

Recd. Sept. 24. 1834

**ASTRONOMICAL
OBSERVATIONS**

MADE AT

THE ROYAL OBSERVATORY AT GREENWICH,

IN THE MONTHS OF JULY, AUGUST, AND SEPTEMBER,

1833.

UNDER THE DIRECTION OF

JOHN POND, ESQ.

ASTRONOMER ROYAL,

AND FELLOW OF THE ROYAL SOCIETY.

PUBLISHED BY ORDER OF THE BOARD OF ADMIRALTY,

IN OBEDIENCE TO HIS MAJESTY'S COMMAND.

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M.DCCC.XXXIII.

THIS Part of the Astronomical Observations made at the Royal
Observatory at Greenwich is presented, by the Royal
Astronomical Society, to

Harvard College - U.S.

(1)

OBSERVED TRANSITS

OF THE

FIXED STARS AND PLANETS

OVER THE

MERIDIAN.

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—West.					MEAN OF WIRES.			CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.				Error.	Rate.			
		S.	S.	S.	S.	S.	H.	M.	S.	M.	S.			
1	♂ JULY 1	10, 2	30, 0	49, 7	9, 4	29, 3	6	39	49, 72	...	...	..	⊙ 1 L.	E.
2		19, 5	40, 2	0, 6	21, 2	41, 6	15	28	0, 62	+ 0 22, 03	...	..	α Cor. Bor.	T.
3		49, 3	7, 6	26, 5	44, 7	3, 5	15	36	26, 32	+ 0 21, 98	...	..	α Serpentis.	..
4		48, 1	7, 1	26, 0	44, 8	3, 8	17	7	25, 96	+ 0 22, 04	...	..	α Herculis.	E.
5		31, 8	51, 3	11, 0	30, 6	50, 2	18	4	10, 98	...	...	..	μ ¹ Sagittarii.	..
6		54, 2	17, 8	41, 3	4, 9	28, 2	18	31	41, 28	...	...	..	α Lyræ.	..
7		51, 5	12, 1	32, 4	53, 0	13, 8	18	40	32, 56	...	...	..	♂ 1 L.	..
8		25, 1	44, 8	4, 7	24, 3	44, 1	18	55	4, 60	...	...	..	o Sagittarii.	..
9		34, 9	51, 0	13, 9	33, 7	53, 6	19	0	14, 02	...	...	..	π	..
10		48, 6	7, 2	27, 1	46, 0	5, 3	3	44	26, 94	...	...	..	♀ 2 L.	T.
11	♂ 2	31, 5	54, 6	14, 5	34, 6	54, 5	6	46	14, 54	...	...	..	⊙ 2 L.	T.
12		19, 4	39, 9	0, 5	21, 2	41, 6	15	28	0, 52	+ 0 21, 95	- 0, 08	1	α Cor. Bor.	..
13		49, 3	7, 6	26, 3	44, 6	3, 3	15	36	26, 22	+ 0 21, 89	- 0, 09	1	α Serpentis.	..
14		48, 0	6, 9	25, 8	44, 8	3, 7	17	7	25, 91	+ 0 22, 01	- 0, 03	1	α Herculis.	E.
15		57, 4	16, 2	34, 9	53, 5	12, 4	17	27	34, 88	+ 0 21, 93	...	..	α Ophiuchi.	..
* 16		9, 2	38, 7	8, 3	37, 2	7, 0	17	53	8, 08	+ 0 22, 16	...	..	γ Draconis.	..
17		9, 5	30, 1	50, 5	11, 0	31, 3	19	37	50, 48	...	...	..	♂ 2 L.	..
18		36, 3	55, 6	14, 6	33, 7	52, 6	3	47	14, 56	...	...	..	♀ 2 L.	T.
19	♀ 3	24, 9	44, 7	4, 9	24, 9	44, 8	6	48	4, 84	...	...	..	⊙ 1 L.	E.
20		42, 3	2, 3	22, 2	42, 0	2, 0	6	50	22, 16	...	...	..	2 L.	..
21		...	...	...	...	...	6	49	13, 50	+ 0 22, 10	- 0, 34	5	Centre.	..
22		22, 5	51, 1	19, 8	48, 3	17, 0	13	41	19, 74	+ 0 21, 98	- 0, 09	5	η Urs. Maj.	..
23		49, 2	7, 8	26, 3	44, 6	2, 7	15	35	26, 12	+ 0 21, 80	- 0, 09	1	α Serpentis.	..
24		59, 2	34, 7	10, 1	35, 4	21, 2	15	59	10, 12	...	...	..	θ Draconis.	..
25		22, 9	41, 0	59, 6	17, 9	36, 1	16	5	59, 50	+ 0 21, 78	...	..	δ Ophiuchi.	..
26		5, 0	24, 8	44, 2	3, 7	23, 2	16	14	44, 18	...	...	..	ψ	..
27		39, 0	8, 2	38, 0	7, 3	36, 5	16	21	37, 80	...	...	..	*	..
28		...	54, 8	24, 3	53, 7	...	16	27	24, 27	...	...	..	*	..

* 16—Cloudy when Vesta and the Moon culminating stars passed the meridian.

Observed TRANSITS of the FIXED STARS and PLANETS over the MERIDIAN.

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—West.					MEAN OF WIRES	CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.		Error	Rate.			
		S.	S.	S.	S.	S.	H. M. S.	M. S.	S.			
1	♂ JULY 3	20, 4	5, 3	50, 4	35, 5	20, 8	16 37 50, 48	...	...	..	Camel. S.P.P.D. 23° 57'	E.
2		12, 7	41, 9	11, 2	40, 7	10, 1	16 47 11, 32	...	...	..	*..... P.D. 38° 35.	..
3		7, 4	36, 8	6, 1	35, 7	5, 2	17 0 6, 24	...	...	..	*..... P.D. 38° 31'.	..
4		47, 8	6, 7	25, 5	44, 4	3, 4	17 7 25, 56	+0 21, 63	-0, 38	1	α Herculis.	..
5		33, 0	51, 3	10, 0	28, 4	47, 0	17 29 9, 94	...	...	..	μ Ophiuchi.	..
6		...	58, 0	20, 6	41, 0	...	17 38 20, 87	...	...	..	Camelop. 49 B. S.P.	..
7		9, 2	38, 7	8, 1	37, 4	6, 8	17 53 8, 04	+0 21, 73	-0, 43	1	γ Draconis.	..
8		...	46, 5	5, 9	25, 2	...	3 50 5, 87	...	...	..	♀ 1 L.	T.
9	♂ 4	32, 0	51, 9	12, 0	51, 8	51, 8	6 52 11, 90	...	...	..	{ 1 L.	E.
10		49, 3	9, 3	29, 2	49, 0	9, 0	6 54 29, 16	...	...	..	⊙ 2 L.	..
11		...	...	...	...	...	6 53 20, 53	+0 21, 73	-0, 35	1	{ Centre.	..
*12	♀ 5	18, 4	39, 0	59, 5	20, 3	40, 5	15 26 59, 54	+0 21, 00	-0, 31	3	α Cor. Bor.	T.
13		...	54, 0	23, 4	52, 5	...	16 27 21, 33	...	...	..	*..... P.D. 38° 30'.	..
14		41, 0	18, 1	55, 0	32, 1	9, 0	16 48 55, 04	...	...	..	10 Camelopard. S.P.	E.
15		...	36, 0	5, 2	34, 5	...	17 0 5, 23	...	...	..	*..... P.D. 38° 31'.	..
16		47, 0	6, 0	25, 1	43, 8	2, 7	17 7 24, 92	+0 21, 02	-0, 30	2	α Herculis.	..
17		33, 1	54, 0	14, 8	35, 4	56, 1	17 13 14, 68	...	...	..	43 Ophiuchi.	..
18		...	25, 7	48, 4	11, 3	...	17 19 48, 47	...	...	..	υ Scorpii.	..
19		...	17, 3	40, 2	3, 0	...	17 22 40, 17	...	...	..	λ..... } ex. faint,	..
20		...	57, 0	21, 0	43, 0	...	17 38 20, 33	...	...	..	Camelop. 49 B. S.P.	..
21		8, 1	37, 6	6, 6	36, 5	5, 6	17 53 6, 88	+0 20, 57	-0, 58	2	γ Draconis.	..
22		57, 5	20, 3	43, 1	6, 2	29, 1	18 6 43, 24	...	...	..	β Telescopii.	..
23		42, 3	11, 6	41, 0	10, 5	39, 9	18 18 41, 06	...	...	..	Draconis, Bode, 170.	..
24		31, 1	56, 0	17, 8	39, 7	1, 7	18 44 17, 86	+0 20, 77	...	..	β Lyrae.	..
25		29, 2	48, 0	6, 9	25, 8	44, 6	18 58 6, 90	+0 20, 86	...	..	ζ Aquilæ.	..
26		4, 3	21, 4	44, 1	4, 1	23, 8	19 2 44, 14	...	...	..	Vesta.	..
*27		22, 5	41, 6	0, 7	19, 8	30, 0	3 56 0, 72	...	...	..	♀ 2 L.	..
28	♂ 6	45, 1	5, 0	24, 7	44, 6	4, 8	7 0 24, 84	...	...	..	{ 1 L.	E.
29		2, 7	22, 4	42, 3	2, 1	22, 0	7 2 42, 30	...	...	..	⊙ 2 L.	..
30		...	...	...	...	...	7 1 33, 57	+0 20, 87	...	..	{ Centre.	..
31		...	...	48, 0	...	...	13 0 48, 00	...	...	..	Polaris, S.P. trem.	R.
32		21, 3	49, 6	18, 4	46, 6	15, 4	13 41 18, 26	+0 20, 57	...	..	η Urs. Maj.	T.
33		45, 2	4, 5	24, 3	43, 6	3, 3	14 8 24, 18	+0 20, 43	...	..	Arcturus.	..
34		19, 0	29, 0	39, 2	49, 5	59, 2	14 51 39, 18	+0 20, 62	...	..	β Urs. Min.	..
35		18, 0	38, 2	59, 1	19, 8	40, 3	15 27 59, 08	+0 20, 55	-0, 45	1	α Cor. Bor.	..
36		47, 6	6, 2	24, 5	43, 3	1, 6	15 36 24, 64	+0 20, 34	-0, 49	3	α Serpentis.	..
37		16, 5	32, 8	49, 0	5, 6	22, 4	17 3 49, 26	...	...	..	ε Urs. Min.	E.
38		...	34, 1	44, 1	51, 0	...	17 17 41, 07	...	...	..	δ Camelopard. S.P.	..
39		55, 9	14, 3	33, 4	52, 2	11, 0	17 27 33, 46	+0 20, 51	-0, 36	4	α Ophiuchi.	..
40		...	56, 6	19, 0	41, 0	...	17 38 18, 87	...	...	..	Camelop. 49 B. S.P.	..
41		...	...	49, 0	...	...	18 26 49, 00	...	...	..	δ Urs. Min.	..
42		3, 3	23, 0	42, 8	2, 9	22, 6	19 1 42, 92	...	...	..	Vesta.	W. S.
43	♂ 9	...	...	53, 0	...	...	13 0 53, 00	...	...	..	Polaris, S.P.	H.
44		44, 1	3, 5	23, 0	42, 4	2, 1	14 8 23, 02	+0 19, 30	-0, 37	3	Arcturus.	T.
45		25, 6	41, 4	2, 3	53, 0	43, 5	14 38 2, 16	+0 19, 48	...	..	ε Bootis.	..
46		17, 5	27, 6	37, 6	47, 5	57, 7	14 51 37, 58	+0 19, 21	-0, 47	3	β Urs. Min.	..
47		16, 6	37, 2	57, 9	18, 6	39, 2	15 27 57, 90	+0 19, 40	-0, 38	3	α Cor. Bor.	..
48		46, 5	5, 1	23, 6	42, 0	0, 6	15 36 23, 56	+0 19, 28	-0, 35	3	α Serpentis.	..
49		...	59, 8	48, 2	35, 5	...	15 42 47, 83	...	...	..	Cephei, 49 Hev. S.P.	..
50		...	...	40, 7	...	...	15 46 40, 70	...	...	..	Rangiferis, 35 B. S.P.	..
51		18, 1	2, 9	48, 0	33, 0	18, 2	16 37 48, 04	...	...	..	Camel.P.D. 23° 57', S.P.	E.
52		40, 2	17, 1	54, 1	30, 7	7, 5	16 48 53, 92	...	...	..	10..... S.P.	..
53		14, 6	31, 0	47, 5	4, 6	20, 2	17 3 47, 58	...	...	..	ε Urs. Min.	..
54		22, 0	32, 6	42, 8	53, 4	3, 5	17 17 42, 86	...	...	..	δ Camelopard. S.P.	..
55		45, 1	4, 3	23, 2	42, 1	1, 0	17 28 23, 14	...	...	..	ξ Serpentis.	..
56		...	54, 5	18, 0	41, 0	...	17 38 17, 83	...	...	..	Camelop. 49 B. S.P.	..
57		...	11, 3	56, 6	42, 0	...	18 12 56, 63	...	...	..	40 Draconis.	..
58		...	18, 0	3, 3	48, 6	...	18 13 3, 33	...	...	..	41.....	..

* 12—The meridian mark bisected by the central wire, and the instrument inverted, when the central wire deviated a little to the west, but of too minute a quantity to admit of altering the wires, and the collimation not equal to the tenth of a second. The instrument left in the inverted position with the illuminated end to the east. T.

* 27—Examined the axis, and found the east end 0',30 too high.

Observed TRANSITS of the FIXED STARS and PLANETS over the MERIDIAN.

3

In the Year M.DCCC.XXXIII.

DAY of MONTH.	Illuminated End—West.					MEAN OF WIRES.	CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
	I.	II.	III.	IV.	V.		Error.	Rate.			
1	s.	s.	s.	s.	s.	H. M. S.	M. S.	S.		δ Urs. Min.	E.
2	...	...	48, 0	...	...	18 26 48, 00	...	...		α Lyrae.	"
3	51, 7	15, 1	38, 4	2, 0	25, 5	18 31 38, 54	+0 19, 30	...		ν Sagittarii.	"
4	47, 0	7, 0	26, 8	46, 7	6, 7	18 44 26, 84	...	...		Vesta.	"
	0, 2	19, 8	39, 7	59, 8	19, 6	18 58 39, 82	...	...			
5	7, 9	27, 7	47, 6	7, 7	27, 4	7 16 47, 66	...	...		1 L.	E.
6	24, 3	44, 2	4, 2	24, 0	43, 8	7 19 4, 10	...	...		2 L.	"
7	...	...	...	...	...	7 17 55, 88	+0 19, 48	-0, 35	4	Centre.	"
8	34, 7	5, 3	35, 8	6, 4	37, 1	16 32 35, 86	...	...		16 Draconis.	"
9	17, 7	2, 9	48, 0	32, 8	18, 1	16 37 47, 92	...	...		Camel. P.D. 23° 57', S.P.	"
10	39, 8	16, 4	53, 4	30, 2	7, 0	16 48 53, 36	...	...		10.....	S.P.
11	1, 3	45, 1	20, 0	13, 1	57, 2	16 55 29, 14	...	...		19 Draconis.	"
12	45, 0	4, 1	23, 0	42, 0	1, 0	17 7 23, 02	+0 19, 05	-0, 39		α Herculis,	cloudy.
13	...	12, 1	31, 4	50, 9	...	4 25 31, 47	...	...		2 L.	"
14	...	...	...	...	...	...	...	...			
15	26, 5	46, 8	6, 6	26, 5	45, 8	7 37 6, 44	...	...		1 L.	E.
16	42, 2	2, 5	22, 1	42, 0	1, 8	7 39 22, 12	...	...		2 L.	"
17	...	...	...	...	...	7 38 14, 28	+0 17, 48	-0, 60	5	Centre.	ex. trem.
18	41, 6	1, 5	20, 6	40, 3	59, 6	14 8 20, 72	+0 17, 09	...		Arcturus.	T.
19	18, 5	39, 2	59, 6	20, 6	41, 2	14 37 59, 82	+0 17, 23	...		ε Bootis.	"
20	...	24, 5	34, 5	45, 0	...	14 51 34, 07	+0 16, 77	...		β Urs. Min.	"
21	14, 3	35, 0	55, 5	16, 3	36, 6	15 27 55, 54	+0 17, 11	...		α Cor. Bor.	"
22	44, 6	3, 0	21, 0	39, 6	58, 4	15 36 21, 44	+0 17, 21	...		α Serpentis.	"
23	48, 6	9, 5	29, 6	50, 3	10, 6	16 19 29, 72	+0 17, 12	...		Antares.	"
24	39, 5	43, 2	27, 3	11, 6	55, 1	16 55 27, 34	...	...		19 Draconis,	cloudy.
25	17, 3	36, 0	54, 6	13, 3	32, 0	17 4 54, 64	...	...		37 Ophiuchi,	"
26	59, 0	29, 1	59, 0	29, 2	59, 2	17 26 59, 10	+0 17, 11	...		β Draconis.	"
27	...	55, 0	19, 0	41, 0	...	17 38 18, 33	...	...		Camelopard. 49 B. S.P.	"
28	51, 1	24, 7	58, 1	31, 6	5, 2	17 50 58, 14	...	...		ξ Draconis.	"
29	57, 4	33, 0	8, 8	44, 3	19, 9	18 5 8, 68	...	...		Lyncis, P.D. 30° 56', S.P.	"
30	...	8, 8	53, 7	39, 3	...	18 12 53, 93	...	...		40 Draconis.	"
31	...	15, 5	0, 1	45, 8	...	18 13 0, 47	...	...		41.....	"
32	49, 8	8, 3	26, 9	45, 4	4, 1	18 33 26, 90	...	...		2 Aquilæ.	"
33	4, 0	24, 0	44, 0	4, 2	21, 0	18 52 44, 04	...	...		Vesta.	"
34	24, 5	44, 5	3, 5	22, 7	42, 3	4 29 3, 50	...	...		2 L.	T.
35	29, 0	48, 5	8, 1	27, 8	47, 6	7 41 8, 20	...	...		1 L.	E.
36	45, 1	4, 8	24, 3	44, 0	3, 8	7 43 24, 40	...	...		2 L.	"
37	...	...	...	...	...	7 42 16, 30	+0 16, 80	-0, 68	1	Centre.	"
38	...	...	52, 0	...	...	13 0 52, 00	...	...		Polaris.	T.
39	...	0, 5	20, 3	39, 6	...	14 8 20, 13	+0 16, 50	-0, 59	1	Arcturus.	"
40	42, 4	1, 8	20, 3	39, 5	58, 1	17 7 20, 42	+0 16, 55	...		α Herculis.	E.
41	52, 2	11, 0	29, 6	48, 3	7, 0	17 27 29, 62	+0 16, 68	...		α Ophiuchi.	"
42	30, 8	50, 5	10, 0	29, 7	49, 3	7 45 10, 06	...	...		1 L.	E.
43	46, 7	6, 3	26, 0	45, 6	5, 4	7 47 26, 00	...	...		2 L.	"
44	...	...	...	...	...	7 46 18, 03	+0 16, 43	-0, 37	1	Centre.	"
45	32, 0	51, 5	11, 2	30, 8	50, 5	7 49 11, 20	...	...		1 L.	E.
46	47, 6	7, 3	26, 0	46, 4	6, 1	7 51 26, 86	...	...		2 L.	"
47	...	...	...	...	...	7 50 19, 03	+0 15, 83	-0, 60		Centre.	"
48	...	...	52, 0	...	...	13 0 52, 00	...	...		Polaris,	S.P.
49	38, 6	58, 2	17, 5	37, 1	56, 6	14 8 17, 60	+0 14, 07	...		Arcturus.	"
50	...	21, 5	31, 5	41, 7	...	14 51 31, 53	+0 14, 17	...		β Urs. Min.	"
51	11, 3	31, 6	52, 3	12, 7	33, 6	15 27 52, 30	+0 13, 94	...		α Cor. Bor.	"
52	...	0, 0	18, 2	36, 5	...	15 36 18, 23	+0 14, 09	...		α Serpentis.	"
53	...	24, 3	40, 6	57, 5	...	17 3 40, 80	...	...		ε Urs. Min.	"
54	17, 8	28, 1	38, 4	48, 6	59, 1	17 17 38, 40	...	...		Camelopard.	S.P.
55	...	54, 0	16, 5	37, 0	...	17 38 16, 83	...	...		*..... 49 B. S.P.	E.
56	19, 1	37, 7	55, 9	14, 2	32, 8	17 51 55, 88	...	...		ζ Serpentis,	cloudy.
57	21, 0	6, 0	51, 2	36, 5	21, 4	18 12 51, 22	...	...		40 Draconis,	"
58	...	...	42, 0	...	...	18 26 42, 00	...	...		δ Urs. Min.	"
59	46, 9	5, 3	24, 0	42, 7	1, 2	18 33 24, 02	...	...		2 Aquilæ.	"

* 4—A thick fog prevented the Moon being observed. R.
On the 12th of July, examined the axis, and found the east end 0°, 63 too low.

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminate. End—West.					MEAN OF WIRES.	CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.		Error.	Rate.			
1	♂ JULY 22	s.	s.	s.	s.	s.	H. M. S.	M. s.	s.		119 Herculis.	E.
2		5, 7	25, 1	44, 7	4, 2	23, 8	18 38 44, 70	...	...		β Lyræ.	cloudy.
		...	49, 2	11, 1	33, 0	...	18 44 11, 10	+0 14, 02	...			
3	♂ 23	...	21, 6	31, 6	41, 5	...	14 51 31, 57	+0 14, 29	+0, 12	1	β Urs. Min.	T.
4		11, 1	31, 6	52, 5	13, 0	33, 6	15 27 52, 36	+0 14, 02	+0, 08	1	α Cor. Bor.	
5		45, 6	6, 3	26, 5	46, 7	7, 3	16 19 26, 48	+0 13, 95	...		Antares.	
6		55, 7	25, 8	56, 0	26, 1	56, 1	17 26 55, 94	+0 14, 09	...		β Draconis.	E.
7		...	19, 0	45, 0	8, 0	...	18 19 44, 00	...	...		Cephei, 51 <i>Hev.</i> S.P.	
8		25, 0	33, 5	41, 0	48, 8	56, 0	18 26 40, 86	...	...		δ Urs. Min.	
9		27, 1	49, 1	11, 0	33, 0	54, 8	18 44 11, 00	+0 13, 93	-0, 09	1	β Lyræ.	
10		...	41, 4	1, 3	20, 6	...	4 59 1, 10	...	...		♀ 2 L.	
11	♀ 24	27, 5	47, 0	5, 9	25, 1	44, 4	14 45 5, 98	...	...		♂ 1 L.	H.
12		46, 1	9, 7	33, 1	56, 6	20, 0	18 31 33, 10	+0 13, 89	...		α Lyræ,	E.
13		27, 0	48, 8	10, 6	32, 6	51, 7	18 44 10, 74	+0 13, 68	-0, 17	2	β.....	cloudy.
14		22, 2	41, 0	59, 9	18, 8	37, 6	18 57 59, 90	+0 13, 76	...		ζ Aquilæ,	
15	♂ 25	40, 9	0, 3	20, 0	39, 4	59, 0	8 19 19, 92	...	...		♂ 2 L.	cloudy.
16		37, 5	57, 4	17, 1	36, 6	56, 1	14 8 16, 94	+0 13, 45	-0, 21	3	Arcturus.	T.
17		10, 5	31, 2	51, 6	12, 3	33, 1	15 27 51, 74	+0 13, 44	-0, 29	2	α Cor. Bor.	
18		32, 5	51, 6	11, 6	30, 6	50, 5	15 38 11, 36	...	...		♂ 1 L.	
19		...	58, 9	17, 6	36, 5	...	17 7 17, 67	+0 13, 84	...		α Herculis.	
20		48, 7	7, 6	26, 3	45, 1	3, 8	17 27 26, 30	+0 13, 41	...		α Ophiuchi.	E.
21		...	53, 0	16, 5	38, 4	...	17 38 15, 97	...	...		Camelop. 49 <i>B.</i> S.P.	
22		49, 9	11, 1	31, 8	52, 7	13, 8	17 51 31, 86	...	...		ξ Herculis.	
23		54, 0	29, 4	5, 0	40, 5	16, 2	18 5 5, 02	...	...		Lyncis, P.D. 30° 56', S.P.	
24		...	21, 0	45, 0	7, 0	...	18 19 44, 33	...	...		Cephei, 51 <i>Hev.</i> S.P.	
25		...	33, 0	40, 0	48, 0	...	18 26 40, 33	...	...		δ Urs. Min.	
26		47, 7	8, 3	29, 0	49, 6	10, 2	18 35 28, 96	...	...		φ Sagittarii.	
27		26, 6	48, 6	10, 4	32, 3	54, 2	18 44 10, 42	+0 13, 36	-0, 16	2	β Lyræ.	
28		17, 8	37, 5	57, 3	17, 0	37, 0	18 47 57, 32	...	...		113 Herculis.	
29		22, 0	40, 8	59, 7	18, 6	37, 3	18 57 59, 68	+0 13, 54	-0, 11	2	ζ Aquilæ.	
30		...	...	52, 0	...	...	1 0 52, 00	...	...		Polaris.	T.
31		15, 8	35, 4	...	14, 3	33, 7	5 6 54, 80	...	...		♀ 2 L.	H.
32	♀ 26	22, 8	42, 2	1, 6	21, 4	40, 5	8 21 1, 60	...	...		{ 1 L.	T.
33		37, 4	56, 5	16, 3	35, 5	55, 2	8 23 16, 18	...	...		⊙ 2 L.	
34		...	...	...	...	...	8 22 8, 89	+0 12, 99	-0, 35	8	{ Centre.	
35		40, 1	58, 6	17, 2	35, 7	54, 1	15 36 17, 14	+0 13, 06	-0, 26	4	α Serpentis.	E.
36		7, 7	26, 0	44, 4	2, 8	21, 1	16 22 44, 40	...	...		λ Ophiuchi.	
37		24, 1	44, 3	4, 1	24, 1	44, 2	16 32 4, 16	...	...		♂ 1 L.	
38		49, 8	9, 2	28, 8	48, 3	8, 0	16 56 28, 82	...	...		28 Scorpii.	
39		13, 0	31, 8	50, 3	9, 1	27, 7	17 4 50, 38	...	...		37 Ophiuchi.	
40		39, 0	58, 0	16, 8	35, 6	54, 8	17 7 16, 84	+0 13, 01	...		α Herculis.	
41		36, 0	55, 5	15, 1	34, 8	54, 2	17 11 15, 12	...	...		ρ Ophiuchi.	
42		48, 2	7, 1	25, 8	44, 7	3, 5	17 27 25, 86	+0 12, 97	-0, 44	1	α.....	
43		...	52, 0	15, 0	37, 0	...	17 38 14, 67	...	...		Camelop. 49 <i>B.</i> S.P.	
44		18, 0	36, 2	54, 6	13, 1	31, 4	17 51 54, 66	...	...		ζ Serpentis.	
45		...	19, 0	44, 0	6, 0	...	18 19 43, 00	...	...		Cephei, 51 <i>Hev.</i> S.P.	
46		...	33, 0	40, 0	48, 0	...	18 26 40, 33	...	...		δ Urs. Min.	
47		26, 1	48, 1	9, 9	31, 8	53, 9	18 44 9, 96	+0 12, 90	-0, 46	1	β Lyræ.	
48	♂ 27	19, 2	38, 6	58, 0	17, 0	33, 6	8 24 57, 98	...	...		{ 1 L.	E.
49		33, 3	52, 8	12, 1	31, 3	51, 0	8 27 12, 10	...	...		⊙ 2 L.	
50		...	...	...	...	...	8 26 5, 04	+0 12, 84	-0, 15	1	{ Centre.	
51		38, 3	57, 2	16, 2	35, 5	51, 3	17 7 16, 30	+0 12, 49	-0, 52	1	α Herculis.	T.
*52	⊙ 28	13, 6	34, 0	54, 3	15, 0	35, 2	18 21 54, 42	...	...		♂ 1 L.	cloudy.
53	♂ 29	9, 8	28, 8	48, 4	7, 7	27, 4	8 32 48, 42	...	...		{ 1 L.	E.
54		23, 3	43, 0	2, 3	22, 0	41, 4	8 35 2, 40	...	...		⊙ 2 L.	
55		...	...	...	...	...	8 33 55, 41	+0 12, 31	-0, 26	2	{ Centre.	trem.
56		...	...	54, 0	...	...	13 0 54, 00	...	...		Polaris.	T.
57		36, 2	55, 9	15, 3	34, 8	54, 3	14 8 15, 30	+0 11, 86	-0, 39	4	Arcturus.	

* 52—Clouds prevented the Moon culminating stars being observed.

Observed TRANSITS of the FIXED STARS and PLANETS over the MERIDIAN.

5

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—East.					MEAN OF WIRES.	CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.		Error.	Rate.			
1	♂ JULY 29	s. 9, 1	s. 29, 6	s. 50, 3	s. 10, 7	s. 31, 5	H. M. s. 15 27 50, 24	M. s. +0 11, 99	s. -0, 36	4	α Cor. Bor.	T.
2		...	21, 0	37, 5	55, 0	...	17 3 37, 83	...	...	...	ε Urs. Min.	"
3		16, 1	26, 2	36, 6	46, 6	57, 4	17 17 36, 58	...	...	...	σ Camelopard. S.P.	"
4		47, 1	5, 9	24, 7	43, 6	2, 3	17 27 24, 72	+0 11, 85	-0, 31	4	α Ophiuchi.	"
5		55, 1	26, 5	58, 0	29, 2	0, 7	17 45 57, 90	...	...	...	δ Aurigæ, S.P.	E.
6		48, 3	9, 4	30, 4	51, 5	12, 4	17 51 30, 40	...	...	...	ξ Herculis.	"
7		2, 9	24, 0	44, 8	5, 6	26, 4	17 57 41, 74	...	...	...	Sagitar. P.D. 118° 27'.	"
8		48, 4	11, 2	34, 1	56, 8	19, 4	18 6 33, 93	...	...	...	β Telescopii.	"
9		...	20, 0	44, 0	7, 0	...	18 19 43, 67	...	...	...	Cephei, 51 Hev. S.P.	"
10		...	30, 5	38, 0	46, 2	...	18 26 38, 23	...	...	...	δ Urs. Min.	"
11		33, 8	6, 1	38, 1	10, 2	42, 4	18 39 38, 12	...	...	...	46 Draconis.	"
12		39, 4	59, 3	19, 1	39, 0	59, 0	18 44 19, 16	...	...	...	ν ¹ Sagittarii.	"
13		...	55, 4	15, 2	35, 1	...	18 45 15, 23	...	...	...	ν ²	"
14		14, 8	34, 8	54, 7	14, 5	34, 2	18 54 54, 60	...	...	...	ο	"
15		20, 3	39, 1	58, 0	16, 8	35, 6	18 57 57, 96	+0 11, 82	-0, 43	4	ζ Aquilæ.	"
16		5, 6	26, 1	46, 5	7, 2	27, 7	19 16 46, 62	...	...	...	η 1 L.	"
*17		29, 7	49, 3	...	28, 4	47, 5	5 23 8, 72	...	...	...	θ 2 L.	F. S.
18	♂ 30	3, 6	23, 1	42, 5	2, 1	21, 5	8 36 42, 56	...	...	...	{ 1 L.	E.
19		17, 8	37, 1	56, 5	16, 0	35, 4	8 38 56, 56	...	...	...	⊙ { 2 L.	"
20		...	...	...	...	...	8 37 49, 56	+0 11, 86	-0, 45	1	Centre.	"
21		8, 6	29, 3	49, 6	10, 5	31, 2	15 27 49, 84	+0 11, 59	-0, 40	1	α Cor. Bor.	T.
22		37, 3	56, 3	15, 3	34, 5	53, 1	17 7 15, 30	+0 11, 50	-0, 33	3	α Herculis.	"
23		53, 1	23, 2	53, 1	23, 2	53, 3	17 26 53, 18	+0 11, 47	...	...	β Draconis.	"
*24		...	51, 0	16, 0	38, 0	...	17 38 15, 00	...	...	...	Camelop. 49 B. S.P.	"
25	♂ 31	11, 8	30, 2	48, 4	6, 9	25, 2	16 5 48, 50	+0 10, 97	...	...	δ Ophiuchi.	E.
26		2, 5	29, 1	55, 8	22, 6	49, 2	16 14 55, 84	...	...	...	τ Herculis.	"
27		42, 8	3, 1	23, 5	44, 0	4, 3	16 19 23, 51	+0 11, 09	...	...	Antares.	"
28		32, 6	57, 2	22, 0	46, 7	11, 6	16 23 22, 02	...	...	...	30 Herculis.	"
29		42, 7	2, 8	23, 1	43, 2	3, 1	17 8 22, 98	...	...	...	δ	"
30		46, 2	5, 0	23, 8	42, 7	1, 5	17 27 23, 84	+0 10, 97	-0, 44	2	α Ophiuchi.	"
31		...	52, 0	16, 0	38, 0	...	17 38 15, 33	...	...	...	Camelop. 49 B. S.P.	"
32		47, 2	8, 3	29, 3	50, 4	11, 3	17 51 29, 30	...	...	...	ξ Herculis.	"
33		2, 1	23, 0	43, 6	4, 5	25, 3	17 57 43, 70	...	...	...	Sagittar. P.D. 118° 27'.	"
34		...	19, 0	44, 0	7, 0	...	18 19 43, 33	...	...	...	Cephei, 51 Hev. S.P.	"
35		...	30, 0	38, 0	44, 0	...	18 26 37, 33	...	...	...	δ Urs. Min.	"
36		24, 1	46, 0	7, 8	29, 8	51, 7	18 44 7, 88	+0 10, 85	...	...	β Lyrae.	"
37		19, 6	38, 2	57, 0	15, 7	34, 5	18 57 57, 00	+0 10, 86	-0, 48	2	ζ Aquilæ.	"
38		37, 8	11, 3	44, 2	17, 6	51, 0	19 8 44, 38	...	...	...	53 Draconis.	"
*39		0, 2	20, 1	40, 0	0, 0	19, 8	20 36 40, 02	...	...	...	17 Capricorni, cloudy.	R.
40	♂ AUG. 1	36, 7	55, 6	14, 4	33, 2	52, 1	17 7 14, 40	+0 10, 62	-0, 44	2	α Herculis.	E.
41		45, 8	4, 8	23, 5	42, 2	0, 9	17 27 23, 44	+0 10, 59	-0, 38	1	α Ophiuchi.	"
42		...	20, 0	45, 0	6, 0	...	18 19 43, 66	...	...	...	Cephei, 51 Hev. S.P.	"
43		...	27, 5	36, 0	43, 0	...	18 26 35, 50	...	...	...	δ Urs. Min.	"
44		23, 7	45, 8	7, 6	29, 4	51, 1	18 44 7, 52	+0 10, 50	-0, 35	1	β Lyrae.	"
45		19, 1	37, 8	56, 5	15, 5	34, 4	18 57 56, 66	+0 10, 53	-0, 33	1	ζ Aquilæ.	"
46	♂ 3	35, 8	54, 8	13, 7	32, 7	51, 6	17 7 13, 72	+0 9, 98	-0, 32	2	α Herculis.	E.
47		22, 0	42, 5	3, 3	24, 0	44, 7	17 13 3, 30	...	...	...	43 Ophiuchi.	"
48		45, 1	4, 0	22, 6	41, 1	0, 0	17 27 22, 56	+0 9, 73	-0, 43	2	α	"
49		...	20, 5	45, 0	7, 9	...	18 19 44, 43	...	...	...	Cephei, 51 Hev. S.P.	"
50		...	26, 0	34, 0	42, 0	...	18 26 34, 00	...	...	...	δ Urs. Min.	"
51		31, 7	4, 1	36, 1	8, 4	40, 6	18 39 36, 18	...	...	...	40 Draconis.	"
52		23, 1	45, 0	6, 8	28, 7	50, 4	18 44 6, 80	+0 9, 80	-0, 35	2	β Lyrae.	"
53		6, 3	29, 1	52, 0	14, 8	37, 5	18 48 51, 94	...	...	...	δ ¹	"
54		18, 3	37, 0	56, 2	15, 1	33, 8	18 57 56, 08	+0 9, 95	-0, 29	2	ζ Aquilæ, trem.	"
55	♂ 5	17, 0	36, 1	55, 3	14, 4	33, 8	8 59 55, 32	...	...	...	{ 1 L.	E.
56		29, 6	48, 8	8, 2	27, 4	46, 5	9 2 8, 10	...	...	...	⊙ { 2 L.	"
57		...	...	...	...	...	9 1 1, 71	+0 9, 41	-0, 41	6	Centre.	"
58		...	29, 4	49, 1	8, 9	...	5 52 49, 13	...	...	...	θ 2 L. cloudy.	"

* 17—Examined the axis, and found the east end 0",59 too low.

* 24—Clouds prevented the Moon and Moon culminating stars being observed.

* 39—Clouds obscured 19 and 30 Capricorni when on the meridian. R.

A dense cloud prevented the Moon being observed. R.

On the 2d of August, examined the axis, and found the east end 0",09 too low.

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—East.					MEAN OF WIRES.	CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.		Error.	Rate.			
		s.	s.	s.	s.	s.	H. M. S.	M. S.	S.			
1	♂ AUG. 6	7, 0	26, 2	45, 6	5, 0	24, 5	9 3 45, 66	...	...	..	{ 1 L.	E.
2		19, 8	39, 1	58, 3	17, 2	36, 7	9 5 58, 22	...	...	..	2 L.	..
3		...	...	...	...	...	9 4 51, 94	+0 9, 24	-0, 17	1	Centre.	..
4		40, 4	1, 0	21, 4	41, 8	2, 2	16 19 21, 36	+0 8, 99	...	..	Antares.	..
5		35, 2	55, 8	16, 1	36, 6	57, 1	17 5 16, 16	...	...	..	36 ² Ophiuchi.	..
6		40, 4	0, 8	20, 9	41, 1	1, 3	17 8 20, 90	...	...	..	δ Herculis.	..
7		13, 7	24, 0	34, 6	44, 8	55, 1	17 17 34, 44	...	...	..	σ Camelopard. S.P.	..
8		44, 0	2, 9	21, 7	40, 4	59, 1	17 27 21, 62	+0 8, 82	-0, 30	3	α Ophiuchi.	..
9		...	51, 5	15, 0	37, 4	...	17 38 14, 63	...	...	..	Camelop. 49 B. S.P.	..
10		52, 1	23, 8	55, 2	26, 7	58, 1	17 45 55, 18	...	...	..	δ Aurigæ. S.P.	..
11		30, 6	2, 9	34, 8	7, 1	39, 1	18 39 34, 90	...	...	..	46 Draconis.	..
12		22, 3	24, 0	5, 7	27, 5	49, 3	18 44 5, 76	+0 8, 78	-0, 34	3	β Lyræ.	..
13		17, 1	36, 0	54, 8	13, 8	32, 5	18 57 54, 84	+0 8, 73	-0, 41	3	ζ Aquilæ.	..
14		32, 0	50, 7	9, 3	28, 1	46, 8	19 10 9, 38	...	...	..	ω'.....	..
15		38, 8	57, 2	15, 6	33, 8	52, 3	19 17 15, 54	+0 8, 98	...	..	δ.....	..
16		31, 8	52, 4	13, 1	34, 0	55, 0	7 35 13, 26	...	...	..	Pollux, ex. faint.	..
17	♀ 7	8, 7	28, 1	47, 3	6, 4	25, 8	9 9 47, 26	...	...	..	2 L.	cloudy. E.
18		53, 9	13, 8	33, 6	53, 2	12, 8	6 1 33, 46	...	...	..	2 L.	v. faint. ..
19	♀ 9	34, 2	53, 0	12, 0	31, 1	50, 2	9 15 12, 10	...	...	..	1 L.	cloudy. E.
20		42, 3	1, 1	19, 8	38, 6	57, 3	17 27 19, 82	+0 7, 05	-0, 59	3	α Ophiuchi.	..
21		...	51, 0	14, 7	37, 0	...	17 38 14, 23	...	...	..	Camelop. 49 B. S.P.	..
22		40, 8	14, 2	47, 9	21, 4	55, 2	17 50 47, 90	...	...	..	ξ Draconis.	..
23		58, 2	19, 1	39, 8	0, 7	21, 3	17 57 39, 82	...	...	..	Sagitar. P.D.118° 27'.	..
24		39, 0	2, 6	26, 1	49, 8	13, 3	18 31 26, 16	+0 7, 09	-0, 55	3	α Lyræ.	..
25		29, 3	1, 1	33, 1	4, 9	36, 8	18 39 33, 04	...	...	..	46 Draconis.	..
26		20, 4	42, 1	4, 0	25, 8	47, 7	18 44 4, 00	+0 7, 05	-0, 58	3	β Lyræ.	..
27		15, 5	34, 3	53, 1	12, 2	30, 8	18 57 53, 18	+0 7, 07	-0, 55	3	ζ Aquilæ.	..
28		37, 2	55, 8	13, 8	32, 3	50, 6	19 17 13, 94	+0 7, 29	-0, 56	3	δ.....	..
29		51, 1	9, 9	28, 7	47, 3	5, 9	19 38 28, 58	+0 7, 22	...	..	γ.....	..
30		10, 5	28, 8	47, 2	5, 8	24, 1	19 42 47, 28	+0 7, 03	...	..	α.....	..
*31		39, 0	57, 7	16, 0	34, 5	52, 8	19 47 16, 00	+0 7, 21	...	..	β.....	..
*32		2, 2	21, 9	41, 5	1, 2	21, 0	4 19 41, 56	...	...	..	2 L.	faint. E.
*33		50, 1	9, 2	28, 2	47, 5	6, 4	4 26 28, 28	+0 7, 02	...	..	Aldebaran, faint & trem.	..
34	♂ 10	21, 0	40, 2	...	18, 5	37, 8	9 18 59, 38	...	...	..	{ 1 L.	E.
35		33, 1	52, 2	11, 2	30, 4	49, 5	9 21 11, 28	...	...	..	2 L.	cloudy. ..
36		...	...	...	...	...	9 20 5, 33	+0 7, 03	-0, 55	4	Centre,	..
37		38, 9	2, 4	25, 7	49, 4	12, 9	18 31 25, 96	+0 6, 90	-0, 19	1	α Lyræ.	..
38		20, 0	41, 8	3, 7	25, 4	47, 2	18 44 3, 62	+0 6, 68	-0, 37	1	β.....	..
39		15, 2	34, 0	52, 7	11, 7	30, 6	18 57 52, 84	+0 6, 74	-0, 33	1	ζ Aquilæ,	cloudy. ..
*40		30, 1	50, 3	10, 7	30, 8	51, 0	5 18 10, 58	...	...	..	2 L.	ex. faint. ..
41	☉ 11	49, 7	8, 6	27, 5	46, 4	5, 3	4 26 27, 50	+0 6, 17	-0, 42	2	Aldebaran.	F.S.
42		...	0, 6	20, 0	39, 6	...	6 19 20, 07	...	...	..	2 L.	..
43		2, 0	22, 0	42, 2	2, 4	23, 0	6 20 42, 32	...	...	..	2 L.	ex. faint. ..
44	♂ 12	14, 4	33, 2	52, 1	11, 0	29, 6	18 57 52, 06	+0 5, 97	-0, 38	2	ζ Aquilæ.	E.
45		3, 1	51, 2	38, 5	26, 6	13, 8	19 12 38, 64	+0 5, 84	...	..	δ Draconis,	..
46		...	54, 3	12, 6	30, 9	...	19 17 12, 60	+0 5, 96	-0, 44	3	δ Aquilæ,	cloudy. ..
47		9, 1	27, 8	46, 1	4, 6	23, 2	19 42 46, 16	+0 5, 92	-0, 37	3	α.....	..
48		29, 4	48, 7	7, 3	26, 8	45, 2	21 33 7, 48	...	...	..	μ	..
49	♂ 13	52, 2	22, 0	51, 2	20, 8	50, 3	17 52 51, 30	+0 5, 60	...	..	γ Draconis.	E.
50		26, 7	56, 1	25, 3	54, 8	24, 2	18 18 25, 42	...	...	..	*..... Bode 170.	..
51		37, 7	1, 2	24, 6	48, 0	11, 3	18 31 24, 56	+0 5, 56	-0, 45	3	α Lyræ.	..
52		18, 8	40, 7	2, 5	24, 4	46, 2	18 44 2, 52	+0 5, 62	-0, 35	3	β.....	..
53		13, 4	43, 0	12, 3	41, 8	11, 2	18 53 12, 34	...	...	..	*... P.D. 38° 30', ex. faint.	..
54		14, 1	32, 9	51, 8	10, 6	29, 3	18 57 51, 74	+0 5, 66	-0, 31	1	ζ Aquilæ.	..
55		28, 8	47, 4	6, 2	24, 8	43, 5	19 10 6, 14	...	...	..	ω'.....	..

On the 8th, cloudy when the Moon passed the meridian.

* 31—Could not see ♄ Tauri, the air being hazy. R.

* 33—A thick haze obscured Venus when on the meridian. E.

Examined the axis, and found the east end 0', 13 too high.

* 40—Clouds prevented the Moon culminating stars being observed.

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—East.					MEAN OF WIRS.	CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.		Error.	Rate.			
		s.	s.	s.	s.	s.	H. M. S.	M. S.	S.			
1	♂ AUG. 13	...	50, 6	38, 1	26, 0	...	19 12 38, 23	+0 5, 47	-0, 37	1	δ Draconis.	E.
2		35, 7	51, 1	12, 4	30, 8	49, 1	19 47 12, 42	+0 5, 78	-0, 18	1	δ Aquilæ.	"
3		27, 3	46, 6	5, 8	24, 9	43, 7	19 33 5, 66	...	...	...	55 Sagittarii.	"
4		49, 8	8, 3	27, 0	45, 5	4, 2	19 38 26, 96	+0 5, 61	...	...	γ Aquilæ.	"
5		29, 1	47, 3	5, 7	24, 1	42, 3	19 44 5, 70	...	...	...	η.....	"
6		37, 3	55, 7	14, 2	32, 8	51, 3	19 47 14, 26	+0 5, 48	...	...	β.....	"
7		20, 2	39, 2	58, 1	17, 0	36, 0	21 32 58, 10	...	...	...	μ	F. S.
8		...	1, 8	21, 3	41, 0	...	6 28 21, 37	...	...	...	♀ 2 L.	E.
9	♀ 14	52, 1	21, 8	51, 1	20, 6	49, 8	17 52 51, 08	+0 5, 41	-0, 19	1	γ Draconis.	E.
10		26, 1	55, 5	25, 1	54, 6	23, 8	18 18 25, 02	...	...	...	*..... Bode 170.	"
11		58, 0	20, 4	...	7, 0	31, 0	18 19 41, 10	...	...	...	Cephei, 51 Hev. S.P.	"
12		9, 5	18, 0	26, 5	33, 0	42, 6	18 26 25, 92	...	...	...	δ Urs. Min.	"
13		18, 4	40, 1	2, 0	23, 8	45, 8	18 44 2, 02	+0 5, 13	-0, 39	4	β Lyræ.	"
14		1, 7	24, 2	47, 0	10, 0	32, 8	18 48 47, 14	...	...	...	δ ²	"
15		13, 6	32, 4	51, 3	10, 1	28, 8	18 57 51, 21	+0 5, 17	-0, 40	2	ζ Aquilæ.	"
16		28, 5	47, 1	5, 8	24, 6	43, 1	19 10 5, 82	...	...	...	ω ¹	"
17		2, 7	50, 3	38, 0	25, 6	13, 2	19 12 37, 96	+0 5, 24	-0, 30	2	δ Draconis.	"
18		35, 4	53, 6	12, 2	30, 4	48, 7	19 17 12, 06	+0 5, 43	-0, 26	2	δ Aquilæ.	"
19		27, 0	46, 3	5, 4	24, 2	43, 6	19 33 5, 30	...	...	...	55 Sagittarii.	"
20		49, 3	8, 0	26, 4	45, 1	3, 7	19 38 26, 50	+0 5, 19	-0, 42	1	γ Aquilæ.	"
21		8, 3	27, 0	45, 5	3, 9	22, 4	19 42 45, 42	+0 5, 20	-0, 36	2	α.....	"
22		37, 3	55, 6	14, 0	32, 3	50, 8	19 47 14, 00	+0 5, 23	-0, 25	1	β.....	"
*23		5, 8	25, 7	45, 8	5, 8	25, 9	20 9 45, 80	...	...	...	24 Vulpeculæ.	"
24	♂ 15	48, 0	7, 7	27, 5	47, 0	6, 6	6 37 27, 36	...	...	...	♀ 2 L.	trem. E.
25	♀ 16	51, 3	20, 8	50, 1	19, 4	49, 1	17 52 50, 14	+0 4, 52	-0, 44	2	γ Draconis.	E.
26		46, 1	21, 9	57, 3	33, 0	8, 7	18 4 57, 43	...	...	...	Lyncis, P.D.30°56', S.P.	"
27		36, 8	0, 1	23, 6	47, 2	10, 7	18 31 23, 68	+0 4, 74	-0, 27	3	α Lyræ.	"
28		17, 7	39, 5	1, 4	23, 2	45, 0	18 44 1, 36	+0 4, 55	-0, 29	2	β.....	"
29		1, 0	23, 8	46, 3	9, 0	32, 2	18 48 46, 46	...	...	...	δ ²	"
30		13, 0	31, 9	50, 7	9, 4	28, 5	18 57 50, 70	+0 4, 64	-0, 26	2	ζ Aquilæ.	"
31		...	53, 1	11, 3	29, 7	...	19 17 11, 37	+0 4, 74	-0, 35	3	δ.....	cloudy.
*32		42, 8	42, 4	2, 1	21, 9	41, 6	6 42 2, 16	...	...	...	♀ 2 L.	"
33	♂ 19	50, 3	20, 0	49, 4	18, 9	18, 2	17 52 49, 36	+0 3, 82	-0, 23	3	γ Draconis.	E.
34		16, 9	38, 8	0, 8	22, 6	44, 4	18 44 0, 70	+0 3, 88	-0, 22	3	β Lyræ,	} cloudy.
35		12, 7	32, 3	...	11, 5	31, 2	6 55 51, 92	...	...	...	♀ 2 L.	
*36	♂ 20	1, 0	19, 8	38, 8	57, 5	16, 3	9 58 38, 68	...	...	...	♂ 2 L.	cloudy. E.
37	♀ 21	3, 5	43, 4	23, 1	3, 0	43, 0	10 54 23, 20	+1 3, 56	...	...	α Urs. Maj.	E.
38		59, 8	31, 7	3, 2	34, 9	6, 4	11 46 3, 20	+1 3, 68	...	...	γ.....	"
39		49, 9	19, 2	48, 7	18, 1	47, 7	17 53 48, 72	+1 3, 24	-0, 29	2	γ Draconis.	"
40		35, 0	58, 7	21, 8	45, 3	8, 9	18 32 21, 94	+1 3, 08	-0, 33	5	α Lyræ,	cloudy.
41		29, 6	49, 2	...	28, 6	48, 2	7 6 8, 90	...	...	...	♀ 2 L.	ex. trem.
42	♂ 22	14, 2	33, 0	51, 7	10, 4	29, 3	10 4 51, 72	...	...	...	{ 1 L.	} faint. E.
43		29, 3	43, 2	1, 8	20, 5	39, 2	10 7 1, 80	...	...	...	⊙ { 2 L.	
44		...	...	...	...	...	10 5 56, 76	+1 3, 06	...	...	Centre.	"
45		2, 8	42, 7	22, 4	2, 2	41, 9	11 54 22, 40	+1 2, 75	-0, 81	1	α Urs. Maj.	"
46		58, 2	23, 8	49, 3	15, 2	40, 8	20 36 49, 46	+1 2, 53	...	...	α Cygni.	"
47		10, 4	44, 1	17, 5	51, 3	24, 8	20 42 17, 62	...	...	...	χ Cephei.	"
48		...	19, 0	3, 8	49, 0	...	20 56 3, 93	...	...	...	h.....	"
49		43, 7	7, 1	30, 2	53, 4	16, 8	21 0 30, 24	...	...	...	61' Cygni.	"
50		26, 6	49, 7	12, 6	35, 6	58, 5	21 9 12, 60	...	...	...	τ.....	"
51		52, 9	12, 0	31, 0	50, 1	9, 0	21 32 31, 00	...	...	...	μ	"
52		40, 5	58, 9	17, 2	35, 4	53, 8	21 58 17, 16	+1 2, 55	...	...	α Aquarii,	} cloudy.
53		...	29, 2	48, 6	8, 3	...	7 10 48, 70	...	...	...	♀ 2 L.	
*54	♀ 23	44, 3	19, 4	55, 4	30, 7	6, 8	18 5 55, 32	...	...	...	Lyncis, P.D.30°56', S.P.	E.
55		8, 0	36, 2	4, 6	32, 8	0, 9	18 13 4, 50	...	...	...	46 Aurigæ,	S.P.
56		34, 1	57, 8	21, 2	44, 7	8, 3	18 32 21, 22	+1 2, 41	-0, 33	2	α Lyræ.	"

* 23—Clouds prevented μ being observed.

* 32—Examined the axis, and found the east end 0'',05 too low.

* 36—Put the clock forward one minute.

* 54—Clouds prevented the Moon being observed.

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—East.					MEAN OF WIRES.	CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.		Error.	Rate.			
		s.	s.	s.	s.	s.	H. M. s.	M. s.	s.			
1	♀ Aug. 23	...	14, 5	37, 3	59, 3	...	18 36 37, 03	...	...	..	Camel. P.D. 12° 49', S.P.	E.
2		23, 5	59, 3	34, 0	9, 5	45, 0	18 46 34, 26	...	...	..	Urs. Min. P.D. 6° 46'.	..
3		10, 6	29, 3	48, 2	7, 0	26, 0	18 58 48, 22	+1 2, 25	...	..	ζ Aquilæ.	..
4		59, 5	47, 1	34, 7	22, 3	10, 0	19 13 34, 72	+1 2, 35	...	..	δ Draconis.	..
5		...	50, 8	9, 1	27, 7	...	19 18 9, 20	+1 2, 63	...	..	δ Aquilæ, cloudy.	..
6		58, 3	24, 0	49, 8	15, 4	41, 1	19 40 49, 72	...	...	..	δ Cygni.	..
7		25, 8	44, 0	2, 3	20, 7	38, 8	19 45 2, 32	...	...	..	η Aquilæ.	..
8		1, 3	54, 8	47, 6	41, 0	34, 2	19 49 47, 78	...	...	..	ε Draconis.	..
9		50, 1	9, 1	27, 8	46, 5	5, 4	20 9 27, 78	+1 2, 41	...	..	α ¹ Capricorni.	..
10		...	...	10, 0	...	...	20 29 10, 00	...	...	..	λ Urs. Min.	..
11		57, 8	23, 3	49, 2	15, 0	40, 5	20 36 49, 16	+1 2, 24	-0, 29	1	α Cygni.	..
12		10, 1	43, 8	17, 3	51, 0	24, 7	20 41 17, 38	...	...	..	χ Cephei.	..
13		43, 8	6, 8	29, 9	53, 2	16, 3	21 0 30, 00	...	...	..	61 ¹ Cygni.	..
14		23, 0	2, 1	41, 0	20, 0	58, 8	21 15 40, 98	+1 2, 46	...	..	α Cephei.	..
15		13, 7	31, 9	50, 3	8, 7	27, 1	21 23 50, 34	+1 2, 29	...	..	β Aquarii.	..
16		43, 6	2, 4	21, 6	40, 3	59, 4	21 32 21, 46	...	...	..	μ	..
*17		40, 3	58, 5	16, 8	35, 1	53, 4	21 58 16, 82	+1 2, 20	-0, 35	1	α Aquarii.	..
*18	☉ 25	29, 5	49, 3	9, 3	29, 2	49, 1	18 45 9, 28	...	...	..	ν ¹ Sagittarii, cloudy.	R.
19	☽ 26	56, 8	15, 3	34, 0	52, 6	11, 3	10 19 34, 00	...	...	..	{ 1 L.	E.
20		6, 1	24, 8	43, 3	2, 1	21, 0	10 21 43, 46	...	...	..	☉ { 2 L.	..
21		...	...	...	...	...	10 20 38, 73	+1 2, 23	-0, 21	4	{ Centre.	..
22		59, 0	22, 5	45, 7	8, 0	31, 6	18 20 45, 36	...	...	..	Cephei, 51 ¹ Hev. S.P.	..
23		2, 7	10, 0	18, 5	27, 0	35, 0	18 27 18, 64	...	...	..	δ Urs. Min. S.P.	..
24		14, 8	36, 8	58, 7	20, 6	42, 4	18 44 58, 66	+1 1, 95	...	..	β Lyræ.	..
25		24, 6	36, 1	47, 8	59, 7	11, 5	18 52 47, 94	...	...	..	50 Draconis.	..
26		10, 1	29, 0	47, 8	6, 8	25, 7	18 58 47, 88	+1 1, 94	-0, 10	3	ζ Aquilæ.	..
27		52, 1	26, 1	0, 2	34, 0	8, 1	19 12 0, 10	...	...	..	54 Draconis.	..
28		32, 0	50, 2	8, 3	26, 7	45, 1	19 18 8, 46	+1 1, 92	-0, 23	3	δ Aquilæ.	..
29		23, 7	43, 5	3, 2	22, 8	42, 3	19 22 3, 10	...	...	..	(138) Sagittarii.	..
30		23, 7	42, 8	2, 0	20, 9	39, 8	19 34 1, 84	...	...	..	55	..
31		5, 1	23, 8	42, 2	0, 8	19, 3	19 43 42, 24	+1 2, 08	...	..	α Aquilæ.	..
32		33, 9	52, 1	10, 6	29, 2	47, 5	19 48 10, 66	+1 1, 95	...	..	β	..
33		52, 3	12, 1	32, 0	52, 2	12, 2	19 52 32, 16	...	...	..	*	..
34		44, 3	4, 8	25, 1	45, 5	6, 0	19 54 25, 14	...	...	..	☽ 1 L.	..
35		57, 3	23, 1	48, 8	14, 6	40, 2	20 36 48, 80	+1 1, 91	-0, 11	3	α Cygni.	..
36		46, 8	6, 1	25, 6	44, 9	4, 3	20 46 25, 54	...	...	..	19 Capricorni.	..
37		13, 0	37, 2	1, 4	25, 7	49, 7	20 52 1, 40	...	...	..	ν Cygni.	..
38		43, 2	6, 4	29, 5	52, 8	16, 1	21 0 29, 60	...	...	..	61 ¹	..
39		4, 9	36, 8	8, 0	39, 6	11, 4	21 5 8, 14	...	...	..	18 Urs. Maj. S.P.	..
40		22, 8	1, 8	40, 7	19, 5	58, 2	21 15 40, 60	+1 2, 12	-0, 11	3	α Cephei.	..
41		13, 0	31, 8	50, 2	8, 5	26, 9	21 23 50, 08	+1 2, 03	-0, 09	3	β Aquarii.	..
42		15, 7	34, 8	53, 7	12, 6	31, 6	21 31 53, 68	...	...	..	μ	..
43		40, 0	58, 3	16, 5	34, 9	53, 2	21 58 16, 58	+1 1, 94	-0, 09	3	α Aquarii.	..
44		55, 5	15, 2	...	54, 3	13, 4	7 29 34, 60	...	...	..	♀ 2 L.	..
45	♂ 27	36, 1	54, 8	13, 7	32, 3	50, 8	10 23 13, 54	...	...	..	{ 1 L.	E.
46		45, 8	4, 3	23, 2	41, 7	0, 3	10 25 23, 06	...	...	..	☉ { 2 L.	..
47		...	...	...	...	...	10 24 18, 30	+1 2, 10	-0, 13	1	{ Centre.	..
48		...	...	59, 0	...	...	13 1 59, 00	...	...	..	Polaris, trem. S.P.	..
49		33, 8	57, 2	20, 5	44, 0	7, 3	18 32 20, 56	+1 1, 83	-0, 14	4	α Lyræ.	..
50		22, 8	58, 4	33, 4	9, 0	44, 4	18 46 33, 60	...	...	..	Urs. Min. P.D. 6° 46'.	..
51		10, 0	29, 0	47, 8	6, 7	25, 4	18 58 47, 78	+1 1, 85	-0, 09	1	ζ Aquilæ.	..
52		52, 1	26, 0	0, 0	34, 1	8, 0	19 12 0, 04	...	...	..	54 Draconis.	..
53		31, 6	50, 1	8, 3	26, 7	45, 2	19 18 8, 38	+1 1, 85	-0, 07	1	δ Aquilæ.	..
54		1, 8	21, 2	40, 7	0, 4	20, 0	19 37 40, 82	...	...	..	56 Sagittarii.	..
55		59, 0	18, 4	37, 7	57, 0	16, 3	19 42 37, 68	...	...	..	ζ	..
56		0, 8	54, 1	47, 0	40, 2	33, 2	19 49 47, 06	...	...	..	ε Draconis.	..
57		10, 3	29, 8	49, 2	8, 6	28, 0	20 10 49, 18	...	...	..	σ Capricorni.	..
58		7, 2	27, 1	47, 1	7, 0	26, 8	20 20 47, 04	...	...	..	f	..
59		57, 1	23, 0	48, 7	14, 3	40, 2	20 36 48, 66	+1 1, 78	-0, 13	1	α Cygni.	..
60		10, 6	30, 8	50, 8	10, 7	30, 8	20 46 50, 74	...	...	..	☽ 1 L.	..
61		18, 1	45, 0	12, 2	39, 3	6, 9	20 53 12, 30	...	...	..	α Urs. Maj. S.P.	..

* 17—Examined the axis, and found the east end 0',23 too high.

* 18—Cloudy when the Moon passed the meridian. R.

Observed TRANSITS of the FIXED STARS and PLANETS over the MERIDIAN.

9

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—East.					MEAN OF WIRES.		CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.	H.	M.	Error.	Rate.			
1	♂ AUG. 27	s. 4, 4	s. 36, 1	s. 7, 8	s. 39, 3	s. 11, 1	21	5	7, 74	...	...	18 Urs. Maj. S.P.	E.
2		6, 5	18, 8	31, 3	43, 8	56, 2	21	13	31, 32	...	...	Draconis, P.D. 7° 57', S.P.	,,
3		13, 0	31, 6	49, 9	8, 3	26, 8	21	23	49, 92	+1 1, 87	-0, 16	β Aquarii.	,,
4		6, 4	25, 5	44, 3	3, 6	22, 5	21	31	44, 46	...	...	γ	,,
5		39, 8	58, 1	16, 3	34, 6	53, 0	21	58	16, 36	+1 1, 72	-0, 22	α Aquarii.	,,
6	♀ 28	33, 5	56, 9	20, 3	43, 7	7, 5	18	32	20, 38	+1 1, 67	-0, 16	α Lyrae.	T.
7		...	...	32, 0	...	...	18	46	32, 00	...	...	* Urs. Min. P.D. 6° 46'.	,,
8		31, 6	50, 0	8, 1	26, 5	44, 5	19	18	8, 14	+1 1, 62	-0, 23	δ Aquilæ.	,,
9		45, 8	4, 3	22, 9	41, 4	0, 2	19	39	22, 92	+1 1, 67	...	γ.....	E.
10		59, 0	18, 2	37, 7	57, 1	16, 3	19	42	37, 66	...	...	ζ Sagittæ.	,,
11		0, 7	54, 0	46, 9	40, 2	33, 0	19	49	46, 96	...	...	ε Draconis.	,,
12		2, 1	22, 2	42, 1	2, 2	22, 2	20	10	42, 16	...	...	24 Vulpeculæ.	,,
13		5, 8	48, 5	32, 0	15, 3	58, 5	20	26	32, 02	...	...	π² Urs. Maj. S.P.	,,
14		4, 1	33, 8	2, 7	32, 2	1, 3	20	32	2, 82	...	...	*..... P.D. 38° 29'.	,,
15		57, 0	22, 8	48, 3	14, 1	40, 0	20	36	48, 44	+1 1, 57	-0, 21	α Cygni.	,,
16		42, 8	6, 1	29, 2	52, 6	15, 8	21	0	29, 30	...	...	61¹.....	,,
17		58, 8	18, 0	37, 2	56, 3	15, 3	21	13	37, 12	...	...	ι Capricorni.	,,
18		13, 0	31, 3	49, 7	8, 1	26, 4	21	23	49, 70	+1 1, 65	-0, 22	β Aquarii.	,,
19		...	16, 4	35, 3	54, 1	...	21	31	35, 27	...	...	γ	,,
20		44, 8	4, 7	24, 3	43, 8	3, 6	21	37	24, 24	...	...	δ 1 L.	,,
21		...	33, 8	53, 1	12, 4	...	21	38	53, 13	...	...	δ Capricorni.	,,
22		37, 1	56, 0	15, 1	34, 0	52, 8	21	45	15, 00	...	...	μ.....	,,
23		21, 2	41, 0	...	19, 9	39, 4	7	39	0, 38	...	...	ξ 2 L.	,,
24	♂ 29	54, 0	12, 8	31, 3	50, 1	8, 6	10	30	31, 36	...	...	{ 1 L.	E.
25		3, 3	22, 0	40, 7	59, 4	17, 8	10	32	40, 64	...	...	2 L.	,,
26		...	...	...	...	...	10	31	36, 00	+1 1, 70	-0, 20	Centre.	,,
27		...	...	3, 0	...	...	13	2	3, 00	...	...	Polaris, S.P.	T.
28		25, 3	45, 1	4, 6	24, 3	43, 6	14	9	4, 58	+1 1, 58	...	Arcturus.	,,
29		48, 0	17, 2	46, 6	16, 2	45, 5	17	55	46, 70	+1 1, 46	...	γ Draconis.	,,
30		33, 4	56, 8	20, 5	43, 8	7, 2	18	32	20, 34	+1 1, 65	-0, 02	α Lyrae.	,,
31	♀ 30	32, 4	51, 2	9, 5	28, 5	46, 7	10	34	9, 66	...	...	{ 1 L.	T.
32		41, 5	0, 5	18, 6	37, 5	56, 3	10	36	18, 88	...	...	2 L.	,,
33		...	...	...	...	...	10	35	14, 27	+1 1, 47	-0, 23	Centre.	,,
34	☉ SEPT. 1	31, 6	50, 2	8, 5	26, 5	45, 2	19	18	8, 40	+1 1, 93	+0, 08	δ Aquilæ.	T.
35		45, 5	4, 5	23, 0	41, 6	0, 2	19	39	22, 96	+1 1, 74	+0, 02	γ.....	,,
36		4, 6	23, 3	41, 9	0, 4	19, 0	19	43	41, 84	+1 1, 74	...	α.....	,,
37		33, 6	52, 0	10, 5	28, 9	47, 3	19	48	10, 46	+1 1, 80	...	β.....	,,
*38		52, 0	10, 4	29, 3	48, 1	6, 3	0	46	29, 22	...	...	δ 2 L.	R.
39	♂ 2	26, 8	45, 6	4, 0	22, 6	41, 1	10	45	4, 02	...	...	{ 1 L.	T.
40		36, 0	54, 5	13, 1	31, 7	50, 1	10	47	13, 08	...	...	2 L.	,,
41		...	...	...	...	...	10	46	8, 55	+1 2, 05	+0, 19	Centre.	,,
42	♂ 3	14, 5	36, 6	58, 3	20, 3	42, 3	18	44	58, 40	+1 1, 82	...	β Lyrae.	T.
43		10, 0	28, 9	47, 7	6, 5	25, 3	18	58	47, 68	+1 1, 86	...	ζ Aquilæ.	,,
44		45, 6	4, 3	22, 6	41, 5	0, 2	19	39	22, 84	+1 1, 66	...	γ.....	,,
45		4, 6	23, 5	42, 0	0, 3	19, 0	19	43	41, 88	+1 1, 80	...	α.....	,,
46		33, 5	52, 2	10, 5	28, 9	47, 2	19	48	10, 46	+1 1, 82	...	β.....	,,
47	♀ 4	14, 5	36, 4	58, 3	20, 3	42, 1	18	44	58, 22	+1 1, 68	-0, 14	β Lyrae.	T.
48		58, 3	46, 3	33, 5	21, 5	8, 7	19	13	33, 66	+1 1, 84	...	δ Draconis.	,,
49		31, 7	50, 1	8, 5	26, 6	45, 1	19	16	8, 40	+1 1, 96	+0, 01	δ Aquilæ.	,,
50		45, 5	4, 4	22, 9	41, 6	0, 2	19	39	22, 92	+1 1, 76	+0, 10	γ.....	,,
51		4, 9	23, 4	41, 9	0, 5	18, 8	19	43	41, 90	+1 1, 84	+0, 04	α.....	,,
52		33, 5	52, 0	10, 4	28, 7	47, 3	19	48	10, 38	+1 1, 75	-0, 07	β.....	,,
53		6, 3	49, 3	32, 5	15, 6	58, 7	20	26	32, 48	...	...	π² Urs. Maj. S.P.	E.
54		18, 0	45, 2	12, 6	39, 8	7, 2	20	53	12, 56	...	...	*..... S.P.	,,
55		9, 8	40, 1	10, 5	40, 8	11, 1	21	6	10, 46	...	...	Cygni, 304.	,,
56		...	19, 5	32, 0	44, 8	...	21	13	32, 10	...	...	Draconis, P.D. 7° 57', S.P.	,,
57		13, 1	31, 4	50, 0	8, 5	27, 1	21	23	50, 02	+1 1, 98	...	β Aquarii.	,,
58		39, 9	58, 3	16, 5	34, 8	53, 1	21	58	16, 52	+1 1, 86	...	α.....	,,

* 38—Examined the axis, and found the east end 0', 11 too low.

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—East.					MEAN OF WIRES.	CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.		Error.	Rate.			
1	SEPT. 4	s.	s.	s.	s.	s.	H. M. s.	M. s.	s.	..	φ Cephei.	E.
2		45, 5	43, 2	41, 1	39, 0	36, 8	22 7 41, 12	...	...	..	δ 2 L.	F. S.
3		25, 0	44, 2	3, 3	22, 6	41, 5	3 8 3, 32	...	...	..	♀ 2 L.	T.
		32, 6	52, 0	11, 5	31, 0	50, 5	0 18 11, 52	...	...	..		
4	5	18, 2	37, 0	55, 7	14, 3	32, 8	10 55 55, 60	...	...	..	1 L.	E.
5		27, 0	45, 6	4, 2	22, 7	41, 3	10 58 4, 16	...	...	..	2 L.	..
6		...	...	...	...	...	10 56 59, 88	+1 2, 08	+0, 01	3	Centre.	..
7		33, 1	56, 5	20, 3	43, 6	7, 3	18 32 20, 16	+1 1, 63	...	..	α Lyræ.	T.
8		14, 3	36, 2	58, 1	20, 3	41, 5	18 43 58, 08	+1 1, 56	-0, 12	1	β	..
9		9, 4	28, 5	47, 3	6, 5	25, 2	18 58 47, 38	+1 1, 59	-0, 13	2	ζ Aquilæ.	..
10		58, 1	46, 0	33, 4	21, 2	8, 5	19 18 33, 44	+1 1, 67	-0, 17	1	δ Draconis.	..
11		31, 3	49, 7	8, 2	26, 5	44, 8	19 17 8, 10	+1 1, 67	-0, 29	1	δ Aquilæ.	..
12		45, 4	4, 3	22, 7	41, 2	0, 0	19 39 22, 62	+1 1, 48	-0, 28	1	γ	..
13		...	23, 3	41, 5	0, 3	...	19 43 41, 70	+1 1, 65	-0, 19	1	α	..
14		33, 3	52, 0	10, 1	28, 5	47, 2	19 48 10, 22	+1 1, 60	-0, 15	1	β	..
15		2, 0	22, 1	42, 1	2, 3	22, 4	20 10 42, 18	...	...	..	24 Vulpeculæ.	E.
16		4, 6	42, 6	20, 4	58, 5	16, 4	20 17 20, 50	...	...	..	o Urs. Maj.	S.P.
17		6, 2	49, 2	32, 5	15, 8	59, 0	20 26 32, 54	...	...	..	π	..
18		...	...	3, 0	...	...	20 29 3, 00	...	...	..	λ Urs. Min.	..
19		22, 6	41, 0	59, 2	17, 7	36, 0	20 39 59, 30	...	...	..	3 Aquarii.	..
20		18, 1	45, 2	12, 4	39, 7	7, 1	20 53 12, 50	...	...	..	κ Urs. Maj.	S.P.
21		23, 8	43, 4	3, 1	22, 7	42, 3	21 0 3, 06	...	...	..	χ ¹ Capricorni.	..
22		...	39, 5	10, 1	40, 7	...	21 6 10, 10	...	...	..	Cygni, 304.	..
23		22, 3	1, 1	40, 1	19, 0	57, 8	21 15 40, 06	+1 1, 74	...	..	α Cephei.	..
24		13, 1	31, 6	49, 8	8, 4	26, 7	21 23 49, 92	+1 1, 89	-0, 09	1	β Aquarii.	..
25		2, 0	21, 2	40, 3	59, 7	18, 8	21 37 40, 40	...	...	..	9 Pegasi.	..
26		39, 7	58, 0	16, 2	34, 6	53, 0	21 58 16, 30	+1 1, 64	-0, 22	1	α Aquarii.	..
27		46, 1	7, 8	28, 9	50, 2	11, 5	22 49 28, 90	...	...	..	Fomalhaut.	..
28		17, 5	36, 8	56, 5	...	35, 3	8 16 56, 43	...	...	..	♀ 2 L.	T.
29	6	54, 5	13, 4	32, 0	50, 3	8, 6	10 59 31, 76	...	...	..	1 L.	T.
30		3, 4	22, 0	40, 5	59, 0	17, 4	11 1 40, 46	...	...	..	2 L.	..
31		...	...	...	...	...	11 0 36, 11	+1 1, 81	-0, 27	1	Centre.	..
32		33, 1	56, 6	19, 9	43, 6	6, 6	18 32 19, 96	+1 1, 44	-0, 19	1	α Lyræ.	..
33		14, 0	36, 1	57, 6	19, 5	41, 4	18 44 57, 72	+1 1, 22	-0, 34	1	β	..
34		9, 5	28, 2	47, 1	6, 0	25, 0	18 58 47, 16	+1 1, 38	-0, 21	1	ζ Aquilæ.	..
35		58, 0	45, 5	33, 0	21, 0	8, 4	19 13 33, 18	+1 1, 46	-0, 21	1	δ Draconis.	..
36		31, 2	49, 6	7, 6	26, 2	44, 6	19 18 7, 84	+1 1, 42	-0, 25	1	δ Aquilæ.	..
37		45, 2	3, 8	22, 5	41, 0	59, 5	19 39 22, 40	+1 1, 28	-0, 20	1	γ	..
38		4, 3	23, 0	41, 3	0, 0	18, 5	19 43 41, 42	+1 1, 38	-0, 27	1	α	..
39		33, 1	51, 5	9, 6	28, 5	46, 5	19 47 9, 84	+1 1, 23	-0, 37	1	β	..
40		1, 7	21, 9	42, 0	2, 0	22, 2	20 10 41, 96	...	...	..	24 Vulpeculæ.	E.
41		4, 6	42, 2	20, 4	58, 3	36, 2	20 17 20, 34	...	...	..	o Urs. Maj.	S.P.
42		55, 8	14, 8	33, 7	52, 5	11, 3	20 28 33, 62	...	...	..	δ Delphini.	..
43		20, 2	39, 0	58, 1	17, 0	36, 1	20 39 58, 08	...	...	..	γ ²	..
44		18, 2	37, 8	57, 3	16, 7	36, 2	20 55 57, 24	...	...	..	η Capricorni.	..
45		42, 6	5, 7	28, 9	52, 2	15, 6	21 0 29, 00	...	...	..	61 ¹ Cygni.	..
46		25, 3	48, 4	11, 5	34, 7	57, 7	21 9 11, 52	...	...	..	τ	..
47		22, 2	1, 0	39, 7	18, 5	57, 1	21 15 39, 70	+1 1, 38	-0, 36	1	α Cephei.	..
48		12, 6	31, 2	49, 9	8, 3	26, 7	21 23 49, 74	+1 1, 71	-0, 18	1	β Aquarii.	..
49		...	58, 4	17, 3	36, 3	...	21 30 17, 33	...	...	..	θ	..
50		19, 0	41, 2	3, 1	25, 2	47, 0	21 36 3, 10	...	...	..	ι Piscis Aust.	..
*51		39, 2	57, 8	16, 0	34, 1	52, 7	21 58 15, 96	+1 1, 30	-0, 34	1	α Aquarii.	..
52	7	39, 3	58, 0	16, 4	35, 1	53, 5	11 5 16, 46	...	...	..	⊙ 2 L.	E.
53	9	56, 6	44, 5	32, 1	17, 6	7, 4	19 13 31, 64	+1 0, 48	-0, 32	3	δ Draconis.	T.
54		...	48, 6	7, 1	25, 1	...	19 18 6, 93	+1 0, 68	-0, 25	3	δ Aquilæ.	..
55		44, 3	3, 0	21, 5	40, 2	58, 9	19 39 21, 58	+1 0, 50	-0, 26	3	γ	..
56		3, 3	22, 1	40, 5	59, 1	17, 6	19 43 40, 52	+1 0, 51	-0, 29	3	α	..
57		32, 1	50, 5	9, 0	27, 3	45, 9	19 48 8, 96	+1 0, 38	-0, 28	3	β	..
58	12	31, 0	54, 3	17, 6	41, 3	4, 6	18 32 17, 76	+0 59, 39	...	..	α Lyræ.	T.
59		12, 3	33, 9	55, 5	17, 5	39, 5	18 44 55, 74	+0 59, 37	...	..	β	..
60		55, 5	43, 2	30, 5	18, 5	6, 0	19 13 30, 64	+0 59, 24	-0, 41	3	δ Draconis.	..

* 51—Examined the axis, and found the east end 0°.53 too high.

Observed TRANSITS of the FIXED STARS and PLANETS over the MERIDIAN.

11

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—East.					MEAN OF WIRES.	CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.		
		I.	II.	III.	IV.	V.		Error.	Rate.					
1	2 SEPT. 12	s. 29, 2	s. 47, 5	s. 5, 9	s. 24, 1	s. 42, 5	H. M. S.	M. S.	S.	3	δ Aquilæ.	T.		
2		43, 1	1, 6	20, 6	38, 9	57, 5	19 18 5, 84	+0 59, 51	-0, 39	3	γ.....	,,		
3		2, 3	20, 8	39, 1	57, 9	16, 3	19 39 20, 34	+0 59, 41	-0, 36	3	α.....	,,		
4		31, 0	49, 5	7, 8	26, 3	44, 5	19 43 39, 28	+0 59, 41	-0, 37	3	β.....	,,		
5		47, 9	15, 4	43, 2	10, 8	38, 4	19 48 7, 82	+0 59, 40	-0, 33	3	ι Urs. Min.	S.P. E.		
6		...	8, 0	16, 8	27, 5	...	20 48 43, 14	...	...	...	76 Draconis.	,,		
7		...	18, 0	30, 5	42, 2	...	20 55 17, 43	...	...	...	*..... P.D. 7° 57', S.P.	,,		
8		37, 1	55, 7	14, 1	32, 4	50, 7	21 13 30, 23	...	...	...	α Aquarii.	,,		
9		28, 6	47, 9	7, 0	26, 5	45, 7	21 58 14, 00	+0 59, 36	...	...	♀ 2 L.	T.		
10	♀ 13	55, 5	43, 4	30, 5	18, 6	5, 5	19 13 30, 70	+0 59, 35	+0, 11	1	δ Draconis.	T.		
11		1, 6	20, 5	39, 0	57, 5	16, 2	19 43 38, 96	+0 59, 00	-0, 41	1	α Aquilæ.	,,		
12		40, 1	3, 6	26, 8	50, 1	13, 3	21 0 26, 78	...	...	...	61' Cygni.	E.		
13		...	18, 0	30, 6	43, 1	...	21 13 30, 57	...	...	...	Draconis, P.D. 7° 57', S.P.	,,		
14		10, 3	28, 9	47, 2	5, 7	24, 1	21 23 47, 24	+0 59, 24	...	...	β Aquarii.	,,		
15		41, 2	0, 6	19, 3	38, 5	57, 2	21 29 19, 36	...	...	...	μ	,,		
16		37, 0	55, 3	13, 8	32, 1	50, 2	21 58 13, 68	+0 59, 04	-0, 36	1	α Aquarii.	,,		
17	♂ 14	...	59, 0	17, 2	35, 6	...	11 28 17, 27	...	...	...	{ 1 L.	cloudy. E.		
18		48, 5	7, 0	25, 3	43, 8	2, 1	11 30 25, 34	...	...	...	{ 2 L.			
*19		...	...	...	...	...	11 29 21, 31	...	...	...	Centre.			
20		36, 7	55, 1	13, 4	31, 6	50, 0	21 58 13, 36	+0 59, 31	-0, 31	8	α Aquarii.			
21		57, 1	20, 1	43, 0	6, 0	28, 8	22 9 43, 00	+0 58, 72	-0, 32	1	1 Lacertæ.			
22	♂ 17	25, 4	44, 0	2, 3	20, 8	39, 1	11 39 2, 32	...	...	...	{ 1 L.	E.		
23		33, 7	52, 1	10, 3	28, 7	47, 2	11 41 10, 40	...	...	...	{ 2 L.			
24		...	...	...	...	...	11 40 6, 36	+0 57, 76	-0, 51	3	Centre.			
25		42, 0	2, 9	24, 5	45, 3	7, 0	22 49 24, 34	+0 57, 48	...	...	Fomalhaut.			
26		49, 4	8, 0	26, 7	45, 6	4, 2	22 57 26, 78	+0 57, 47	...	...	α Pegasi.			
27	♀ 18	0, 8	19, 2	37, 8	56, 1	14, 4	11 42 37, 66	...	...	...	{ 1 L.	E.		
28		8, 9	27, 2	45, 6	3, 8	22, 1	11 44 45, 52	...	...	...	{ 2 L.			
29		...	...	...	...	...	11 43 41, 59	+0 57, 59	-0, 17	1	Centre.			
30		28, 2	51, 6	15, 2	38, 6	2, 0	18 32 15, 12	+0 56, 90	...	...	α Lyrae.		T.	
31		4, 6	23, 9	42, 5	1, 3	20, 3	18 58 42, 52	+0 56, 93	...	...	ζ Aquilæ.			
32		52, 5	40, 4	27, 4	15, 5	3, 0	19 13 27, 76	+0 56, 69	-0, 53	5	δ Draconis.			
33	♀ 19	35, 9	54, 2	12, 6	31, 0	49, 1	11 46 12, 56	...	...	...	{ 1 L.	E.		
34		44, 0	2, 2	20, 7	39, 1	57, 3	11 48 20, 66	...	...	...	{ 2 L.			
35		...	...	...	...	...	11 47 16, 61	+0 57, 11	-0, 48	1	Centre.			
36		17, 1	55, 9	34, 7	13, 4	52, 3	21 15 34, 68	+0 56, 69	...	...	α Cephei.			
37		7, 8	26, 3	44, 7	3, 1	21, 4	21 23 44, 66	+0 56, 71	...	...	β Aquarii.			
38		55, 6	14, 7	33, 7	52, 6	11, 5	21 28 33, 62	...	...	...	μ			
39		31, 8	50, 4	8, 8	27, 3	45, 8	21 31 8, 82	...	...	...	4 Pegasi.			
40		56, 8	16, 1	35, 0	54, 3	13, 5	21 37 35, 14	...	...	...	9.....			
41		34, 8	52, 9	11, 1	29, 6	47, 8	21 58 11, 24	+0 56, 60	-0, 32	5	α Aquarii.			
42		6, 6	58, 3	50, 0	42, 1	33, 8	22 7 50, 16	...	...	...	q Cephei.			
43		43, 0	2, 8	22, 5	42, 2	2, 0	22 13 22, 50	...	...	...	47 Aquarii.			
44		41, 2	2, 2	23, 5	45, 0	6, 2	22 48 24, 62	+0 55, 77	-0, 26	2	Fomalhaut.			
45		43, 1	7, 0	25, 8	44, 7	3, 5	22 57 25, 82	+0 56, 51	-0, 48	2	α Pegasi.			
46		♀ 20	...	51, 2	14, 5	38, 0	...	18 32 14, 57	+0 56, 40	-0, 25	2		α Lyrae.	T.
47			8, 5	30, 5	52, 4	14, 5	36, 2	18 44 52, 42	+0 56, 23	...	...		β.....	
48	51, 3		39, 5	27, 0	14, 8	2, 5	19 13 27, 02	+0 56, 06	-0, 31	2	δ Draconis.			
49	26, 0		44, 3	2, 6	20, 9	39, 3	19 18 2, 62	+0 56, 41	...	...	δ Aquilæ.			
50	59, 0		17, 5	30, 1	54, 6	13, 3	19 43 36, 10	+0 56, 23	...	...	α.....			
51	27, 5		46, 2	4, 5	23, 1	41, 6	19 48 4, 58	+0 56, 16	...	...	β.....			
52	16, 6		55, 2	34, 1	13, 1	52, 0	21 15 34, 20	+0 56, 24	-0, 45	1	α Cephei.			
53	34, 2		52, 8	11, 1	29, 4	47, 6	21 58 11, 02	+0 56, 39	...	...	α Aquarii.			
54	6, 0		58, 1	49, 9	42, 0	33, 7	22 7 49, 94	...	...	...	9 Cephei.			
55	♂ 21		53, 9	12, 4	31, 0	49, 3	7, 8	11 55 30, 88	...	...	...	⊙ 2 L.	cloudy. E.	
56		16, 0	54, 6	33, 3	12, 2	51, 0	21 15 33, 42	+0 55, 49	-0, 75	1	α Cephei.			
57		6, 9	25, 5	43, 9	2, 2	20, 5	21 23 43, 80	+0 55, 87	-0, 44	2	β Aquarii.			

* 19—The central wire deviated about half a second to the west of the meridian mark. Adjusted it.
Examined the axis, and found the east end 0",23 too high.

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—East.					MEAN OF WIRES.	CLOCK.		No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.		Error.	Rate.			
		s.	s.	s.	s.	s.	H. M. S.	M. S.	S.			
1	☉ SEPT. 22	30, 6	49, 5	...	27, 4	46, 3	9 37 8, 45	...	...	..	♀ 2 L.	trem. F. S.
2	☽ 23	56, 1	14, 7	33, 0	51, 5	9, 7	12 0 33, 00	...	...	..	☉ { 1 L. 2 L. Centre. }	faint. E.
3		4, 4	22, 8	41, 1	59, 3	17, 8	12 2 41, 08	...	...	..	γ Draconis.	T.
4		...	...	...	...	...	12 1 37, 04	+0 55, 24	-0, 47	4	α Lyræ.	E.
5		40, 2	9, 5	39, 2	8, 5	37, 9	17 53 39, 06	+0 54, 66	...	..	β.....	..
6		26, 0	49, 3	12, 8	36, 2	59, 7	18 32 12, 80	+0 54, 79	-0, 54	3	λ Draconis.	cloudy. ..
7		7, 1	29, 0	50, 8	12, 7	34, 6	18 44 50, 84	+0 54, 73	-0, 50	3	δ Aquilæ.	..
8		37, 3	43, 6	49, 4	55, 6	1, 2	18 50 49, 42	...	...	..	δ Cygni.	..
9		2, 7	21, 3	40, 1	59, 0	18, 0	18 58 40, 22	+0 54, 71	...	..	α Aquilæ.	..
10		50, 2	38, 0	25, 6	13, 2	0, 8	19 13 25, 56	+0 54, 79	-0, 42	3	13 Vulpeculæ.	..
11		24, 4	42, 8	1, 0	19, 3	37, 7	19 18 1, 04	+0 54, 88	-0, 51	3	☽ 1 L.	ex. faint. ..
12		50, 0	15, 8	41, 4	7, 2	33, 1	19 40 41, 50	...	...	..		
13		57, 5	16, 0	34, 7	53, 1	11, 6	19 43 34, 58	+0 54, 80	-0, 47	3		
14		38, 1	58, 2	18, 1	38, 3	58, 1	19 47 18, 16	...	...	..		
*15		11, 0	31, 2	51, 3	11, 7	32, 0	20 29 51, 44	...	...	..		
16	♂ 24	25, 5	49, 2	12, 4	36, 2	59, 5	18 32 12, 56	+0 54, 49	-0, 30	1	α Lyræ.	T.
17		49, 5	37, 5	24, 9	12, 7	0, 5	19 13 25, 02	+0 54, 31	-0, 48	1	δ Draconis.	..
18		24, 1	42, 5	0, 7	19, 2	37, 5	19 18 0, 80	+0 54, 66	-0, 22	1	δ Aquilæ.	..
19		38, 2	56, 6	15, 3	34, 0	52, 6	19 39 15, 34	+0 54, 48	...	..	γ.....	..
20		57, 2	15, 6	34, 2	52, 6	11, 3	19 43 34, 18	+0 54, 37	-0, 43	1	α.....	..
21		26, 1	44, 4	2, 7	21, 3	39, 4	19 48 2, 78	+0 54, 43	-0, 43	4	β.....	..
22		59, 9	43, 0	26, 2	9, 5	52, 6	20 26 26, 24	...	...	..	π ² Urs. Maj.	S.P. E.
23		...	...	35, 0	...	...	20 28 35, 00	...	...	..	λ Urs. Min.	..
24		49, 4	15, 1	41, 0	6, 8	32, 4	20 36 40, 94	+0 54, 54	...	..	α Cygni.	..
25		39, 8	58, 7	17, 6	37, 0	55, 8	20 46 17, 78	...	...	..	19 Capricorni.	..
26		11, 2	30, 6	50, 3	9, 8	29, 3	20 55 50, 24	...	...	..	η.....	..
27		2, 3	15, 1	27, 7	40, 0	52, 8	21 13 27, 58	...	...	..	* Draconis, P.D. 7° 57', S.P.	..
28		21, 2	40, 1	59, 1	18, 0	37, 0	21 27 59, 08	...	...	..	♄.....	..
*29		48, 4	7, 3	26, 2	45, 0	4, 0	11 41 26, 18	...	...	..	β Leonis.	..
30	♀ 25	...	...	7, 0	...	...	13 2 7, 00	...	...	..	Polaris,	S.P. E.
31		25, 2	48, 6	12, 5	35, 6	59, 2	18 32 12, 22	+0 54, 18	-0, 31	1	α Lyræ.	T.
32	♂ 26	25, 0	48, 8	12, 2	35, 7	59, 2	18 32 12, 18	+0 54, 17	-0, 01	1	α Lyræ.	E.
33		6, 2	28, 1	49, 8	11, 7	33, 5	18 44 49, 86	+0 53, 81	-0, 31	3	β.....	..
34		1, 8	20, 6	39, 3	58, 1	17, 0	18 58 39, 36	+0 53, 91	-0, 27	3	ζ Aquilæ.	..
35		49, 1	37, 0	24, 5	12, 0	59, 7	19 13 24, 46	+0 53, 89	-0, 21	2	δ Draconis.	..
36		23, 8	41, 9	0, 2	18, 4	36, 8	19 18 0, 22	+0 54, 11	-0, 27	2	δ Aquilæ.	..
37		37, 7	56, 1	14, 6	33, 3	51, 8	19 39 14, 70	+0 53, 88	-0, 30	2	γ.....	..
38		56, 6	15, 2	33, 5	52, 1	10, 6	19 43 33, 60	+0 53, 83	-0, 27	2	α.....	..
39		25, 2	43, 6	2, 0	20, 5	19, 1	19 48 2, 08	+0 53, 76	-0, 33	2	β.....	cloudy. ..
40		7, 7	26, 2	44, 8	3, 6	22, 2	22 22 44, 00	...	...	..	σ Aquarii.	F. S.
41		3, 3	22, 2	41, 2	0, 0	19, 0	22 41 41, 14	...	...	..	τ ²	cloudy. ..
42		58, 7	17, 1	36, 8	56, 1	15, 3	22 57 36, 80	...	...	..	☽ 1 L.	..
43		18, 5	37, 0	55, 7	14, 3	33, 2	23 6 55, 74	...	...	..	* (7 mag.)	..
44		35, 7	54, 1	13, 1	31, 6	50, 2	23 11 12, 94	...	...	..	χ ³ Aquarii.	..
45		7, 8	26, 8	...	4, 5	23, 1	9 55 45, 55	...	...	..	♀ 2 L.	R.
46	♀ 27	27, 5	45, 6	4, 2	22, 5	40, 8	12 17 4, 12	...	...	..	☉ 2 L.	T.
47		25, 0	48, 2	11, 4	34, 2	58, 3	18 32 11, 42	+0 53, 43	-0, 74	1	α Lyræ.	..
48		1, 2	20, 2	39, 1	57, 0	16, 5	18 58 38, 92	+0 53, 49	-0, 42	1	ζ Aquilæ.	..
49		...	36, 5	23, 5	11, 4	...	19 13 23, 80	+0 53, 29	-0, 60	1	δ Draconis.	..
50		23, 0	41, 2	59, 5	18, 3	36, 3	19 17 59, 66	+0 53, 56	-0, 55	1	δ Aquilæ.	..
51		37, 2	...	14, 2	...	51, 5	19 39 14, 30	+0 53, 50	-0, 38	1	γ.....	E.
52		56, 3	14, 8	33, 2	51, 7	10, 3	19 43 33, 26	+0 53, 51	-0, 32	1	α.....	..
53		25, 0	43, 5	1, 9	20, 2	38, 6	19 48 1, 84	+0 53, 54	-0, 22	1	β.....	..
54		41, 2	0, 2	18, 5	37, 6	56, 5	20 9 18, 80	+0 53, 74	...	..	α ¹ Capricorni.	T.
55		48, 1	14, 5	39, 9	5, 6	31, 0	20 36 39, 82	+0 53, 49	-0, 35	3	α Cygni.	..
56		34, 2	57, 4	20, 5	44, 0	7, 1	21 0 20, 64	...	...	..	♄ ¹	..
57		13, 1	32, 0	50, 8	9, 9	28, 8	23 43 50, 92	...	...	..	☽ 1 L.	E.
58		35, 3	53, 6	12, 0	30, 3	48, 7	23 54 11, 99	...	...	..	9 Piscium.	..
*59		30, 1	48, 5	6, 0	25, 2	43, 7	0 0 6, 88	...	...	..	4 Ceti.	..

* 15—Clouds prevented the Moon culminating stars being observed.

* 29—Clouds prevented Mercury being observed with the transit.

* 59—Examined the axis, and found the east end 0', 14 too high.

Observed TRANSITS of the FIXED STARS and PLANETS over the MERIDIAN.

13

In the Year M.DCCC.XXXIII.

	DAY of MONTH.	Illuminated End—East.					CLOCK.			No. of Days.	OBJECTS OBSERVED.	Ob- servers.
		I.	II.	III.	IV.	V.	MEAN OF WIRES.	Error.	Rate.			
		s.	s.	s.	s.	s.	H. M. S.	M. S.	S.			
1	7 SEPT. 28	34, 0	57, 2	20, 5	43, 8	6, 9	21 0 20, 48	...	...	..	61 ¹ Cygni.	E.
2		13, 0	52, 1	30, 9	10, 0	48, 7	21 15 30, 94	+0 53, 24	...	..	α Cephei.	cloudy.
3		16, 8	46, 1	15, 4	45, 0	14, 6	21 40 15, 58	...	...	..	*..... P.D. 38° 29'.	..
4		31, 0	49, 3	7, 7	26, 1	44, 4	21 58 7, 70	+0 53, 13	...	..	α Aquarii.	..
5		16, 0	45, 6	15, 1	44, 4	13, 9	22 6 15, 00	...	...	..	*..... P.D. 38° 23'.	..
6		20, 7	48, 2	0, 6	24, 8	43, 3	0 0 6, 52	...	...	..	4 Ceti.	cloudy.
7		52, 2	11, 2	20, 6	48, 6	7, 0	0 29 29, 72	...	...	..	{ 1 L.	..
8		54, 6	13, 3	32, 2	50, 6	9, 5	0 31 32, 04	...	...	..	2 L.	..
9		...	...	...	...	...	0 30 30, 88	...	...	..	{ Centre.	..
10		47, 3	6, 0	24, 0	42, 5	0, 7	0 45 24, 10	...	...	..	m Ceti.	..
11	29	47, 2	5, 4	23, 7	42, 2	0, 3	0 45 23, 76	...	...	..	m Ceti.	R.
12		32, 2	50, 5	8, 9	27, 2	45, 4	0 56 8, 84	...	...	..	26.....	} faint,
13		17, 0	35, 2	53, 4	11, 6	20, 7	1 2 53, 38	...	...	..	33.....	..
14		40, 9	59, 8	18, 3	37, 0	55, 8	1 17 18, 36	...	...	..	2 L.	..
15		1, 5	20, 3	38, 8	57, 3	16, 5	10 9 38, 88	...	...	..	♀	T.
16	30	7, 7	26, 0	44, 2	2, 6	21, 0	12 25 44, 30	...	...	..	{ 1 L.	E.
17		16, 6	35, 0	53, 3	11, 7	30, 1	12 27 53, 34	...	...	..	2 L.	} trans.
18		...	...	...	...	...	12 26 48, 82	+0 52, 62	...	..	{ Centre,	..
19		59, 3	18, 5	37, 2	56, 2	15, 0	18 58 37, 24	+0 51, 87	-0, 54	3	ζ Aquilæ.	T.
20		46, 4	34, 5	22, 1	9, 5	57, 4	19 13 21, 98	+0 51, 66	-0, 54	3	δ Draconis.	..
21		21, 4	40, 0	58, 2	16, 6	35, 0	19 17 58, 24	+0 52, 19	-0, 45	3	δ Aquilæ.	..
22		35, 5	54, 2	12, 7	31, 2	50, 2	19 39 12, 66	+0 51, 91	-0, 53	3	γ.....	..
23		55, 0	13, 6	32, 0	50, 4	8, 9	19 43 31, 98	+0 52, 28	-0, 41	3	α.....	E.
24		23, 6	42, 1	0, 4	18, 8	37, 1	19 48 0, 40	+0 52, 14	-0, 47	3	β.....	..
25		29, 6	59, 2	28, 5	57, 6	27, 1	20 1 28, 40	...	...	..	*..... P.D. 38° 38'.	T.
26		39, 5	58, 3	17, 2	30, 1	54, 5	20 9 17, 12	+0 52, 11	-0, 54	3	α ¹ Capricorni.	..
27		...	23, 0	52, 2	21, 5	...	20 30 52, 23	...	...	..	*..... P.D. 38° 42'.	..
28		46, 2	12, 3	38, 1	4, 0	29, 5	20 36 38, 02	+0 51, 75	-0, 58	3	α Cygni.	..
29		35, 3	4, 6	33, 6	3, 3	32, 5	20 44 33, 86	...	...	..	*..... P.D. 38° 42'.	..
30		32, 9	56, 2	10, 3	42, 7	5, 8	21 0 19, 38	...	...	..	61 ¹	E.
31		15, 8	38, 8	1, 9	24, 9	48, 0	21 9 1, 88	...	...	..	τ.....	..
32		...	51, 1	20, 8	8, 3	...	21 15 29, 73	+0 52, 09	-0, 57	2	α Cephei.	..
33		3, 2	21, 8	40, 0	58, 5	16, 9	21 23 40, 08	+0 52, 23	...	..	β Aquarii.	..
34		44, 2	3, 1	22, 1	41, 1	0, 8	21 27 22, 26	...	...	..	μ.....	..
35		30, 1	48, 3	6, 7	25, 0	43, 2	21 58 6, 66	+0 52, 11	-0, 51	2	α Aquarii.	..

OCCULTATIONS of the FIXED STARS. 1833.

Date.	Names of Stars.	Immer. or Emer.	Which Limb of Moon.	What Telescope.	Mag. Pow.	Observed Time.	Error of Clock from Transit Clock.	Ob- servers.	Remarks.
Jan. 30	63 Tauri -	Imm.	Dk. Limb	5 feet achromat.	98	H. M. S. 8 0 25, 5	M. S. - 0 0, 5	F.S.	Star very faint, & observed through passing clouds.
..	,, -	,,	,,	46 in. ... do....	70	8 0 26, 0	- 0 0, 5	E.	
Mar. 10	46 θ Libræ -	Imm.	Bt. Limb	46 in. achromat.	70	17 54 27, 0	+ 0 1, 0	F.S.	The star very faint, and the Moon's limb tremulous.
April 6	30 α^2 Libræ -	Emer.	Dk. Limb	46 in. achromat.	70	16 3 36, 0	- 0 2, 5	E.	Star extremely faint. The dark limb of the Moon was distinctly visible. The star appeared to vanish gra- dually for three or four se- conds, before it finally im- merged at the extreme border of the Moon.
25	63 p Geminorum	Imm.	,,	5 feet equatorial	70	12 20 51, 0	- 0 2, 6	E.	
..	,, -	,,	,,	46 in. achromat.	120	12 20 53, 0	....	F.S.	
..	,, -	,,	,,	5 feet ... do....	98	12 20 53, 5	....	R.	
June 10	33 s Piscium,	Emer.	Dk. Limb	46 in. achromat.	70	20 29 27, 0		F.S.	
..	,, -	,,	,,	5 feet ... do....	98	20 29 27, 0	....	R.	
Aug. 9	δ^1 Tauri -	Imm.	Bt. Limb	46 in. achromat.	120	0 24 9, 5	-20 50, 7	F.S.	The atmosphere was ex- tremely hazy, and the Moon and stars very faint. None of the emersions could be observed. The immersion of δ^3 Tauri, owing to the above cause, is uncertain to three or four seconds.
..	δ^1 -	,,	,,	5 feet equatorial	80	0 44 52, 0	+ 0 1, 0	E.	
..	δ^2 -	,,	,,	46 in. achromat.	120	1 17 53, 0	+ 0 8, 5	F.S.	
..	δ^2 -	,,	,,	5 feet equatorial	80	1 17 33, 0	- 0 4, 0	E.	
..	δ^3 -	,,	,,	46 in. achromat.	70	2 30 30, 0	- 0 8, 5	F.S.	

ECLIPSES of JUPITER's SATELLITES.

Date.	What Satellite.	Immer. or Emer.	What Telescope.	Mag. Pow.	Observed Time.	Error of Clock from Transit Clock.	Ob- servers.	Remarks.
1833.					H. M. S.	S.		
Aug. 10	First Satellite...	Imm.	46 in. achromat.	70	23 38 59, 0	-41, 0	R.	Air clear.
26	do... do....	,,	do... do....	70	22 59 12, 0	- 0, 6	,,	Air clear.
28	Second.. do....	,,	do... do....	70	23 45 23, 0	- 2, 3	,,	Clear.
Sept. 4	Second Satellite.	Imm.	46 in. achromat.	70	2 50 25, 0	- 1, 0	F. S.	Clear, but Jupiter low.
21	Third... do....	,,	do... do....	70	20 27 27, 0	+15, 0	T.	
22	Second.. do....	,,	do... do....	70	22 32 26, 0	- 1, 0	E.	
28	Third... do....	,,	do... do....	120	0 58 10, 0	+ 3, 5	R.	Air hazy.
..	do... do....	Emer.	do... do....	120	3 13 15, 0	+ 8, 7	,,	
29	Second.. do....	Imm.	do... do....	120	1 37 3, 0	+10, 3	,,	Sky vapoury.

ECLIPSE of the MOON, July 1st, 1833.

				H. M. S.				
Beginning of the Eclipse...				17 44 50	Mr. Taylor.	} Clock fast of Transit clock, + 0 ^s , 6.		
,,				17 45 0	Mr. Rogerson.			
,,				17 45 10	Mr. Simms.			
The Shadow touches Capuanus...				17 49 40	} T.	The Shadow touches Tycho.....		
,, ,, Grimaldus...				17 53 55		17 59 0		
,, ,, Tycho.....				17 58 47		18 0 0		
,, covers ,,				18 0 7	} R.	,, touches Pitatus		
,, touches Copernicus...				18 19 5		18 1 45		
,, covers ,,				18 23 0		18 2 30		
,, touches Aristarchus...				18 26 20	} F. S.	,, centre of Galileo		
,, centre of Menelaus...				18 36 40		18 5 10		
,, ,, Aristarchus... 18 37 0						,, Keplerius... 18 10 26		
						,, Copernicus... 18 18 45		
						,, Aristarchus... 18 25 50		
						,, Cyrillus..... 18 29 15		

ECLIPSE of the MOON—*continued*.

H. M. S.			H. M. S.			
The Shadow centre of Erastosthenes.....	18	30 30	The Shadow leaves centre of Keplerius...	19	56 10	
„ „ Dionysius.....	18	32 15	„ „ Copernicus..	20	2 50	
„ „ Menelaus	18	37 10	„ „ Possidonius, 20	13 30	F. S.	
„ „ Proclus	18	52 25	„ „ Dionysius ..	20		16 30
„ „ Possidonius	19	0 20	„ „ Bullialdus... 20	23 50		
„ „ Eudoxus.....	19	10 50	„ „ Tycho	20		28 50
„ leaves centre of Aristarchus..	19	36 40	„ „ Snellius et Turnerius, 20	55 35		
„ „ Eudoxus.....	19	46 0	„ leaves Mare Serenitatis	20	25 15	H.
„ „ Hermes.....	19	46 10	Tycho begins to emerge.....	20	28 5	
„ „ Erastosthenes, 19	55 10		The Umbra leaves Tycho	20	29 45	
End of Eclipse.....	21	0 20	Mr. Henry.	} Clock fast of Transit clock, + 0 ^s , 8.		
„ „	21	0 30	Mr. Simms.			

ECLIPSE of the SUN, July 16th.

The beginning of the Eclipse was obscured by clouds.

The following measures were taken by Mr. TAYLOR and Associates, with an achromatic divided object-glass micrometer applied to the 46 inch telescope, with a power magnifying 75 times, on the Northern Terrace.

Time by Clock.				Time by Clock.			
H.	M.	S.	In. Pts. Vern ^r .	H.	M.	S.	In. Pts. Vern ^r .
0	55	42	3 1 15	2	13	24	3 4 10
0	58	28	3 4 17	2	14	41	3 2½ 20
0	59	47	3 5 20	2	16	26	3 1 8
1	1	41	3 6½ 22	2	17	41	2 9½ 11
1	3	23	3 8 21	2	18	39	2 8½ 13
1	5	41	3 9½ 8	2	20	2	2 7 4
7	7	7	4 0½ 24	2	20	54	2 5½ 19
1	8	12	4 1 22	2	21	48	2 4½ 2
1	12	15	4 3 16	2	22	58	2 2 20
			1 3 10	2	24	27	2 0 10
Distance of Cusps.				Distance of Cusps.			
Enlightened disk at greatest obscuration.							

At 0^h 32^m, clock - 0^s, 5, and at 3^h 40^m, + 0^s, 5 of Transit clock.

End of Eclipse.

H. M. S.			H. M. S.		
Mr. Taylor, with 46 inch achromatic, magnifying power 75, at	2	29 23, 0	On North Terrace.		
„ Henry 30 „ „ 50,	2	29 26, 3	Clock + 0 ^s , 5 of Transit clock.		
„ Richardson 42 „ „ ..	2	29 23, 5			
„ Rogerson 15 „ „ 35	2	29 22, 0			
„ Ellis 5 feet equatorial „ 80	2	29 17, 0	Clock - 8 ^s , 8 of Transit clock.		
„ Simms, 30 inch achromatic, in the great room, 50	2	17 35, 0	Clock - 11 ^m 48 ^s , 7 of Transit clock.		

The difference of declination between the Sun's northern limb and the point where the Moon appeared to leave the Sun, measured by the micrometer of the 5 feet equatorial:

$$\begin{array}{r} \text{Div.} \\ 2105, 8 \\ \text{Index Error.....} -4, 0 \end{array} \left. \begin{array}{l} \text{Div.} \\ 2101, 8 \end{array} \right\} = 2101, 8 = 11' 4'', 3 \quad \text{Mr. Ellis.}$$

After the end of the Eclipse, the Sun's vertical and horizontal diameter were observed with the object-glass micrometer, as follow:—

In.	Pts.	Ver.	In.	Pts.	Ver.
4	9	20	4	9	20
4	9	17	4	9	20
4	9	18	4	9	20
4	9	18	4	9	20
4	9	17	4	9	19
4	9	18	4	9	18
Sun's vertical diameter,			Sun's horizontal diameter,		

by six measures of the scale by the Sun's limb, gave the vernier 6 divisions too great.

(1)

OBSERVATIONS

MADE WITH THE

MURAL CIRCLES,

FROM JULY 1 TO SEPTEMBER 30,

1833.

Observations of NORTH POLAR DISTANCE.

In the Year M.DCCC.XXXIII.

TROUGHTON.														
	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	1 JULY 1	29, 72	59	59	☉ U. L. - - - -	35 50, 7	46, 0	43, 7	46, 2	49, 0	52, 7	66 35 48, 1	48, 3	H.
2		29, 76	56	51	α Cor. Bor. - - -	42 24, 1	30, 0	25, 1	27, 2	29, 0	34, 2	62 42 28, 3	27, 1	„
3		...	..	..	α Serpents - - -	1 32, 0	30, 1	27, 0	30, 8	32, 1	37, 8	83 1 31, 6	31, 0	„
* 4		...	..	47	☉ U. L. - - - trem.	10 26, 0	21, 0	15, 6	21, 0	27, 0	28, 2	113 10 26, 5	23, 5	F. S.
5		29, 82	54	57	.....	...	..	..	..	..	..	....	..	„
6	2	29, 83	56	61	☉ U. L. - - uncertain,	40 6, 0	0, 3	58, 0	1, 5	1, 9	7, 8	66 40 2, 6	3, 1	F. S.
7		29, 88	58	57	Arcturus - - -	54 56, 7	53, 0	49, 8	54, 8	58, 6	0, 9	69 54 55, 6	54, 8	H.
8		29, 89	57	53	α Cor. Bor. - - R.	20 6, 0	2, 7	1, 2	5, 1	8, 1	10, 0	194 20 5, 5	4, 3	„
9		...	..	..	α Serpents - - -	1 32, 8	32, 0	28, 7	31, 3	33, 8	35, 7	83 1 32, 4	32, 4	„
10		...	53	50	* Draconis, A.R. 16 ^h 21 ^m	28 32, 2	32, 4	30, 6	33, 4	35, 7	36, 2	38 28 33, 4	32, 3	R.
11		...	..	..	* A.R. 16 ^h 27 ^m	29 51, 0	52, 0	48, 5	52, 4	55, 3	57, 1	38 29 52, 7	51, 5	„
12		...	..	52	* Camelopard. S.P. A.R. 16 ^h 37 ^m .	4 26, 8	23, 3	16, 3	21, 2	26, 3	26, 8	336 4 23, 5	25, 0	F. S.
13		29, 88	..	50	α Herculis - - R.	38 42, 2	38, 4	36, 0	39, 8	41, 7	44, 6	181 38 40, 5	40, 3	„
14		...	..	..	β Draconis - - -	34 8, 0	5, 3	2, 2	7, 3	9, 0	12, 5	37 34 7, 4	6, 6	„
* 15		...	..	..	γ - - -	29 6, 5	5, 5	2, 5	7, 3	9, 2	11, 3	38 29 7, 1	6, 0	R.
16		29, 86	50	48	☉ U. L. - - -	50 27, 0	21, 0	16, 2	21, 5	26, 5	27, 2	112 50 23, 2	24, 0	„
17		29, 90	55	59	☉ U. L. - - -	0 42, 8	47, 8	40, 2	45, 0	47, 6	50, 7	74 0 45, 7	45, 3	H.
18	3	29, 93	56	60	☉ L. L. - - - trem.	16 10, 3	8, 4	6, 2	9, 0	11, 8	12, 8	67 16 9, 8	9, 4	H.
19		29, 98	57	59	η Urs. Maj. - - -	50 42, 1	39, 0	36, 0	45, 1	46, 8	46, 3	39 50 42, 6	40, 5	„
20		...	..	55	α Serpents - - -	1 32, 2	30, 1	28, 2	30, 3	32, 8	37, 8	83 1 31, 9	31, 2	„
21		30, 00	55	52	* Draconis, A.R. 16 ^h 21 ^m	28 31, 2	33, 6	27, 5	32, 4	34, 6	34, 2	38 28 32, 3	32, 4	R.
22		...	..	..	* A.R. 16 ^h 27 ^m	29 50, 3	51, 7	47, 4	52, 3	56, 1	55, 1	38 29 52, 2	51, 0	„
23		...	..	..	* A.R. 16 ^h 47 ^m	34 56, 2	55, 0	53, 0	55, 0	59, 0	59, 3	38 34 56, 3	55, 6	„
24		...	..	..	* A.R. 17 ^h 0 ^m	30 55, 0	57, 2	53, 8	59, 2	1, 5	0, 9	38 30 59, 6	56, 1	„
25		30, 01	54	..	α Herculis - - -	23 56, 0	53, 1	48, 4	50, 0	53, 7	59, 8	75 23 53, 5	54, 6	F. S.
26		...	..	..	s Camelopard. S.P.	56 2, 0	1, 0	56, 6	0, 7	5, 4	6, 0	344 56 1, 9	1, 5	„
27		...	..	..	α Ophiuchi - - -	17 49, 0	43, 7	44, 2	44, 2	47, 3	53, 3	77 17 46, 9	46, 3	„
28		...	..	..	Camelop. 49 B. S.P.	45 43, 3	4, 0	35, 0	43, 0	45, 4	45, 7	356 45 42, 2	42, 1	„
29		...	..	..	γ Draconis - - -	29 5, 0	6, 0	2, 5	5, 3	8, 2	10, 4	38 29 6, 2	5, 5	R.
30		...	..	..	α Lyræ - - - cloudy,	21 41, 3	38, 8	34, 1	37, 0	43, 1	44, 0	51 21 39, 7	40, 1	E.
31		30, 05	55	60	☉ U. L. - - -	52 31, 0	30, 6	25, 0	30, 3	29, 2	30, 6	73 52 29, 5	30, 8	R.
32	4	30, 07	61	70	☉ U. L. - - -	49 37, 0	38, 1	33, 6	35, 7	39, 7	43, 2	66 49 37, 9	37, 6	H.
33		...	60	59	γ Draconis - v. cloudy,	29 5, 0	7, 4	4, 3	8, 5	10, 7	10, 2	38 29 7, 7	6, 2	E.
34	5	29, 93	62	62	β Urs. Min. - - -	9 46, 2	45, 0	49, 1	50, 8	52, 5	49, 6	15 9 48, 9	45, 6	H.
35		...	..	61	α Cor. Bor. - - -	42 30, 0	28, 8	26, 2	28, 3	32, 0	36, 3	62 42 30, 3	29, 4	„
36		...	..	..	α Serpents - - -	83 1, 0	32, 8	29, 0	31, 3	34, 7	40, 0	83 1 33, 5	32, 9	„
37		29, 91	61	59	* Draconis, A.R. 16 ^h 27 ^m	29 50, 2	51, 4	48, 0	51, 4	53, 6	54, 2	38 29 51, 5	50, 8	E.
38		...	..	..	* - - -	30 55, 7	56, 3	55, 6	56, 5	0, 4	0, 4	38 30 57, 5	56, 0	„
39		...	60	58	v Scorpii - v. faint,	39 52, 0	52, 4	45, 0	50, 7	54, 0	55, 8	126 39 51, 6	52, 2	F. S.
40		...	..	..	β Draconis - - -	34 5, 2	6, 2	3, 7	3, 7	7, 4	13, 2	37 34 6, 6	5, 7	„
41		...	..	..	γ Telescopii - faint,	40 11, 2	11, 3	2, 3	10, 3	11, 7	15, 3	126 40 10, 4	11, 3	„
42		29, 90	..	..	γ Draconis - - -	29 4, 8	5, 6	2, 1	6, 3	8, 0	10, 7	38 29 6, 3	5, 2	E.
43		...	..	..	* B.A.R. 18 ^h 18 ^m ,	32 11, 4	11, 0	9, 4	12, 7	14, 3	16, 4	38 32 12, 5	11, 2	„
44		...	..	..	δ Urs. Min. - - -	25 17, 8	15, 3	11, 2	15, 7	18, 0	21, 7	3 25 16, 6	16, 6	„
45		...	..	..	α Lyræ - - -	21 39, 7	38, 8	35, 8	39, 1	41, 4	43, 4	51 21 39, 7	39, 3	„
46		29, 88	59	57	λ Draconis - - -	6 54, 5	51, 4	49, 0	55, 4	57, 8	57, 6	16 6 54, 3	53, 0	„
47		...	..	56	Vesta - - -	47 21, 2	17, 8	13, 7	18, 5	21, 4	23, 6	112 47 19, 4	19, 5	R.
48		29, 75	61	67	☉ U. L. - - -	35 24, 7	23, 8	19, 3	22, 7	27, 9	29, 4	73 35 24, 6	24, 3	E.
49	6	29, 71	65	72	☉ L. L. - - -	32 28, 4	24, 2	21, 0	25, 3	22, 8	34, 2	67 32 25, 9	26, 3	H.
50		29, 62	67	71	Polaris - S.P.	25 31, 6	30, 0	27, 5	32, 2	34, 8	36, 8	358 25 32, 1	30, 8	R.
51		...	..	69	η Urs. Maj. - - -	50 39, 8	40, 3	37, 6	42, 8	45, 2	47, 6	39 50 42, 2	40, 1	H.
52		...	..	68	α Draconis - - -	49 17, 8	18, 3	13, 6	21, 3	23, 4	24, 8	24 49 19, 9	18, 0	„
53		...	..	..	Arcturus - - -	55 57, 0	56, 8	54, 7	55, 8	59, 8	3, 2	69 55 57, 9	56, 9	„
54		...	..	..	.....	...	..	..	..	..	..	....	..	„
55		29, 61	..	66	β Urs. Min. - - -	9 45, 8	44, 9	40, 2	49, 8	47, 2	50, 8	15 9 48, 0	45, 4	„
56		29, 60	66	64	α Cor. Bor. - - -	42 28, 8	27, 3	25, 8	28, 2	32, 8	36, 0	62 42 29, 8	28, 1	„
57		...	..	63	α Serpents - - -	1 34, 0	34, 9	31, 3	32, 8	35, 8	41, 3	83 1 35, 0	34, 5	„

* 4—The Moon partly eclipsed at the time of observation.

* 15—Cloudy when Vesta passed the meridian.

Observations of NORTH POLAR DISTANCE.

3

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	JULY 1	⊙ L. L. - - -	7 21, 6	20, 0	16, 1	18, 2	24, 8	23, 7	67 7 20, 7	20, 8	..	..	W. R.
2		α Cor. Bor. - - R.	20 6, 0	11, 4	3, 8	4, 0	12, 0	11, 0	194 20 8, 0	8, 7	..	..	..
3		α Serpentiis - - -	1 32, 6	33, 8	32, 1	31, 5	33, 2	33, 6	83 1 32, 8	33, 2	+ 1, 2	+ 2, 2	..
4		⊙ U. L. - - -	10 20, 2	28, 8	26, 2	23, 5	27, 5	23, 1	113 10 24, 9	24, 5	- 1, 6	+ 1, 0	R.
5		⊙ U. L. - - -	8 44, 0	43, 6	39, 6	41, 7	46, 4	44, 8	74 8 43, 3	43, 8	..	..	W. R.
6	JULY 2	⊙ U. L. - - -	40 6, 0	6, 2	1, 4	0, 4	7, 6	7, 3	66 40 4, 8	6, 1	+ 2, 2	+ 3, 0	W. R.
7		Arcturus - - -	55 57, 0	58, 2	53, 6	54, 8	59, 6	59, 5	69 55 57, 1	57, 6	+ 1, 5	+ 2, 8	..
8		α Cor. Bor. - - -	42 32, 0	28, 0	28, 2	31, 1	31, 8	29, 8	62 42 30, 2	30, 0	..	..	R.
9		α Serpentiis - - -	1 33, 0	34, 6	34, 6	35, 6	32, 3	31, 7	83 1 33, 6	33, 8	+ 1, 2	+ 1, 4	..
10		.....	...	..	..	..	..	..	.....	..	..	..	..
11		.....	...	..	..	..	..	..	.....	..	..	..	..
12		* Camelop. - S.P. A. R. 16 ^h 37 ^m .	4 26, 0	25, 0	20, 9	23, 6	28, 2	29, 4	336 4 25, 5	25, 5	+ 2, 0	+ 0, 5	..
13		α Herculis - - -	23 55, 5	53, 5	53, 2	54, 1	56, 1	55, 3	75 23 54, 6	54, 5	..	..	..
14		β Draconis - - -	34 8, 6	10, 8	8, 6	6, 5	12, 2	8, 6	37 34 9, 2	9, 7	+ 1, 8	+ 3, 1	..
15		.....	...	..	..	..	..	..	.....	..	..	..	..
16		.....	...	..	..	..	..	..	.....	..	..	..	..
17		.....	...	..	..	..	..	..	.....	..	..	..	..
18	JULY 3	⊙ U. L. - - -	44 37, 0	39, 0	38, 0	33, 2	41, 7	40, 8	66 44 38, 3	38, 0	..	..	R.
19		.....	...	..	..	..	..	..	.....	..	..	..	..
20		.....	...	..	..	..	..	..	.....	..	..	..	..
21		.....	...	..	..	..	..	..	.....	..	..	..	..
22		.....	...	..	..	..	..	..	.....	..	..	..	..
23		.....	...	..	..	..	..	..	.....	..	..	..	..
24		.....	...	..	..	..	..	..	.....	..	..	..	..
25		α Herculis - - R.	38 41, 0	46, 0	42, 6	39, 0	47, 5	42, 6	181 38 43, 1	43, 5	..	..	..
26		s Camelopard. S.P.	56 6, 3	2, 1	58, 0	59, 9	8, 2	7, 6	344 56 3, 7	4, 2	+ 1, 8	+ 2, 7	..
27		α Ophiuchi - - R.	44 47, 8	51, 2	46, 5	43, 8	51, 8	45, 3	179 44 47, 7	49, 5	..	..	..
28		Camelop. 49 B. S.P.	45 47, 0	43, 0	40, 8	43, 6	45, 9	46, 6	356 45 44, 5	45, 0	+ 2, 3	+ 2, 9	..
29		.....	...	..	..	..	..	..	.....	..	..	..	..
30		α Lyrae - cloudy, R.	40 55, 0	59, 0	56, 3	54, 0	58, 3	59, 9	205 40 57, 1	57, 0	..	..	..
31		.....	...	..	..	..	..	..	.....	..	..	..	..
32	JULY 4	⊙ L. L. - - -	21 12, 5	12, 9	10, 5	7, 6	14, 6	13, 8	67 21 12, 0	12, 7	..	..	R.
33		γ Draconis - - -	29 6, 2	12, 4	10, 2	6, 3	12, 4	7, 3	38 29 9, 2	9, 3	+ 1, 5	+ 3, 1	..
34	JULY 5	β Urs. Min. - - -	9 49, 2	52, 4	46, 7	47, 7	50, 7	50, 4	15 9 49, 5	50, 8	+ 0, 6	+ 5, 2	W. R.
35		α Cor. Bor. - - -	42 30, 2	31, 4	27, 5	26, 2	35, 2	33, 8	62 42 30, 7	30, 8	+ 0, 4	+ 1, 4	..
36		α Serpentiis - - -	1 35, 8	37, 4	34, 8	35, 0	34, 8	36, 0	83 1 35, 6	36, 6	+ 2, 1	+ 3, 7	..
37		* Draconis, A. R. 16 ^h 27 ^m	29 52, 8	58, 8	54, 7	52, 3	58, 3	54, 7	38 29 55, 4	55, 8	+ 3, 9	+ 5, 8	R.
38		* A. R. 17 ^h 0 ^m	30 58, 3	4, 5	1, 2	57, 4	3, 9	59, 6	38 30 0, 8	1, 4	+ 3, 3	+ 5, 4	..
39		υ Scorpii - ex. faint,	39 38, 0	49, 0	44, 3	40, 0	47, 1	42, 3	126 39 43, 5	43, 5	..	..	..
40		β Draconis - - -	34 5, 7	11, 5	6, 8	3, 3	14, 2	10, 6	37 34 8, 7	8, 6	+ 2, 1	+ 2, 9	..
41		γ Telescopii, v. faint,	40 20, 2	26, 4	24, 3	21, 0	26, 5	20, 7	126 40 23, 2	23, 3	..	..	..
42		γ Draconis - - -	29 7, 3	11, 4	10, 4	7, 0	15, 2	10, 6	38 29 10, 3	9, 3	+ 4, 0	+ 4, 1	..
43		* A. R. 18 ^h 18 ^m	32 12, 4	18, 7	16, 5	12, 5	22, 3	17, 5	38 32 15, 7	15, 6	+ 3, 2	+ 4, 4	..
44		δ Urs. Min. - - R.	37 18, 0	18, 6	13, 2	16, 3	24, 3	23, 6	253 37 19, 0	18, 3	..	..	..
45		α Lyrae - - - R.	40 56, 2	0, 8	57, 7	53, 0	2, 3	57, 7	205 40 57, 9	58, 5	..	..	..
46		λ Draconis - - R.	55 40, 0	43, 0	35, 5	37, 6	49, 2	47, 0	240 55 42, 0	43, 5	..	..	..
47		.....	...	..	..	..	..	..	.....	..	..	..	..
48		.....	...	..	..	..	..	..	.....	..	..	..	..
49	JULY 6	⊙ U. L. - - -	0 54, 0	57, 0	50, 7	48, 0	58, 6	58, 2	67 0 54, 4	55, 5	..	..	F. S.
50		Polaris - - S.P.	25 36, 3	32, 9	30, 4	32, 6	35, 8	38, 6	358 25 34, 4	34, 6	+ 2, 3	+ 3, 8	R.
51		η Urs. Maj. - - -	50 42, 0	50, 6	45, 1	40, 1	50, 4	46, 2	39 50 45, 7	46, 3	+ 3, 5	+ 5, 0	W. R.
52		α Draconis - - -	49 18, 8	29, 0	20, 4	17, 7	22, 6	22, 6	24 49 22, 7	23, 9	+ 2, 8	+ 5, 9	..
53		Arcturus - - R.	6 34, 4	44, 4	37, 8	31, 6	42, 6	39, 7	187 6 38, 4	39, 4	..	..	..
54		ε Bootis - - -	12 28, 8	28, 6	25, 4	23, 2	30, 7	31, 0	62 12 28, 0	28, 7	..	..	..
55		β Urs. Min. - - R.	52 50, 2	55, 6	44, 4	43, 6	58, 4	57, 7	241 52 51, 7	52, 9	..	..	..
56		α Cor. Bor. - - R.	20 3, 7	13, 3	5, 2	1, 8	12, 6	10, 8	194 20 7, 9	8, 3	..	..	..
57		α Serpentiis - - R.	0 58, 4	9, 8	2, 7	57, 7	7, 3	1, 7	174 1 2, 9	4, 1	..	..	..

* 4—The Moon was partly eclipsed at the time of observation. R.

Observations of NORTH POLAR DISTANCE.

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^t		NAMES of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	h JULY 6	29, 57	63	62	α Herculis - - R.	38 39, 4	39, 0	36, 2	39, 8	41, 7	44, 6	181 38 40, 1	39, 2	F. S.
2	...	...	...	61	ρ^2 Draconis - - -	51 17, 3	16, 6	15, 2	17, 3	21, 0	24, 2	52 51 18, 6	16, 9	..
3	...	...	...	...	α Ophiuchi - - R.	44 47, 2	45, 0	43, 1	45, 8	48, 6	53, 1	179 44 47, 1	46, 1	..
4	...	29, 55	...	...	* Draconis - - -	28 17, 8	17, 6	15, 9	17, 4	18, 6	24, 3	38 28 18, 6	17, 7	E.
5	...	...	...	...	γ - - -	29 4, 3	5, 4	4, 8	6, 8	7, 8	11, 3	38 29 6, 7	4, 9	..
6	...	...	62	60	*..... A.R. 18 ^h 18 ^m ,	32 9, 7	10, 5	8, 8	12, 4	15, 8	15, 0	38 32 12, 0	10, 1	..
7	...	...	...	...	α Lyræ - - - R.	40 54, 8	55, 0	51, 8	56, 5	0, 7	57, 7	205 40 56, 1	54, 9	..
8	...	...	...	...	β - - -	49 7, 8	6, 0	4, 6	5, 0	8, 8	12, 8	56 49 7, 5	6, 9	..
9	...	...	...	...	Camelop. 25 H. S.P.	43 13, 3	13, 0	7, 3	12, 6	17, 5	18, 7	352 43 13, 7	13, 2	..
10	...	...	...	...	Vesta - - - -	53 18, 0	16, 0	11, 0	15, 6	19, 2	24, 3	112 53 17, 4	17, 0	..
11	δ 9	29, 98	61	64	Polaris - S.P.	25 34, 8	32, 2	29, 2	34, 0	34, 8	37, 2	358 25 33, 7	33, 5	H.
12	...	...	...	63	Arcturus - - -	55 57, 0	53, 3	51, 0	54, 8	59, 8	1, 3	69 55 56, 2	55, 2	..
13	...	...	...	...	β Urs. Min. - - -	9 46, 9	45, 1	39, 8	49, 7	49, 8	51, 9	15 9 47, 2	46, 0	..
14	...	...	...	62	α Cor. Bor. - - R.	20 6, 6	5, 3	2, 3	9, 1	4, 3	10, 2	194 20 6, 2	5, 7	..
15	...	...	...	61	α Serpentis - - R.	1 1, 3	0, 2	58, 1	4, 7	6, 3	7, 8	174 1 3, 2	0, 8	..
16	...	...	60	58	δ Ophiuchi - - -	14 2, 1	2, 0	59, 8	1, 7	5, 8	8, 7	93 14 3, 4	2, 0	..
17	...	...	...	...	* Draconis, A.R. 16 ^h 21 ^m	28 33, 4	32, 8	28, 7	33, 0	36, 7	36, 1	38 28 33, 5	33, 1	E.
18	...	...	...	...	*..... A.R. 16 ^h 27 ^m ,	29 51, 7	51, 3	47, 8	51, 1	54, 5	55, 0	38 29 51, 9	51, 5	..
19	...	...	...	...	16 ^h - - -	43 58, 5	59, 3	56, 8	59, 8	1, 0	4, 2	36 43 59, 1	58, 9	F. S.
20	...	...	...	57	* Camelopard. S.P. A.R. 16 ^h 37 ^m .	4 23, 8	22, 0	17, 0	20, 0	23, 2	24, 3	326 4 21, 7	22, 9	..
21	...	...	...	...	10..... S.P.	13 22, 2	21, 3	15, 6	19, 5	25, 4	27, 0	330 13 21, 8	21, 8	..
22	...	...	59	56	* Draconis, A.R. 17 ^h 0 ^m ,	30 56, 6	56, 0	53, 1	54, 6	0, 6	1, 1	38 30 57, 0	56, 3	E.
23	...	...	...	...	ν Serpentis - - -	38 10, 3	9, 0	5, 6	7, 3	11, 3	16, 5	102 38 10, 0	9, 6	F. S.
24	...	...	...	...	ν Scorpii - - faint,	39 46, 0	44, 6	38, 1	44, 0	47, 3	49, 6	126 39 44, 9	46, 3	..
25	...	...	...	...	α Ophiuchi - - R.	44 50, 0	45, 0	44, 1	47, 1	50, 7	52, 8	179 44 48, 3	47, 5	..
26	...	...	...	...	γ Draconis - - -	29 4, 2	4, 3	2, 1	4, 0	7, 6	9, 0	38 29 5, 2	4, 3	E.
27	...	...	...	...	*..... B. A.R. 18 ^h 18 ^m ,	32 11, 3	9, 3	7, 6	10, 0	14, 6	14, 1	38 32 11, 2	10, 3	..
28	...	...	58	55	α Lyræ - - - -	21 38, 2	36, 7	33, 0	35, 6	40, 7	41, 2	51 21 37, 6	37, 4	F. S.
29	...	...	...	...	β - - - R.	13 30, 7	28, 3	26, 8	28, 8	32, 8	36, 0	200 13 30, 6	29, 5	..
*30	...	...	...	...	Vesta - - - -	10 35, 7	34, 5	27, 0	32, 8	37, 0	38, 4	113 10 34, 2	35, 1	..
31	ξ 10	29, 90	60	67	☉ U. L. - - - -	28 2, 0	3, 1	57, 3	0, 4	4, 2	6, 2	67 28 2, 2	2, 6	H.
32	...	29, 87	66	72	Polaris - S.P.	25 32, 8	33, 4	27, 2	32, 0	34, 3	37, 0	358 25 32, 8	33, 1	R.
33	...	...	...	69	Arcturus - - -	55 55, 2	54, 6	55, 3	56, 2	0, 7	0, 2	69 55 57, 0	54, 9	H.
34	...	29, 86	...	66	β Urs. Min. - - R.	52 47, 0	48, 8	45, 0	50, 2	50, 3	54, 0	241 52 49, 2	47, 9	..
35	...	...	65	65	α Cor. Bor. - - R.	20 5, 8	6, 2	2, 6	8, 6	8, 3	10, 7	194 20 7, 0	6, 0	..
36	...	...	64	...	δ Ophiuchi - - -	14 4, 0	6, 2	4, 7	3, 0	6, 6	11, 6	93 14 6, 0	5, 1	..
37	...	...	...	64	15 Draconis - - R.	10 20, 3	21, 3	18, 8	18, 8	21, 7	29, 5	236 10 21, 7	20, 8	F. S.
38	...	...	...	...	* Camelopard. S.P. A.R. 16 ^h 37 ^m .	4 19, 2	21, 0	15, 0	18, 2	20, 8	22, 7	336 4 19, 5	20, 1	..
39	...	...	...	...	10..... S.P.	13 18, 0	19, 0	13, 7	18, 0	22, 2	23, 7	330 13 19, 1	18, 5	..
40	...	...	...	...	19 Draconis - - -	36 30, 0	30, 4	27, 0	33, 0	35, 4	35, 7	24 36 31, 0	30, 2	..
41	...	...	...	...	α Herculis, cloudy, R.	38 40, 0	39, 8	36, 3	39, 0	41, 5	45, 0	181 38 40, 3	39, 9	..
42	...	...	...	...	γ Draconis - v. cloudy,	29 3, 9	5, 0	5, 6	9, 8	9, 2	8, 7	38 29 6, 9	4, 5	E.
43	♀ 12	29, 76	58	53	γ Draconis - v. cloudy,	29 3, 7	3, 6	0, 7	5, 1	10, 1	10, 6	38 29 5, 6	3, 7	E.
44	☉ 14	29, 91	60	63	♀ U. L. - - - -	12 22, 0	16, 8	16, 7	18, 5	23, 2	23, 9	72 12 19, 4	20, 2	E.
45	δ 15	29, 94	63	71	☉ L. L. - - - -	42 7, 4	8, 0	4, 7	5, 7	8, 7	10, 2	68 42 7, 5	7, 7	F. S.
46	...	30, 00	...	65	ϵ Bootis - - - -	12 25, 2	23, 3	21, 2	20, 8	26, 7	29, 0	62 12 24, 4	24, 2	H.
47	...	...	...	...	β Urs. Min. - - -	9 45, 0	44, 2	39, 2	48, 8	47, 2	50, 3	15 9 45, 8	44, 6	..
48	...	30, 01	62	62	α Cor. Bor. - - -	42 27, 1	27, 0	23, 6	27, 6	28, 3	33, 4	62 42 27, 8	27, 1	..
49	...	...	...	...	α Serpentis - - -	1 31, 8	31, 7	28, 6	30, 6	32, 0	38, 6	83 1 32, 2	31, 8	..
50	...	30, 02	61	60	δ Ophiuchi - - -	14 1, 8	2, 2	57, 3	0, 0	4, 8	7, 3	93 14 2, 2	2, 0	..
51	...	...	...	...	Antares - - - -	59 1, 3	3, 2	55, 3	58, 2	5, 3	7, 2	115 59 1, 8	2, 2	..
52	...	30, 03	...	...	20 Ophiuchi - - -	26 57, 0	58, 2	53, 7	55, 7	59, 8	2, 8	100 26 57, 9	57, 7	F. S.
53	...	...	...	...	23..... - - -	50 50, 0	48, 8	46, 2	47, 2	52, 0	54, 1	95 50 49, 7	49, 7	..
54	...	...	...	...	19 Draconis - - cloudy,	36 29, 0	27, 8	24, 8	31, 0	31, 2	34, 7	24 36 29, 7	28, 4	..
55	...	30, 04	60	59	η Ophiuchi - - -	28 19, 2	17, 3	13, 9	17, 0	23, 0	21, 9	105 28 18, 9	18, 3	..
56	...	...	...	...	α Herculis - - -	23 54, 0	50, 2	50, 3	50, 8	55, 7	57, 7	75 23 53, 1	52, 1	..

* 30—Could not observe the Moon, owing to the density of the fog. R.

Observations of NORTH POLAR DISTANCE.

5

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6.	2.	
1	JULY 6	α Herculis - - -	23 56, 2	56, 6	55, 4	54, 6	59, 9	58, 3	75 23 56, 8	56, 4	..	..	R.
2		ρ - - -	41 18, 5	20, 5	17, 6	16, 3	23, 2	20, 9	52 41 19, 5	19, 5	+ 0, 9	+ 2, 6	..
3		α Ophiuchi - - -	17 51, 8	48, 6	47, 5	49, 0	53, 1	49, 2	77 17 49, 9	50, 2	..	..	..
4		* Draconis, A.R. 17 ^h 50 ^m	28 19, 2	24, 6	22, 3	17, 6	25, 0	20, 0	38 28 21, 5	21, 9	+ 2, 9	+ 4, 2	..
5		γ - - -	29 5, 6	11, 8	9, 2	5, 6	13, 3	5, 7	38 29 8, 5	8, 7	+ 1, 8	+ 3, 8	..
6		* B. A.R. 18 ^h 18 ^m	32 12, 3	18, 1	15, 9	12, 2	19, 1	13, 6	38 32 15, 2	15, 2	+ 3, 2	+ 5, 1	..
7		α Lyræ - - - -	21 40, 2	41, 0	38, 2	38, 6	44, 3	42, 7	51 21 40, 8	40, 5	..	..	..
8		β - - - -	49 8, 3	9, 1	6, 8	5, 5	13, 1	11, 2	56 49 9, 0	8, 7	+ 1, 5	+ 1, 8	..
9		Camelop. 25 H. S.P.	43 17, 6	14, 2	12, 3	14, 0	17, 6	18, 2	352 43 15, 9	15, 6	+ 2, 2	+ 2, 4	..
10		Vesta - - - -	53 16, 5	22, 1	22, 0	18, 3	20, 5	15, 8	112 53 19, 2	19, 3	+ 1, 8	+ 2, 2	..
11	JULY 9	Polaris - S.P.	25 34, 8	40, 0	32, 6	36, 7	38, 8	36, 2	358 25 36, 5	37, 4	+ 2, 8	+ 3, 9	W.R.
12		Arcturus - - -	55 57, 7	58, 1	52, 8	53, 6	1, 2	0, 6	69 55 57, 3	57, 9	+ 1, 1	+ 2, 7	
13		β Urs. Min. - - R.	52 49, 4	53, 0	42, 6	42, 5	58, 5	58, 4	241 52 50, 7	51, 2	..	..	..
14		α Cor. Bor. - - -	12 31, 0	29, 2	24, 7	24, 3	35, 6	34, 6	62 12 29, 9	30, 1	..	..	..
15		α Serpentis - - -	1 33, 7	35, 1	32, 6	30, 8	35, 2	36, 8	83 1 34, 0	34, 4	..	..	..
16		δ Ophiuchi - - -	14 6, 0	5, 6	2, 6	4, 0	7, 4	4, 4	93 14 5, 0	5, 8	+ 1, 6	+ 3, 8	..
17		* A.R. 16 ^h 21 ^m	28 31, 8	36, 5	32, 5	28, 7	38, 3	33, 6	38 28 33, 6	34, 1	+ 0, 1	+ 1, 0	R.
18		* A.R. 16 ^h 27 ^m	29 50, 8	56, 4	52, 5	49, 3	57, 2	57, 5	38 29 53, 9	53, 6	+ 2, 0	+ 2, 1	..
19		16 ^h Draconis - - -	43 56, 0	3, 2	58, 0	55, 0	3, 1	2, 4	36 43 0, 0	59, 6	+ 0, 9	+ 0, 7	..
20		* Camelopard. S.P. A.R. 16 ^h 37 ^m	4 25, 3	23, 3	17, 6	18, 8	28, 3	30, 7	326 4 24, 0	24, 3	+ 2, 3	+ 1, 4	..
21		10 S.P.	13 23, 3	22, 3	16, 3	17, 2	28, 6	30, 5	330 13 23, 0	22, 8	+ 1, 2	+ 1, 0	..
22		* Draconis, A.R. 17 ^h 0 ^m	30 56, 2	2, 8	58, 0	55, 3	4, 0	57, 6	38 30 59, 0	59, 5	+ 2, 0	+ 3, 2	..
23		ν Serpentis - - -	38 10, 0	10, 8	10, 7	10, 5	9, 6	10, 8	102 38 10, 4	10, 4	+ 0, 4	+ 0, 8	..
24		.....	..	..	..	..	..	..	..	..	..	..	..
25		α Ophiuchi - - -	17 49, 6	45, 8	46, 3	47, 0	49, 2	48, 6	77 17 46, 0	47, 7	..	..	..
26		γ Draconis - - -	29 5, 2	11, 3	8, 7	5, 4	12, 3	6, 5	38 29 8, 2	8, 3	+ 3, 0	+ 4, 0	..
27		* B. A.R. 18 ^h 18 ^m	32 12, 2	14, 6	13, 6	11, 5	17, 2	9, 5	38 32 13, 1	13, 4	+ 1, 9	+ 3, 1	..
28		α Lyræ - - - -	21 39, 6	40, 0	37, 7	37, 2	43, 1	38, 6	51 21 39, 4	39, 8	+ 1, 8	+ 2, 4	..
29		β - - - -	49 6, 2	7, 6	4, 8	5, 1	10, 3	6, 5	56 49 6, 8	6, 9	..	..	..
30		Vesta - - - -	10 33, 7	40, 2	39, 1	36, 5	38, 1	32, 4	113 10 36, 7	37, 0	+ 2, 5	+ 1, 9	..
31	JULY 10	☉ L. L. - - - -	59 35, 0	36, 0	35, 2	31, 9	37, 2	37, 6	67 59 35, 5	35, 5	..	..	R.
32		Polaris - S.P.	25 39, 5	34, 8	32, 4	35, 7	35, 6	38, 3	358 25 36, 1	37, 2	+ 3, 3	+ 4, 1	W. R.
33		Arcturus - - -	55 58, 8	59, 2	54, 6	55, 2	0, 4	2, 1	69 55 58, 4	59, 0	+ 1, 4	+ 4, 1	
34		β Urs. Min. - - -	9 48, 0	52, 4	47, 6	47, 4	49, 0	48, 7	15 9 48, 9	50, 2	..	..	..
35		α Cor. Bor. - - -	42 30, 6	30, 4	26, 4	26, 4	34, 8	32, 2	62 42 30, 1	30, 5	..	..	..
36		δ Ophiuchi - - -	14 5, 4	7, 4	5, 6	7, 6	6, 0	4, 0	93 14 6, 0	6, 4	0, 0	+ 1, 3	..
37		15 Draconis - - -	52 17, 0	19, 0	16, 5	17, 0	20, 1	17, 3	20 52 17, 8	18, 0	..	..	R.
38		* Camelopard. S.P. A.R. 16 ^h 37 ^m	4 20, 7	19, 1	15, 3	16, 8	22, 8	25, 7	336 4 20, 1	19, 0	+ 0, 6	0, 2	..
39		10 S.P.	13 22, 0	19, 0	15, 1	16, 5	25, 3	26, 2	330 13 20, 7	20, 5	+ 1, 6	+ 2, 0	..
40		19 Draconis - - -	36 31, 0	37, 0	32, 5	30, 6	37, 1	32, 1	24 36 33, 4	34, 0	+ 1, 5	+ 3, 8	..
41		α Herculis - - -	23 54, 3	55, 7	56, 8	56, 6	56, 8	59, 2	75 23 56, 6	55, 0	..	..	..
42		γ Draconis - - - } cloudy,	29 4, 0	12, 2	9, 1	6, 3	11, 4	7, 5	38 29 8, 4	8, 1	+ 1, 5	+ 3, 6	..
43	♀	12 γ Draconis - v. cloudy,	29 3, 8	11, 2	8, 8	5, 2	12, 2	6, 2	38 29 7, 9	7, 5	+ 2, 3	+ 3, 8	R.
44	☉	14 .....	...	..	..	..	..	..	.....	..	..	..	
45	JULY 15	☉ U. L. - - - -	10 35, 5	41, 7	35, 2	30, 6	41, 4	40, 4	68 10 37, 5	38, 6	..	..	W. R.
46		ϵ Bootis - - -	12 26, 8	26, 0	23, 2	22, 8	29, 6	29, 3	62 12 26, 3	26, 4	+ 1, 9	+ 2, 2	
47		β Urs. Min. - - R.	52 49, 0	55, 8	43, 5	44, 2	0, 0	58, 0	241 52 51, 8	52, 4	..	..	..
48		α Cor. Bor. - - R.	20 6, 0	14, 6	7, 8	5, 8	13, 6	12, 4	194 20 10, 0	10, 3	..	..	..
49		α Serpentis - - R.	1 1, 6	11, 4	4, 0	0, 6	9, 7	5, 6	174 1 5, 5	6, 5	..	..	..
50		δ Ophiuchi - - -	14 1, 2	5, 6	5, 1	3, 8	7, 2	4, 3	93 14 4, 5	3, 4	+ 2, 3	+ 1, 4	R.
51		Antares - - -	58 57, 2	7, 8	5, 8	2, 0	8, 6	3, 2	115 59 4, 1	2, 5	+ 2, 3	+ 0, 3	..
52		20 Ophiuchi - - -	26 58, 8	2, 2	0, 7	58, 6	2, 0	58, 6	100 27 0, 2	0, 5	+ 2, 3	+ 2, 8	..
53		23 - - -	50 49, 8	51, 6	51, 9	51, 8	51, 7	50, 2	95 50 51, 2	50, 7	+ 1, 5	+ 1, 0	..
54		19 Draconis, cloudy, R.	26 5, 8	9, 2	1, 8	2, 3	16, 3	13, 9	232 26 7, 9	7, 5	..	..	..
55		η Ophiuchi - - -	28 17, 6	23, 4	22, 5	20, 9	23, 1	18, 2	105 28 21, 0	20, 5	+ 2, 1	+ 2, 2	..
56		α Herculis, cloudy, R.	38 40, 3	48, 9	44, 3	37, 2	49, 3	45, 7	181 38 44, 3	44, 6	..	..	..

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	15	30, 04	60	59	ϕ^2 Herculis - } cloudy,	41 15, 4	12, 3	14, 3	15, 0	18, 3	21, 2	52 41 12, 7	13, 8	F. S.
2		...	...	...	α Ophiuchi - }	17 46, 8	43, 7	44, 4	44, 4	46, 3	49, 2	77 17 45, 7	45, 0	, ,
3		...	...	...	γ Draconis - - -	29 2, 0	3, 2	57, 7	2, 7	6, 5	7, 4	38 29 3, 3	2, 6	E.
4		...	...	...	*..... A.R. 18 ^h 18 ^m ,	32 7, 0	7, 4	4, 7	9, 0	12, 8	12, 6	38 32 8, 9	7, 2	, ,
5		...	59	57	δ Urs. Min. - - -	25 14, 0	12, 7	11, 4	14, 0	15, 3	18, 2	3 25 14, 3	13, 7	F. S.
6		...	...	...	α Lyrae - - - -	21 36, 0	35, 3	33, 1	34, 4	38, 8	40, 2	51 21 36, 3	35, 7	, ,
7		...	...	...	β - - - -	49 4, 4	3, 3	2, 8	2, 0	7, 4	12, 3	56 49 5, 4	3, 8	, ,
8		...	...	56	Vesta - - - -	44 2, 5	2, 7	52, 4	58, 2	2, 2	5, 8	113 44 0, 6	2, 6	, ,
9		...	...	...	ζ Aquilæ - - -	21 50, 2	45, 7	46, 0	45, 7	47, 3	52, 0	76 21 47, 8	47, 9	, ,
10		39, 10	...	63	η U. L. - - - trem.	3 0, 3	56, 4	55, 3	56, 8	59, 6	13, 6	72 3 58, 7	58, 3	, ,
11	16	30, 11	65	70	$\odot$ U. L. - - - -	20 8, 3	16, 1	16, 2	8, 5	16, 5	15, 4	68 20 12, 2	12, 2	R.
12		...	66	71	Polaris - S.P.	25 33, 2	31, 8	30, 3	36, 4	33, 6	37, 6	358 25 33, 8	32, 5	H.
13		...	65	68	Arcturus - - -	55 55, 3	54, 8	52, 3	54, 2	58, 6	1, 6	69 55 56, 1	55, 1	, ,
14		...	63	62	α Herculis - - R.	38 42, 0	40, 0	39, 0	41, 7	45, 0	48, 2	181 38 42, 6	43, 0	F. S.
15		...	...	...	α Ophiuchi - - R.	44 50, 0	46, 0	44, 0	49, 0	52, 3	52, 8	179 44 49, 0	48, 0	, ,
16		...	...	...	γ Draconis - - -	29 1, 6	1, 3	58, 3	3, 8	4, 7	8, 2	38 29 3, 0	1, 5	E.
17		...	...	...	*..... B.A.R. 18 ^h 18 ^m ,	32 7, 6	8, 1	5, 3	9, 3	11, 4	11, 8	38 32 8, 9	7, 9	, ,
18	17	30, 12	65	75	$\odot$ L. L. - - - v. trem.	1 46, 0	44, 4	46, 0	44, 8	47, 3	47, 4	69 1 45, 9	45, 2	F. S.
19		30, 10	64	63	γ Draconis - - v. cloudy,	29 1, 4	3, 0	58, 4	3, 8	5, 3	7, 3	38 29 3, 2	2, 2	E.
20	18	30, 04	68	77	$\odot$ U. L. - - - -	40 32, 1	35, 7	28, 0	31, 7	35, 8	37, 7	68 40 33, 6	33, 9	H.
21	22	29, 58	63	66	Polaris - S.P.	25 36, 0	34, 0	29, 8	32, 6	35, 3	36, 2	358 25 34, 0	35, 0	R.
22		29, 59	...	...	*.....	...	...	...	...	...	...	...	...	, ,
23		29, 60	...	65	ϵ Bootis - - - -	12 25, 3	23, 6	21, 3	23, 0	30, 2	30, 3	62 12 25, 6	24, 5	H.
24		...	...	...	β Urs. Min. - - -	9 45, 0	45, 1	38, 8	47, 8	48, 7	49, 8	15 9 45, 9	45, 0	, ,
25		...	...	64	α Cor. Bor. - - -	42 28, 2	26, 0	22, 4	26, 7	27, 6	31, 3	62 42 27, 0	27, 1	, ,
26		...	...	63	α Serpentis - - -	1 33, 2	34, 0	29, 3	32, 6	33, 2	38, 2	83 1 33, 4	33, 6	, ,
27		29, 62	62	61	Antares - - - -	59 9, 2	9, 1	1, 2	5, 3	11, 3	14, 6	115 59 8, 5	9, 2	, ,
28		29, 65	61	60	α Ophiuchi - - -	17 47, 5	45, 2	44, 3	43, 7	48, 5	54, 4	77 17 47, 3	46, 3	F. S.
29		...	...	59	ω Draconis - - -	9 57, 7	55, 5	53, 7	56, 3	57, 0	58, 6	21 9 56, 4	56, 6	, ,
30		...	...	...	γ - } cloudy,	29 2, 3	2, 8	57, 6	3, 0	6, 8	6, 7	38 29 3, 2	2, 6	E.
31		...	...	...	*..... - }	32 7, 3	6, 8	3, 6	7, 7	12, 1	10, 7	38 32 8, 0	7, 1	, ,
32		...	60	58	α Lyrae - - - -	21 36, 0	35, 9	32, 6	35, 0	39, 4	40, 2	51 21 36, 5	36, 0	F. S.
33		...	...	...	β - - - -	49 4, 2	1, 8	58, 7	0, 8	6, 0	9, 8	56 49 3, 5	3, 0	, ,
34		...	...	...	ω Draconis - - -	46 13, 3	11, 7	8, 0	14, 0	17, 3	18, 0	14 46 13, 7	12, 5	, ,
35		...	...	...	ζ Aquilæ - - - -	21 50, 0	45, 7	44, 0	43, 7	49, 2	52, 3	76 21 47, 5	47, 8	, ,
36		...	...	...	η - - - -	10 57, 2	54, 2	48, 2	52, 4	58, 7	59, 2	98 10 54, 9	55, 7	, ,
37		...	...	57	δ Draconis - - -	38 0, 8	57, 0	56, 8	0, 5	1, 2	2, 8	22 38 59, 8	58, 9	, ,
38		...	...	...	δ Aquilæ - - - -	11 28, 0	25, 0	23, 3	22, 0	29, 4	32, 6	87 11 26, 7	26, 5	, ,
39		...	...	...	γ - - - -	46 18, 3	13, 4	11, 0	15, 2	17, 7	19, 7	79 46 15, 9	15, 7	, ,
40		...	...	...	α - - - -	32 57, 0	54, 0	51, 0	53, 0	56, 0	58, 8	81 32 54, 9	55, 5	, ,
41		...	...	...	β - - - -	59 10, 1	5, 0	4, 3	4, 8	10, 2	13, 0	83 59 7, 5	7, 6	, ,
* 42	23	29, 72	60	60	β Urs. Min. - - -	9 45, 5	44, 1	37, 6	44, 6	49, 6	50, 1	15 9 45, 6	44, 8	H.
43		...	...	59	α Cor. Bor. - - -	42 29, 6	26, 2	23, 0	26, 6	29, 2	31, 3	62 42 27, 7	27, 9	, ,
44		...	...	...	α Serpentis - - -	1 33, 8	33, 2	29, 1	31, 3	34, 0	37, 1	83 1 33, 1	33, 5	, ,
45		29, 74	59	58	δ Ophiuchi - - -	14 4, 2	3, 0	59, 2	2, 1	6, 7	7, 8	93 14 3, 8	3, 6	, ,
46		29, 76	...	...	Antares - - - -	59 6, 9	5, 8	59, 1	4, 0	9, 3	12, 2	115 59 6, 2	6, 4	, ,
47		29, 78	...	...	10 Camelopard. S.P.	13 18, 0	20, 8	14, 3	18, 2	21, 6	22, 3	330 13 19, 2	19, 4	, ,
48		29, 80	58	57	α Ophiuchi - - R.	44 52, 8	49, 0	47, 3	50, 0	52, 8	53, 7	179 44 50, 9	50, 9	F. S.
49		...	...	...	γ Draconis - - -	29 2, 1	1, 6	59, 0	1, 7	6, 3	6, 5	38 29 2, 9	1, 9	E.
50		...	...	...	*..... B. 170 -	32 0, 0	6, 2	4, 0	7, 1	11, 3	9, 8	38 32 7, 4	6, 1	, ,
51		...	56	54	δ Urs. Min. - - -	25 12, 4	10, 4	9, 0	11, 0	13, 7	17, 0	3 25 12, 3	11, 0	F. S.
52		...	...	...	α Lyrae - - - -	21 35, 6	33, 5	31, 2	32, 4	36, 0	38, 2	51 21 34, 5	34, 6	, ,
53		...	...	...	β - - - R.	13 35, 0	34, 0	32, 0	34, 4	36, 7	41, 2	200 13 35, 5	34, 5	, ,
54		...	...	...	ζ Aquilæ - - - R.	40 49, 0	44, 1	45, 5	50, 7	52, 5	51, 3	180 40 48, 9	46, 6	E.
55		...	...	53	δ - - - -	11 27, 3	24, 2	21, 4	22, 8	29, 8	30, 6	87 11 26, 0	25, 8	, ,
56		...	...	...	γ - - - R.	16 24, 0	21, 1	18, 7	23, 5	28, 0	25, 6	177 16 23, 5	22, 6	, ,
57		...	...	...	α - - - R.	20 44, 5	41, 2	37, 1	41, 7	48, 7	47, 4	175 29 43, 4	42, 9	, ,
58		...	...	...	β - - - R.	3 35, 0	30, 3	26, 7	31, 0	35, 4	36, 3	173 3 32, 5	32, 7	, ,

* 42—Cloudy when the Moon passed the meridian. H.

Observations of NORTH POLAR DISTANCE.

7

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	15	ϕ^2 Herculis - cloudy,	41 17, 1	18, 5	15, 2	16, 5	22, 8	19, 6	52 41 18, 3	17, 8	+ 5, 6	+ 4, 0	R.
2		α Ophiuchi - R.	44 48, 0	54, 0	49, 3	44, 6	55, 9	48, 8	179 44 50, 1	51, 0	..	..	..
3		γ Draconis - - -	29 3, 8	9, 6	6, 8	3, 3	9, 1	5, 3	38 29 6, 3	6, 7	+ 3, 0	+ 4, 1	..
4		*..... B. A. R. 18 ^h 18 ^m ,	32 9, 7	15, 6	11, 7	9, 5	13, 8	10, 6	38 32 11, 8	12, 7	+ 2, 9	+ 5, 5	..
5		δ Urs. Min. - - R.	37 22, 0	22, 4	16, 3	19, 0	28, 0	29, 5	253 37 22, 9	22, 2	..	..	..
6		α Lyrae - - - R.	40 58, 0	4, 0	59, 6	56, 8	2, 5	1, 3	205 41 0, 4	1, 0	..	..	..
7		β - - - R.	13 30, 2	36, 4	30, 2	29, 6	38, 4	32, 6	200 13 32, 9	33, 3	..	..	..
8		Vesta - - - -	43 58, 3	4, 9	4, 8	1, 5	4, 3	1, 0	113 44 2, 5	1, 6	+ 1, 9	- 1, 0	..
9		ζ Aquilae - - -	21 49, 8	50, 0	50, 2	49, 8	50, 4	52, 1	76 21 50, 4	49, 9	+ 2, 6	+ 2, 0	..
10		.....	..	..	..	..	..	..	.....	..	..	..	..
11	16	$\odot$ L. L. - - - -	51 45, 2	52, 2	46, 4	41, 8	50, 0	50, 5	68 51 47, 7	48, 7	..	..	W. R.
12		Polaris - S.P.	25 39, 1	36, 3	34, 8	36, 2	39, 8	37, 6	358 25 37, 3	37, 7	+ 3, 5	+ 5, 2	..
13		Arcturus - - -	55 57, 8	58, 6	53, 7	52, 6	2, 1	0, 6	69 55 57, 6	58, 2	..	..	..
14		α Herculis - - -	23 54, 2	54, 6	53, 2	54, 0	57, 2	56, 5	75 23 55, 6	54, 4	..	..	R.
15		α Ophiuchi - - -	17 50, 2	46, 8	46, 3	46, 7	48, 8	48, 6	77 17 47, 9	48, 5	..	..	..
16		γ Draconis - - -	29 2, 6	9, 2	6, 8	2, 3	9, 3	3, 9	38 29 5, 7	5, 9	+ 2, 7	+ 4, 4	..
17		*..... B. A. R. 18 ^h 18 ^m ,	39 9, 8	13, 4	12, 3	9, 2	15, 4	8, 3	38 32 11, 4	11, 6	+ 2, 5	+ 3, 7	..
18	17	$\odot$ U. L. - - v. trem.	30 11, 7	16, 5	10, 3	6, 8	18, 2	16, 3	68 30 13, 3	14, 1	..	..	R.
19		γ Draconis - v. cloudy,	29 3, 8	8, 6	5, 7	2, 6	9, 7	4, 2	38 29 5, 8	6, 2	+ 2, 6	+ 4, 0	..
20	18	$\odot$ L. L. - - - -	12 5, 8	11, 2	6, 8	1, 9	11, 3	9, 6	69 12 7, 8	8, 5	..	..	R.
21	22	Polaris - S.P.	25 39, 2	35, 4	33, 7	37, 1	38, 3	39, 7	358 25 37, 2	37, 3	+ 3, 2	+ 2, 3	R.
22		Arcturus - - -	55 57, 8	58, 6	52, 3	54, 6	1, 8	1, 6	69 55 57, 8	58, 2	..	..	..
23		.....	..	..	..	..	..	..	.....	..	..	..	..
24		β Urs. Min. - - -	9 48, 2	50, 2	44, 8	45, 7	50, 8	53, 3	15 9 48, 8	49, 2	+ 2, 9	+ 4, 2	W. R.
25		α Cor. Bor. - - -	42 30, 0	28, 4	24, 8	23, 8	35, 0	33, 0	62 42 29, 2	29, 2	+ 2, 2	+ 2, 1	..
26		α Serpentis - - -	1 34, 2	34, 0	32, 0	31, 6	34, 4	36, 6	83 1 33, 8	34, 1	+ 0, 4	+ 0, 5	..
27		Antares - - -	59 5, 0	11, 8	9, 0	8, 0	11, 8	8, 4	115 59 9, 0	8, 4	+ 0, 5	- 0, 8	..
28		α Ophiuchi - windy, R.	44 52, 0	56, 0	52, 1	48, 3	56, 3	51, 3	179 44 52, 7	54, 0	..	..	R.
29		ω Draconis, - - -	52 40, 9	44, 7	34, 7	35, 6	47, 5	43, 8	232 52 41, 2	42, 8	..	..	..
30		γ	29 0, 8	8, 6	4, 3	1, 7	8, 2	4, 4	38 29 4, 7	4, 7	+ 1, 5	+ 2, 1	..
31		*..... B. A. R. 18 ^h 18 ^m } cloudy, R.	32 7, 2	11, 8	9, 6	7, 3	14, 2	9, 7	38 32 10, 0	9, 5	+ 2, 0	+ 2, 4	..
32		α Lyrae - - - R.	41 0, 8	6, 2	1, 4	58, 2	6, 7	5, 8	205 41 3, 2	3, 5	..	..	..
33		β - - - R.	13 32, 3	36, 9	31, 8	31, 5	40, 2	35, 6	200 13 34, 7	34, 6	..	..	..
34		50 Draconis - - -	46 17, 5	16, 1	14, 3	15, 2	16, 5	15, 2	14 46 15, 8	16, 8	+ 2, 1	+ 4, 3	..
35		ζ Aquilae - - -	21 49, 0	48, 0	47, 2	49, 3	50, 4	50, 3	76 21 49, 6	48, 5	+ 1, 5	+ 0, 7	..
36		20..... - - -	10 55, 2	59, 2	56, 5	0, 3	57, 4	55, 2	98 10 57, 3	57, 2	+ 2, 4	+ 1, 5	..
37		δ Draconis - - - R.	24 37, 9	41, 9	33, 9	34, 1	45, 8	43, 2	234 24 39, 5	39, 9	..	..	..
38		δ Aquilae - - -	11 28, 5	27, 5	27, 3	29, 2	29, 7	29, 3	87 11 28, 6	28, 0	+ 1, 9	+ 1, 5	..
39		γ - - - R.	16 19, 2	27, 4	23, 0	20, 2	26, 5	24, 9	177 16 23, 5	23, 5	..	..	..
40		α - - -	32 57, 0	54, 0	56, 3	56, 8	56, 4	56, 8	81 32 56, 2	55, 5	+ 1, 3	0, 0	..
41		β - - -	59 6, 8	4, 4	5, 0	8, 0	8, 4	9, 1	83 59 7, 0	5, 6	- 0, 5	- 2, 0	..
42	23	β Urs. Min. - - -	9 47, 7	50, 7	45, 5	46, 2	50, 5	49, 0	15 9 48, 3	49, 2	+ 2, 7	+ 4, 4	W. R.
43		α Cor. Bor. - - -	42 28, 6	27, 6	23, 6	25, 0	31, 5	31, 6	62 42 28, 0	28, 1	+ 0, 3	+ 0, 2	..
44		α Serpentis - - -	1 33, 0	33, 4	30, 7	31, 8	33, 7	35, 0	83 1 32, 9	33, 2	- 0, 2	- 0, 3	..
45		δ Ophiuchi - - -	14 4, 4	4, 9	1, 0	3, 7	5, 0	3, 6	93 14 3, 7	4, 4	- 0, 1	+ 0, 8	..
46		Antares - - -	59 3, 0	10, 6	6, 0	4, 4	9, 2	5, 6	115 59 6, 5	6, 8	+ 0, 3	+ 0, 4	..
47		10 Camelopard. S.P.	13 24, 6	22, 4	15, 6	18, 6	26, 5	29, 4	330 13 22, 4	23, 5	+ 3, 7	+ 4, 1	..
48		α Ophiuchi - - -	17 48, 8	45, 6	44, 7	45, 2	49, 2	46, 8	77 17 46, 7	47, 2	..	..	R.
49		γ Draconis - - -	29 2, 5	5, 7	4, 2	2, 3	8, 1	3, 2	38 29 4, 3	4, 1	+ 1, 4	+ 2, 2	..
50		*..... B. A. R. 18 ^h 18 ^m ,	32 9, 2	11, 4	10, 1	8, 3	13, 7	8, 8	38 32 10, 2	10, 3	+ 2, 8	+ 4, 2	..
51		δ Urs. Min. - - -	25 17, 2	14, 3	10, 2	13, 0	15, 2	19, 1	3 25 14, 8	15, 8	+ 2, 5	+ 4, 8	..
52		α Lyrae - - -	21 37, 2	35, 2	33, 5	32, 6	38, 1	37, 0	51 21 35, 6	36, 2	+ 1, 1	+ 1, 6	..
53		β - - -	49 1, 4	3, 6	0, 6	0, 5	8, 0	8, 6	56 49 3, 8	2, 5	..	..	..
54		ζ Aquilae - - -	21 48, 0	47, 0	46, 1	46, 6	49, 2	48, 5	76 21 47, 6	47, 5	..	..	..
55		δ - - -	11 26, 5	27, 5	25, 7	26, 2	28, 1	25, 7	87 11 26, 6	27, 0	+ 0, 6	+ 1, 2	..
56		γ - - -	46 14, 3	13, 1	12, 3	14, 6	16, 2	14, 8	79 46 14, 2	13, 7	..	..	..
57		α - - -	32 56, 3	54, 1	54, 5	57, 2	55, 3	55, 6	81 32 55, 5	55, 2	..	..	..
58		β - - -	59 6, 5	5, 5	5, 7	5, 3	9, 2	7, 4	83 59 6, 6	6, 0	..	..	..

Observations of NORTH POLAR DISTANCE.

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	♂ JULY 23	29, 93	57	59	♀ U. L. - - - -	41 58, 5	54, 4	53, 6	55, 9	58, 7	2, 4	70 41 57, 3	56, 5	E.
2	♂ 24	30, 06	61	61	♂ U. L. - - - -	41 33, 7	32, 0	29, 2	34, 6	37, 0	41, 7	101 41 34, 7	32, 8	H.
3		30, 08	60	58	10 Camelop. - S.P.	13 18, 8	19, 6	12, 8	19, 0	23, 3	24, 2	330 13 19, 6	19, 2	,,
4		...	...	...	ε Urs. Min. - - R.	20 15, 0	16, 6	13, 2	15, 3	18, 5	20, 8	249 20 16, 6	15, 8	,,
5		30, 10	58	56	α Lyræ - - - -	21 35, 2	34, 7	29, 8	34, 0	36, 0	38, 8	51 21 34, 7	34, 9	F. S.
6		...	...	...	β..... - - - -	49 4, 3	0, 8	0, 0	1, 3	6, 0	10, 3	56 49 3, 8	2, 6	,,
7		...	...	55	ζ Aquilæ - - - -	21 47, 2	45, 0	42, 0	43, 3	47, 0	51, 0	76 21 45, 9	46, 1	,,
8		...	57	54	δ Draconis - - - -	38 0, 0	57, 4	54, 4	59, 8	0, 4	4, 4	22 38 59, 4	58, 7	,,
9		...	...	...	δ Aquilæ - - - -	11 26, 0	23, 3	21, 0	24, 0	28, 7	30, 7	87 11 25, 6	24, 6	,,
10		...	...	...	γ..... - - - -	46 15, 3	11, 7	9, 7	13, 7	15, 0	19, 2	79 46 14, 1	13, 5	,,
11		...	...	...	α..... - - - -	32 54, 4	52, 2	49, 3	53, 3	56, 0	56, 8	81 32 53, 6	53, 3	,,
12		...	...	...	β..... - - - -	59 7, 0	5, 3	1, 2	4, 7	8, 8	7, 4	83 59 5, 7	6, 1	,,
13	♀ 25	30, 22	63	65	α Cor. Bor. - - - -	42 26, 2	24, 7	21, 8	26, 2	30, 5	30, 3	62 42 26, 6	25, 5	R.
14		...	...	...	α Serpentis - - - -	1 30, 0	31, 8	30, 5	32, 3	36, 3	35, 1	83 1 32, 7	30, 9	,,
15		...	...	...	♂ U. L. - - - -	0 9, 2	8, 8	3, 4	6, 2	8, 6	11, 2	106 0 7, 9	9, 0	,,
16		...	62	63	δ Ophiuchi - - - -	14 2, 2	4, 6	56, 9	0, 3	3, 5	6, 2	93 14 2, 3	3, 4	,,
17		...	...	...	κ Urs. Min. - - - -	42 25, 0	22, 0	18, 3	24, 6	22, 8	28, 6	13 42 23, 6	23, 5	,,
18		...	...	62	10 Camelop. - S.P.	13 16, 5	18, 3	12, 2	17, 3	23, 2	22, 5	330 13 18, 3	17, 4	,,
19		...	...	61	ε Urs. Min. - - - -	42 15, 4	16, 4	15, 6	15, 8	20, 7	25, 2	7 42 18, 2	15, 9	,,
20		...	61	60	α Ophiuchi - - - -	17 46, 2	45, 2	43, 8	42, 0	46, 8	50, 3	77 17 45, 7	45, 7	F. S.
21		...	...	...	γ Draconis - - - -	28 59, 6	0, 2	56, 8	1, 7	4, 3	5, 3	38 29 1, 3	59, 9	E.
22		...	...	...	*..... A.R. 18 ^h 18 ^m ,	32 4, 5	4, 7	3, 0	7, 2	9, 3	9, 7	38 32 6, 4	4, 6	,,
23		...	60	59	δ Urs. Min. - - - -	25 10, 6	10, 5	7, 3	10, 7	12, 6	15, 6	5 25 11, 2	10, 5	F. S.
24		...	...	...	α Lyræ - - - -	21 34, 0	34, 1	31, 3	33, 5	36, 2	37, 8	51 21 34, 5	34, 0	,,
25		...	...	...	β..... - - - -	49 3, 0	0, 7	1, 5	1, 4	4, 6	8, 2	56 49 3, 2	1, 8	,,
26		...	...	...	ζ Aquilæ - - - R.	40 48, 0	45, 3	45, 7	50, 8	50, 4	51, 7	180 40 48, 6	46, 6	,,
27		...	...	...	δ Draconis - - - R.	24 38, 2	37, 5	36, 2	35, 8	38, 2	41, 2	234 24 37, 8	37, 8	,,
28		...	...	...	δ Aquilæ - - - -	11 25, 4	25, 3	21, 5	22, 6	25, 8	30, 3	87 11 25, 1	25, 3	,,
29		...	...	...	ι Cygni - - - -	37 8, 8	9, 0	7, 6	10, 3	13, 7	12, 8	38 37 10, 4	8, 9	,,
30		...	59	58	γ Aquilæ - - - R.	16 24, 8	19, 8	19, 2	23, 8	25, 5	24, 4	177 16 22, 9	22, 3	,,
31		...	...	...	α..... - - - -	22 53, 3	52, 1	50, 3	53, 3	53, 8	56, 4	81 32 53, 2	52, 7	,,
32		...	...	...	β..... - - - -	59 7, 3	5, 4	3, 3	4, 8	8, 7	11, 8	83 59 6, 9	6, 3	,,
33		30, 21	60	63	♀ U. L. - - - -	35 57, 1	54, 2	51, 4	53, 6	58, 1	1, 3	70 35 56, 0	55, 7	H.
34	♀ 26	30, 20	63	68	⊙ L. L. - - - -	47 22, 0	22, 1	22, 3	21, 8	27, 3	27, 4	70 47 23, 8	22, 1	H.
35		30, 16	67	69	α Serpentis - - - -	1 30, 0	35, 1	29, 6	31, 6	37, 6	35, 8	83 1 33, 3	32, 6	,,
36		...	...	...	δ Ophiuchi - - - -	14 1, 8	5, 2	1, 0	2, 2	7, 0	7, 6	93 14 4, 1	3, 5	,,
37		...	...	67	κ Urs. Min. - - - -	42 20, 8	22, 7	20, 4	28, 2	24, 3	27, 2	13 42 23, 9	21, 8	,,
38		...	66	66	♂ U. L. - - - -	25 4, 7	6, 9	2, 8	6, 2	8, 8	12, 2	109 25 5, 3	5, 8	,,
39		...	...	...	ε Urs. Min. - - - -	42 14, 0	13, 7	14, 3	19, 2	19, 8	23, 8	72 42 17, 2	13, 9	,,
40		...	...	...	α Ophiuchi - - - R.	44 50, 2	48, 8	46, 2	50, 7	52, 2	54, 3	179 44 50, 4	47, 5	F. S.
41		...	...	...	γ Draconis - - - -	28 58, 0	1, 8	57, 7	1, 4	3, 6	4, 1	38 29 1, 1	59, 9	E.
42		...	...	...	*..... A.R. 18 ^h 18 ^m ,	32 3, 8	7, 3	5, 0	7, 3	10, 4	9, 0	38 32 7, 1	5, 6	,,
43		...	65	65	δ Urs. Min. - - - R.	37 23, 0	26, 8	24, 0	28, 0	27, 5	29, 2	253 37 26, 4	24, 9	F. S.
44		...	...	...	α Lyræ - - - - R.	41 0, 0	1, 8	59, 2	4, 7	5, 0	4, 8	205 41 2, 6	0, 9	,,
45		...	...	64	* Camelop. - S.P.	11 15, 3	11, 8	9, 5	11, 2	16, 4	14, 8	347 11 13, 2	13, 6	E.
46		...	...	...	* Draconis, 204 - - -	11 18, 5	19, 6	15, 4	20, 7	23, 3	23, 6	37 11 20, 2	19, 1	,,
47		...	...	...	* Camel. 25 Hev. S.P.	43 7, 0	8, 0	2, 3	9, 4	12, 1	13, 1	352 43 8, 7	7, 5	,,
48		...	...	...	51 Draconis - - - -	51 9, 5	11, 3	8, 3	12, 2	15, 7	16, 3	36 51 12, 2	10, 4	,,
49	♂ 27	30, 18	66	75	⊙ U. L. - - - - trem.	29 13, 2	14, 0	10, 3	11, 0	15, 2	18, 8	70 29 13, 2	13, 6	H.
50		...	...	70	α Herculis - - - -	23 55, 0	52, 8	52, 2	52, 8	52, 7	57, 0	75 23 53, 8	53, 9	,,
51		30, 20	67	68	γ Draconis - - - -	28 59, 0	2, 1	57, 7	1, 0	4, 3	3, 6	38 29 1, 3	0, 6	E.
52		...	...	...	*..... A.R. 18 ^h 18 ^m , cloudy,	32 6, 6	5, 0	7, 4	10, 4	10, 4	8, 2	38 32 7, 0	5, 8	,,
53	⊙ 28	30, 21	65	63	γ Draconis - - - trem.	29 0, 2	1, 8	57, 6	1, 2	6, 0	5, 1	38 29 2, 0	1, 0	E.
54		...	...	...	♂ U. L. - - - ill defined,	1 23, 3	22, 7	16, 4	21, 6	22, 7	27, 4	113 1 22, 3	23, 0	F. S.
55	♂ 29	30, 24	65	71	⊙ L. L. - - - -	28 35, 8	36, 1	33, 6	34, 8	40, 2	40, 1	71 28 36, 8	36, 0	H.
56		30, 22	68	78	Polaris - S.P.	25 36, 2	35, 2	33, 8	42, 6	36, 5	38, 8	358 25 37, 2	35, 7	,,

Observations of NORTH POLAR DISTANCE.

9

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	♂ JULY 23	.....	...	..	..	..	..	..	.....	..	..	..	
2	♀ 24	.....	...	..	..	..	..	..	.....	..	..	..	
3		10 Camelop. - S.P.	13 23, 4	22, 2	15, 4	17, 5	26, 6	29, 2	330 13 22, 4	22, 8	+ 2, 8	+ 3, 6	W. R.
4		ε Urs. Min. - - -	42 24, 0	21, 6	16, 7	21, 7	22, 0	25, 0	7 42 21, 8	22, 8	..	..	..
5		α Lyræ - - - } cloudy, R.	41 0, 7	6, 5	1, 5	59, 6	9, 2	5, 3	205 41 3, 8	3, 6	..	..	R.
6		β..... - - - } R.	13 32, 2	38, 6	32, 2	33, 0	40, 6	35, 5	200 13 35, 4	35, 4	..	..	..
7		ζ Aquilæ - - - R.	40 47, 2	53, 6	50, 3	46, 9	54, 3	50, 8	180 40 50, 5	50, 4	..	..	..
8		δ Draconis - - -	38 0, 4	4, 1	2, 2	59, 7	7, 3	4, 0	22 38 3, 0	2, 3	+ 3, 6	+ 3, 6	E.
9		δ Aquilæ - - - } cloudy,	11 29, 0	27, 3	26, 3	26, 4	27, 5	27, 4	87 11 27, 2	27, 7	+ 1, 6	+ 3, 1	..
10		γ..... - - -	46 14, 0	14, 2	11, 8	13, 5	16, 7	17, 4	79 46 14, 6	14, 1	+ 0, 5	+ 0, 6	..
11		α..... - - -	32 54, 1	53, 1	53, 5	52, 1	54, 8	57, 8	81 32 54, 2	53, 6	+ 0, 6	+ 0, 3	..
*12		β..... - - -	59 5, 2	5, 0	4, 0	4, 3	8, 6	7, 0	83 59 5, 7	5, 1	0, 0	- 1, 0	..
13	♀ 25	α Cor. Bor. - - -	42 27, 8	30, 6	25, 0	24, 6	32, 6	32, 0	62 42 28, 8	29, 2	+ 2, 2	+ 3, 7	W. R.
14		α Serpentis - - -	1 33, 0	34, 6	32, 0	30, 0	34, 0	35, 2	83 1 33, 1	33, 8	+ 0, 4	+ 2, 9	..
15		δ U. L. - - - -	0 5, 2	10, 4	8, 7	7, 4	9, 4	6, 6	106 0 8, 0	7, 8	+ 0, 1	- 1, 2	..
16		δ Ophiuchi - - -	14 2, 8	6, 4	3, 0	3, 6	4, 6	4, 0	93 14 4, 1	4, 6	+ 1, 8	+ 1, 2	..
17		κ Urs. Min. - - -	42 28, 3	27, 1	23, 4	23, 4	29, 7	30, 0	13 42 27, 0	27, 7	+ 3, 4	+ 4, 0	..
18		10 Camelop. - S.P.	13 24, 2	21, 0	14, 4	15, 4	27, 4	29, 2	330 13 21, 9	22, 6	+ 3, 6	+ 5, 2	..
19		ε Urs. Min. - - R.	20 19, 8	22, 6	12, 6	13, 6	26, 7	24, 4	249 20 20, 0	21, 2	..	..	..
20		α Ophiuchi - - R.	17 50, 0	56, 0	52, 0	46, 2	55, 2	51, 3	179 44 51, 8	53, 0	..	..	R.
21		γ Draconis - - -	29 0, 0	8, 0	4, 7	0, 5	7, 9	3, 6	38 29 4, 1	4, 0	+ 2, 8	+ 4, 1	..
22		*..... B. A.R. 18 ^h 18 ^m ,	32 8, 0	12, 2	10, 8	5, 5	12, 8	7, 6	38 32 9, 5	10, 1	+ 3, 1	+ 5, 5	..
23		δ Urs. Min. - - R.	37 28, 2	30, 6	24, 8	24, 5	36, 8	34, 5	253 37 29, 9	29, 4	..	..	..
24		α Lyræ - - - R.	41 1, 3	7, 1	3, 6	0, 0	8, 5	5, 6	205 41 4, 4	4, 2	..	..	..
25		β..... - - - R.	13 32, 0	40, 6	32, 5	34, 3	40, 2	36, 2	200 13 36, 0	36, 3	..	..	..
26		ζ Aquilæ - - -	21 47, 5	48, 5	47, 3	47, 7	51, 3	47, 6	76 21 48, 3	48, 0	..	..	..
27		δ Draconis - - -	38 0, 8	2, 4	1, 6	0, 9	4, 4	0, 3	22 38 1, 7	1, 6	..	..	..
28		δ Aquilæ - - -	11 29, 7	30, 2	29, 1	30, 3	29, 1	27, 3	87 11 29, 3	30, 0	+ 4, 2	+ 4, 7	..
29		ι Cygni - - -	37 10, 2	14, 4	12, 3	9, 8	17, 2	9, 8	38 37 12, 3	12, 3	+ 1, 9	+ 3, 4	..
30		γ Aquilæ - - -	46 14, 3	15, 1	13, 6	16, 7	18, 6	16, 7	79 46 15, 8	14, 7	..	..	..
31		α..... - - -	32 55, 0	54, 8	53, 9	54, 2	56, 5	57, 8	81 32 55, 2	54, 9	+ 2, 0	+ 2, 2	..
32		β..... - - -	59 9, 1	8, 1	7, 5	7, 6	10, 9	7, 8	83 59 8, 5	8, 6	+ 1, 6	+ 2, 3	..
33		.....	...	..	..	..	..	..	.....	..	..	..	..
34	♀ 26	⊙ U. L. - - - -	15 50, 2	56, 5	52, 9	48, 8	57, 0	56, 0	70 15 53, 6	53, 4	..	..	R.
35		α Serpentis - - -	1 31, 3	35, 1	32, 7	30, 4	32, 6	33, 9	83 1 32, 7	33, 2	- 0, 6	+ 0, 6	W. R.
36		δ Ophiuchi - - -	14 4, 4	7, 0	4, 0	6, 0	6, 7	3, 8	93 14 5, 3	5, 7	+ 1, 2	+ 2, 2	..
37		κ Urs. Min. - - -	42 26, 7	28, 2	24, 2	23, 6	27, 4	29, 6	13 42 26, 6	27, 5	+ 2, 7	+ 5, 7	..
38		δ U. L. - - - -	25 5, 4	13, 0	9, 6	6, 0	11, 4	8, 0	109 25 8, 9	9, 2	+ 3, 6	+ 3, 4	..
39		ε Urs. Min. - - -	42 19, 8	19, 6	16, 6	18, 7	19, 7	21, 2	7 42 19, 3	19, 7	+ 2, 1	+ 5, 8	..
40		α Ophiuchi - - -	17 48, 0	46, 0	45, 3	44, 6	49, 6	47, 9	77 17 46, 9	47, 0	..	..	R.
41		γ Draconis - - -	29 1, 5	8, 2	4, 8	0, 4	9, 3	3, 0	38 29 4, 5	4, 9	+ 3, 4	+ 5, 0	..
42		*..... B. A.R. 18 ^h 18 ^m ,	32 7, 0	14, 0	9, 9	6, 9	14, 2	8, 3	38 32 10, 1	10, 5	+ 3, 0	+ 4, 9	..
43		δ Urs. Min. - - -	25 13, 4	12, 4	9, 9	10, 2	14, 3	16, 4	3 25 12, 8	12, 9	..	..	..
44		α Lyræ - - - -	21 35, 6	37, 2	33, 8	31, 6	40, 2	36, 8	51 21 35, 9	36, 4	..	..	..
45		*Camelopard. S.P. A.R. 18 ^h 35 ^m .	11 13, 2	13, 4	9, 2	10, 3	17, 5	21, 3	347 11 14, 2	13, 3	+ 1, 0	- 0, 3	..
46		*Draconis, 204 - -	11 19, 2	27, 4	23, 0	18, 2	26, 5	21, 8	37 11 22, 7	23, 3	+ 2, 5	+ 4, 2	..
47		*Camel. 25 Hev. S.P.	43 12, 0	10, 2	7, 3	7, 5	15, 6	15, 2	352 43 11, 3	11, 1	+ 2, 6	+ 3, 6	..
48		51 Draconis - - -	51 11, 0	18, 0	14, 8	12, 3	18, 2	15, 1	36 51 14, 9	14, 5	+ 2, 7	+ 4, 1	..
49	♀ 27	⊙ L. L. - - - -	0 50, 0	56, 4	48, 2	47, 4	57, 5	57, 1	71 0 52, 8	53, 2	..	..	W. R.
50		α Herculis - - -	23 51, 8	55, 4	50, 5	50, 0	57, 6	57, 2	75 23 53, 8	53, 6	0, 0	- 0, 3	..
51		γ Draconis - - -	29 0, 8	6, 8	4, 3	0, 0	6, 9	1, 8	38 29 3, 4	3, 8	+ 2, 1	+ 3, 2	R.
52		*... B.A.R. 18 ^h 18 ^m , cloudy	32 5, 5	13, 1	9, 6	5, 0	12, 3	8, 2	38 32 9, 0	9, 3	+ 2, 0	+ 3, 5	..
53	⊙ 28	γ Draconis - - - trem.	29 1, 8	9, 2	5, 3	0, 0	9, 8	4, 7	38 29 5, 1	5, 5	+ 3, 1	+ 4, 5	R.
54		δ U. L. - - - ill defined,	1 21, 0	27, 4	24, 2	22, 1	29, 2	22, 6	113 1 24, 4	24, 2	+ 2, 1	+ 1, 2	..
55	♂ 29	⊙ U. L. - - - -	57 0, 5	4, 7	57, 4	57, 6	5, 0	4, 4	70 57 1, 6	2, 6	..	..	W. R.
56		Polaris - S.P.	25 40, 5	34, 9	34, 5	37, 0	42, 8	39, 0	358 25 38, 1	37, 7	+ 0, 9	+ 2, 0	R.

* 12—Cloudy when the planet Venus passed the meridian. R.

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	20 JULY 29	30, 21	67	72	.....	"	"	"	"	"	"	"	"	
2		30, 23	68	68	α Cor. Bor.	42 25, 8	25, 0	22, 3	25, 0	28, 2	31, 6	62 42 26, 3	25, 4	H.
3		...	...	...	α Serpenti	1 32, 2	32, 1	29, 1	31, 4	34, 6	37, 1	83 1 32, 7	32, 2	,,
4		...	66	65	Antares	59 2, 7	3, 1	55, 0	1, 9	4, 1	13, 2	115 59 3, 3	2, 9	,,
5		...	65	63	α Herculis	23 52, 8	52, 2	49, 6	51, 7	52, 2	58, 1	75 23 52, 7	52, 5	,,
6		...	64	62	α Ophiuchi	17 45, 1	45, 0	44, 3	43, 2	47, 6	51, 3	77 17 46, 1	45, 0	,,
7		...	...	...	γ Draconis	29 0, 8	1, 1	58, 2	1, 0	3, 8	4, 6	38 29 1, 6	0, 9	E.
8		...	...	...	.....	32 4, 6	5, 6	3, 2	6, 4	9, 7	9, 8	38 32 6, 5	5, 2	,,
9		30, 25	63	60	δ Urs. Min.	25 10, 0	9, 5	6, 2	10, 7	11, 5	15, 8	3 25 10, 6	9, 8	F. S.
10		...	...	...	α Lyrae	21 33, 8	34, 7	30, 2	34, 0	35, 7	36, 2	51 21 34, 1	34, 2	,,
11		...	...	...	β.....	49 3, 2	0, 3	59, 7	2, 0	3, 7	7, 9	56 49 2, 8	1, 7	,,
12		...	...	...	50 Draconis	46 11, 2	10, 6	8, 8	15, 7	12, 2	15, 2	14 46 12, 3	10, 9	,,
13		...	...	...	ζ Aquilæ	21 48, 3	44, 7	44, 5	44, 7	46, 2	50, 3	76 21 46, 5	46, 5	,,
14		...	...	...	δ Draconis	37 59, 0	58, 2	55, 2	57, 8	59, 4	2, 8	22 37 58, 7	58, 6	,,
15		...	...	...	δ L. L.	34 42, 6	40, 3	33, 2	40, 6	43, 3	45, 7	113 34 40, 9	41, 5	,,
16		...	...	...	ι Cygni	37 9, 0	8, 0	7, 3	10, 6	10, 6	12, 2	38 37 9, 6	8, 5	,,
17		...	59	...	γ Aquilæ	46 13, 3	12, 0	12, 2	8, 7	16, 8	16, 2	79 46 13, 2	12, 7	,,
18		...	...	...	α.....	32 53, 7	53, 8	50, 0	51, 7	52, 0	56, 8	81 32 53, 0	53, 7	,,
19		...	...	...	β.....	59 5, 6	5, 2	2, 5	3, 3	6, 2	10, 7	83 59 5, 6	5, 4	,,
20		30, 34	62	63	♀ U. L.	6 54, 7	52, 4	50, 7	50, 3	55, 0	58, 3	70 6 53, 6	53, 6	,,
21	30	30, 32	65	68	☉ U. L.	11 22, 2	23, 6	20, 0	19, 8	25, 7	27, 2	71 11 23, 1	22, 9	F. S.
22		...	...	65	Arcturus	55 56, 8	54, 3	52, 8	55, 7	59, 1	1, 0	69 55 56, 6	55, 6	H.
23		30, 34	64	64	α Cor. Bor.	42 27, 0	26, 8	22, 6	25, 7	30, 6	32, 2	62 42 27, 5	26, 9	,,
24		...	...	63	α Serpenti	1 32, 0	31, 8	28, 1	33, 0	32, 1	34, 6	83 1 31, 9	31, 9	,,
25		...	63	61	δ Ophiuchi	14 2, 0	0, 6	56, 1	3, 2	5, 2	2, 1	93 14 1, 5	1, 3	,,
26		...	...	60	Antares	59 1, 3	1, 0	54, 2	58, 1	2, 0	5, 3	115 59 0, 3	1, 2	,,
27		...	...	...	α Herculis	38 45, 0	41, 1	41, 0	45, 2	46, 8	49, 3	181 38 44, 7	43, 1	,,
28		...	...	...	α Ophiuchi	44 52, 6	47, 0	45, 3	50, 0	52, 8	54, 1	179 44 50, 3	49, 8	,,
*29		30, 36	60	56	γ Draconis	29 1, 7	59, 8	56, 6	58, 7	3, 7	3, 2	38 29 0, 6	0, 8	E.
30	31	30, 25	63	64	α Cor. Bor.	42 25, 1	27, 2	22, 4	25, 8	27, 7	31, 8	62 42 26, 7	26, 2	H.
31		...	61	60	δ Ophiuchi	14 2, 5	1, 4	56, 3	59, 2	3, 7	6, 4	93 14 1, 6	2, 0	,,
32		...	...	...	Antares	59 3, 4	1, 4	54, 0	57, 0	4, 4	7, 0	115 59 1, 2	2, 4	,,
33		...	60	57	α Herculis	23 53, 1	51, 2	47, 1	48, 0	51, 2	56, 3	75 23 51, 0	52, 1	,,
34		...	...	...	α Ophiuchi	17 43, 0	42, 3	41, 8	41, 2	44, 8	50, 3	77 17 43, 9	42, 7	,,
35		...	...	...	γ Draconis	29 0, 6	59, 5	56, 1	59, 8	4, 1	3, 2	38 29 0, 6	0, 1	E.
36		...	59	56	 A. R. 18 ^h 18 ^m , ex trem.	32 3, 7	4, 1	1, 8	5, 3	8, 7	7, 8	38 32 5, 2	3, 9	,,
37		...	...	...	δ Urs. Min.	25 11, 3	8, 0	5, 8	9, 2	11, 0	13, 7	3 25 9, 8	9, 6	F. S.
38		...	...	...	α Lyrae	21 33, 8	33, 0	30, 0	30, 7	32, 6	37, 0	51 21 32, 8	33, 4	,,
39		...	58	55	* Draconis, A. R. 18 ^h 53 ^m ,	29 45, 2	44, 0	41, 6	44, 0	48, 0	50, 3	38 29 45, 5	44, 6	,,
40		...	...	...	ζ Aquilæ	21 46, 4	43, 1	41, 3	41, 2	44, 9	49, 2	76 21 44, 3	44, 6	,,
41		...	...	...	δ Draconis	24 39, 8	40, 0	38, 0	37, 0	40, 2	44, 2	234 24 39, 9	39, 9	,,
42		30, 24	59	...	γ Aquilæ	16 25, 7	23, 4	20, 7	23, 5	26, 7	26, 0	177 16 24, 3	24, 6	,,
43		...	...	...	α.....	29 43, 3	40, 7	37, 0	42, 1	48, 0	45, 0	175 29 42, 7	42, 0	,,
*44		...	...	...	β..... } trem. R.	3 35, 2	33, 3	30, 8	33, 8	35, 2	37, 6	173 3 34, 3	24, 2	,,
45	1 AUG. 1	30, 29	58	58	Antares	59 0, 3	59, 1	52, 2	57, 8	1, 3	5, 8	115 58 59, 4	59, 7	H.
46		...	57	56	α Herculis	23 53, 2	51, 1	47, 2	50, 0	52, 4	56, 7	75 23 51, 8	52, 2	,,
47		...	...	...	α Ophiuchi	17 43, 1	42, 0	42, 2	42, 3	44, 2	48, 3	77 17 43, 7	42, 6	,,
48		...	...	55	γ Draconis	29 0, 4	59, 8	57, 3	0, 4	4, 0	3, 5	38 29 0, 9	0, 1	E.
49		...	...	...	*..... B. 170	32 4, 2	2, 7	59, 8	4, 8	9, 6	7, 3	38 32 4, 7	3, 5	,,
50		...	54	...	δ Urs. Min.	25 11, 3	9, 8	6, 4	11, 7	11, 6	15, 0	3 25 10, 9	10, 6	F. S.
51		...	...	...	α Lyrae	21 34, 0	33, 1	29, 2	32, 8	35, 2	36, 3	51 21 33, 4	33, 5	,,
52		...	...	...	β.....	49 2, 3	59, 7	57, 3	58, 2	2, 8	5, 7	56 49 1, 0	1, 0	,,
53		...	...	...	ζ Aquilæ	21 48, 0	41, 8	42, 2	42, 9	45, 3	49, 0	76 21 44, 9	44, 9	,,
54		...	56	53	δ Draconis	37 57, 7	54, 4	52, 6	57, 0	58, 5	0, 0	22 37 58, 4	56, 0	,,
55		...	...	...	δ Aquilæ	11 24, 0	21, 6	17, 7	21, 5	26, 3	26, 6	87 11 22, 9	22, 8	,,
56		...	...	...	γ.....	46 13, 5	10, 3	7, 8	10, 7	13, 7	16, 4	79 46 12, 1	11, 9	,,
57		...	...	...	α.....	32 53, 0	50, 7	47, 0	48, 8	52, 8	55, 0	81 32 51, 2	51, 8	,,
58		...	...	...	β.....	59 5, 3	2, 2	59, 2	1, 2	6, 2	7, 5	83 59 3, 6	3, 7	,,
59		...	...	...	27 Lyncis	2 41, 0	39, 0	29, 0	34, 4	40, 8	42, 0	322 2 37, 8	40, 3	,,

* 29, 44—Cloudy when the Moon passed the meridian.

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	JULY 29	Arcturus - - -	55 55,5	56,5	51,5	53,6	0,3	1,7	69 55 56,5	56,0	..	..	R.
2		α Cor. Bor. - - -	42 28,2	28,4	24,4	25,2	31,0	32,6	62 42 28,3	28,3	+ 2,0	+ 2,9	W. R.
3		α Serpentis - - -	1 32,0	33,0	31,0	31,8	33,2	35,7	83 1 32,8	32,5	+ 0,1	+ 0,3	..
4		Antares - - -	58 58,6	8,0	5,4	3,0	5,6	3,6	115 59 4,0	3,3	+ 0,7	+ 0,4	..
5		α Herculis - - -	23 52,6	53,0	51,2	49,5	55,2	55,3	75 23 52,8	52,8	+ 0,1	+ 0,3	..
6		α Ophiuchi - - R.	44 52,0	57,4	50,8	47,2	58,4	54,6	179 44 53,4	54,7	..	..	..
7		γ Draconis - - trem.	29 0,8	6,6	3,5	58,6	7,0	2,8	38 29 3,2	3,7	+ 1,6	+ 2,8	R.
8		*..... B.A.R. 18 ^h 18 ^m	32 6,0	12,0	9,9	5,8	13,5	7,6	38 32 0,1	9,0	+ 2,6	+ 3,8	..
9		δ Urs. Min. - - R.	37 25,2	26,2	22,2	23,3	21,9	30,7	253 37 24,9	25,7	..	..	..
10		α Lyræ - - - R.	41 2,3	8,6	3,5	0,2	8,3	6,6	205 41 4,9	5,5	..	..	..
11		β..... - - - R.	13 33,7	41,5	33,2	33,0	42,2	36,5	200 13 36,7	37,6	..	..	..
12		50 Draconis - - -	46 15,3	16,1	13,3	14,6	18,8	17,6	14 46 16,0	15,7	+ 3,7	+ 4,8	..
13		ζ Aquilæ - - - R.	40 48,0	55,0	49,6	47,3	57,9	58,3	180 40 52,7	51,5	..	..	..
14		δ Draconis - - - R.	24 38,2	44,3	36,5	35,2	48,5	44,2	234 24 41,2	41,3	..	..	..
15		δ L. L. - - - trem.	34 37,5	44,6	44,5	41,0	44,3	38,6	113 34 41,8	41,0	+ 0,9	- 0,5	..
16		ι Cygni - - -	37 9,3	13,7	11,4	8,2	16,5	11,7	38 37 11,8	11,5	+ 2,2	+ 3,0	..
17		γ Aquilæ - - - R.	16 19,3	29,3	24,5	20,3	30,6	23,4	177 16 24,6	24,3	..	..	..
18		α..... - - - R.	29 40,7	49,2	45,2	39,6	49,5	42,6	175 29 44,5	45,0	..	..	..
19		β..... - - - R.	3 28,2	36,4	32,3	27,6	38,3	32,7	173 3 32,6	32,3	..	..	..
20		.....	...	..	..	..	..	..	.....	..	..	..	..
21	JULY 30	⊙ L. L. - - - trem.	42 57,2	59,2	55,3	56,6	2,5	0,3	71 42 58,5	58,2	..	..	R.
22		.....	...	..	..	..	..	..	.....	..	..	..	..
23		α Cor. Bor. - - -	42 27,6	28,6	23,6	22,4	32,4	30,4	62 42 27,5	28,1	..	+ 1,2	W. R.
24		α Serpentis - - -	1 31,0	33,8	31,2	29,6	33,5	34,2	83 1 32,2	32,4	+ 0,3	+ 0,5	..
25		δ Ophiuchi - - -	14 2,2	3,6	0,0	3,2	4,2	2,6	93 14 2,6	2,9	+ 1,1	+ 1,6	..
26		Antares - - -	58 58,0	5,8	1,4	0,0	5,4	2,6	115 59 2,2	1,9	+ 1,9	+ 0,7	..
27		α Herculis - - -	23 53,0	52,0	48,2	48,6	55,4	55,0	75 23 52,0	52,5	..	..	..
28		α Ophiuchi - - -	17 46,0	45,8	40,4	42,7	47,6	46,6	77 17 44,8	45,9	..	..	..
29		γ Draconis - - -	29 1,6	6,2	2,0	0,0	8,3	2,9	38 29 3,5	3,9	+ 2,9	+ 3,1	R.
30		.....	...	..	..	..	..	..	.....	..	..	..	..
31	JULY 31	α Cor. Bor. - - -	42 27,8	27,0	22,8	23,6	32,1	30,6	62 42 27,3	27,4	+ 0,6	+ 1,2	W. R.
32		δ Ophiuchi - - -	14 2,7	3,5	0,0	2,6	4,7	2,1	93 11 2,6	3,1	+ 1,0	+ 1,1	..
33		Antares - - -	58 58,0	5,6	1,4	58,4	4,0	2,0	115 59 1,6	1,8	+ 0,4	- 0,6	..
34		α Herculis - - -	23 53,4	51,6	47,6	47,4	55,6	55,4	75 23 51,8	52,5	+ 0,8	+ 0,4	..
35		α Ophiuchi - - R.	44 52,9	57,5	50,3	47,5	57,6	54,0	179 44 53,3	55,2	..	..	..
36		γ Draconis - - R.	29 1,7	5,9	3,4	0,0	7,2	2,8	38 29 3,5	3,8	+ 2,9	- 0,1	R.
37		B..... * A.R. 18 ^h 18 ^m	32 6,5	9,8	6,7	4,5	8,8	8,7	38 32 7,5	8,1	+ 2,3	+ 4,2	..
38		δ Urs. Min. - - R. } trem.	37 24,0	26,6	20,8	20,3	26,2	30,0	253 37 24,7	25,3	..	..	..
39		α Lyræ - - - R.	41 0,5	6,7	2,2	58,1	6,4	3,8	205 41 3,0	3,6	..	..	..
40		* Draconis, A.R. 18 ^h 53 ^m	29 44,0	50,0	45,1	43,6	51,5	46,0	38 29 46,7	47,0	+ 1,2	+ 2,4	..
41		ζ Aquilæ - - -	21 45,2	46,0	44,6	43,2	47,5	46,2	76 21 45,5	45,6	+ 1,2	+ 1,0	..
42		δ Draconis - - -	37 59,2	59,8	58,8	57,0	2,4	58,6	22 37 59,3	59,5	..	..	..
43		γ Aquilæ - - -	46 13,2	14,0	11,4	13,6	16,2	13,5	79 46 13,7	13,6	..	..	..
44		α..... - - - } trem.	32 54,5	52,7	52,5	51,8	53,2	54,1	81 32 53,1	53,6	..	..	..
45		β..... - - -	59 6,0	4,6	4,3	4,1	8,6	4,9	83 59 5,4	5,3	..	..	..
46	AUG. 1	Antares - - -	58 57,0	5,2	1,4	59,4	5,6	0,4	115 59 1,5	1,1	+ 2,1	+ 1,4	W. R.
47		α Herculis - - R.	38 43,5	50,9	44,7	40,9	50,0	48,5	181 38 46,4	47,2	..	..	..
48		α Ophiuchi - - R.	44 51,3	57,7	49,5	47,3	57,4	52,7	179 44 52,7	54,5	..	..	..
49		γ Draconis - - -	29 1,8	5,8	2,7	0,6	7,3	3,6	38 29 3,6	3,8	+ 2,7	+ 3,7	R.
50		*..... B.A.R. 18 ^h 18 ^m	32 6,5	9,5	8,3	5,4	13,0	7,2	38 32 8,3	8,0	+ 3,6	+ 4,5	..
51		δ Urs. Min. - - -	25 14,2	12,0	9,4	11,6	14,2	17,6	3 25 13,2	13,1	+ 2,2	+ 2,5	..
52		α Lyræ - - -	21 33,5	33,7	30,4	31,0	36,5	34,3	51 21 33,2	33,6	- 0,2	+ 0,1	..
53		β..... - - - R.	13 35,3	39,9	33,8	34,2	42,2	38,2	200 13 37,3	37,6	..	..	..
54		ζ Aquilæ - - - R.	40 51,2	55,4	50,0	48,8	59,1	52,6	180 40 52,8	53,3	..	..	..
55		δ Draconis - - R.	24 39,8	43,6	36,2	35,3	48,0	43,6	234 24 41,1	41,7	..	..	..
56		ζ Aquilæ - - -	11 27,0	26,0	28,5	29,6	25,4	24,2	87 11 26,8	26,5	+ 3,9	+ 3,7	..
57		γ..... - - - R.	16 22,2	30,0	26,2	22,4	29,0	25,1	177 16 25,8	26,1	..	..	..
58		α..... - - - R.	29 39,4	47,2	43,6	39,3	48,5	43,6	175 29 43,6	43,3	..	..	..
59		β..... - - - R.	3 29,2	37,6	33,9	31,4	38,2	33,7	173 3 34,0	33,4	..	..	..
60		27 Lyncis - S.P.	2 41,2	39,6	34,5	38,2	45,6	47,0	322 2 41,0	40,4	+ 3,2	- 0,1	..

* 29—Cloudy when the Moon passed the meridian.

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	h AUG. 3	30, 22	60	60	β Urs. Min. - - -	9 45, 2	45, 4	38, 2	43, 1	47, 5	49, 2	15 9 44, 7	45, 3	F S.
2	...	...	59	59	.....	...	...	...	...	...	...	...	...	..
3	...	...	...	...	α Serpentis - - -	1 33, 4	31, 0	25, 3	28, 3	33, 7	35, 6	83 1 31, 2	32, 2	..
4	...	...	58	57	δ Ophiuchi - - -	14 0, 7	3, 0	57, 3	0, 6	3, 8	6, 2	93 14 1, 9	1, 8	H.
5	...	...	...	56	Antares - - -	58 59, 0	58, 1	51, 1	55, 8	59, 8	4, 3	115 58 58, 2	58, 6	..
6	...	...	57	55	α Herculis - - -	23 52, 8	49, 3	45, 3	47, 8	50, 8	55, 6	75 23 50, 3	51, 1	..
7	...	...	...	54	α Ophiuchi - - -	77 43, 2	41, 3	40, 4	41, 0	42, 2	48, 6	77 17 42, 8	42, 2	..
8	...	...	...	...	γ Draconis - cloudy,	28 59, 8	58, 3	54, 5	58, 6	2, 0	2, 5	38 28 59, 3	59, 1	E.
9	...	...	...	...	*..... A.R. 18 ^h 18 ^m ,	32 3, 4	3, 0	59, 7	4, 8	6, 8	6, 8	38 32 4, 1	3, 2	..
10	...	30, 23	55	52	δ Urs. Min. - - -	25 10, 2	9, 1	5, 7	9, 6	12, 8	15, 1	3 25 10, 4	9, 7	F. S.
11	...	...	...	...	α Lyrae - - -	21 32, 2	30, 7	26, 6	29, 4	33, 4	30, 0	51 21 30, 4	31, 5	..
12	...	...	...	...	β - } cloudy, R.	13 37, 8	35, 4	32, 0	36, 3	40, 7	42, 3	200 13 37, 4	36, 6	..
13	...	...	...	51	ζ Aquilæ - } cloudy, R.	40 52, 6	47, 4	48, 3	53, 4	54, 2	53, 8	180 40 51, 6	50, 0	..
14	☉	4	30, 12	59	γ Draconis - - -	28 59, 1	58, 2	55, 8	58, 0	1, 3	2, 0	38 28 59, 1	58, 7	E.
15	...	...	...	...	*..... - - -	32 4, 4	4, 2	1, 2	5, 8	8, 0	7, 0	38 32 5, 1	4, 3	..
16	☽	5	30, 00	60	☉ L. L. - - - } cloudy,	15 15, 8	11, 3	11, 3	12, 4	13, 3	19, 8	73 15 14, 0	13, 6	H.
17	...	30, 05	56	58	☽ Cent. - - - }	28 25, 2	20, 1	16, 8	17, 4	23, 3	24, 5	69 28 21, 2	22, 7	..
18	♂	6	30, 03	58	☉ U. L. - - - trem.	0 4, 9	2, 3	0, 0	57, 2	6, 8	7, 0	73 0 3, 0	3, 6	R.
19	...	...	...	...	Polaris - S.P.	25 39, 1	36, 3	32, 6	40, 8	39, 0	42, 3	358 25 38, 4	37, 7	H.
20	...	...	...	63	α Cor. Bor. - - -	42 28, 0	23, 8	22, 4	26, 1	28, 1	32, 8	62 42 26, 9	25, 9	..
21	...	...	...	60	Antares - - -	59 3, 2	1, 2	54, 3	59, 2	4, 2	9, 3	115 59 1, 9	2, 2	..
22	...	30, 04	...	55	α Herculis - - - R.	38 45, 2	41, 8	40, 3	45, 4	46, 1	50, 3	181 38 44, 9	43, 5	..
23	...	...	...	...	α Ophiuchi - - - R.	44 54, 2	49, 1	46, 4	53, 6	54, 0	59, 7	179 44 53, 0	51, 7	..
24	...	...	55	...	γ Draconis - - -	28 59, 8	58, 0	54, 1	57, 8	1, 7	3, 4	38 28 59, 1	58, 9	E.
25	...	...	...	...	*..... - - -	32 3, 5	2, 3	58, 9	4, 0	7, 4	7, 4	38 32 3, 9	2, 9	..
26	...	...	...	53	*..... - - -	29 43, 6	42, 4	37, 5	42, 8	46, 8	49, 1	38 28 43, 7	43, 0	..
27	...	...	54	50	ι Cygni - - -	37 7, 3	3, 8	1, 7	5, 3	9, 7	9, 1	38 37, 6	2, 5	..
28	...	30, 03	...	49	γ Aquilæ - - -	46 12, 2	8, 7	5, 3	9, 0	10, 6	14, 3	79 46 10, 0	10, 5	F. S.
29	...	...	...	...	α - - -	32 49, 0	48, 7	45, 4	49, 6	52, 2	51, 8	81 32 49, 5	48, 8	..
30	...	...	...	...	β - - -	59 4, 2	1, 8	58, 4	0, 0	5, 0	8, 7	83 59 2, 2	3, 0	..
31	...	...	...	...	27 Lyncis - - S.P.	2 40, 2	37, 4	28, 6	33, 4	38, 4	42, 7	322 2 36, 8	38, 8	..
*32	♀	7	29, 97	57	☽ Cent. - - - faint,	20 41, 0	39, 0	36, 4	37, 2	41, 5	44, 6	69 20 40, 0	40, 0	R.
*33	♀	9	29, 91	62	γ Draconis - - -	28 55, 8	58, 4	53, 5	57, 1	1, 3	2, 5	38 28 58, 1	57, 1	E.
34	...	...	...	...	*..... - - - }	32 1, 4	2, 3	59, 3	2, 6	8, 0	6, 0	38 32 3, 3	1, 9	..
35	...	...	...	...	Next division.	2, 2	2, 4	59, 0	2, 0	6, 2	6, 8	3, 1	2, 3	..
36	...	29, 92	...	...	α Lyrae - - -	21 30, 0	32, 3	27, 0	28, 2	32, 4	37, 6	51 21 31, 2	31, 1	F. S.
37	...	...	...	...	β - - - R.	13 39, 0	36, 5	35, 0	38, 0	39, 3	42, 7	200 13 38, 4	37, 7	..
38	...	...	...	...	50 Draconis - - - R.	16 27, 4	28, 4	23, 4	26, 4	31, 3	34, 0	242 16 28, 5	27, 9	..
39	...	...	61	59	ζ Aquilæ - - trem. R.	40 49, 8	48, 4	49, 3	54, 0	54, 0	57, 4	180 40 52, 1	49, 0	..
40	...	...	...	...	20..... - - -	10 54, 0	53, 1	46, 7	52, 2	55, 9	59, 3	98 10 53, 5	53, 6	..
41	...	...	...	58	δ Draconis - - - R.	24 41, 1	43, 3	39, 3	39, 0	42, 4	47, 4	234 24 42, 1	42, 2	..
42	...	...	...	...	δ Aquilæ - - -	11 24, 6	22, 2	19, 0	21, 0	26, 4	28, 3	87 11 23, 6	23, 3	..
43	...	...	...	...	ι Cygni - - - }	37 3, 4	2, 4	0, 1	3, 3	8, 6	7, 9	38 37 4, 3	2, 9	E.
44	...	...	...	...	Next division.	4, 7	2, 5	0, 4	3, 2	6, 3	7, 7	4, 1	3, 6	..
45	...	...	...	...	γ Aquilæ - - R.	16 25, 3	23, 0	19, 9	24, 6	28, 3	28, 0	177 16 24, 8	24, 1	F. S.
46	...	...	...	...	α - - - R.	29 44, 0	40, 8	38, 8	43, 7	47, 4	47, 0	175 29 43, 6	42, 4	..
47	...	...	...	...	β - - - R.	3 34, 6	32, 3	29, 2	32, 7	35, 3	38, 0	173 3 33, 7	33, 4	..
*48	...	29, 91	57	55	☽ U. L. - - ex. faint,	10 18, 2	13, 2	12, 1	14, 0	17, 8	20, 6	72 10 16, 0	15, 7	R.
49	h	10	29, 90	65	☉ L. L. - - cloudy,	39 48, 1	48, 7	44, 3	49, 8	51, 3	56, 2	74 39 49, 8	48, 4	H.
50	...	29, 87	60	58	γ Draconis - - -	28 57, 0	56, 0	52, 1	54, 5	0, 2	0, 4	38 28 56, 7	56, 5	E.
51	...	...	...	57	δ Urs. Min. - cloudy,	25 7, 7	5, 3	3, 6	5, 8	8, 0	12, 2	3 25 7, 1	6, 5	F. S.
52	...	...	...	...	α Lyrae - - -	21 28, 2	29, 8	25, 8	27, 8	29, 6	32, 8	51 21 29, 0	29, 0	..
53	...	...	...	...	β - - -	48 58, 3	57, 2	56, 8	54, 8	0, 7	4, 3	56 48 58, 7	57, 7	..
54	...	...	59	56	ζ Aquilæ - cloudy,	21 44, 1	42, 0	40, 1	40, 0	43, 9	49, 8	76 21 43, 3	43, 0	..
55	...	...	57	57	☽ U. L. ill defined & faint,	19 59, 5	53, 8	52, 0	52, 4	58, 6	59, 7	69 19 56, 0	56, 7	E.

* 32—Cloudy when the Sun's centre passed the meridian. H.

Could not see Mercury, although the air seemed tolerably clear. R.

* 33—Clouds obscured the Sun at the time of its transit.

* 48—A thick haze obscured Venus when on the meridian.

Observations of NORTH POLAR DISTANCE.

13

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	½ AUG. 3	β Urs. Min. - - -	9 51, 3	51, 1	49, 3	49, 7	53, 6	51, 5	15 9 51, 1	51, 2	+ 6, 4	+ 5, 9	R.
2		α Cor. Bor. - - -	42 27, 0	25, 4	21, 4	22, 4	30, 0	28, 0	62 42 25, 7	26, 2	..	..	W. R.
3		α Serpenteis - - -	1 32, 5	33, 3	31, 0	29, 6	33, 3	34, 2	83 1 32, 3	32, 9	+ 1, 1	+ 0, 7	..
4		δ Ophiuchi - - -	14 4, 4	2, 4	0, 3	2, 3	5, 0	3, 5	93 14 3, 0	3, 4	+ 1, 1	+ 1, 6	..
5		Antares - - -	58 56, 8	4, 2	59, 5	58, 8	4, 7	0, 4	115 59 0, 7	0, 2	+ 2, 5	+ 1, 6	..
6		α Herculis - - R.	38 45, 6	51, 0	45, 0	42, 0	50, 6	47, 5	181 38 47, 0	48, 3	..	..	..
7		α Ophiuchi - - R.	44 52, 7	58, 7	51, 4	47, 6	58, 0	53, 5	179 44 53, 7	55, 7	..	..	..
8		γ Draconis - - -	29 0, 9	5, 6	2, 7	0, 3	7, 2	3, 5	38 29 3, 3	3, 1	+ 4, 0	+ 4, 0	R.
9		*..... B. A. R. 18 ^h 18 ^m ,	32 7, 8	9, 6	8, 2	6, 1	11, 1	6, 3	38 32 8, 2	8, 7	+ 4, 1	+ 5, 5	..
10		δ Urs. Min. - - -	25 13, 6	12, 5	9, 1	10, 5	14, 5	15, 1	3 25 12, 7	13, 0	+ 2, 3	+ 3, 3	..
11		α Lyrae - - -	21 33, 2	31, 8	30, 0	29, 3	36, 2	33, 0	51 21 32, 1	32, 5	+ 1, 7	+ 1, 0	..
12		β..... " - - } cloudy,	49 0, 8	1, 8	57, 6	58, 2	6, 5	0, 4	56 49 0, 9	1, 3	..	..	..
13		ζ Aquilæ - - -	21 47, 0	44, 0	42, 5	42, 3	48, 5	44, 6	76 21 44, 8	45, 5	..	..	..
14	☉ 4	γ Draconis - - -	39 1, 2	6, 3	1, 9	58, 2	6, 4	0, 3	38 29 2, 4	3, 8	+ 3, 3	+ 5, 1	R.
15		*..... B. A. R. 18 ^h 18 ^m ,	32 6, 5	9, 5	7, 3	4, 8	11, 5	5, 8	38 32 7, 6	8, 0	+ 2, 5	+ 3, 7	..
16	☽ 5	☉ U. L. - - - -	43 39, 8	44, 2	35, 7	35, 1	45, 5	43, 4	72 43 40, 6	42, 0	..	..	W. R.
17		.....	...	..	..	..	..	..	.....	..	..	..	..
18	♂ 6	☉ L. L. - - - -	31 39, 8	41, 2	35, 8	34, 6	44, 4	43, 4	73 31 39, 9	40, 5	..	..	W. R.
19		Polaris - S.P.	25 45, 0	40, 6	37, 6	42, 2	45, 8	41, 7	358 25 42, 2	42, 8	+ 3, 8	+ 5, 1	..
20		α Cor. Bor. - - -	42 29, 8	28, 1	24, 8	24, 7	33, 0	34, 2	62 42 29, 1	29, 0	+ 2, 2	+ 3, 1	..
21		Antares - - -	58 59, 5	5, 1	4, 0	0, 6	6, 4	4, 6	115 59 3, 4	2, 3	+ 1, 5	+ 0, 1	..
22		α Herculis - - -	23 52, 5	50, 9	50, 6	49, 6	54, 4	54, 6	75 23 52, 1	51, 7	..	..	..
23		α Ophiuchi - - -	17 46, 0	44, 4	40, 6	43, 2	46, 0	47, 2	77 17 44, 6	45, 2	..	..	..
24		γ Draconis - - -	29 1, 8	7, 2	2, 5	58, 7	7, 2	4, 4	38 29 3, 6	4, 5	+ 4, 5	+ 5, 6	..
25		*..... B. A. R. 18 ^h 18 ^m ,	32 5, 5	10, 2	7, 7	5, 3	11, 3	5, 8	38 32 7, 6	7, 9	+ 3, 7	+ 5, 0	R.
26		*..... A. R. 18 ^h 53 ^m ,	29 44, 8	48, 4	46, 3	43, 2	51, 2	46, 6	38 29 46, 7	46, 6	+ 3, 0	+ 3, 6	..
27		ι Cygni - - - -	37 7, 2	11, 4	9, 2	7, 0	15, 1	9, 3	38 37 9, 9	9, 3	+ 3, 7	+ 3, 7	..
28		γ Aquilæ - - - R.	16 22, 0	30, 0	24, 3	20, 6	30, 7	26, 5	177 16 25, 7	26, 0	..	..	..
29		α..... - - - R.	29 43, 5	49, 7	45, 3	41, 5	51, 2	46, 0	175 29 46, 2	46, 6	..	..	..
30		β..... - - - R.	3 31, 0	37, 0	33, 2	31, 0	38, 6	35, 1	173 3 34, 3	34, 0	..	..	..
31		27 Lyncis - - - S.P.	2 40, 2	36, 4	32, 5	33, 1	41, 7	44, 5	322 2 38, 1	38, 3	+ 1, 3	- 0, 5	..
*32	♂ 7	.....	...	..	..	..	..	..	.....	..	..	..	..
*33	♀ 9	γ Draconis - - -	28 58, 9	5, 7	1, 0	56, 4	7, 6	2, 6	38 29 2, 0	2, 3	+ 3, 9	+ 5, 2	W. R.
34		*..... B. A. R. 18 ^h 18 ^m ,	32 3, 4	11, 4	4, 5	2, 2	12, 0	7, 4	38 32 6, 8	7, 4	+ 3, 5	+ 5, 5	..
35		Next division.	3, 7	11, 6	5, 7	1, 0	12, 2	7, 2	6, 9	7, 7	+ 3, 8	+ 5, 4	..
36		α Lyrae - - - -	21 33, 5	34, 6	30, 8	31, 4	38, 2	34, 3	51 21 33, 8	34, 0	+ 2, 6	+ 2, 9	R.
37		β..... - - - -	49 0, 5	2, 5	57, 4	57, 1	6, 3	2, 1	56 49 1, 0	1, 5	..	..	..
38		50 Draconis - - -	46 11, 4	11, 2	7, 2	9, 3	13, 2	11, 4	14 46 10, 6	11, 3	..	..	..
39		ζ Aquilæ - - - -	21 46, 3	46, 9	45, 4	44, 2	50, 5	47, 2	76 21 46, 8	46, 6	..	..	..
40		20..... - - - -	10 57, 2	58, 6	56, 0	59, 0	58, 2	56, 3	98 10 57, 6	57, 9	+ 4, 1	+ 4, 3	..
41		δ Draconis - - -	37 56, 2	57, 8	55, 2	52, 6	0, 7	57, 8	22 37 56, 7	57, 0	..	..	..
42		δ Aquilæ - - - -	11 25, 1	27, 3	25, 0	25, 9	30, 2	26, 5	87 11 26, 7	26, 2	+ 3, 1	+ 2, 9	..
43		ι Cygni - - - -	37 5, 4	11, 2	7, 7	5, 5	11, 5	8, 0	38 37 8, 2	8, 3	+ 3, 9	+ 5, 4	..
44		Next division.	6, 4	11, 0	8, 8	4, 4	13, 4	7, 6	8, 6	8, 7	+ 4, 5	+ 5, 1	..
45		γ Aquilæ - - - -	46 12, 2	14, 4	12, 1	12, 6	17, 5	13, 6	79 46 13, 7	13, 9	..	..	..
46		α..... - - - -	32 53, 5	54, 5	52, 7	52, 1	56, 4	56, 6	81 32 54, 3	54, 0	..	..	..
47		β..... - - - -	59 5, 8	6, 8	5, 3	4, 6	10, 3	8, 2	83 59 6, 8	6, 3	..	..	..
48		.....	...	..	..	..	..	..	.....	..	..	..	..
49	½ 10	☉ U. L. - - - cloudy,	8 13, 1	14, 2	10, 0	10, 0	13, 4	17, 2	74 8 12, 9	13, 7	..	..	F. S.
50		γ Draconis - - -	28 58, 7	5, 1	58, 6	55, 5	6, 2	2, 7	38 29 0, 8	2, 9	+ 4, 1	+ 5, 4	W. R.
51		δ Urs. Min. - - -	25 10, 8	9, 6	5, 3	7, 4	11, 3	15, 9	3 25 10, 1	10, 2	+ 3, 0	+ 3, 7	R.
52		α Lyrae - - - -	21 33, 5	33, 7	30, 0	29, 9	36, 1	35, 2	51 21 33, 1	33, 6	+ 4, 1	+ 4, 6	..
53		β..... - - - R.	13 37, 2	41, 8	35, 9	37, 7	43, 2	41, 8	200 13 39, 6	39, 5	..	..	..
54		ζ Aquilæ - - - cloudy,	21 47, 5	45, 3	43, 5	46, 2	50, 3	47, 7	76 21 46, 8	46, 4	+ 3, 5	+ 3, 4	..
55		.....	...	..	..	..	..	..	.....	..	..	..	..

* 32—Cloudy when the Sun's centre passed the meridian. R.

* 33—Clouds obscured the Sun as it was passing the meridian. R.

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	☉ Aug. 11	30, 00	59	56	γ Draconis - - -	28 56, 5	58, 3	54, 3	57, 8	59, 2	3, 1	38 28 57, 4	58, 2	R.
2	...	...	58	55	*... B. A.R. 18 ^b 18 ^m , } cloudy,	31 59, 2	0, 3	56, 5	0, 2	0, 2	3, 6	38 32 0, 0	59, 8	,,
3	...	...	...	...	Next division.	59, 8	0, 8	56, 5	58, 7	2, 9	4, 7	0, 6	0, 3	,,
4	...	...	...	...	ι Cygni - - -	37 3, 3	1, 8	59, 3	2, 9	7, 0	6, 0	38 37 3, 4	2, 6	E.
5	...	...	...	...	Next division.	3, 2	2, 0	59, 0	2, 5	5, 8	6, 7	3, 2	2, 6	,,
6	...	30, 08	55	56	♀ Centre - - v. trem.	10 17, 6	18, 2	12, 8	14, 3	19, 2	21, 8	69 10 17, 3	17, 9	R.
7	...	...	...	...		...	...	...	...	...	...	...	...	,,
8	☽ 12	30, 06	59	63	☉ U. L. - - -	43 50, 0	47, 7	45, 3	45, 7	49, 7	53, 5	74 43 48, 6	48, 8	F. S.
9	...	29, 95	...	58	γ Draconis - - - } cloudy,	28 55, 1	56, 0	53, 3	56, 3	58, 5	0, 8	38 28 56, 7	55, 6	H.
10	...	29, 92	58	56	ζ Aquilæ - - - R.	40 52, 0	47, 6	46, 7	53, 7	54, 0	56, 1	180 40 51, 7	49, 8	F. S.
11	...	29, 91	...	...	δ Draconis - - R.	24 42, 0	43, 0	39, 0	40, 0	43, 7	47, 4	234 24 42, 5	42, 6	,,
12	...	...	...	...	δ Aquilæ - - -	11 24, 1	21, 6	19, 2	20, 3	25, 7	28, 8	87 11 23, 3	22, 8	,,
13	...	...	...	...	ι Cygni - - - cloudy,	37 3, 8	0, 8	58, 7	3, 4	6, 9	6, 1	38 37 3, 3	2, 3	E.
14	...	...	...	...	Next division.	3, 0	1, 1	59, 2	2, 2	5, 8	7, 0	3, 1	2, 1	,,
15	...	29, 90	...	...	γ Aquilæ - - -	46 13, 1	8, 2	5, 0	9, 0	12, 6	14, 2	79 46 10, 3	10, 6	F. S.
16	...	...	...	...	α..... - - -	32 50, 7	48, 0	46, 3	48, 0	52, 7	54, 6	81 32 50, 1	49, 3	,,
17	...	29, 88	57	54	η - - - cloudy,	18 34, 8	30, 8	25, 8	27, 3	36, 3	35, 4	105 18 31, 7	32, 8	,,
18	☽ 13	29, 56	58	56	α Ophiuchi - - -	17 44, 8	41, 0	39, 8	40, 0	43, 0	48, 8	77 17 42, 9	42, 9	H.
19	...	...	...	...	γ Draconis - - -	28 56, 2	55, 6	53, 6	57, 0	58, 8	2, 1	38 28 57, 1	55, 9	,,
20	...	...	...	...	*..... B. - - -	31 59, 6	58, 8	56, 1	2, 0	3, 7	4, 0	38 32 0, 7	59, 2	,,
21	...	...	...	...	 - - -	0, 7	59, 0	56, 2	0, 1	2, 1	6, 1	0, 7	59, 8	,,
22	...	...	57	54	α Lyrae - - -	21 30, 4	27, 0	24, 6	26, 2	30, 2	35, 6	51 21 29, 0	28, 7	F. S.
23	...	...	...	...	110 Herculis - - -	35 37, 6	33, 7	31, 9	32, 4	36, 3	41, 5	69 35 35, 6	35, 6	,,
24	...	...	...	...	β Lyrae - - -	48 58, 2	56, 0	53, 3	55, 0	58, 8	4, 4	56 48 57, 6	57, 1	,,
25	...	...	...	...	* Draconis, A.R. 18 ^b 53 ^m	29 40, 7	40, 0	36, 0	39, 0	42, 0	45, 0	38 29 40, 5	40, 3	,,
26	...	...	...	53	ζ Aquilæ - - -	21 45, 7	39, 0	39, 1	40, 3	41, 8	46, 5	76 21 42, 1	42, 3	,,
27	...	...	...	...	* Draconis, A.R. 3 ^b 12 ^m ,	35 51, 4	49, 0	46, 5	50, 0	53, 3	56, 2	38 35 51, 1	50, 2	,,
28	...	...	...	...	δ..... - - -	37 52, 8	49, 6	46, 2	51, 6	52, 9	57, 4	22 37 51, 7	51, 2	,,
29	...	...	...	...	δ Aquilæ - - -	11 24, 4	20, 7	17, 2	20, 7	25, 0	27, 7	87 11 22, 6	22, 6	,,
30	...	...	...	...	ι Cygni - - -	37 4, 0	1, 0	57, 6	1, 6	6, 0	5, 6	38 37 2, 6	2, 5	E.
31	...	...	...	...	Next division.	4, 1	1, 7	57, 9	2, 7	4, 1	7, 1	2, 9	2, 9	,,
32	...	29, 55	...	...	γ Aquilæ - - -	46 13, 0	8, 2	6, 3	9, 0	14, 2	14, 0	79 46 10, 9	10, 6	F. S.
33	...	...	...	...	α..... - - -	32 51, 8	47, 2	44, 4	47, 4	50, 7	54, 8	81 32 49, 4	49, 5	,,
34	...	...	...	...	β..... - - -	59 5, 2	2, 0	59, 3	59, 4	5, 4	9, 8	83 59 3, 5	3, 6	,,
35	...	...	...	...	α ¹ Capricorni - - -	58 54, 8	51, 6	45, 0	47, 0	56, 4	59, 2	102 58 52, 3	53, 2	,,
36	...	...	...	...	α Cephei - - -	47 55, 0	52, 6	47, 1	53, 0	56, 4	1, 4	12 47 54, 2	53, 8	,,
37	...	...	55	52	α Cygni - - -	18 25, 4	23, 3	20, 4	23, 7	25, 2	28, 3	45 18 24, 4	24, 3	,,
38	...	...	...	...	19 Capricorni - - -	30 14, 0	11, 7	6, 3	9, 8	12, 4	18, 2	108 30 12, 1	12, 8	,,
39	...	29, 53	...	51	α Cephei - - -	7 10, 3	7, 8	5, 8	9, 6	10, 0	12, 6	28 7 9, 3	9, 0	,,
40	...	...	...	...	η - - -	19 18, 2	14, 8	11, 0	13, 0	19, 6	22, 8	105 19 16, 6	16, 5	,,
41	...	...	56	58	♀ - - -	7 50, 2	45, 7	42, 0	41, 8	50, 8	48, 0	69 7 46, 4	47, 9	E.
42	☽ 14	29, 60	57	56	γ Draconis - - -	28 55, 6	54, 6	52, 3	55, 1	58, 6	1, 3	38 28 56, 3	55, 1	H.
43	...	...	...	...	 B. 170 -	31 58, 7	58, 3	56, 3	1, 0	3, 4	4, 7	38 32 0, 4	58, 5	,,
44	...	...	53	...	Next division.	59, 8	59, 2	56, 8	58, 9	2, 3	5, 3	0, 4	59, 5	,,
45	...	...	...	...	α Lyrae - - -	21 28, 0	26, 2	23, 0	26, 8	30, 8	34, 3	51 21 28, 2	27, 1	,,
46	...	...	...	...	ζ..... - - - R.	29 16, 0	13, 0	10, 0	16, 0	14, 4	18, 0	204 29 14, 6	14, 5	F. S.
47	...	...	...	...	β..... - - - R.	13 38, 4	35, 7	34, 3	35, 7	39, 7	41, 8	200 13 37, 6	37, 0	,,
48	...	...	...	...	ι Draconis - - - R.	55 48, 0	51, 8	47, 6	48, 8	54, 7	55, 3	240 55 51, 0	49, 9	,,
49	...	...	...	...	ζ Aquilæ - - - R.	40 52, 0	46, 8	46, 0	52, 8	52, 6	55, 0	180 40 50, 9	49, 4	,,
50	...	29, 61	...	52	20..... - - -	10 53, 7	51, 2	43, 1	49, 7	53, 0	56, 1	98 10 51, 1	52, 5	,,
51	...	...	...	...	δ Draconis - - - R.	24 41, 3	42, 7	38, 7	39, 8	43, 6	45, 8	234 24 41, 9	42, 0	,,
52	...	...	...	...	δ Aquilæ - - -	11 23, 4	20, 8	18, 8	20, 6	25, 5	26, 9	87 11 22, 6	22, 1	,,
53	...	...	...	...	ι Cygni - - -	37 2, 7	1, 0	58, 3	1, 0	5, 4	5, 6	38 37 2, 3	1, 8	E.
54	...	...	...	...	Next division.	2, 8	1, 2	59, 2	2, 4	4, 1	5, 1	2, 5	2, 0	,,
55	...	...	56	51	γ Aquilæ - - - R.	10 24, 8	20, 1	18, 4	22, 1	27, 2	25, 6	177 16 23, 0	22, 5	,,
56	...	...	...	...	α..... - - - R.	29 42, 0	40, 3	36, 8	42, 1	47, 2	46, 8	175 29 42, 5	41, 1	,,
57	...	...	...	...	β..... - - - trem. R.	3 34, 0	29, 2	26, 2	30, 0	36, 2	38, 8	173 3 32, 4	31, 6	,,
58	...	...	...	...	α ² Capricorni - - -	1 10, 0	8, 0	2, 8	6, 0	11, 0	15, 2	103 1 8, 8	9, 0	,,
59	...	...	...	...	α Cygni - - - cloudy,	18 24, 8	20, 3	18, 0	21, 4	23, 4	28, 2	45 18 22, 7	22, 6	,,

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	⊙ AUG. 11	γ Draconis - - -	28 59, 0	5, 2	59, 8	56, 0	5, 0	1, 7	38 29 1, 1	2, 1	+ 3, 7	+ 3, 9	W. R.
2		*..... B. 170 -	32 3, 6	9, 2	1, 5	4, 1	9, 5	6, 8	38 32 5, 8	6, 4	+ 5, 8	+ 6, 6	, ,
3		Next division.	3, 6	9, 2	0, 5	5, 1	10, 6	6, 3	5, 9	6, 4	+ 5, 3	+ 6, 1	, ,
4		ι Cygni - - - -	37 7, 4	11, 4	7, 3	5, 9	11, 4	8, 5	38 37 8, 7	9, 4	+ 5, 3	+ 6, 8	R.
5		Next division.	7, 0	11, 6	8, 2	5, 3	13, 6	8, 3	9, 0	9, 3	+ 5, 8	+ 6, 7	, ,
6		.....	...	...	...	...	...	...	.....	...	...	...	, ,
7		δ U.L. v. indistinct & uncertain,	44 56, 5	54, 3	52, 3	51, 4	59, 9	58, 4	67 44 55, 5	55, 4	..	..	, ,
8	δ 12	⊙ L. L. - - - -	15 27, 4	19, 4	24, 8	24, 2	30, 6	30, 5	75 15 27, 8	28, 4	..	..	W. R.
9		γ Draconis - - -	28 57, 8	4, 4	59, 4	54, 6	6, 0	1, 4	38 29 0, 6	1, 1	+ 3, 9	+ 5, 5	, ,
10		ζ Aquilæ - - -	21 45, 4	45, 8	43, 6	43, 5	49, 2	47, 5	76 21 45, 8	45, 6	..	..	R.
11		δ Draconis - - -	37 55, 0	57, 0	54, 2	55, 0	0, 9	57, 6	22 37 56, 6	56, 0	..	..	, ,
12		δ Aquilæ - - -	11 23, 2	25, 4	22, 3	23, 1	28, 4	25, 0	87 11 24, 6	24, 3	+ 1, 3	+ 1, 5	, ,
13		ι Cygni - - - -	37 6, 2	10, 5	6, 5	3, 7	13, 3	6, 4	38 37 7, 8	8, 4	+ 4, 5	+ 6, 1	, ,
14		Next division.	5, 0	10, 3	7, 2	4, 1	13, 7	7, 5	5, 0	7, 6	+ 4, 9	+ 5, 5	, ,
15		γ Aquilæ - - v. cloudy,	46 12, 8	12, 4	9, 7	11, 9	16, 5	15, 0	79 46 13, 1	12, 6	+ 2, 3	+ 2, 0	, ,
16		α..... - } cloudy,	32 53, 5	53, 2	52, 3	52, 8	47, 6	57, 5	81 32 54, 5	53, 4	+ 4, 4	+ 4, 1	, ,
17		μ - - - -	18 32, 0	36, 0	33, 7	31, 4	36, 5	32, 9	105 18 33, 8	34, 0	+ 2, 1	+ 1, 2	, ,
18	δ 13	α Ophiuchi - - -	17 45, 6	44, 4	39, 7	41, 6	47, 4	46, 2	77 17 44, 2	45, 0	+ 1, 3	+ 2, 1	W. R.
19		γ Draconis - - -	28 57, 4	3, 4	57, 6	54, 5	5, 2	1, 4	38 28 59, 9	0, 4	+ 2, 8	+ 4, 5	, ,
20		 B.A.R. 18 ^h 18 ^m	32 3, 0	8, 8	2, 4	0, 0	10, 2	6, 6	38 32 5, 2	5, 9	+ 4, 5	+ 6, 7	, ,
21		Next division.	4, 4	8, 6	3, 0	59, 4	11, 4	5, 7	5, 4	6, 5	+ 4, 7	+ 6, 7	, ,
22		α Lyrae - - - R.	41 4, 4	10, 2	4, 8	2, 6	14, 2	8, 6	205 41 8, 5	7, 3	..	..	R.
23		110 Herculis - - R.	26 58, 2	2, 8	0, 3	56, 5	6, 5	0, 8	187 27 0, 9	0, 5	..	..	, ,
24		β Lyrae - - - R.	13 36, 2	44, 4	37, 0	36, 4	46, 1	40, 2	200 13 40, 1	40, 3	..	..	, ,
25		* Draconis, A.R. 18 ^h 53 ^m ,	29 41, 0	47, 0	44, 2	40, 2	49, 3	42, 6	38 29 44, 1	44, 0	+ 3, 6	+ 3, 7	, ,
26		ζ Aquilæ - - - R.	40 51, 2	57, 4	52, 6	49, 3	59, 9	53, 2	180 40 53, 9	54, 3	..	..	, ,
27		.....	...	...	...	...	...	...	.....	...	..	..	, ,
28		δ Draconis - - - R.	24 44, 6	49, 2	39, 2	40, 6	53, 0	49, 9	204 24 46, 1	46, 9	..	..	, ,
29		δ Aquilæ - - -	11 28, 8	28, 6	28, 3	28, 6	27, 2	27, 2	87 11 28, 4	28, 7	+ 5, 8	+ 6, 1	, ,
30		ι Cygni - - - -	37 6, 2	10, 0	7, 5	5, 2	12, 4	8, 1	38 37 8, 2	8, 1	+ 5, 6	+ 5, 6	, ,
31		Next division.	6, 6	10, 2	7, 7	4, 8	13, 3	7, 3	8, 2	8, 4	+ 5, 3	+ 5, 5	, ,
32		γ Aquilæ - - - R.	16 20, 2	29, 6	22, 6	18, 6	30, 7	24, 5	177 16 24, 4	24, 9	..	..	, ,
33		α..... - - - R.	29 43, 0	51, 0	44, 3	41, 0	49, 8	45, 2	175 29 45, 7	47, 0	..	..	, ,
34		β..... - - - R.	3 30, 2	39, 6	34, 0	30, 9	41, 1	35, 6	173 3 35, 2	34, 9	..	..	, ,
35		α Capricorni - - -	58 53, 0	59, 0	56, 0	55, 8	58, 5	55, 0	102 58 56, 2	56, 0	+ 3, 9	+ 2, 8	, ,
36		κ Cephei - - - -	47 58, 8	59, 6	57, 9	57, 2	1, 6	1, 5	12 47 59, 4	59, 2	+ 5, 2	+ 5, 4	, ,
37		α Cygni - - - - R.	44 11, 2	17, 4	6, 8	8, 3	18, 5	14, 6	211 44 12, 8	14, 3	..	..	, ,
38		19 Capricorni - - -	30 12, 2	18, 4	17, 5	13, 9	18, 2	14, 3	108 30 15, 8	15, 3	+ 3, 7	+ 2, 5	, ,
39		α Cephei - - - -	7 12, 3	16, 5	14, 6	12, 2	16, 8	11, 5	28 7 14, 0	14, 4	+ 4, 7	+ 5, 4	, ,
40		μ - - - -	19 18, 8	21, 6	19, 8	20, 3	21, 6	15, 8	105 19 19, 7	20, 2	+ 3, 1	+ 3, 7	, ,
41		.....	...	..	..	..	..	..	.....	..	..	..	, ,
42	δ 14	γ Draconis - - -	28 58, 7	4, 1	59, 6	56, 4	4, 0	0, 5	38 29 0, 6	1, 4	+ 4, 3	+ 6, 3	W. R.
43		 B.A.R. 18 ^h 18 ^m	32 3, 4	6, 0	3, 7	1, 6	8, 4	9, 6	38 32 5, 5	4, 7	+ 5, 1	+ 6, 2	, ,
44		Next division.	2, 6	4, 8	4, 5	59, 5	8, 0	10, 2	4, 9	3, 7	+ 4, 5	+ 4, 2	, ,
45		α Lyrae - - - -	21 31, 6	33, 6	29, 7	28, 5	36, 0	34, 5	51 21 32, 3	32, 6	+ 4, 1	+ 5, 5	, ,
46		ζ..... - - - -	33 20, 0	21, 6	20, 0	19, 6	28, 2	25, 6	52 33 22, 5	20, 8	..	..	R.
47		β..... - - - -	48 59, 2	1, 4	56, 5	57, 5	5, 1	0, 2	56 49 0, 0	0, 3	..	..	, ,
48		ι Draconis - - -	6 47, 6	46, 0	45, 6	47, 2	50, 5	47, 9	16 6 47, 5	46, 8	..	..	, ,
49		ζ Aquilæ - - - -	21 46, 3	46, 0	44, 8	45, 0	48, 5	46, 0	76 21 46, 1	46, 2	..	..	, ,
50		20..... - - - -	10 55, 0	59, 0	55, 5	58, 6	57, 6	55, 4	98 10 56, 9	57, 0	+ 5, 8	+ 4, 5	, ,
51		δ Draconis - - -	37 55, 1	55, 7	55, 0	54, 0	59, 6	56, 2	22 37 55, 9	55, 4	..	..	, ,
52		δ Aquilæ - - - -	11 27, 0	26, 6	24, 2	26, 1	28, 5	26, 1	87 11 26, 4	26, 8	+ 3, 8	+ 4, 7	, ,
53		ι Cygni - - - -	37 7, 1	10, 4	8, 2	5, 0	12, 5	8, 0	38 37 8, 5	8, 8	+ 6, 2	+ 7, 0	, ,
54		Next division.	6, 8	10, 6	8, 5	4, 5	13, 6	7, 8	8, 6	8, 7	+ 6, 1	+ 6, 7	, ,
55		γ Aquilæ - - - -	46 13, 8	13, 6	11, 4	13, 2	18, 8	13, 2	79 46 14, 0	13, 7	..	..	, ,
56		α..... - - - -	32 53, 4	53, 0	53, 5	55, 1	57, 0	55, 3	81 32 54, 6	53, 2	..	..	, ,
57		β..... - - - -	59 5, 0	4, 6	3, 7	3, 4	8, 7	5, 2	83 59 5, 1	4, 8	..	..	, ,
58		α Capricorni - - -	1 11, 5	14, 5	12, 6	14, 0	16, 2	12, 9	103 1 13, 6	13, 0	+ 4, 8	+ 4, 0	, ,
*59		α Cygni - - - cloudy, R.	44 13, 0	17, 4	9, 0	9, 5	19, 4	15, 6	211 44 14, 1	15, 2	..	..	, ,

* 59—Cloudy when μ passed the meridian.

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	24 AUG. 15	29, 68	56	57	♀ - - - - -	7 9, 6	9, 2	6, 6	5, 6	11, 5	15, 4	69 7 9, 7	9, 4	R.
2	♀ 16	29, 78	58	67	α Herculis - - -	23 50, 2	47, 6	42, 3	44, 8	50, 1	53, 8	75 23 48, 1	48, 9	H.
3	..	..	..	..	α Ophiuchi - - R.	44 51, 8	47, 3	44, 2	50, 0	53, 4	56, 2	179 44 50, 5	49, 6	..
4	...	..	57	54	γ Draconis - - -	28 54, 0	54, 7	51, 1	55, 6	58, 0	0, 2	38 28 55, 6	54, 4	..
5	29, 80	..	53	..	*..... B. 170 -	31 56, 8	56, 8	54, 8	59, 3	0, 5	2, 4	38 31 58, 4	56, 8	..
6	...	..	..	..	Next division.	57, 9	57, 0	55, 1	58, 2	0, 6	4, 3	58, 8	57, 4	..
7	...	..	..	..	α Lyrae - - - -	21 28, 0	25, 7	24, 3	27, 7	28, 8	34, 3	51 21 28, 1	26, 8	..
8	...	56	52	..	ζ Aquilæ - - - -	21 44, 0	38, 8	38, 0	40, 0	42, 5	47, 8	76 21 41, 9	41, 4	F. S.
9	...	..	..	..	δ Draconis - - - cloudy,	37 51, 4	48, 8	47, 0	51, 4	52, 8	57, 0	22 37 51, 4	50, 1	..
10	...	..	..	..	δ Aquilæ - - v. cloudy,	11 23, 3	20, 0	16, 6	17, 4	23, 4	27, 6	87 11 21, 4	21, 6	..
11	...	..	59	..	♀ - - - - -	7 36, 0	32, 5	27, 8	30, 3	35, 0	35, 2	69 7 32, 8	33, 3	..
12	♂ 19	29, 81	61	62	γ Draconis - - -	28 53, 7	55, 1	54, 0	56, 1	58, 1	59, 6	38 28 56, 1	54, 4	H.
13	...	..	..	..	β Lyrae - - - } cloudy,	48 58, 6	57, 0	53, 7	54, 2	59, 0	4, 0	56 48 57, 7	57, 9	F. S.
14	29, 87	59	..	..	♀ L. L. - - - }	12 3, 3	0, 7	55, 7	57, 0	3, 1	0, 8	69 12 0, 1	2, 0	..
15	♂ 21	29, 74	63	68	⊙ U. L. - - - -	35 18, 0	16, 0	13, 3	14, 9	17, 6	20, 2	77 35 16, 7	17, 0	H.
16	...	..	64	70	α Urs. Maj. - - -	21 0, 2	4, 8	57, 2	4, 8	1, 7	1, 8	27 21 1, 7	2, 5	..
17	29, 72	66	71	..	γ..... - - - -	22 28, 4	29, 0	23, 8	30, 8	31, 1	30, 2	35 22 28, 9	28, 7	..
18	29, 63	61	65	..	γ Draconis - - -	28 53, 6	55, 3	53, 2	55, 1	57, 8	56, 8	38 28 55, 3	54, 5	..
19	...	..	..	..	α Lyrae - - - -	21 26, 8	27, 1	25, 1	27, 7	28, 6	30, 0	51 21 27, 5	27, 0	..
20	29, 66	58	59	..	♀ Cent. - - - v. trem.	17 13, 2	9, 2	7, 1	8, 3	13, 5	13, 4	69 17 10, 8	11, 2	R.
21	♂ 22	29, 64	62	64	⊙ L. L. - - - -	27 5, 8	2, 7	59, 1	2, 5	8, 1	7, 8	78 27 4, 3	4, 2	H.
22	...	29, 63	..	65	α Urs. Maj. - - -	21 1, 1	59, 2	57, 1	4, 7	6, 0	5, 3	27 21 2, 2	0, 1	..
23	29, 56	60	57	..	α Cygni - - - -	18 22, 2	20, 2	19, 0	19, 7	21, 6	23, 8	45 18 21, 1	21, 2	F. S.
24	...	..	..	..	ν..... - - - R.	34 44, 0	41, 2	39, 5	42, 7	45, 7	45, 0	207 34 43, 0	42, 1	..
25	...	..	..	..	61 ¹ - - - R.	59 5, 3	3, 1	59, 9	5, 0	6, 7	7, 8	204 59 4, 6	4, 2	..
*26	...	..	..	..	.....	..	..	..	..	..	..	..	..	..
27	...	..	..	..	τ..... - - - R.	23 16, 7	12, 7	11, 7	15, 3	17, 2	18, 4	204 23 15, 3	14, 7	..
28	...	59	56	..	α Cephei - - - R.	55 28, 0	27, 7	24, 0	26, 0	27, 8	30, 7	228 55 27, 4	27, 8	..
29	29, 55	58	55	..	β..... - - - R.	52 12, 4	12, 4	11, 0	12, 1	13, 0	15, 7	236 52 12, 8	12, 4	..
30	...	..	..	..	η..... - - - -	26 8, 0	4, 7	58, 7	2, 8	8, 7	7, 2	105 26 5, 0	6, 3	..
31	...	..	..	..	α Aquarii - - - cloudy,	6 8, 3	6, 3	2, 3	5, 2	8, 2	10, 3	91 6 6, 8	7, 8	..
32	29, 53	57	59	..	♀ - - - - -	20 42, 3	39, 6	35, 1	37, 3	40, 3	40, 1	69 20 39, 1	40, 9	R.
33	♀ 23	29, 66	61	60	γ Draconis - - -	28 54, 5	54, 7	49, 0	52, 1	58, 3	56, 1	38 28 54, 1	54, 6	R.
34	...	..	..	..	*..... B. - - -	31 56, 1	56, 8	54, 2	59, 2	0, 7	0, 0	38 31 57, 8	56, 4	H.
35	29, 67	..	..	..	Next division.	57, 3	57, 2	54, 6	57, 3	58, 8	1, 3	57, 7	57, 3	..
36	...	..	59	..	α Lyrae - - - -	21 28, 0	26, 8	23, 3	26, 1	29, 3	32, 3	51 21 27, 6	27, 4	..
37	...	..	..	..	ζ Aquilæ - - - R.	40 50, 9	45, 3	46, 3	54, 0	53, 1	52, 3	180 40 50, 3	48, 1	..
38	29, 68	..	..	..	ι Cygni - - - -	37 1, 5	58, 4	56, 1	58, 3	3, 7	1, 4	38 36 59, 0	0, 0	E.
39	...	..	..	..	Next division.	0, 7	59, 0	56, 5	0, 1	1, 8	1, 7	0, 0	59, 9	..
40	...	60	57	..	γ Aquilæ - - - -	46 12, 3	7, 3	4, 7	9, 2	12, 7	13, 2	79 46 9, 9	9, 8	F. S.
41	...	..	..	..	α..... - - - -	32 51, 3	48, 4	46, 2	47, 6	51, 9	51, 9	81 32 49, 6	49, 8	..
42	...	..	..	..	β..... - - - -	59 4, 2	2, 0	59, 0	59, 4	4, 7	7, 0	83 59 2, 7	3, 1	..
43	...	59	56	..	α ¹ Capricorni - -	58 53, 8	52, 6	44, 5	47, 3	55, 0	55, 4	102 58 51, 4	53, 2	..
44	...	..	..	..	π..... - - - v. trem.	42 21, 2	19, 0	13, 6	13, 5	21, 2	21, 3	108 42 18, 3	20, 1	..
45	...	..	..	..	π ² Urs. Maj. - S.P.	55 48, 2	45, 0	41, 1	46, 9	52, 2	50, 8	334 55 47, 4	47, 6	..
46	29, 70	58	55	..	α Cygni - - - -	18 20, 2	19, 5	15, 2	19, 7	22, 0	23, 2	45 18 20, 0	19, 8	..
47	...	..	..	..	61 ² Cygni - - - trem.	3 30, 4	26, 2	24, 2	25, 0	29, 2	30, 7	52 3 27, 6	28, 3	..
48	...	..	..	..	τ Cygni - - - -	39 18, 6	14, 0	13, 3	14, 4	20, 2	20, 8	52 39 16, 9	16, 3	..
49	29, 71	..	..	..	α Cephei - - - -	7 6, 8	3, 4	1, 7	6, 6	7, 3	7, 0	28 7 5, 5	5, 1	..
50	...	..	..	..	β..... - - - -	10 20, 7	16, 5	14, 7	19, 2	21, 8	23, 7	20 10 19, 4	18, 6	..
51	...	..	..	..	η..... - - - -	26 49, 6	45, 3	40, 3	44, 6	51, 9	50, 0	105 26 46, 9	47, 8	..
52	...	57	54	..	α Aquarii - - - -	6 9, 4	6, 0	3, 7	5, 8	8, 4	10, 7	91 6 7, 3	7, 7	..
53	...	..	..	..	3 Lacertæ - - - -	36 4, 4	3, 6	59, 7	3, 0	8, 3	5, 8	38 36 4, 1	4, 0	E.
54	⊙ 25	30, 13	58	54	γ Draconis - - - trem.	28 53, 0	54, 6	50, 6	54, 8	56, 5	55, 4	38 28 54, 2	53, 8	R.
55	...	..	..	..	*..... B. - - -	51 57, 1	56, 8	54, 1	58, 3	59, 6	0, 0	38 31 57, 6	57, 0	H.
*56	...	..	..	..	Next division.	57, 2	57, 0	55, 1	57, 0	0, 4	0, 5	57, 9	57, 1	..

* 26—61¹ and 62¹ Cygni have apparently the same N. P. D.

* 56—Cloudy when the Moon passed the meridian. H.

Observations of NORTH POLAR DISTANCE.

17

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	24 AUG. 15	.....	...	..	..	..	..	..	.....	..	..	..	
2	♀ 16	.....	...	..	..	..	..	..	.....	..	..	..	
3		α Ophiuchi - - -	17 46,6	44,8	41,3	43,1	48,6	46,6	77 17 45,2	45,7	..	..	W. R.
4		γ Draconis - - -	28 59,0	3,6	59,5	55,4	5,3	0,5	38 29 0,6	1,3	+ 5,0	+ 6,9	,,
5		*... .. B. 170 -	32 3,2	8,0	3,4	1,4	9,3	5,3	38 32 5,1	5,6	+ 6,7	+ 8,8	,,
6		Next division.	3,2	7,8	4,0	59,2	10,1	3,5	4,6	5,5	+ 5,8	+ 8,1	,,
7		α Lyrae - - - R.	41 8,2	13,0	6,6	4,9	13,4	13,3	205 41 9,9	10,6	..	..	,,
8		ζ Aquilæ - - - R.	40 53,2	59,6	54,5	52,6	0,5	55,3	180 40 56,0	56,4	..	..	R.
9		δ Draconis, } cloudy, R.	24 45,2	49,6	41,3	41,5	54,3	49,6	234 24 46,9	47,4	..	..	,,
10		δ Aquilæ, }	11 26,1	26,9	25,3	27,0	27,3	26,2	87 11 26,5	26,5	+ 5,1	+ 4,9	,,
11		.....	...	..	..	..	..	..	.....	..	..	..	
12	♂ 19	γ Draconis - - -	28 57,8	35,4	0,5	55,2	5,8	59,8	38 29 0,8	1,6	+ 4,7	+ 7,2	R.
13		β Lyrae - - - cloudy,	48 59,2	0,8	56,5	57,3	4,2	2,7	56 49 0,1	0,0	+ 2,4	+ 2,1	,,
14		.....	...	..	..	..	..	..	.....	..	..	..	
15	♀ 21	⊙ L. L. - - -	7 1,2	1,8	58,3	59,6	3,2	2,6	78 7 1,3	1,5	..	..	R
16		α Urs. Maj. - - -	21 1,2	9,0	7,1	2,5	7,3	5,2	27 21 5,4	5,1	+ 3,7	+ 2,6	,,
17		γ..... - - - faint,	22 28,6	36,8	33,8	29,2	36,5	35,0	35 22 33,3	32,7	+ 4,4	+ 4,0	,,
18		γ Draconis - - -	28 55,0	4,4	59,4	54,8	3,0	0,2	38 28 59,5	59,7	+ 4,2	+ 5,2	W. R
19		α Lyrae - - -	21 30,4	34,4	28,6	26,5	34,4	35,0	51 21 31,6	32,4	+ 4,1	+ 5,4	,,
20		.....	...	..	..	..	..	..	.....	..	..	..	
21	♂ 22	⊙ U. L. - - - trem.	55 23,5	23,7	20,2	21,8	27,5	28,2	77 55 24,2	23,6	..	..	R.
22		α Urs. Maj. - - -	21 2,4	11,6	8,8	4,0	9,4	8,6	27 21 7,5	7,0	+ 5,3	+ 6,9	,,
23		α Cygni - - -	18 23,0	27,6	22,7	20,6	29,6	26,8	45 18 25,1	25,3	+ 4,0	+ 4,1	,,
24		ν..... - - -	27 53,0	59,0	51,2	52,6	58,3	55,5	49 27 54,9	56,0	..	..	,,
25		61'..... - - -	3 33,0	35,0	30,3	30,7	36,2	33,4	52 3 33,1	34,0	..	..	,,
26		.....	...	..	..	..	..	..	.....	..	..	..	,,
27		τ Cygni - - -	39 19,1	23,5	19,3	18,6	26,4	24,2	52 39 21,9	21,3	..	..	,,
28		α Cephei - - -	7 6,3	12,9	11,1	7,5	15,2	9,4	28 7 10,4	9,6	..	..	,,
29		β..... - - -	10 23,4	26,4	23,6	23,4	28,3	24,2	20 10 24,9	24,9	..	..	,,
30		η..... - - -	26 6,5	10,1	8,8	10,6	9,2	7,6	105 26 8,8	8,3	+ 3,8	+ 2,0	,,
31		α Aquarii - - - cloudy,	6 11,2	12,2	9,5	14,1	12,3	10,8	91 6 11,7	11,7	+ 4,9	+ 4,4	,,
32		.....	...	..	..	..	..	..	.....	..	..	..	
33	♀ 23	γ Draconis - - -	28 57,0	2,8	57,6	55,0	3,0	0,8	38 28 59,4	59,9	+ 5,3	+ 5,3	W. R.
34		B..... - - -	32 0,3	7,6	3,4	0,3	7,4	6,7	38 32 4,3	4,0	+ 6,5	+ 7,6	E.
35		Next division.	59,5	6,4	3,8	58,0	9,5	5,4	3,8	3,0	+ 6,1	+ 5,7	,,
36		α Lyrae - - -	21 30,8	32,6	26,6	26,7	34,9	35,2	51 21 31,1	31,7	+ 3,5	+ 4,3	W. R.
37		ζ Aquilæ - - -	21 45,2	46,2	42,6	44,6	47,7	49,3	76 21 45,9	45,7	..	..	,,
38		ι Cygni - - -	37 3,6	7,4	4,8	3,5	8,5	5,7	38 37 5,6	5,5	+ 5,7	+ 5,5	R.
39		Next division.	1,8	7,2	5,0	1,7	10,2	4,6	5,1	4,5	+ 5,1	+ 4,6	,,
40		γ Aquilæ - - -	46 13,2	12,0	10,6	12,9	15,2	12,8	79 46 12,8	12,6	+ 2,9	+ 2,8	,,
41		α..... - windy, R.	29 42,6	50,8	45,2	41,6	52,6	47,0	175 29 46,6	46,7	..	..	,,
42		β..... - - -	59 4,8	3,6	3,1	4,6	6,6	6,3	83 59 4,8	4,2	+ 2,1	+ 1,1	,,
43		α' Capricorni - - -	58 55,0	57,0	55,9	58,0	57,1	55,9	102 58 56,5	56,0	+ 5,1	+ 2,8	,,
44		π..... - - - trem.	42 21,2	25,6	25,7	24,0	28,2	22,0	108 42 24,5	23,4	+ 6,2	+ 3,3	,,
45		π ² Urs. Maj. - S.P.	55 53,0	51,0	47,3	49,6	54,9	0,7	334 55 52,8	52,0	+ 5,4	+ 4,4	,,
46		α Cygni - - - R.	44 16,2	22,0	14,9	13,3	22,4	20,6	211 44 18,2	19,1	..	..	,,
47		61'..... - - -	3 29,6	32,4	28,8	29,0	34,5	30,3	52 3 30,8	31,0	+ 3,2	+ 2,7	,,
48		τ..... - - - R.	23 18,2	22,8	18,2	16,6	25,2	21,8	304 23 20,5	19,5	..	..	,,
49		α Cephei - - - R.	55 32,7	34,9	28,5	28,2	37,6	35,9	228 55 33,0	33,8	..	..	,,
50		β..... - - - R.	52 16,5	18,1	12,0	11,8	23,7	20,8	236 52 17,2	17,3	..	..	,,
51		η..... - - -	26 52,5	53,5	54,6	53,2	3,2	58,4	105 26 55,9	53,0	+ 9,0	+ 5,2	,,
52		α Aquarii - - -	6 12,5	12,7	13,1	13,5	10,8	7,3	91 6 11,7	12,6	+ 4,4	+ 4,9	,,
53		3 Lacertæ - - -	36 7,4	13,4	11,8	7,8	13,4	9,3	38 36 10,5	10,4	+ 6,4	+ 6,4	,,
54	⊙ 25	γ Draconis - - -	28 58,0	3,8	59,3	55,0	4,4	50,4	38 29 0,2	0,9	+ 6,0	+ 7,1	W. R.
55		*..... B. - - -	32 1,4	7,4	4,4	1,6	7,9	2,0	38 32 4,1	4,4	+ 6,5	+ 7,4	R.
56		Next division.	1,2	8,0	5,5	1,2	8,6	0,0	4,1	4,6	+ 6,2	+ 7,5	,,

In the Year M.DCCC.XXXIII.

TROUGHTON.														
	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	☉ AUG. 25	30, 13	58	54	ι Cygni - - - -	36 58, 2	57, 0	56, 7	58, 6	0, 6	2, 1	38 36 59, 2	57, 6	H.
2	...	...	...	...	Next division.	59, 1	57, 2	56, 1	59, 5	59, 8	0, 2	58, 6	58, 2	,,
3	☽ 26	30, 20	59	63	☉ U. L. - - - -	17 28, 1	26, 0	20, 2	24, 8	28, 0	32, 3	79 17 26, 6	27, 1	H.
4	...	30, 15	60	58	γ Draconis - - -	28 54, 3	53, 4	50, 0	53, 8	55, 8	54, 4	38 28 53, 6	53, 9	E.
5	...	...	...	57	*..... B. 170 -	31 56, 7	56, 0	53, 4	58, 0	0, 8	59, 0	38 31 57, 3	56, 4	H.
6	...	...	...	...	Next division.	56, 8	56, 2	54, 0	58, 1	59, 3	1, 1	57, 6	56, 5	,,
7	...	...	...	...	α Lyrae - - - - R.	41 5, 7	4, 2	1, 3	6, 2	6, 8	5, 1	205 41 4, 9	5, 0	,,
8	...	...	...	56	ζ Aquilæ - - - -	21 41, 8	38, 0	36, 3	38, 4	40, 3	44, 0	76 21 41, 6	39, 9	,,
9	...	...	58	...	δ Draconis - - - R.	24 45, 0	43, 1	39, 1	41, 3	44, 8	47, 8	234 24 43, 5	44, 1	,,
10	...	...	...	...	ι Cygni - - - -	36 59, 0	58, 0	56, 3	59, 5	2, 2	59, 2	38 36 59, 0	58, 5	F.S.
11	...	...	...	...	Next division.	59, 6	58, 0	55, 2	59, 5	59, 1	1, 6	58, 8	58, 8	,,
12	...	...	...	...	α Aquilæ - - - -	32 49, 2	47, 0	44, 8	45, 0	49, 3	40, 8	81 32 47, 5	48, 1	,,
13	...	...	...	...	β..... - - - -	59 1, 2	58, 4	56, 7	58, 2	3, 0	3, 3	83 59 0, 1	59, 8	,,
14	...	30, 14	57	55	☉ U. L. - - - -	0 49, 8	47, 0	40, 6	46, 0	50, 3	50, 2	113 0 47, 3	48, 4	,,
15	...	30, 13	...	...	α Cygni - - - -	18 20, 2	19, 0	15, 4	20, 4	20, 2	22, 4	45 18 19, 6	19, 6	,,
16	...	...	...	...	19 Capricorni - -	30 10, 5	8, 2	1, 7	4, 1	10, 0	12, 2	108 30 7, 8	9, 3	,,
17	...	...	...	...	ν Cygni - - - - R.	34 44, 0	41, 0	39, 3	43, 3	46, 6	45, 3	207 34 43, 2	42, 5	,,
18	...	...	...	...	61..... - - - -	3 28, 4	26, 4	23, 0	25, 4	27, 6	29, 4	52 3 26, 7	27, 4	,,
19	...	...	56	54	18 Urs. Maj. - S.P.	45 26, 3	23, 7	17, 4	21, 4	26, 7	26, 6	324 45 23, 7	25, 0	,,
20	...	...	...	...	α Cephei - - - -	7 5, 3	2, 7	0, 0	2, 4	6, 2	6, 8	28 7 3, 9	4, 0	,,
21	...	...	...	...	β..... - - - - R.	52 13, 0	13, 0	11, 3	13, 3	16, 2	16, 9	236 52 13, 9	13, 0	,,
22	...	...	...	...	γ..... - - - -	28 59, 3	56, 8	49, 7	53, 0	58, 0	59, 7	105 28 56, 1	58, 0	,,
23	...	...	...	...	α Aquarii - - - -	6 6, 7	3, 7	58, 4	3, 2	8, 0	7, 3	91 6 4, 5	5, 2	,,
24	...	...	...	...	3 Lacertæ - - - -	36 4, 4	2, 0	58, 6	2, 3	7, 6	6, 1	38 36 3, 5	3, 2	E.
25	...	...	57	59	♀ L. L. - - - - trem.	39 52, 0	48, 4	43, 3	45, 7	50, 2	50, 0	69 39 48, 3	50, 2	F.S.
26	☽ 27	30, 12	61	67	☉ L. L. - - - - trem.	10 13, 2	11, 3	7, 7	7, 8	12, 7	13, 7	80 10 11, 1	12, 2	F.S.
27	...	...	62	...	α Urs. Maj. faint & trem.	21 3, 1	3, 0	0, 0	4, 8	4, 8	5, 0	27 21 3, 5	3, 0	,,
28	...	30, 10	63	70	Polaris, trem. S.P.	25 41, 6	41, 4	38, 2	40, 6	41, 7	42, 3	358 25 41, 0	41, 5	,,
29	...	30, 08	65	69	β Urs. Min. - - -	9 45, 3	45, 0	39, 6	48, 7	47, 4	50, 4	15 9 46, 1	45, 1	H.
30	...	...	...	...	α Cor. Bor. - - -	42 23, 4	23, 8	19, 6	23, 8	27, 3	29, 6	62 42 24, 6	23, 6	,,
31	...	...	...	...	α Serpentis - - v. cloudy,	1 28, 1	29, 2	26, 4	27, 3	30, 3	30, 2	83 1 28, 6	28, 7	,,
32	...	30, 11	...	64	γ Draconis - - - -	28 51, 6	52, 8	49, 0	52, 6	55, 1	54, 8	38 28 52, 7	52, 2	E.
33	...	...	64	63	*..... B. 170 -	31 55, 8	57, 0	53, 8	58, 3	59, 8	58, 3	38 31 57, 2	56, 4	H.
34	...	...	...	...	Next division.	55, 7	56, 3	54, 6	58, 0	58, 3	59, 8	57, 1	56, 0	,,
35	...	...	63	62	α Lyrae - - - -	21 25, 2	24, 3	21, 8	26, 2	27, 1	27, 2	51 21 25, 3	24, 8	,,
36	...	...	...	...	δ Draconis - - - -	37 46, 2	45, 7	44, 3	47, 6	48, 1	49, 8	22 37 46, 9	46, 0	,,
37	...	...	...	...	ι Cygni - - - -	36 59, 1	57, 1	53, 4	57, 5	2, 4	58, 0	57, 9	58, 1	E.
38	...	...	...	...	Next division.	58, 4	57, 0	54, 8	58, 8	0, 1	58, 5	57, 9	57, 7	,,
39	...	...	62	60	γ Aquilæ - - - - R.	16 25, 2	23, 6	19, 7	21, 7	29, 8	26, 7	177 16 24, 8	24, 4	F.S.
40	...	...	...	...	α..... - - - - R.	29 46, 0	42, 2	40, 1	46, 2	47, 8	45, 2	175 29 44, 6	44, 1	,,
41	...	...	...	...	β..... - - - - R.	3 33, 9	30, 9	27, 2	32, 7	34, 4	37, 0	173 3 32, 7	32, 4	,,
42	...	...	...	...	27 Lyncis - - - - S.P.	2 28, 0	28, 2	18, 3	23, 8	29, 0	30, 7	322 2 26, 3	28, 1	,,
43	...	30, 12	61	59	α ² Capricorni - - -	1 8, 4	8, 2	1, 7	5, 0	10, 2	11, 2	103 1 7, 4	8, 3	,,
44	...	...	...	...	ο Urs. Maj. - S.P.	18 5, 0	2, 2	58, 2	3, 8	7, 0	5, 5	331 18 3, 6	3, 6	,,
45	...	...	...	...	π ² - S.P.	55 48, 0	46, 0	41, 2	47, 4	50, 4	50, 3	334 55 47, 2	47, 0	,,
46	...	...	...	...	α Cygni - - - -	18 17, 8	18, 3	15, 4	22, 7	20, 4	24, 4	45 18 19, 8	18, 0	,,
47	...	...	60	58	☉ L. L. - - - -	12 18, 6	17, 2	10, 0	12, 8	17, 2	19, 8	111 12 15, 9	17, 9	,,
48	...	...	...	...	61 ¹ Cygni - - - -	3 27, 7	26, 2	24, 0	28, 7	28, 6	28, 2	52 3 27, 2	26, 9	,,
49	...	...	...	...	18 Urs. Maj. - S.P.	45 24, 0	22, 3	20, 3	16, 6	26, 6	26, 2	324 45 22, 7	23, 3	,,
50	...	...	57	...	α Cephei - - - - R.	55 28, 7	29, 0	25, 0	28, 4	29, 4	28, 8	228 55 28, 2	28, 9	,,
51	...	...	...	...	β..... - - - - R.	52 13, 3	13, 0	10, 7	12, 0	16, 2	18, 1	236 52 13, 9	13, 1	,,
52	...	...	...	...	γ..... - - - -	29 41, 2	40, 0	34, 3	38, 6	44, 0	41, 8	105 29 40, 0	40, 6	,,
53	...	...	59	56	α Aquarii - - - -	6 6, 4	5, 0	1, 0	4, 0	8, 0	7, 6	91 6 5, 3	5, 7	,,
54	...	...	...	...	3 Lacertæ - - - -	36 3, 5	1, 5	58, 2	3, 2	5, 8	4, 7	38 36 2, 8	2, 5	E.
55	☽ 28	30, 10	65	68	α Herculis - - - -	23 50, 6	49, 8	43, 5	45, 6	52, 2	52, 4	75 23 49, 0	50, 2	H.
56	...	30, 11	...	67	α Ophiuchi - - - -	17 40, 0	40, 1	39, 0	36, 3	44, 2	45, 7	77 17 40, 9	40, 1	,,
57	...	...	...	65	γ Draconis - - - -	28 52, 0	53, 7	50, 6	53, 4	55, 0	55, 4	38 28 53, 3	52, 9	T.
58	...	...	...	...	*..... B. 170 -	31 56, 0	57, 6	55, 2	58, 6	1, 7	59, 8	38 31 58, 1	56, 8	,,
59	...	...	...	...	Next division.	56, 1	57, 2	55, 3	57, 8	0, 6	0, 0	57, 8	56, 7	,,
60	...	...	64	63	α Lyrae - - - -	21 24, 1	24, 2	21, 3	24, 2	28, 3	29, 7	51 21 25, 3	24, 2	H.
61	...	...	...	...	ζ Aquilæ - - - -	21 40, 1	39, 0	36, 3	36, 8	41, 3	42, 2	76 21 40, 9	39, 6	,,
62	...	...	63	62	δ Draconis - - - -	37 47, 0	45, 3	43, 2	49, 6	48, 1	50, 0	22 37 47, 2	46, 3	,,

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton		Ob- servers.
			A	B	C	D	E	F			6.	2.	
1	☉ Aug. 25	ι Cygni - - - -	37 4, 2	9, 2	5, 5	3, 1	9, 6	5, 7	38 37 6, 2	6, 7	+ 7, 0	+ 9, 1	R.
2		Next division.	4, 2	9, 2	6, 0	3, 0	10, 4	5, 5	6, 4	6, 7	+ 7, 8	+ 8, 5	, ,
3	☽ 26	☉ L. L. - - - -	49 18, 4	20, 8	16, 2	19, 0	21, 0	21, 8	79 49 19, 5	19, 6	..	..	F. S.
4		γ Draconis - - -	28 50, 7	3, 5	58, 4	55, 4	3, 1	59, 0	38 28 59, 4	0, 1	+ 5, 8	+ 6, 2	W. R.
5		*..... B. 170 -	32 1, 8	5, 9	2, 1	59, 2	6, 6	5, 3	38 32 3, 5	3, 9	+ 6, 2	+ 7, 5	E.
6		Next division.	1, 7	7, 3	3, 8	58, 5	8, 0	2, 8	3, 7	4, 5	+ 6, 1	+ 8, 0	, ,
7		α Lyrae - - - -	21 30, 8	31, 7	27, 8	26, 2	31, 2	31, 3	51 21 30, 8	31, 3	..	..	W. R.
8		ζ Aquilæ - - - -	21 45, 5	46, 1	41, 6	42, 0	47, 0	46, 5	76 21 44, 8	45, 8	+ 3, 2	+ 5, 9	, ,
9		δ Draconis - - -	37 53, 4	56, 0	52, 0	50, 5	56, 6	55, 4	22 37 54, 0	54, 7	..	..	, ,
10		ι Cygni - - - -	37 3, 6	7, 5	5, 3	1, 8	8, 2	7, 7	38 37 5, 7	5, 6	+ 6, 7	+ 7, 1	R.
11		Next division.	3, 8	7, 7	5, 1	0, 7	10, 4	4, 9	5, 4	5, 7	+ 6, 6	+ 6, 9	, ,
12		α Aquilæ - - - -	32 52, 2	52, 4	50, 6	50, 3	51, 2	53, 6	81 32 52, 2	52, 3	+ 4, 7	+ 4, 2	, ,
13		β..... - - - -	59 4, 2	3, 2	2, 2	3, 6	7, 8	5, 2	83 59 4, 4	3, 7	+ 4, 3	+ 3, 9	, ,
14		☽ L. L. - - - -	0 49, 8	57, 4	54, 3	51, 0	53, 9	51, 7	113 0 53, 0	53, 6	+ 5, 7	+ 5, 2	, ,
15		α Cygni - - - - R.	44 17, 0	23, 0	14, 2	15, 0	21, 8	19, 3	211 44 18, 4	20, 0	..	..	, ,
16		19 Capricorni - -	30 10, 5	15, 5	14, 7	11, 3	15, 7	13, 4	108 30 13, 5	13, 0	+ 5, 7	+ 3, 7	, ,
17		ν Cygni - - - -	27 44, 8	54, 8	49, 3	49, 1	57, 6	51, 2	49 27 51, 6	49, 0	..	..	, ,
18		61..... - - - -	3 30, 0	31, 0	28, 2	27, 3	33, 2	32, 0	52 3 30, 3	30, 5	+ 3, 6	+ 3, 1	, ,
19		18 Urs. Maj. - S.P.	45 30, 2	27, 6	23, 2	23, 6	34, 3	36, 0	324 45 29, 2	28, 9	+ 5, 5	+ 3, 9	, ,
20		α Cephei - - - -	7 8, 1	11, 7	11, 4	9, 0	13, 2	9, 8	28 7 10, 5	9, 9	+ 6, 6	+ 5, 9	, ,
21		β..... - - - -	10 24, 0	26, 0	23, 1	22, 4	28, 3	24, 9	20 10 24, 8	25, 0	..	..	, ,
22		η..... - - - -	29 0, 5	2, 9	2, 3	1, 8	2, 0	1, 7	105 29 1, 9	1, 7	+ 5, 8	+ 3, 7	, ,
23		α Aquarii - - - -	6 11, 4	11, 8	10, 0	13, 4	9, 2	8, 3	91 6 10, 7	11, 6	+ 6, 2	+ 6, 4	, ,
24		3 Lacertæ - - - -	36 8, 3	11, 3	10, 2	7, 5	12, 1	10, 7	38 36 10, 0	9, 8	+ 6, 5	+ 6, 6	, ,
25		.....	..	..	..	..	..	..	.....	..	..	..	, ,
26	☽ 27	☉ U. L. - - - - v. trem.	38 28, 3	29, 7	29, 8	26, 5	33, 2	33, 7	79 38 30, 2	29, 0	..	..	R.
27		α Urs. Maj. faint & trem.	21 5, 2	13, 2	9, 1	6, 3	11, 1	9, 8	27 21 9, 1	9, 2	+ 5, 6	+ 6, 2	, ,
28		Polaris, trem. S.P.	25 50, 7	47, 7	41, 3	46, 9	50, 5	51, 6	358 25 48, 6	49, 2	+ 7, 6	+ 7, 7	, ,
29		β Urs. Min. - - -	9 52, 0	55, 1	50, 3	49, 6	55, 3	54, 8	15 9 52, 9	53, 6	+ 6, 8	+ 8, 5	, ,
30		α Cor. Bor. - - -	42 29, 0	29, 2	25, 8	23, 9	34, 8	33, 9	62 42 29, 1	29, 4	+ 4, 5	+ 5, 8	, ,
31		.....	..	..	..	..	..	..	.....	..	..	..	, ,
32		γ Draconis - - -	28 55, 6	4, 6	57, 8	54, 4	3, 4	59, 2	38 28 59, 2	0, 1	+ 6, 5	+ 7, 9	W. R.
33		*..... B. 170 -	32 0, 2	8, 8	3, 5	59, 3	7, 3	4, 7	38 32 4, 0	4, 5	+ 6, 8	+ 8, 1	E.
34		Next division.	59, 3	8, 2	4, 6	58, 0	9, 0	0, 2	3, 2	3, 8	+ 6, 1	+ 7, 8	, ,
35		α Lyrae - - - -	21 30, 0	34, 0	28, 6	28, 1	35, 2	34, 4	51 21 31, 7	32, 0	+ 6, 4	+ 7, 2	W. R.
36		δ Draconis - - -	37 52, 2	56, 2	52, 6	50, 2	56, 0	55, 4	22 37 53, 8	54, 2	+ 6, 9	+ 8, 2	, ,
37		ι Cygni - - - -	37 1, 8	9, 3	4, 6	0, 5	8, 0	5, 4	38 37 4, 9	5, 6	+ 7, 0	+ 7, 5	, ,
38		Next division.	1, 7	10, 0	4, 2	0, 7	10, 0	5, 0	5, 3	5, 9	+ 7, 4	+ 8, 2	, ,
39		γ Aquilæ - - - -	46 12, 2	13, 0	10, 4	13, 2	15, 3	12, 6	79 46 12, 8	12, 6	..	..	R.
40		α..... - - - -	32 53, 0	52, 6	52, 2	51, 7	2, 6	53, 9	81 32 54, 3	52, 8	..	..	, ,
41		β..... - - - -	59 4, 3	4, 5	3, 5	4, 2	6, 7	4, 8	83 59 4, 7	4, 4	..	..	, ,
42		27 Lyncis - - S.P.	2 32, 2	32, 0	25, 4	25, 3	37, 3	37, 2	322 2 31, 6	32, 1	+ 5, 3	+ 4, 0	, ,
43		α² Capricorni - -	1 11, 2	14, 6	11, 5	14, 2	13, 3	12, 1	103 1 12, 8	12, 9	+ 5, 4	+ 4, 6	, ,
44		ο Urs. Maj. - S.P.	18 9, 2	8, 2	5, 1	6, 3	13, 2	16, 5	331 18 9, 8	8, 7	+ 5, 2	+ 5, 1	, ,
45		π²..... - S.P.	55 52, 0	51, 8	47, 5	49, 2	56, 3	59, 9	334 55 52, 8	51, 9	+ 5, 6	+ 4, 9	, ,
46		α Cygni - - - - R.	44 16, 2	24, 2	15, 2	13, 8	22, 8	19, 7	211 44 18, 6	20, 2	..	..	, ,
47		☽ L. L. - - - -	12 16, 8	26, 4	25, 7	22, 3	22, 3	18, 4	111 12 22, 0	21, 6	+ 6, 1	+ 3, 7	, ,
48		61¹ Cygni - - - R.	59 8, 2	12, 4	8, 2	6, 0	13, 5	11, 9	204 59 10, 0	10, 3	..	..	, ,
49		18 Urs. Maj. - S.P.	45 28, 2	26, 6	23, 0	24, 1	32, 4	32, 0	324 45 27, 7	27, 4	+ 5, 0	+ 4, 3	, ,
50		α Cephei - - - -	7 6, 3	12, 5	10, 4	7, 2	11, 3	8, 4	28 7 9, 4	9, 4	..	..	, ,
51		β..... - - - -	10 22, 6	26, 8	23, 0	22, 4	26, 5	25, 0	20 10 24, 4	24, 7	..	..	, ,
52		η..... - - - -	29 45, 0	47, 6	45, 8	45, 5	44, 2	44, 2	105 29 45, 5	46, 3	+ 5, 5	+ 5, 7	, ,
53		α Aquarii - - - -	6 12, 6	14, 2	11, 1	14, 6	11, 3	9, 2	91 6 12, 2	13, 4	+ 6, 9	+ 7, 7	, ,
54		3 Lacertæ - - - -	36 7, 7	11, 9	10, 0	7, 5	12, 0	10, 8	38 36 10, 0	9, 8	+ 7, 2	+ 7, 3	, ,
55	☽ 28	α Herculis - - -	23 52, 2	55, 0	50, 0	47, 8	56, 4	54, 5	75 23 52, 7	53, 6	+ 3, 7	+ 3, 4	W. R.
56		α Ophiuchi - - -	17 45, 2	47, 2	42, 6	42, 5	48, 6	47, 4	77 17 45, 6	46, 2	+ 4, 7	+ 6, 1	, ,
57		γ Draconis - - -	28 55, 8	4, 4	59, 0	53, 5	4, 4	59, 5	38 28 59, 4	0, 1	+ 6, 1	+ 7, 2	, ,
58		*..... B. 170 -	32 1, 2	8, 0	3, 8	0, 8	7, 2	4, 0	38 32 4, 2	4, 6	+ 6, 1	+ 7, 8	, ,
59		Next division.	59, 0	8, 0	4, 0	58, 4	8, 2	5, 1	4, 0	3, 5	+ 6, 2	+ 6, 8	, ,
60		α Lyrae - - - -	21 31, 0	33, 0	31, 1	32, 3	27, 8	27, 4	51 21 30, 9	32, 0	+ 5, 6	+ 7, 8	, ,
61		ζ Aquilæ - - - -	21 44, 8	47, 4	42, 5	42, 9	48, 2	48, 0	76 21 45, 6	46, 1	+ 4, 7	+ 6, 5	, ,
62		δ Draconis - - - R.	24 49, 2	55, 0	44, 6	44, 0	57, 0	56, 7	234 24 51, 1	52, 1	..	..	, ,

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	8 AUG. 28	30, 11	63	62	ι Cygni - - - -	36 56, 0	55, 8	54, 3	57, 0	0, 0	58, 6	38 36 56, 9	55, 8	H.
2	...	...	...	...	Next division.	55, 8	56, 0	55, 0	58, 2	56, 6	0, 0	56, 9	55, 9	...
3	...	...	...	...	γ Aquilæ - - - -	46 9, 2	6, 0	4, 1	6, 8	10, 7	11, 0	79 46 8, 0	7, 6	F.S.
4	...	...	...	...	α - - - -	32 48, 8	47, 0	43, 3	47, 0	49, 4	50, 2	81 32 47, 6	47, 9	...
5	...	...	...	...	β - - - -	59 1, 3	0, 2	56, 6	58, 3	2, 8	3, 7	83 59 0, 5	0, 7	...
6	...	62	61	61	* A.R. 20 ^h 0 ^m 38 ^s -	37 49, 2	49, 0	48, 2	49, 2	53, 0	52, 2	38 37 50, 5	49, 1	...
7	...	...	60	60	* A.R. 20 ^h 31 ^m 1 ^s -	42 46, 2	48, 3	44, 2	47, 2	50, 3	48, 0	38 42 47, 3	47, 3	...
8	...	...	...	...	α Cygni - - - -	18 18, 2	17, 0	15, 4	18, 2	18, 4	22, 2	45 18 18, 2	17, 6	...
9	...	...	59	59	61 ^h - - - -	3 27, 7	25, 2	24, 7	23, 3	28, 2	30, 5	52 3 26, 6	26, 4	...
10	...	...	...	...	18 Urs. Maj. - S.P.	45 23, 4	21, 0	15, 2	18, 0	24, 8	24, 6	324 45 21, 2	22, 2	...
11	...	30, 10	...	...	α Cephei - - - -	7 3, 6	4, 6	0, 7	3, 0	5, 0	5, 8	28 7 3, 8	4, 1	...
12	...	...	61	...	β - - - -	10 17, 8	15, 6	13, 8	17, 0	17, 0	21, 2	20 10 17, 1	16, 7	...
13	...	...	...	...	δ L. L. - - - -	30 26, 8	24, 3	18, 2	21, 0	26, 6	26, 8	105 30 23, 9	25, 6	...
14	...	...	...	...	δ L. L. - - - -	28 29, 3	28, 2	21, 4	24, 8	30, 2	33, 3	108 28 27, 9	28, 7	...
15	...	...	...	...	* A.R. 21 ^h 40 ^m - observed at last wire, the δ interfering.	29 36, 3	36, 6	32, 7	38, 0	38, 2	40, 3	38 29 37, 0	36, 5	...
16	...	30, 09	60	58	α Aquarii - - - -	6 7, 2	6, 2	0, 1	4, 0	8, 8	8, 2	91 6 5, 7	6, 7	...
17	...	...	...	...	3 Lacertæ - - - -	36 2, 8	2, 0	58, 0	1, 3	7, 3	3, 8	38 36 2, 5	2, 4	E.
18	...	30, 04	61	62	♀ Cent. - - - - hazy.	51 26, 0	22, 0	20, 0	21, 3	26, 2	24, 5	69 51 23, 3	24, 0	R.
19	4 29	29, 97	64	71	⊙ U. L. - - - -	20 50, 0	51, 0	50, 5	48, 3	53, 5	49, 9	80 20 50, 5	50, 5	R.
20	...	29, 91	67	73	Polaris - S.P.	25 43, 8	41, 8	35, 1	43, 2	42, 0	43, 5	358 25 41, 1	42, 8	E.
21	...	29, 86	66	65	γ Draconis - - - -	28 52, 2	54, 4	50, 3	54, 6	55, 7	56, 6	38 28 54, 0	53, 3	R.
22	...	...	...	64	α Lyrae - - - -	21 26, 0	26, 6	23, 5	25, 9	28, 3	27, 2	51 21 26, 3	26, 3	...
23	...	29, 85	64	63	ι Cygni - - - -	36 58, 0	57, 2	57, 2	59, 3	1, 3	59, 4	38 36 58, 7	57, 6	T.
24	...	...	...	...	Next division.	57, 0	57, 4	55, 4	58, 6	0, 2	0, 6	58, 2	57, 2	...
25	♀ 30	29, 72	63	63	⊙ L. L. - - - -	14 3, 7	2, 3	54, 0	1, 3	5, 3	6, 2	81 14 2, 1	3, 0	H.
26	⊙ SEPT. 1	29, 62	50	53	γ Draconis - - - -	28 54, 2	51, 3	47, 9	52, 2	55, 4	54, 7	38 28 52, 6	52, 8	T.
27	...	29, 64	...	...	* B. 170 -	31 58, 3	54, 2	50, 2	57, 5	59, 9	58, 2	38 31 56, 4	56, 2	...
28	...	...	...	...	Next division.	59, 0	55, 2	52, 5	54, 8	59, 9	59, 9	56, 9	57, 1	...
29	...	29, 65	...	47	ι Cygni - - - -	36 57, 4	54, 2	51, 8	54, 6	1, 4	57, 3	38 36 56, 1	55, 8	...
30	...	...	...	...	Next division.	58, 8	55, 0	52, 9	55, 6	1, 6	58, 2	38 36 57, 0	56, 9	...
31	...	29, 75	48	44	δ U. L. - - - - trem.	10 28, 8	24, 8	19, 7	23, 2	30, 1	30, 6	91 10 26, 2	26, 8	R.
32	δ 2	29, 86	53	53	⊙ U. L. - - - - trem.	47 22, 0	19, 1	16, 3	17, 2	22, 8	25, 1	81 47 20, 4	20, 6	H.
33	...	...	...	...	γ Draconis - - - -	28 53, 0	51, 2	48, 0	50, 0	56, 0	56, 0	38 28 52, 4	52, 1	T.
34	δ 3	29, 53	53	50	γ Draconis - - - -	28 53, 0	51, 8	50, 3	51, 0	56, 2	56, 6	38 28 53, 2	52, 4	T.
35	...	...	...	...	* B. 170, faint.	31 55, 0	55, 0	52, 2	52, 2	57, 0	55, 8	38 31 54, 5	55, 0	...
36	...	...	...	...	Next division.	55, 5	55, 1	53, 0	53, 1	57, 3	56, 2	55, 0	55, 3	...
37	...	...	...	49	α Lyrae - - - -	21 24, 0	22, 1	19, 3	22, 8	26, 2	25, 8	51 21 23, 4	23, 1	H.
38	...	29, 54	...	...	ζ Aquilæ - - - - R.	40 51, 1	46, 2	46, 9	53, 8	53, 1	53, 2	180 40 50, 7	48, 7	...
39	...	...	...	...	ι Cygni - - - -	36 55, 6	54, 8	51, 3	55, 2	59, 0	58, 0	38 36 55, 6	55, 2	...
40	...	...	...	...	Next division.	56, 0	54, 2	52, 1	54, 3	58, 3	58, 2	55, 5	55, 1	...
41	...	...	...	...	γ Aquilæ - - - - R.	16 26, 2	22, 1	20, 3	24, 8	26, 8	25, 4	177 16 24, 3	24, 1	...
* 42	...	...	...	48	α - - - - R.	29 44, 2	41, 9	37, 3	44, 0	48, 0	45, 3	175 29 43, 5	43, 1	...
43	...	...	...	...	β - - - - R.	3 33, 2	30, 3	27, 8	31, 3	32, 6	34, 3	173 3 29, 9	31, 8	...
44	♀ 4	30, 07	50	49	γ Draconis - - - -	28 53, 4	52, 4	49, 0	50, 6	52, 2	55, 3	38 28 52, 1	52, 9	T.
45	...	...	...	...	* B. 170 -	31 55, 0	55, 6	52, 2	55, 8	57, 4	58, 0	38 31 55, 7	55, 3	...
46	...	...	...	...	Next division.	56, 2	54, 8	53, 0	54, 3	56, 7	0, 0	55, 8	55, 5	...
47	...	...	...	...	α Lyrae - - - -	21 22, 8	25, 3	18, 6	23, 6	24, 3	28, 6	51 21 23, 9	24, 1	H.
48	...	30, 08	...	48	ζ Aquilæ - - - -	21 40, 1	36, 1	33, 6	35, 6	39, 1	40, 8	76 21 37, 6	38, 1	...
49	...	...	...	...	δ Draconis - - - -	37 46, 2	43, 1	41, 3	46, 2	46, 2	47, 3	22 37 45, 1	44, 6	...
50	...	...	...	...	ι Cygni - - - -	36 57, 0	54, 5	54, 3	54, 4	59, 8	58, 2	38 36 56, 4	55, 8	T.
51	...	...	...	...	Next division.	57, 3	55, 2	54, 0	55, 1	58, 4	58, 4	56, 4	56, 2	...
52	...	30, 09	...	47	γ Aquilæ - - - -	46 7, 0	3, 1	2, 4	3, 8	8, 3	6, 2	79 46 5, 1	5, 1	H.
53	...	...	...	...	α - - - -	32 45, 1	45, 2	41, 2	43, 0	46, 1	46, 6	81 32 44, 5	45, 2	...
54	...	...	...	...	* A.R. 20 ^h 0 ^m -	37 48, 0	44, 5	43, 4	46, 3	51, 4	47, 5	38 37 46, 9	46, 3	E.
55	...	...	...	...	Next division.	49, 2	45, 6	44, 6	49, 0	50, 0	49, 0	47, 9	47, 4	...
56	...	...	...	46	11 Cygni - - - - R.	52 13, 4	11, 0	8, 8	11, 3	14, 8	13, 3	196 52 12, 1	12, 2	F.S.

Observations of NORTH POLAR DISTANCE.

21

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	28	ϵ Cygni - - - -	37 1, 2	8, 5	4, 7	1, 0	8, 0	6, 2	38 37 4, 9	4, 9	+ 8, 0	+ 9, 1	E.
2		Next division.	1, 4	8, 4	4, 2	59, 2	9, 0	4, 1	4, 4	4, 9	+ 7, 5	+ 9, 0	,,
3		γ Aquilæ - - - -	46 10, 6	12, 2	9, 8	11, 3	15, 2	11, 7	79 46 11, 8	11, 4	+ 3, 8	+ 3, 8	R.
4		α - - - -	32 53, 2	53, 0	52, 6	52, 4	54, 9	54, 2	81 32 53, 4	53, 6	+ 5, 8	+ 5, 7	,,
5		β - - - -	59 3, 4	4, 3	3, 4	3, 2	6, 5	4, 9	83 59 4, 3	3, 9	+ 3, 8	+ 3, 2	,,
6		* A.R. 20 ^h 0 ^m 38 ^s -	37 52, 6	58, 0	55, 4	52, 0	58, 2	55, 3	38 37 55, 3	55, 3	+ 4, 8	+ 6, 2	,,
7		* A.R. 20 ^h 31 ^m 1 ^s -	42 50, 5	56, 7	53, 0	48, 6	55, 1	51, 3	38 42 52, 5	53, 6	+ 5, 2	+ 6, 3	,,
8		α Cygni - - - R.	44 16, 6	22, 4	15, 1	14, 2	21, 3	19, 8	211 41 18, 2	19, 5	..	..	,,
9		61 ^h - - - R.	59 8, 0	14, 8	8, 4	5, 3	15, 0	12, 2	204 59 10, 6	11, 4	..	..	,,
10		18 Urs. Maj. - S.P.	45 28, 2	28, 0	23, 5	23, 6	32, 2	32, 7	324 45 28, 0	28, 1	+ 6, 8	+ 5, 9	,,
11		α Cephei - - - R.	55 34, 8	38, 0	30, 2	29, 8	40, 9	39, 2	228 55 35, 5	36, 4	..	..	,,
12		β - - - R.	52 19, 6	22, 6	14, 3	13, 6	26, 8	24, 7	236 52 20, 3	21, 1	..	..	,,
13		η - - - - -	30 26, 5	31, 5	29, 8	29, 2	31, 4	29, 2	105 30 29, 6	29, 0	+ 5, 7	+ 3, 4	,,
14		δ L. L. - - - -	28 29, 3	37, 1	33, 6	32, 8	36, 0	30, 8	108 28 33, 3	33, 2	+ 5, 4	+ 4, 5	,,
15		* A.R. 21 ^h 40 ^m , observed on the last wire, the δ interfering.	29 42, 6	46, 0	43, 5	40, 2	47, 5	43, 2	38 29 43, 8	44, 3	+ 6, 8	+ 7, 8	,,
16		α Aquarii - - -	6 12, 5	13, 5	11, 3	14, 4	10, 7	8, 5	91 6 11, 8	13, 0	+ 6, 1	+ 6, 3	,,
17		3 Lacertæ - - -	36 7, 0	12, 0	9, 2	5, 1	12, 5	9, 2	38 36 9, 2	9, 5	+ 6, 7	+ 7, 1	,,
18		.....	...	..	..	..	..	..	.....	..	..	..	,,
19	29	$\odot$ L. L. - - - -	52 39, 0	44, 4	38, 7	36, 8	44, 6	45, 5	80 52 41, 5	41, 7	..	..	W. R.
20		Polaris - S.P.	25 50, 4	49, 0	46, 8	48, 0	48, 2	51, 0	358 25 48, 9	49, 7	+ 7, 8	+ 6, 9	,,
21		γ Draconis - - -	28 56, 6	5, 2	58, 7	55, 6	3, 4	59, 2	38 28 59, 8	0, 9	+ 5, 8	+ 7, 6	,,
22		α Lyræ - - - -	21 31, 0	33, 0	28, 8	27, 0	33, 0	34, 0	51 21 31, 1	32, 0	+ 4, 8	+ 5, 7	M. J.*
23		ϵ Cygni - - - cloudy,	37 0, 4	7, 2	3, 7	59, 9	8, 2	5, 5	38 37 4, 2	3, 8	+ 5, 5	+ 6, 2	R.
24		Next division.	0, 8	6, 8	3, 6	59, 6	10, 1	3, 6	4, 1	3, 8	+ 5, 9	+ 6, 6	,,
25	30	$\odot$ U. L. - - - -	42 18, 6	24, 8	16, 5	13, 4	29, 0	23, 6	80 42 21, 0	21, 7	..	..	R.
26	SEPT. 1	γ Draconis - - -	28 59, 3	1, 4	59, 2	56, 8	5, 2	1, 3	38 28 0, 5	0, 3	+ 7, 9	+ 7, 5	R.
27		*..... B. 170 -	32 3, 2	5, 2	2, 4	1, 3	7, 3	5, 4	38 32 4, 1	4, 2	+ 7, 7	+ 8, 0	,,
28		Next division.	3, 5	5, 0	2, 8	0, 4	9, 2	3, 6	4, 1	4, 3	+ 7, 2	+ 7, 2	,,
29		ϵ Cygni - - - -	37 4, 2	5, 3	2, 6	1, 5	8, 4	6, 3	38 37 4, 7	4, 7	+ 8, 6	+ 8, 9	,,
30		Next division.	5, 0	5, 9	3, 2	0, 4	11, 2	5, 8	5, 3	5, 4	+ 8, 3	+ 8, 5	,,
31		.....	...	..	..	..	..	..	.....	..	..	..	,,
32	2	$\odot$ L. L. - - - -	19 13, 6	15, 6	13, 4	12, 4	16, 2	16, 3	82 19 14, 6	14, 6	..	..	W. R.
33		γ Draconis - - -	28 57, 2	3, 0	58, 5	55, 2	5, 3	1, 0	38 29 0, 0	0, 1	+ 7, 6	+ 8, 0	,,
34	3	γ Draconis - - -	28 58, 4	2, 8	58, 0	55, 4	5, 3	1, 0	38 29 0, 2	0, 6	+ 7, 0	+ 8, 2	W. R.
35		*..... B. 170 -	32 2, 0	6, 7	0, 6	0, 4	8, 0	4, 6	38 32 3, 7	4, 4	+ 9, 2	+ 9, 4	,,
36		Next division.	3, 0	6, 7	2, 0	58, 9	9, 5	4, 0	4, 0	4, 9	+ 9, 0	+ 9, 6	,,
37		α Lyræ - - - -	21 30, 5	32, 1	27, 0	27, 4	34, 2	32, 4	51 21 30, 6	31, 3	+ 7, 2	+ 8, 2	,,
38		ζ Aquilæ - - - -	21 45, 8	45, 8	43, 4	43, 8	48, 6	47, 6	76 21 45, 8	45, 8	..	..	,,
39		ϵ Cygni - - - -	37 2, 6	6, 8	2, 4	59, 7	8, 6	5, 2	38 37 4, 2	4, 7	+ 8, 6	+ 9, 5	,,
40		Next division.	3, 2	7, 4	2, 6	0, 7	9, 6	5, 0	4, 8	5, 3	+ 9, 3	+ 10, 2	,,
41		γ Aquilæ - - - -	46 11, 6	12, 2	8, 6	11, 6	16, 1	15, 2	79 46 12, 6	11, 9	..	..	,,
42		α - - - -	32 53, 7	52, 9	50, 5	52, 8	55, 9	55, 6	81 32 53, 6	53, 3	..	..	,,
43		β - - - -	59 5, 6	5, 2	2, 4	3, 4	8, 5	7, 4	83 59 5, 4	5, 4	..	..	,,
44	4	γ Draconis - - -	28 58, 0	2, 4	57, 6	55, 0	4, 6	1, 6	38 28 59, 9	0, 2	+ 7, 8	+ 7, 3	W. R.
45		*..... B. 170 -	32 2, 4	5, 7	1, 5	59, 5	7, 2	5, 0	38 32 3, 6	4, 1	+ 7, 9	+ 8, 8	,,
46		Next division.	3, 4	6, 4	2, 5	58, 4	9, 0	4, 2	4, 0	4, 9	+ 8, 2	+ 9, 4	,,
47		α Lyræ - - - -	21 31, 0	31, 6	26, 4	27, 4	35, 0	33, 2	51 21 30, 8	31, 3	+ 6, 9	+ 7, 2	,,
48		ζ Aquilæ - - - -	21 44, 2	45, 0	41, 0	42, 5	48, 0	46, 4	76 21 44, 5	44, 6	+ 6, 9	+ 6, 5	,,
49		δ Draconis - - -	37 52, 6	55, 4	50, 7	50, 5	56, 6	55, 2	22 37 53, 5	54, 0	+ 8, 4	+ 9, 4	,,
50		ϵ Cygni - - - -	37 2, 8	6, 3	2, 5	0, 3	8, 4	5, 6	38 37 4, 3	4, 5	+ 7, 9	+ 8, 7	,,
51		Next division.	3, 8	6, 9	2, 4	0, 2	10, 4	4, 4	4, 7	5, 3	+ 8, 3	+ 9, 1	,,
52		γ Aquilæ - - - -	46 11, 2	11, 8	7, 5	10, 3	15, 2	14, 6	79 46 11, 8	11, 5	+ 6, 7	+ 6, 4	,,
53		α - - - -	32 53, 2	51, 4	48, 6	52, 0	54, 0	55, 6	81 32 52, 5	52, 3	+ 8, 0	+ 7, 1	,,
54		* A.R. 20 ^h 0 ^m - -	37 53, 7	56, 8	54, 7	52, 5	59, 2	56, 4	38 37 55, 6	55, 3	+ 8, 7	+ 9, 0	R.
55		Next division.	54, 1	58, 4	54, 2	52, 2	1, 0	55, 2	55, 9	56, 3	+ 8, 0	+ 8, 9	,,
56		41 Cygni - - - -	10 23, 5	22, 5	18, 6	20, 9	28, 7	26, 4	60 10 23, 4	23, 0	..	..	,,

* This observation was made by Mr. M. JOHNSON, superintendent of the observatory of St. Helena.

In the Year M.DCCC.XXXIII.

TROUGHTON.															
	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.	
			In.	Out.		A	B	C	D	E	F				
1	8 SEPT. 4	30, 09	50	46	* Cygni, A.R. 20 ^h 31 ^m , Next division.	42 41, 4	38, 0	57, 5	40, 6	45, 0	41, 3	38 42 40, 6	39, 7	E.	
2	...	...	...	...	η Cephei - - - R.	14 16, 2	15, 6	13, 0	13, 8	19, 2	20, 3	228 14 16, 3	15, 9	F. S.	
3	...	...	...	...	ν Cygni - - - R.	31 47, 2	44, 6	43, 0	46, 8	48, 6	48, 8	207 34 46, 5	45, 9	...	
4	...	...	...	...	61 ¹ - - - R.	59 7, 2	7, 2	3, 2	7, 7	8, 3	8, 8	204 59 7, 1	7, 2	...	
5	...	...	...	...	τ..... - - - R.	23 21, 3	15, 4	14, 2	18, 8	20, 8	20, 0	204 23 18, 4	18, 3	...	
6	...	...	...	...	α Cephei - - - R.	55 31, 3	29, 0	26, 2	28, 8	34, 0	30, 0	228 55 29, 9	30, 1	...	
7	...	...	49	...	β..... - - - R.	52 14, 8	13, 8	13, 6	13, 8	16, 7	16, 6	236 52 14, 9	14, 3	...	
8	...	...	...	...	* A.R. 21 ^h 39 ^m 21 ^s	29 38, 0	35, 6	33, 3	36, 7	39, 8	39, 8	38 29 37, 2	36, 8	E.	
9	...	...	48	...	α Aquarii - - -	6 4, 9	2, 9	55, 8	0, 7	6, 8	3, 7	91 6 2, 6	3, 9	F. S.	
10	...	...	...	...	3 Lacertæ - - -	36 2, 1	59, 3	55, 9	57, 5	3, 7	2, 0	38 36 0, 1	0, 7	E.	
11	...	30, 13	...	42	U. L. - - -	11 41, 9	40, 3	33, 7	36, 7	43, 4	41, 8	77 11 39, 6	40, 6	F. S.	
12	...	30, 21	49	51	♀ - - -	53 43, 6	41, 0	38, 2	41, 6	42, 2	46, 3	70 53 42, 2	42, 3	R.	
14	4	5	30, 22	53	56	⊙ L. L. - - -	25 26, 0	25, 0	22, 8	23, 9	30, 3	27, 2	83 25 25, 9	25, 5	R.
15	...	30, 25	...	51	γ Draconis - - -	28 52, 2	53, 0	48, 0	52, 3	56, 4	54, 2	38 28 52, 7	52, 8	T.	
16	...	...	...	...	*..... B. - - -	31 54, 5	55, 5	52, 0	55, 0	57, 7	57, 5	38 31 55, 4	55, 0	...	
17	...	...	...	...	Next division.	55, 8	55, 1	52, 2	54, 1	58, 0	58, 4	55, 6	55, 4	...	
18	...	...	...	...	α Lyræ - - -	21 24, 1	21, 7	20, 0	24, 8	25, 1	26, 0	51 21 23, 6	22, 9	H.	
19	...	...	52	50	ζ Aquilæ - - -	21 40, 0	36, 0	32, 0	36, 8	37, 6	40, 3	76 21 37, 1	38, 0	...	
20	...	...	...	...	δ Draconis - - -	37 47, 0	44, 1	43, 3	46, 2	45, 3	46, 8	22 37 45, 4	45, 6	...	
21	...	...	...	...	ι Cygni - - -	36 56, 0	55, 8	52, 3	58, 0	59, 4	58, 0	38 36 56, 6	55, 9	T.	
22	...	...	...	...	Next division.	56, 3	55, 8	53, 8	57, 2	58, 6	59, 2	56, 8	56, 1	...	
23	...	...	49	...	γ Aquilæ - - -	46 5, 6	3, 0	1, 0	3, 0	7, 8	5, 7	79 46 4, 4	4, 3	H.	
24	...	...	...	...	α..... - - -	32 44, 2	43, 8	40, 7	44, 2	45, 1	43, 2	81 32 43, 5	44, 0	...	
25	...	...	...	...	* Cygni, A.R. 20 ^h 0 ^m ,	37 47, 6	47, 3	44, 7	48, 0	50, 9	47, 8	38 37 47, 7	47, 4	T.	
26	...	30, 26	...	48	39..... - - -	19 58, 0	54, 3	54, 0	56, 2	57, 0	57, 9	58 19 56, 2	56, 1	F. S.	
27	...	...	...	...	*..... - - -	42 45, 8	42, 7	42, 3	44, 0	48, 8	44, 0	38 42 44, 6	44, 3	E.	
28	...	...	...	...	Next division.	44, 8	44, 3	40, 8	45, 0	49, 5	46, 5	45, 2	44, 6	...	
29	...	...	51	...	η Cephei - - -	48 15, 7	11, 4	11, 0	13, 1	15, 7	15, 3	28 48 13, 7	13, 5	F. S.	
30	...	...	...	...	ν Cygni - - -	27 47, 4	43, 7	42, 2	44, 6	45, 3	48, 7	49 27 45, 3	45, 5	...	
31	...	...	...	...	61 ¹ - - -	3 25, 5	22, 4	21, 0	22, 8	25, 8	26, 3	52 3 23, 9	23, 9	...	
32	...	...	...	...	τ..... - - -	39 14, 2	10, 7	9, 8	9, 8	14, 2	17, 0	52 39 12, 6	12, 4	...	
33	...	...	...	...	α Cephei - - -	7 1, 9	1, 3	56, 3	1, 0	1, 8	1, 7	28 7 0, 7	1, 6	...	
34	...	...	47	...	β Aquarii - - -	16 14, 3	13, 5	4, 2	8, 3	15, 4	15, 2	96 16 11, 8	13, 9	E.	
35	...	...	...	...	* A.R. 21 ^h 40 ^m	29 36, 5	35, 8	30, 6	35, 5	41, 4	38, 7	38 29 36, 4	36, 2	...	
36	...	...	50	46	α Aquarii - - -	6 4, 0	2, 2	57, 2	59, 8	4, 4	5, 2	91 6 2, 1	3, 1	F. S.	
37	...	...	...	...	3 Lacertæ - - -	36 1, 1	59, 8	54, 8	58, 5	3, 7	1, 2	38 35 59, 9	0, 5	E.	
38	...	30, 25	...	...	Fomalhaut - - -	23 26, 9	23, 3	16, 3	23, 7	26, 8	26, 8	120 23 23, 9	25, 1	F. S.	
39	...	30, 18	52	55	♀ - - -	4 38, 2	35, 1	28, 8	33, 2	40, 2	36, 1	71 4 35, 3	36, 7	R.	
40	♀	6	30, 11	60	60	⊙ U. L. - - -	15 59, 3	55, 3	53, 8	52, 4	56, 3	59, 0	83 15 56, 0	57, 3	F. S.
41	...	30, 10	55	52	γ Draconis - - -	28 51, 3	53, 0	50, 3	52, 0	57, 8	54, 0	38 28 53, 1	52, 1	T.	
42	...	...	...	...	*..... B. - - -	31 56, 2	55, 2	52, 5	57, 0	59, 8	58, 0	38 31 56, 5	55, 7	...	
43	...	...	...	...	Next division.	56, 3	55, 7	55, 0	55, 3	58, 5	59, 2	56, 7	56, 0	...	
44	...	...	...	51	α Lyræ - - - R.	41 6, 2	7, 3	3, 8	8, 8	10, 3	8, 7	205 41 7, 5	6, 8	H.	
45	...	...	...	...	ζ Aquilæ - - - R.	40 52, 2	48, 7	49, 2	56, 0	55, 2	56, 8	180 40 53, 0	50, 5	...	
46	...	...	...	...	δ Draconis - - - R.	24 46, 0	47, 1	42, 8	45, 7	45, 3	48, 8	234 24 45, 9	46, 6	...	
47	...	...	...	...	ι Cygni - - -	36 56, 3	56, 5	53, 5	56, 8	59, 4	56, 8	38 36 56, 6	56, 4	T.	
48	...	...	...	...	Next division.	57, 0	56, 0	53, 3	58, 1	58, 2	58, 0	56, 8	56, 5	...	
49	...	30, 08	...	...	α Aquilæ - - -	32 46, 6	46, 2	42, 2	44, 8	46, 2	48, 7	81 32 45, 8	46, 4	H.	
50	...	...	...	...	β..... - - -	58 58, 7	57, 8	50, 1	57, 8	0, 7	2, 3	83 58 58, 9	58, 2	...	
51	...	30, 07	53	50	* Cygni, A.R. 20 ^h 0 ^m ,	37 48, 0	46, 3	45, 5	49, 0	50, 3	50, 7	38 37 48, 3	47, 1	T.	
52	...	...	...	...	Next division.	48, 2	47, 0	46, 0	49, 8	52, 8	50, 7	49, 1	47, 6	...	
53	...	...	...	...	ο Urs. Maj. - S.P.	18 7, 0	2, 0	57, 1	4, 0	8, 0	6, 5	331 18 4, 1	4, 5	F. S.	
54	...	30, 05	52	...	* Cygni, A.R. 20 ^h 31 ^m ,	42 46, 2	44, 2	42, 5	46, 7	48, 5	46, 0	38 42 45, 7	45, 2	E.	
55	...	...	...	...	Next division.	47, 0	45, 8	42, 2	45, 7	49, 4	48, 1	46, 4	46, 4	...	
56	...	...	...	...	19 Capricorni - -	30 10, 4	8, 0	2, 7	7, 0	10, 0	11, 3	108 30 8, 2	9, 2	F. S.	
57	...	...	...	...	η..... - - -	27 25, 8	20, 6	18, 2	22, 2	25, 5	28, 3	110 27 23, 0	23, 2	...	
58	...	...	...	...	61 ¹ Cygni - - -	3 25, 8	22, 3	20, 0	23, 3	25, 8	26, 3	52 3 23, 9	24, 0	...	
59	...	...	...	...	τ Cygni - - -	39 14, 0	10, 3	11, 0	11, 0	14, 4	16, 8	52 39 12, 9	12, 1	...	
60	...	...	49	...	α Cephei - - -	7 2, 2	0, 4	57, 3	1, 0	2, 1	5, 0	28 7 1, 3	1, 3	...	
61	...	...	...	...	β Aquarii - - -	16 16, 8	15, 2	0, 0	11, 3	17, 4	19, 6	96 16 14, 9	16, 0	...	
62	...	...	...	...	♄ - - -	36 30, 3	28, 7	23, 0	28, 0	31, 0	32, 2	105 36 28, 9	29, 5	...	
63	...	...	...	...	* A.R. 21 ^h 39 ^m	29 37, 3	36, 3	32, 7	36, 8	39, 5	39, 0	38 29 36, 9	36, 8	E.	
64	...	30, 03	51	...	α Aquarii - - -	6 0, 7	3, 8	59, 2	3, 0	5, 8	7, 0	91 6 4, 3	5, 2	F. S.	

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	8 SEPT. 4	* Cygni, A.R. 20 ^h 31 ^m ,	42 50, 4	54, 0	50, 0	48, 2	55, 6	52, 3	38 42 51, 8	52, 2	+11, 2	+12, 5	R.
2		Next division.	50, 8	53, 6	51, 6	47, 3	57, 2	52, 8	52, 2	52, 2	+10, 5	+10, 2	,,
3		η Cephei - - -	48 20, 0	24, 0	20, 5	18, 9	27, 3	22, 3	28 48 22, 2	22, 0	..	..	,,
4		ν Cygni - - -	27 52, 5	53, 5	47, 9	49, 5	57, 5	53, 2	49 27 52, 7	53, 0	..	..	,,
5		61 ¹ - - -	3 29, 2	31, 6	25, 7	26, 4	34, 2	38, 8	52 3 29, 7	30, 4	..	..	,,
6		τ..... - - -	39 17, 2	18, 6	14, 5	15, 3	23, 5	20, 6	52 39 18, 3	17, 9	..	..	,,
7		α Cephei - - -	7 6, 9	9, 2	7, 9	5, 2	13, 7	9, 3	28 7 8, 7	8, 0	..	..	,,
8		β..... - - -	10 23, 6	24, 0	20, 3	20, 1	28, 2	24, 1	20 10 23, 4	23, 8	..	..	,,
9		* A.R. 21 ^h 39 ^m - -	29 42, 0	45, 0	41, 5	40, 3	48, 6	44, 7	38 29 43, 7	43, 5	+ 6, 5	+ 6, 7	,,
10		α Aquarii - - -	6 7, 8	9, 2	7, 7	10, 8	9, 2	7, 4	91 6 8, 7	8, 5	+ 6, 1	+ 4, 6	,,
11		3 Lacertæ - - -	36 7, 5	10, 5	7, 4	5, 3	12, 3	8, 2	38 36 8, 5	9, 0	+ 8, 4	+ 8, 3	,,
12		.....	...	..	..	..	..	..	.....	..	..	..	,,
13		.....	...	..	..	..	..	..	.....	..	..	..	,,
14	5	⊙ U. L. - - -	53 42, 6	47, 6	40, 2	39, 4	48, 4	45, 6	82 53 43, 9	45, 1	..	..	W. R.
15		γ Draconis - - -	28 58, 0	3, 0	58, 4	55, 4	5, 4	0, 0	38 29 0, 0	0, 5	+ 7, 3	+ 7, 7	,,
16		*..... B. 170 -	32 1, 7	6, 0	59, 6	1, 6	7, 3	4, 2	38 32 3, 4	3, 9	+ 8, 0	+ 8, 9	,,
17		Next division.	1, 7	6, 4	59, 4	2, 6	9, 2	4, 4	4, 0	4, 1	+ 8, 4	+ 8, 7	,,
18		α Lyrae - - - R.	41 13, 6	17, 0	11, 4	9, 6	17, 2	17, 4	205 41 14, 4	15, 3	..	..	,,
19		ζ Aquilæ - - -	21 43, 4	44, 4	39, 6	40, 8	46, 0	46, 4	76 21 43, 4	43, 9	+ 6, 3	+ 5, 9	,,
20		δ Draconis - - R.	24 51, 0	55, 2	45, 2	46, 5	58, 4	57, 0	234 24 52, 2	53, 1	..	..	,,
21		ι Cygni - - -	37 2, 6	6, 3	3, 4	1, 6	6, 4	4, 7	38 37 4, 2	4, 5	+ 7, 6	+ 8, 6	,,
22		Next division.	4, 0	7, 3	3, 4	1, 2	7, 8	3, 7	4, 6	5, 7	+ 7, 8	+ 9, 6	,,
23		γ Aquilæ - - - R.	16 29, 5	36, 8	29, 3	32, 3	36, 4	33, 0	177 16 32, 9	33, 2	..	..	,,
24		α..... - - R.	29 50, 2	56, 8	50, 0	47, 6	57, 0	51, 6	175 29 52, 2	53, 5	..	..	,,
25		* Cygni, A.R. 20 ^h 0 ^m ,	37 54, 6	56, 6	55, 0	52, 3	59, 6	55, 6	38 37 55, 6	55, 6	+ 7, 9	+ 8, 2	,,
26		39..... - - - R.	42 37, 0	41, 8	37, 9	36, 5	46, 1	41, 3	198 42 40, 1	39, 4	..	..	R.
27		*..... A.R. 20 ^h 31 ^m ,	42 51, 2	54, 2	52, 6	51, 6	56, 3	53, 6	38 42 53, 3	52, 7	+ 8, 7	+ 8, 4	,,
28		Next division.	51, 6	55, 6	54, 0	50, 3	58, 1	52, 5	53, 7	53, 6	+ 8, 5	+ 9, 0	,,
29		η Cephei - - - R.	14 22, 6	25, 6	18, 2	19, 7	29, 3	26, 9	228 14 23, 7	24, 1	..	..	,,
30		ν Cygni - - - R.	34 50, 0	53, 0	45, 6	46, 4	55, 3	53, 6	207 34 50, 7	51, 5	..	..	,,
31		61 ¹ - - - R.	59 10, 0	15, 0	10, 7	8, 3	17, 1	14, 5	204 59 12, 6	12, 5	..	..	,,
32		τ..... - - - R.	23 21, 2	26, 4	20, 8	19, 0	28, 3	24, 6	204 23 23, 4	23, 8	..	..	,,
33		α Cephei - - - R.	55 38, 6	40, 4	33, 5	34, 0	44, 2	41, 3	228 55 38, 7	39, 5	..	..	,,
34		β Aquarii - - -	16 17, 2	21, 0	20, 2	20, 8	21, 3	18, 2	96 16 19, 8	19, 1	+ 8, 0	+ 5, 2	,,
35		* A.R. 21 ^h 39 ^m - -	29 41, 2	45, 6	43, 0	41, 4	47, 7	43, 6	38 29 43, 8	43, 4	+ 7, 4	+ 7, 2	,,
36		α Aquarii - - -	6 8, 7	9, 7	7, 5	10, 3	8, 7	6, 8	91 6 8, 6	9, 2	+ 6, 5	+ 6, 1	,,
37		3 Lacertæ - - -	36 6, 2	10, 4	7, 8	4, 9	10, 9	7, 2	38 36 7, 9	8, 3	+ 8, 0	+ 7, 8	,,
38		Fomalhaut - - -	23 25, 0	37, 0	32, 6	29, 1	34, 8	31, 6	120 23 31, 7	31, 0	+ 7, 8	+ 5, 9	,,
39		.....	...	..	..	..	..	..	.....	..	..	..	,,
40	6	⊙ L. L. - - -	47 52, 3	52, 7	49, 3	48, 6	56, 2	57, 9	83 47 52, 8	52, 5	..	..	R.
41		γ Draconis - - -	28 57, 4	3, 0	57, 3	54, 4	3, 7	1, 6	38 28 59, 6	0, 2	+ 6, 5	+ 8, 1	W. R.
42		*..... B. 170 -	32 2, 4	6, 8	1, 4	0, 4	7, 4	5, 1	38 32 3, 9	4, 6	+ 7, 4	+ 8, 9	,,
43		Next division.	1, 6	6, 2	2, 8	58, 4	9, 3	4, 2	3, 8	3, 9	+ 7, 1	+ 7, 9	,,
44		α Lyrae - - -	21 30, 0	31, 6	26, 1	25, 2	33, 4	32, 4	51 21 29, 8	30, 8	..	..	,,
45		ζ Aquilæ - - -	21 44, 0	45, 2	40, 0	42, 1	46, 3	47, 4	76 21 44, 2	44, 6	..	..	,,
46		δ Draconis - - -	37 52, 5	55, 1	51, 0	48, 6	56, 0	53, 8	22 37 52, 8	53, 8	..	..	,,
47		ι Cygni - - -	37 1, 8	6, 6	1, 5	58, 6	7, 9	4, 6	38 37 3, 5	4, 2	+ 6, 9	+ 7, 8	,,
48		Next division.	2, 2	7, 2	2, 3	58, 4	9, 4	3, 6	3, 9	4, 7	+ 7, 1	+ 8, 2	,,
49		α Aquilæ - - - R.	29 48, 5	57, 1	48, 2	44, 2	56, 6	53, 4	175 29 51, 3	52, 8	..	..	,,
50		β..... - - R.	3 35, 4	44, 2	36, 6	33, 5	45, 4	42, 6	173 3 39, 6	39, 8	..	..	,,
51		* Cygni, A.R. 20 ^h 0 ^m ,	37 52, 8	56, 8	52, 4	50, 2	58, 4	55, 6	38 37 54, 4	54, 8	+ 6, 1	+ 7, 7	,,
52		Next division.	51, 4	58, 6	53, 4	51, 4	0, 4	57, 0	55, 4	55, 0	+ 6, 3	+ 7, 4	,,
53		ο Urs. Maj. - S.P.	18 10, 7	16, 9	3, 9	6, 0	13, 3	16, 6	331 18 11, 2	13, 8	+ 7, 1	+ 9, 3	R
54		* Cygni, A.R. 20 ^h 31 ^m ,	42 51, 4	53, 8	50, 8	49, 5	56, 4	53, 0	38 42 52, 5	52, 8	+ 6, 8	+ 7, 4	,,
55		Next division.	51, 2	54, 8	51, 7	48, 2	50, 8	53, 6	52, 7	53, 0	+ 6, 3	+ 6, 6	,,
56		19 Capricorni - -	30 13, 2	17, 0	15, 2	13, 6	17, 3	12, 8	108 30 14, 9	15, 1	+ 6, 7	+ 5, 9	,,
57		η..... - - -	27 24, 6	30, 8	29, 8	27, 0	31, 2	26, 5	110 27 28, 3	27, 7	+ 4, 7	+ 4, 5	,,
58		61 ¹ Cygni - - - R.	50 12, 0	15, 0	11, 5	9, 2	18, 7	16, 2	204 59 13, 8	13, 5	..	..	,,
59		τ..... - - -	39 17, 0	18, 4	14, 0	15, 3	24, 3	20, 2	52 39 18, 4	17, 7	+ 5, 5	+ 5, 6	,,
60		α Cephei - - -	7 7, 2	10, 2	8, 8	6, 2	15, 1	7, 8	28 7 9, 2	8, 7	+ 7, 9	+ 7, 4	,,
61		β Aquarii - - -	16 20, 2	22, 4	21, 7	23, 4	24, 2	21, 7	96 16 22, 3	21, 3	+ 7, 4	+ 5, 3	,,
62		⋄ - - -	36 33, 0	36, 0	35, 6	36, 2	36, 5	34, 3	105 36 35, 3	34, 5	+ 6, 4	+ 5, 0	,,
63		* A.R. 21 ^h 39 ^m - -	29 41, 2	46, 4	43, 5	40, 6	47, 2	45, 0	38 29 44, 0	43, 8	+ 7, 1	+ 7, 0	,,
64		α Aquarii - - -	6 10, 7	10, 3	8, 2	10, 7	9, 3	6, 5	91 6 9, 1	10, 5	+ 4, 8	+ 5, 3	,,

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	♀ SEPT. 6	30, 03	51	49	3 Lacertæ - - -	36 1, 8	59, 1	56, 6	59, 3	2, 5	2, 9	38 36 0, 4	0, 5	E.
2	h 7	29, 93	60	64	⊙ L. L. - - -	10 14, 1	12, 2	7, 0	11, 8	15, 2	16, 1	84 10 12, 7	13, 3	H.
3		29, 89	59	57	.....	...	..	..	..	..	..	.....	..	
4		...	..	..	.....	...	..	..	..	..	..	.....	..	
5		...	..	..	.....	...	..	..	..	..	..	.....	..	
6		...	58	55	α Lyrae - - -	21 25, 2	24, 3	21, 7	23, 8	25, 0	26, 1	51 21 24, 4	24, 8	H.
7		...	57	54	ζ Aquilæ - - -	21 37, 3	41, 2	35, 8	37, 6	39, 8	42, 7	76 21 39, 1	39, 2	,,
8		...	..	..	δ Draconis - - -	37 46, 1	44, 3	42, 1	46, 8	45, 1	49, 8	22 37 45, 7	45, 2	,,
9		...	..	..	.....	...	..	..	..	..	..	.....	..	
10		...	..	..	.....	...	..	..	..	..	..	.....	..	
11		...	56	53	γ Aquilæ - - R.	16 26, 0	23, 7	21, 2	25, 3	27, 8	27, 2	177 16 25, 2	24, 9	H.
12		...	..	..	α..... - - R.	29 45, 0	41, 1	39, 0	45, 3	47, 7	46, 2	175 29 44, 1	43, 0	,,
13		...	..	..	β..... - - R.	3 33, 0	31, 1	29, 4	33, 0	33, 8	34, 1	173 3 32, 4	32, 0	,,
14		...	..	..	.....	...	..	..	..	..	..	.....	..	
15		...	..	..	.....	...	..	..	..	..	..	.....	..	
*16	⊙ 8	29, 76	56	55	γ Draconis - - -	28 51, 5	52, 0	49, 5	53, 0	53, 2	54, 0	38 28 52, 2	51, 7	T.
17	D 9	29, 98	58	55	* Cygni, A.R. 20 ^h 0 ^m ,	37 46, 0	45, 3	46, 1	46, 2	45, 8	46, 7	38 37 46, 1	45, 7	T.
18		...	..	..	Next division.	46, 2	45, 3	48, 0	46, 4	47, 2	48, 3	46, 9	45, 8	,,
19	h 12	29, 97	55	54	γ Draconis - - -	28 52, 0	53, 3	53, 6	51, 2	53, 2	53, 0	38 28 52, 7	52, 7	T.
20		...	..	..	*..... B. 170 -	31 54, 5	55, 5	57, 0	53, 8	55, 5	55, 2	38 31 55, 2	55, 0	,,
21		29, 98	..	..	Next division.	55, 7	55, 2	58, 2	52, 4	55, 3	56, 8	55, 6	55, 5	,,
22		...	..	..	α Lyrae - - -	21 24, 3	23, 3	23, 3	24, 3	23, 3	27, 4	51 21 24, 1	23, 8	H.
23		...	..	..	β..... - - -	48 52, 8	30, 2	53, 3	51, 2	50, 7	54, 2	56 48 52, 1	51, 5	,,
24		30, 00	54	52	ζ Aquilæ - - -	21 40, 6	36, 7	39, 2	36, 1	36, 3	41, 8	76 21 38, 4	38, 7	,,
25		30, 01	..	..	δ Draconis - - -	37 45, 1	42, 2	44, 4	46, 8	43, 6	46, 7	22 37 44, 8	43, 7	,,
26		...	..	51	ι Cygni - - -	36 56, 5	55, 0	57, 2	56, 0	57, 5	55, 5	38 36 56, 3	55, 8	,,
27		...	..	..	Next division.	56, 5	54, 8	58, 0	55, 8	56, 5	56, 0	56, 3	55, 7	,,
28		...	..	..	γ Aquilæ - - -	46 7, 2	5, 0	6, 4	6, 0	7, 0	9, 1	79 46 6, 7	6, 1	,,
29		...	..	..	α..... - - -	32 47, 0	45, 6	45, 3	46, 0	45, 3	49, 1	81 32 46, 4	46, 3	,,
30		...	..	..	β..... - - -	59 0, 0	58, 6	58, 6	58, 5	58, 3	2, 7	83 58 59, 5	59, 3	,,
31		...	53	50	* Cygni, A.R. 20 ^h 1 ^m ,	37 46, 0	45, 2	48, 4	46, 5	50, 0	45, 2	38 37 46, 9	45, 6	T.
32		...	..	..	Next division.	47, 0	46, 3	48, 2	47, 2	49, 3	46, 9	47, 5	46, 7	,,
33		...	..	..	* Cygni, A.R. 20 ^h 31 ^m ,	42 44, 4	41, 8	43, 3	43, 4	45, 8	43, 4	38 42 43, 7	43, 1	E.
34		...	..	..	Next division.	44, 7	44, 5	44, 1	41, 4	45, 6	44, 6	44, 2	44, 6	,,
35		...	52	49	η Cephei - - - R.	14 20, 2	18, 7	20, 2	17, 0	21, 0	23, 4	228 14 20, 1	19, 4	F. S.
36		...	..	..	57 Cygni - - -	13 58, 7	57, 3	57, 8	56, 0	55, 3	0, 0	46 13 57, 5	58, 0	,,
37		...	51	48	61 ¹ - - - R.	59 9, 8	7, 0	9, 0	10, 0	8, 8	10, 0	204 59 9, 1	8, 4	,,
38		...	..	..	τ..... - - - R.	23 22, 3	20, 4	23, 0	21, 7	24, 4	24, 6	204 23 22, 7	21, 3	,,
39		...	..	..	α Cephei - - - R.	55 34, 2	32, 3	32, 2	32, 7	33, 2	33, 7	228 55 33, 1	33, 2	,,
40		...	..	..	* A. R. 21 ^h 39 ^m -	29 35, 6	33, 8	36, 0	35, 0	36, 4	37, 4	38 29 35, 7	34, 7	E.
41		...	50	47	α Aquarii - - -	6 5, 2	2, 5	2, 2	1, 6	2, 8	4, 8	91 6 3, 2	3, 8	F. S.
42		...	..	..	3 Lacertæ - - -	35 59, 8	57, 3	57, 1	56, 4	1, 4	0, 1	38 35 58, 7	58, 6	E.
43		...	49	46	Fomalhaut - - -	23 27, 4	24, 6	22, 7	24, 0	27, 0	28, 2	120 23 25, 0	26, 5	F. S.
44		...	..	..	α Pegasi - - -	40 26, 2	23, 7	25, 2	22, 2	24, 2	26, 5	75 40 24, 7	24, 9	,,
45		...	48	45	γ App. Sculp. - -	16 32, 8	32, 3	30, 1	30, 2	33, 8	34, 3	123 16 32, 3	32, 5	,,
46		30, 04	53	54	♀ - - -	35 22, 6	22, 4	23, 5	21, 6	25, 0	20, 6	72 35 21, 8	22, 5	R.
47	♀ 13	29, 97	56	54	γ Draconis - - -	28 51, 8	52, 0	55, 0	52, 7	53, 7	54, 0	38 28 53, 2	51, 9	T.
48		29, 96	..	53	α Aquilæ - - -	32 47, 1	46, 8	45, 3	46, 6	45, 8	49, 6	81 32 46, 9	47, 0	H.
49		29, 95	54	51	* Cygni, A.R. 20 ^h 31 ^m ,	42 43, 8	41, 3	43, 8	43, 7	46, 3	42, 5	38 42 43, 6	42, 6	E.
50		...	..	..	Next division.	44, 4	44, 2	44, 2	43, 0	45, 2	43, 8	44, 1	44, 3	,,
51		...	..	..	61 ¹ Cygni - - -	3 23, 3	21, 0	24, 6	21, 4	21, 8	26, 8	52 3 23, 1	22, 1	F. S.
52		29, 94	..	..	α Cephei - - -	6 58, 7	58, 3	59, 3	59, 7	0, 7	0, 0	28 6 59, 5	58, 5	,,
53		...	..	..	h - - -	40 52, 0	50, 1	49, 8	49, 2	49, 5	53, 1	105 40 50, 6	51, 0	,,
54		...	..	..	* A. R. 21 ^h 40 ^m -	29 34, 8	33, 3	34, 8	33, 7	38, 5	36, 1	38 29 35, 2	34, 1	E.
55		29, 92	53	50	α Aquarii - - -	6 5, 3	3, 7	3, 1	3, 0	5, 6	5, 6	91 6 4, 4	4, 5	F. S.
56		...	..	..	3 Lacertæ - - cloudy,	35 59, 0	57, 4	58, 1	56, 8	59, 8	0, 7	38 35 58, 6	58, 2	E.
57		29, 91	..	49	Fomalhaut - -	23 36, 6	33, 8	27, 3	32, 7	36, 7	36, 4	120 23 33, 9	35, 2	,,
58		...	..	..	α Pegasi - - cloudy,	40 28, 4	24, 1	23, 7	23, 8	27, 2	27, 8	75 40 25, 8	26, 3	,,

* 16—Adjusted the microscopes.

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	♀ SEPT. 6	3 Lacertæ - - -	36 6, 5	10, 3	8, 3	4, 2	10, 8	7, 2	38 36 7, 9	8, 4	+ 7, 5	+ 7, 9	R.
2	h 7	⊙ U. L. - - - -	38 29, 2	31, 3	29, 3	29, 0	33, 5	32, 0	83 38 30, 7	30, 2	..	..	F. S.
3		γ Draconis - - -	28 57, 5	1, 7	59, 8	55, 4	1, 0	58, 6	38 28 59, 0	59, 6	..	..	W. R.
4		*.....B. 170 -	32 0, 5	6, 3	3, 5	59, 6	4, 5	2, 4	38 32 2, 8	3, 4	..	..	..
5		Next division.	0, 9	6, 7	4, 5	59, 8	6, 0	1, 3	..	3, 2	..	..	..
6		α Lyrae - - - R.	41 11, 0	18, 2	11, 7	8, 4	16, 0	16, 0	205 41 13, 6	14, 6	..	..	..
7		ζ Aquilæ - - - -	21 44, 5	45, 7	44, 4	44, 3	45, 3	45, 6	76 21 45, 0	45, 1	+ 5, 9	+ 5, 9	..
8		δ Draconis - - -	37 51, 1	54, 6	51, 5	50, 3	54, 6	53, 6	22 37 52, 6	53, 1	+ 6, 9	+ 7, 9	..
9		ι Cygni - - - -	37 2, 0	6, 6	4, 7	0, 5	5, 0	3, 4	38 37 3, 7	4, 3	..	..	..
10		Next division.	1, 8	7, 4	4, 4	0, 4	5, 4	3, 0	..	3, 7	..	..	..
11		γ Aquilæ - - - -	46 11, 0	13, 0	10, 4	13, 4	13, 4	14, 7	79 46 12, 7	12, 0	..	..	..
12		α..... - - - -	32 53, 6	53, 6	52, 0	52, 4	53, 4	53, 6	81 32 53, 1	53, 6	..	..	..
13		β..... - - - -	59 5, 4	5, 0	3, 4	4, 2	6, 3	5, 4	83 59 4, 9	5, 2	..	..	..
14		* Cygni, A. R. 20 ^h 0 ^m ,	37 52, 4	57, 2	51, 4	55, 0	56, 2	54, 4	38 37 54, 4	54, 8	..	..	..
15		Next division.	53, 6	58, 4	51, 6	55, 7	58, 2	53, 8	..	55, 2	..	..	..
16	⊙ 8	.....	...	..	..	..	..	..	.....	..	..	..	..
17	D 9	* Cygni, A. R. 20 ^h 0 ^m ,	37 51, 6	56, 6	54, 6	50, 5	55, 6	53, 7	38 37 53, 8	54, 1	+ 7, 7	+ 8, 4	W. R.
18		Next division.	51, 0	58, 4	54, 5	50, 9	57, 0	54, 2	..	54, 3	+ 7, 4	+ 8, 9	..
19	h 12	γ Draconis - - -	28 58, 8	0, 8	58, 6	55, 8	2, 4	59, 6	38 28 59, 3	59, 8	+ 6, 6	+ 7, 1	R.
20		*.....B. 170 -	32 2, 3	4, 3	2, 2	2, 3	3, 9	4, 5	38 32 3, 3	3, 3	+ 8, 1	+ 8, 3	..
21		Next division.	1, 7	4, 3	4, 8	0, 6	5, 2	2, 2	..	3, 1	..	..	..
22		α Lyrae - - - -	21 31, 0	28, 0	27, 9	28, 8	30, 5	32, 2	51 21 29, 7	29, 5	+ 5, 6	+ 5, 7	..
23		β..... - - - -	13 44, 6	48, 0	41, 5	42, 6	49, 8	48, 1	200 13 45, 8	46, 3	..	..	..
24		ζ Aquilæ - - - R.	40 57, 7	59, 9	56, 1	55, 8	2, 8	58, 8	180 40 58, 5	58, 8	..	..	..
25		δ Draconis - - - R.	24 53, 0	56, 0	46, 5	46, 6	2, 1	59, 3	234 24 53, 9	54, 5	..	..	..
26		ι Cygni - - - -	37 1, 3	4, 3	1, 6	1, 0	5, 4	2, 9	38 37 2, 8	2, 8	+ 6, 5	+ 7, 0	..
27		Next division.	1, 3	4, 3	2, 3	0, 6	7, 2	2, 4	..	3, 0	+ 6, 7	+ 7, 1	..
28		γ Aquilæ - - - R.	16 25, 3	33, 6	28, 8	26, 5	33, 5	32, 2	177 16 30, 0	29, 5	..	..	..
29		α..... - - - R.	29 48, 2	51, 9	48, 2	46, 0	55, 3	51, 6	175 29 50, 2	50, 0	..	..	..
30		β..... - - - R.	3 37, 0	44, 6	38, 5	36, 6	46, 5	44, 2	173 3 41, 2	40, 8	..	..	..
31		* Cygni, A. R. 20 ^h 0 ^m ,	37 52, 7	53, 2	52, 5	49, 8	55, 3	54, 3	38 37 53, 0	53, 0	+ 6, 1	+ 7, 4	..
32		Next division.	52, 8	54, 1	53, 2	50, 2	57, 2	54, 6	..	53, 7	+ 6, 2	+ 6, 7	..
33		* Cygni, A. R. 20 ^h 31 ^m ,	42 49, 6	51, 2	49, 3	48, 2	51, 6	50, 8	38 42 50, 1	50, 4	+ 6, 4	+ 7, 3	..
34		Next division.	50, 2	52, 0	50, 7	47, 6	52, 8	50, 8	..	50, 7	+ 6, 5	+ 6, 5	..
35		η Cephei - - - -	48 18, 0	20, 0	17, 7	17, 2	23, 3	19, 2	28 48 19, 2	19, 0	..	..	..
36		57 Cygni - - - -	14 4, 3	5, 3	59, 8	59, 9	7, 8	5, 5	46 14 3, 7	4, 8	+ 6, 2	+ 6, 8	..
37		61 ^h - - - -	3 27, 5	28, 5	24, 8	26, 6	31, 5	30, 3	52 3 28, 2	28, 0	..	..	..
38		τ..... - - - -	39 17, 2	17, 6	13, 3	15, 5	18, 4	19, 6	52 39 16, 9	17, 4	..	..	..
39		α Cephei - - - -	7 5, 0	5, 2	5, 8	3, 6	9, 2	5, 1	28 7 5, 7	5, 1	..	..	..
40		* A. R. 21 ^h 39 ^m - - -	29 40, 2	42, 2	39, 3	37, 5	44, 1	41, 8	38 29 40, 9	41, 2	+ 5, 2	+ 6, 5	..
41		α Aquarii - - - -	6 9, 5	8, 5	6, 4	10, 8	8, 8	8, 9	91 6 8, 8	9, 0	+ 5, 6	+ 5, 2	..
42		3 Lacertæ - - - -	36 5, 0	7, 0	4, 2	2, 6	8, 1	7, 3	38 36 5, 7	6, 0	+ 7, 0	+ 7, 4	..
43		Fomalhaut - - - -	23 26, 2	35, 2	29, 7	26, 0	34, 8	31, 5	120 23 30, 6	30, 7	+ 5, 0	+ 4, 2	E.
44		α Pegasi - - - -	40 29, 0	27, 7	25, 5	28, 3	30, 3	33, 2	75 40 29, 0	28, 4	+ 4, 3	+ 3, 5	..
45		γ App. Sculp. - - -	16 32, 8	42, 6	38, 7	37, 0	39, 8	39, 0	123 16 38, 3	37, 7	+ 6, 0	+ 5, 2	..
46		.....	...	..	..	..	..	..	.....	..	..	..	..
47	♀ 13	γ Draconis - - - -	28 58, 2	1, 2	58, 8	55, 4	1, 7	0, 6	38 28 59, 3	59, 7	+ 6, 1	+ 7, 8	R.
48		α Aquilæ - cloudy	32 53, 2	51, 2	51, 5	53, 0	54, 2	53, 5	81 32 52, 8	52, 2	+ 5, 9	+ 5, 2	..
49		* Cygni, A. R. 20 ^h 31 ^m ,	42 50, 2	51, 6	49, 2	47, 8	52, 3	51, 9	38 42 50, 5	50, 9	+ 6, 9	+ 8, 3	..
50		Next division.	49, 8	52, 6	50, 7	46, 5	53, 5	50, 6	..	50, 6	+ 6, 5	+ 6, 0	..
51		61 ^h Cygni - - - R.	59 16, 2	18, 2	11, 2	10, 6	19, 6	20, 8	204 59 16, 1	17, 2	..	..	..
52		α Cephei - - - R.	55 40, 3	42, 3	34, 5	34, 2	48, 3	45, 1	228 55 40, 8	41, 3	..	..	..
53		η - - - -	40 56, 2	55, 0	52, 0	56, 0	58, 2	52, 7	105 40 55, 0	55, 6	+ 4, 4	+ 4, 6	..
54		* A. R. 21 ^h 39 ^m - - -	29 40, 5	42, 5	40, 6	39, 2	42, 1	40, 6	38 29 40, 9	41, 5	+ 5, 7	+ 7, 4	..
55		α Aquarii - - - -	6 11, 2	11, 0	9, 5	13, 4	11, 0	8, 0	91 6 10, 7	11, 1	+ 6, 3	+ 6, 6	..
56		3 Lacertæ - cloudy,	36 4, 2	8, 6	5, 0	2, 3	7, 9	5, 8	38 36 5, 5	6, 4	+ 6, 9	+ 8, 2	..
57		Fomalhaut - - - -	23 35, 0	45, 0	41, 3	37, 6	44, 8	40, 2	120 23 40, 7	40, 0	+ 6, 8	+ 4, 8	..
58		α Pegasi - cloudy, R.	22 12, 4	16, 6	13, 0	9, 7	19, 3	16, 5	181 22 14, 6	14, 5	..	..	..

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom.	Thermom.		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	5 SEPT. 14	29, 80	60	67	☉ L. L. - - - -	49 54, 0	54, 1	53, 3	51, 1	51, 8	55, 2	86 49 53, 7	54, 1	H.
2		29, 83	58	54	* A.R. 21 ^h 40 ^m - -	34, 0	35, 0	38, 0	35, 5	37, 5	36, 1	38 29 36, 0	34, 5	E.
3		29, 82	57	..	α Aquarii - - - -	6 5, 3	6, 2	5, 2	3, 3	5, 9	6, 8	91 6 5, 5	5, 8	F. S.
4		29, 83	..	53	β Lacertæ - - - -	35 57, 5	57, 4	59, 3	57, 4	0, 7	59, 0	38 35 58, 6	57, 5	E.
5		29, 82	..	..	κ Aquarii - - - -	3 27, 8	27, 2	28, 0	23, 3	27, 8	27, 1	95 3 26, 9	27, 5	F. S.
6		...	56	52	Fomalhaut - - - -	23 39, 2	39, 0	34, 9	36, 8	38, 6	38, 0	120 23 37, 7	39, 1	..
7		...	..	..	α Pegasi - - - -	40 28, 2	28, 0	26, 8	25, 0	29, 0	30, 7	75 40 27, 9	28, 1	..
8	16	29, 53	57	53	γ Draconis - - - -	28 51, 0	53, 5	54, 0	50, 0	53, 0	52, 7	38 28 52, 4	52, 3	T.
9		29, 52	56	..	β Lacertæ - - cloudy,	35 58, 1	57, 2	0, 5	57, 7	0, 8	59, 0	38 35 58, 9	57, 7	E.
10	17	29, 46	57	60	☉ U. L. - - - cloudy,	27 30, 3	27, 6	28, 7	27, 8	30, 7	29, 7	87 27 29, 1	28, 9	F. S.
11		29, 59	56	53	δ Draconis - - - -	37 44, 0	42, 1	45, 0	44, 6	43, 3	46, 4	22 37 44, 2	43, 1	H.
12		...	..	..	ι Cygni - - - -	36 54, 0	57, 0	57, 0	56, 5	58, 2	55, 8	38 36 56, 4	55, 5	T.
13		...	..	..	Next division.	54, 8	56, 2	56, 0	57, 7	56, 4	57, 1	56, 4	55, 5	..
14		29, 60	..	..	α Aquilæ - - - R.	29 45, 0	43, 1	43, 2	45, 1	49, 6	49, 3	175 29 45, 9	44, 1	H.
15		29, 62	55	52	β Lacertæ - - - -	35 57, 1	57, 4	59, 0	56, 0	58, 5	58, 2	38 35 57, 7	57, 3	E.
16		...	..	..	ο Pegasi - - - -	32 57, 6	54, 6	55, 1	53, 7	57, 0	1, 3	61 32 56, 6	56, 1	..
17		...	..	..	μ..... - - - -	15 52, 7	50, 0	53, 0	46, 8	50, 7	52, 3	66 15 50, 9	51, 4	..
18		...	..	..	ο Andromed. - - - -	32 41, 4	39, 3	42, 3	37, 4	42, 7	43, 7	48 32 41, 1	40, 4	..
19		...	54	50	υ Pegasi - - - -	30 0, 5	59, 0	57, 9	55, 8	57, 8	1, 4	67 29 58, 7	59, 8	..
20		...	..	..	λ Piscium - - - -	6 48, 3	48, 2	45, 8	42, 7	49, 6	49, 6	89 6 47, 4	48, 3	..
21	18	29, 68	56	58	☉ L. L. - - - -	22 37, 0	38, 2	35, 1	33, 8	37, 3	39, 8	88 22 36, 9	37, 6	H.
22		...	..	..	γ Draconis - - - -	28 52, 6	53, 4	54, 4	51, 3	55, 3	53, 7	38 28 53, 4	53, 0	T.
23		...	..	..	*..... B. 170 -	31 54, 0	56, 0	57, 5	55, 0	58, 3	56, 2	38 31 56, 2	55, 0	..
24		...	..	..	Next division.	54, 8	55, 2	56, 5	54, 8	58, 0	57, 0	56, 1	55, 0	..
25		29, 75	55	53	α Lyrae - - - -	21 25, 0	24, 8	24, 0	22, 8	25, 1	27, 3	51 21 24, 8	24, 9	H.
26		29, 76	..	52	ζ Aquilæ - - - -	21 41, 1	38, 0	40, 3	36, 7	40, 1	44, 3	76 21 40, 1	39, 6	..
27		...	..	..	δ Draconis - - - -	37 43, 8	41, 7	43, 3	44, 8	43, 7	46, 3	22 37 43, 9	42, 8	..
28	19	29, 95	55	60	☉ U. L. - - - -	14 1, 4	1, 9	59, 8	0, 3	2, 6	5, 0	88 14 1, 8	1, 7	H.
29		30, 04	..	51	ι Cygni - - - -	36 52, 0	52, 1	52, 6	50, 5	56, 5	53, 4	38 36 52, 8	52, 0	T.
30		...	..	..	Next division.	52, 3	52, 4	54, 0	50, 2	55, 0	53, 3	52, 9	52, 3	..
31		30, 05	..	50	* Cygni, A.R. 20 ^h 31 ^m ,	42 40, 0	38, 6	40, 0	41, 3	41, 8	38, 8	38 42 40, 1	39, 3	..
32		...	..	..	Next division.	40, 2	40, 7	41, 8	40, 0	42, 0	41, 7	41, 1	40, 4	..
33		30, 06	54	48	α Cephei - - - -	6 55, 7	55, 0	55, 3	55, 2	57, 2	55, 0	28 6 55, 6	55, 3	F. S.
34		...	..	..	β Aquarii - - - -	16 13, 7	13, 3	10, 2	8, 0	14, 2	13, 5	96 16 12, 1	13, 5	..
35		...	..	..	γ..... - - - -	44 8, 2	7, 2	5, 0	4, 3	7, 2	7, 7	105 44 6, 6	7, 7	..
36		...	..	..	* A.R. 21 ^h 39 ^m - -	29 30, 0	31, 3	32, 7	29, 8	33, 8	32, 7	38 29 31, 7	30, 7	E.
37		...	53	..	α Aquarii - - - -	6 3, 0	2, 3	2, 3	0, 0	3, 0	3, 0	91 6 2, 3	2, 6	F. S.
38		...	..	..	η Lacertæ - - - -	6 3, 0	1, 0	2, 5	0, 8	1, 8	1, 7	51 6 1, 8	2, 0	..
39		...	..	..	3..... - - - -	35 56, 2	54, 3	56, 1	55, 0	58, 3	56, 8	38 35 56, 1	55, 3	E.
40		30, 07	52	47	28 ^h Cephei - - - -	4 3, 3	2, 2	3, 4	3, 5	4, 4	3, 5	12 4 3, 4	2, 7	F. S.
41		...	..	..	* A.R. 22 ^h 43 ^m - -	19 37, 0	34, 0	36, 3	37, 0	36, 7	37, 8	24 19 36, 5	35, 5	..
42		...	51	46	α Pegasi - - - -	40 25, 2	22, 0	22, 6	20, 0	23, 3	25, 0	75 40 23, 0	23, 6	..
43		...	..	..	τ..... - - - -	9 27, 3	24, 7	27, 2	23, 7	25, 0	25, 8	67 9 25, 6	26, 0	..
44		...	..	..	106 Aquarii - - - -	9 5, 3	3, 3	3, 0	1, 8	4, 4	4, 5	109 9 3, 7	4, 3	..
45		...	..	..	δ App. Sculp. - - -	57 15, 2	12, 7	11, 0	13, 0	14, 7	12, 6	118 57 13, 2	13, 9	..
46	20	30, 13	56	57	γ Draconis - - - -	28 55, 0	54, 7	53, 7	55, 2	57, 5	59, 3	38 28 55, 9	54, 9	E.
47		...	..	..	*..... B. 170 -	31 55, 8	57, 0	0, 0	58, 2	0, 3	58, 0	38 31 58, 2	56, 4	T.
48		...	..	..	Next division.	57, 7	57, 0	0, 2	58, 8	0, 4	58, 4	58, 8	57, 3	..
49		...	55	54	α Lyrae - - - -	21 27, 0	27, 1	26, 6	27, 5	28, 6	30, 0	51 21 27, 8	27, 1	H.
50		...	..	..	β..... - - - -	48 55, 1	53, 8	59, 1	53, 8	55, 0	57, 8	56 48 55, 7	54, 4	..
51		...	..	..	δ Draconis - - - -	37 47, 1	45, 2	45, 3	48, 8	46, 0	49, 8	22 37 47, 0	46, 2	..
52		...	..	..	ι Cygni - - - -	36 57, 0	56, 0	58, 5	57, 0	59, 0	57, 0	38 36 57, 4	56, 5	T.
53		...	..	..	Next division.	56, 8	56, 4	59, 0	57, 6	58, 2	58, 8	57, 8	56, 6	..
54		30, 14	..	..	α Aquilæ - - - -	32 50, 2	49, 1	51, 0	48, 6	49, 3	47, 2	81 32 49, 2	49, 6	H.
55		...	..	53	* Cygni, A.R. 20 ^h 0 ^m ,	37 47, 0	46, 7	51, 5	48, 2	51, 2	48, 5	38 37 48, 9	40, 8	T.
56		...	..	..	Next division.	48, 8	48, 0	48, 4	48, 0	50, 1	48, 3	48, 6	48, 4	..
57		30, 15	..	52	* Cygni, A.R. 20 ^h 31 ^m ,	42 44, 0	43, 2	44, 3	46, 2	47, 2	44, 8	38 42 45, 0	43, 6	..
58		...	..	..	Next division.	44, 2	44, 7	45, 8	45, 6	48, 3	45, 7	45, 7	44, 5	..
59		30, 14	54	..	α Cephei - } cloudy, R.	55 38, 7	38, 8	38, 7	39, 0	41, 3	38, 0	228 55 39, 1	38, 7	F. S.
60		...	..	..	α Aquarii, }	6 7, 5	7, 0	4, 8	6, 3	7, 0	10, 4	91 6 7, 2	7, 2	..
61		...	..	..	η Lacertæ - - - R.	56 34, 2	32, 0	34, 3	33, 0	31, 8	33, 7	205 56 33, 2	33, 1	..

Observations of NORTH POLAR DISTANCE.

27

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	h SEPT. 14	☉ U. L. - - - -	18 6,0	4,3	3,5	4,2	6,0	4,6	86 18 4,8	5,1	..	..	F. S.
2		.....	..	..	..	..	..	..	.....	..	..	..	
3		.....	..	..	..	..	..	..	.....	..	..	..	
4		3 Lacertæ - - -	36 3,8	7,2	4,8	1,6	7,5	3,2	38 36 4,7	5,5	+ 6,1	+ 8,0	R.
5		* Aquarii - - -	3 30,6	32,8	28,5	31,0	33,2	30,5	95 3 31,1	31,7	+ 4,2	+ 4,2	,,
6		Fomalhaut - - -	23 36,5	48,3	44,2	38,6	47,3	42,1	120 23 42,8	42,4	+ 5,1	+ 3,3	,,
7		α Pegasi - - - R.	22 10,2	16,4	12,4	8,3	18,3	14,7	181 22 13,4	12,3	..	..	,,
8	D 16	γ Draconis - - -	28 56,3	0,7	0,2	56,5	1,8	58,2	38 28 59,0	58,5	+ 6,6	+ 6,2	R.
9		3 Lacertæ - - - cloudy,	36 1,8	7,2	4,8	2,7	6,5	2,3	38 36 4,2	4,5	+ 5,3	+ 6,8	,,
10	δ 17	☉ L. L. - - - cloudy,	59 26,3	28,1	26,5	27,5	26,5	26,9	87 59 27,0	27,2	..	..	R.
11		δ Draconis - - -	37 50,7	52,3	49,4	49,3	53,4	51,5	22 37 51,1	51,5	+ 6,9	+ 8,4	W. R.
12		ι Cygni - - - -	37 0,4	4,2	1,1	58,7	3,2	1,6	38 37 1,6	2,3	+ 5,2	+ 6,8	,,
13		Next division.	59,6	4,6	2,2	0,0	4,3	1,7	2,1	2,1	+ 5,7	+ 6,6	,,
14		α Aquilæ - - -	32 52,3	51,7	49,6	52,4	53,2	55,0	81 32 52,4	52,0	..	..	,,
15		3 Lacertæ - - -	36 3,5	5,7	4,2	1,6	6,3	4,5	38 36 4,3	4,6	+ 6,6	+ 7,3	R.
16		o Pegasi - - - R.	29 38,4	44,8	37,3	37,5	47,3	43,8	195 29 41,5	41,6	..	..	,,
17		μ - - - R.	46 47,7	51,3	45,2	44,7	52,1	49,6	190 46 48,4	49,5	..	..	,,
18		o Andromed. - - R.	28 55,6	1,2	52,5	54,3	3,6	3,3	208 28 58,4	58,4	..	..	,,
19		v Pegasi - - - R.	32 36,5	40,9	36,9	35,4	43,3	41,8	189 32 39,1	38,7	..	..	,,
20		λ Piscium - - -	6 51,8	53,2	51,8	52,8	55,2	53,2	89 6 51,3	52,5	+ 3,9	+ 4,2	,,
21	ξ 18	☉ U. L. - - - -	50 47,3	47,9	47,0	47,6	49,3	49,1	87 50 48,1	47,6	..	..	R.
22		γ Draconis - - -	28 56,4	2,2	58,4	55,0	3,0	59,0	38 28 59,0	59,3	+ 5,6	+ 6,3	W. R.
23		 B. 170 -	32 1,0	4,8	59,4	58,0	1,8	4,6	38 32 1,6	2,9	+ 5,4	+ 7,9	,,
24		Next division.	1,6	4,8	1,4	59,0	1,8	5,2	3,2	3,2	+ 8,2	..	,,
25		α Lyræ - - - - R.	41 11,7	18,7	9,5	9,0	19,2	19,8	205 41 14,7	15,8	..	..	,,
26		ζ Aquilæ - - -	21 44,6	45,0	41,0	43,4	46,2	47,6	76 21 44,6	44,8	+ 4,5	+ 5,2	,,
27		δ Draconis - - -	37 49,8	50,6	46,6	48,6	54,6	52,5	22 37 50,5	50,2	+ 6,6	+ 7,4	,,
28	η 19	☉ L. L. - - - -	46 0,0	0,8	58,1	57,2	59,8	1,6	88 45 59,6	0,4	..	..	R.
29		.....	..	..	..	..	..	..	.....	..	..	..	
30		.....	..	..	..	..	..	..	.....	..	..	..	
31		* Cygni, A.R. 20 ^h 31 ^m ,	42 48,0	51,2	45,6	44,8	53,4	51,6	38 42 49,1	49,6	+ 9,0	+ 10,3	W. R.
32		Next division.	48,6	52,4	46,6	43,4	54,8	51,5	49,6	50,5	+ 8,5	+ 10,1	,,
33		α Cephei - - -	7 2,2	4,8	1,2	1,5	7,7	1,8	28 7 3,2	3,5	+ 7,6	+ 8,2	R.
34		β Aquarii - - -	16 19,3	21,9	19,3	20,7	21,9	22,3	96 16 20,9	20,6	+ 8,8	+ 7,1	,,
35		γ - - - -	44 11,0	13,0	11,9	10,6	16,3	12,4	105 44 12,5	12,0	+ 5,9	+ 4,3	,,
36		* A.R. 21 ^h 39 ^m -	29 39,2	41,4	37,5	36,2	44,2	41,3	38 29 40,0	40,3	+ 8,3	+ 9,6	,,
37		α Aquarii - - -	6 10,3	10,5	7,7	10,3	10,5	9,2	91 6 9,7	10,4	+ 7,4	+ 7,8	,,
38		m Lacertæ - - - R.	56 34,0	37,0	31,3	30,2	40,9	41,0	205 56 35,7	35,5	..	..	,,
39		3 - - -	36 4,2	4,8	1,7	0,3	6,2	4,5	38 36 3,6	4,5	+ 7,5	+ 9,2	,,
40		28 ¹ Cephei - - - R.	58 37,2	37,4	32,0	33,8	43,1	42,6	244 58 37,7	37,3	..	..	,,
41		* A.R. 22 ^h 43 ^m - R.	43 0,8	3,4	56,7	57,8	9,0	7,7	232 43 2,6	2,1	..	..	E.
42		α Pegasi - - - R.	22 10,1	18,7	14,0	9,3	21,0	7,8	181 22 13,5	14,4	..	..	,,
43		τ - - - R.	53 57,8	13,4	7,2	4,8	15,1	15,8	189 53 10,7	10,6	..	..	,,
44		106 Aquarii - - -	9 6,7	13,8	10,9	8,6	14,6	9,2	109 9 10,6	10,3	+ 6,9	+ 6,0	,,
45		δ App. Sculp. - -	57 13,5	26,8	22,0	17,7	25,4	20,2	118 57 20,9	20,2	+ 7,7	+ 6,3	,,
46	♀ 20	γ Draconis - - -	28 58,7	1,7	56,6	54,2	3,1	0,7	38 28 59,2	0,2	+ 3,3	+ 5,3	W. R.
47		* B. 170 -	32 2,2	5,0	0,4	59,4	5,4	3,4	38 32 2,6	3,6	+ 4,4	+ 7,2	,,
48		Next division.	3,0	4,8	1,6	58,4	6,4	4,2	3,1	3,9	+ 4,3	+ 6,6	,,
49		α Lyræ - - - -	21 30,0	30,4	26,4	27,6	32,3	32,6	51 21 29,9	30,2	+ 2,2	+ 3,1	,,
50		β - - -	48 58,2	58,0	53,4	56,4	1,4	1,3	56 48 58,1	58,1	+ 2,4	+ 3,7	,,
51		δ Draconis - - - R.	24 55,0	58,6	47,6	47,0	3,1	1,7	234 24 55,5	56,8	..	..	,,
52		ι Cygni - - - -	37 1,4	4,6	0,2	57,3	5,0	3,4	38 37 2,0	3,0	+ 4,6	+ 6,5	,,
53		Next division.	1,2	4,6	59,4	59,0	7,0	3,4	2,4	2,9	+ 4,6	+ 6,3	,,
54		α Aquilæ - - - R.	29 50,6	57,6	49,6	47,6	57,4	53,2	175 29 52,7	51,1	..	..	,,
55		* Cygni, A.R. 20 ^h 0 ^m ,	37 51,9	53,9	50,3	49,3	54,3	53,4	38 37 52,2	52,9	+ 3,3	+ 6,1	,,
56		Next division.	52,1	55,0	50,3	49,6	56,0	53,6	52,8	53,6	+ 4,2	+ 5,2	,,
57		* Cygni, A.R. 20 ^h 31 ^m ,	42 48,3	51,5	47,2	46,6	52,3	50,0	38 42 49,3	49,9	+ 4,3	+ 6,3	,,
58		Next division.	48,9	52,1	48,3	46,7	53,1	50,4	49,9	50,5	+ 4,2	+ 6,0	,,
59		α Cephei - - - } cloudy,	7 2,3	4,1	3,7	1,5	6,1	1,3	28 7 3,2	3,2	..	..	R.
60		α Aquarii - - - }	6 11,2	12,6	10,3	13,2	13,3	9,6	91 6 11,7	11,9	+ 4,5	+ 4,7	,,
61		m Lacertæ - - -	6 9,8	9,0	5,2	8,1	11,0	10,2	51 6 8,9	9,4	..	..	,,

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	♀ SEPT. 20	30, 14	54	52	3 Lacertæ - cloudy,	36 0, 8	58, 7	1, 3	0, 4	0, 8	0, 1	38 36 0, 4	59, 8	E.
2	h 21	30, 04	55	60	⊙ L. L. - - - -	32 38, 0	39, 1	39, 0	38, 3	38, 8	43, 1	89 32 39, 4	38, 6	H.
3		29, 99	..	52	* Cygni, A.R. 20 ^b 31 ^m ,	42 45, 0	43, 5	46, 2	46, 6	43, 2	43, 2	38 42 45, 1	44, 2	T.
4		...	..	..	Next division.	44, 8	45, 2	46, 3	44, 2	47, 2	44, 8	45, 4	55, 0	..
5		29, 97	..	51	α Cephei - - - cloudy,	6 59, 0	59, 7	59, 0	59, 8	0, 5	0, 6	28 6 59, 8	59, 3	F.S.
6		...	..	..	β Aquarii - - -	16 18, 2	19, 0	17, 3	15, 1	20, 8	21, 0	96 16 18, 6	18, 6	..
7		...	..	..	* A.R. 21 40 ^m , v. cloudy,	29 35, 3	34, 8	36, 4	34, 0	37, 3	37, 4	38 29 35, 9	35, 1	E.
8	⊙ 22	29, 77	56	59	♀ L. L. - - - trem.	26 57, 4	58, 0	56, 0	53, 0	56, 8	57, 8	75 26 56, 5	57, 7	F. S.
9	D 23	29, 74	58	64	⊙ U. L. - - - -	47 28, 0	33, 2	28, 1	25, 8	30, 0	31, 7	89 47 29, 5	30, 6	H.
10		29, 68	..	55	γ Draconis - - -	28 55, 7	55, 6	57, 0	56, 5	56, 9	57, 0	38 28 56, 6	55, 7	E.
11		29, 67	57	53	* B. 170 -	31 58, 3	59, 4	0, 9	58, 2	1, 6	59, 6	38 31 59, 7	58, 9	..
12		...	..	..	Next division.	58, 7	57, 8	0, 8	58, 7	0, 7	2, 1	59, 8	58, 3	..
13		...	..	..	α Lyrae - - - -	21 26, 2	27, 0	27, 2	26, 3	27, 1	29, 6	51 21 27, 2	26, 6	H.
14		...	..	..	β - - - -	48 53, 1	54, 2	57, 8	55, 2	55, 3	57, 2	56 48 55, 5	53, 6	..
15		29, 65	56	52	ι Cygni - - - -	36 57, 1	57, 8	58, 6	56, 6	59, 0	58, 8	38 36 58, 0	57, 5	E.
16		...	..	..	Next division.	56, 8	57, 2	0, 6	58, 2	59, 3	58, 5	58, 4	57, 0	..
17		...	..	..	γ Aquilæ - - - -	46 10, 6	8, 3	10, 1	10, 2	10, 7	10, 2	79 46 10, 0	9, 4	H.
18		...	..	..	α - - - -	32 49, 2	49, 7	49, 5	49, 7	49, 8	51, 1	81 32 49, 8	49, 5	..
19		...	..	..	β - - - -	59 3, 8	3, 1	4, 2	2, 8	4, 0	5, 7	83 59 3, 9	3, 5	..
20		29, 63	55	..	* Cygni, A.R. 20 ^b 0 ^m ,	37 48, 1	46, 8	49, 6	47, 0	50, 8	48, 4	38 37 48, 5	47, 5	E.
21		...	..	..	Next division.	47, 8	47, 0	50, 1	49, 1	50, 0	49, 7	48, 9	47, 4	..
22		29, 62	..	..	.....	..	..	..	..	..	..	..	..	..
23		...	..	..	.....	..	..	..	..	..	..	..	..	..
24	♂ 24	29, 35	58	57	γ Draconis - - -	28 53, 3	54, 0	59, 3	54, 0	57, 8	56, 0	38 28 55, 7	53, 7	T.
25		...	..	..	α Lyrae - - - R.	41 11, 7	11, 9	14, 2	14, 3	13, 0	11, 7	205 41 12, 8	11, 8	H.
26		29, 36	..	..	β - - - R.	13 44, 0	43, 7	46, 3	44, 7	44, 8	46, 9	200 13 45, 1	43, 8	..
27		...	..	..	δ Draconis - - - R.	24 51, 6	53, 8	54, 3	50, 3	50, 8	53, 2	234 24 52, 4	52, 7	..
28		...	..	..	δ Aquilæ - - - -	11 24, 2	24, 0	25, 7	22, 3	25, 8	25, 7	87 11 24, 6	24, 1	..
29		...	..	..	ι Cygni - - - -	36 55, 3	56, 0	59, 1	58, 6	57, 5	56, 0	38 36 57, 1	55, 7	T.
30		...	..	..	Next division.	55, 5	56, 2	0, 8	58, 2	58, 0	57, 8	57, 7	55, 8	..
31		29, 37	57	56	γ Aquilæ - - - -	46 11, 0	8, 3	10, 2	9, 1	10, 1	10, 2	79 46 9, 8	9, 6	H.
32		...	..	..	α - - - -	32 49, 3	50, 8	53, 2	49, 3	48, 6	50, 3	81 32 50, 3	50, 1	..
33		...	..	..	β - - - -	59 3, 2	4, 3	4, 7	1, 3	2, 6	6, 1	83 59 3, 7	3, 8	..
34		29, 38	58	..	* Cygni, A.R. 20 ^b 0 ^m ,	37 46, 2	44, 8	49, 0	48, 0	47, 8	47, 3	38 37 47, 2	45, 5	T.
35		...	..	..	Next division.	46, 3	45, 3	51, 0	46, 4	47, 1	46, 5	47, 2	45, 8	..
36		...	..	..	α Cephei - - - -	47 43, 4	43, 4	43, 7	44, 6	46, 7	43, 5	12 47 44, 2	43, 4	F. S.
37		...	..	..	69 Aquilæ - - - -	24 33, 6	33, 4	32, 2	30, 8	34, 7	37, 7	93 24 33, 7	33, 5	..
38		...	..	..	* Cygni, A.R. 20 ^b 30 ^m ,	42 43, 2	41, 7	44, 7	43, 8	44, 9	41, 6	38 42 43, 3	42, 4	E.
39		...	..	..	Next division.	43, 7	43, 8	46, 1	42, 7	47, 2	44, 2	44, 6	43, 7	..
40		...	..	..	77 Draconis - - R.	29 25, 2	27, 2	26, 0	22, 8	26, 0	28, 2	244 29 25, 9	26, 2	F. S.
41		...	..	..	α Cephei - - - R.	55 40, 0	40, 6	41, 7	39, 7	40, 3	41, 0	228 55 40, 5	40, 3	..
42		...	..	..	δ L. L. - - - } cloudy,	35 5, 6	6, 0	5, 4	4, 2	5, 0	6, 2	109 35 5, 4	5, 8	..
43		...	..	..	3 Lacertæ - - - }	35 58, 4	56, 4	1, 0	57, 7	59, 0	58, 3	38 35 58, 5	57, 4	E.
44		29, 64	59	60	♀ Cent. - - - -	9 18, 7	18, 2	20, 7	17, 8	18, 6	19, 7	86 9 19, 0	18, 5	H.
45	♀ 25	29, 65	60	61	Polaris - - S.P.	25 54, 7	54, 0	55, 8	58, 2	53, 3	54, 2	358 25 55, 0	54, 3	H.
46		...	..	..	η Urs. Maj. - - -	50 52, 8	53, 1	53, 6	56, 8	59, 8	54, 8	39 50 55, 2	53, 0	..
47		...	..	..	γ Draconis - - -	28 54, 5	55, 6	57, 0	56, 2	57, 5	56, 8	38 28 56, 3	55, 0	T.
48		29, 67	59	57	α Lyrae - - - -	21 26, 8	26, 7	27, 0	25, 6	26, 2	27, 7	51 21 26, 7	26, 8	H.
49	♂ 26	29, 77	60	58	γ Draconis - - -	28 55, 6	56, 6	58, 0	55, 7	58, 5	57, 2	38 28 56, 9	56, 1	E.
50		...	59	57	α Lyrae - - - -	21 28, 0	27, 4	29, 4	27, 2	30, 4	26, 8	51 21 28, 2	27, 7	F. S.
51		...	..	..	.....	..	..	..	..	..	..	..	..	..
52		29, 78	..	..	ζ Aquilæ - - - -	21 43, 0	43, 0	43, 3	40, 8	42, 3	43, 4	76 21 42, 6	43, 0	H.
53		...	58	54	δ Draconis - - -	37 45, 5	44, 4	45, 8	47, 6	44, 2	45, 1	22 37 45, 4	45, 5	..
54		...	..	..	ι Cygni - - - -	36 57, 3	56, 8	58, 0	56, 0	59, 8	59, 3	38 36 57, 9	57, 1	E.
55		...	..	..	Next division.	57, 1	57, 0	58, 6	57, 7	57, 0	59, 7	57, 9	57, 1	..
56		...	..	..	γ Aquilæ - - - -	46 9, 6	7, 2	10, 7	8, 6	9, 7	8, 6	79 46 9, 1	8, 4	H.
57		...	..	..	α - - - -	32 50, 0	50, 1	50, 6	49, 0	49, 0	52, 6	81 32 50, 2	50, 1	..
58		...	57	53	β - - - -	59 2, 1	2, 0	3, 2	0, 6	2, 8	4, 2	83 59 2, 5	2, 1	..
59		...	..	..	* Cygni, A.R. 20 ^b 0 ^m ,	37 46, 8	46, 2	47, 4	45, 6	49, 4	47, 8	38 37 47, 2	46, 5	E.
60		...	..	..	Next division.	47, 2	46, 7	48, 7	46, 7	48, 3	49, 2	47, 8	47, 0	..

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	♀ SEPT. 20	3 Lacertæ - cloudy,	36 2, 5	5, 5	2, 9	0, 6	6, 3	3, 1	38 36 3, 5	4, 0	+ 3, 1	+ 4, 2	R.
2	h 21	☉ U. L. - - cloudy,	0 48, 8	49, 0	46, 2	49, 3	48, 8	51, 0	89 0 48, 8	48, 9	..	..	F. S.
3		* Cygni, A.R. 20 ^h 31 ^m ,	42 47, 4	51, 0	46, 6	44, 8	51, 3	51, 3	38 42 48, 7	59, 2	+ 3, 6	+ 5, 0	W. R.
4		Next division.	48, 2	52, 2	47, 4	43, 8	51, 6	49, 4	48, 8	50, 2	+ 3, 4	+ 5, 2	..
5		α Cephei, :: - - R.	55 43, 3	47, 5	38, 2	39, 6	51, 2	47, 6	228 55 44, 6	45, 4	..	..	R.
6		β Aquarii - cloudy,	16 19, 6	23, 5	22, 3	22, 5	23, 0	21, 0	96 16 22, 0	21, 5	+ 3, 4	+ 2, 9	..
7		* A.R. 21 ^h 40 ^m , ex. faint,	29 37, 2	41, 0	37, 7	35, 6	42, 1	37, 5	38 29 38, 5	39, 1	+ 2, 6	+ 4, 0	..
8	☉ 22	.....	...	..	..	..	..	..	.....	..	..	..	
9	h 23	☉ L. L. - - cloudy,	19 30, 7	31, 7	28, 0	29, 7	29, 4	31, 2	90 19 30, 1	31, 2	..	..	F. S.
10		γ Draconis - - -	28 58, 2	0, 6	58, 2	55, 4	3, 5	0, 9	38 28 59, 5	59, 4	+ 2, 9	+ 3, 7	R.
11		* B. 170, A.R. 18 ^h 18 ^m ,	32 2, 0	5, 0	59, 8	58, 0	5, 5	5, 3	38 32 2, 6	3, 5	+ 2, 9	+ 4, 6	W. R.
12		Next division.	2, 3	4, 6	1, 4	59, 2	6, 2	4, 0	2, 9	3, 5	+ 3, 1	+ 5, 2	..
13		α Lyrae - - - R.	41 14, 0	18, 8	10, 5	8, 5	19, 0	19, 6	205 41 15, 1	16, 4	..	..	..
14		β..... - - - R.	13 45, 0	51, 8	40, 2	40, 5	53, 2	50, 2	200 13 46, 8	48, 4	..	..	..
15		ι Cygni - - -	37 0, 4	3, 8	59, 5	56, 4	3, 7	4, 2	38 37 1, 3	2, 1	+ 3, 3	+ 4, 6	..
16		Next division.	0, 3	4, 2	59, 0	57, 2	4, 6	3, 0	1, 4	2, 3	+ 3, 0	+ 5, 3	..
17		γ Aquilæ - - -	46 12, 0	12, 4	7, 8	11, 8	14, 3	16, 2	79 46 12, 4	12, 2	+ 2, 4	+ 2, 8	..
18		α..... - - - R.	29 50, 0	57, 2	47, 6	45, 0	57, 0	53, 6	175 29 51, 7	53, 6	..	..	..
19		β..... - - -	59 6, 2	5, 8	2, 2	3, 7	8, 3	9, 4	83 59 5, 9	6, 0	+ 2, 0	+ 2, 5	..
20		* Cygni, A.R. 20 0 ^m ,	37 51, 1	54, 4	48, 0	47, 3	54, 4	53, 4	38 37 51, 4	52, 8	+ 2, 9	+ 5, 3	..
21		Next division.	51, 2	55, 6	49, 3	47, 4	57, 4	53, 0	52, 3	53, 4	+ 3, 4	+ 6, 0	..
22		δ L. L. - - - v. faint,	3 53, 0	1, 6	55, 5	52, 0	1, 0	57, 2	112 3 56, 7	57, 3	..	..	..
23		α Cygni - - -	18 20, 3	22, 9	15, 4	15, 6	23, 0	23, 8	45 18 20, 1	21, 6	..	..	..
24	♂ 24	γ Draconis - - -	28 58, 6	1, 6	57, 5	55, 3	4, 2	1, 3	38 28 59, 8	0, 1	+ 4, 1	+ 6, 4	R.
25		α Lyrae - - -	21 32, 2	30, 4	24, 9	26, 5	32, 8	33, 1	51 21 30, 0	31, 3	..	..	..
26		β..... - - -	48 58, 0	57, 0	53, 3	54, 9	1, 4	0, 8	56 48 57, 6	57, 5	..	..	..
27		δ Draconis - - -	37 49, 8	50, 2	46, 5	46, 2	54, 2	51, 6	22 37 49, 8	50, 0	..	..	..
28		δ Aquilæ - - -	11 28, 0	27, 0	23, 2	26, 1	31, 1	28, 5	87 11 27, 3	27, 5	+ 2, 7	+ 3, 4	..
29		ι Cygni - - -	37 0, 3	3, 2	0, 4	57, 6	6, 5	2, 0	38 37 1, 7	1, 8	+ 4, 6	+ 6, 1	..
30		Next division.	0, 2	2, 8	0, 1	57, 8	5, 1	3, 5	1, 6	1, 5	+ 3, 9	+ 5, 7	..
31		γ Aquilæ - - -	46 14, 0	12, 0	8, 2	11, 5	15, 3	16, 4	79 46 12, 9	13, 0	+ 3, 1	+ 3, 4	..
32		α..... - - -	32 55, 0	52, 0	50, 6	51, 8	55, 6	56, 3	81 32 53, 6	53, 5	+ 3, 3	+ 3, 5	..
33		β..... - - -	59 7, 3	5, 1	1, 8	4, 3	9, 4	8, 6	83 59 6, 1	6, 2	+ 2, 4	+ 2, 4	..
34		* Cygni, A.R. 20 ^h 0 ^m ,	37 51, 2	53, 9	49, 7	48, 0	54, 9	52, 0	38 37 51, 6	52, 5	+ 4, 4	+ 7, 0	..
35		Next division.	50, 8	54, 1	49, 9	47, 8	55, 7	52, 6	51, 8	52, 5	+ 4, 6	+ 6, 7	..
36		* Cephei - - -	47 49, 8	46, 8	45, 6	47, 2	48, 3	50, 7	12 47 48, 1	48, 3	+ 3, 9	+ 4, 9	..
37		69 Aquilæ - - -	24 36, 0	35, 6	32, 5	34, 6	37, 2	35, 8	93 24 35, 3	35, 8	+ 1, 6	+ 2, 3	..
38		* Cygni, A.R. 20 ^h 31 ^m ,	42 47, 2	50, 6	46, 4	45, 6	52, 6	51, 2	38 42 48, 9	48, 9	+ 5, 6	+ 6, 5	..
39		Next division.	47, 6	51, 4	46, 5	43, 5	53, 7	49, 0	48, 6	49, 5	+ 4, 0	+ 5, 8	..
40		77 Draconis - - -	33 18, 6	17, 4	14, 0	14, 4	20, 8	21, 5	12 33 17, 8	18, 0	..	..	W. R.
41		α Cephei - - -	7 0, 6	5, 2	0, 0	58, 6	6, 2	6, 0	28 7 2, 8	2, 9	..	..	..
42		δ L. L. - - -	35 9, 8	14, 8	11, 4	10, 8	15, 4	12, 6	109 35 12, 5	12, 3	+ 7, 1	+ 6, 5	..
43		3 Lacertæ - - -	36 1, 9	6, 9	0, 0	56, 2	6, 7	4, 5	38 36 2, 7	4, 4	+ 4, 2	+ 7, 0	..
44		ξ Cent. - - - v. faint,	9 23, 0	22, 0	18, 4	20, 3	24, 3	25, 0	86 9 22, 2	22, 5	+ 3, 2	+ 4, 0	R.
45	♀ 25	Polaris - S.P.	26 4, 3	58, 1	55, 2	56, 0	3, 2	6, 3	358 26 0, 5	1, 2	+ 5, 5	+ 6, 9	R.
46		η Urs. Maj. - - -	50 56, 3	0, 7	55, 6	53, 2	4, 3	2, 0	39 50 58, 7	58, 5	+ 3, 5	+ 5, 5	..
47		γ Draconis - - -	28 56, 5	3, 1	56, 6	53, 5	4, 6	2, 5	38 28 59, 5	59, 8	+ 3, 2	+ 4, 8	W. R.
48		α Lyrae - - - R.	41 11, 7	19, 3	10, 0	7, 2	20, 5	20, 8	205 41 14, 9	15, 5	..	..	..
49	♂ 26	γ Draconis - - -	28 57, 4	3, 6	56, 6	55, 4	5, 0	0, 5	38 28 59, 8	0, 5	+ 2, 9	+ 4, 4	W. R.
50		α Lyrae - - -	21 30, 9	30, 3	27, 0	27, 1	32, 5	33, 6	51 21 30, 2	30, 6	+ 2, 0	+ 2, 9	..
51		β..... - - -	48 57, 6	58, 2	52, 0	55, 0	1, 8	1, 0	56 48 57, 6	57, 9	..	..	..
52		ζ Aquilæ - - -	21 45, 5	46, 3	41, 4	41, 8	48, 0	48, 7	76 21 45, 3	45, 9	+ 2, 7	+ 2, 9	..
53		δ Draconis - - - R.	24 54, 4	0, 2	47, 7	47, 4	6, 2	3, 6	234 24 56, 6	57, 3	..	..	..
54		ι Cygni - - -	36 59, 2	5, 2	50, 6	56, 2	5, 0	2, 3	38 37 1, 3	2, 2	+ 3, 4	+ 5, 1	..
55		Next division.	59, 6	5, 2	50, 7	55, 4	6, 4	1, 7	1, 3	2, 4	+ 3, 4	+ 5, 3	..
56		γ Aquilæ - - - R.	16 28, 0	37, 8	27, 7	25, 5	37, 0	35, 6	177 16 31, 9	32, 9	..	..	..
57		α..... - - - R.	29 48, 8	58, 4	47, 4	44, 5	58, 4	54, 4	175 29 52, 0	23, 6	..	..	..
58		β..... - - - R.	3 35, 3	46, 3	36, 2	33, 0	46, 3	42, 1	173 3 39, 9	40, 8	..	..	..
59		* Cygni, A.R. 20 ^h 0 ^m ,	37 48, 4	54, 2	48, 4	46, 4	54, 4	53, 0	38 37 50, 8	51, 3	+ 3, 6	+ 4, 8	..
60		Next division.	50, 0	55, 6	48, 6	46, 8	56, 6	51, 6	51, 5	52, 8	+ 3, 7	+ 5, 8	..

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	24 SEPT. 26	29, 80	56	51	* A.R. 20 ^h 43 ^m - -	41 57, 2	57, 4	59, 6	58, 8	58, 8	56, 2	38 41 58, 0	57, 3	F.S.
2	...	...	...	...	α Cephei - - -	6 57, 4	57, 7	0, 0	57, 2	57, 0	56, 8	28 6 57, 7	57, 6	,,
3	...	...	55	...	β Aquarii - - -	16 19, 7	19, 3	15, 5	16, 0	19, 7	20, 0	96 16 18, 4	19, 5	,,
4	...	...	...	...	β Cephei - - -	10 13, 0	11, 7	13, 3	14, 4	12, 3	14, 7	20 10 13, 2	12, 3	,,
5	...	...	...	...	.....	...	...	...	...	...	...	.....	...	,,
6	...	...	54	50	α Aquarii - - -	6 7, 3	7, 3	6, 7	3, 2	7, 8	10, 4	91 6 7, 1	7, 3	,,
7	...	...	...	...	.....	...	...	...	...	...	...	.....	...	,,
8	...	...	...	48	δ L. L. - - - cloudy,	20 37, 0	37, 8	32, 7	34, 2	40, 2	39, 6	102 20 36, 9	37, 4	,,
9	29, 78	...	52	47 $\frac{1}{2}$	.....	...	...	...	...	...	...	.....	...	,,
10	...	...	53	53	α Urs. Maj. - - -	21 15, 0	15, 1	17, 2	19, 0	16, 0	15, 8	27 21 16, 4	15, 1	H.
11	27	29, 76	55	56	$\odot$ L. L. - - -	53 1, 4	2, 0	2, 3	0, 0	4, 2	4, 8	91 53 2, 4	1, 7	R
12	...	29, 72	58	59	γ Draconis - - -	28 56, 2	56, 3	57, 9	56, 4	57, 6	57, 8	38 28 57, 0	56, 3	E
13	...	...	...	56	α Lyrae - - - R.	41 10, 8	10, 1	12, 0	12, 1	13, 2	10, 7	205 41 11, 5	10, 5	H.
14	...	...	...	...	β - - - R.	13 44, 0	42, 8	47, 1	44, 6	45, 1	45, 8	200 13 44, 0	43, 4	,,
15	...	...	...	...	ζ Aquilæ - - - R.	40 55, 8	52, 1	57, 1	59, 8	57, 7	56, 1	180 40 56, 4	54, 0	,,
16	...	...	56	54	δ Draconis - - - R.	24 51, 0	52, 2	54, 3	50, 0	50, 7	52, 8	234 24 51, 8	51, 6	,,
17	...	...	...	...	ϵ Cygni - - -	36 57, 0	55, 7	59, 0	56, 1	0, 1	57, 0	38 36 57, 5	56, 4	E.
18	...	...	...	...	Next division.	57, 1	56, 2	58, 7	57, 2	57, 3	58, 2	57, 5	56, 7	,,
19	...	...	...	...	γ Aquilæ - - - R.	16 29, 0	26, 2	28, 0	28, 6	30, 3	30, 6	177 16 28, 8	27, 6	H.
20	...	...	...	53	α - - - R.	29 50, 0	46, 1	47, 3	50, 2	52, 2	50, 2	175 29 49, 3	48, 1	,,
21	...	...	...	...	β - - - R.	3 38, 1	34, 3	37, 7	37, 4	36, 6	36, 3	173 3 36, 7	36, 2	,,
22	29, 70	...	55	52	* Cygni, A.R. 20 ^h 0 ^m ,	37 47, 3	44, 8	47, 7	47, 5	49, 7	46, 7	38 37 47, 3	46, 1	E.
23	...	...	...	...	Next division.	48, 0	45, 6	49, 1	47, 8	48, 0	49, 0	47, 9	46, 8	,,
24	...	...	...	...	* Cygni, A.R. 20 ^h 30 ^m ,	42 42, 7	41, 5	43, 7	44, 6	45, 8	46, 6	38 42 44, 2	42, 1	,,
25	...	...	...	...	Next division.	44, 4	43, 4	46, 2	43, 0	46, 1	44, 5	44, 6	43, 9	,,
26	...	...	...	...	* A.R. 20 ^h 43 ^m - -	41 57, 3	56, 2	58, 3	57, 8	59, 6	56, 4	38 41 57, 6	58, 8	,,
27	...	...	...	...	Next division.	57, 6	57, 6	58, 2	57, 4	59, 2	59, 0	58, 2	57, 6	,,
28	29, 69	...	...	...	* A.R. 20 ^h 55 ^m , faint,	30 30, 4	30, 6	31, 0	32, 0	33, 8	32, 7	38 30 31, 9	30, 5	,,
29	...	...	...	...	* A.R. 21 ^h 39 ^m - -	29 33, 7	35, 1	34, 6	34, 5	37, 0	35, 0	38 29 35, 0	34, 4	W.R.
30	29, 68	...	54	...	* A.R. 22 ^h 5 ^m - -	23 8, 0	7, 5	9, 2	5, 4	7, 8	9, 0	38 23 7, 8	7, 8	,,
31	...	...	...	...	3 Lacertæ - - -	35 58, 0	56, 4	57, 0	57, 4	58, 8	57, 3	38 35 57, 5	57, 2	,,
32	29, 65	...	53	50	δ L. L. - - -	54 53, 5	51, 8	49, 3	50, 2	55, 0	58, 0	97 54 53, 0	52, 7	E.
33	28	29, 56	55	51	61 ¹ Cygni - - -	3 22, 0	21, 0	24, 9	19, 8	22, 7	23, 9	52 3 22, 4	21, 5	R.
34	...	...	...	...	α Cephei - - - cloudy,	6 57, 2	57, 0	56, 8	58, 9	57, 9	56, 8	28 6 57, 4	57, 1	,,
35	29, 57	...	53	50	* A.R. 21 ^h 40 ^m - - faint,	29 33, 0	34, 0	34, 7	33, 2	34, 8	33, 2	38 29 33, 8	33, 5	,,
36	...	...	...	...	α Aquarii - - -	6 9, 3	7, 5	7, 3	6, 8	10, 6	7, 3	91 6 8, 1	8, 4	,,
37	...	...	...	...	* A.R. 22 ^h 5 ^m - -	23 7, 2	8, 2	8, 0	9, 2	8, 1	8, 4	38 23 8, 2	7, 7	,,
38	...	...	...	...	3 Lacertæ - - -	35 57, 5	56, 2	58, 9	56, 6	59, 7	57, 4	38 35 57, 7	56, 9	E.
39	29, 63	...	52	48	δ L. L. - - -	10 13, 3	15, 1	13, 8	11, 9	15, 8	12, 6	93 10 13, 8	14, 2	R.
40	29	30, 07	55	50	δ L. L. - - -	17 2, 0	5, 0	3, 4	2, 7	5, 7	1, 6	88 17 3, 4	3, 5	R.
41	...	30, 15	54	51	ζ Cent. - - -	52 36, 5	33, 1	36, 2	34, 3	38, 4	34, 1	77 52 35, 4	34, 8	T.
42	30	30, 16	57	57	$\odot$ U. L. - - -	31 5, 5	8, 8	2, 7	2, 0	8, 3	5, 7	92 31 5, 5	7, 2	H.
43	...	...	...	...	Polaris - S.P.	25 58, 5	58, 7	0, 0	59, 5	59, 2	58, 6	358 25 59, 1	58, 6	,,
44	30, 17	...	56	56	γ Draconis - - -	28 57, 0	56, 2	56, 5	57, 4	58, 2	57, 1	38 28 57, 1	56, 6	H.
45	...	...	56	54	α Lyrae - - -	21 25, 8	27, 2	26, 1	27, 0	27, 6	27, 3	51 21 26, 8	26, 5	T.
46	...	...	...	...	β - - -	48 52, 8	54, 1	57, 0	53, 8	55, 8	58, 3	56 48 55, 3	53, 5	,,
47	...	...	...	53	ζ Aquila - - -	21 42, 2	40, 1	42, 2	40, 7	40, 8	42, 2	76 21 41, 4	41, 2	,,
48	...	...	...	...	δ Draconis - - -	37 46, 0	44, 1	45, 5	47, 7	45, 0	47, 7	22 37 46, 0	45, 1	,,
49	...	...	...	...	ϵ Cygni - - -	36 57, 8	55, 5	56, 7	56, 6	58, 7	58, 0	38 36 57, 2	56, 7	E.
50	...	...	...	...	Next division.	56, 8	54, 6	58, 7	56, 0	57, 6	0, 4	57, 4	55, 7	,,
51	...	...	...	...	.....	...	...	...	...	...	...	.....	...	,,
52	...	...	55	52	α Aquilæ - - -	32 48, 0	49, 2	51, 2	48, 3	47, 8	50, 7	81 32 49, 2	48, 6	H.
53	...	...	...	...	β - - -	59 1, 2	3, 8	3, 0	0, 0	3, 7	4, 2	83 59 2, 6	2, 5	,,
54	...	...	...	...	* Cygni, A.R. 20 ^h 0 ^m ,	37 46, 8	45, 2	47, 0	46, 0	49, 1	46, 8	38 37 46, 8	46, 0	E.
55	...	...	...	...	Next division.	47, 2	46, 2	47, 5	46, 7	48, 0	49, 0	47, 4	46, 7	,,
56	...	...	...	...	* Cygni, A.R. 20 ^h 31 ^m ,	42 42, 7	41, 0	43, 3	44, 4	45, 8	42, 5	38 42 43, 3	41, 9	,,
57	...	...	...	...	Next division.	43, 2	44, 5	45, 0	43, 5	47, 0	44, 8	44, 7	43, 9	,,
58	...	...	...	51	* A.R. 20 ^h 43 ^m - -	41 57, 3	55, 4	57, 7	56, 8	59, 3	58, 8	38 41 57, 2	56, 4	,,
59	...	...	...	...	Next division.	57, 0	57, 8	58, 5	55, 8	59, 8	59, 5	58, 1	57, 4	,,

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton.		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	24 SEPT. 26	* A. R. 20 ^h 43 ^m 44 ^s -	42 0, 6	4, 2	0, 6	58, 5	5, 2	5, 0	38 42 2, 4	2, 4	+ 4, 4	+ 5, 1	R.
2		α Cephei - - -	7 0, 6	3, 6	0, 7	0, 1	3, 2	4, 6	28 7 2, 0	2, 1	+ 4, 3	+ 4, 5	,,
3		β Aquarii - - -	16 21, 2	23, 4	20, 5	22, 6	23, 8	25, 7	96 16 22, 9	22, 3	+ 4, 5	+ 2, 8	,,
4		β Cephei - - -	10 16, 8	17, 2	13, 3	14, 9	20, 5	19, 8	20 10 17, 1	17, 0	+ 3, 9	+ 4, 7	,,
5		* A. R. 21 ^h 39 ^m , cloudy,	29 36, 2	40, 0	36, 5	35, 2	42, 2	40, 6	38 29 38, 5	38, 1	..	..	,,
6		α Aquarii - - -	6 10, 2	12, 2	8, 1	12, 3	11, 6	11, 2	91 6 10, 9	11, 2	+ 3, 8	+ 3, 9	,,
7		3 Lacertæ - - -	36 0, 8	4, 4	0, 2	58, 3	6, 2	3, 9	38 36 2, 3	2, 6	..	..	,,
8		.....	..	..	..	..	..	..	.....	..	..	..	,,
9		γ Centre - - -	47 48, 2	44, 6	43, 5	44, 2	48, 7	50, 6	76 47 46, 6	46, 4	..	..	,,
10		α Urs. Maj. - - -	21 19, 3	23, 7	18, 7	16, 5	23, 1	21, 8	27 21 20, 5	21, 5	+ 4, 1	+ 6, 4	,,
11	27	$\odot$ U. L. - - -	21 5, 6	9, 0	2, 6	6, 3	10, 8	9, 0	91 21 7, 2	7, 3	..	..	W. R.
12		γ Draconis - - -	28 57, 5	3, 2	0, 1	56, 9	3, 2	0, 2	38 29 0, 2	0, 4	+ 3, 2	+ 4, 1	R.
13		α Lyrae - - -	21 32, 0	31, 0	31, 4	31, 8	35, 7	34, 0	51 21 32, 7	31, 5	..	..	,,
14		β - - -	48 58, 7	56, 5	54, 8	56, 5	2, 3	2, 0	56 48 58, 5	57, 6	..	..	,,
15		ζ Aquilæ - - -	21 45, 6	44, 8	43, 5	43, 6	47, 2	47, 8	76 21 45, 4	45, 2	..	..	,,
16		δ Draconis - - -	37 50, 4	50, 0	49, 1	47, 5	54, 2	51, 0	22 37 50, 4	50, 2	..	..	,,
17		ι Cygni - - -	37 1, 2	4, 3	1, 1	59, 6	5, 9	4, 6	38 37 2, 8	2, 8	+ 5, 3	+ 6, 4	,,
18		Next division.	1, 4	4, 1	1, 7	58, 5	6, 8	2, 8	..	2, 6	+ 5, 1	+ 6, 1	,,
19		γ Aquilæ - - -	46 14, 3	12, 0	9, 0	13, 2	17, 0	13, 6	79 46 13, 2	13, 1	..	..	,,
20		α - - -	32 54, 2	52, 6	51, 1	52, 3	54, 3	55, 2	81 32 53, 3	53, 4	..	..	,,
21		β - - -	59 8, 0	5, 0	3, 6	5, 2	9, 0	8, 6	83 59 6, 6	6, 5	..	..	,,
22		* Cygni, A. R. 20 ^h 0 ^m ,	37 51, 5	53, 2	50, 8	49, 6	54, 2	53, 0	38 37 52, 1	52, 4	+ 4, 8	+ 6, 3	,,
23		Next division.	50, 6	53, 8	50, 2	48, 2	56, 5	53, 2	..	52, 1	+ 4, 2	+ 5, 4	,,
24		* Cygni, A. R. 20 ^h 31 ^m ,	42 49, 0	50, 2	47, 2	46, 3	51, 6	49, 1	38 42 48, 9	49, 6	+ 4, 7	+ 7, 5	,,
25		Next division.	48, 2	51, 6	48, 4	45, 2	53, 2	48, 6	..	49, 2	+ 4, 6	+ 6, 0	,,
26		* A. R. 20 ^h 43 ^m - -	42 1, 6	4, 6	59, 8	59, 0	5, 2	3, 6	38 42 2, 2	3, 1	+ 4, 6	+ 4, 3	,,
27		Next division.	1, 6	5, 0	0, 8	57, 6	6, 3	3, 4	..	2, 5	+ 4, 3	+ 5, 7	,,
28		.....	..	..	..	..	..	..	.....	..	..	..	,,
29		.....	..	..	..	..	..	..	.....	..	..	..	,,
30		.....	..	..	..	..	..	..	.....	..	..	..	,,
31		.....	..	..	..	..	..	..	.....	..	..	..	,,
32		.....	..	..	..	..	..	..	.....	..	..	..	,,
33	28	.....	..	..	..	..	..	..	.....	..	..	..	
34		.....	..	..	..	..	..	..	.....	..	..	..	
35		.....	..	..	..	..	..	..	.....	..	..	..	
36		.....	..	..	..	..	..	..	.....	..	..	..	
37		.....	..	..	..	..	..	..	.....	..	..	..	
38		.....	..	..	..	..	..	..	.....	..	..	..	
39		.....	..	..	..	..	..	..	.....	..	..	..	
40	29	.....	..	..	..	..	..	..	.....	..	..	..	
41		.....	..	..	..	..	..	..	.....	..	..	..	
42	30	.....	..	..	..	..	..	..	.....	..	..	..	
43		Polaris, - S.P.	26 5, 7	59, 5	55, 8	1, 0	2, 4	7, 6	358 26 2, 0	2, 6	+ 2, 9	+ 4, 0	W. R.
44		γ Draconis - - -	28 58, 5	1, 6	59, 0	55, 7	3, 6	0, 9	38 28 59, 0	0, 1	+ 2, 8	+ 3, 3	R.
45		α Lyrae - - - R.	41 14, 2	17, 8	12, 2	9, 8	20, 5	17, 8	205 41 15, 4	16, 0	..	..	,,
46		β - - - R.	13 43, 8	50, 2	42, 7	43, 0	53, 2	50, 5	200 13 47, 2	47, 0	..	..	,,
47		ζ Aquilæ - - -	21 46, 0	45, 0	40, 8	43, 6	47, 5	48, 6	76 21 45, 3	45, 5	+ 3, 9	+ 4, 3	W. R.
48		δ Draconis - - - R.	24 54, 0	59, 2	46, 5	46, 2	4, 5	3, 2	234 24 55, 6	56, 6	..	..	,,
49		ι Cygni - - -	37 1, 0	3, 2	58, 5	56, 0	4, 6	2, 8	38 37 1, 0	2, 1	+ 3, 8	+ 5, 4	,,
50		Next division.	0, 6	3, 0	57, 8	56, 2	5, 5	2, 8	..	1, 0	+ 3, 6	+ 6, 1	,,
51		γ Aquilæ - - - R.	16 28, 4	36, 0	27, 7	26, 0	37, 2	35, 6	177 16 31, 8	32, 2	..	..	,,
52		α - - - R.	29 50, 0	58, 2	48, 7	47, 2	59, 0	55, 3	175 29 53, 1	54, 1	..	..	,,
53		β - - - R.	3 35, 5	45, 0	35, 6	34, 2	47, 4	42, 2	173 3 40, 0	40, 3	..	..	,,
54		* Cygni, A. R. 20 ^h 0 ^m ,	37 49, 2	52, 6	47, 8	46, 2	53, 0	51, 4	38 37 50, 0	50, 9	+ 3, 2	+ 4, 9	,,
55		Next division.	50, 4	53, 2	48, 5	46, 2	55, 6	52, 3	..	50, 7	+ 3, 3	+ 5, 1	,,
56		* Cygni, A. R. 20 ^h 31 ^m ,	42 45, 6	49, 8	44, 5	43, 5	50, 2	48, 2	38 42 47, 0	47, 7	+ 3, 7	+ 5, 8	,,
57		Next division.	40, 0	50, 4	44, 6	43, 3	51, 6	48, 0	..	47, 4	+ 2, 7	+ 4, 6	,,
58		* A. R. 20 ^h 43 ^m - -	42 0, 0	2, 6	58, 6	57, 5	2, 7	6, 2	38 42 1, 3	1, 3	+ 4, 1	+ 4, 9	R.
59		Next division.	0, 2	3, 2	59, 2	56, 6	0, 4	0, 5	..	1, 0	+ 2, 9	+ 4, 3	,,

* The eye-piece of the Circle telescope was taken to Mr. JONES, for repairs and new wires.

In the Year M.DCCC.XXXIII.

TROUGHTON.

	DAY of the MONTH.	Barom ^r	Thermom ^r		Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Ob- servers.
			In.	Out.		A	B	C	D	E	F			
1	1 SEPT. 30	30, 17	55	50	61 ¹ Cygni - - - R.	59 16, 4	15, 2	16, 2	17, 3	16, 3	15, 0	204 59 16, 1	15, 8	F.S.
2	...	...	..	49	α Cephei - - - R.	55 41, 2	42, 2	40, 7	41, 2	42, 5	41, 3	228 55 41, 5	41, 7	, ,
3	...	...	..	..	β Aquarii - - -	16 19, 3	18, 8	15, 8	15, 2	20, 0	19, 7	96 16 18, 1	19, 0	, ,
4	...	30, 18	..	..	γ - - - - -	49 13, 7	11, 8	10, 3	10, 0	13, 3	14, 2	105 49 12, 2	12, 7	, ,
5	...	...	..	..	* A.R. 21 ^h 39 ^m - -	29 33, 4	33, 4	35, 2	33, 3	36, 0	35, 2	38 29 34, 4	33, 4	E.
6	...	...	..	..	α Aquarii - - -	6 9, 0	6, 2	7, 0	5, 3	9, 0	7, 4	91 6 7, 3	7, 6	F.S.
7	...	...	..	..	* A.R. 22 ^h 5 ^m - -	23 7, 6	5, 4	6, 5	8, 2	9, 2	8, 4	38 23 7, 6	6, 5	E.
8	...	...	..	..	Next division.	8, 0	5, 8	8, 4	6, 8	8, 0	10, 6	7, 9	6, 9	, ,
9	...	...	..	..	3 Lacertæ - - -	35 56, 8	55, 6	58, 3	56, 2	58, 4	57, 5	38 35 57, 1	56, 2	, ,
10	...	...	..	..	28 ¹ Cephei - - - R.	58 36, 0	37, 3	40, 0	36, 0	36, 3	38, 0	244 58 37, 3	36, 6	F.S.

Observations of NORTH POLAR DISTANCE.

33

In the Year M.DCCC.XXXIII.

JONES.

	DAY of the MONTH.	Names of STARS.	MICROSCOPES						Mean of 6 Microscopes.	Mean of 2 Mic.	Diff. of Jones from Troughton		Ob- servers.
			A	B	C	D	E	F			6 Mic.	2 Mic.	
1	10 SEPT. 30	61 ¹ Cygni - - -	3 24, 5	25, 5	21, 5	21, 2	29, 3	25, 8	52 3 24, 6	25, 0	..	..	R.
2		α Cephei - - -	6 58, 6	1, 4	58, 2	57, 6	5, 2	0, 7	28 7 0, 3	0, 0	..	..	,,
3		β Aquarii - - -	16 21, 2	22, 2	20, 6	21, 5	23, 2	23, 8	96 16 22, 1	21, 7	+ 4, 0	+ 2, 7	,,
4		γ - - -	49 13, 5	16, 5	14, 2	14, 6	17, 8	14, 6	105 49 15, 2	15, 0	+ 3, 0	+ 2, 3	,,
5		* A. R. 21 ^h 39 ^m - -	29 35, 0	39, 0	33, 1	32, 7	40, 6	37, 8	38 29 36, 4	37, 0	+ 2, 0	+ 3, 6	,,
6		α Aquarii - - -	6 11, 2	13, 4	8, 7	10, 6	11, 9	11, 0	91 6 11, 1	12, 3	+ 3, 8	+ 4, 7	,,
7		* A. R. 22 ^h 5 ^m - -	23 10, 6	11, 6	8, 6	7, 0	13, 6	10, 5	38 23 10, 5	11, 1	+ 2, 9	+ 4, 6	,,
8		Next division.	9, 8	12, 7	9, 3	5, 8	15, 3	10, 7	10, 6	11, 2	+ 2, 7	+ 4, 3	,,
9		3 Lacertæ - - -	36 0, 2	3, 2	0, 0	6, 1	5, 2	2, 6	38 36 2, 9	1, 7	+ 5, 8	+ 5, 5	,,
10		28 ¹ Cephei - - -	4 7, 2	5, 0	2, 5	3, 6	8, 4	8, 3	12 4 7, 0	6, 1	..	..	,,

ALTITUDES OF STARS WITH SIX MICROSCOPES.

1833	Names of STARS	R.	D.	R—D.	R—D. 2.	$\frac{1}{2}$ Mean Diff.	Altitude.	Horizontal Point, T.	Horizontal Point, J.
July		° ' "	° ' "	° ' "	° ' "	"	° ' "	° ' "	° ' "
1	α Cor. Bor.	J 194 20 8, 0	T 62 42 28, 3	131 37 39, 7	65 48 49, 85	-1, 07	65 48 48, 78	128 31 17, 08	128 31 19, 22
2	α Cor. Bor.	T 194 20 5, 5	J 62 42 30, 2	131 37 35, 3	65 48 47, 65	+1, 07	65 48 48, 72	 16, 78	 18, 92
..	α Herculis	T 181 38 40, 5	J 75 23 54, 6	106 14 45, 9	53 7 22, 95	+1, 07	53 7 24, 02	 16, 48	 18, 62
3	α Herculis	J 181 38 43, 1	T 75 23 53, 5	106 14 49, 6	53 7 24, 80	-1, 07	53 7 23, 73	 17, 23	 19, 37
..	α Ophiuchi,	J 179 44 47, 7	T 77 17 46, 9	102 27 0, 8	51 13 30, 40	-1, 07	51 13 29, 33	 16, 23	 18, 37
..	α Lyrae -	J 205 40 57, 1	T 51 21 39, 7	154 19 17, 4	77 9 38, 70	-1, 07	77 9 37, 63	 17, 33	 19, 47
5	δ Urs. Min.	J 253 37 19, 0	T 3 25 16, 6	250 12 2, 4	125 6 1, 20	-1, 07	125 6 0, 13	 16, 73	 18, 87
..	α Lyrae -	J 205 40 57, 9	T 51 21 39, 7	154 19 18, 2	77 9 39, 10	-1, 07	77 9 38, 03	 17, 73	 19, 87
..	δ Draconis,	J 240 55 42, 0	T 16 6 54, 3	224 48 47, 7	112 24 23, 85	-1, 07	112 24 22, 78	 17, 08	 19, 22
6	Arcturus,	J 187 6 38, 4	T 69 55 57, 9	117 10 40, 5	58 35 20, 25	-1, 07	58 35 19, 18	 17, 08	 19, 22
..	β Urs. Min.	J 241 52 51, 7	T 15 9 48, 0	226 43 3, 7	113 21 31, 85	-1, 07	113 21 30, 78	 18, 78	 20, 92
..	α Cor. Bor.	J 194 20 7, 9	T 62 42 29, 8	131 37 38, 1	65 48 49, 05	-1, 07	65 48 47, 98	 17, 78	 19, 92
..	α Serpentis,	J 174 1 2, 9	T 83 1 35, 0	90 59 27, 9	45 29 43, 95	-1, 07	45 29 42, 88	 17, 88	 20, 02
..	α Herculis	T 181 38 40, 1	J 75 23 56, 8	106 14 43, 3	53 7 21, 65	+1, 07	53 7 22, 72	 17, 38	 19, 52
..	α Ophiuchi,	T 179 44 47, 1	J 77 17 49, 9	102 26 57, 2	51 13 28, 60	+1, 07	51 13 29, 67	 17, 43	 19, 57
..	α Lyrae -	T 205 40 56, 1	J 51 21 40, 8	154 19 15, 3	77 9 37, 65	+1, 07	77 9 38, 72	 17, 38	 19, 52
9	β Urs. Min.	J 241 52 50, 7	T 15 9 47, 2	226 43 3, 5	113 21 31, 75	-0, 80	113 21 30, 95	 18, 15	 19, 75
..	α Cor. Bor.	T 194 20 6, 2	J 62 42 29, 9	131 37 36, 3	65 48 48, 15	+0, 80	65 48 48, 95	 17, 25	 18, 85
..	α Serpentis,	T 174 1 3, 1	J 83 1 34, 0	90 59 29, 1	45 29 44, 55	+0, 80	45 29 45, 35	 17, 75	 19, 35
..	α Ophiuchi,	T 179 44 48, 3	J 77 17 46, 0	102 27 2, 3	51 13 31, 15	+0, 80	51 13 31, 95	 16, 35	 17, 95
..	β Lyrae -	T 200 13 30, 6	J 56 49 6, 8	143 24 23, 8	71 42 11, 90	+0, 80	71 42 12, 70	 17, 90	 19, 50
10	β Urs. Min.	T 241 52 49, 2	J 15 9 48, 9	226 43 0, 3	113 21 30, 15	+0, 80	113 21 30, 95	 18, 25	 19, 85
..	α Cor. Bor.	T 194 20 7, 0	J 62 42 30, 1	131 37 36, 9	65 48 48, 45	+0, 80	65 48 49, 25	 17, 75	 19, 35
..	δ Draconis,	T 236 10 21, 7	J 20 52 17, 8	215 18 3, 9	107 39 1, 95	+0, 80	107 39 2, 75	 18, 95	 20, 55
..	α Herculis	T 181 38 40, 3	J 75 23 56, 6	106 14 43, 7	53 7 21, 85	+0, 80	53 7 22, 65	 17, 65	 19, 25
15	β Urs. Min.	J 241 52 51, 8	T 15 9 45, 8	226 43 6, 0	113 21 33, 00	-1, 30	113 21 31, 70	 17, 50	 20, 10
..	α Cor. Bor.	J 194 20 10, 0	T 62 42 27, 8	131 37 42, 2	65 48 51, 10	-1, 30	65 48 49, 80	 17, 60	 20, 20
..	α Serpentis,	J 174 1 5, 5	T 83 1 32, 2	90 59 33, 3	45 29 46, 65	-1, 30	45 29 45, 35	 17, 55	 20, 15
..	δ Draconis,	J 232 26 7, 9	T 24 36 29, 7	207 49 38, 2	103 54 49, 10	-1, 30	103 54 47, 80	 17, 50	 20, 10
..	α Herculis	J 181 38 44, 3	T 75 23 53, 1	106 14 51, 2	53 7 25, 60	-1, 30	53 7 24, 30	 17, 40	 20, 00
..	α Ophiuchi,	J 179 44 50, 1	T 77 17 45, 7	102 27 4, 4	51 13 32, 20	-1, 30	51 13 30, 90	 16, 60	 19, 20
..	δ Urs. Min.	J 253 37 22, 9	T 3 25 14, 3	250 12 8, 6	125 6 4, 30	-1, 30	125 6 3, 00	 17, 30	 19, 90
..	α Lyrae -	J 205 41 0, 4	T 51 21 31, 3	154 19 24, 1	77 9 42, 05	-1, 30	77 9 40, 75	 17, 05	 19, 65
..	β	J 200 13 32, 9	T 56 49 5, 4	143 24 27, 5	71 42 13, 75	-1, 30	71 42 12, 45	 17, 85	 20, 45
16	α Herculis	T 181 38 42, 6	J 75 23 55, 0	106 14 47, 6	53 7 23, 80	+0, 96	53 7 24, 76	 17, 84	 19, 76
..	α Ophiuchi,	T 179 44 49, 0	J 77 17 47, 9	102 27 1, 1	51 13 30, 55	+0, 96	51 13 31, 51	 17, 49	 19, 41
22	α Ophiuchi,	J 179 44 52, 7	T 77 17 47, 3	102 27 5, 4	51 13 32, 70	-0, 96	51 13 31, 74	 19, 04	 20, 96
..	δ Draconis,	J 235 52 41, 2	T 21 9 56, 4	214 42 44, 8	107 21 22, 40	-0, 96	107 21 21, 44	 17, 84	 19, 76
..	α Lyrae -	J 205 41 3, 2	T 51 21 36, 5	154 19 26, 7	77 9 43, 35	-0, 96	77 9 42, 39	 18, 89	 20, 81
..	β	J 200 13 34, 7	T 56 49 3, 5	143 24 31, 2	71 42 15, 60	-0, 96	71 42 14, 64	 18, 14	 20, 06
..	δ Draconis,	J 234 24 39, 5	T 22 37 59, 8	211 46 39, 7	105 53 19, 85	-0, 96	105 53 18, 89	 18, 69	 20, 61
..	γ Aquilæ	J 177 16 23, 5	T 79 46 15, 9	97 30 7, 6	48 45 3, 80	-0, 96	48 45 2, 84	 18, 74	 20, 66
23	α Ophiuchi,	T 179 44 50, 9	J 77 17 46, 7	102 27 4, 2	51 13 32, 10	+0, 72	51 13 32, 82	 18, 08	 19, 52
..	β Lyrae -	T 200 13 35, 5	J 56 49 3, 8	143 24 31, 7	71 42 15, 85	+0, 72	71 42 16, 57	 18, 93	 20, 37
..	ζ Aquilæ	T 180 40 48, 9	J 76 21 47, 6	104 19 1, 3	52 9 30, 65	+0, 72	52 9 31, 37	 17, 53	 18, 97
..	γ	T 177 16 23, 5	J 79 46 14, 2	97 30 9, 3	48 45 4, 65	+0, 72	48 45 5, 37	 18, 13	 19, 57
..	α	T 175 29 43, 4	J 81 32 55, 5	93 56 47, 9	46 58 23, 95	+0, 72	46 58 24, 67	 18, 73	 20, 17
..	β	T 173 3 32, 5	J 83 59 6, 6	89 4 25, 9	44 32 12, 95	+0, 72	44 32 13, 67	 18, 83	 20, 27
24	ϵ Urs. Min.	T 249 20 10, 6	J 7 42 21, 8	241 37 54, 8	120 48 57, 40	+0, 72	120 48 58, 12	 18, 48	 19, 92
..	α Lyrae -	J 205 41 3, 8	T 51 21 34, 7	154 19 29, 1	77 9 44, 55	-0, 72	77 9 43, 83	 18, 53	 19, 97
..	β	J 200 13 35, 4	T 56 49 3, 8	143 24 31, 6	71 42 15, 80	-0, 72	71 42 15, 08	 18, 88	 20, 32
..	ζ Aquilæ	J 180 40 50, 5	T 76 21 45, 9	104 19 4, 6	52 9 32, 30	-0, 72	52 9 31, 58	 17, 48	 18, 92
25	ϵ Urs. Min.	J 249 20 20, 0	T 7 42 18, 2	241 38 1, 8	120 49 0, 90	-1, 10	120 48 59, 80	 18, 00	 20, 20
..	α Ophiuchi,	J 179 44 51, 8	T 77 17 45, 7	102 27 6, 1	51 13 33, 05	-1, 10	51 13 31, 95	 17, 65	 19, 85
..	δ Urs. Min.	J 253 37 20, 9	T 3 25 11, 2	250 12 18, 7	125 6 9, 35	-1, 10	125 6 8, 25	 19, 45	 21, 65
..	α Lyrae -	J 205 41 4, 4	T 51 21 34, 5	154 19 29, 9	77 9 44, 95	-1, 10	77 9 43, 85	 18, 35	 20, 55
..	β	J 200 13 36, 0	T 56 49 3, 2	143 24 32, 8	71 42 16, 40	-1, 10	71 42 15, 30	 18, 50	 20, 70
..	ζ Aquilæ	T 180 40 48, 6	J 76 21 48, 3	104 19 0, 3	52 9 30, 15	+1, 10	52 9 31, 25	 17, 35	 19, 55
..	δ Draconis,	T 234 24 37, 8	J 22 38 1, 7	211 46 36, 1	105 53 18, 05	+1, 10	105 53 19, 15	 18, 65	 20, 85
..	γ Aquilæ	T 177 16 22, 9	J 79 46 15, 8	97 30 7, 1	48 45 3, 55	+1, 10	48 45 4, 65	 18, 25	 20, 45
26	α Ophiuchi,	T 179 44 50, 4	J 77 17 46, 9	102 27 3, 5	51 13 31, 75	+1, 10	51 13 32, 85	 17, 55	 19, 75
..	δ Urs. Min.	T 253 37 26, 4	J 3 25 12, 8	250 12 13, 6	125 6 6, 80	+1, 10	125 6 7, 90	 18, 50	 20, 70
..	α Lyrae -	T 205 41 2, 6	J 51 21 35, 9	154 19 26, 7	77 9 43, 35	+1, 10	77 9 44, 45	 18, 15	 20, 35
26	α Ophiuchi,	J 179 44 53, 4	T 17 7 46, 1	102 27 7, 3	51 13 33, 65	-0, 80	51 13 32, 85	 18, 95	 20, 55
..	δ Urs. Min.	J 253 37 24, 9	T 3 25 10, 6	250 12 14, 3	125 6 7, 15	-0, 80	125 6 6, 35	 16, 95	 18, 55
..	α Lyrae -	J 205 41 4, 9	T 51 21 34, 1	154 19 30, 8	77 9 45, 40	-0, 80	77 9 44, 60	 18, 70	 20, 30
..	β	J 200 13 36, 7	T 56 49 2, 8	143 24 33, 9	71 42 16, 95	-0, 80	71 42 16, 15	 18, 95	 20, 55
..	ζ Aquilæ	J 180 40 52, 7	T 76 21 46, 5	104 19 6, 2	52 9 33, 10	-0, 80	52 9 32, 30	 18, 80	 20, 40
..	δ Draconis,	J 234 24 41, 2	T 22 37 58, 7	211 46 42, 5	105 53 21, 25	-0, 80	105 53 20, 45	 19, 15	 20, 75
..	γ Aquilæ	J 177 16 24, 6	T 79 46 13, 2	97 30 11, 4	48 45 5, 70	-0, 80	48 45 4, 90	 18, 10	 19, 70

Altitudes of Stars—continued.

1833	Names of STARS	R.	D.	R—D.	R—D. 2.	Mean Diff.	Altitude.	Horizontal Point, T.	Horizontal Point, J.
		° ' "	° ' "	° ' "	° ' "	"	° ' "	° ' "	° ' "
July									
29	α Aquilæ -	J 175 29 44, 5	T 81 32 53, 0	93 56 51, 5	46 58 25, 75	-0, 80	46 58 24, 95	128 31 17, 95	128 31 19, 55
..	β.....	J 173 3 32, 6	T 83 59 5, 6	89 4 27, 0	44 32 13, 50	-0, 80	44 32 12, 70	 18, 30	 19, 90
30	α Herculis -	T 181 38 44, 7	J 75 23 52, 0	106 14 52, 7	53 7 26, 35	+0, 64	53 7 26, 99	 17, 71	 18, 99
..	α Ophiuchi,	T 179 44 50, 3	J 77 17 44, 8	102 27 5, 5	51 13 32, 75	+0, 64	51 13 33, 39	 16, 91	 18, 19
31	α Ophiuchi,	J 179 44 53, 3	T 77 17 43, 9	102 27 9, 4	51 13 34, 70	-0, 64	51 13 34, 06	 17, 96	 19, 24
..	δ Urs. Min.	J 253 37 24, 7	T 3 25 9, 8	250 12 14, 9	125 6 7, 45	-0, 64	125 6 6, 81	 16, 61	 17, 89
..	α Lyrae -	J 205 41 3, 0	T 51 21 32, 8	154 19 30, 2	77 9 45, 10	-0, 64	77 9 44, 46	 17, 26	 18, 54
..	δ Draconis,	T 234 24 39, 1	J 22 37 59, 3	211 46 40, 6	105 53 20, 30	+0, 64	105 53 20, 94	 18, 96	 20, 24
..	γ Aquilæ -	T 177 16 24, 3	J 79 46 13, 7	97 30 10, 6	48 45 5, 30	+0, 64	48 45 5, 94	 18, 36	 19, 64
..	α.....	T 175 29 42, 7	J 81 32 53, 1	93 56 49, 6	46 58 24, 80	+0, 64	46 58 25, 44	 17, 26	 18, 54
..	β.....	T 173 3 34, 3	J 83 59 5, 4	89 4 28, 9	44 32 14, 45	+0, 64	44 32 15, 09	 19, 21	 20, 49
Aug.									
1	α Herculis -	J 181 38 46, 4	T 75 23 51, 8	106 14 54, 6	53 7 27, 30	-1, 37	53 7 25, 93	 17, 73	 20, 47
..	α Ophiuchi,	J 179 44 52, 7	T 77 17 43, 7	102 27 9, 0	51 13 34, 50	-1, 37	51 13 33, 13	 16, 83	 19, 57
..	β Lyrae -	J 200 13 37, 3	T 56 49 1, 0	143 24 36, 3	71 42 18, 15	-1, 37	71 42 16, 78	 17, 78	 20, 52
..	ζ Aquilæ -	J 180 40 52, 8	T 76 21 44, 9	104 19 7, 9	52 9 33, 95	-1, 37	52 9 32, 58	 17, 48	 20, 22
..	δ Draconis,	J 234 24 41, 1	T 22 37 58, 4	211 46 42, 7	105 53 21, 35	-1, 37	105 53 19, 98	 18, 38	 21, 12
..	γ Aquilæ -	J 177 16 25, 8	T 79 46 12, 1	97 30 13, 7	48 45 6, 85	-1, 37	48 45 5, 48	 17, 58	 20, 32
..	α.....	J 175 29 43, 6	T 81 32 51, 2	93 56 52, 4	46 58 26, 20	-1, 37	46 58 24, 83	 16, 03	 18, 77
..	β.....	J 173 3 34, 0	T 83 59 3, 6	89 4 30, 4	44 32 15, 20	-1, 37	44 32 13, 83	 17, 43	 20, 17
3	α Herculis -	J 181 38 47, 0	T 75 23 50, 3	106 14 56, 7	53 7 28, 35	-1, 37	53 7 26, 98	 17, 28	 20, 02
..	α Ophiuchi,	J 179 44 53, 7	T 77 17 42, 8	102 27 10, 9	51 13 35, 45	-1, 37	51 13 34, 08	 16, 88	 19, 62
..	β Lyrae -	T 200 13 37, 4	J 56 49 0, 9	143 24 36, 5	71 42 18, 25	+1, 37	71 42 19, 62	 17, 78	 20, 52
..	ζ Aquilæ -	T 180 40 51, 6	J 76 21 44, 8	104 19 6, 8	52 9 33, 40	+1, 37	52 9 34, 77	 16, 83	 19, 57
6	α Herculis -	T 181 38 44, 9	J 75 23 52, 1	106 14 52, 8	53 7 26, 40	+1, 67	53 7 28, 07	 16, 83	 20, 17
..	α Ophiuchi,	T 179 44 53, 0	J 77 17 44, 6	102 27 8, 4	51 13 34, 20	+1, 67	51 13 35, 87	 17, 13	 20, 47
..	γ Aquilæ -	J 177 16 25, 7	T 79 46 10, 0	97 30 15, 7	48 45 7, 85	-1, 67	48 45 6, 18	 16, 18	 19, 52
..	α.....	J 175 29 46, 2	T 81 32 49, 5	93 56 56, 7	46 58 28, 35	-1, 67	46 58 26, 68	 16, 58	 19, 92
..	β.....	J 173 3 34, 3	T 83 59 2, 2	89 4 32, 1	44 32 16, 05	-1, 67	44 32 14, 38	 18, 03	 21, 37
9	β Lyrae -	T 200 13 38, 4	J 56 49 1, 0	143 24 37, 4	71 42 18, 70	+1, 67	71 42 20, 37	 17, 88	 21, 22
..	δ Draconis,	T 242 16 28, 5	J 14 46 10, 6	227 30 17, 9	113 45 8, 95	+1, 67	113 45 10, 62	 17, 78	 21, 12
..	ζ Aquilæ -	T 180 40 52, 1	J 76 21 46, 8	104 19 5, 3	52 9 32, 65	+1, 67	52 9 34, 32	 17, 73	 21, 07
..	δ Draconis,	T 234 24 42, 1	J 22 37 56, 7	211 46 45, 4	105 53 22, 70	+1, 67	105 53 21, 37	 17, 58	 20, 92
..	γ Aquilæ -	T 177 16 24, 8	J 79 46 13, 7	97 30 11, 1	48 45 5, 55	+1, 67	48 45 7, 22	 17, 28	 20, 62
..	α.....	T 175 29 43, 6	J 81 32 51, 3	93 56 49, 3	46 58 24, 65	+1, 67	46 58 26, 32	 18, 58	 21, 92
..	β.....	T 173 3 33, 7	J 83 59 6, 8	89 4 26, 9	44 32 13, 45	+1, 67	44 32 15, 12	 17, 10	 21, 20
10	β Lyrae -	J 200 13 39, 6	T 56 48 58, 7	143 24 40, 9	71 42 20, 45	-2, 05	71 42 18, 40	 16, 70	 20, 80
12	ζ Aquilæ -	T 180 40 51, 7	J 76 21 45, 8	104 19 5, 9	52 9 32, 95	+2, 05	52 9 35, 00	 17, 50	 21, 60
..	δ Draconis,	T 234 24 42, 5	J 22 37 56, 6	211 46 45, 9	105 53 22, 95	+2, 05	105 53 25, 00	 16, 70	 20, 80
13	α Lyrae -	J 205 41 8, 5	J 51 21 29, 0	154 19 39, 5	77 9 49, 75	-2, 05	77 9 47, 70	 16, 20	 20, 30
..	α Herculis,	J 187 27 0, 9	T 69 35 35, 6	117 51 25, 3	58 55 42, 65	-2, 05	58 55 40, 60	 16, 80	 20, 90
..	β Lyrae -	J 200 13 40, 1	T 56 48 57, 6	143 24 42, 5	71 42 21, 25	-2, 05	71 42 19, 20	 15, 95	 20, 05
..	ζ Aquilæ -	J 180 40 53, 9	T 76 21 42, 1	104 19 11, 8	52 9 35, 90	-2, 05	52 9 33, 85	 16, 85	 20, 95
..	δ Draconis,	J 234 24 46, 1	T 22 37 51, 7	211 46 54, 4	105 53 27, 20	-2, 05	105 53 25, 15	 15, 60	 19, 70
..	γ Aquilæ -	J 177 16 24, 4	T 79 46 10, 9	97 30 13, 5	48 45 6, 75	-2, 05	48 45 4, 70	 15, 50	 19, 60
..	α.....	J 175 29 45, 7	T 81 32 49, 4	93 56 56, 3	46 58 28, 15	-2, 05	46 58 26, 10	 17, 30	 21, 40
..	β.....	J 173 3 35, 2	T 83 59 3, 5	89 4 31, 7	44 32 15, 35	-2, 05	44 32 13, 80	 16, 55	 20, 65
..	α Cygni -	J 211 44 12, 8	T 45 18 24, 4	166 25 48, 4	83 12 51, 20	-2, 05	83 12 52, 15	 16, 07	 21, 03
14	ζ Lyrae -	T 204 29 14, 6	J 52 33 22, 5	151 55 52, 1	75 57 50, 05	+2, 48	75 57 58, 53	 16, 32	 21, 28
..	β.....	T 200 13 37, 6	J 56 49 0, 0	143 24 37, 6	71 42 18, 80	+2, 48	71 42 21, 28	 16, 77	 21, 73
..	δ Draconis,	T 240 55 51, 0	J 16 6 47, 5	224 49 3, 5	112 24 31, 75	+2, 48	112 24 34, 23	 16, 02	 20, 98
..	ζ Aquilæ -	T 180 40 50, 9	J 76 21 46, 1	104 19 4, 8	52 9 32, 40	+2, 48	52 9 34, 88	 16, 42	 21, 38
..	δ Draconis,	T 234 24 41, 9	J 22 37 55, 9	211 46 46, 0	105 53 23, 00	+2, 48	105 53 25, 48	 16, 02	 20, 98
..	γ Aquilæ -	T 177 16 23, 0	J 79 46 14, 0	97 30 9, 0	48 45 4, 50	+2, 48	48 45 6, 98	 16, 07	 21, 03
..	α.....	T 175 29 42, 5	J 81 32 54, 6	93 56 47, 9	46 58 23, 95	+2, 48	46 58 26, 43	 15, 92	 21, 23
..	β.....	T 173 3 32, 4	J 83 59 5, 1	89 4 27, 3	44 32 13, 65	+2, 48	44 32 16, 13	 15, 92	 20, 88
..	α Cygni -	J 211 44 14, 1	T 45 18 22, 7	166 25 51, 4	83 12 55, 70	-2, 48	83 12 53, 22	 15, 55	 20, 15
16	α Ophiuchi,	T 179 44 50, 5	J 77 17 45, 2	102 27 5, 3	51 13 32, 65	+2, 30	51 13 34, 95	 16, 70	 21, 30
..	α Lyrae -	J 205 41 9, 9	T 51 21 28, 1	154 19 41, 8	77 9 50, 90	-2, 30	77 9 48, 60	 16, 65	 21, 25
..	ζ Aquilæ -	J 180 40 56, 0	T 76 21 41, 9	104 19 11, 1	52 9 37, 05	-2, 30	52 9 34, 75	 16, 85	 21, 45
..	δ Draconis,	J 234 24 46, 9	T 22 37 51, 4	211 46 55, 5	105 53 27, 75	-2, 30	105 53 25, 45	 16, 65	 21, 25
22	ν Cygni -	T 207 34 43, 0	J 49 27 54, 9	158 6 48, 1	79 3 24, 05	+2, 30	79 3 26, 35	 16, 55	 21, 15
..	61'.....	T 204 59 4, 6	J 52 3 33, 1	152 55 31, 5	76 27 15, 75	+2, 30	76 27 18, 05	 16, 30	 20, 90
..	τ.....	T 204 23 15, 3	J 52 39 21, 9	151 43 53, 4	75 51 56, 70	+2, 30	75 51 59, 00	 16, 65	 21, 25
..	α Cephei	T 228 55 27, 5	J 28 7 10, 4	200 48 17, 1	100 24 8, 55	+2, 30	100 24 10, 85	 16, 55	 21, 15
..	β.....	T 236 52 12, 8	J 20 10 24, 9	216 41 47, 9	108 20 53, 95	+2, 30	108 20 56, 25	 15, 33	 20, 87
23	ζ Aquilæ -	T 180 40 50, 3	J 76 21 45, 9	104 19 4, 4	52 9 32, 20	+2, 77	52 9 31, 97	 15, 33	 20, 87
..	α.....	J 175 29 46, 6	T 81 32 49, 6	93 56 57, 0	46 58 28, 50	-2, 77	46 58 25, 73	 16, 33	 21, 87
..	α Cygni -	J 211 44 18, 2	T 45 18 20, 0	166 25 58, 2	83 12 59, 10	-2, 77	83 12 56, 33	 15, 93	 21, 47
..	τ.....	J 201 23 20, 5	T 52 39 16, 9	151 44 3, 6	75 52 1, 80	-2, 77	75 51 59, 03	 15, 93	 21, 47

Altitudes of Stars—continued.

1833	Names of STARS	R.	D.	R—D.	R—D. 2.	Mean Diff.	Altitude.	Horizontal Point, T.	Horizontal Point, J.
		° ' "	° ' "	° ' "	° ' "	"	° ' "	° ' "	° ' "
Aug.									
23	α Cephei	J 228 55 33, 0	T 28 7 5, 5	200 48 27, 5	100 24 13, 75	-2, 77	100 24 10, 98	128 31 16, 48	128 31 22, 02
..	β	J 236 52 17, 2	T 20 10 19, 4	216 41 57, 8	108 20 58, 90	-2, 77	108 20 56, 13	 15, 53	 21, 07
26	α Lyrae	T 205 41 4, 9	J 51 21 30, 8	154 19 34, 1	77 9 47, 05	+2, 77	77 9 49, 82	 15, 08	 20, 62
..	δ Draconis,	T 234 24 43, 5	J 22 37 54, 0	211 46 49, 5	105 53 24, 75	+2, 77	105 53 27, 52	 15, 98	 21, 52
..	α Cygni	J 211 44 18, 4	T 45 18 19, 6	166 25 58, 8	83 12 59, 40	-2, 77	83 12 56, 63	 16, 23	 21, 77
..	ν	T 207 34 43, 2	J 49 27 51, 6	158 6 51, 6	79 3 25, 80	+2, 77	79 3 28, 57	 14, 63	 20, 17
..	β Cephei	T 236 52 13, 9	J 20 10 24, 8	216 41 49, 1	108 20 54, 55	+2, 77	108 20 57, 32	 16, 58	 22, 12
27	γ Aquilæ	T 177 16 24, 8	J 79 46 12, 8	97 30 12, 0	48 45 6, 00	+2, 96	48 45 8, 96	 15, 84	 21, 76
..	α	T 175 29 44, 6	J 81 32 54, 3	93 56 50, 3	46 58 25, 15	+2, 96	46 58 28, 11	 16, 49	 22, 41
..	β	T 173 3 32, 7	J 83 59 4, 7	89 4 28, 0	44 32 14, 00	+2, 96	44 32 16, 96	 15, 74	 21, 66
..	α Cygni	J 211 44 18, 6	T 45 18 19, 8	166 25 58, 8	83 12 59, 40	-2, 96	83 12 56, 44	 16, 24	 22, 16
..	61 ¹	J 204 59 10, 0	T 52 3 27, 2	152 55 42, 8	76 27 51, 40	-2, 96	76 27 48, 44	 15, 64	 21, 56
..	α Cephei	T 236 52 28, 2	J 28 7 9, 4	200 48 18, 8	100 24 9, 40	+2, 96	100 24 12, 36	 15, 84	 21, 76
..	β	T 236 52 13, 9	J 20 10 24, 4	216 41 49, 5	108 20 54, 75	+2, 96	108 20 57, 71	 16, 19	 22, 11
28	δ Draconis,	J 234 24 51, 1	T 22 37 47, 2	211 47 3, 9	105 53 31, 95	-2, 96	105 53 28, 99	 16, 19	 22, 11
..	α Cygni	J 211 44 18, 2	T 45 18 18, 2	166 26 0, 0	83 13 0, 00	-2, 96	83 12 57, 04	 15, 24	 21, 16
..	61 ¹ & 61 ² Cygni	J 204 59 10, 6	T 52 3 26, 6	152 55 44, 0	76 27 52, 00	-2, 96	76 27 49, 04	 15, 64	 21, 56
..	α Cephei	J 228 55 35, 5	T 28 7 3, 8	200 48 31, 7	100 24 15, 85	-2, 96	100 24 12, 89	 16, 69	 22, 61
..	β	J 236 52 20, 3	T 20 10 17, 1	216 42 3, 2	108 21 1, 60	-2, 96	108 20 58, 64	 15, 74	 21, 66
Sept.									
3	ζ Aquilæ	T 180 40 50, 7	J 76 21 45, 8	104 19 4, 9	52 9 32, 45	+4, 04	52 9 36, 49	 14, 21	 22, 29
..	γ	T 177 16 24, 3	J 79 46 12, 6	97 30 11, 7	48 45 5, 85	+4, 04	48 45 9, 89	 14, 41	 22, 49
..	α	T 175 29 43, 5	J 81 32 53, 6	93 56 49, 9	46 58 24, 95	+4, 04	46 58 28, 99	 14, 51	 22, 59
..	β	T 173 3 29, 9	J 83 59 5, 4	89 4 24, 5	44 32 12, 25	+4, 04	44 32 16, 29	 13, 61	 21, 69
4	α Cygni	T 196 52 12, 1	J 60 10 23, 4	136 41 48, 7	68 20 54, 35	+4, 04	68 20 58, 39	 13, 71	 21, 79
..	η Cephei	T 228 14 16, 3	J 28 48 22, 2	199 25 54, 1	99 42 57, 05	+4, 04	99 43 1, 09	 15, 21	 23, 29
..	ν Cygni	T 207 34 46, 5	J 49 27 52, 7	158 6 53, 8	79 3 26, 90	+4, 04	79 3 30, 94	 15, 56	 23, 64
..	61 ¹	T 204 59 7, 1	J 52 3 29, 7	152 55 37, 4	76 27 48, 70	+4, 04	76 27 52, 74	 14, 36	 22, 44
..	τ	T 204 53 18, 4	J 52 39 18, 3	151 44 0, 1	75 52 0, 05	+4, 04	75 52 4, 09	 14, 31	 22, 39
..	α Cephei	T 228 55 29, 9	J 28 7 8, 7	200 48 21, 2	100 24 10, 69	+4, 04	100 24 14, 64	 15, 26	 23, 34
..	β	T 236 52 14, 9	J 20 10 23, 4	216 41 51, 5	108 20 55, 75	+4, 04	108 20 59, 79	 15, 11	 23, 19
5	α Lyrae	J 205 41 14, 4	T 51 21 23, 6	154 19 50, 8	77 9 55, 40	-3, 87	77 9 51, 53	 15, 13	 22, 87
..	δ Draconis,	J 234 24 52, 2	T 22 37 45, 4	211 47 6, 8	105 53 33, 40	-3, 87	105 53 29, 53	 14, 93	 22, 67
..	γ Aquilæ	J 177 16 32, 9	T 79 46 4, 4	97 30 28, 5	48 45 14, 25	-3, 87	48 45 10, 38	 14, 78	 22, 52
..	α	J 175 29 52, 2	T 81 32 43, 5	93 57 8, 7	46 58 34, 35	-3, 87	46 58 30, 48	 13, 98	 21, 72
..	39 Cygni	J 198 42 40, 1	T 58 19 56, 2	140 22 43, 9	70 11 21, 95	-3, 87	70 11 18, 08	 14, 28	 22, 02
..	η Cephei	J 228 14 23, 7	T 28 48 13, 7	199 26 10, 0	99 43 5, 00	-3, 87	99 43 1, 13	 14, 83	 22, 57
..	ν Cygni	J 207 34 50, 7	T 49 27 45, 3	158 7 5, 4	79 3 32, 70	-3, 87	79 3 28, 83	 14, 13	 21, 87
..	61 ¹ & 61 ² Cygni	J 204 59 12, 6	T 52 3 23, 9	152 55 48, 7	76 27 54, 35	-3, 87	76 27 50, 48	 14, 38	 22, 12
..	τ Cygni	J 204 23 23, 4	T 52 39 12, 6	151 44 10, 8	75 52 5, 40	-3, 87	75 52 1, 53	 14, 13	 21, 87
..	α Cephei	J 228 55 38, 7	T 28 7 0, 7	200 48 38, 0	100 24 19, 00	-3, 87	100 24 15, 13	 15, 83	 23, 57
6	α Lyrae	T 205 41 7, 5	J 51 21 29, 8	154 19 37, 7	77 9 48, 85	+3, 60	77 9 52, 45	 15, 05	 22, 25
..	ζ Aquilæ	T 180 40 53, 0	J 76 21 44, 2	104 19 8, 8	52 9 31, 40	+3, 60	52 9 38, 00	 15, 00	 22, 20
..	δ Draconis,	T 234 24 45, 9	J 22 37 52, 8	211 46 53, 1	105 53 26, 55	+3, 60	105 53 30, 15	 15, 75	 22, 95
..	α Aquilæ	J 175 29 51, 3	T 81 32 45, 8	93 57 5, 5	46 58 32, 75	-3, 60	46 58 29, 15	 14, 95	 22, 15
..	β	J 173 3 39, 6	T 83 58 58, 9	89 4 40, 7	44 32 20, 35	-3, 60	44 32 16, 75	 15, 65	 22, 85
..	61 ¹ Cygni	J 204 59 13, 8	T 52 3 23, 9	152 55 49, 9	76 27 54, 95	-3, 60	76 27 51, 35	 15, 25	 22, 45
7	α Lyrae	J 205 41 13, 6	T 51 21 24, 4	154 19 49, 2	77 9 54, 60	-3, 60	77 9 51, 00	 15, 40	 22, 60
..	γ Aquilæ	T 177 16 25, 2	J 79 46 12, 7	97 30 12, 5	48 45 6, 25	+3, 60	48 45 9, 85	 15, 35	 22, 55
..	α	T 175 29 44, 1	J 81 32 53, 1	93 56 51, 0	46 58 25, 50	+3, 60	46 58 29, 10	 15, 00	 22, 20
..	β	T 173 3 32, 4	J 83 59 4, 9	89 4 27, 5	44 32 13, 75	+3, 60	44 32 17, 35	 15, 05	 22, 25
12	β Lyrae	J 200 13 45, 8	T 56 48 52, 1	143 24 53, 7	71 42 26, 85	-3, 15	71 42 23, 76	 15, 80	 22, 10
..	ζ Aquilæ	J 180 40 53, 5	T 76 21 33, 4	104 19 20, 1	52 9 40, 05	-3, 15	52 9 36, 90	 15, 30	 21, 60
..	δ Draconis,	J 234 24 53, 9	T 22 37 44, 8	211 47 9, 1	105 53 34, 55	-3, 15	105 53 31, 40	 16, 20	 22, 50
..	γ Aquilæ	J 177 16 30, 0	T 79 46 6, 7	97 30 23, 8	48 45 11, 65	-3, 15	48 45 8, 50	 15, 20	 21, 50
..	α	J 175 29 50, 2	T 81 32 46, 4	93 57 3, 8	46 58 31, 90	-3, 15	46 58 28, 75	 15, 15	 21, 45
..	β	J 173 3 41, 2	T 83 58 59, 5	89 4 41, 7	44 32 20, 85	-3, 15	44 32 17, 70	 17, 20	 23, 50
..	η Cephei	T 228 14 20, 1	J 28 48 19, 2	199 26 0, 9	99 43 0, 45	+3, 15	99 43 3, 60	 16, 50	 22, 80
..	61 ¹ Cygni	T 204 59 9, 1	J 52 3 28, 2	152 55 40, 9	76 27 50, 45	+3, 15	76 27 53, 60	 15, 50	 21, 80
..	τ	T 204 23 22, 7	J 52 39 16, 9	151 44 5, 8	75 52 2, 90	+3, 15	75 52 6, 05	 16, 65	 22, 95
..	α Cephei	T 228 55 33, 1	J 28 7 5, 7	200 48 27, 4	100 24 13, 70	+3, 15	100 24 16, 85	 16, 25	 22, 55
13	61 ¹ Cygni	J 204 59 16, 1	T 52 3 23, 1	152 55 53, 0	76 27 56, 50	-2, 92	76 27 53, 58	 16, 68	 22, 52
..	α Cephei	J 228 55 40, 8	T 28 6 59, 5	200 48 41, 3	100 24 20, 65	-2, 92	100 24 17, 73	 17, 23	 23, 07
..	α Pegasi	J 181 22 14, 6	T 75 40 25, 8	105 41 48, 8	52 50 51, 40	-2, 92	52 50 51, 48	 17, 28	 23, 12
14	α Pegasi	J 181 22 13, 4	T 75 40 27, 9	105 41 45, 5	52 50 52, 75	-2, 92	52 50 49, 83	 17, 73	 23, 57
17	α Aquilæ	T 175 29 45, 9	J 81 32 52, 4	93 56 53, 5	46 58 26, 75	+2, 92	46 58 29, 67	 16, 23	 22, 07
..	α Pegasi	J 195 29 41, 5	T 61 32 56, 6	133 56 44, 9	66 58 22, 45	-2, 92	66 58 19, 53	 16, 13	 21, 91
..	μ	J 190 46 48, 4	T 66 15 50, 9	124 30 57, 5	62 15 28, 75	-2, 92	62 15 25, 83	 16, 73	 22, 57
..	α Andromed.	J 208 28 58, 4	T 48 33 41, 1	159 55 17, 3	79 57 38, 65	-2, 92	79 57 35, 73	 16, 83	 22, 67
..	ν Pegasi	J 189 32 39, 1	T 67 29 58, 7	122 2 40, 4	61 1 20, 20	-2, 92	61 1 17, 28	 15, 98	 21, 82

Altitudes of Stars—continued.

1833	Names of STARS	R.	D.	R—D.	R—D. 2.	Mean Diff.	Altitude.	Horizontal Point, T.	Horizontal Point, J.
		O I "	O I "	O I "	O I "	"	O I "	O I "	O I "
Sept.									
18	α Lyrae -	J 205 41 14, 7	T 51 21 24, 8	154 19 49, 9	77 9 54, 95	-3, 53	77 9 51, 42	128 31 16, 22	128 31 23, 28
19	m Lacertae -	J 205 56 35, 7	T 51 6 1, 8	154 50 33, 9	77 25 16, 95	-3, 53	77 25 13, 42	 15, 22	 22, 28
..	28 ^h Cephei -	J 244 58 37, 7	T 12 4 3, 4	232 51 31, 3	116 27 17, 15	-3, 53	116 27 13, 62	 17, 02	 24, 08
..	*A.R. 22 ^h 43 ^m , J 252 43 2, 6	T 24 19 36, 5	208 23 26, 1	104 11 43, 05	-3, 53	104 11 39, 52	 16, 02	 23, 08	 21, 78
..	α Pegasi -	J 181 22 13, 5	T 75 40 23, 0	105 41 50, 5	52 50 55, 25	-3, 53	52 50 51, 72	 14, 72	 21, 78
..	τ -	J 189 53 10, 7	T 67 9 25, 6	122 43 45, 1	61 21 52, 55	-3, 53	61 21 49, 02	 14, 62	 21, 68
20	δ Draconis, J 234 24 55, 5	T 22 37 47, 0	211 47 8, 5	105 53 31, 25	-1, 72	105 53 32, 53	.. * 19, 53	 22, 97	 22, 67
..	α Aquilae -	J 175 29 52, 7	T 81 32 49, 2	93 57 3, 5	46 58 31, 75	-1, 72	46 58 30, 03	 19, 23	 22, 67
..	α Cephei -	T 228 55 39, 1	J 28 7 3, 2	200 48 35, 9	100 24 17, 95	+1, 72	100 24 19, 67	 19, 43	 22, 87
..	m Lacertae -	T 205 56 33, 2	J 51 6 8, 9	154 50 24, 3	77 25 12, 15	+1, 72	77 25 13, 87	 19, 33	 22, 77
23	α Lyrae -	J 205 41 15, 1	T 51 21 27, 2	154 19 47, 9	77 9 53, 95	-1, 72	77 9 52, 23	 19, 43	 22, 87
..	β -	J 200 13 46, 8	T 56 48 55, 5	143 24 51, 3	71 42 25, 65	-1, 72	71 42 23, 93	 19, 43	 22, 87
..	α Aquilae -	J 175 29 51, 7	T 81 32 49, 8	93 57 1, 9	46 58 30, 95	-1, 72	46 58 29, 23	 19, 03	 22, 47
24	α Lyrae -	T 205 41 12, 8	J 51 21 30, 0	154 19 42, 8	77 9 51, 40	+1, 87	77 9 53, 27	 19, 53	 23, 27
..	β -	T 200 13 45, 1	J 56 48 57, 6	143 24 47, 5	71 42 23, 75	+1, 87	71 42 25, 62	 19, 18	 23, 22
..	δ Draconis, T 234 24 52, 4	J 22 37 49, 8	211 47 2, 6	105 53 31, 30	+1, 87	105 53 33, 17	 19, 23	 22, 97	 23, 72
..	77..... T 214 29 25, 9	J 12 33 17, 8	231 56 8, 1	115 58 4, 05	+1, 87	115 58 5, 92	 19, 98	 23, 52	 23, 52
..	α Cephei -	T 228 55 40, 5	J 28 7 2, 8	200 48 37, 7	100 24 18, 85	+1, 87	100 24 20, 72	 19, 78	 22, 67
25	α Lyrae -	J 205 41 14, 9	T 51 21 26, 7	154 19 48, 2	77 9 51, 10	-1, 87	77 9 52, 23	 18, 93	 22, 87
26	δ Draconis, J 234 24 56, 6	T 22 37 45, 4	211 47 11, 2	105 53 35, 60	-1, 87	105 53 33, 73	 19, 13	 22, 87	 22, 37
..	γ Aquilae -	J 177 16 31, 9	T 79 46 9, 1	97 30 22, 8	48 45 11, 40	-1, 87	48 45 9, 53	 18, 63	 22, 37
..	α -	J 175 29 52, 0	T 81 32 50, 2	93 57 1, 8	46 58 30, 90	-1, 87	46 58 29, 03	 19, 23	 22, 97
..	β -	J 173 3 39, 9	T 83 59 2, 5	89 4 37, 4	41 32 18, 70	-1, 87	41 32 16, 83	 19, 33	 23, 07
27	α Lyrae -	T 205 41 11, 5	J 51 21 32, 7	154 19 38, 8	77 9 49, 40	+2, 27	77 9 51, 67	 19, 83	 24, 37
..	β -	T 200 13 44, 9	J 56 48 58, 5	143 24 46, 4	71 42 23, 20	+2, 27	71 42 25, 17	 19, 43	 23, 97
..	ξ Aquilae -	T 180 40 56, 4	J 76 21 45, 1	101 19 11, 0	52 9 35, 50	+2, 27	52 9 37, 77	 18, 63	 23, 17
..	δ Draconis, T 234 24 51, 8	J 22 37 50, 4	211 47 1, 4	105 53 30, 70	+2, 27	105 53 32, 97	 18, 83	 23, 37	 23, 27
..	γ Aquilae -	T 177 16 28, 8	J 79 46 13, 2	97 30 15, 6	48 45 7, 80	+2, 27	48 45 10, 07	 18, 73	 23, 27
..	α -	T 175 29 49, 3	J 81 32 53, 3	93 56 56, 0	46 58 28, 00	+2, 27	46 58 30, 27	 19, 03	 23, 57
..	β -	T 173 3 36, 7	J 83 59 6, 6	89 4 30, 1	41 32 15, 05	+2, 27	41 32 17, 32	 19, 38	 23, 92
30	α Lyrae -	J 205 41 15, 4	T 51 21 26, 8	154 19 48, 6	77 9 51, 30	-1, 70	77 9 52, 60	 19, 40	 22, 80
..	β -	J 200 13 47, 2	T 56 48 55, 3	143 24 51, 9	71 42 25, 95	-1, 70	71 42 24, 25	 19, 55	 22, 95
..	δ Draconis, J 234 24 55, 6	T 22 37 46, 0	211 47 9, 6	105 53 31, 80	-1, 70	105 53 33, 10	 19, 10	 22, 50	 22, 85
..	α Aquilae -	J 175 29 53, 1	T 81 32 49, 2	93 57 3, 9	46 58 31, 95	-1, 70	46 58 30, 25	 19, 45	 23, 00
..	β -	J 173 3 40, 0	T 83 59 2, 6	89 4 37, 4	41 32 18, 70	-1, 70	41 32 17, 00	 19, 60	 23, 00
..	61 ^h Cygni -	T 204 59 16, 1	J 52 3 24, 6	152 55 51, 5	76 27 55, 75	+1, 70	76 27 57, 45	 18, 65	 22, 05
..	α Cephei -	T 228 55 41, 5	J 28 7 0, 3	200 48 41, 2	100 24 20, 60	+1, 70	100 24 22, 30	 19, 20	 22, 60
..	28 ^h -	T 214 58 37, 3	J 12 4 7, 0	232 54 30, 3	116 27 15, 15	+1, 70	116 27 16, 85	 20, 45	 23, 85

A TABLE of the Horizontal Points and Index Errors of Six Microscopes, for July, August, and September.

TROUGHTON.				JONES.				TROUGHTON.				JONES.			
1833.	Horizontal Points.	Index Error.	No. of Obs.	Horizontal Points.	Index Error.	No. of Obs.		1833.	Horizontal Points.	Index Error.	No. of Obs.	Horizontal Points.	Index Error.	No. of Obs.	
	O I "	"		O I "	"				O I "	"		O I "	"		
July 1 to 6	128 31 17, 27	- 3, 73	16	128 31 19, 41	- 1, 59	16		Aug. 23, 26	128 31 15, 77	- 5, 23	11	128 31 21, 31	+ 0, 31	11	
9, 10	 17, 78	- 3, 22	9	 19, 38	- 1, 62	9		27 to 31	 15, 96	- 5, 04	12	 21, 88	+ 0, 88	12	
12 to 15	 17, 37	- 3, 63	9	 19, 97	- 1, 03	9		Sept. 1 to 4	 14, 57	- 6, 43	11	 22, 65	+ 1, 65	11	
16 to 22	 18, 31	- 2, 66	8	 20, 26	- 0, 71	8		5	 14, 64	- 6, 36	10	 22, 38	+ 1, 38	10	
23, 24	 18, 30	- 2, 64	10	 19, 80	- 1, 20	10		6 to 8	 15, 25	- 5, 75	10	 22, 45	+ 1, 45	10	
25, 26	 18, 22	- 2, 78	11	 20, 42	- 0, 58	11		9 to 12	 15, 98	- 5, 02	10	 22, 28	+ 1, 28	10	
27 to 29	 18, 43	- 2, 57	9	 20, 03	- 0, 97	9		13 to 17	 16, 76	- 4, 24	9	 22, 60	+ 1, 60	9	
30, 31	 17, 80	- 3, 20	9	 19, 08	- 1, 02	9		18, 19	 15, 64	- 5, 36	6	 22, 70	+ 1, 70	6	
Aug. 1 to 4	 17, 33	- 3, 67	12	 20, 07	- 0, 93	12		20 to 23	.. * 19, 34	- 1, 00	7	 22, 78	+ 1, 78	7	
5 to 9	 17, 31	- 3, 69	12	 20, 65	- 0, 35	12		24 to 26	 19, 33	- 1, 67	10	 23, 07	+ 2, 07	10	
10 to 13	 16, 56	- 4, 44	12	 20, 66	- 0, 34	12		27	 19, 12	- 1, 88	7	 23, 06	+ 2, 06	7	
14	 16, 21	- 4, 79	9	 21, 17	+ 0, 17	9		30	 19, 43	- 1, 57	8	 22, 83	+ 1, 83	8	
15 to 22	 16, 50	- 4, 50	9	 21, 10	+ 0, 10	9									

* After September 19th, some unknown cause altered the Index Error of TROUGHTON's Circle.

† September 28th, the Eye-piece of the Telescope of JONES's Circle was taken out to be repaired.