \\ 2 = 59,25 \end{array}$	8 2 19,62 16 51,22	6,107 2,659 3,278 3,643 2,589	+,015 +,004 +,001	
1038 . II 1041 . II 1049 . II 1057 . III 1055 . II	Monocer. Cancri 102 Cancri	$ \begin{array}{c} 6 = 44,34 \\ 5 = 8,94 \\ 5 = 25,79 \\ 4 = 56,91 \\ 9 = 2,12 \end{array} $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	24 8,98 30 25,80 30 56,88	2,696 3,457 3,457	+,016   +,020	

* See errata.

## SUPPLIMENTARY CATALOGUE

Reference,	Names.		Mean A. R 1836.—		Concluded Mean A. R.	Ann	ual	Remarks.
No, Vol.	L ( WILLO ) .		former obs.	present obs.	Jan. 1, 1836.	Precesn.	P. M.	
1067 of III 1068 . III 1105 . II 1109 . III 1112 . II	Navis 133 Cancri Argus. 209 Cancri Pixid Naut.	d c	$\begin{array}{c} \text{s.} \\ 1 = 32,08 \\ 3 = 38,48 \\ 20 = 30,25 \\ 3 = 51,10 \\ 6 = 50,94 \end{array}$	s. 2=32,78 2=38,98 4=29,69 3=51,39 2=51,38	h. m. s. 8 38 39 38,68 58 30,16 9 0 51,24 0 51,05	s. +2,139 3,307 2,068 3,272 1,498	s. + ,020 + ,004 + ,012	The Paramatta obs. differ 3s. from this result. The Paramatta observations with the Transit, dif- fer 1,32s from this result.
1118 . III 1121 . III 1127 . II 1132 . II 1148 . II	Hydræ Navis 24 Hydræ Leonis Ursæ Maj.	kı d	5 = 51,03 8 = 25,11 5 = 38,94 5 = 37,50 10 = 50,55	1 = 51,02 2 = 25,20 1 = 39,51 4 = 37,62 3 = 50,88	8 39,03 11 37,55	2,935 2,384 2,940 3,523 5,500	$ \begin{array}{c} + ,008 \\ - ,008 \\ - ,009 \\ - \\ - ,021 \end{array} $	N. P. D. 19°,26'.
1155 . II 1162 . III 1185 . III 1191 . II 1226 . II	Leonis 88 Ursæ Maj. 66 Leonis 9 Sextantis Autl. Pneum.	h	$ \begin{array}{r} 6 = 9,79 \\ 4 = 40,50 \\ \hline 6 = 32,30 \\ 6 = 37,14 \end{array} $	3 = 9,87 3 = 41,07 3 = 30,97 2 = 32,57 3 = 37,33	27 40,74 38 30,97 45 32,37	3,370 3,143	+,022 ,016 +,022 +,011 +,013	
1233 . II 1256 . III 1260 . III 1246 . II 1268 . III	Leonis Sextantis 28 ———	z k	5 = 8,25 3 = 24,11	1 = 25,38 3 = 56,91 3 = 12,77 5 = 8,94 1 = 23,81	16 56,91 19 12,77 21 8,60	3,166 3,067 3,050	+,011 +,012 -,004	
1270 . II 1275 . II 1276 . II 734 . IV 1311 . III	36 Argus. Sextantis		7 = 9,45 $4 = 42,77$ $18 = 7,49$ $5 = 4,67$	$\begin{array}{c c} 3 = 9,39 \\ 3 = 42,54 \\ 2 = 7,56 \\ 2 = 4,97 \\ 3 = 28,71 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3,096 2,117 3,006	+,010 +,032	These observations were omitted in the Catalogue.
1294 . II 1328 . III 1329 . III 748 . IV 1341 . III	Leonis 216 Ursæ Maj. Leonis	u p ^ı	$\begin{array}{c} 11 = 51,61 \\ 3 = 13,16 \\ 3 = 22,96 \\ 1 = 4,71 \\ 3 = 10,40 \end{array}$	$\begin{array}{c c} 4 = 51,48 \\ 2 = 13,20 \\ 1 = 22,98 \\ 4 = 4,70 \\ 2 = 10,55 \end{array}$	55 13,18 55 22,96 58 4,70	3,073 3,369 3,118	+,009+,014+,014+,008	These observations were omitted in the Catalogue.
1344 . III 1350 . III 1353 . III 1368 . III 1370 . III	322 Leonis Hydræ	X	3 = 57,36 $1 = 4,84$ $2 = 22,26$ $1 = 17,51$ $3 = 43,89$	1=22,20 2=17,27	5         4,89           0         7         22,24           7         15         17,35	3,500 3,141 2,886	010, + ,010 + ,029 + ,01	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	I 17 Crateris	(	$ \begin{vmatrix} 1 = 15,20 \\ 7 = 36,20 \\ 6 = 9,45 \\ 5 = 27,97 \\ 1 = 4,55 \end{vmatrix} $	2=36,14	4     23     36,18       5     24     9,40       6     24     27,89	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} + & ,00 \\ - & ,01 \\ - & ,01 \\ + & ,01 \end{vmatrix}$	3 4 6
1416 . II 1427 . II 1388 . I 1454 . II 1400 . I	I Leonis I Virginis I Corvi	V	$\begin{array}{c c} 3 = 33,75 \\ 1 = 31,72 \\ 6 = 38,31 \\ 1 = 36,91 \\ 5 = 38,34 \end{array}$	$\begin{array}{c c} 3 = 32,14 \\ 4 = 38,22 \\ 3 = 36,61 \end{array}$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	3 3,099 9 3,060 9 3,050	00, —   00 00, + ,00 3   + ,00	4 7 7
1406 . II 1493 . III 1496 . III 1412 . II 1500 . III	I Virginis I 18 Canum Ven. I 13 Virginis	9	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 9 45,2 6 10 14,5 9 10 16,0	8 3,07 6 3,02 8 3,06	$\begin{array}{c c c}1 & + & ,00\\ 8 & + & ,00\\ 8 & + & ,01\\ 8 & + & ,01\end{array}$	6

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Reference.	Names.		R. Jan. 1, —from	Concluded Mean A. R.	Annual	REMARKS.
No. Vol.		former obs.	present obs.	Jan. 1, 1836	Precesn. P. M	
1501 of III 1503 . III 1516 . III 1445 . II 1540 . III	<ol> <li>19 Draconis.</li> <li>26 Corvi.</li> <li>Comæ Ber.</li> <li>20 Virginis.</li> <li>Corvi.</li> </ol>	s. 1=42,05 5=44,86 2=29,34	s. 3=25,96 3=42,06 3=49,16 4=44,87 3=29,27	h. m. s. 12 11 25,96 11 42,06 15 49,16 24 44,86 25 29,30	$\begin{vmatrix} \mathbf{s} & \mathbf{s} \\ +2,796 & + ,06 \\ 3,095 & - ,00 \\ 3,021 & + ,01 \\ 3,040 & + ,00 \\ 3,130 & + ,02 \end{vmatrix}$	7 1 6
1544 . III 1460 . II 1562 . III 1577 . III 828 . IV	Comæ Ber. 26 Vırginis. x 311 Virginis. Comæ Ber. pre.	$1 = 35,20 \\ 6 = 47,53 \\ 1 = 10,19 \\ 3 = 5,97 \\ 2 = 47,65$	$\begin{array}{c c} 3 = 35,78 \\ 4 = 47,35 \\ 3 = 10,23 \\ 1 = 6,27 \\ 3 = 47,82 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccc} 2,995 & + & ,00\\ 3,090 & + & ,01\\ 3,028 & + & ,01\\ 2,977 & + & ,01\\ 2,975 & + & ,03 \end{array}$	1 3 1
1578 . III 1598 . III 1604 . III 1503 . II 1615 . III	$     \begin{array}{r} \hline Centauri. \\ \hline Canum Ven. \\ 456 \\ \hline Virginis. \\ \end{array} $	$3 = 47,69 \\ 3 = 4,52 \\ 1 = 45,19 \\ \\ 1 = 16,08$	$1 = 48,12 \\ 3 = 4,24 \\ 4 = 44,90 \\ 3 = 3,98 \\ 3 = 16,14$	$\begin{array}{rrrrr} 43 & 47,79 \\ 52 & 4,38 \\ 54 & 44,96 \\ 58 & 3,98 \\ 13 & 2 & 16,12 \end{array}$	$ \begin{vmatrix} 2,975 \\ 3,262 \\ 3,277 \\ 2,820 \\ 3,126 \end{vmatrix} + 01 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $	4 0 1
1619 . III 1639 . III 1649 . III 1659 . III 1660 . III	Centauri. m 205 Comæ Ber. Ursæ Maj. Virginis. y	1 = 56,37 3 = 15,86 3 = 18,96 3 = 25,40 *3 = 22,83	3 = 56,03 $1 = 15,77$ $2 = 18,83$ $1 = 25,28$ $2 = 22,90$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
668       III         694       III         565       II         568       II         570       II	<ul> <li>7 Bootis.</li> <li>Virginis.</li> <li>86 — o</li> <li>3 Bootis.</li> <li>Centauri. ν</li> </ul>	$ \begin{array}{c}     1=11,23 \\     6=12,68 \\     \hline   \end{array} $	3 = 57,60 3 = 11,17 1 = 12,94 3 = 6,29 2 = 42,19	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccc} 2,951 & + &,00 \\ 3,169 & - &,00 \\ 3,180 & + &,01 \\ 2,789 & + &,00 \\ 3,553 & + &,00 \end{array}$	4 0 5
728 . III 594 . II 608 . II 753 . III 759 . III	$\begin{array}{c c} Bootis. \\ \hline Virginis. \\ 96 \\ \hline \hline \\ 642 \\ \hline \end{array} y$	$\begin{array}{c} 3 \underline{=} 45, 13 \\ 5 \underline{=} 26, 72 \\ 7 \underline{=} 16, 99 \\ 2 \underline{=} 37, 15 \\ 3 \underline{=} 17, 73 \end{array}$	2 = 45,05 $1 = 26,48$ $2 = 16,86$ $3 = 37,30$ $3 = 17,39$	$50 \ 45,10 \\51 \ 26,68 \\14 \ 0 \ 16,95 \\1 \ 37,24 \\3 \ 17,51$	$\begin{array}{c} 2,897 + ,00 \\ 3,148 + ,01 \\ 3,180 + ,01 \\ 2,936 + ,01 \\ 3,131 + ,01 \end{array}$	2 ) )
936 . IV 768 . III 627 . II 630 . II 633 . II	Bootis. 18 — 7 Hydræ. Solitarii.	$3 = 40,28 \\ 3 = 36,19 \\ \\ 6 = 40,13 \\$	3 = 40,33 $1 = 36,32$ $4 = 20,16$ $1 = 39,97$ $4 = 28,47$	4 40,30 7 36,22 11 20,16 13 40,11 15 28,47	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3 ) 2
795       III         801       III         954       IV         822       III         963       IV	Bootis. Hydræ. Virginis. Libræ.	$ \begin{array}{c}$	$\begin{array}{c} 2 \underline{} 34,29 \\ 2 \underline{} 0,18 \\ 1 \underline{} 1,84 \\ 2 \underline{} 35,80 \\ 2 \underline{} 28,46 \end{array}$	$\begin{array}{cccc} 18 & 34,29 \\ 21 & 0,18 \\ 25 & 2,05 \\ 28 & 35,96 \\ 33 & 28,48 \\ \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	This observation was omitted in the Catalogue.
371       II         373       II         376       II         354       III         390       II	<ul> <li>11 Hydræ. Libæ.</li> <li>13 Hydræ. Libræ.</li> </ul>	$ \begin{array}{c c}     \hline       2 = 25,49 \\       5 = 54,30 \end{array} $	$\begin{array}{r} 4 = 51,50 \\ 4 = 55.37 \\ 4 = 23,19 \\ 1 = 25,61 \\ 5 = 54,55 \end{array}$	$\begin{array}{c} 37 & 51,50 \\ 37 & 55,37 \\ 38 & 23,19 \\ 45 & 25,53 \\ 47 & 54,42 \end{array}$	$\begin{array}{c ccccc} 3,462 & + & ,014 \\ 3,387 & + & ,011 \\ 3,481 & + & ,008 \\ 3,064 & + & ,007 \\ 3,404 & + & ,079 \end{array}$	
396       .       II         398       .       II         702       .       II         707       .       II         709       .       II	<ol> <li>Serpentis. Bootis. Libræ.</li> <li>41 Bootis. ω Libræ.</li> </ol>	6=25,37	$\begin{array}{c} 4 = 9,15 \\ 3 = 32,96 \\ 2 = 25,37 \\ 4 = 55,57 \\ 3 = 42,12 \end{array}$	$\begin{array}{rrrr} 49 & 9,15 \\ 49 & 32,96 \\ 53 & 25,37 \\ 54 & 55,57 \\ 56 & 42,12 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	

* See errata.

SUPPLIMENTARY CATALOGUE

Reference.	Names.	Mean A. 1 1836		Concluded Mean A. R.	Ann	nual	REMARKS.
No. Vol.		former obs.	present obs.	Jan. 1, 1836.	Precesn.	P. M.	
1879 of 111 1885 . 111 1718 . 11 1719 . 11 1720 . 11	33 Ursæ Min. Lupi ^{s1} 46 Bootis b	2 = 4,36	s. 2=12,87 3=5,13 5=34,63 3=19,10 3=26,84	h. m s. 14 56 12,87 58 4,82 15 0 34,63 1 19,10 1 26,84	$\begin{array}{c} \text{s.} \\ -0,537 \\ -0,567 \\ +4,121 \\ 2,585 \\ 2,610 \end{array}$	$\begin{array}{r} \text{s.} \\ + ,019 \\ + ,012 \\ \hline \\ + ,009 \\ + ,004 \end{array}$	N. P. D. 14°,28'. π² follows at 0m. 36,16s.
1898 . III 1727 . II 1736 . 11 1737 . II 1743 . II	97 Libræ 3 Serpentis 5 ——— Bootis 6 Serpentis	3=12,84	$3=12,81 \\ 4= 2,57 \\ 4=56,95 \\ 4= 3,45 \\ 4=41,54$	$5 12,82 \\7 2,57 \\10 56,95 \\11 3,45 \\12 41,54$	3,378 2,973 3,026 2,685 3,045	$\begin{array}{r} - ,001 \\ + ,004 \\ + ,032 \\ + ,003 \\ + ,024 \end{array}$	
1906 . III 1744 . II 1001 . IV 1752 . II 1757 . II	Cor. Bor. 0 30 Libræ 0 ² Cor. Bor. Libræ Triang. Aust. 4	2=32,82	1 = 21,65 $2 = 53,90$ $1 = 32,58$ $3 = 55,67$ $4 = 49,09$	$\begin{array}{c} 13 \ 21,67 \\ 13 \ 53,90 \\ 13 \ 32,74 \\ 20 \ 55,67 \\ 21 \ 49,09 \end{array}$	2,487 3,327 2,484 3,375 5,349	+ ,003 + ,008 + ,001 	This observation was omitted in the Catalogue.
1763 . II 1768 . II 1769 . II 1771 . II 1772 . II	37 Libræ f 39 <u> </u>		$ \begin{array}{c c} I = 13,48 \\ 3 = 5,22 \\ 2 = 39,18 \\ 2 = 6,90 \\ 2 = .9.37 \end{array} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3,242 3,615 3,574 2,721 3,068	+,023 +,006 +,010 +,003 +,006	
1773 . 11 1776 . 11 1778 . 11 1779 . 11 1790 . 11	Libræ 18 Serpenti <b>s</b> 7 ⁴ 41 Libræ 9 Lupi 9 8 Cor. Bor. 9		$\begin{array}{c c} 2 = 18,69 \\ 2 = 56,04 \\ 3 = 29,14 \\ 1 = 54,55 \\ 4 = 51,45 \end{array}$	28 18,69 28 56,04 29 29,14 29 54,55 35 51,45	2,752 3,427 4,093	$\begin{vmatrix} + & ,008 \\ + & ,009 \\ + & ,021 \\ + & ,071 \\ + & ,010 \end{vmatrix}$	
1792 . II 1804 . II 1805 . II 1808 . II 1965 . III	15Ursæ Min.θ36SerpentisL10Cor. Bor.δScorpiifLupiδ		$\begin{array}{c} 4 = 26,03 \\ 4 = 43,51 \\ 4 = 43,11 \\ 4 = 8,10 \\ 2 = 25,51 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3.561	$\begin{array}{r} - ,034 \\ + ,003 \\ + ,002 \\ + ,033 \\ + ,006 \end{array}$	
1032 JV 1966 JII 1817 JI 1821 JI 1824 JI	J00 Serpentis Serpentis Lupi 16 Ursæ Min.	3=45,22	$\begin{array}{c} 2 = 26,17 \\ 4 = 45,14 \\ 4 = 21,13 \\ 4 = 16,60 \\ 4 = 4,50 \end{array}$	47 21,13 49 16,60	2,890 2,643 3,943	+,012 -,002	These were omitted in the Catalogue. On the 11th June 1837 a star was observed at the Transit, following at 0,42s
1835 . II 1987 . III 1988 . III 1839 . II 1838 . II		3=30,36	$\begin{array}{c c} 4=50\ 77\\ 4=30,52\\ 2=49,15\\ 4=41,55\\ 3=48,01 \end{array}$	56 30,45 56 49,15 57 41,55	3,911 3,911 1,856	+,012 +,008 +,019	
1992 . III 1847 . II 1848 . II 1850 . II 1853 . II	Scorpii	2	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	16 0 40,51 0 51,89 2 13,01	2,703 3,709 3,673	+,002 -,001	
1855 . II 1856 . II 2014 . III 1866 . II 2018 . III	10 Herculis 37 ———	$\begin{array}{c c} & \\ 3 = 12,79 \\ \\ 1 = 29,02 \end{array}$	4=11,43	4 39,14   8 12,88   9 11,43	2,549 2,656 3,764	+ ,004 + ,010 + ,016	

Refe	rence.	Names.	<b>, , , , , , , , , , , , , , , , , , , </b>	Mean A. 1 1836.–		Concluded Mean A. R.	Ann	ual	Remarks.
No.	Vol.	4		former obs.	present obs.	Jan. 1, 1836.	Precesn.	P. M.	
1059 1877 1881	of IV . IV . II . II . IV	Scorpii 5 Ophiuchi 21 Cor. Bor. Scorpii	præc. seq. g v²	s. 1=55,11 1=55,69 3=45,65 4=2,53	$\begin{array}{c c} s. \\ 1 = 55,16 \\ 1 = 55,49 \\ 2 = 46,00 \\ 4 = 18,75 \\ 3 = 2,34 \end{array}$	h. m. s. 16 10 55,14 10 55,59 15 45,79 16 18,75 20 2,45	$\begin{array}{r} \text{s.} \\ +3,494 \\ 3,494 \\ 3,578 \\ 2,255 \\ 3,627 \end{array}$	$\begin{array}{c c} s. \\ + ,001 \\ - ,006 \\ + ,004 \\ + ,017 \\ + ,012 \end{array}$	Omitted in the Catalogue. Do. Do.
1888 2076 2078 2080 1086	. III . III . III	22 Scorpii Ursæ Min. Draconis Scorpii	i		$\begin{array}{c} 4 = 15,41 \\ 4 = 1,41 \\ 4 = 1,18 \\ 4 = 22,05 \\ 1 = 25,35 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$3,626 \\ -3,528 \\ +0,771 \\ 1,179 \\ 4,183$	$\begin{array}{c} + & ,010 \\ - & ,021 \\ + & ,007 \\ + & ,027 \\ - & ,010 \end{array}$	This observation was omitted in the Catalogue.
192   2094 2097 210   1930	. 111 . 111 . 111	Scorpii 151 <u>—</u> 150 Scorpii Draconis 51 Herculis	$\mu^2$ $var.$ $\mathbf{X}^2$	3=32,42	3 = 14,78 $2 = 32,68$ $2 = 42,10$ $4 = 30,11$ $2 = 57,48$	$\begin{array}{rrrr} 41 & 14,78 \\ 42 & 32,52 \\ 42 & 42,10 \\ 43 & 30,11 \\ 44 & 57,48 \end{array}$	$\begin{array}{r} 4,040 \\ 4,185 \\ 4,187 \\ 1,217 \\ 2,480 \end{array}$	-,001 +,026 +,035	
1929 1933 1938 1939 2113	. II . II . II	Aræ 54 Herculis Ophinchi 90 ———	ξ		$2 = 5,16 \\ 2 = 32,73 \\ 2 = 9,84 \\ 4 = 55,99 \\ 3 = 59,30$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,922 4,743 2,638 3,657 3,429		
2119 2123 1950	. II . 111 . 111 . 11 . 11 . 111	Ilerculis 103 Ophiuchi 19 Draconis	h	5 = 12,08 $3 = 8,07$ $1 = 36,84$	1 = 12,07 $6 = 32,23$ $4 = 38,89$ $2 = 8,57$ $2 = 37,39$	$50 12,08 \\ 52 32,23 \\ 54 38,89 \\ 55 8,27 \\ 55 37,21$	3,481 2,818 3,677 0,266 0,279		N. P. D. = $24^{\circ}, 36'$ . N. P. D. = $24^{\circ}, 43'$ .
1953 1956 1958 2139 1965	. 11 . 11				$\begin{array}{r} 4 = 37,36 \\ 4 = 5,62 \\ 2 = 44,12 \\ 3 = 28,93 \\ 3 = 2,39 \end{array}$	$55 \ 37,36 \\ 57 \ 5,62 \\ 58 \ 44,03 \\ 17 \ 0 \ 28,93 \\ 4 \ 2,39$	2,740 3,083 3,471 1,581 3,722	+,011 +,007 +,020	
$\frac{2154}{2155}$	. III . III . III . III . II	129 <u>—</u> Herculis 39 Ophinchi	0	3=20,03	$\begin{array}{c c} 3 = 38.77 \\ 2 = 13.31 \\ 2 = 20.35 \\ 2 = 1.15 \\ 2 = 6.76 \end{array}$	6 13,31 6 20,16 8 1,15	3,650	+,012  +,007 +,001	
1979 1983 1984	. Ц	Ophiuchi Aræ	γ β	fangan gestantrige	$\begin{array}{ c c c c c } 2 = & 19,52 \\ 2 = & 21,09 \\ 2 = & 36,94 \\ 2 = & 41,29 \\ 2 = & 53,70 \end{array}$	10         21,09           11         36,94           11         41,29	3,481 5,019 4,958	+ ,009	Differs 1",60 from A. S. C.
2004 2014 2195 2022 2023	. 11 . 111 . 11	54 Herculis 24 Draconis	رو رو		$\begin{vmatrix} 3 = 27,96 \\ 2 = 49,30 \\ 3 = 52,21 \\ 2 = 57,27 \\ 2 = 2,42 \end{vmatrix}$	26 49,30 28 52,21 28 57,27	2,756 1,521 1,156	$\left \begin{array}{c} + ,022 \\ + ,009 \\ + ,029 \end{array}\right $	
22]3 1185 2217	. II . III . IV . III . III	323 Herculis 83 — 144 Draconis	f	$ \begin{array}{c c} 1 = 37,86 \\ 2 = 45,14 \\ 2 = 54,13 \end{array} $	$ \begin{vmatrix} 2 \\ = 38,00 \\ 3 \\ = 59,30 \\ 2 \\ = 45,09 \\ 1 \\ = 13,76 \\ 3 \\ = 54,57 \end{vmatrix} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	+2,458 +2,458 1,668	+,008  +,001  -,022	

# SUPPLIMENTARY CATALOGUE

Refer	ence.	Names.		Mean A. R 1836.—		Concluded Mean A. R.	Ann	ual	Remarks.
No.	Vol.	i ann co.		former obs. p	resent obs.	Jan. 1, 1836.	Precesn.	P. M.	
$2041 \\ 2221 \\ 2222 \\ 1194 \\ 2047$	. 111 . 111 . IV	28 Draconis Ophiuchi Sagittarii	ω	s. 3=54,65 *4=55,07 2=0,46	s. 2=55,19 4=55,23 2=39,44 1=0,18 1=39,86	h. m. s. 17 37 54,87 37 55,15 38 39,44 39 0,37 40 39,86	$\begin{array}{c c} \mathbf{s.} \\ -0,367 \\ +2,934 \\ 2,932 \\ 2,934 \\ 3,852 \end{array}$	$\begin{array}{r} \text{s.} \\ + ,005 \\ + ,006 \\ + ,015 \\ + ,009 \\ + ,014 \end{array}$	This observation was omitted in the Catalogue.
2232 2233 2234 2236 2246	. III . III . III	Telescopii Ophiuchi Telescopii 356 Herculis	ŋ	1 <u>—</u> 58,90	$\begin{array}{r} 2 = 57,63 \\ 1 = 7,13 \\ 1 = 27,08 \\ 1 = 59,14 \\ 3 = 46,06 \end{array}$	$\begin{array}{rrrr} 41 & 57,63 \\ 42 & 7,13 \\ 42 & 27,08 \\ 42 & 59,02 \\ 45 & 46,06 \end{array}$	3,992	+,010 +,004 +,002	
2251 206 <b>2</b> 2063 2064 2065	. II . II	Herculis 6 Sagittarii 66 Ophiuchi 94 Herculis	n v	;	2 = 44,75 $2 = 51,71$ $5 = 58,45$ $1 = 8,54$ $2 = 13,92$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3,480 3,628 2,970	-,005  +,004 +,001	
2261 2067 2069 2070 2070	). II ). II	7 <u> </u>	a		1 = 35,27 $1 = 48,13$ $1 = 50,52$ $1 = 53,21$ $1 = 52,35$	52 50,52 52 53,21	3,670 3,573 2,921	+,007 +,002 +,019	Differs 1,5s. from A. S. C.
2264 2266 2266 208 208	6. III 8. III 4. II	Telescopii Draconis	Ŧ	3 = 58,67	1 = 59,71 $1 = 58,55$ $2 = 54,77$ $5 = 47,15$ $3 = 21,71$	54 58,64 55 54,7' 56 47,1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{vmatrix} 3 \\ - \\ - \\ 0 \end{vmatrix} $ ,011 $\begin{vmatrix} - \\ 0 \\ - \\ 0 \end{vmatrix}$ ,017 $\begin{vmatrix} 0 \\ - \\ 0 \end{vmatrix}$	
$124 \\ 229 \\ 210$	1 . II 6 . IV 8 . II 9 . I 0 . I	I Clyp. Sob. I 58 Serpentis		$ \begin{array}{c c} 3 = 29,20 \\ 3 = 20,80 \\ \hline 7 = 17,15 \end{array} $	2=20,96 3=49,70	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} 0 + ,008 \\ 2 - ,008 \end{array}$	These observations were omitted in the Catalogue.
230 231 212	25. I	I   167 Draconis		$\begin{array}{c c} \nu & & \\ 3 = 13,70 \\ 2 - \\ 6 = 50,94 \\ 2 = 19,50 \end{array}$	4 = 15,8 3 = 51,1	0   16 13,8 7   19 15,8 7   19 51,0	$\begin{array}{c ccc} 6 & -0,35 \\ 7 & +3,93 \\ 2 & 3,41 \end{array}$	$\begin{vmatrix} 0 \\ + \\ 00! \\ 00! \\ - \\ 00! \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$	
21 21 12	35 . ] 36 . ] 67 . I	II Clyp. Sob. II Sagittarii II		$v^2$ $2=19,86$ $s^1$	$\begin{array}{c} 3 = 25,8 \\ 1 = 12,0 \\ 5 = 13,0 \\ 1 = 20,0 \\ 3 = 21,5 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5 3,93 4 3,66 1 3,93	$\begin{vmatrix} 6 \\ - \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$	9 4 This observation was omitted in the Catalogue.
21 21 21	38. 41. 42.	II Sagittarii II Pavonis II 24 Sagittarii II Clyp. Sob. II Sagittarii		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3=16,9	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	16 7,05 50 3,66 96 3,42	$\begin{bmatrix} 4 \\ -6 \\ 00 \\ 23 \\ + 01 \end{bmatrix}$	$\left\{ \frac{2}{+2,19s} - \frac{2}{} \right\}$ Paramatta Obs.
21 21 21	52. 53.	II Lyræ II Clyp. Sob. II Sagittarii II Herculis II Sagittarii			$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	28 3,48 52 3,64 20 2,49	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ed "faint."—I have given it half the credit o the other.

* See errata,

Reference.	Names.		R. Jan. 1, —from	Concluded Mean A. R.	An	nual	REMARKS.
No. Vol.		former obs.	present obs.	Jan. 1, 1836.	Precesn.	P. M.	
2332 of III 2340 . III 1281 . IV 2347 . III 2183 . II	37 Lyræ 14 Cor. Aust. Lyræ Sagittarii	s. *2 $=51,63$ 3=33,46 1=35,51 2=5,08	s. 2 = 52,52 1 = 33,38 1 = 35,82 3 = 35,81 2 = 5,07	h. m. s. 18 29 52,07 32 33,44 32 35,66 36 35,81 46 5,04	s +2,004 4,172 4,172 2,095 3,634	$\begin{vmatrix} s. \\ + ,002 \\ - ,021 \\ - ,019 \\ + ,005 \\ + ,013 \end{vmatrix}$	This observation was omitted in the Catalogue.
2366 . III 2193 . II 2389 . III 1350 . IV 1354 . IV	Sagittarii 64 Serpentis 114Lyr æ Aquilæ	$ \begin{array}{c} 1 = 2.12 \\ 3 = 48.19 \\ 3 = 58.76 \\ 2 = 16.54 \end{array} $	1 = 38,75 $2 = 1.83$ $3 = 47.85$ $2 = 58,71$ $1 = 16,66$	$\begin{array}{rrrr} 46 & 38,75 \\ 49 & 1,92 \\ 56 & 48,02 \\ 19 & 6 & 58,74 \\ 8 & 16,58 \end{array}$	3,632 3,015 1,693 2,864 2,864	+ ,014 + ,026	These were omitted in the Catalogue. Do. Do. Do.
2236 . II 2244 . II 2246 . II 2247 . II 2247 . II 2249 . II	Sagittarii         β            β           28         Aquilæ         A           27          δ		1 = 38 92 $1 = 21,36$ $1 = 0,08$ $1 = 0,23$ $1 = 8,08$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,430 4,346 3,519 2,796 3,095	,012 ,003 ,001	
2264 . II 2269 . II 2271 . II 2272 . II 1387 . IV	Sagittarii 4 Vulpeculæ 3 Cygni 60 Draconis Anseris	1 = 6,07 $= 2 = 18,18$	2 = 6,03 $2 = 17,05$ $2 = 38,66$ $2 = 39,41$ $1 = 18,47$	$\begin{array}{rrrr} 17 & 6,04 \\ 18 & 17,05 \\ 18 & 38,66 \\ 18 & 39,41 \\ 19 & 18,28 \end{array}$	$\begin{vmatrix} 3,403 \\ 2,623 \\ 2,491 \\ -1,057 \\ +2,621 \end{vmatrix}$	+,014 -,009 +,036	N. P. D. 16°,54′.
2427 . 111 2276 . 11 2446 . 111 2447 . 111 1430 . IV	19 Cygni Sagittarii 39 Cygni Sagittarii Sagittæ	$3 = 5,81 \\ 5 = 9,76 \\ 3 = 45,26 \\ 3 = 5,55$	3 = 5,82  2 = 9,72  2 = 45,29  2 = 50,20  1 = 5,35	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1,571 3,566 1,272 3,298 2,674	+ ,007 + ,007	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Sagittæ 73 Cygni Aquilæ Cygni	$\begin{array}{c c} 2 = 18,86 \\ 4 = 28,18 \\ 2 = 27,59 \\ 2 = 41,29 \\ 3 = 38,64 \end{array}$	1=41,43	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,670 2.680 1,610 2,914 2,197	+,016 +,004 -,001 +,017 +,005	These observations were omitted in the Catalogue
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Aquilæ 25 Sagittæ 187 Aquilæ 18 Cephei	$3 = 23,05 \\ 3 = 3,02 \\ 3 = 44,52 \\ 3 = 5,91 \\$	1 = 22,76 $1 = 2,95$ $2 = 44,85$ $2 = 5,80$ $2 = 38,96$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2,830 2,673 3,250 2,835 1,242	+,002 - ,017 - ,017 + ,004	These observations were omitted in the Catalogue
2363 . II 2365 . II 2510 . III 2370 . II 2524 . III	63 Aquilæ 15 Sagittæ Draconis - e 17 Vulpeculæ Antinous	5=44,34	3 = 7,66 $2 = 44,13$ $2 = 43,32$ $1 = 50,56$ $1 = 52,27$	56 7,66 56 44,28 59 43,32 59 50,39 20 2 52,27	2,929 2,686 0,657 2,573 3,080	+- ,002 + ,011 ,008	The result in Vol. II. belongs to Piazzi No. 12.

* It has long been a subject of great perplexity to me-that the discordances to be met with among observations, should occasionally so far exceed the probable, and even what one could suppose the possible limits of error—this complaint however, is not altogether new; —for, so far back as 1825, Mr. Pond remarked that the results of observations of the Star Regulus derived from the two Mural Circles at Greenwich, differed, to an amount exceeding that which could reasonably be attributed either to the observers, or to the Instruments; be this as it may—the discordance which here occurs is so singularly large, that it merits particular investigation; —according I have examined and re-examined again and again every figure of the computation, in the hope of finding an error, or some circumstance, whereby the credit of the observer and instrument might be vindicated; the only circumstances which affect the two observations in the one case from those in the other, are—different observers—and, that in the former observations a Lyræ was observed in conjunction with this star (it being in the field with it): this latter circumstance may appear trifling; but I have noticed, that any disturbance of the observer's attention, such as being hurried to observe a second star, invariably causes him to note the time too soon.

### SUPPLIMENTARY CATALOGUE

Reference.	Names.			R. Jan. 1, —from	Concluded Mean A. R.	Anr	nual	Remarks.
No, Vol.			former obs.	present obs.	T. 1 1000	Precesn.	Р. М.	
2379 of II 2534 . III 1530 . IV 2390 . II 1540 . IV	19 Vulpeculæ Cygni 18 Sagittæ Antinoi	b3	$ s \\ 3 = 57,28 \\ 1 = 23,68 \\ 1 = 31,77 \\ 5 = 7,56 \\ 3 = 23,88 $	s. 2=56,87 1=23,68 3=31,69 2=7,49 2=23,97	h. m. s. 20 4 57,12 8 23,68 8 31,71 3 7,54 12 23,91	$\begin{vmatrix} s. \\ +2,503 \\ 2,236 \\ 2,239 \\ 2,632 \\ 3,202 \end{vmatrix}$		These have been omitted in the Catalogue. These were omitted in the Catalogue.
1542 . IV 2546 . III 2567 . III 2575 . III 2420 . II	Capricorni Cephei Cygni Ursæ Min. 46 Cygni	λ ω ³	2 = 5,80  1 = 15,52	$\begin{vmatrix} 1 = 6,02 \\ 2 = 31,76 \\ 5 = 50,70 \\ 1 = 54,00 \\ 2 = 15,26 \end{vmatrix}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{c} 3,395 \\ -1,905 \\ +1,836 \\ -49,116 \\ +1,848 \end{array}$	+ ,097 + ,007 + ,094	N. P. D. $12^{\circ},40'$ $\therefore$ P. M. = 0",30 of arc.
1598 . IV 2576 . III 2431 . II 2434 . II 2433 . II	Aquarii 53 Capricorni 27 Vulpeculæ 8 Delphini 1 Aquarii	$p \\  heta$	$2 = 21,34 \\ 3 = 31,30 \\ 6 = 59,65 \\$	$\begin{vmatrix} 1 = 21,47 \\ 1 = 31,20 \\ 2 = 5,11 \\ 1 = 59,55 \\ 2 = 0,41 \end{vmatrix}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,248 3,407 2,554 2,829 3,070	+ ,019 + ,011 + ,011 + ,011	This observation was omitted in the Catalogue.
2592 . III 1642 . IV 2603 . III 1652 . IV 2460 . II	Delphini Aquarii 61 Cephei Vulpeculæ Capricorni		1 = 26,69 $2 = 43,78$ $3 =$	2 = 26,44 $1 = 37,71$ $1 = 43,91$	$ \begin{array}{r} 34 & 26,52 \\ 36 & \\ 38 & 37,71 \\ 40 & 43,82 \\ 41 & \\ \end{array} $	$2,750 \\ -3,109 \\ +2,579 \\ 3,595$		Not now visible ! This observation was omitted in the Catalogue. The A. R. observed in 1833 pertains to anothe star—the place in the A. S. C. must be wrong
$\begin{array}{cccccccc} 2478 & & II \\ 2622 & & III \\ 2488 & & II \\ 2629 & & III \\ 2638 & & III \\ \end{array}$	32 Vulpeculæ 33 Microscopii	9 x	6=34,44 2=56,60	2 = 34,40 $1 = 1,87$ $4 = 56,86$ $1 = 43,60$ $1 = 8,37$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2,552 2,552 2,678 2,678 3,693	+,012 +,009 +,016 +,009 +,028	C or the star has disappeared.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Microscopii Vulpeculæ Microscopii Vulpeculæ Aquarii	η	2 = 43,87 $2 = 13,91$ $3 = 10,77$ $3 = 43,65$	2 = 43,89 $2 = 13,87$ $1 = 10,44$ $1 = 43,96$ $1 = 11,50$	$55 43,88 \\ 56 13,89 \\ 59 10.69 \\ 21 0 43,72 \\ 6 11,59$	3,934 2,653 3,596 2,668 3,193	$\begin{array}{c} - ,011 \\ + ,002 \\ + ,029 \\ + ,005 \\ + ,013 \end{array}$	The blank which precedes this in Vol. III. must be cancelled.
2517 . II 2688 . III 1807 . IV 2701 . III 2554 . II	8 Equulei Cephei Aquarii 111 Cephei Capricorni	a	$ \begin{array}{c} 6 = 37,44 \\ 3 = 34,66 \\ 2 = 35,22 \\ 5 = 19,66 \end{array} $	1 = 37,00 $1 = 7,89$ $1 = 34,86$ $1 = 35,74$ $2 = 19,61$	$\begin{array}{cccc} 7 & 37,38 \\ 19 & 7,89 \\ 20 & 34,71 \\ 24 & 35,39 \\ 25 & 19,65 \end{array}$	2,995 1,728 3,262 1,175 3,280	$\begin{array}{r} + \ ,006 \\ + \ ,006 \\ + \ ,015 \\ + \ ,020 \\ + \ ,016 \end{array}$	This observation was omitted in the Catalogue.
2706 . III 2726 . III 1854 . IV 2727 . III 2583 . II	, Aquarii 377 Cygni Aquarii 10 Pegasi	ĸ	$ \begin{array}{c}$	$1 = 1,96 \\ 4 = 47,53 \\ 5 = 57,76 \\ 2 = 10,26 \\ 1 = 13,15$	$\begin{array}{cccc} 27 & 1,96 \\ 35 & 47,53 \\ 35 & 57,72 \\ 36 & 10,26 \\ 37 & 13,30 \end{array}$	3,065 2,401 2,402 3,203 2,706	$\begin{array}{c c} + & ,008 \\ + & ,014 \\ + & ,011 \\ + & ,015 \\ + & ,004 \end{array}$	These observations were omitted in the Catalogue.
2733       III         2735       III         2736       III         2746       III         1902       IV         2771       III	64 <u>Pegasi</u> Gruis Aquarii 174 Cephei	$v^{2}$	$\begin{array}{c c} 2 = 48,93 \\ 3 = 7,40 \\ 3 = 6,59 \\ 1 = 5,41 \end{array}$	2 = 48,65 2 = 14,15 4 = 7,27 1 = 6,68 2 = 5,89	38 48,79 41 14,15 47 7,33 54 6,61 22 0 5,73	3,649 3,088	$\begin{array}{c c} + & ,005 \\ + & ,008 \\ + & ,028 \\ + & ,013 \\ + & ,015 \end{array}$	
2774 . 1II   2775 . 1II	175 Cephei 39 Aquarii Pegasi		$ \begin{array}{c} 1 = 3,70 \\ 2 = 25.71 \\ 5 = 34,80 \\ \\ \end{array} $	1 = 1,78 $2 = 3,65$ $1 = 25,20$ $3 = 34,83$ $1 = 56,37$	$\begin{array}{c ccc} 0 & 1,78 \\ 3 & 3,66 \\ 3 & 25,54 \\ 3 & 34,81 \\ 3 & 56,37 \end{array}$		$\begin{array}{c} + ,014 \\ + ,010 \\ + ,024 \\ + ,005 \\ + ,013 \end{array}$	See Piazzi's Note to these Stars.

OF THE A. R. OF THE FIXED STARS.

Refere: ce.	Names.	1	R. Jan. 1, —from	Concluded Mean A R	Ann	iual	Remarks.
No. Vol.		former obs.	present obs.	Jan. 1, 1836.	Precesn.	P. M.	
2648 of II 2658 . II 2796 . III 2687 . II 2688 . II	U U	2=11,60	s. 1=42,42 1=49,75 2=11,62 1=40,85 1=57,99	h. m. s. 22 3 42,61 8 49,84 13 11,61 21 40,69 21 57,85	s. +3.649 2,599 3,141 3,033 3,182	s. + ,023 + ,019 + ,003 + ,006 + ,003	
2689 . II 2818 . III 2821 . III 2823 . III 2823 . III 2825 . III	<ol> <li>Pis. Aust. β</li> <li>42 Lacertæ</li> <li>221 Cephei</li> <li>Piscis Aust. σ</li> </ol>	6 = 9,95 	$ \begin{array}{r} 1 = 10,29 \\ 3 = 20,57 \\ 2 = 20,54 \\ 2 = 52,99 \\ 2 = 20,82 \end{array} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		,008 + ,176	N. P. D. 4°,44′ P. M. == 0″,21 of arc. N. P. D. 4°,37′ P. M. == 0″,13 of arc.
2833 . III 2844 . III 2711 . II 2713 . II 2852 . III	7 Androm. Pegasi P ^a 43 <u> </u>	$ \begin{array}{c} 1 = 34,91 \\ 2 = 51,39 \\ \hline 6 = 27,79 \\ 3 = 22,85 \end{array} $	$\begin{vmatrix} 2 = 35,07 \\ 1 = 51,78 \\ 2 = 3,92 \\ 1 = 27,92 \\ 2 = 22,89 \end{vmatrix}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,651 2,949 2,802 3,147 3,108	+ ,010	
2885 , III	237 Aquarii 303 Pegasi Pis. Aust.	1 = 13,24 $1 = 46,32$ $2 = 28,49$ $3 = 41,20$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{r} 42 & 13,28 \\ 59 & 28,20 \\ 23 & 1 & 46,24 \\ 9 & 28,38 \\ 9 & 41,28 \end{array}$	3,131 3,266 3,015 2,977 3,231	+ ,001 + ,018 + ,010 + ,006 + ,045	
2909 . III 2784 . II 2787 . II 2814 . II 2828 . II	7 Piscium b 62 Pegasi τ Aquarii 104 — Λ²	1 = 15,61 $5 = 59,31$ $5 = 31,80$ $5 = 4,54$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,229 3,046 2,952 3,097 3,122	+,008 +,014 +,012 +,009 +,048	The star observed here is of the 9th mag, agreeing with the small star mentioned by Piazzi; has then A ² disappeared ?
2959 . III 2966 . III 2056 . IV 2868 . II	Androm. 306 Cephei Pegasi Cassiopeæ	$\begin{array}{c c} 3 = 27,44 \\ 3 = 53,51 \\ 4 = 34,02 \\ \hline \end{array}$	1 = 27,13 $1 = 53,55$ $1 = 34,07$ $4 = 17,67$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,930 2,866 3,052 2,996	-,001 +,026 +,014	

In bringing up the results of Vol. II. and III. to 1836, as well as in reducing those of 1836—37, to the same epoch, the Annual Precession only has generally been employed; but in a few cases (where the P. M. was large) this too has roughly been applied; thus, to the results brought up with Precession from Vol. II, four times the amount of proper motion has been added: and to those from Vol. III. and from observation in 1836—37 one years proper motion only has been applied.

## SUPPLIMENTARY CATALOGUE OF THE

## SUPPLIMENTARY CATALOGUE OF THE DECLINATION OF THE FIXED STARS.

Refer	ence.	A, R.	Names.		ecn. Jan. 1, 3,—from	Concluded Mean Decn.	Annual Preces-	P. M.	Remarks.
No.	Vol.			former ob	s. present obs.	Jan. 1, 1836.	sion.	1. 11.	
1 o 2 . 16 . 21 . 19 .	II II	H.M. 0 1 4 6 11 22	24 Ceti 61 Andromedæ 35 Piscium Tucanæ 117 Piscium	3   5=34,7 z  10=23,1	$\begin{array}{c c c} 0 & 2 = 41,07 \\ 0 & 1 = 35,80 \\ 9^* & 2 = 19,76 \end{array}$	$\begin{array}{c} & & & & & & \\ & - & 6 & 9 & 37,01 \\ + & 40 & 7 & 42,66 \\ + & 7 & 54 & 34,88 \\ - & 65 & 50 & 22,62 \\ + & 15 & 7 & 48,26 \end{array}$	20,038 20,035 20,019	,08 ,10	Differs 2' from A.S.C.
40 44 45 22 27	11 11 111	23 23 23 26 28	Tucanæ	$\xi   4=3,$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{r} -49 \ 42 \ 42,21 \\ -63 \ 51 \ 42,32 \\ -63 \ 52 \ 7,97 \\ -35 \ 53 \ 4,38 \\ +23 \ 6 \ 45,22 \end{array}$	19,935 19,935 19,916	,51	Differs nearly 1' from A. S. C.
59 79 58 108 67	. 11 . 111 . 11	30 39 50 56 57	<ul> <li>31 Andromedæ Piscium</li> <li>322 Cephei</li> <li>74 Piscium Cassiopeæ</li> </ul>	5=5, 4=4,	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{r} +29 57 41,12 \\ + 4 26 6,77 \\ +86 16 4,24 \\ +20 35 36,59 \\ +54 6 44,86 \end{array}$	19,747 19,554 19,435	$ \begin{vmatrix} - , 30 \\ -1,25 \\ +0,12 \\ -0,03 \\ -1,55 \end{vmatrix} $	<ul> <li>with the diff. from A. S. C.</li> <li>In Vol. III. the result was accident- ally omitted.</li> </ul>
113 124 132 135 140	. II . 11	4 5	32 Ceti 86 Piscium 88	5=34,	- 3=51,76 35 1=23,65 73 1=37,11	$\begin{array}{r} +19 51 52,71 \\ -9 46 51,76 \\ + 6 42 23,39 \\ + 6 7 35,13 \\ +57 20 37,03 \end{array}$	19,321 19,245 19,221	$ \begin{vmatrix} -0,19 \\ -,29 \\ -,05 \\ -,04 \\ +,02 \end{vmatrix} $	gives P. M. —",02
97 158 162 167 178	. II . II . II	19 21 24	Cassiopeæ Piscium 98 —— Phœnicis 102 Piscium	5=34,	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,850 18,795 18,706	$\begin{vmatrix} + ,06 \\ + ,03 \\ - ,17 \\ + ,09 \end{vmatrix}$	
138 183 172 217 220	. 1V . III . III	44 50 52	153 Cassiopeæ 59 Ceti	$\gamma^1$ 9=22,	$\begin{array}{c ccccc} 10 & 4 = 20, \$2 \\ 15 & 2 = 35, 08 \\ 10 & 3 = 30, 07 \end{array}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	18,001 17,730 17,697	,04 - ,04	looked. Differs 11" from G. C.
196 214	. III . III	2 2 6 9	52 <u>Persei</u> 262 Eridani		$ \begin{array}{c c c} -* & 4 = 32,93 \\ 55 & 3 = 5,23 \\ - & 1 = 27,09 \end{array} $	$\begin{array}{r} +25 & 8 & 25,76 \\ +25 & 9 & 32,93 \\ +56 & 45 & 5,98 \\ +48 & 11 & 27,09 \\ - & 3 & 43 & 47,26 \end{array}$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{vmatrix} - & , 17 \\ - & , 05 \\ - & , 05 \\ + & , 12 \\ - & , 69 \end{vmatrix} $	N. P. D. 5° wrong in Vol. II.
247 251	. IV . IV . III . III . IV	[ 19 [ 23 [ 25	Trianguli 43 ——— 46 ———	$ \begin{array}{c} 4 = 47, \\ 2 = 54, \\ 4 = 49, \\ 4 = 2, \\ 4 = 13 \end{array} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	16,452 16,270 16,108	2 - ,03 - ,12 - ,05 + ,15 - ,12	
268 270 271 253 234	. ]] . ]] . ]]	l 27 [ 27	30 Arietis Ceti	$d^{1} \begin{vmatrix} 5 = 1 \\ 10 = 45 \\ 4 = 43 \\ 2 = 51 \end{vmatrix}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} + 6 & 6 & 1,40 \\ +23 & 55 & 47,72 \\ +23 & 55 & 46,37 \\ - 4 & 15 & 43,01 \\ +48 & 50 & 52,94 \end{array}$	2 16,05 7 16,04 16,04	1 1	I have retained the result of 30 Arieti for 1836, in order to shew the dif- ference of Declination.

* See errata.

Reference.	A. R.	Names.		en. Jan. 1, —from	Concluded Mean Decn.	Annual Preces-	P. M.	Remarks.
No. Vol.				present obs.		sion.		
280. II 295. II 242. IV	н. м. 2 32 36 37	83 Ceti ε Hydri ε Persei	2=35,28		-12 34 16,99-68 58 -+48 29 34,66		,10	Not now visible I
252 . IV 324 . II	49 51	Horologii ß	2=40,02	3=36,87	+51 22 38,23 -63 31 $$	14,805 14,701		Not now visible !
330 of II 337 . II 261 . IV 303 . III	52 55 3 3 5	8 Eridani ρ¹ Fornacis Camelop. Messoris A²		4 = 46,64 $2 = 26,34$ $3 = 33,84$	$\begin{array}{rrrrr} -23 & 37 & \\ +65 & 2 & 26,55 \\ +65 & 2 & 33,99 \end{array}$	14,483 13,948 13,801	— ,08 — ,11	
321 . III 368 . II	12	142 Persei	4	2= 9,26	+48 37 9,26			A wrong star observed in 1835.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$   \begin{array}{c}     13 \\     27 \\     28 \\     42 \\     43   \end{array} $	Eridani e Persei 20 Eridani F Touri	4=13,87 5=33,10	6=49,28 4=35,75	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	12,368 12,302 11,329	,05 - ,06 - ,18	Piazzi states the P. M. to be +0",83
384 . III 439 . 11	44 49	Tauri 210 Eridani Hydri γ	$\begin{array}{c c} 7 = 59,94 \\ 4 = 6,41 \\ 1 = 56,93 \end{array}$	1 = 6,21 3 = 35,44	-74 44 35,44	11,169 10,772		The observation in 1833 refers to
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	56 411 11	Reticuli Doradus y 41 Eridani X	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 = 10,25	$\begin{array}{r} -61 51 53,30 \\ -51 54 12,44 \\ -34 12 10,28 \end{array}$	9,133		another star.
436 . III 506 . II 515 . II 448 . III	14 17 21	220 Persei 43 Eridani 80 Tauri	4 = 26,59 10 = 8,03	3 = 8,14 4 = 20,30	+33 27 26,60 -34 24 8,05 +15 16 20,30	8,656 8,434	-,02 -,17	
462 . III	22 27	Eridani v		3=43,31 3=11,96	$\begin{vmatrix} +42 & 40 & 43,31 \\ -30 & 6 & 12,32 \end{vmatrix}$			
465 . 111 332 . 1V 543 . 11 578 . 11 515 . 111	28 28 32 50 51	Scep. Brand. Eridani Tauri Eridani	$4 = 54,01 \\ 4 = 6,83 \\ 14 = 9,58 \\ 1 = 9,00 $	2 = 6,43 2 = 9,30	+22 38 9,55	7,858 7,504 6,081	— ,07   — ,01   — ,07	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	54 53 4 10	Doradus 14 Aurigeu 2 Columbæ	7 = 54,95 4 = 57,52 10 = 40,32	$\begin{array}{c} 3 = 51,41 \\ 3 = 21,01 \\ 3 = 55,70 \end{array}$	$\begin{array}{r} +62 & 15 & 14,11 \\ -57 & 41 & 53,89 \\ +32 & 29 & 21,01 \\ -35 & 6 & 56,74 \\ -35 & 3 & 40,11 \end{array}$	4,965 4,819 4,338	+ ,18	(This P. M. is in accordance with the
667 . II 672 . II 590 . III 593 . III 685 . II	24 25 26 27 28	120 Tauri Columbæ Orionis 40 ¢	5=43,89	3 = 59,60 $4 = 45,76$ $4 = 23,99$ $3 = 12,46$	$ \begin{array}{r} +18 & 24 & 59,60 \\ -35 & 35 & 44,72 \\ -4 & 55 & 23,99 \\ -4 & 58 & 12,46 \end{array} $	3,173 3,034 2,922 2,813	,00 ,17 ,14 ,08	
693 . II 609 . III 699 . II 721 . II 732 . II	1	393 Tauri Columbæ Tauri	$\begin{array}{c c} 9 = 36,44 \\ 3 = 37,51 \\ 43 = 55,88 \\ 5 \\ 9 = 6,24 \end{array}$	$\begin{array}{c} 2 = 39,05 \\ 4 = 56,99 \\ 4 = 35,04 \end{array}$	$ \begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2,315 2,313 1,647	-,01 + ,02	A wrong star observed in 1832.
735 . II 658 . III 746 . II 757 . II 674 . III	51 52 57	Camelop. Columbæ	$\begin{array}{c c} 11 = 13,75 \\ 10 = 22,96 \\ 27 = 48,00 \\ 3 = 5,66 \end{array}$	3=4,58 4=21,80 3=48,33	$\begin{array}{r} +44 55 13,86 \\ +51 34 4,58 \\ -35 18 22,63 \\ +14 46 48,03 \\ +48 44 5,31 \end{array}$	0,723 0,742 0,187	+,03 -,11 -,23	

## SUPPLIMENTARY CATALOGUE OF THE

Reference. No. Vol.	A. R.	Names.	183	Decn. Jan. 1, 36.—from bs. present obs.	Concluded Mean Decn. Jan. 1, 1836.	Annual Pieces- sion.	P. M.	RFMARKS.
مىرىنىيى بىلغان بىل بىلى بىلى بىلى بىلى بىلى بىلى بىلى	11	Columbæ 24 Monocer. 25 – Columbæ Lyncis		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{r} \circ & i & i \\ -37 & 10 & 52.68 \\ + & 5 & 8 & 37.55 \\ -10 & 40 & 12.12 \\ -35 & 5 & 29.51 \\ +58 & 30 & 11.62 \end{array}$	0,770 0,868 0,914	<b>1 1 1</b>	
791 of II 793 . II 794 . II 799 . II 726 . III	15 15 18	Monocer.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{r} -29 59 48,57 \\ + 3 50 26,29 \\ + 4 42 7,84 \\ +20 52 59,03 \\ +79 43 11,26 \end{array}$	$ \begin{array}{c c} 1,254\\ 1,290\\ 1,541 \end{array} $		
728 . III 747 . III 770 . III 780 . III 790 . III	I 23 I 30 I 32	Canis Maj. 23 Lyncis se	4=32 4=46 4=43 	-3=51,44 2=44,58	$\begin{array}{r} -36 & 37 & 33,10 \\ +61 & 36 & 51,44 \\ -18 & 31 & 45,93 \\ +59 & 35 & 42,33 \\ -27 & 28 & 49,88 \end{array}$	2,082 2,558 2,792	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
490 . IV 807 . III 809 . III 854 . II 814 . II	I 43 I 45 I 46	29 Lyncis Canis Maj. 14	$\begin{array}{c c} 3 = 25 \\ 4 = 38 \\ 4 = 9 \\ \theta \\ 1 = 30 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 3,77 3 3,85 7 4,02	$\begin{array}{c c} 8 & ,00 \\ 00, & + \\ 09 \end{array}$	
820 . II 871 . I 831 . II 511 . IV 847 . II	I 52 I 55 V 7 0	Geminor. Lyncis Navis	3 =	$\begin{array}{c ccccc} 4,88 & 1 = 13,50 \\ - & 4 = 31,50 \\ - & 3 = 6,60 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5 4,56 8 4,79 5 5,10	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Differs 26",59 from A. S. C. The result in the Catalogue is erro-
528 . I 891 . II 894 . II 917 . II 943 . II	II 14 II 16 II 26	144 Geminor.   Navis   Canis Min.	1 = 58 4 = 10 8 = 1	$ \begin{array}{c c} - & 3 = 51,4 \\ \hline 8,65 & 4 = 8,1 \\ - & 3 = 37,9 \end{array} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} 0 & - & ,06 \\ 0 & + & ,05 \\ 9 & + & ,05 \\ 4 & - & ,02 \\ 26 & - & ,04 \end{array}$	
	II 38 II 45 II 56	3 2 217 Navis 3 9 Cancri	$\begin{array}{c c} T & 3 = 3 \\ \mu^1 & 5 = 5 \\ \hline \end{array}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	9 8,31 93 8,6: 1 9,73	$\begin{array}{c c} 29 & - & ,02 \\ 2 & - & ,59 \\ 39 & - & ,38 \\ 34 & - & ,06 \\ 24 & + & ,12 \end{array}$	
1004 . 1009 . 1013 . I	11 '	5 7 Piscis Vol. 7 Navis	£	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{c c c} 70 & 10,37 \\ 87 & 10,57 \\ 08 & 10,57 \\ \end{array}$	37 + ,09	
$1049. \\ 1055.$	II 3 II 3 II 3	9 Argus 1 Caneri 31	$\beta   11 = t$	$\begin{array}{c c} & 2 = 45, \\ \hline 7,75 & 3 = 6, \\ 51,15 & 3 = 51, \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c} 33 & 12,2 \\ 51 & 12,2 \\ 23 & 12,4 \end{array}$	$   \begin{bmatrix}     06 \\    ,16 \\    ,11 \\     39 \\    ,16   \end{bmatrix} $	these must be re-examined. Differs above 23" from G. C.
646 . 1124 . 1121 . 1	IV 9 II III	11 Cancri 0 Pixid. Naut. 7 Argus 9 Navis 15 Hydræ	$i \begin{vmatrix} 3 = 4 \\ 8 = 4 \\ 4 = 9 \end{vmatrix}$	$\begin{array}{c c c} 47,03 & 3=\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	36   14,2 68   14,6 87   14,6	08 - ,13	

,eviji

Reference.	A. R.	Names.	Mean Dec. 1836.—		Concluded Mean Decn.	Annual Preces-	P. M.	Remarks.
No. Vol.	Í		former obs. p	resent obs.	Jan. 1, 1836.	sion.		
1151 of II 1173 . III 1179 . II 1191 . II 1195 . II		31 Hydræ r ¹ 29 Ursæ Maj. v 9 Sextantis	$ \begin{array}{c}                                     $	3 = 31,23 3 = 14,30 4 = 50,96	$\begin{array}{r} \circ & \prime & \ast \\ - & 2 & 3 & 20,85 \\ - & 9 & 58 & 31,23 \\ + & 59 & 48 & 15,24 \\ + & 5 & 42 & 51,66 \\ + & 4 & 9 & 54,27 \end{array}$	16,004 16,359 16,675	+ ,18 - ,25 - ,10	Differs 5",6 from G. C.
1214 . II 1256 . III 1261 . II 1274 . II 1278 . II	10 2 16 29 36 37	34 Leonis37 Leo. Min.4251 Leonis		3=20,23 3=31,88	$+14   9   41,63 \\ +   9   36   20,41 \\ +   32   49   31,85 \\ +   31   32   41.72 \\ +   19   45   12,60 \\$	$   \begin{array}{r}     18,058 \\     18,488 \\     18,723   \end{array} $	-,21 -,07 +,01	s with a view to determine their dif-
1279 . II 1288 . II 1289 . II 1329 . III 1353 . III	42 43 55	52 Leonis & 41 Sextantis 7 46 Leo. Min. 9 216 Ursæ Maj. 322 Leonis	أحديس سأ	3=44,65 1=22,94		18,886 18,944 19,256	,40 ,04	Differs 5",4 from G. C.
1375 . III 1407 . III 1416 . III 775 . IV 1371 . II	31 34 34		$ \begin{array}{c c}     1 = 8,11 \\     4 = 15,26 \\     5 = 57,62 \end{array} $	3=10,87 4=17,54 3=31,24	$ \begin{array}{r} +13 53 57,46 \\ -12 16 10,18 \\ -31 35 16,40 \\ -31 34 31,24 \\ + 7 26 56,76 \end{array} $	8   19,887 0   19,912 4   19,913	- ,02 - ,01	
1437 . III 1386 . II 1426 . II 808 . IV 1436 . II	52 12 1 19	8 Virginis 7 Crucis Virginis	$\frac{16=44,70}{4=58,17}$	$\begin{array}{c c} 4 = 45,99 \\ 3 = 42,94 \\ 3 = 31,77 \\ \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	6 20,031 4 19,987 7 19,971	,04 ,20	(A wrong star appears to have been
1445 . I 1460 . I 1599 . II 1634 . II 1751 . II	I 30 I 52 I 13 8	26 <u>Centauri</u> 2 201 Comæ Ber.	x 4=10,62	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	් 19,866 2 19,524 3 19,144	07,, 07 1, 93 +, 05	Probably an error of 1' in Piazzi or in this result.
1795 . II 1664 . I 1667 . I 1668 . I 1669 . I	I 34 I 36 I 37	32 5 10 Hydræ Con. 7 Lybræ	ρ	4 = 18 63 2 = 33,50	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5 15,709 6 15,566 3 15,545	2   - , 18   - , 06   - , 06   - , 28   - , 16   - , 16   - , 16   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 09   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00   - , 00	
1680 . 1 1685 . 1 1695 . 1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	l 8 Libræ 3 Bootis 9 15 Hydræ	z	4=41,99	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 15,280 0 15,204 1 14,859	(1 - , 2) (1 - , 0) (2 - , 0)	L D 7
1879 . 11 1898 . 11 1740 .		6 33 Ursæ Min. 5 97 Libræ 1 28 ———	ν <i>u</i> <i>u</i> <i>u</i> <i>u</i> <i>u</i> <i>u</i> <i>u</i> <i>u</i>	$\begin{array}{c c} 5 = 20,83 \\ 3 = 32,2 \\ 6 = 26,0 \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	33   14,410 39   13,835 34   13,458	$\begin{vmatrix} 0 & - & 0, 0, 0 \\ 0 & - & 0, 0 \\ 0 & - & 0, 0 \\ 0 & - & 0, 1 \end{vmatrix}$	5 2 5
1775 . 1776 . 1812 .	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	8   16 Serpentis 8   18 ——— 6   3 Scorpii — .	τ ² Δ ²	$5 = 48,1 \\ 5 = 2,8 \\ 5 = 8,5$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5   1   4

* The difference of Declination here found  $= 1^{\circ} 16' 50''$ , 1 from obs. on the same evening.

Reference.	A. R.	Names.	Mean Dec 1836	_ •	Concluded Mean Decn,	Annual Preces-	Р. М.	REMARKS.
No. Vol.			former obs.	present obs.	Jan. 1, 1836.	sion.		
1965 of III 1990 . III 1046 . IV 1058 . IV 2072 . III	57 16 1 11	Lupi Serpentis Scorpii	$ \begin{array}{c}     " \\     3=40,01 \\     4=39,58 \\     4=46,53 \\     4=55,50 \\  \end{array} $	$ \begin{array}{c}     " \\     2 = 39,40 \\     2 = 43,00 \\     1 = 46,92 \\     1 = 57,74 \\     5 = 39,59 \end{array} $	$\begin{array}{r} \circ & \prime & '' \\ -33 & 28 & 39,77 \\ -38 & 38 & 40,72 \\ + & 5 & 50 & 46,61 \\ -19 & 42 & 55,95 \\ -22 & 48 & 39,59 \end{array}$	10,187 9,966 9,167	/ ,05 - ,25 - ,07 - ,04 ,00	( This star belongs to Vol. III, but was
1090 . IV 2097 . III 1942 . II 2127 . III 2142 . III	50 . 56	Scorpii 150 ——— Ophiuchi 117 ——— Herculis	$3 = 58,38 \\ 4 = 6,33 \\ 3 = 37,00 $	$\begin{array}{c} 3 = 37,89 \\ 2 = 61,00 \\ 2 = 4.98 \\ 5 = 37,72 \\ 5 = 11,26 \end{array}$	$\begin{array}{r} -41 & 32 & 37,89 \\ -41 & 33 & 59,43 \\ -17 & 59 & 5,88 \\ +13 & 50 & 37,45 \\ +27 & 19 & 11,26 \end{array}$	6,614 6,040 5,502	-,11 +,10 -,06 -,19 +,03	introduced through mistake into
1973 . II 1974 . II 1980 . II 1985 . II 1991 . II	7 11 11	<ul> <li>39 Ophiuchi ο</li> <li>66 Herculis ω</li> <li>53 Serpentis ν</li> <li>33 Scorpii</li> </ul>	544-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	1 '	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	4,531 4,285 4,229	-,06 -,08 -,12 -,02 +,02	
1996 . II 1997 . II 1998 . II 2014 . II 2193 . III	18 18 25	73 Herculis 47 Ophiuchi 54 245	 1= 4,81*	2=38,93 2=9,66	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	3,695 3,686 2,917	,04 ,17 ,21 ,07 1,78	Piazzi's Declination is probably 1' too large, in which case P. M. = -0", 11
2015 . II 2018 . II 2024 . II 1170 . IV 2026 . II	I 28 I 29 7 30	53 Ophiuchi f Serpentis Sagittarii Ophiuchi 79 Herculis	4=46,71	$\begin{array}{c c} 2 = 50, 14 \\ 2 = 1, 02 \\ 1 = 46, 76 \end{array}$	$\begin{array}{r} + 9 \ 42 \ 8,77 \\ -15 \ 27 \ 50,14 \\ -32 \ 7 \ 1,02 \\ +11 \ 45 \ 46,72 \\ +24 \ 24 \ 44,41 \end{array}$	2,802 2,708 2,651	+ ,07 + ,03	
2209 . III 2033 . 11 2034 . II 2214 . III 1185 . IV	I 34 I 34 I 35	Ophiuchi Draconis	3= 4,61	1=46,94 1=5,22 1=14,11	$\begin{array}{r} +62 \ 33 \ 48,06 \\ -22 \ 6 \ 46,94 \\ +16 \ 2 \ 5,22 \\ +68 \ 13 \ 14,11 \\ +24 \ 39 \ 5,06 \end{array}$	2,256 2,239 2,170	-,06 +,17 -,06	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	V 38 1 38 1 38	Sugittarii	2=22,99	$\begin{array}{c c} 1 = 23, 14 \\ 2 = 37, 29 \\ 1 = 17, 29 \end{array}$	$\begin{array}{r} + 5 \ 46 \ 10,71 \\ + 25 \ 47 \ 23,04 \\ + 5 \ 50 \ 37,29 \\ - 31 \ 38 \ 17,29 \\ + 5 \ 45 \ 44,07 \end{array}$	4 1,944 1,851 1,909	,04 	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	I 42 I 43 I 43	339 Herculis 290 Ophiuchi Tauri Pon.	3=47,19		+ 5 16 44,30	$\begin{array}{c c}1,590\\5&1,497\\0&1,468\end{array}$	00, 00 -,11 -,14	
2248 . II 2252 . II 2254 . II 2257 . II 2062 . I	I 47 I 48	357 Herculis 7 Tauris Pon. 172 Serpenti <b>s</b>		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	7 1,136 1 1,037 0 0,781	$\begin{vmatrix} - & ,01 \\ - & ,09 \\ - & ,03 \\ - & ,23 \\ - & ,08 \end{vmatrix}$	
2261 . II 2067 . I 2074 . I	1 53	19 <u> </u>		1 = 41,60 2 = 21,94	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 0,630 4 0,663 4 0,573	$\begin{vmatrix} - & ,02 \\ + & ,02 \\ - & ,05 \\ - & ,02 \\ - & ,06 \end{vmatrix}$	
	אמראנאנטענטע •	outrapping security and the international security and the second second	international district and a substantial state	* See errat	II Mine and a second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state	n an an an an an an an an an an an an an	A Anti-Anti-Antipage Strategy (Contraction of Strategy (Contraction of Strategy) (Contraction of Strategy) (Contra	l In the way of the destruction of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the

* See errata.

Reference.	A. R.	Names.	1836	cn. Jan. 1, —from	Concluded Mean Decn. Jan. 1, 1836.	Annual Preces- sion.	P. M.	Remarks.
No. Vol.			former obs.	present obs.				
2276 . III	н.м. 1756 59 180 1 15	Ursæ Min. Sagittarii 406 Herculis 444 — i	4=	$\begin{array}{c} 3 = 17.25 \\ 2 = 51.34 \\ 2 = 42.32 \end{array}$	$\begin{array}{r} & & & & & \\ & +74 & 35 & 33,66 \\ -24 & 0 & 17,25 \\ +42 & 56 & 51,34 \\ +26 & 4 & 42,32 \\ +29 & 47 & 7,67 \end{array}$	0,041 - 0,006 + 0,117	+,02 -,07 +,30	Piazzi gives P. M. =0",30
2118       II         2123       II         2126       II         2127       II         2132       II	15 18 20 20 22	21 Sagittarii Sagittarii Clypei Sob. Sagittarii	5=18,49	1 = 28,75 1 = 16,11 4 = 59,30	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$ \begin{array}{c c} 1,574\\ 1,741\\ 1,759 \end{array} $	09,	Differs 43" from A. S. C. and too faint for the star intended—*
2318 . III 2135 . II 2139 . II 2140, . II 2150 . II	22 23 23 23 23 28	Cor. Aust. $\chi$ Sagittarii $v^2$ 61 Scrpentis e Sagittarii	3=59,59	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$ \begin{array}{c c} 1,991 \\ 2,024 \\ 2,026 \end{array} $	$\begin{vmatrix} - , 02 \\ - , 06 \end{vmatrix}$	
2151 . II 2152 . II 2153 . II 2157 . II 2202 . II	28 28 28 32 54	Clypei Sob. Sagittarii Herculis 26 Sagittarii S		$\begin{array}{c c} 3 = 9,31 \\ 2 = 22,89 \\ 4 = 39,82 \end{array}$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	2,457 2,480 2,745	+,02	
2212       II         2215       II         2217       II         2248       II         2249       II	58 58 58 19 12 12	Sagittarii 44 — ρ 27 Aquilæ α		3=24,09 3=24,14	$\begin{array}{r rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	5,000 5,042 5,042 6,178	$\frac{11}{-12}$	
2250       .       II         2251       .       II         2261       .       II         2262       .       II         2263       .       II	17	i forski forska politika		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6,195 7 $6,540$ 9 $6,565$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
2264 . II 2267 . II 2427 . III 2457 . III 2457 . III 2465 . III		2 Cygni 19	$\begin{array}{c c} & & & \\ 3 = & 7,05 \\ 2 = & \\ 2 = 18,52 \end{array}$	$1 = 17,51 \\ 3 = 10,82 \\ 2 = 1,67$	$ \begin{array}{r} -14 52 13,8' \\ +29 18 17,5 \\ +49 57 8,9 \\ +69 26 1,6' \\ +7 13 17,8 \end{array} $	1 6,64 3 6,78 7 8,05	$\begin{bmatrix} 8 \\ 2 \\ - \\ 4 \\ - \\ - \\ 0 \end{bmatrix} = \begin{bmatrix} 14 \\ - \\ 0 \\ 0 \\ 0 \end{bmatrix} = \begin{bmatrix} 14 \\ - \\ 0 \\ 0 \end{bmatrix}$	3
2264 . III 2326 . II 2478 . III 2482 . III 2483 . III	42 45 46	51 Aquilæ 1 187	$\begin{array}{c c} 3 = 46,04 \\ \hline 3 = 44,13 \\ 3 = 50,00 \\ 3 = 54,53 \end{array}$	3=23,97 2=46,30 1=51,01	+11 13 45,0	7 8,58 0 8,82 5 8,93		3 7 1
2494 . III 2510 . III 2528 . III 1519 . IV 2539 . III	20 6	Draconis e Aquilæ	$\begin{array}{c c} \mathbf{I} & 3 = 9,00 \\ 3 = 50,69 \\ \hline \end{array}$	4 = 47,85 2 = 51,68 2 = 28,54	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5 10,00 9 10,37 4 10,43		These observations were omitted in the Catalogue
2567 . III 2420 . II 2575 . III 2438 . II 2589 . III	27 28 31	46 Ursæ Min. 28 Vulpeculæ	$\begin{array}{c c} & 4 = 18, 14 \\ 2 = 13, 44 \\ 3 = - \\ 3 = 44, 35 \end{array}$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	+48 43 17,4 +48 40 12,8 +88 48 57,3 +23 32 43,5 +13 13 44,5	7 11,92 5 11,85 9 12,27	$\begin{vmatrix} 2 \\ 9 \\ + \\ 0 \end{vmatrix}$ ,0	4 6 7

* A star of the 6th Magnitude near this has been observed, Declination --- 17° 53' 30",09.

# SUPPLIMENTARY CATALOGUE OF THE

Refer	ence,	A. R.	Names.	M	lean Dec 1836,-	n. Jan. 1, -from	Concluded Mean Decn.	Annual Preces-	DM	Remarks.
No.	Vol.		2.00000	form	former obs. present obs.		Jan 1 1836	sion.	P. M.	National Construction and a support of the second of the second second second second second second second second
1656 ( 2495 2649 2664 2683	. II . III . III		Cephei 2 Equulei Vulpeculæ Aquarii		" =25,08  =21,82	3=24,46 1=36,31 1=40,14	$\begin{array}{r} \circ & ' & '' \\ + 44 & 58 & 43,74 \\ + & 6 & 32 & 24,85 \\ + & 22 & 55 & 36,31 \\ - & 7 & 45 & 40,14 \\ - & 12 & 47 & 22,16 \end{array}$	13,785 14,164 14,563	- ,02	
2688 2691 2706 2565 2568	. III . III . II	19 21 27 29 32	Cephei Vulpeculæ Aquarii 4 Pegasi T 42 Capricorni d	ı 6=	=53,44 = 2,89	$1 = 52,82 \\ 1 = 3,26 \\ 2 = 3,07$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	15,387 15,751 15,902	+ ,08 - ,01 - ,19 - ,14 - ,41	Differs 9" from A. S. C. Piazzi gives P. M0",38.
2775 2774 2648	. 111 . 111 . 111 . 111 . 11 . 11	45		2=		$1 = 56,61 \\ 2 = 28,69 \\ 3 = 31,12$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	17,510 17,496 17,586	-,16 +,05 ,00 -,08 +,06	
2699 2825 2833	. II . 11 . 111 . 111 . 111 . 111	27 27 29	61 Aquarii	L 5= 4= 4=	=13,93 =28,83 =15,00	$1 = 12,21 \\ 2 = 29,80 \\ 4 = 14,06$	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	18,402 18,434 18,475	$ \begin{vmatrix} - & ,02 \\ - & ,09 \\ + & ,03 \\ - & ,07 \\ - & ,13 \end{vmatrix} $	
2872	. III . III . III . II	40 51 59 23 12	Aquarii 7 Piscium	4=	=28,16	2 = 25,15 4 = 12,52	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	19,157 19,353	$ \begin{array}{c c} -,51 \\ -,11 \\ +,36 \\ -,08 \end{array} $	

cxii

One remark is here necessary with regard to the foregoing Catalogue,—namely, that the precessions in Declination are those copied from the Vols. already printed; and consequently pertain to the epochs for which those tables were constructed, and not to the year 1836, to which the places of the stars are reduced : with a view to remedy this defect, as well as to supply an every day want of the practical Astronomer, I have computed the following tables.

Declin. North.	,Oo	300	500	60°	65º	700	750	780	800	820	Declin. South.
нм. О0 30 I0 30 II0 30 II0 30	s. ,0000 ,00 ,00 ,00 ,00 ,00	$\begin{array}{c} s. \\ +,0001 \\ , 02 \\ , 02 \\ , 02 \\ , 02 \\ , 02 \\ , 02 \\ , 03 \end{array}$	s. +,0003 , 04 , 04 , 05 , 05 , 05 , 05	, 06	$\begin{array}{c} s. \\ +,0006 \\ , 08 \\ , 10 \\ , 11 \\ , 12 \\ , 12 \\ , 12 \end{array}$	s. +,0008 , 11 , 13 , 15 , 16 , 17	s. +,0011 , 16 , 20 , 22 , 25 , 27	s. +,0014 , 22 , 29 , 34 , 37 , 39	s. +,0017 , 28 , 37 , 45 , 52 , 54	s. +,0021 , 38 , 54 , 66 , 76 , 80	XII 0 30 XIII 0 30 XIV 0 30
III 0 30 IV 0 30 V 0 30	,0000 ,00 ,00 ,00 ,00		+,0005 , 05 , 04 , 03 , 02 , 01	+,0008 , 08 , 07 , 05 , 03 , 01	, 11 , 10				, 52 , 45	, 68 , 54 , 38	XV 0 ⁻ 30 XVI 0 30 XVII 0 30
VI 0 30 VII 0 30 VIII 0 30	,0000 , 00 , 00 , 00 , 00 , 00	, 00 , 01 , 02 , 02	$\begin{array}{c} -,0000\\ , 01\\ , 02\\ , 03\\ , 04\\ , 05\end{array}$	-,0000 , 02 , 04 , 05 , 07 , 08	-,0000 , 03 , 05 , 07 , 09 , 11	, 04		, 09 , 18 , 26 , 33	$\left  \begin{array}{c} , & 13 \\ , & 26 \\ , & 37 \\ , & 45 \end{array} \right $	$\left  \begin{array}{c} , & 20 \\ , & 38 \\ , & 54 \\ , & 68 \end{array} \right $	
IX 0 30 X 0 30 XI 0 30	,0000 , 00 , 00 , 00 , 00 , 00	, 03 , 02 , 02 , 02 , 02	, 05 , 04 , 04 , 04	, 01 , 07 , 07 , 06	, 12 , 11 , 10 , 09	$\left  \begin{array}{c} , & 17 \\ , & 17 \\ , & 17 \\ , & 15 \\ , & 13 \end{array} \right $	, 27 , 25 , 22 , 20	$\left  \begin{array}{c} , & 39 \\ , & 37 \\ , & 34 \\ , & 29 \end{array} \right $	, 54 , 52 , 45 , 37	, 76 , 66 , 54	30 XXII 0 30 XXIII 0
XII 0 30 XIII 0 30 XIV 0 30	, 00 , 00 , 00	$\begin{vmatrix} -, & 01 \\ -, & 00 \\ +, & 00 \\ +, & 00 \end{vmatrix}$	-, 01 , 00 +, 00 +, 01	$\begin{vmatrix} -, & 02 \\ , & 00 \\ +, & 01 \\ +, & 02 \end{vmatrix}$	$\begin{vmatrix} -, & 03 \\ , & 00 \\ +, & 02 \\ +, & 03 \end{vmatrix}$	-, 04 , 00 +, 02	-, 06 , 00 +, 03 +, 06	-, 06 +, 01 +, 07 +, 13	-, 06 +, 04 +, 14 +, 14 +, 21	-,0021 -,05 +,11 +,26 +,38 +,47	30 I 0 30 II 0
XV 0 30 XVI 0 30 XVII 0 30	,0000 , 00 , 00 , 00 , 00 , 00	, 01 , 01 , 01 , 01 , 00	, 02 , 02 , 02 , 02 , 01	, 03 , 03 , 03 , 03 , 02	, 05 , 05 , 04 , 03	, 06 , 07 , 06 , 04	, 10 , 11 , 10 , 07	$\left  \begin{array}{c} , & 15 \\ , & 18 \\ , & 16 \\ , & 16 \\ , & 12 \end{array} \right $	, 27 , 28 , 24 , 24 , 17	$\begin{array}{c} 3 \\ 47 \\ 4 \\ 7 \\ 7 \\ 28 \end{array}$	30 IV 0 30 V 0
XVIII 0 30 XIX 0 30 XX 0 30	,0000 , 00 , 00 , 00 , 00 , 00 , 00	, 00 , 00 , 01 , 01	, 01 , 01 , 02 , 02	, 01  , 02  , 03  , 03	, 02 , 03 , 05 , 05	, 02 , 04 , 06 , 06	, 04 , 07 , 10 , 10	, 00 , 12 , 16 , 18	$\begin{array}{c} 31 \\ , 09 \\ , 17 \\ 31 \\ , 24 \\ 31 \\ , 28 \end{array}$	, 28 , 39 , 47	30 VII 0 30 VIII 0
XXI 0 30 XXII 0 30 XXIII 0 30	, 00 , 00 , 00 , 00	, 01 , 00 , 00 , 00	, 02 , 01 -, 01 , 00	, 03 , 02 , 01 , 00	, 04 , 03 , 02 , 00	, 05 , 04 , 02 , 00	, 08 , 06 , 04 , 04		$\begin{bmatrix} 1 & 1 & 2 \\ 2 & 1 & 2 \end{bmatrix}$	$\begin{vmatrix} & , & 38\\ 4 & , & 26\\ 4 & , & 1 \end{vmatrix}$	30 X 0 30 XI 0

A TABLE of the annual variation of the Precession in Right Ascension in time. arg at top the Declination and at the side the A. R. of the Star.

arg at top the Declination, at the side the A. R. of the Star.											
Declin. North.	00	300	500	600	650	700	750	780	800	820	Declin. South.
H. M. XII 0 30 XIII 0 30 XIV 0 30	s. +,0000- , 06 , 11 , 17 , 22 , 27	s. +,0000 , 05 , 10 , 15 , 20 , 23	s. +,0000 , 05 , 10 , 14 , 17 , 19	s. +,0000 - , 05 , 09 , 12 , 14 , 15	$\begin{array}{c} s. \\ +,0000 \\ , 05 \\ , 08 \\ , 10 \\ , 11 \\ , 11 \end{array}$	s. +,0000- , 05 , 08 , 09 , 09 , 09 , 08	, 05 , 07 , 06	+, 05- +, 03-	+, 04	$, 02 \\ -, 03+$	O 0 30 I 0 30 II 0 30
XV 0 30 XVI 0 30 XVII 0 30	$+,0032_{}$ , 36 , 39 , 41 , 43 , 44	+,0026- , 28 , 30 , 32 , 33 , 33	+,0020-, 21 , 21 , 21 , 21 , 22 , 22	+,0015-, 14 , 13 , 13 , 12 , 12 , 12	+,0011 , 10 , 09 , 07 , 04 , 04	+,0005- +, 02- -, 01+ , 04 , 07 , 08	-,0005+ , 11 , 16 , 20 , 24 , 26	-,0014+ , 22 , 30 , 36 , 41 , 44	-,0023+ , 34 , 45 , 54 , 60 , 63	-,0037+ , 51 , 65 , 78 , 86 , 92	HI 0 30 1V 0 30 V 0 30
XVIII 0 30 XIX 0 30 XX 0 30	+,0045 , 44 , 43 , 41 , 39 , 36	+,0033- , 33 , 33 , 32 , 30 , 28	+,0022-, 22 , 22 , 21 , 21 , 21 , 21 , 21	+,0012-, 11 , 12 , 12 , 12 , 13 , 14	+,0003- , 03 , 04 , 06 , 09 , 10	-,0009+ , 08 , 07 , 04 , 01 , 02	-,0028+ , 26 , 24 , 20 , 16 , 11	-,0047+ , 44 , 41 , 36 , 30 , 22	-,0066+ , 63 , 60 , 54 , 45 , 34	-,0093+ , 92 , 86 , 78 , 51	VI 0 30 VII 0 30 VIII 0 30
XXI 0 30 XXII 0 30 XXIII 0 30	, 27 , 22 , 17 , 11	+,0026-, 23 , 20 , 15 , 10 , 05	+,0020- , 19 , 17 , 14 , 10 , 05	+,0019 , 14 , 14 , 12 , 09 , 05	+,0011- , 11 , 11 , 10 , 08 , 05	. 08	-,0005+ , 00 +, 04- , 06 , 07 , 05	$\begin{array}{c} -,0014+\\ -, 07+\\ -, 01+\\ +, 03-\\ +, 05-\\ +, 04-\end{array}$	-, 14+ -, 06+ , 00 +, 04-	$\begin{array}{c} -, & 24 + \\ -, & 12 + \\ -, & 03 + \\ +, & 02 - \end{array}$	IX 0 30 X 0 30 XI 0 30
O 0 30 I 0 30 II 0 30	, 06 , 11 , 17 , 22	-,0000+ , 06 , 12 , 18 , 25 , 31	-,0000+ , 06 , 13 , 20 , 28 , 35	-,0000+ , 06 , 14 , 22 , 31 , 40	-,0000+ , 06 , 14 , 23 , 33 , 33 , 43	$\begin{array}{c} -,0000+\ 07\ 15\ 25\ 36\ 47\end{array}$	-,0000+ , 07 , 16 , 27 , 40 , 54	-,0000+ , 08 , 17 , 30 , 45 , 60	-,0000+ , 08 , 19 , 34 , 50 , 68	-,0000+ , 09 , 21 , 38 , 57 , 79	XII 0 30 XIII 0 30 XIV 0 30
III 0 30 IV 0 30 V 0 30	, 36 , 39 , 41 , 43	-,0038+ , 43 , 48 , 52 , 55 , 56	-,0043+ , 50 , 56 , 61 , 65 , 67	$\begin{array}{c} -,0049 + \ 57 \ 64 \ 70 \ 75 \ 77 \end{array}$	-,0052+ , 61 , 70 , 77 , 82 , 85	,0058+ , 68 , 79 , 88 , 93 , 97	-,0068+ ,081 ,093 ,103 ,111 ,116	-,0076+ ,091 ,106 ,119 ,130 ,135	,0086+ ,104 ,121 ,134 ,146 ,152	-,0101+ ,121 ,140 ,156 ,170 ,180	XV 0 30 XVI 0 30 XVII 0 30
VI 0 30 VII 0 30 VIII 0 30	(, 44) (, 43) (, 41) (, 39)	-,0057 + , 56 , 55 , 52 , 48 , 43	-,0068+ , 67 , 65 , 61 , 56 , 50	-,0078+ , 77 , 75 , 70 , 64 , 57	-,0086+ ,85 ,82 ,77 ,70 ,61	-,0098+ , 97 , 93 , 88 , 79. , 68	-,0117+ ,116 ,111 ,103 ,093 ,081	-,0136+ ,135 ,130 ,119 ,106 ,091	-,0155+ ,152 ,146 ,134 ,121 ,104	-,0183+ ,180 ,170 ,156 ,140 ,121	XVIII 0 30 X1X 0 30 XX 0 30
XI	$ \begin{array}{c}         , 27 \\         , 22 \\         , 17         $	-,0038+ , -32 , 25 , 19 , 12 , 06	-,0043+ , 35 , 28 , 20 , 13 , 06	-,0049+ , 40 , 31 , 22 , 14 , 07	-,0052+ , 43 , 33 , 23 , 14 , 06	-,0058+ , 47 , 36 , 25 , 15 , 07	-,0068+ , 54 , 40 , 27 , 16 , 07	-,0076+ , 60 , 45 , 30 , 17 , 08	-,0086+ , 68 , 50 , 34 , 19 , 08	-,0101+ ,079 ,057 ,038 ,021 ,009	XXI 0 30 XXII 0 30 XXIII 0 30

A TABLE of the annual variation of the Precession in Declination. arg at top the Declination, at the side the A.R. of the Star.

## PROPER MOTION OF THE FIXED STARS.

In Vol. III. is given the Mean of the Proper Motions of all the Stars in the Catalogue, (3005 in number) both in Right Ascension and Declination: and from what there appeared to be-a tendency to exhibit a general proper motion in the whole system of Stars, or more simply, a movement of the Solar System in space, I have been induced to follow up the enquiry with the 2066 Stars which occur in the present volume, and have in a similar manner brought about 2600 Stars from the Catalogue of Volume II., to bear upon the same subject : how far these have succeeded in establishing this point will appear presently; - in the mean time, it may be proper to remark, that in an investigation of this nature, we may imagine that every star is affected with true* Proper Motion, more or less: some Proper Motions from their magnitude, are at once recognized, whilst others from their minuteness, are lost sight of in the errors incident to observations :---we may expect however among the latter class, that---occurring indifferently + or — as the larger proper motions do,—the mean among a great many Stars would approximate to zero, and thereby leave disengaged any apparent Proper motion which might exist; accordingly in the table which now follows, I have given the mean of all the Proper Motions in Right Ascension for each hour of A. R., omitting only those alluded to in the column "P. M. Stars;"-those Stars in fact whose proper motion exceeds all possible limits of error of observation; thus; -- the largest error of A. R. found in the Madras Results was in the case of 169 Ceti, which differed 0,52s. in 1835, from the place determined in 1832: should the whole of this amount in the way of error, apply to one of the determinations; and should an error to the same amount but contrary direction occur in Piazzi's Catalogue, it would give rise to an error  $\frac{+}{2}, \frac{52}{2}, \frac{+}{2}$  in the observed **P**. M. (t being the date of the Catalogue since 1800); in addition to this, we must take account of the fact, that the Equinoctial Point assumed by Piazzi in the construction of his Catalogue, was the same as that employed by Dr. Maskelyne; whereas we have employed a zero point 0,20s, behind this; hence the Comparison of our Catalogue with Piazzi's, ought to exhibit a P. M. in Right Ascension to the amount  $\frac{+, 20s}{t}$ ; combining this with the above, we may safely assume,—that in either Catalogue—any value found in the Column "P. M. in A. R," which exceeds the limits  $\frac{+1,24s}{t}$  and  $\frac{-0.84s}{t}$ , is more or less the effect of Proper Motion, notwithstanding the errors of observation : thus we have

[•] By the term *true*" Proper Motion is meant an actual movement of the Star in space with reference to any point we may consider fixed; whereas apparent Proper Motion is such as would result from a movement of the Solar System.

# PROPER MOTION OF THE FIXED STARS.

A. R. $\Xi_{a,\overline{a}}^{c}$ No. and sime 01 $max - 1$ $\Xi_{a,\overline{a}}^{c}$ $T_{a,a}^{c}$ <th colspan="5">Vol. II. for 1832 (2881 Stars.)</th> <th>, III. for 1835 (30</th> <th>03 Stars.)</th> <th>Vol.</th> <th></th>	Vol. II. for 1832 (2881 Stars.)					, III. for 1835 (30	03 Stars.)	Vol.			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	A. R.	P. M. Stars.		Mean $\frac{-,20}{t}$ (,0063)	P. M. Stars.		•	P. M. Stars.			General Mean P. M.
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	н. м.			ג			s.			s.	\$.
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	0	7	-	+,0051	7		\$ +,0061	1	8 = -0,026	} +,0053	+,0054
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	I	4		+,0039	8	-	} +,0038	3		} +,0076	+,0047
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	11	6	-	} +,0058	7	1 -	} -,0022	1		} +,0059	+,0027
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	III	2	93 = +1,154	} +,0043	4	1	} -,0003	0		} +,0044	+,0025
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	IV	6	126 = +1,608	} +,0055	5	1	} +,0005	3		} +,0050	+,0036
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	v	5		+,0025	2	1 · · ·	} -,0002	2		} +,0044	+,0017
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	VI	3		} +,0021	9		} -,0004	.3		+,0066	+,0019
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	VII	2		} +,0005	7		\$ +,0011	3		\$ +,0037	↓,0015
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	VIII	2		} +,0017	3	1 · · · ·	} +,0001	2	57 = +0,695	\$ +,0048	+,0019
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	IX	4		} +,0013	6	$73 = \pm 0,709$	} -,0007	1	$54 = \pm 0,651$	} +,0041	+,0012
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	x	1		} +,0016	7		} -,0001	2	$36 = \pm 0,557$	+,0067	+,0016
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	XI	3	66 = +0,674	} +,0016	7	97 = +1,128	)	1	42 = +0,531	+,0050	+,0019
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	XII	4	72 = +,620	} -,0003	9	115 = +1,233	\$ +,0023	1	$45 = \pm 0,635$	} +,0063	+,0023
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	XIII	6	67 = +,532	`},0023	2	105 = +1,086	\$ +,0004	6	68 = +0,730	} +,0033	+,0003
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	XIV	2	69 = +,653	<b>}</b> -,0002	4	98 = +0,969	+,0002	2	47 = +0,470	\$ -+,0028	+,0006
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	XV	3		} +,0016	4	82=+0,846	\$ +,0013	1	52 = +0,520	+,0024	+,0016
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	XVI	4			0		} -,0030	0	$55 = \pm 0.549$	+,0025	-,0010
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	XVII	4			3			2	104 = +1,272	} +,0044	+,0010
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	XVIII	4	1	} +,0017	5	81=+0,718	1 0005	4	$82 = \pm 0,926$	+,0033	+ ,0015
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	XIX	6	12 = -,062	§ 7,0027	4	97 = +1,005	1 _ 0011	1	$142 = \pm 1.654$	} +,0042	+,0028
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	XX	7	17 = -,104	\$ 7,0025	10	$97 = +1,150 \\ 16 = -0,117$	1 10024	4	193 = +2,292		+,0038
<b>XXII</b> 4 $104 = +1,274$ $+,0045$ 13 $89 = +1,047$ $+,0041$ $4$ $72 = +0,910$ $+ 0057$	XXI	3	13 = -,057	5 +,0041	5	96 = +1,227	1	22	144 = +1,873		+,0048
10 = -0.039 $11 = -0.049$ $1.0007$ $+ 0.005$ $+ 0.005$ $+ 0.007$ $+ 0.007$	XXII	4	10 = -,039	5 7,0045	13		1 1 0043	4	72 = +0,910	+,0057	+,0047
<b>XXIII</b> 2 $97 = +1,162$ + 0.044 0 $94 = +1,259$ + 0.071 57 = +0.799	XXIII	2	97 = +1,162	2 - 0044	9	94 = +1,259	1 1 0071	4	57 = +0,799		+,0053

A TABLE of the Proper Motions of the fixed Stars in A. R.

On inspecting the several columns in the above table, we perceive (as indeed might have been expected), that the errors incident to observation, combined with the chance excess of + or - true Proper Motion—exert a very power-ful sway over our results; examining the column "Mean," there is however a determination to plus maximum in the neighbourhood of O hours, which is certainly not the effect of chance :--on referring to the formulæ for the Precession in Right Ascension (c).

 $c = + 46,021 + 20,043 sin. a tan. \delta$ 

it is at once evident, that although a slight modification of the assumed General Precession of the Equinoxes, may be necessary; still, the cause of variation throughout this column remains unexplained: with regard to the effect of error in the Precession upon this table; it is necessary to know approximately, the situation of the stars observed: on referring to the Catalogues, it will be found that they are pretty evenly distributed, and that about one half of the whole number in each hour, is situated within  $\pm 20^{\circ}$  of Declination; thus,

if between 45	o and	400	of Dec	lination	there are	e 26 Stars
then $$		- 30	Barrar and Birthing	(	gaar oo qaa aaaaa aaga	42
	)	20	and a sub-second	an an an an an an an an an an an an an a	-	31
		10	وميباتك ليستبين	Constrainty of Printering		40
10	)	0		-		72
(	)	+10				100
+1(	)	+ 20		ita ya safatsiyang		100
+2(	) (	+ 30				88 ——
	)	+ 40				47 ——
	)	+ 50			Bilaininni muutima	55 ——
+ 50	)	+ 60		<b></b>	hereinen energent	42 ——
+60	)	+70	,	Press	anna ann an ann an an an an an an an an	36
+ 70	)	+ 80		anan ini karing	guranteriti anamante	20
- + 8	) (	+ 90			particular a success	4
						703

If we now compute for each hour of A. R.—the change of annual precession due to each of these 703 Stars from a change of 1" in the value of the General Precession in Longitude—and then take the means,—they will exhibit to a sufficient degree of accuracy, the *nature* of the corrections which apply to the column "Proper Motion in A. R." in case the Precession has been wrongly assumed; thus Error of the Column " Mean P. M. in A. R." corresponding to an error of 1" in the General Procession in Longitude.

<b>Right</b> A	SCENSION.	error in time.
h.	m.	s.
0	30	= ,063
I	30	,065
II	30	,068
111	30	,070 =
1V	30	,071
$\mathbf{v}$	30	,072
VI	30	,072
$\mathbf{VII}$	30	,071
VIII	30	,070 ==
IX	30	= ,068
$\mathbf{X}$	30	,065
XI	30	,063
XII	30	,060
XIII	30	= ,058
XIV	30	=,055
$\mathbf{X}\mathbf{V}$	30	= ,053
XVI	30	,052
XVII	30	= ,051
XVIII	30	,051
XIX	30	,052
XX	30	,053
XXI	30	,055
XXII	30	=,058
XXIII	30	,060

Since then the disposition of the above numbers is not such as to explain the various values found in the column "Proper Motion in A. R.;" we will now consider what effect a motion of the Solar System in space would have upon the question: in the first place we notice with regard to its general effect—that there would be two opposite neutral points, situated in the axis of motion, and that at right angles to this—there would be a plane of maximum motion : with regard to its effect upon our results for the A. R.—it is necessary to consider again the position of the Stars constituting the results : on consulting the table at page CXVII, it appears that the whole of the Stars may roughly be 'supposed—to be congregated about a circle of 15° of North Declination, or surrounding the pole at a distance of 75° from it: with this view of the subject, we perceive that our results should exhibit two zero points, and one of +, and another of —, maximum; and moreover, that the mean of the 24 results

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should = 0; on taking the mean however, it comes cut + s,0025: exhibiting with reference to the above table,—that the General Precession in Longitude should be increased 0",0416;* If we now apply to our results the corrections due to this, and convert them into space, we have as follows—

Observed General Proper Motion of the Fixed Stars in A. R.

А.	R.	P. M. Space		P. M. in arc of a great circle.
h.	т.	"		17
0	30	+ ,0420	or	+ ,0368
I	30	+ ,0315		+ ,0266
II,	30	.,0015		,0000
łII	30	,0060		,0026
IV	30	+ ,0090		+ ,0101
V	30	,0195		,0139
VI	30	,0165		,0114
VII	30	,0225		,0173
VIII	39	<b>—</b> ,0135		
IX	30	<b>—</b> ,0240		,0190
X	30	<b>—</b> ,0165		,0127
XI	30	,0105		<b>—</b> ,0076
XII	30	,0030		<b>,</b> 0024
$\mathbf{X}\mathbf{I}\mathbf{I}\mathbf{I}$	30	<b>—</b> ,0315		,0254
$\mathbf{XIV}$	30	,0255		<b>— ,0203</b>
$\mathbf{X}\mathbf{V}$	30	— ,0090		,0077
XVI	30	,0495		<b>— ,03</b> 93
$\mathbf{X}\mathbf{V}\mathbf{H}$	30	,0165		,0140
XVIII	30	<b> ,0090</b>		,0076
XIX	30	+ .0090		-+ ,0089
$\mathbf{X}\mathbf{X}$	30	+ ,0240		+ ,0203
XXI	30	+ ,0345		-+ ,0444
XXII	30	+ ,0345		+ ,0304
XXIII	30	+ ,0420		+ ,0368

The reduction into *arc*, has been effected with reference to the table at page CXVII on the supposition that the Declination of each group of Stars is constant, or the P. M. in *arc* = P. M. in space  $\times \left(\frac{26.\cos 42^{\circ} 30' + 42.\cos 35^{\circ} + 31.\cos + \&c}{703}\right)$ 

We will now leave the above table for the present, and proceed to take notice of the Annual Proper Motion in Declination. Taking the Means in each hour of A. R. we obtain as follows.

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^{*} Agreeable to the formulæ employed in deducing these three catalogues ;—the Precession in A. R. for  $1830 = 46'',0206 + 20,0426 \sin a \tan \delta$ , whereas it would appear from this result, that the proper formulæ is  $= 46'',0587 + 20,0577 \sin a \tan \delta$ 

# PROPER MOTION OF THE FIXED STARS.

v	ol. 11. 1	for 1832 ;—2881 S	stars.	Vol. III. for 1834 ;3003 Stars.				Vol. IV. for 1836; -2066 Stars.			
A. R.	P. M. Stars.	No. and sum of + & - P. M.	Mean.	$ec{\mathbf{y}} \stackrel{\mathbf{y}}{=} \left  \begin{array}{c} \operatorname{No. and sum of} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=} \\ \mathbf{x} \stackrel{\mathbf{y}}{=}$		P. M. Stars.	No. and sum of + & P. M.	Mean.			
н. м.		32 = + 2,10	*		29 = + 0,99	/		43 = + 2,03	2 0000		
0	6	67 = -6,30	<i>{</i> − ,0424	5	$\begin{array}{r} 43 = -3,73 \\ 48 = +2,28 \end{array}$	,0381		80 = -6,19 30 = +1,69	<b>{</b> — ,0338		
I	7	$\begin{array}{r} 41 = + 2,11 \\ 52 = - 5,41 \\ \end{array}$	<b>}</b> - ,0355	2	60 = -5,37	<b>}</b> - ,0286	2	38 = -2,96	} ,0187		
II	9	20 = + 0,95 74 = -7,42	<b>6880, —</b>	7	37 = + 2,51 61 = - 5,97	<b>}</b> - ,0353	2	$\begin{array}{c} 29 = + 1,76 \\ 30 = - 2,64 \end{array}$			
III	3	$27 = \pm 1,47$ 72 = -6,39	,0497	7	$\begin{array}{r} 41 = + 1,90 \\ 62 = - 5.03 \end{array}$	} - ,0304	3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	} - ,0272		
IV	9	32 = + 1.76 97 = -10.23	,0657	5	51 = + 3,19 70 = - 6,36	} - ,0262	2	$\begin{array}{c c} 28 = + 1.70 \\ 27 = - 2.18 \end{array}$	{ - ,0087		
v	9	38 = + 1,95 88 = - 9,04	,0563	3	53 = + 3.96 74 = - 6.99	,0239	4	$\begin{vmatrix} 38 = + 1,96 \\ 30 = - 2,00 \end{vmatrix}$	\$ — ,0007		
VI VI	8	29 = + 2,37 76 = -6,14	,0359	10	72 = + 4,56 79 = - 7,61	,0202	1	$\begin{array}{c} 28 = + 2,31 \\ 38 = - 3,22 \end{array}$	{,0138 [		
VII	2	32 = + 2,25 69 = - 6,41	,0412	5	59 = + 2,96 89 = - 7,49	,0306	1	$\begin{array}{c c} 29 = + 2,08 \\ 33 = - 3,25 \end{array}$	,0189		
VIII	3	22 = + 1,31 67 = - 5,86	<b>}</b> - ,0511	2	30 = + 1,70 76 = - 6,31	,0435	2	$\begin{vmatrix} 25 = + 1, 12 \\ 40 = -2, 97 \end{vmatrix}$	,0284		
IX	6	16 = + 1,32 58 = - 5,29	,0536	3	31 = + 1,36 75 = - 5,55	<b>-</b> ,0395	1	$\begin{array}{c c} 10 \\ 23 \\ 23 \\ 37 \\ -2,20 \end{array}$	,0170		
X	5	20 = + 1,13 62 = - 6,60	,0667	2	39 = + 1,55 79 = - 8,19	<b>}</b> ,0563	2	$\begin{array}{c c} 11 = + & 0,65 \\ 28 = - & 2,40 \end{array}$	<b>4</b> – ,0449		
XI	5	$\begin{array}{r} 52 = - 0,00 \\ 23 = + 0,74 \\ 55 = - 5,25 \end{array}$	,0568	6	$\begin{array}{c c} 28 = - 0,10 \\ 28 = + 1,45 \\ 92 = - 8,64 \end{array}$	<b>}</b> - ,0599	1	$\begin{vmatrix} 26 - + 0, 31 \\ 36 3, 76 \end{vmatrix}$	,0821		
XII	5	$\begin{array}{c} 00 = - 0,20 \\ 22 = + 0,96 \\ 60 = - 5,59 \end{array}$	,0565	3	51 = + 3,47 87 = - 8,14	<b>{</b> - ,0338	2	$\begin{array}{c c} 0.0 \\ 10 \\ 10 \\ 40 \\ - 4.46 \end{array}$	,0814		
XIII	7	$ \begin{array}{r} 18 = + & 0,95 \\ 68 = - & 6,81 \end{array} $	,0681	2	46 = + 2,57 90 = -7,45	<b>{</b> — ,0359	6	$\begin{array}{c c} 24 = + & 1,31 \\ 52 = - & 4,27 \end{array}$	} ,0389		
XIV	13	21 = + 1,48 57 = - 5,96	,0574	5	$\begin{array}{c} 41 = + 1,91 \\ 90 = - 8,13 \end{array}$		2	$\begin{array}{c c} 0.2 \\ 10 \\ 10 \\ 43 \\ - 3.82 \end{array}$	,0642		
xv	18	$\begin{array}{r} 23 = + 1,28 \\ 70 = - 6,48 \end{array}$	} - ,0559	3	$\begin{array}{c c} 31 = + 2,36 \\ 72 = - 6,27 \end{array}$	A = .0380	1	$\begin{vmatrix} 16 = + 0,47 \\ 41 = -4,12 \end{vmatrix}$	<b>}</b> — ,0640		
XVI	9	24 = + 1.81 73 = - 8.07	<b>}</b> - ,0645	6	38 = +1,94 95 = -10,41	A = ,0637	1	$ \begin{array}{r} 18 = + 0,84 \\ 44 = - 3,61 \end{array} $	} ,0446		
XVII	15	21 = + 1,32 60 = - 4,84	,0435	10	$\begin{array}{c c} 32 = + & 1,25 \\ 32 = - & 8,27 \\ 76 = - & 8,27 \end{array}$	} − ,0650	6	$\begin{vmatrix} 27 = + 0,92 \\ 90 = - 8,13 \end{vmatrix}$	,0616 —		
XVIII	19	22 = + 1,30 64 = - 6,40	} − ,0593	4	31 = + 1,73 76 = - 8,42		1	15 = + 0,86 80 = -7,61	} - ,0710		
XIX	19	29 = + 1,30 82 = -7,88	} - ,0593	4	33 = + 1,90 80 = - 8,20	} - ,0558	8	32 = + 1,28 119 = -11,28	,0662		
XX	6	40 = + 2,55 78 = - 8,86	,0535	5	$\begin{array}{r} 43 = + 3,03 \\ 85 = - 9,12 \end{array}$	<b>}</b> — ,0476	4	$\begin{vmatrix} 110 \\ 52 \\ 52 \\ 158 \\ -14,87 \end{vmatrix}$	} ,0572		
XXI	12	$26 = \pm 1,73$ 75 = -7,65	.0586	2	33 = +1,50 78 = -7,76	} - ,0564	3	53 = +2,76 130 = -11,97	{		
XXII	9	27 = + 1,65 84 = - 8,36	} − ,0605	4	$\begin{array}{c c} 45 = + & 2,43 \\ 67 = - & 5,85 \end{array}$	} ,0354	4	$\begin{array}{c c} 29 = + & 1,50 \\ 51 = - & 4,21 \end{array}$	<b>}</b> — ,0339		
XXIII	9	$\begin{array}{c c} 31 = & 3,30\\ 27 = + & 1,77\\ 72 = - & 6,26 \end{array}$	} -, 0454	3	$\begin{vmatrix} 43 = + 2,59 \\ 70 = - 5,58 \end{vmatrix}$	<b>}</b> — ,0265	4	$\begin{vmatrix} 31 & -1, 51 \\ 24 & +1, 41 \\ 40 & -3, 64 \end{vmatrix}$	<b>}</b> — ,0348		

A TABLE of the observed Proper Motion of the Fixed Stars in Declination.

Here we find all the results affected with the sign *minus*, which leads us to enquire what circumstances may affect the Palermo or Madras Observations to account for such a disposition ;—in the first place, the Latitudes l, l' of Palermo or Madras, may be wrong; and in the next place the error of the tables of refraction will enter; added to which any error in the General Precession in Longitude, will effect each result by a quantity x. cos. A. R.; or each of the above results may possibly be erroneous to the amount  $\frac{d l + d l' + d r + d r'}{t}$ + x. cos. A. R.; which put = S + x cos. A R.

With regard to the first of these terms, it will be observed—that its effect is constant throughout, for each catalogue; but would be larger upon that for 1832 than that for 1835 or 1836—in proportion to the value of t (the date since 1800); whereas the term depending upon the A. R., (which is common to each catalogue), being variable throughout the column, to the same extent +, as it is—, will be lost sight of on taking the mean of the 24 hours; thus—taking the mean for the 24 hours of the three catalogues we get

General Annual P. M. in Declination. = 
$$-,0544 + \frac{S}{32,5}$$
  
=  $-,0417 + \frac{S}{35}$   
=  $-,0406 + \frac{S}{37}$   
 $\therefore S = + 3'',61$ 

With regard to the value of d l', we have no evidence to shew the extent of accuracy obtained, we only could have expected and wished, that the results of so great and good a catalogue as Piazzi's had in this respect been free from any serious error: the value d l' has already been found at page 73 to be—1"; which is probably within a tenth or two of a second of the truth; to form an estimate of the value d r; it may be safely assumed, that the *uncertainty* of refraction, for altitudes above 10°—varies as the amount of refraction itself, or nearly as the tangent of the zenith distance of the Star: if then with reference to the table at page cxvii, we compute the value

$$\frac{26 \ (an. \ 41^{\circ} \ 30' \ + \ 42 \ tan \ 35^{\circ} \ + \ 31 \ tan \ 25^{\circ} \ + \ \&c}{703}$$

we find, that the uncertainty of refraction for the Palermo observations is such as would apply to a Star situated 43°, 15 from the zenith; at which place, half a second is certainly the extreme limit of error, or  $dr = \pm$  ",5: with regard to the Madras results, the case is much more favorable, for the Stars are so evenly disposed on either side of the zenith, that it matters not what table of refractions had been employed; hence d r = 0 and we have found altogether

 $S = 3'', 61 = d l - 1'', 0 \pm 0'', 5 \pm 0 \therefore d l$  is between 4'', 1 and 5'', 1

or it would appear that the Latitude of Palermo is above 4" less than that assigned to it by Piazzi.

A variation of above 4'' however, and that built only upon very slender grounds,—cannot for the present be admitted; we will therefore substract the mean result of each catalogue from its several constituents' values, and then combine the results according to their weight; when, putting *s*, for the true correction which remains to be applied to these to render them just; and *x* for any error which may result from a wrong assumption of the General Precession, we obtain as follows—

A. R.		General P. M. in Declination.	Cord. General P. M. in Declination.		
h. 1	m.	No. 1.	No. 2.		
0	30	s + ,0078 + ,991 x	s — ,0071		
I	30	+,0172 + ,923	+ ,0038		
II	30	+,0032+,793	,0083		
II	30 j	+,0099 +,608	+ ,0009		
IV	30	+,0072+,382	+ ,0015		
1	30	+,0146 +,130	+,0127		
1	30	+,0216 - ,130	+,0235		
	30	+,0139 - ,382	+ ,0196		
1	30	+,0037 -,608	+,0127		
1	30	+,0073 - ,793	+,0188		
1	30	-,0121 - ,923	+,0013		
	30	,0171,991	,0023		
XII	30	-,0037 -,991	+ ,0111		
XIII	30	,0009,923	+ ,0126		
XIV	30	,0111,793	+,0004		
XV	30	-,0043 -,608	+ ,0047		
XVI	30	-,0142 - ,382	-,0085		
XVII	30	-,0134 - ,130	— ,0115		
XVIII	30	-,0190 + ,130	-,0211		
XIX	30	-,0160 + ,382	-,0217		
XX	30	-,0090 + 608	— ,0180		
XXI	30	-,0094 + ,793	— ,0209		
	30	+,0019 +,923	-,0115		
XXIII	30	+,0108+,991	l,0041		

In which s,—if the above error of 4" in the Palermo Latitude be admitted, = +,"0595.

Examining column No. 1, we find a pretty regular determination to + and --, which cannot possibly arise from accident—we notice, that any small correction for error of Precession, such as found at page cxix,—since it interferes in no respect with the *general tendency* of the numbers, it may be applied or not, at pleasure; to be consistent however, it will be proper to apply the

cxxii

correction due to an alteration of ,"041 in the General Precession as found at page cxix; viz, thus ",0150 cos. A. R.: thus No. 2. If we now divide the line A, B, Fig. 1 into 24 equal parts, to represent hours of A. R., and, making use of any convenient scale—set off opposite to 0h. 30m 1h. 30m. &c. the perpendiculars a 1, a 2, &c. corresponding to the values given in the table at page cxix, and perform the same for the above table; we get two series of lines 1, 2, 3, and 1, 2, 3, exhibiting in the first instance, the observed annual Proper Motion in A. R., of Stars supposed to be situated at 0h. 30m. 1h. 30m. &c. of Right Ascension, and at a distance of  $75^{\circ}$  from the North Pole; and in the second case, exhibiting the *nature* of the annual P. M. of the same Stars in declination, but not its *extent*. If we now with freedom draw a curve line through each of these serieses of points, conforming as nearly with them as is consistent with the character of a curve; we shall by measuring the ordinates, obtain corrected values of the Proper Motion, thus

#### Corrected Proper Motion.

		in A. R. in are	in Declination.
h.	m.	11	11
0	30	+,0312	s — ,0100
1	30	+,0250	,0070
II	30	+,0180	,0020
111	30	+,0135	+,0040
IV	30	+,0060	+,0100
v	30	-,0035	+,0145
VI	30		+ ,0180
VII	30	,0160	+ ,0190
VIII	30	,0175	+,0180
$\mathbf{IX}$	30	-,0190	+,0170
X	30	,0200	+,0145
XI	30	-,0210	+,0115
XII	30	-,0210	+ ,0080
XUI	30	,0200	+,0040
XIV	30	,0190	,0015
XV	30	,0180	-,0065
XVI	30	,0158	,0110
XVII	30	-,0115	,0145
XVIII	30	,0045	,0175
XIX	-30	+ ,0067	,0195
XX	30	+,0163	
$\mathbf{X}\mathbf{X}\mathbf{I}$	30	+,0240	,0175
XXII	30	+0300	,0160
XXIII	30	+ ,0320	,0140

These numbers it will readily be admitted, have been arrived at in a legitimate way, and they are to all intents and purposes Proper Motions: since then it will not for a moment be contended that they represent "true" or actual Proper Motions of the Stars themselves, we will see how far the supposition of a motion of the Solar System in space will account for the several values; cxxiv

for this purpose, on the centre P (fig. 3) with the chord of 75° describe a circle. which divide into 24 equal parts, corresponding to the several points at which we have determined the Proper Motions: with reference to the P. M. in A. R. we find, that it arrives at O at about V and XIX hours; whereas to represent the effect of motion of the Solar System these points should be separated by 12 hours: let us then assume VI and XVIII to represent the zero points in A. R., and draw the line VI-XVIII: if we assume the point to which the motion of the Solar System is directed, to be situated any where in the direction P. XVIII, it will at once represent the nature of the above table for the A. R. : for the effect of advancing to any point N, being to increase the arc N S. to N S' (in which S. S.' = M. sin. N S.) its effect at any point between 18*h*. and 6*h*, is to increase the Right Ascension, whereas at the corresponding points between 6h. and 18h. it causes a diminution to the like amount : examining these results, it appears on trial that no single value for M, will satisfy both of these tables; if we allow that Piazzi's Latitude has been correctly ob. served (and since writing the above, I find in the Nautical Almanae, from late observations an exact confirmation of the value assigned by Piazzi); then, the distance of the point N from P, comes out between 23° and 24°, a point which is sufficiently enough distinguished, as being the Pole of the Ecliptic : with regard to the Declination Proper Motions,—the very improbable result arrived at, at page cxxi from the mean of the whole 24 hours, teaches us--that little dependance can be placed upon individual results; and on examining different tables of Refraction, it will be found, that the various corrections for temperature, which are given in one or other of these, offers a sufficient explanation for the want of agreement of the P. M. from the Declination observations with that found from the Right Ascensions. Since writing the above, on consulting the three several results of the table at page cxvi—instead of the mean which has hitherto been employed-I find that the determination to + and - maximum is much more strongly marked in the first catalogue than it is in the second; and that the second is more strongly marked than the third :-- Now this result is precisely the one which should obtain from a motion of the Solar System in space; for, on consulting the first catalogue (Vol. 11.) it will be found to contain several stars of the first and second magnitudes, and a great many of the third and fourth &c. or it may be assumed, that---

Although in individual instances—the degree of brightness exhibited by the fixed stars cannot be assumed as a measure of their relative distances; still in large catalogues such as the above, it is natural to suppose that—taken *en masse*, those are nearest to us which are the brightest; hence the stars in Vol. II. from being brighter—nearer to us—should render a movement of the Solar System in space more apparent than those given in Vol. III or IV: with this view of the subject, the anomalies met with at pages cxxi and cxxii, (where the P. M. in Declination from the three catalogues gave S = 3'', 61 and Piazzi's Latitude above 4'' in error) are fully explained and accounted for: and for the present it may be assumed—that the Solar System is in motion in space, and that its motion is directed towards the North Pole of the Ecliptic; and, exhibiting in the fixed Stars with reference to their average distance (if such an expression can be tolerated),—an annual change of place in Latitude, to the amount + ",059 cos. Lat. of the Star.

#### SUPPLIMENTARY OBSERVATIONS AND MEMORANDA.

In the ordinary course of Observing and computing, it often happened that an appearance different from ordinary, an error, an omission, or a discordance of some kind or other—has offered, which it was desireable should be placed on record, or, that the matter if doubtful, should on a subsequent occasion be re-examined &c.—in either of these cases the observing or computing books not offering sufficient accomodation for remarks, and in some cases being in-appropriate,—I have been in the habit of entering into a memorandum book, these circumstances &c. as they have occurred, and in the course of printing, when opportunity has offered—I have availed myself of its contents;—several of these memoranda which still remain, are for my own private, information and guidance, whilst others again—appear to belong to this work: such as they are, I have thought it best to give them here in the rough manner and order in which they have been made, thus—

### MEMORANDA &c.

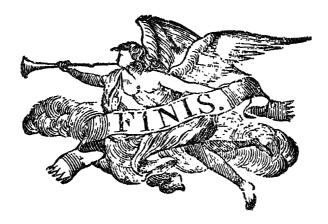
I. Re-examined the N. P. D. of 40 Lyncis r which exhibits a strange disagreement when compared with the Greenwich place—thus

				Reduced		Jan. 1,	1835.
					0	,	11
	place from	observations in	1825		54	54	52,76
Madras		and the second second second second second second second second second second second second second second second	1831				58,20
	· reprise on the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s		1832				57,45
	Photo		1833				57,38
	Experimental sources of	Jan.	1835				-

			0	,	IF	
	1836	March 26 April 13 —— 16	54	55	$\left.\begin{array}{c}12,01\\10,61\\10,59\end{array}\right\}$ 1836	56,25
	1837	Feb. 4 18 March 6 7 18 19 20 April 13			11,92 12,08 11,73 12,76 12,69 12,32 12,84 12,47	57,53
II.	No. 171		-	••	another Star t 12 seconds.	at 16 seconds, where-
111.	No. 152			•		oably five minutes in
		e	rror; exan	nine	this.	
IV.	No. 64	in IX hour E	s is not obs	erve .837	d:-I looked i (it being very	for it on the 29th and clear), saw No. 65
V.	No. 15	in XI hour	rs:—It is v	ery star	extraordinary following this	that Piazzi has not at 4—5 seconds, and
VI.	No. 154				•	the A. R. is given ° 39' 50",4 <i>I imagine</i> .
VII.	No. 39	in XIII hou	ars:-Piaza	zi's A		ion is erroneous, hence
VIII.	No. 25		•			ination between this
				-	anying Star	= 16'',9
				•		ay 23 = 25'', 0
						-24 = 27'', 2
IX.	No. 12			ed b	11 of R. A. S. y B. F. wi - P –	C. the Proper Motion h P = -1'',09 -P = -0'',60 -T = +0'',09
X.	No. 168				25th April 1	837, I observed two
XI.	No. 53	in XIX h	ours :—Pia	azzi prae	ecedit, 3' ad	s. following. temporis alia 8,9 æ Boream": it now in
XII.	No. 106	in XIX h	ours :Ma	y 3d		rved two stars here;

#### SUPPLIMENTARY OBSERVATIONS &C.

- XIII. No. 252 in XIX hours :--Two Observations with the Transit give the A. R. 1m. or 15' different from Piazzi; in the Catalogue I have through inadvertence supposed our results to be erroneous; but this must be re-examined.
  XIV. No. 103 in XX hours :--Piazzi mentions a Star accompanying this, its place now is {A. R. 20h. 13m. 19,98s. January Dec. --6° 11' 58",25 } 1, 1836.
  XV. No. 221 in XX hours :--Piazzi says "8" temporis 6' ad austrum alia 8 æ magn. sequitur : I cannot find this Star, but have observed one 20 seconds preceding and 6' to the South--examine this again.
  XVI. No. 286 in XX hours :--This Star is not to be found in the place assigned from Piazzi's Catalogue : the nearest Star is
- signed from Piazzi's Catalogue; the nearest Star is 10—11 minutes of space distant. XVII. No. 42 in XX hours:—I re-examined the place of this Star on the
  - 14th September in 1837, when the A. R. January 1, 1837 came out 20*h*. 4*m*. 37,94*s*. confirming the large P. M. —,330*s*. found in Vol. III.



### Errata in the present Volume.

Page 4, line 15,	fo	r observations r	ead obse	ervation
Page 4, line 15, - 57, - 39,	and the second	semid. 15' 52",6	62 read 1	15′ 58″,62
In the Catalogue No. 124 P. M. A. R		+,905 r	ead + ,	005
- 183 Mag.				6
Declin.		No. obs. $2=32''$	<b>,</b> 36 read	4=20",92
709 A.R.			-	9h
710		insert 10h.		
1233 Log. d—	-	<b>—5,</b> 978 <b>0</b>		+5,9780
1235 Log. d-		+4,5105		-4,5105
Page xciv		No. 69-Vol. II.	• •	No. 69—Vol. III.

Additional Errata in Vol. II.

In the Catalogue No. 21	N. P. D.	for 46",27	read 43",27
109	Of the Long Descent Street Street	100° 51′	- 100° 52′
147 An	n. Pre. A. R.	— 4,833s.	— 3,833 <i>s</i> .
155		- 1h. 17m.	1h. 18m.
157		-1h. 18m.	-1h. 19m.
274		- 2h. 2m.	- 2h. 28m.
701		-5h. 34m.	5h. 33m.
805		— 45,70s.	— it was not obsd.
989	N. P. D.	- 66° 55'	66° 53′
1365		-102° 17'	<u> </u>
1540		- 90° 27'	— a wrong star.
1690		— 110° 36′	— 110° 38′
1968	A. R.	-54,62s.	-53,62s.
2051		-17h.46m.	-17h.47m.
2110	<b></b>	— 18h. 12m.	-18h. 13m.
2174	Collinguation constrained	-26,32s.	— 36,32s.
2455	N. P. D.	— 56° 32′	— 56° 39'
2456	A. R.	— 52,95s.	— 29,19s.

Additional Errata in Vol. III.

In the Catalogue at pages xx, xxvi, xxxii, xxxiv, xxxviii and xliv, correct the date to 1835. No. 69 A. R. for 16,54s. read 17,54s.

0	. 09		A. R.	IOr	10,04s.	read	17,0 <del>4</del> 8.				
	- 98		ge ann a stanner in stil	-	9,09s.		11,07s.				
	403				4,41s.		1,10s.				
	436		No		55° 69						
	718		Man Disease of the local diversion of the local diversion of the local diversion of the local diversion of the		58,87s.						
	746		<b></b>								
	827				41,28s.			& P	P. M. ==	,078s.	
	838	Piaz.	No.		329						
	*838		Declin.	<del></del>	1=34,85		19″,44	& c	orrect P.	M. = -0	)",48
	841	P. M.			+",08						
	980	-	A. R.	-	,108s	•	+,001				
	993				783s.		8,54s.				
	<b>1</b> 109	P. M.	Constitution and the local division		783s. ,057s		,000s.				
	1162	P.M.	Children and the	-	,116s		-,023s.				
	1655		A. R.		49,17s	•	49,69s.	•			
	<b>16</b> 60			-	<b>1</b> 9,09 <i>s</i>	•	19,755.	•			
	<b>2</b> 096	Log.	С	for	-0,6218	read	+0,6218	3			
	2193	0	Declin.	-	13,15s	•	13,14s				
	2221		A. R.		51,75s		52,14s.	,			
	2452		Declin.		14° 30	/	16° 30	/			
	2453		<b></b>		Cancel th	e res	ult				
	2528	<b>P.M.</b> :	in A. R.		,140		<b>-,</b> 330				

* This however must be re-examined.

