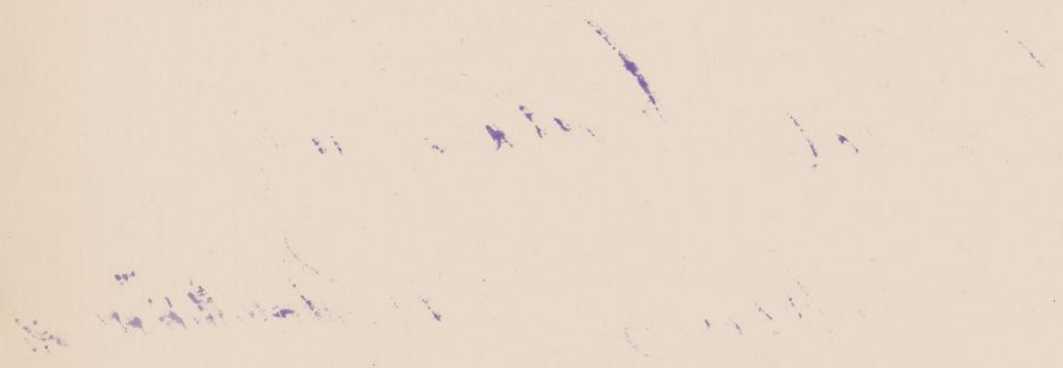


KG
11366
v. 450

*General Catalogue
Observations & Reductions*

B. 17 1871-2

Charles W. Sever, University Bookstore, Cambridge.



General Catalogue
Observations and Reductions
By
1871-2

1872
B. A. C. 997 = a Eridani

3 6 28
- 29 30
- 57

1

1871 Dec. 18. 1872 Jan. 24 Feb. 1 Feb. 14

6	6	47.6	16.4	12.4	6	4.7	6	12.3	6.2
		48.9	20.8	14.3		7.1		14.7	7.4
		49.2	23.2	15.8		9.6		17.1	8.9
			28.0	42.5		14.2		21.9	22.5
			30.2			16.6		24.1	
			32.7			18.9		26.5	
			35.0			21.4		28.8	
			37.5			23.8		31.2	
			40.1			26.5		36.0	
			44.5	6 14.2		34.0		38.3	
			46.9			33.4	6 4.2	40.8	7.5
			35.9			20.9		29.1	
			32.664	32.664		19.009		26.527	26.517

Rej 27.0
31.0
36.5
38.8
41.1

9.93970
12665#
0.66351

9.93970
11804
0.5774

50 1 4.1
0 53.1
57.2
0 28.60

15.0
0 18.7
- 5.7
23.4
+ 18.5
+ 12.0
1.36717
1.33352
+ 2155
50 6.20
50 28.05
27 39.76

A. Ronly
+ 11.48
1.17026
1.22800

0 47.6
26.3
13.9
+ 19.0
36.95
1.37875
1.33649
+ 2170
50 36.95
50 5.60
50 15.25
27 26.80

#Note.

After Jan 30 the reduction to the horizontal thread has the
opposite sign from that preceding this date, the scale
being set thus ~~—~~ instead of ~~—~~

Bosidani.

3 9 24

-9 19
-16

1871 Dec. 15 Dec. 27 Dec. 29 1872 Jan. 5 Jan. 6 Jan. 13

	9	20.59	—9	38.98	45.58	36.58	57.78	50.78	57.18	56.39	21.49	15.0
		21.6	d 20.6	41.3	47.6	37.9	57.8	51.8	59.2	59.1	23.5	16.2
8	56.7	22.6	22.6	42.8	49.6	39.2	1.8	53.0	1.8	(58.6)	25.6	17.3
Sw 9.20922	58.7	64.7	26.6	123.0	53.9	113.9	6.0	155.5	5.5	174.0	29.7	48.5
	2.7	31.6	28.7	41.0	54.0	37.9	5.1	51.8	7.6	58.0	31.9	16.2
	5.0		34.9		58.0		10.2		9.5		33.9	
	8.1				0.1		12.3		11.7		36.0	
	11.1				2.1		14.5		12.9		38.1	
Co 9.99923	15.4				6.5		18.5		18.0		112.3	
12665	175.9	21.6	9	41.0	8.4	37.9	20.8	51.8	20.2	58.0	44.4	16.2
12055	196				10.8		22.8		22.3		46.4	
					338.3		23.3		226.6		37.32	
					30.0		12.0		12.0			
4.884					63.8.3		11.2.3		106.6			
					58.022	58.027	10.209	10.209	96.909	96.91	33.927	33.927
									96.91			

35 2 490
41.2
9.2
2 43.10

40 1 2.6
1 52.5
55.1
0 27.55

35 2 4.4
53.1
157.5
1 25.75

40 0 9.7
2.3
120
0 6.10

40 0 18.2
11.0
29.2
0 14.60

40 0 10.7
3.5
0 14.2
7.20

40 0
0

+20.1 X
1.30319
1.42497
+20.5
36 85.75
37 25.30
-9° 14 36.95

+18.4 X
1.26481
1.28569
+24.30
40 6.00
40 30.30
17 41.95

+11.7 X
1.06818
1.18906
+15.46
40 19.60
40 30.06
17 41.71

+17.7 X
1.24797
1.36886
+23.38
40 9.10
40 30.48
17 42.13

40 0
0.80
992
—
40
40
17

Jan. 15

Jan. 24

9	9	39.09	18.89	11.7
		40.3	20.9	13.7
		41.7	23.0	14.7
		121.0	27.1	40.1
		29.5	29.2	
		31.9	31.39	13.4
		32.0	32.4	
		35.8	35.5	
		37.0	37.6	
		169.4	40.7	
		9	43.89	12.4
		7	44.3	
			34.43	

33.880 33.880 31.300 81.300

40 0 42.2	0 13.9
30.8	50.7
73.0	44.6
0 36.50	32.80

-16.4	+17.9
0.80618	1252.85
992706	1373.73
-845	+2360
40 36.50	40 230
40 28.05	40 25.85
17 39.70	17 37.60

Bosidani.

3 9 24

-9 19

-16

1871 Dec. 15 "Dec. 27 Dec. 29 1872 Jan. 5 Jan. 6 Jan. 13

	9	20.59	9	38.98	45.58	36.58	57.78	50.78	57.18	56.39	21.49	15.0
		24.6	d 20.6	41.3	47.6	37.9	58.8	51.8	59.2	59.1	23.5	16.2
	8	56.7	22.6	42.8	49.6	39.2	1.8	53.0	1.8	(58.6)	25.6	17.3
mid 9.20922	58.7	64.7	26.6	123.0	53.9	113.9	6.0	155.5	5.5	114.0	29.7	48.5
	2.7	31.6	28.7	41.0	58.0	37.9	5.18	51.8	7.6	58.0	31.9	16.2
	5.0		39.9		58.0		10.2		9.8		33.9	
	5.1				0.1		12.3		11.7		36.0	
	11.1				2.1		14.5		13.9		38.1	
501 9.99423	15.4				6.5		18.5		18.0		112.3	
12665	17.9	21.6	9	41.0	8.48	37.9	20.08	51.8	20.28	58.0	44.4	16.2
12055	19.6				10.8		22.8		22.3		46.4	
					338.3		23.3		22.6		37.32	
					30.0		12.0		12.0			
4.794=5					63.8.3		11.2.3		10.66			
					58.027	58.027	10.209	10.209	9.691	9.691	33.927	33.527

35 2 490	40 1 2.6	35 2 4.4	40 0 9.7	40 0 18.2	40 0 10.7
41.2	0 52.5	53.1	2.3	11.0	3.5
90.2	55.1	157.5	120	29.2	0 14.2
2 43.10	0 27.55	1 28.75	0 6.10	0 14.60	7.20
		+20.1 X	+18.4 X	+11.7 X	+12.7 X
		1.20319	1.26481	1.06818	1.24797
		1.42447	1.28569	1.18906	1.36886
		+26.5	+24.30	+15.46	+23.38
		36 58.75	40 6.00	40 19.60	40 5.10
		37 25.30	40 30.30	40 30.06	40 30.48
-9° 14 36.95		17 41.95	17 41.71	17 42.13	17 42.13

Jan. 15

Jan. 24

9	9	39.09	18.89	11.7
		40.3	20.9	13.7
		41.7	23.1	14.7
29.5		121.0	27.1	40.1
31.9			29.2	
33.0	9	40.3	31.3	13.4
35.8			32.4	
37.0			35.5	
169.4			39.6	
			41.7	
	9	40.3	43.8	13.4
			34.43	

33860 33880 31300 81300

40 0 42.2	0 13.9
30.8	50.7
730	416
0 3650	32.80

-16.4	+17.9
0.80618	125285
992706	137373
-840	+2360
40 3650	40 230
40 2805	40 2585
17 3970	17 3760

K. 6th
3 12 34
+2 53
+0.5

1891 Dec. 18 Dec. 27 Dec. 29 1892 Jan. 5 Jan. 6 Jan. 13

12	15.0 12	11.4 12	7.8 11	55.9 12	8.9 11	58.8 11	59.7 11	52.2 11	59.0 11	52.6 12	23.4 12	16.7 12
Sum 18.70159	17.0	12.7	9.9	57.0	8.0	60.3	1.7	53.6	1.1	54.0	25.5	16.4
	19.1	13.8	12.0	58.2	10.0	61.6	3.8	55.0	3.2	55.4	27.6	19.5
	23.1	37.9	16.0	171.1	14.2	120.7	7.9	160.8	7.4	162.0	36.6	54.7
	25.3		18.1		16.3		10.1		9.4		33.8	
	27.4 12	43.9	20.1 12	36.5	18.3		12.1		11.5		35.8	
	29.4	45.4	22.3	37.9	20.4		14.1		13.5		37.9	
cod 9.99945	31.5	46.6	24.3	39.0	22.3		16.0		15.6		39.9	
12665	35.5		28.4		26.5		20.2		19.6		43.9	
12610	37.6 12	12.6	30.5 11	57.0	28.6 12	80.2	22.3 11	53.6	21.7 11	54.0	46.1 12	18.3
	39.6		32.6		30.7		24.4		23.8		48.2	
	30 0.5		22.9		20.2		19.2 3		18.5 8		39.3 7	
					16.2 91	18.2 91	132.3		60			
8.99945	29.3 8	27.3 18	20.1 73	20.1 73	16.2 91	18.2 91	12.0 27	12.0 27	12.5 8		35.7 91	35.7 91
11804									11.4 36	11.4 36		
11749												

25	3	62.0 25	4	35.1 3	41.3 4	34.8 3	46.1	3	47.2	3	47.3	3	47.4	3
		40.4		24.2	26.3	21.2	33.1		35.3		36.1		38.3	
		92.4		59.3	67.6	56.0	79.2		82.5		83.4		85.7	
	3	46.2 0 4	29.6 5		33.8 0	28.1 0	39.6 0		41.2 5		41.7 0		42.8 5	
		+14.7			+23.2		+18.1		+18.4		+17.4		+17.5	
		1.16 731			1.36 548		1.25 767		1.26 481		1.24 054		1.24 303	
		1.29 341			1.49 158		1.38 377		1.39 091		1.36 664		1.36 713	
		+19.65			+31.02		+24.20		+24.60		+23.26		+23.80	
		28 46.20			28 33.80		28 39.60		28 41.25		28 41.70		28 42.85	
		29 8.80			29 4.82		29 8.80		29 0.81		29 4.96		29 6.20	
+2°	53	42.50			53 43.53		53 44.55		53 42.50		53 43.39		53 42.10	53

	Jan. 15	Jan. 24	Jan. 30	Feb. 1	Feb. 4	
16.7	12	23.512	20.012	20.812	13.012	10.3
18.4		25.3	21.0	22.8	14.3	11.3
19.8		27.5	22.0	25.0	15.8	12.3
4.7		31.6	23.0	29.0	43.1	23.9
		33.7	6.30	31.1		27.5
		35.8		33.2		29.7
		37.6		35.2		31.8
		39.8		37.2		33.9
		43.9		41.4		38.0
18.3		46.0		43.4		40.1
		47.9	12	45.5	12	42.2
		39.27	21.0	14.4	20.3	11.3
			36.46			
79.1		35.700	35.700	33.155	33.155	32.182
				82.1+2	82.1+2	31.064
				31.064	31.064	29.727
						29.727

3	52.1 37.0 89.1 44.55 +14.7 1.16731 1.29341 +19.65 28 44.55 29 42.0 53 44.15	3	50.1 23.7 13.8 36.90 +18.8 1.27615 1.40025 +25.13 28 36.90 29 20.3 53 46.32	4	14.1 47.0 12.41 60.55 +18.9 1.07554 1.19303 +15.60 29 0.55 29 16.15 28 44.95 54 34.0	4	29.8 3.1 32.9 16.45 +22.0 1.34242 1.45991 +28.84 29 16.45 29 45.78 28 47.61 54 0.74	4	25.3 58.0 143.3 71.65 +18.4 1.26481 1.38280 +24.82 29 11.65 29 35.44 28 47.53 54 0.82
---	---	---	---	---	---	---	--	---	--

a Persei

3 15 07.45

+49 24

+1.17

11.17

lmi 2 = -1.2

Dec 6 3 15 11.73

11 71

16 69

24 (-11) 67

26 (-10) 64

+49° 23

74".8 7.37 -8

76.6 9 7.40 -5

77.4 8 33 7.40 -4

78.1 7 7.25 -5

23 29 -16

30 -15

34 -11

38 -11

40 -10

42 -11

44 -8

46 -10

48 -10

50 -10

52 -10

54 -10

56 -10

58 -10

60 -10

62 -10

64 -10

66 -10

68 -10

70 -10

72 -10

74 -10

76 -10

78 -10

80 -10

82 -10

84 -10

86 -10

88 -10

90 -10

92 -10

94 -10

96 -10

98 -10

100 -10

102 -10

104 -10

106 -10

108 -10

110 -10

112 -10

114 -10

116 -10

118 -10

120 -10

122 -10

124 -10

126 -10

128 -10

130 -10

132 -10

134 -10

136 -10

1871 Dec. 15

Dec. 27

Dec. 29

Jan. 1

Jan. 5

Jan. 13

14	44.0	27.4	33.714	28.214	31.614	28.814	28.714	16.314	14	0.2	14	40.7	40.7	14
	44.0	29.7	36.7	29.9	34.7	30.1	31.7	18.4		3.6		52.1	41.7	
	47.0	31.5	40.0	32.1	37.8	31.0	34.9	20.5		5.5		55.3	43.1	
	53.3	38.6	46.2	39.2	44.1	37.9	41.3	22.2		9.3		58.7	46.5	
	56.5		49.5		47.3		44.515	12.8				61.9		
	-59.815	28.8	52.515	20.4	52.5		-47.6	14.6				64.1		
	2.9	30.1	55.6	23.0	53.6		50.8	16.4				67.4		
	6.0	31.7	58.9	25.1	56.9		53.9					70.6		
	12.4		62.2		63.2		0.2					73.7		
	15.5	14	29.5	8.414	30.1	66.414	27.7	3.414	18.4	22.07	14	76.9	41.3	
	18.7			11.5		69.5		6.5				80.0		
	35.0		37.82			72.8		12.0				83.1		
	38.2		16.0			76.0		15.2				86.2		
	41.4		57.52	52.564		79.2		18.4				89.3		
	44.6		52.56	52.56		82.4		21.6				92.4		
	47.8		11.63			85.6		24.8				95.5		
	-11.95		19.07			88.8		28.0				98.6		
						92.0		31.2				101.7		
	59.71	59.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	23.90	23.90	+30	+30	3.42		
	52.71	52.71	52.55	52.55	50.49	50.49	47.57	44.12	44.12	7.58	7.58	41.88		
	11.68	11.68	11.63	11.63	11.63	11.63	11.55	11.55	11.55	2.97	2.97	11.41		
	-11.97	-11.97	-19.08	-19.08	-21.12	-21.12	-24.01	-24.01	-24.01	+4.3	+4.3	-3.53		
	11.86	11.86	18.97	18.97	21.01	21.01	23.90	2						

o Pami

Dec 3 17 55.68 + 8° 34' 34".0
 16 48 33.7
 11 47 33.5
 20 47 33.3
 20 47 33.0

$\delta = +8^{\circ} 34' 22.4''$
 $\delta = +8^{\circ} 34' 35.3''$

+10

17.5240

(1.17)

mu z = +.56

1871 Dec. 18.

Dec. 27

Dec. 29 1872 Jan. 5

Jan. 6

Jan. 15

17	31.517	25.717	24.317	18.817	22.417	12.017	16.217	9.817	15.617	9.0	17	39.817	30.8
	33.5	27.2	26.4	20.0	24.4	13.3	18.2	11.2	17.6	10.4		41.8	32.1
	35.6	28.8	28.5	21.1	26.5	14.7	20.3	12.6	19.7	12.0		43.8	33.7
	39.8	81.5	32.7	59.9	30.8	40.0	24.5	33.6	23.9	3.14		50.2	96.6
	41.8		34.8		32.7		26.6		26.6			52.3	
	43.917	57.7	36.817	34.2	34.9		28.6		28.1			54.3	
	45.9		38.8	53.9	37.0		30.7		30.3			56.4	
	48.1		40.9	57.6	39.0		32.8		32.3			58.5	
	52.2		45.0		43.2		36.8		36.4			61.5	
	54.3	17 27.2	47.217	18.7	45.317	13.3	39.017	11.2	38.417	10.5		64.617	82.2
	56.5		49.3		47.3		41.2		40.6			67.417	
	483.1		404.8		383.5		314.9		308.9			52.19	

9.99511	43.92	43.918	36.80791	34.86	28.62	28.092	52.19
11.804	55.48		56.47	52.47			
11.315	11.56		18.67	20.61			
	42.50		36.78	34.44			
	55.48		55.47	55.46			
	-11.58		-18.65	-20.62			
	-11.59		-15.70	-20.63			
	43.50		36.78	34.44			
	11.48		+15.62	+20.06			
	+5		+3.07	+3.68			
	-3.08		-3.07	-3.68			
	52.35		52.38	52.39			

45 3 19.3	59.0 3	20.1 4	6.0 3	13.0	3 18.2	17.0	3 16.9
512	46.8	19	3 52.12	58.9	7.3	6.4	2.2
27.5	10.55	22.0	58.2 6	71.9	2.55	2.34	1.91
13.75	52.90 3	11.00 3	29.10 3	5.95	3 12.75	11.70	6.55

+16.7	+16.9	+21.6	+17.4	+17.6	+22.0
1.22271	1.22288	1.33445	1.24054	1.24551	1.30103
1.34447	1.34964	1.45621	1.36230	1.36727	1.42277
+22.10	+22.37	+28.59	+23.03	+23.29	+26.45
48 13.75	48 11.00	48 5.95	48 12.75	48 11.70	48 9.05
48 38.85	48 33.37	48 34.54	48 35.75	48 34.99	48 36.02
+8° 34' 12.50	34 14.98	34 13.81	34 12.57	34 13.36	34 12.33
-0 41.03	-0 42.18	- 42.24	- 40.76	- 41.33	- 42.60

33 31.5	33 32.8	33 31.6	33 31.8	33 32.0	33 29.7
34 33.4	34 33.9	34 32.8	34 32.45	34 32.4	34 32.0

-52 I	+1 1.9 1.4	+1 0.1 +0 59.6	+1 1.2 0.7	+1 0.7 0.1	+1 0.4 +0 59.9	+1 2.3 1.8
$\delta = +8^{\circ} 34' 12.50$	34 14.98	34 13.81	34 12.57	34 12.57	34 12.33	34 12.33
-11.00	-10.50	-10.40	+2.80	+2.90	-3.80	

Jan 1 3 17 55.44 .04
 6 40 .04
 11 36 .05
 16 31 .05
 21 (+.01) 53.26 .07
 26 19 .07
 31 (.00) 12 .07
 Feb. 5 05 .07
 10 54.98 .07
 15 90 .08
 20 82 .08
 25 74 .08
 March 1 54.6 .07

3 17 55.62 + 8 34' 32" 7
 32.4 .3
 32.2 .2
 32.0 .2
 31.8 .2
 31.5 .3
 31.3 .2
 31.1 .2
 30.9 .2
 30.7 .2
 30.6 .1
 30.5 .1
 30.3 .2

52.35 -5
 138 -2
 189 -1
 140 +0
 192 +2
 134 -6
 47 -1
 140 -0
 146 +6
 147 +7
 52.40 .00

52.61
 63
 57
 61
 67
 65
 69
 53.63

+39+393
 Jan. 24

+387.43
 Jan. 30

+44+445
 Feb. 4

+28+290
 Feb. 14

17 37.3 17 28.5 17 38.3 17 46.0 17 33.8 17 26.7 17 31.1 17 20.0
 39.4 29.7 38.4 36.0 27.8 33.3 21.2
 41.4 31.1 40.4 38.0 28.9 35.3 22.6
 45.5 89.3 44.6 42.3 83.4 39.4 23.5
 47.4 46.5 44.2 41.6 87.3
 49.7 46.7 46.4 43.6
 51.8 50.8 48.5 45.8
 53.9 52.8 50.5 47.8
 58.0 56.9 54.6 51.9
 60.1 59.0 56.7 54.0
 62.2 17 29.8 11.1 17 46.0 58.8 17 27.8 56.1 17 21.8
 54.6 9 53.5 50.8 47.9 9
 49.72 48.69 46.35 43.63

53.22 55.13 55.06 54.91
 49.718 48.682 46.346 43.628
 49.70 48.67 46.33 43.61
 55.22 55.13 55.06 54.91
 -5.52 -5.52 -6.46 -6.46 -8.93 -8.93 -11.30 -11.30
 -1.53 -6.57 -8.71 -11.31
 49.70 48.67 46.33 43.61
 +5.45 49.70 +6.65 48.67 +8.71 46.33 +11.33 43.61
 +6 +5.48 +6 +6.40 +7 +8.72 +9 +11.32
 +.40 +.40 +.49 +.49 +.56 +.56 +.71
 55.61 55.63 55.67 55.62 55.65 55.68 55.69 55.69 52.47
 53.193 32.12 34.5 54.2 3 55.6 31.3 86.9 43.45
 52.1 34.5 26.2 80.4
 71.4 66.7 40.20
 36.70 33.35
 +1.7 1.27 1.38 1.45
 1.27 1.42 1.38 1.45
 +2.63 48 33.35 48 40.20 48 43.45 48 43.45
 48 32.09 48 36.85 48 40.20 48 43.45
 48 29.85 48 36.15 48 43.45
 34 16.31 34 18.50 34 32.16 34 33.19
 -41.93 43.60 -41.76 -41.31

33 34.4 33 34.9 33 50.4 33 51.9
 34 31.6 34 31.3 34 31.1 34 30.7

+0 57.2 566 +0 56.4 55.9 +0 40.7 402 +0 38.8 38.3
 34 16.31 34 18.50 34 33.16 34 33.19
 3.70 4.00 4.20 +4.60

ξ Rami

3 20 08
+9 16
+10
+16
sin z = +.55

Dec 3 20 13.76 + 9° 16' 62".8
11 26
16 76
21 75
26 13.75

$\delta = +9^{\circ} 16' 51''$
 $\delta = +9^{\circ} 17' 3.9''$

1871 Dec. 18. Dec. 27 Dec. 29 Jan. 6 Jan. 13 Jan. 15

19	489.19	37.2	19	42.719	32.419	40.819	32.119	34.019	25.5	20	6.720	28.719	58.119	50.4
	52.0	38.7		44.8	33.9	42.7	33.3	36.1	26.8		8.8	29.6	0.2	51.6
	54.0	40.1		46.8	35.3	45.0	34.6	38.2	28.4		10.5	31.1	2.8	52.7
	55.1	116.0		50.9	101.6	49.1	100.0	42.4	80.7		12.9	89.4	6.6	154.7
	0.2			53.0		51.1		44.5			15.0		8.7	
	2.4	20		55.1	20	53.2		46.6		54.2			10.1	
	4.4	20		57.2	23.0	55.2		48.6					12.8	
	6.5	21		59.3	24.1	57.4		50.7					14.9	
	10.6	21		3.4		61.5		52.8					17.0	
	12.8	22	38.7	5.8	19	63.7	19	57.0	26.9	20	29.8		23.1	51.6
	14.8	23		7.6		65.8		59.0					25.1	
	26.5	24		60.66		58.55		51.9					27.4	
	24.0	25											29.4	
	25.7	26		55.155		53.227		46.586		10.840			31.4	
	23.36	27		13.75		13.75							33.4	
	13.76	28		18.60	55.13	20.52	53.21	46.52	46.52	10.82	10.82	10.66	35.4	
	11.42	29			13.75		13.74	13.69	13.67	13.63	13.62	13.61	37.4	
		30			18.62		20.53	27.17	27.17	28.1	28.1	28.1	39.4	
		31			10		10	10	10	10.82	10.82	10.66	41.4	
		32			18.72		22.63	46.52	27.27	10.82	2.91	10.66	43.4	
		33						27.29	27.27	2.97	2.91	3.03	45.4	
		34			55.13		53.21	46.52	46.52	10.82	10.82	10.66	47.4	
		35			18.62		20.53	27.17	27.17	10.82	2.91	10.66	49.4	
		36			10		10	10	10	10.82	10.82	10.66	51.4	
		37			18.72		22.63	46.52	27.27	10.82	2.91	10.66	53.4	
		38						27.29	27.27	2.97	2.91	3.03	55.4	
		39			55.13		53.21	46.52	46.52	10.82	10.82	10.66	57.4	
		40			18.62		20.53	27.17	27.17	10.82	2.91	10.66	59.4	
		41			10		10	10	10	10.82	10.82	10.66	61.4	
		42			18.72		22.63	46.52	27.27	10.82	2.91	10.66	63.4	
		43						27.29	27.27	2.97	2.91	3.03	65.4	
		44			55.13		53.21	46.52	46.52	10.82	10.82	10.66	67.4	
		45			18.62		20.53	27.17	27.17	10.82	2.91	10.66	69.4	
		46			10		10	10	10	10.82	10.82	10.66	71.4	
		47			18.72		22.63	46.52	27.27	10.82	2.91	10.66	73.4	
		48						27.29	27.27	2.97	2.91	3.03	75.4	
		49			55.13		53.21	46.52	46.52	10.82	10.82	10.66	77.4	
		50			18.62		20.53	27.17	27.17	10.82	2.91	10.66	79.4	
		51			10		10	10	10	10.82	10.82	10.66	81.4	
		52			18.72		22.63	46.52	27.27	10.82	2.91	10.66	83.4	
		53						27.29	27.27	2.97	2.91	3.03	85.4	
		54			55.13		53.21	46.52	46.52	10.82	10.82	10.66	87.4	
		55			18.62		20.53	27.17	27.17	10.82	2.91	10.66	89.4	
		56			10		10	10	10	10.82	10.82	10.66	91.4	
		57			18.72		22.63	46.52	27.27	10.82	2.91	10.66	93.4	
		58						27.29	27.27	2.97	2.91	3.03	95.4	
		59			55.13		53.21	46.52	46.52	10.82	10.82	10.66	97.4	
		60			18.62		20.53	27.17	27.17	10.82	2.91	10.66	99.4	
		61			10		10	10	10	10.82	10.82	10.66	101.4	
		62			18.72		22.63	46.52	27.27	10.82	2.91	10.66	103.4	
		63						27.29	27.27	2.97	2.91	3.03	105.4	
		64			55.13		53.21	46.52	46.52	10.82	10.82	10.66	107.4	
		65			18.62		20.53	27.17	27.17	10.82	2.91	10.66	109.4	
		66			10		10	10	10	10.82	10.82	10.66	111.4	
		67			18.72		22.63	46.52	27.27	10.82	2.91	10.66	113.4	
		68						27.29	27.27	2.97	2.91	3.03	115.4	
		69			55.13		53.21	46.52	46.52	10.82	10.82	10.66	117.4	
		70			18.62		20.53	27.17	27.17	10.82	2.91	10.66	119.4	
		71			10		10	10	10	10.82	10.82	10.66	121.4	
		72			18.72		22.63	46.52	27.27	10.82	2.91	10.66	123.4	
		73						27.29	27.27	2.97	2.91	3.03	125.4	
		74			55.13		53.21	46.52	46.52	10.82	10.82	10.66	127.4	
		75			18.62		20.53	27.17	27.17	10.82	2.91	10.66	129.4	
		76			10		10	10	10	10.82	10.82	10.66	131.4	
		77			18.72		22.63	46.52	27.27	10.82	2.91	10.66	133.4	
		78						27.29	27.27	2.97	2.91	3.03	135.4	
		79			55.13		53.21	46.52	46.52	10.82	10.82	10.66	137.4	
		80			18.62		20.53	27.17	27.17	10.82	2.91	10.66	139.4	
		81			10		10	10	10	10.82	10.82	10.66	141.4	
		82			18.72		22.63	46.52	27.27	10.82	2.91	10.66	143.4	
		83						27.29	27.27	2.97	2.91	3.03	145.4	
		84			55.13		53.21	46.52	46.52	10.82	10.82	10.66	147.4	
		85			18.62		20.53	27.17	27.17	10.82	2.91	10.66	149.4	
		86			10		10	10	10	10.82	10.82	10.66	151.4	
		87			18.72		22.63	46.52	27.27	10.82	2.91	10.66	153.4	
		88						27.29	27.27	2.97	2.91	3.03	155.4	
		89			55.13		53.21	46.52	46.52	10.82	10.82	10.66	157.4	
		90			18.62		20.53	27.17	27.17	10.82	2.91	10.66	159.4	
		91			10		10	10	10	10.82	10.82	10.66	161.4	
		92			18.72		22.63	46.52	27.27	10.82	2.91	10.66	163.4	
		93						27.29	27.27	2.97	2.91	3.03	165.4	
		94			55.13		53.21	46.52	46.52	10.82	10.82	10.66	167.4	
		95			18.62		20.53	27.17	27.17	10.82	2.91	10.66	169.4	
		96			10		10	10	10	10.82	10.82	10.66	171.4	
		97			18.72		22.63	46.52	27.27	10.82	2.91	10.66	173.4	
		98						27.29	27.27	2.97	2.91	3.03	175.4	
		99			55.13		53.21	46.52	46.52	10.82	10.82	10.66	177.4	
		100			18.62		20.53	27.17	27.17	10.82	2.91	10.66	179.4	

Jan 1 3 20 1372
 6 12 .03
 11 (+10) 65 .04
 16 (+14) 60 .05
 21 (+13) 13.52 .06
 26 (+13) 48 .06
 31 41 .07
 Feb. 3 34 .07
 10 13.27 .07

3 20 1380 +9° 16' 61.5
 13.50
 10.66
 3.24
 61.3 .2
 61.0 .3
 60.8 .2
 60.6 .2
 60.4 .2
 60.2 .2
 60.0 .2
 59.8 .2

10.77 +1
 1.72 +6
 1.76 +10
 1.85 +19
 1.83 +17
 1.85 +9
 1.82 +16
 10.70 +13
 14.02
 14.06
 13.98
 13.96
 14.00

Feb. 4 +44.5
 Jan. 20

19 52.219 44.6
 54.3 45.4
 56.4 46.3
 0.5 13.63
 2.6
 4.7
 6.8
 8.9
 10.1
 15.3
 17.3 19 45.4
 23 2.1
 18 0
 52.1
 47.86

4.72 47.2
 13.35 13.35
 -8.63 -8.63
 4.72 -8.73
 +8.69
 +.05 4.72
 13.96 +8.72
 +.05
 +.05
 14.06 10.82

10.75

1 28.3
 59.4
 107.7
 16.65
 +17.0
 1.28556
 1.37786
 *24.99
 46 13.85
 56 88.75
 56 98.86
 16 59.49
 -40.35

16 19.1
 16 60.0

+0 40.9 40.4
 16 59.49
 +3.90

83 1820
84 -20
85 -29
88 -25
03 -10
15 +2

15710
80
71
75
80
92

56.97-16

13
57.10=14710

f Jauri.

3 23 47
23 48.52
+ 12 30

sin Z = +50 (+22)
(+22)

Jan 1 3 23 48.35
6 31.04
11 27.04
16 (-03) 22.05
21 48.17 05
26 (-04) 11.06
31 04.07
Isk 5 97.07
10 47.90 .07
15

+12° 29' 44" 8
44.7
44.5
44.3
44.1
44.0
43.8
43.6
43.4

$\delta = +12^\circ 29' 33.6$
 $\delta = +12^\circ 29' 46.3$

Dec. 27 Jan. 6
+350 +39 +370

Jan. 13
+37 +38

Jan. 15
+33 +350

Jan. 23
+38 +360

Jan. 24
+39 +343

22 49.122	59.573	8.323	1.3	23 32.623	24.023	32.523	25.623	30.123	20.823	20.023	23.7
51.2	60.8	10.4	2.2	34.7	25.0	34.7	27.5	32.3	22.3	32.1	24.8
52.3	62.1	12.5	3.6	36.8	26.0	36.7	53.1	34.3	24.1	34.2	26.4
53.4		16.7	7.1	40.0	75.0	40.9		38.4	67.2	38.3	27.2
57.5		18.9		43.3		43.0		40.7		40.5	102.1
26.65		21.0		46.3		45.1		42.7		42.5	
		23.0		49.4		47.2		44.8		44.7	
		25.1		53.7		49.2		46.9		46.8	
		29.4		58.8		53.5		50.1		53.4	
		31.5	23 2.4	57.923	2.50	55.6		53.3		55.2	
		33.6		49.68		57.7	23 2.65	55.423	22.4	40.84	23 2.50
		23.04				49.61		40.90			

code 9.9958
12665
11623

5-3307

53.28
45.39
+4.89
+1.42
53.28
+16.02
+8
+13
1

20.915
20.93
45.31
-27.38
20.93
+27.30
+9
+21
48.53
+21
48.52

45.164
45.16
45.15
45.25
-3.10
45.15
-3.07
+2.97
+4.15
+2.92
+2.7
45.46
+2
48.42

45.100
45.08
45.23
-3.15
45.08
-3.12
+3.23
+4.08
+1.29
48.47
+29
48.47

42.687
42.62
45.15
-5.53
42.62
+3.40
+8
+1.37
48.47
+37
48.47

42.582
42.56
45.13
-5.57
42.56
+5.45
+4.25
+3.9
48.49
+38
48.49

55 0 50.6
38.0
8.86
0 44.30

+12

+12°

50 3 11.3
0.1
11.4
3 57.0

+183
1.26717
1.38340
+24.18
53 5.70
53 29.88

28 44.9
29 44.7

3 7.7
2 58.0
6 57
3 21.85

+20.2
1.30535
1.42158
+26.40
53 2.85
53 29.28

28 44.3
29 44.4

3 13.1
2 58.14
6 1.15
3 51.75

+19.1
1.28103
1.39726
+24.36
53 5.70
53 29.74

28 44.7
29 44.3

3 9.6
46.2
55.8
27.90

+12.2
1.26950
1.38573
+24.31
53 5.70
53 30.06

28 48.6
29 44.0

3 17.6
51.4
67.0
34.80

+17.1
1.28299
1.34922
+22.35
53 5.70
53 26.80

28 45.4
29 44.0

-46 I +1 1.8 1.3

$\delta = +12^\circ 29' 18.47$
+1.60

+1 0.1 +0 59.7 +1 2.6 2.1

29 19.10
+1.70

+0 55.4 54.9

29 18.29
+2.00

+0 58.6 58.2

29 21.50
+2.80

42.53
 46
 47
 47
 49
 49
 50
 48.49
 48.48 (-04)
 830
 4618

+44+445
Feb. 4

+28+290
Feb. 14

23 26.6 23 21.3 23 23.4 23 16.5
 28.8 22.4 25.9 17.6
 30.8 23.8 26.0 19.0
 35.0 67.5 32.1 53.1
 37.1 34.3
 39.2 36.5
 41.2 38.6
 43.4 40.7
 45.6 44.9
 47.6 47.0
 51.8 23 22.5 47.1 23 17.7
 43.09 40.09

39.173

36.485

39.16 32.16 36.43 36.43
 47.98 47.98 47.98 47.98
 -882 8.82 -11.41 -11.41
 39.16 36.43 -11.38
 +8.69 +11.33
 +10 39.16 +6 36.43
 +5.72 +5.72 +11.32
 98.49 +10 48.50 +6.6
 48.52 48.49

3 46.8
 20.0
 66.8
 +16.7
 83.40
 1.23 271
 1.33 233
 2140
 53 3340
 53 5480
 53 1200
 29 3635
 -35.93

3 45.5
 23.6
 67.1
 +18.7
 84.55
 1.27 184
 1.37 946
 2396
 53 39.55
 53 5857
 53 1059
 29 3776
 -35.52

29 0.4
 29 43.6

29 2.2
 29 43.2

10 43.7 42.7

10 4040.6

29 36.35
 +3.70

29 37.76
 +3.10

e Eridani.

3 26 55
26 54.02
- 9 53

Jan 1 3 26 54.00
6 53.96 .04
11 53.92 .04
16 53.87 .05
21 53.81 .06
26 (+0.7) 53.74 .07
31 53.67 .07
Feb. 5 (+0.6) 53.60 .07
10 53.52 .08
15 53.44

-9° 53' 42".8
43.4 .6
44.0 .5
44.5 .5
44.9 .4
45.3 .4
45.6 .3
45.8 .2
46.0 .2

-9° 53' 48.0
8 = -9 53 35.6

sin 2 = +.79 .17

1871 Dec. 27

Dec. 29 1872 Jan. 5

Jan. 6

Jan. 13

Jan. 23

26	23.026	17.126	21.226	9.726	15.026	6.026	14.326	7.826	38.626	32.1	28	28.1	26
	25.0	18.7	23.3	10.8	17.0	7.0	16.4	19.2	40.6	34.6		29.7	
sin √ f. 2 25 35	27.1	19.9	25.2	12.3	19.0	8.0	18.4	10.8	42.8	36.8		30.6	
	34.2	55.7	29.8	32.8	23.1	21.0	22.6	27.8	46.9	103.7			
	33.3		31.5		25.3		24.7		49.0				
	35.526	53.1	33.6		27.3		26.7		51.1				
	37.5	54.5	35.7		29.5		28.8		53.3				
cos √ 9.99248	39.6	53.9	37.7		31.6		31.0		55.3				
12665	43.9		41.9		35.8		35.1		59.4				
.12013	46.026	18.6	44.026	10.9	37.926	7.0	37.226	9.3	1.526	34.6			
	48.1		46.1		40.0		39.4		3.6				
	3902		3697		3015		2940		56.21				

9.99248
11804
11152

35.473	33.646	33.649	27.409	26.782	51.160
54.16	54.16	54.16	27.39	26.77	51.08
18.69	18.70	20.53	58.97	58.96	53.90
		20.57	-26.58	-27.19	-2.82
		-20.64	-26.61	-27.26	-2.87
			27.39	26.77	51.08
		33.59	+26.74	+27.30	+2.97
		+20.57	7	7	6
		-2.87	+5	+6	+12
		51.12	54.11	54.06	54.11

15 0 54.2 15 1 41.8 0 48.6	0 52.7	0 56.2	0 57.3
44.8	44.8	46.4	49.3
990	775	16.26	10.06
49.50	48.75	51.30	53.30

+16.9	+22.7	+20.4	+17.5	+16.5
1.22788	1.35600	1.30963	1.24303	1.21748
1.34801	1.47615	1.42976	1.36316	1.33761
+22.29	+29.23	+26.90	+23.07	+21.76
15 49.50	15 43.40	15 48.75	15 51.30	15 53.30
16 11.89	16 13.33	16 15.65	16 14.37	16 15.06

-9° 53' 23.44	53 24.98	53 27.30	53 26.02	53 26.71
1 20.60	-1 20.70	-1 17.61	-1 18.73	-1 17.46

54 44.0	54 45.7	54 44.9	54 44.7	54 43.9
53 42.3	53 42.4	53 43.3	53 43.4	53 44.52

-73 I +1 1.7 1.0	+1 5.3 2.6	+1 1.6 0.8	+1 1.3 0.6	59.7 59.0
5 = -9 53 23.44	53 24.98	53 27.30	53 26.02	54 26.71
-5.70	-5.60	+7.70	7.80	8.60

54.11 $.11$ $+9.$
 54.06 $.07$ 5
 $.11$ $.05$ 3
 $.04$ $.08$ 6
 $.15$ $.09$ 7
 $.10$ $.09$ 7

 54.09 54.08 $+06$
 2.83
 57.25

$+39+843$
 Jan. 24

$+38+43$
 Jan. 30

$+28+290$
 Feb. 14

28.1
 24.7
 30.6

26	36.0 2.6	30.0 2.6	35.0 2.6	32.1 2.6	29.7 2.6	18.0
	35.0	32.0	37.0	33.0	31.8	19.2
	40.1	33.3	39.1	34.1	33.9	20.8
	44.3	75.3	43.2	97.2	38.1	58.0
	46.3		45.3		40.1	
	48.4		47.5		42.2	
	50.5		49.5		44.5	
	52.6		51.5		46.5	
	56.7		55.7		50.6	
	58.8		57.9		52.7	
	61.9	7.6 31.8	60.1 2.6 33.1		54.8 2.6 19.3	
	53.2		52.1		46.4	

48.4 2.8	47.4 3.6	42.2 6.4
48.41	47.42	42.25
53.77	53.68	53.45
-5.36	-6.26	-11.20
-5.43	-6.33	-11.27
48.41	47.42	42.25
+5.43	+6.45	+11.33
-7	+6.40	+11.32
+25	+34	+57
54.04	54.15	54.10
54.08	54.09	54.09

1. 1.0
 36.9
 9.19
 48.95

+16.6
 1.22010
 1.34023
 +2189
 15 48.95
 16 10.84

53 22.49
 -1 19.77

1 24.1
 58.4
 12.15
 71.25

+14.3
 1.15533
 1.26685
 1.1149
 16 11.25
 16 25.74
 15 52.96

53 44.1
 -1 22.98

1 34.3
 14.9
 47.2
 24.60

+23.0
 1.36173
 1.47324
 1.2973
 16 24.60
 16 54.33
 15 54.87

53 65.2
 -1 18.45

54 42.3
 53 45.2

54 27.4
 53 45.5

54 25.0
 53 46.2

57.1 56.4

+0 41.9 41.1

+0 38.8 38.1

53 22.49
 9.60

53 44.1
 9.90

53 6.52
 +10.60

Gr. 716

3 30 46

30 46

Jan 3 31 42.8
 6 41.8
 11 40.4
 16 39.1
 21 37.6
 26 35.9
 31 34.1
 Feb 5 32.3
 10 30.4
 15 28.4
 20 26.4
 25 24.4
 Mar 1 2.24

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+62° 47'

64.9
65.8
66.6
67.3
67.9
68.3
68.6
68.8
69.0
69.0
68.8
68.5
68.2

30

40

-8

25

+32

+62 47

+194

Run 2 = -35 11.95

+350

+39+398

+41+352

+39+370

+37+387

1871 Dec. 27

Dec. 29

Jan. 1

Jan. 5

Jan. 6

Jan. 13

30 18.130 5.330
 22.8 9.8
 27.3 12.0
 36.2 27.1
 40.8
 45.2
 49.631 15.9
 54.1 18.0
 3.3 20.3
 7.6
 49.030 9.0
 317.0
 16.0
 497.0
 45.182
 4.37 45.1
 19.19 4.36
 11.19
 17.15
 40.77
 +18.66
 +68
 +34
 4.19

15.9
 20.430 68
 25.0 9.2
 34.0 12.3
 38.3 28.3
 43.0
 47.8
 52.0
 1.0
 5.4
 10.030 9.4
 29.25
 15.0
 47.25
 42.865
 4.39
 21.48
 42.84
 4.35
 21.41
 +4
 21.37
 42.84
 +23.10
 +20.71
 +86.11
 +33
 3.84
 4.04

30 13.030
 17.4
 22.0
 29.1
 35.4
 40.1
 44.7
 49.0
 53.2
 58.2
 2.6
 7.130 35.2
 43.86
 39.873
 4.39
 24.56
 39.84
 +23.10
 +20.71
 +86.11
 +33
 3.84
 4.04

34.630
 35.8
 40.4
 18.7
 27.6
 32.3
 36.8
 41.2
 45.8
 50.7
 54.3
 38.29 50.1
 40.10
 39.873
 39.84
 4.284.27
 4.19
 24.444.43
 27.49
 27.49
 +.04
 27.45
 36.70
 +26.74
 39.84
 +23.50
 +23.50
 +.78
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 3.87
 4.07
 4.03

9.629
 14.2
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47.830
 50.1
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 150.2
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9.029
 13.1
 18.1
 27.2
 32.6
 36.0
 40.6
 45.1
 50.2
 54.2
 58.5
 3.030 60.1
 39.873
 36.091
 36.06
 4.17 4.16
 28.11 28.10
 +.04
 28.06
 36.06
 +27.30
 -1.5
 36.06
 +.76
 +27.31
 3.97
 +.73
 3.96

37.830
 0.0
 2.6
 78.04
 36.0
 0.4
 4.8
 9.4
 18.4
 22.8
 27.430 32.2
 30.0
 2.6
 0.225
 0.22
 0.22
 3.99 3.98
 -3.97 -3.96
 +.04
 -3.92
 0.22
 +2.97
 +.03 6.22
 +.72 2.92
 3.94
 +.76
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33.430 20.6
 36.7 22.9
 42.3 26.0
 51.2 69.5
 36.0
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 3.99 3.98
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 +.04
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30 13.030
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 43.86
 39.873
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 +23.10
 +20.71
 +86.11
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35 1.2 351 42.3 1 0.7
 0 38.0 20.0 0 38.8
 39.2 1 6.23 39.5
 0 19.60 1 31.15 0 19.75
 +36.2
 1.55870
 1.34536
 +22.15
 35 49.60
 36 11.70
 +62° 46 36.60
 + 0 22.84

15.9
 20.430 68
 25.0 9.2
 34.0 12.3
 38.3 28.3
 43.0
 47.8
 52.0
 1.0
 5.4
 10.030 9.4
 29.25
 15.0
 47.25
 42.865
 4.39
 21.48
 42.84
 4.35
 21.41
 +4
 21.37
 42.84
 +23.10
 +20.71
 +86.11
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30 13.030
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 53.2
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 38.29 50.1
 40.10
 39.873
 39.84
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 4.19
 24.444.43
 27.49
 27.49
 +.04
 27.45
 36.70
 +26.74
 39.84
 +23.50
 +23.50
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 3.87
 4.07
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9.629
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 38.29 50.1
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 39.873
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 27.2
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 3.030 60.1
 39.873
 36.091
 36.06
 4.17 4.16
 28.11 28.10
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33.430 20.6
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 42.3 26.0
 51.2 69.5
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 27.430 32.2
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 +.72 2.92
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46 59.4
 47 64.0
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15.9
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 25.0 9.2
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 +20.71
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 27.49
 27.49
 +.04
 27.45
 36.70
 +26.74
 39.84
 +23.50
 +23.50
 +.78
 +25
 3.87
 4.07
 4.03

9.629
 14.2
 18.7
 27.6
 32.3
 36.8
 41.2
 45.8
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 54.3
 38.29 50.1
 40.10
 39.873
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 24.444.43
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 3.87
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47.830
 50.1
 52.3
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9.029
 13.1
 18.1
 27.2
 32.6
 36.0
 40.6
 45.1
 50.2
 54.2
 58.5
 3.030 60.1
 39.873
 36.091
 36.06
 4.17 4.16
 28.11 28.10
 +.04
 28.06
 36.06
 +27.30
 -1.5
 36.06
 +.76
 +27.31
 3.97
 +.73
 3.96

37.830
 0.0
 2.6
 78.04
 36.0
 0.4
 4.8
 9.4
 18.4
 22.8
 27.430 32.2
 30.0
 2.6
 0.225
 0.22
 0.22
 3.99 3.98
 -3.97 -3.96
 +.04
 -3.92
 0.22
 +2.97
 +.03 6.22
 +.72 2.92
 3.94
 +.76
 3.94

33.430 20.6
 36.7 22.9
 42.3 26.0
 51.2 69.5
 36.0
 0.4
 4.8
 9.4
 18.4
 22.8
 27.430 32.2
 30.0
 2.6
 0.225
 0.22
 0.22
 3.99 3.98
 -3.97 -3.96
 +.04
 -3.92
 0.22
 +2.97
 +.03 6.22
 +.72 2.92
 3.94
 +.76
 3.94

30 13.030
 17.4
 22.0
 29.1
 35.4
 40.1
 44.7
 49.0
 53.2
 58.2
 2.6
 7.130 35.2
 43.86
 39.873
 4.39
 24.56
 39.84
 +23.10
 +20.71
 +86.11
 +33
 3.84
 4.04

+32 I +1 4.07 50

+1 3.4 3.7

+1 3.4 3.7

+1 3.2 3.6

+1 2.5 2.8

+1 1.4 1.7

S' = +62 46 36.00
- 21.0046 38.04
21.3046 38.62
9.6046 40.44
10.3046 40.87
10.5046 43.50
11.00

$$\delta = +62^{\circ} 47' 43.1''$$

$$\delta = +62^{\circ} 47' 55.3''$$

3.94	4.17	58.03	+15
4.01	4.06	58.90	+2
3.97	3.87	58.73	-15
3.54	4.03	58.89	+1
4.04	3.56	58.82	-6
4.53	3.54	58.80	-8
4.00	4.08	58.94	+6
	4.02	58.99	+6
		58.88	+0
3.98	4.02	58.88	00

	+33+350 Jan. 15	+39+343 Jan. 24	+28+290 Febr. 14	
30	33.380 378 423 513 557 0.7 4.9 9.4 18.3 22.8 27.430 30.36 300 3.6 0.327 0.29 3.84 -3.65 3.24 0.29 +3.03 +0.8 +6.4 4.04 +4.08	199.30 216 237 65.2 57.4 1.8 6.5 15.5 19.9 24.630 33.24 300 63.24 57.491 57.46 3.66 -6.20 3.66 57.46 +5.45 +3.6 +1.76 4.03 +22.52	61.30 6.5 9.6 12.0 24.5 50.531 55.3 0.0 9.0 13.5 18.130 32.11 240 58.11 51.009 50.918 2.47 -11.89 50.98 +11.33 +1.15 +5.7 4.00 +2.98	34.8 36.9 38.5 110.2 32.1 34.4 35.8 34.1 36.7 36.7 50.98 50.98 2.47 -11.89 -11.89 50.98 +11.33 +1.15 +5.7 +1.15 +1.15 4.02
350	56.2 33.6 89.8 44.90 +38.6 1.55658 1.37324 +236.2 35.4490 36.852	50.6 15.2 65.8 32.90 +46.7 1.68930 1.41596 +2992 35.8390 36.382	9.0 37.6 40.6 33.80 +14.3 1.15533 0.98338 +8.58 53.30 35.4492 44.72 3.63 21.56	34.7 2.2 36.8 18.45 -54431 1.63950 1.41250 2.586 18.45 18.45 44.31
46	39.83 +23.0	45.53 +22.52	46.363 +21.56	
47	02.9 67.2	08.0 68.2	26.2 69.0	
+1	4.3 46	0.2 06	42.8 43.1	
46	39.83 1.90	45.53 1.90	3.63 -13.70	

δ Persei

$$\begin{array}{r} 33 \\ 38 \\ + 47 \\ \hline 118 \end{array}$$

Jan	8	3	3	
6				49.09
11				49.04
16				48.97
21	(+0.1)			48.89
26				48.80
31	(+0.1)			48.70
5				48.59
10				48.48
				48.36

+ 47° 22' 39"

39.	1	6
39.	7	5
40.	2	4
40.	6	4
41.	0	3
41.	3	2
41.	5	1
41.	6	0
41.	6	

$+109$
 $+109$
 $\text{Lm} Z = -.09 \quad +350$
 1871 Dec. 27

$239 + 398$
 1872
 Jan. 1.

+41+392
Jan .5

$+39 + 375$
Jan. 6

$+37 + 387$
Jan. 13

$+33 + 350$
from 15

-023

3.3	12.032	54.033	7.132	55.3
	15.0	57.0	10.0	56.8
	18.0	58.6	13.0	58.3
	24.0	169.6	19.1	170.4
	27.1		22.1	
	30.2		25.2	
	33.3 33	149.6	28.2	
	36.3	57.6	31.2	
	42.2	53.1	37.3	
	45.3		40.4	
	48.4 32	56.5	43.4 32	56.8
33	18		27.0	

38	3.632	53.23
	6.7	54.7
	9.7	56.4
	16.0	164.3
	18.8	
	21.9	
	24.9	
	28.0	
	34.0	
	37.0	
	40.2	
	2408	

3

3.0	8.3	12.5	3
6.1	-	14.2	
9.2		16.3	
15.2		4 3.0	
18.4			
21.2			
24.8			
27.4			
33.5			
36.4			
39.6	38	14.3	
2343			

3	27.4	83	22.7	33
	30.4		83	9
	33.5		25.3	
	39.5		21.9	
	42.6			
	45.6			
	48.6			
	51.7			
	57.8			
	0.8			
	3.9	83	23.9	
50	18			

27.4 33 23.8
30.3 24.9 33
33.4 25.8
39.5 74.5
42.7
45.5
48.5
51.6
57.5
0.7
8.8 33 24.5
0009

Si no V9.86.682

983065
12665
995730

9.83065
11804
9.94869

30.164	25.182
49.13	49.08
18.97	2390
	4909
	-23.93
30.15	25.16
49.13	+23.50
18.98	+ 92
1	+ 4
18.99	-23.94
	49.12

$$\begin{array}{r} 21.89 \\ + 26.74 \\ + 45 \\ + 8 \\ \hline 49.14 \end{array} \qquad \begin{array}{r} 21.87 \\ + 49.05 \\ - 27.18 \\ \hline 21.87 \\ + 49.05 \\ - 27.18 \\ \hline 49.14 \end{array}$$
$$\begin{array}{r} 2130.0 \\ 48.26 + 8 \\ 27.74 \\ \hline 21.28 \\ 49.04 \\ - 27.76 \\ \hline 21.28 \\ + 27.30 \\ + 43 \\ + 09 \\ \hline 49.10 \end{array}$$
$$\begin{array}{r} 45.67 \\ 48.59 \\ 42.94 \\ \hline 3.23 \end{array}$$
$$\begin{array}{r} 45.587 \\ 45.887 \\ 3.28 \\ - 3.39 \\ \hline 45.51 \\ + 3.03 \\ \hline 36 \\ - 3.39 \\ \hline 22.61 \\ 49.13 \\ - 3.40 \end{array}$$

$$\begin{array}{r} 30.15 \\ + 18.66 \\ + .95 \\ + .00 \\ \hline 49.76 \end{array}$$

$$\begin{array}{r} 21.87 \\ + 26.45 \\ \hline 48.32 \\ + 8 \\ \hline 56.32 \end{array}$$
$$\begin{array}{r} 21.28 \\ + 27.31 \\ + 41 \\ + 9 \\ \hline 49.13 \end{array}$$

$$\begin{array}{r} 40.59 \\ + 2.92 \\ + 42 \\ + 1.19 \\ \hline 86.9 \end{array}$$

912	457 + 3.62 + 38 + 28	49.
8.5		1
46.1		
546		
2730		

$$\begin{array}{r} + 33.7 \\ 1.52763 \\ \hline 1.48492 \end{array}$$
$$\begin{array}{r} + 25.1 \\ 1.43296 \\ 1.39026 \\ + 24.86 \\ \hline \$0 \quad 50.05 \\ / \quad 14.61 \\ \hline 21 \quad 3374 \\ + \quad 500 \end{array}$$
$$\begin{array}{r} + 7.0 \\ 0.84509 \\ 0.80239 \\ + 6.30^{\circ} \\ \hline 9.00 \\ 15.35 \\ \hline 3300 \\ 521 \end{array}$$
$$\begin{array}{r} + 217 \\ 1.23645 \\ 1.29875 \\ + 1967 \\ \hline 5850 \\ 1322 \\ \hline 3513 \\ + 503 \\ \hline \end{array}$$

$+ 20.6$
 1.31597
 1.27327
 $+ 11.76$
 57.80
 1606
 3229
 5.31

21	36.2	21	36.7
22	38.4	22	39.1

21	38.7
22	39.6

1	38.2
2	39.7

1	40.2	21
2	40.4	22

$$\begin{array}{r} 37.6 \\ 40.5 \end{array}$$
$$\begin{array}{r} +08 \text{ I } +1 \quad 2.4 \quad 2.5 \\ \delta' = +47 \quad 21 \quad 31 \quad 21 \\ \quad \quad \quad -18 \quad 20 \end{array}$$
$$\begin{array}{r} +1 \quad 23 \quad 24 \quad +1 \quad 0. \\ 21 \quad 31.61 \quad 21 \quad 33.7 \\ - 6.80 \quad \quad \quad \quad \% \end{array}$$
$$\begin{array}{r} 1.0 \\ + 1 \\ \hline 21 \end{array} \quad \begin{array}{r} 1.5 \\ 1.5 \\ \hline 33.00 \\ 740 \end{array}$$

+1	0.2	0.3	+1	2.9	3.0
2/1	35.13		2/1	32.29	
	8.16			8.20	

to
21

$$\delta = +47^{\circ} 22' 20.7''$$

$$\delta = +47^{\circ} 22' 32.3''$$

49.12	49.13	49.14
14	13	13
10	09	08
15	12	11
13	14	13
16	17	16
22	15	14
29	13	12
49.14	49.13	49.12

+38+487 Jan. 30 +52+505 Feb. 1 +94+445 Feb. 4

23.8	33	23.488	198.33	22.333	31.033	21.033	11.1
24.9		26.6	207	25.5	32.8	24.1	13.0
25.6		29.6	220	28.4	33.8	27.1	15.0
24.5		35.7	625	34.7	77.6	33.3	39.1
		38.8		37.6		36.2	
		41.8		40.6		39.3	
		44.8		43.6		42.4	
		47.9		46.7		45.5	
		54.0		52.8		51.4	
		57.0		55.8		54.6	
24.8		60.2	20.8	58.8	32.5	57.6	13.0
		45.9		44.6		43.2	

537	41.800	41.78	40.59	39.29
490		48.61	46.59	39.29
339		-6.83	48.57	48.50
			-7.48	9.21
57	41.78	41.78	40.59	39.29
50	+6.41	48.61	+7.48	48.50
14	+41	-6.83	+58	-7.97
40	+52	1	+56	1
	49.16	-6.14	49.22	-7.81
57		41.78	40.59	39.29
62		+6.40	+7.44	48.50
35		+41	+55	+48
28	49.14	+52	49.17	+57

1	28.4	1	17.9	1	34.3
	54.3		45.4		35.0
	82.7		63.3		55.0
	41.35		81.65		17.60
	+21.0		+8.1		+26.3
	1.32221		0.90844		1.41995
	1.27090		0.85717		1.36864
	*1.165		*1.20		*1.23.37
1	17.35	1	11.65	1	17.60
0	52.70	0	54.45	0	54.23
21	55.65	21	53.90	21	54.12
	+5.26		+5.46		+5.06

22	01.0	21	59.4	21	59.2
22	41.5	22	41.5	22	41.6

+0	40.5	40.6	+0	42.1	42.1	+0	42.4	42.5
21	55.65		21	53.90		21	54.12	
	9.20			9.20			-9.30	

5 Eridani

5 Camel 3 37

3 37 10

-10 12

-18

1872 Jan. 5	Jan. 13	Jan. 15	Jan. 30	Feb. 1	Feb. 4
36 28.036	24.536	51.736	43.436	51.636	43.036
30.0	25.6	53.7	44.3	53.7	44.2
32.1	26.7	55.6	45.4	55.7	45.4
36.3	0.0	59.9	56.4	56.4	56.4
38.72	2.1	1.9	58.6	58.6	58.6
40.4	4.0	4.1	0.0	59.6	59.6
42.5	6.3	6.2	2.6	1.6	1.6
44.6	8.4	8.2	4.7	3.7	3.7
48.8	12.5	12.4	9.0	7.8	7.8
51.0	14.6	14.5	11.0	10.0	10.0
53.0	17.7	16.6	13.0	11.9	11.9
44.49	22.68	28.45	30.58	35.43	35.43
	18.0	24.0	30.6	30.0	30.0
	4.68	4.8	5.8	65.43	65.43
	4.255	4.073	0.527	59.462	59.462
9.99308	40.4575				
12665					
.11973					
9.99308					
11804					
.11112					

30 4 17.5	4 11.8	4 11.7	4 8.3	4 38.4	4 51.0
9.7	5.2	3 59.2	45.0	14.5	28.0
21.2	17.0	5 1.29	58.3	53.9	79.0
4 13.60	4 16.30	4 05.45	26.65	26.45	39.50
+14.8	+19.7	+19.9	Opposite - 11.2	+11.5	+18.5
1.17026	1.29446	1.29445	1.04921 m	1.06069	1.27415
1.25977	1.41419	1.41858	1.16033 m	1.17181	1.38527
+19.50	+25.95	+26.22	+14.46	+14.85	-24.28
34 13.60	34 08.50	34 5.45	38 56.65	34 26.95	34 38.00
34 33.0	34 38.45	34 31.67	34 15.11	34 11.60	34 15.22
-10° 11' 44.75	11 46.10	11 43.32	11 22.76	11 22.25	11 26.87

Feb. 22

37.8
39.3
40.8
17.9

36 41036 34.8
 431 35.9
 453 36.7
 475 107.4
 515
 536
 557
 577
 210
 41
 6.1 36 35.8
 5896
 53600

39.3

4 37.9
 6.6
 34.5
 17.25
 +17.8
 1.25042
 1.36154
 - 2299
 34 22.25
 30 (5926) CY.
 11 10.91

52 .67 - 3
 52.66 .66 - 4
 65 63 - 7
 70 68 - 2
 70 69 - 1
 82 77 + 7
 71 74 + 4
 73 73 + 0
 497
 52.71 62.70
 - 3.05
 49.14

+94+445 Feb. 4 +41+400 Feb. 12

39 29.939 24.239 25.439 21.7
 32.0 25.4 27.6 22.8
 34.4 26.0 29.8 23.8
 38.9 25.6 34.3 28.3
 41.1 36.5
 43.3 38.9
 45.6 41.1
 47.7 43.2
 52.3 44.7
 54.6 50.0
 56.9 52.39 238
 47.7 4267
 43.386 38.791
 43.32 38.78
 52.20 51.90
 - 8.88 - 13.12

43.32 43.32 38.78 38.78
 + 1.69 52.20 + 12.97 51.90
 + .20 - 8.88 + .88 13.12
 + .50 - 1 + .80 - 1
 52.71 52.73 13.13
 43.32 38.78
 + 1.73 + 12.97
 + .12 + .88
 + .50 + .80
 1 18.3 52.74 0 57.4 52.73
 49.8 29.0
 68.1 56.1
 37.05 43.20

+ 18.1 + 16.0
 1.25767 1.20412
 1.33745 1.28398
 1121.95 1119.22
 41 40.5 40 43.20
 40 42.30 40 23.98

42 6.05 42 24.37
 - 21.0 - 20.67

41 45.0 42 03.7
 42 27.4 42 26.9

+ 0 42.4 42.1 + 0 23.2 22.9

42 6.05 42 24.37
 1.40 - 0.90

Eridani

8 42 12

- 24 16

- 45

1872 Jan. 5

Jan. 6

Jan. 8

Jan. 13

Jan. 30

41	38	41	51.941	29.141	25.741	27.441	30.841	53.441	58.641	49.541	39.8
			54.0	81.4	26.7	29.6		35.6	59.5	51.9	41.6
			56.1	33.5	27.7	31.8		57.9	0.5	54.2	43.4
			38.5	35.0	30.1	36.2		2.3	172.6	58.6	124.3
			40.8	40.2		38.6		4.5		1.0	
			43.2	42.6		40.7		6.7		3.3	
			45.3	44.9		43.0		8.9		5.5	
			47.6	47.0		45.4		11.3		7.8	
			2154	51.5		49.9		15.7		12.3	
			41	54.041	26.7	52.141	39.8	18.141	59.5	14.641	41.6
				56.1		54.3		20.2		16.5	
				46.53		44.90		25.48		27.57	
								18.6		24.9	
								74.8		33.7	
								68.00		32.45	

6.961382m

6.961382m
 43.080
 1.2665
 .08647

9.95482
 .11804
 .07786

35 3 20.0	2 46.2	2 64.9	3 0.8	3 16.0
11.8	39.6	41.3	2 32.9	51.4
31.3	85.8	96.2	53.7	67.4
15.65	42.90	48.10	2 26.85	33.70
-10.7	+15.8	+10.0	+7.2	+21.6
1.13742m	1.20139	1.00000	0.86332	1.33445
1.12389m	1.28786	1.08647	1.74977	1.41231
-1330	+1840	+1220	+891	-2584
38 15.65	37 42.80	37 48.10	37 56.85	38 6.70
38 23.8	38 23.0	38 00.30	38 57.6	37 35.86
-24° 15' 14.00	15 13.95	15 11.95	15 17.41	14 49.51

B. Ab. 1199

8 48 56

- 38 00

1872 Jan. 8

Jan. 30

Feb. 1

2009

43 43 28.2
28.7
56.9
19.3
21.7
24.3
27.0
29.4

43 30.8 43 31.7 43 29.7 43 44.5
30.6
36.4
41.5
44.1
46.8
49.2
51.8
57.1

31.7 43 29.7 43 44.5
32.3 32.6 49.8 18.3 44 16.6
34.8 35.1 23.1
40.0 40.4 23.9
42.9 43.1 25.5
45.4 45.8 (2.5) 24.2
48.0 48.4
50.6 50.9

Sum 9.78934 12.7 43 28.4

59.7 43 51.7
62.1
51.3 1

55.7 55.9
58.3 58.6
60.9 61.2
49.8 60.2

Sum 9.19653 24.340
.12665
.02318

46.6 45

45.3 45.6 46.6

9.89658
11.804
.01457

15 4 7.8
3 52.1
59.9
3 29.95

- 4.1
0.61278 m
0.63596 m
- 4.32
18 54.5
18 50.63

- 37° 56' 7.28

4 7.8
41.7
17.5
2 11.75

+ 14.9
1.17818
1.18775
- 15.41

18 54.5
18 39.34

55 50.99

4 19.8
54.5
14.3
37.15
15.6 2nd

+ 28.7 + 2.14
1.45788 1.33041
1.47245 1.34498
- 2.968 - 2.213

19 7.15 19 7.15
18 37.47 18 45.02

55 49.12 55 56.67

976
Camel No Saw 3 46 146.5 +60° 43' 60".2
8 48-58 11 1456.09 61.1 .9
46 14.35 9.29 16 1446.10 62.0 .7
+60 44.33 21 1435.11 62.7 .6
(+1.78) 26(-02) 14.22 .13 63.3 .5
(+1.78) 31(-02) 14.07 .15 63.8 .5
10 13.91 .16 64.2 .4
15 13.75 .16 64.5 .3
20 13.58 .17 64.7 +.2
25 13.40 .18 64.7 .0
Jan. 1 13.21 .19 64.7 .0
12.02 .19 64.5 -.2
12.04 .18 64.2 -.3

$\delta = +60^\circ 43' 51.4''$

Jan. 8	Jan. 13	Jan. 15	Jan. 30	Feb. 1	Feb. 1
45 19645 1.6 45 45.6 45 45.5 45 35.3 45 47.5 45 57.1 45 40.0 45 82.0	45 50.0 45 30.9 45 47.8 45 37.3 45 45.8 45 57.1 45 40.0 45 82.0	45 50.0 45 30.9 45 47.8 45 37.3 45 45.8 45 57.1 45 40.0 45 82.0	45 50.0 45 30.9 45 47.8 45 37.3 45 45.8 45 57.1 45 40.0 45 82.0	45 50.0 45 30.9 45 47.8 45 37.3 45 45.8 45 57.1 45 40.0 45 82.0	45 50.0 45 30.9 45 47.8 45 37.3 45 45.8 45 57.1 45 40.0 45 82.0
23.8 3.1 54.0 32.7 64.1 39.0 49.8 58.3 57.3 105.3	23.8 3.1 54.0 32.7 64.1 39.0 49.8 58.3 57.3 105.3	23.8 3.1 54.0 32.7 64.1 39.0 49.8 58.3 57.3 105.3	23.8 3.1 54.0 32.7 64.1 39.0 49.8 58.3 57.3 105.3	23.8 3.1 54.0 32.7 64.1 39.0 49.8 58.3 57.3 105.3	23.8 3.1 54.0 32.7 64.1 39.0 49.8 58.3 57.3 105.3
27.8 4.9 2.3 35.0 2.4 111.6 58.3 57.3 105.3	27.8 4.9 2.3 35.0 2.4 111.6 58.3 57.3 105.3	27.8 4.9 2.3 35.0 2.4 111.6 58.3 57.3 105.3	27.8 4.9 2.3 35.0 2.4 111.6 58.3 57.3 105.3	27.8 4.9 2.3 35.0 2.4 111.6 58.3 57.3 105.3	27.8 4.9 2.3 35.0 2.4 111.6 58.3 57.3 105.3
36.1 7.6 6.6 78.6 6.4 10.7 6.5 5.6 5.6 9.8	36.1 7.6 6.6 78.6 6.4 10.7 6.5 5.6 5.6 9.8	36.1 7.6 6.6 78.6 6.4 10.7 6.5 5.6 5.6 9.8	36.1 7.6 6.6 78.6 6.4 10.7 6.5 5.6 5.6 9.8	36.1 7.6 6.6 78.6 6.4 10.7 6.5 5.6 5.6 9.8	36.1 7.6 6.6 78.6 6.4 10.7 6.5 5.6 5.6 9.8
40.4 10.8 15.0 19.1 14.9 14.1 15.0 13.8 13.8 22.3	40.4 10.8 15.0 19.1 14.9 14.1 15.0 13.8 13.8 22.3	40.4 10.8 15.0 19.1 14.9 14.1 15.0 13.8 13.8 22.3	40.4 10.8 15.0 19.1 14.9 14.1 15.0 13.8 13.8 22.3	40.4 10.8 15.0 19.1 14.9 14.1 15.0 13.8 13.8 22.3	40.4 10.8 15.0 19.1 14.9 14.1 15.0 13.8 13.8 22.3
44.9 19.6 27.6 31.8 27.7 31.8 32.0 30.7 30.1 26.6	44.9 19.6 27.6 31.8 27.7 31.8 32.0 30.7 30.1 26.6	44.9 19.6 27.6 31.8 27.7 31.8 32.0 30.7 30.1 26.6	44.9 19.6 27.6 31.8 27.7 31.8 32.0 30.7 30.1 26.6	44.9 19.6 27.6 31.8 27.7 31.8 32.0 30.7 30.1 26.6	44.9 19.6 27.6 31.8 27.7 31.8 32.0 30.7 30.1 26.6
48.0 31.8 36.0 45 32.9 36.3 45 37.2 32.0 57.1 30.7 45 35.1	48.0 31.8 36.0 45 32.9 36.3 45 37.2 32.0 57.1 30.7 45 35.1	48.0 31.8 36.0 45 32.9 36.3 45 37.2 32.0 57.1 30.7 45 35.1	48.0 31.8 36.0 45 32.9 36.3 45 37.2 32.0 57.1 30.7 45 35.1	48.0 31.8 36.0 45 32.9 36.3 45 37.2 32.0 57.1 30.7 45 35.1	48.0 31.8 36.0 45 32.9 36.3 45 37.2 32.0 57.1 30.7 45 35.1
53.2 1.5 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0	53.2 1.5 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0	53.2 1.5 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0	53.2 1.5 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0	53.2 1.5 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0	53.2 1.5 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0
58.45 3.2 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0	58.45 3.2 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0	58.45 3.2 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0	58.45 3.2 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0	58.45 3.2 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0	58.45 3.2 10.1 29.8 18.0 29.8 18.0 29.8 18.0 29.8 18.0
31.22 18.0 118.18 10.77 10.77 10.76 10.76 10.76 10.76 10.76	31.22 18.0 118.18 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	31.22 18.0 118.18 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	31.22 18.0 118.18 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	31.22 18.0 118.18 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	31.22 18.0 118.18 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76
18.0 49.2.2 46 10.800 10.77 10.77 10.76 10.76 10.76 10.76	18.0 49.2.2 46 10.800 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	18.0 49.2.2 46 10.800 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	18.0 49.2.2 46 10.800 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	18.0 49.2.2 46 10.800 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	18.0 49.2.2 46 10.800 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76
44.71 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	44.71 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	44.71 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	44.71 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	44.71 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	44.71 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76
44.71 14.50 14.42 14.42 14.38 14.38 14.38 14.38 14.38 14.38	44.71 14.50 14.42 14.42 14.38 14.38 14.38 14.38 14.38 14.38	44.71 14.50 14.42 14.42 14.38 14.38 14.38 14.38 14.38 14.38	44.71 14.50 14.42 14.42 14.38 14.38 14.38 14.38 14.38 14.38	44.71 14.50 14.42 14.42 14.38 14.38 14.38 14.38 14.38 14.38	44.71 14.50 14.42 14.42 14.38 14.38 14.38 14.38 14.38 14.38
28.81 28.81 3.65 3.65 3.62 3.62 3.62 3.62 3.62 3.62	28.81 28.81 3.65 3.65 3.62 3.62 3.62 3.62 3.62 3.62	28.81 28.81 3.65 3.65 3.62 3.62 3.62 3.62 3.62 3.62	28.81 28.81 3.65 3.65 3.62 3.62 3.62 3.62 3.62 3.62	28.81 28.81 3.65 3.65 3.62 3.62 3.62 3.62 3.62 3.62	28.81 28.81 3.65 3.65 3.62 3.62 3.62 3.62 3.62 3.62
44.71 29.77 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	44.71 29.77 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	44.71 29.77 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	44.71 29.77 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	44.71 29.77 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	44.71 29.77 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76
29.04 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	29.04 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	29.04 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	29.04 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	29.04 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	29.04 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76
1.74 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	1.74 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	1.74 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	1.74 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	1.74 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76	1.74 44.71 10.77 10.77 10.76 10.76 10.76 10.76 10.76 10.76
14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32	14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32	14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32	14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32	14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32	14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32 14.32
14.34 14.31 14.37 14.25 14.27	14.34 14.31 14.37 14.25 14.27	14.34 14.31 14.37 14.25 14.27	14.34 14.31 14.37 14.25 14.27	14.34 14.31 14.37 14.25 14.27	14.34 14.31 14.37 14.25 14.27

35 4 580 330 910 45.50 +11.5 1.61804 1.43389 +27.16 39 45.50 40 12.66 +60° 42' 35.69 + 20.05	4 51.3 32.8 84.1 42.05 +27.7 1.57863 1.39448 +24.80 39 42.05 40 06.85 42 48.50 + 19.10	40 1 2.2 0 38.3 40.5 0 2 0.25 +33.6 1.52633 1.34218 +21.99 39 56.25 40 12.24 42 36.11 + 20.18	0 13.9 4 37.7 51.6 25.80 +9.6 0.98227 0.78957 +6.6 39 55.2 39 49.64 42 58.71 + 20.76	0 25.5 4 57.0 76.5 39.25 +30.4 1.45257 1.29011 +19.50 40 08.25 39 45.75 42 59.60 + 21.13
42 55.7 43 61.5	43 55.6 43 62.3	42 56.3 43 62.6	43 19.5 43 64.1	43 20.7 43 64.3
+29 I +1 5.8 6.1 S = +60 42 35.69 - 1.0.16	+1 5.7 6.1 42 35.50 1.0.90	+1 6.3 6.6 42 36.11 1.1.20	+0 44.6 44.9 42 58.71 1.2.70	+0 43.6 43.8 42 59.60 1.2.90

14.32	.34	-1
32	.31	-4
34	.37	+2
19	.25	-10
34	.27	+8
44	.42	+1
14.33	14.33	+02
	-5.06	
	9.27	

+41+400
Feb. 22

45 34.1 45 243
38.5 18 26.0
43.0 45 27.9
51.3 83
55.3 10 28.2
59.3 10
3.8 45
7.7 39
16.4 43
22.7 43
25.0 43 26.4
35.51
30.0
65.51
59.65

38.61 59.55 59.52
13.13 59.52 13.18
-24.52 -13.61
38.61 59.52 +1.22
+12.94 12.97 -13.54
+1.73 73 69.52
+1.22 1.22 +12.97
53 14.44 +1.11
+1.22
14.42

of 9.2 0 9.2
-2.5 7 4 84.3
-16.5 103.5
-18.25 51.85

13.5
1.52 50.4
1.33 22.8
-2.14 9
89 51.45
89 30.26
43 18.09
+19.54

43 37.7
43 64.7

+0 27.0 27.3

43 18.09
-13.30

3 Persei

$$\begin{array}{r} 3 \ 46 \ 02 \\ +31 \ 30 \\ \hline \end{array}$$

$$\begin{array}{r} (+61) \\ (+61) \end{array}$$

$$\begin{array}{r} 6 \\ 11 \\ 16 \\ 21 \\ 26 \\ 31 \\ 36 \\ 41 \\ 46 \\ 51 \\ 56 \\ 61 \end{array}$$

$$\begin{array}{r} 3 \ 46 \ 02 \\ +31 \ 30 \\ \hline \end{array}$$

$$\begin{array}{r} 5.35 \ 36 \ -4 \\ 30 \ 43 \ +3 \\ \hline \end{array}$$

$$\delta = +31^\circ 30' 39''$$

$$\alpha_{2000} = +19$$

$$1.39 + 37.5$$

$$+44 + 44.5$$

$$\begin{array}{r} 1872 \text{ Jan. 6} \\ \#018 \end{array}$$

$$\begin{array}{r} 45 \ 23.345 \ 16.645 \ 41.445 \ 33.2 \\ 25.9 \ 17.8 \ 43.9 \ 34.2 \\ 28.1 \ 18.0 \ 46.2 \ 35.3 \\ 32.8 \ 51.9 \ 51.1 \ 102.7 \\ 35.2 \ 53.5 \\ 37.7 \ 55.9 \\ 40.1 \ 58.3 \\ 42.6 \ 0.7 \\ 47.2 \ 5.6 \\ 49.8 \ 8.1 \\ 52.2 \ 10.545 \ 34.3 \\ 41.47 \ 37.52 \\ 26.0 \\ 61.52 \\ 55.93 \end{array}$$

$$\begin{array}{r} 9.92077 \ 37.70 \\ 12.665 \ 37.68 \ 37.68 \\ 0.05742 \ 5.27 \ 5.27 \\ -27.57 \ 27.57 \ 55.91 \\ +27.57 \ 27.57 \ 55.91 \\ 9.93077 \ 37.68 \ 27.56 \ 55.91 \\ 1.8604 \ 27.30 \ 27.30 \ 55.91 \\ .04881 \ 24 \ 24 \ 55.91 \\ +13 \ 27.32 \ 27.32 \ 55.91 \\ +.23 \ 27.32 \ 27.32 \ 55.91 \\ 53.8 \ 27.32 \ 27.32 \ 55.91 \\ 53.6 \ 27.32 \ 27.32 \ 55.91 \end{array}$$

$$\begin{array}{r} 50 \ 3 \ 13.2 \\ 2 \ 58.0 \\ 6 \ 11.2 \\ 3 \ 5.60 \end{array}$$

$$\begin{array}{r} +20.4 \\ 1.30963 \\ 1.36705 \\ +23.29 \\ 53 \ 56.0 \\ 53 \ 28.89 \end{array}$$

$$\begin{array}{r} +31^\circ 29' \\ 19.46 \\ 12.22 \end{array}$$

$$\begin{array}{r} 3 \ 48.2 \\ 18.9 \\ 61.1 \\ 33.55 \end{array}$$

$$\begin{array}{r} +21.7 \\ 1.33645 \\ 1.38526 \\ -24.28 \\ 53 \ 33.55 \\ 53 \ 9.27 \end{array}$$

$$\begin{array}{r} 29 \ 39.08 \\ 12.45 \end{array}$$

$$\begin{array}{r} 29 \ 7.2 \\ 30 \ 7.5 \end{array}$$

$$\begin{array}{r} 29 \ 26.6 \\ 30 \ 8.1 \end{array}$$

$$-17 \ I \ +1 \ 0.3 \ 0.1$$

$$\begin{array}{r} \delta = +31^\circ 29' \\ 19.46 \\ -3.60 \end{array}$$

$$+0 \ 41.5 \ 41.3$$

$$\begin{array}{r} 29 \ 39.08 \\ -4.20 \end{array}$$

J Mrs Min

3 48 50 (-07)

48 40.90

101 48.40 42.71

-478

7812

(-478)

Amiz = -.86

+41+392

1872 Jan. 5

+075 47 12.247 2.2
22.098 4.9
32.1 10.1 8.2
52.3 10.3 15.3
2.6 10.3
- 11.8 7.2
22.5 10.7
32.7 10.2
52.3 10.6 5.1
2.4 10.6
12.9 10.6
25.5 8
12.6
13.5 8
12.35

Sun 9.99070

cos 9.3112018
12665m
943794m
12.42
36.77
34.35

12.42 12.42
+26.76 36.77
9.31129m - 1.96 -24.35
11804m + 3.63 -2.21
9.42933m -24.56
40.85

12.42
+26.75
- 1.80
+ 3.63

40.93

35 2.62
14.2
48.4
12.420

+67.2
1.82736
1.26530m

- 184
36 54.20
36 35.78

+101 46 12.57
+ 46 41.86

48 54.4
48 58.2
4 55.6
10 80.8
11

+81 I + 48.56

- 125

Jan 19/15 48 36.40

6 36.86 133
11 37.28 142
16 37.83 145
21 +32 38.21 148
26 +10 38.70 149
31 42 39.28 158
Feb. 5 (+21) 39.79 156
10 40.35 156
15 (+38) 40.92 157
20 41.48 156
25
Mar 1

+78° 10' 61.9

60.4 15
59.0 14
58.8 12
56.6 12
55.6 10
54.8 8
54.8 7
53.6 5
53.2 4
53.0 2

δ = +78° 11' 13.3

+33+350

Jan. 15

48 30.748
35.3
35.9
76.3
26.2
26.3
45.5
56.5
47

49 47 34.149 12.747
17.0 44.4 18.6
54.6 36.3 35.3 35.0
15.7 25.0
25.0
-35.3
45.7
56.8
15.6 49 18.1
25.6
35.8

18.02
36.26
37.62
37.62
86.11
+3.03
- 1.58
+ 2.78
40.34
36.31
+3.02
- 1.67
+2.78
40.44

+38+43

Jan. 30

34.149 12.747
18.6
54.6
15.7
25.0
-35.3
45.7
56.8
15.6 49 18.1
25.6
35.8

35.327
35.40
35.10
-3.80
35.40
+6.45
- 1.82
+1.30
40.33
35.40
+6.41
-2.08
+1.30
41.03

+52.100

Feb. 1

48 24.7
27.5
35.3 35.0
34.9 14.8
34.2 34.2
34.7 44.7
35.3 35.4
34.7 15.0
35.2 25.5
34.7 35.2

34.87
34.94
39.32
-4.58
34.94
34.94
+7.48
-2.49
+1.08
(40.61)
34.94
+7.45
-2.41
+1.09
41.09

+45.41

Feb. 18

48 0.0
44 3.6
7.7
11.1
21.4
31.4
41.7
51.6
49 35
31.440

31.51
41.24
-9.73
81.51
+11.99
-2.15
-8.1
40.51
31.51
+12.02
-8.99
4
40.58

33.8
59.3
93.1
46.55

-32.4
1.51054m
0.73787
- 8.71
36 16.55
36 7.85

46 40.51
+ 43.01

48 23.5
49 6.9
4 36.5
10 58.1

+ 49.4 142

- 202

48 23.5
49 5.0
4 36.5
10 55.0

+ 41.5 423

- 183

48 21.0
49 5.3
4 34.0
10 54.7

+ 44.3 45.1

- 186

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18720

$M_A = 40.77$
 Grav. 1868 = .71
 newcomb. = 40.89

Gr. 1870 40.49
 1869 40.70
 1868 40.66
 1867 40.47
 40.58

40.34	40.55	41.00	+6.0
33	39	40.44	+4
51	33	41.03	+63
38	61	41.07	+67
	51	40.68	+28
40.39	38	40.43	+03
	40.50	40.78	+38
		+2.30	
		43.08	

+41400

Feb. 22

0.0 48- 10.2 48- 56.0
 3.6 20.6 0.2
 7.7 31.0 5.7
 1.3 40.4 18.17
 50.7

47 60.6

30.58

30.65
 4168
 -11.03

30.65 30.65
 +12.97 41.65
 -1.196 11.03
 -1.28 1.28

40.38 11.24
 30.65
 +12.97
 -1.91
 -1.28
 40.83

1 20.8
 42.3
 63.1
 31.55

-30.0
 1.47712 m
 0.90645
 -30.6
 35 56.55
 35.58 49

46 59.86
 +1 42.08

48 36.9
 49 7.1

10 52.9

+ 30.2 31.0

-204

2 Persei

Jan 1

3 49

1601

+ 39° 38'

19.6

16.07

.07

+ 3

3 49 12

6

11

15.97

20.1

15

.15

+ 11

49 16.04

16

15.93

20.5

20.5

19

.16

+ 12

1204

21

15.87

20.8

21.1

06

.10

+ 6

31

26

15.80

21.3

21.5

16.12

.12

+ 0.8

10

31

15.64

21.6

21.6

12.12

.12

+ 0.8

10

31

15.44

21.6

21.6

12.12

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+ 0.8

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8. Dridani (8.?)
 3 52 09
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1871 Dec. 27.	Jan. 5	Jan. 6	Jan. 8	Jan. 13	Jan. 15
51 32.451 29.6 52 55.952 45.051 23.952 41.5 51 22.251 18.1 51 48.151 40.0 51 47.951 40.9	34.7 30.7 36.7 31.9 41.0 43.0 45.2 47.2 49.3 53.6 51 30.7	26.0 28.0 32.2 34.4 36.3 38.7 40.7 44.952 2.7 47.9 49.2 40.14	24.3 26.2 30.6 32.6 34.7 36.8 43.251 2.03 45.3 47.5 382.2 34.75	20.6 22.3 26.5 28.7 0.7 2.8 5.0 9.3 11.3 13.4 30.83 30.0 6.3 6.75 3.52 2.67	42.0 43.3 43.9 56.4 58.6 0.7 2.7 5.051 42.1 9.1 11.3 13.4 30.76 30.0 7.6 6.69 3.50 2.81
si 4.37960					
cor 9.98 1.5 12665 31.8 11380 49.66					
9.98715 1.804 1.0519 45.15		26.16 36.48			

10 4	15	15 0	10 4	10 4	10 4
38.0 28.2 662 4 33.10		30.1 28.2 533 0 26.65	408 29.2 700 4 35.00	33.76 27.6 61.5 4 30.75	32.8 21.7 545 4 27.25
+14.4 1.15836 1.27216 +18.71 14 23.10 14 51.81 -13° 52 34.6		-26.2 1.41830 1.53210 -39.05 15 26.65 14 52.60 52 425	+10.7 1.03742 1.15122 +19.16 14 35.00 14 44.16 52 5.51	+18.9 1.27646 1.37026 +24.16 14 30.75 14 55.31 52 6.96	+18.6 1.26951 1.38331 +24.17 14 27.25 14 51.42 52 9.07

Feb. 22

Feb. 26

51	373.51	31.3	51	37.2	51	35.2
	39.4	32.5		39.4		36.8
	41.4	33.4		41.5		38.0
	45.8	27.2		45.7		110.0
	45.1	32.14		47.8		
	50.1	52		50.0		
	52.1	6.7		52.1		
	542.51	3247.3		542.51		36.7
	58.4	19.2		58.4		
	0.8	6.4		0.5		
	3.8	51		2.6	51	36.7
	550.4	32.4		549.4		
	-50.04			499.5		

+ 17.7 - 16.3

10	4	499.4	6.3	4	44.8
		28.3	43.2		26.1
		78.2	49.5		70.9
		39.10	24.25		35.45
			16.4		
		+ 17.6	- 34.0		+ 13.2
		1.20551	1.18150		1.12057
		1.35070	1.63668		1.22576
		- 220.2	+ 208.9		- 16.3
14	39.10	13	54.25	14	35.45
14	16.68	14	35.45	14	18.63
51	28.23			51	30.28

7 Tauri ✓	Jan 1	3 53	35.39	+12°	7'	34.3	$\delta = +12^\circ$	354
3 53 35.44	6		37.02			34.4		
+12 08.44	11		34.03			32.9		
(+21)	16		30.04			33.2		
(+21)	21		35.25			33.6		
	26	(+05)	19.06			33.4		
	31	(0.00)	13.06			33.2		
	Feb. 5		06.07			32.0		
	10		34.99			32.9		
	15		26.01			32.2		
	20		83.08			32.6		
	25		75.08			32.5		
	Mar. 1		34.67			32.4		

km 2 = +0.50

		+350		+41+392		+42+420		+41+405		+52+565		+44+445								
1871	Dec. 27.	1872	Jan. 5	Jan. 8	Jan. 12	Feb. 1	Feb. 4													
-016	53	4.53	52	56.052	46.1	53	53	16.0	53	20.1	53	18.1	53	15.0	53	7.9	53	13.6	53	7.6
		6.2		58.0	46.4			17.7		22.2		18.9		17.1		8.7		15.8		5.7
		8.2		02	47.9			19.2		24.2		19.6		19.1		9.6		17.9		9.7
		12.4		4.4	139.4		2.0	62.9		28.5		54.6		23.3		26.2		22.1		26.0
		14.5		6.5			4.2			30.5				25.4				24.1		
		16.6		8.6			6.2			32.6				27.6				26.2		
		18.7	53	34.4			8.4			34.8				29.6				28.2		
		20.9	357	12.8			10.5			36.9				31.8				30.5		
		25.0	37.0	17.0			31.3			41.1				35.9				34.8		
		27.2	107.1	19.0						43.2				38.0				36.9		
		29.3		21.2						45.3				40.1				39.0		
		1821	53	30.7	21.4	52	46.5	53	17.6	35.4	53	18.9	30.2	9	53	8.7	28.9	1	53	8.7
				12.0						19.4										
				15.58																
		1.665		8.56	8.56		6.26			32.67			27.54				26.28			
		35.40	16.64	55.37	35.37		6.24	6.24		32.65	32.65	32.65	27.52	27.52			26.26	26.26		
		18.75	25.40	26.81	26.81		30.36	25.36		35.31	35.31	35.31	35.12	35.12			34.93	35.07		
			18.76	26.81	26.81		29.12	29.12		2.66	2.66	2.66	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.76	26.76		29.05	29.05		2.71	2.71	2.71	7.60	7.60			8.67	8.81		
				8.56	8.56		6.24	6.24		82.65	82.65	82.65	27.52	27.52			26.26	26.26		
				26.																

30.42 - 2
 35.47 .47 + 3
 46 .44 + 0
 57 .55 + 11
 62 .58 - 6
 56 .45 + 1
 47 .47 + 3
 46 .37 - 7
 35.49 35.44 .00
 - 3.82
 32.12

+45.417
 Feb. 18

+41 +400
 Feb. 22

53	10.253	5.5	53	9.1	52	1.7
	12.3	6.6		11.2		2.15
	14.4	7.8		13.3		4.11
	15.7	19.7		17.4		8.6
	20.7			19.6		2.9
	22.5			21.6	53	2.77
	24.9			23.8		39.4
	27.1			26.0		41.0
	31.2			30.0		118.1
	33.4			32.2		39.4
	35.4			34.4		
	53	6.6		23.8	53	2.9

22.827		21.69	
22.81	22.81	21.67	21.67
34.66	34.66	34.60	34.60
-12.05	-12.05	-13.13	-13.13
22.81	-12.10	21.67	-13.13
+11.99		+12.97	
22.81		21.67	
+1.58	+12.00	+1.58	+12.98
35.47	+1.58	35.46	+1.58
35.47		35.47	

0	56.9	15	0	39.2	0	52.3
	33.8			13.7		26.9
	90.7			52.9		71.2
	45.35			26.45		39.60

+16.2		+18.8		1.27915	1.27915	1.27915	1.27915	1.27915	1.27915
1.20957		1.27915		1.27915	1.27915	1.27915	1.27915	1.27915	1.27915
13.1777		1.27915		1.27915	1.27915	1.27915	1.27915	1.27915	1.27915
-20.50	30.78	1.27915		1.27915	1.27915	1.27915	1.27915	1.27915	1.27915
15	45.35	1.27915		1.27915	1.27915	1.27915	1.27915	1.27915	1.27915
15	24.87	1.27915		1.27915	1.27915	1.27915	1.27915	1.27915	1.27915
7	23.78	1.27915		1.27915	1.27915	1.27915	1.27915	1.27915	1.27915
	35.83	1.27915		1.27915	1.27915	1.27915	1.27915	1.27915	1.27915

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1871 Dec. 27.	Jan. 5	Jan. 8	Jan. 13.	Jan. 15	Feb. 1
56 24.456 12.756 11.156 5.856 14.756 0.456 40.856 263.56 40.756 29.556 35.756 26.356	17.2 20.3 23.5 29.8 33.0 36.2 39.5 42.7 46.0 52.8 58.556 7.6 3989	17.8 21.0 27.4 30.7 33.9 37.0 40.4 46.8 49.9 53.056 2.6 3729	2.8 4.6 7.8 10.0 13.1 16.4 19.8 23.0 26.0 30.0 300.0 000.0 0.00	43.8 47.0 53.4 56.7 59.7 62.2 12.6 15.9 19.056 210 3578 300 667.8 57.50	31.0 32.5 33.0 34.9 38.1 42.3 45.6 51.8 54.9 58.1 1.3 7.9 11.0 14.256 27.3 3649 240 604.9 54.99
28.5 31.8 35.0 41.2 44.5 47.7 50.9 57.3 58.6 3.856 145 4857	14.5 16.2 18.4 22.9 25.0 28.2 32.5 36.8 42.0 48.5 56.556 7.6 3626	7.6 9.5 11.4 13.7 16.0 18.3 20.6 22.9 25.2 27.5 30.8 33.1 35.4 37.7 40.0 42.3 44.6 46.9 49.2 51.5 53.8 56.1 58.4 60.7 63.0 65.3 67.6 69.9 72.2 74.5 76.8 79.1 81.4 83.7 86.0 88.3 90.6 92.9 95.2 97.5 99.8 102.1 104.4 106.7 109.0 111.3 113.6 115.9 118.2 120.5 122.8 125.1 127.4 129.7 132.0 134.3 136.6 138.9 141.2 143.5 145.8 148.1 150.4 152.7 155.0 157.3 159.6 161.9 164.2 166.5 168.8 171.1 173.4 175.7 178.0 180.3 182.6 184.9 187.2 189.5 191.8 194.1 196.4 198.7 201.0 203.3 205.6 207.9 210.2 212.5 214.8 217.1 219.4 221.7 224.0 226.3 228.6 230.9 233.2 235.5 237.8 240.1 242.4 244.7 247.0 249.3 251.6 253.9 256.2 258.5 260.8 263.1 265.4 267.7 270.0 272.3 274.6 276.9 279.2 281.5 283.8 286.1 288.4 290.7 293.0 295.3 297.6 299.9 302.2 304.5 306.8 309.1 311.4 313.7 316.0 318.3 320.6 322.9 325.2 327.5 329.8 332.1 334.4 336.7 339.0 341.3 343.6 345.9 348.2 350.5 352.8 355.1 357.4 359.7 362.0 364.3 366.6 368.9 371.2 373.5 375.8 378.1 380.4 382.7 385.0 387.3 389.6 391.9 394.2 396.5 398.8 401.1 403.4 405.7 408.0 410.3 412.6 414.9 417.2 419.5 421.8 424.1 426.4 428.7 431.0 433.3 435.6 437.9 440.2 442.5 444.8 447.1 449.4 451.7 454.0 456.3 458.6 460.9 463.2 465.5 467.8 470.1 472.4 474.7 477.0 479.3 481.6 483.9 486.2 488.5 490.8 493.1 495.4 497.7 500.0 502.3 504.6 506.9 509.2 511.5 513.8 516.1 518.4 520.7 523.0 525.3 527.6 529.9 532.2 534.5 536.8 539.1 541.4 543.7 546.0 548.3 550.6 552.9 555.2 557.5 559.8 562.1 564.4 566.7 569.0 571.3 573.6 575.9 578.2 580.5 582.8 585.1 587.4 589.7 592.0 594.3 596.6 598.9 601.2 603.5 605.8 608.1 610.4 612.7 615.0 617.3 619.6 621.9 624.2 626.5 628.8 631.1 633.4 635.7 638.0 640.3 642.6 644.9 647.2 649.5 651.8 654.1 656.4 658.7 661.0 663.3 665.6 667.9 670.2 672.5 674.8 677.1 679.4 681.7 684.0 686.3 688.6 690.9 693.2 695.5 697.8 700.1 702.4 704.7 707.0 709.3 711.6 713.9 716.2 718.5 720.8 723.1 725.4 727.7 730.0 732.3 734.6 736.9 739.2 741.5 743.8 746.1 748.4 750.7 753.0 755.3 757.6 759.9 762.2 764.5 766.8 769.1 771.4 773.7 776.0 778.3 780.6 782.9 785.2 787.5 789.8 792.1 794.4 796.7 799.0 801.3 803.6 805.9 808.2 810.5 812.8 815.1 817.4 819.7 822.0 824.3 826.6 828.9 831.2 833.5 835.8 838.1 840.4 842.7 845.0 847.3 849.6 851.9 854.2 856.5 858.8 861.1 863.4 865.7 868.0 870.3 872.6 874.9 877.2 879.5 881.8 884.1 886.4 888.7 891.0 893.3 895.6 897.9 900.2 902.5 904.8 907.1 909.4 911.7 914.0 916.3 918.6 920.9 923.2 925.5 927.8 930.1 932.4 934.7 937.0 939.3 941.6 943.9 946.2 948.5 950.8 953.1 955.4 957.7 960.0 962.3 964.6 966.9 969.2 971.5 973.8 976.1 978.4 980.7 983.0 985.3 987.6 989.9 992.2 994.5 996.8 999.1 1001.4 1003.7 1006.0 1008.3 1010.6 1012.9 1015.2 1017.5 1019.8 1022.1 1024.4 1026.7 1029.0 1031.3 1033.6 1035.9 1038.2 1040.5 1042.8 1045.1 1047.4 1049.7 1052.0 1054.3 1056.6 1058.9 1061.2 1063.5 1065.8 1068.1 1070.4 1072.7 1075.0 1077.3 1079.6 1081.9 1084.2 1086.5 1088.8 1091.1 1093.4 1095.7 1098.0 1100.3 1102.6 1104.9 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2422.8 2425.1 2427.4 2429.7 2432.0 2434.3 2436.6 2438.9 2441.2 2443.5 2445.8 2448.1 2450.4 2452.7 2455.0 2457.3 2459.6 2461.9 2464.2 2466.5 2468.8 2471.1 2473.4 2475.7 2478.0 2480.3 2482.6 2484.9 2487.2 2489.5 2491.8 2494.1 2496.4 2498.7 2501.0 2503.3 2505.6 2507.9 2510.2 2512.5 2514.8 2517.1 2519.4 2521.7 2524.0 2526.3 2528.6 2530.9 2533.2 2535.5 2537.8 2540.1 2542.4 2544.7 2547.0 2549.3 2551.6 2553.9 2556.2 2558.5 2560.8 2563.1 2565.4 2567.7 2570.0 2572.3 2574.6 2576.9 2579.2 2581.5 2583.8 2586.1 2588.4 2590.7 2593.0 2595.3 2597.6 2599.9 2602.2 2604.5 2606.8 2609.1 2611.4 2613.7 2616.0 2618.3 2620.6 2622.9 2625.2 2627.5 2629.8 2632.1 2634.4 2636.7 2639.0 2641.3 2643.6 2645.9 2648.2 2650.5 2652.8 2655.1 2657.4 2659.7 2662.0 2664.3 2666.6 2668.9 2671.2 2673.5 2675.8 2678.1 2680.4 2682.7 2685.0 2687.3 2689.6 2691.9 2694.2 2696.5 2698.8 2701.1 2703.4 2705.7 2708.0 2710.3 2712.6 2714.9 2717.2 2719.5 2721.8 2724.1 2726.4 2728.7 2731.0 2733.3 2735.6 2737.9 2740.2 2742.5 2744.8 2747.1 2749.4 2751.7 2754.0 2756.3 2758.6 2760.9 2763.2 2765.5 2767.8 2770.1 2772.4 2774.7 2777.0 2779.3 2781.6 2783.9 2786.2 2788.5 2790.8 2793.1 2795.4 2797.7 2799.9 2802.2 2804.5 2806.8 2809.1 2811.4 2813.7 2816.0 2818.3 2820.6 2822.9 2825.2 2827.5 2829.8 2832.1 2834.4 2836.7 2839.0 2841.3 2843.6 2845.9 2848.2 2850.5 2852.8 2855.1 2857.4 2859.7 2862.0 2864.3 2866.6 2868.9 2871.2 2873.5 2875.8 2878.1 2880.4 2882.7 2885.0 2887.3 2889.6 2891.9 2894.2 2896.5 2898.8 2901.1 2903.4 2905.7 2908.0 2910.3 2912.6 2914.9 2917.2 2919.5 2921.8 2924.1 2926.4 2928.7 2931.0 2933.3 2935.6 2937.9 2940.2 2942.5 2944.8 2947.1 2949.4 2951.7 2954.0 2956.3 2958.6 2960.9 2963.2 2965.5 2967.8 2970.1 2972.4 2974.7 2977.0 2979.3 2981.6 2983.9 2986.2 2988.5 2990.8 2993.1 2995.4 2997.7 3000.0 3002.3 3004.6 3006.9 3009.2 3011.5 3013.8 3016.1 3018.4 3020.7 3023.0 3025.3 3027.6 3029.9 3032.2 3034.5 3036.8 3039.1 3041.4 3043.7 3046.0 3048.3 3050.6 3052.9 3055.2 3057.5 3059.8 3062.1 3064.4 3066.7 3069.0 3071.3 3073.6 3075.9 3078.2 3080.5 3082.8 3085.1 3087.4 3089.7 3092.0 3094.3 3096.6 3098.9 3101.2 3103.5 3105.8 3108.1 3110.4 3112.7 3115.0 3117.3 3119.6 3121.9 3124.2 3126.5 3128.8 3131.1 3133.4 3135.7 3138.0 3140.3 3142.6 3144.9 3147.2 3149.5 3151.8 3154.1 3156.4 3158.7 3161.0 3163.3 3165.6 3167.9 3170.2 3172.5 3174.8 3177.1 3179.4 3181.7 3184.0 3186.3 3188.6 3190.9 3193.2 3195.5 3197.8 3199.9 3202.2 3204.5 3206.8 3209.1 3211.4 3213.7 3216.0 3218.3 3220.6 3222.9 3225.2 3227.5 3229.8 3232.1 3234.4 3236.7 3239.0 3241.3 3243.6 3245.9 3248.2 3250.5 3252.8 3255.1 3257.4 3259.7 3262.0 3264.3 3266.6 3268.9 3271.2 3273.5 3275.8 3278.1 3280.4 3282.7 3285.0 3287.3 3289.6 3291.9 3294.2 3296.5 3298.8 3301.1 3303.4 3305.7 3308.0 3310.3 3312.6 3314.9 3317.2 3319.5 3321.8 3324.1 3326.4 3328.7 3331.0 3333.3 3335.6 3337.9 3340.2 3342.5 3344.8 3347.1 3349.4 3351.7 3354.0 3356.3 3358.6 3360.9 3363.2 3365.5 3367.8 3370.1 3372.4 3374.7 3377.0 3379.3 3381.6 3383.9 3386.2 3388.5 3390.8 3393.1 3395.4 3397.7 3399.9 3402.2 3404.5 3406.8 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3737.9 3740.2 3742.5 3744.8 3747.1 3749.4 3751.7 3754.0 3756.3 3758.6 3760.9 3763.2 3765.5 3767.8 3770.1 3772.4 3774.7 3777.0 3779.3 3781.6 3783.9 3786.2 3788.5 3790.8 3793.1 3795.4 3797.7 3799.9 3802.2 3804.5 3806.8 3809.1 3811.4 3813.7 3816.0 3818.3 3820.6 3822.9 3825.2 3827.5 3829.8 3832.1 3834.4 3836.7 3839.0 3841.3 3843.6 3845.9 3848.2 3850.5 3852.8 3855.1 3857.4 3859.7 3862.0 3864.3 3866.6 3868.9 3871.2 3873.5 3875.8 3878.1 3880.4 3882.7 3885.0 3887.3 3889.6 3891.9 3894.2 3896.5 3898.8 3901.1 3903.4 3905.7 3908.0 3910.3 3912.6 3914.9 3917.2 3919.5 3921.8 3924.1 3926.4 3928.7 3931.0 3933.3 3935.6 3937.9 3940.2 3942.5 3944.8 3947.1 3949.4 3951.7 3954.0 3956.3 3958.6 3960.9 3963.2 3			

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0.023	58	45.0	58	33.3	58	37.4	58	18.0	58	58	59.6	59	1.1	58	52.7	59	1.0	58	54.8	59	0.9	58	47.1
		48.6		35.6		40.3		20.2			61.5		4.2		54.1		4.0		56.0		3.9		49.0
		51.6		37.5		43.4		22.8			63.2		7.2		55.8		7.0		57.2		6.9		50.9
		57.6		106.4		49.4		61.0		47.0	184.3		13.3		162.6		13.2		163.0		13.0		147.0
		0.6				52.5				50.1		16.4					16.2				16.0		
		3.6				55.4				53.0		19.4					19.1				19.1		
		6.6				58.5				56.1		22.5					22.2				22.1		
		9.8				1.5				59.2		25.5					25.3				25.2		
		15.8				7.6				26.4		31.6					31.4				31.1		
		18.9				10.7						34.7					34.4				34.4		
		21.8	58	38.5		13.7	59	20.3		59	81.4		37.7	58	54.2		37.5	58	56.0		37.4	59	49.0
		250.5				57.4						213.6					211.3				210.0		
		240				24.4																	
		40.5				61.4																	
		36.8				55.8	55.49		53.08			19.42					19.21				19.04		
		22.61	3.66			55.56	55.47	55.47	53.06	53.06		19.40	19.40				19.19	19.19		19.07	19.07		
		89.5743				22.58	22.55	22.55	22.52	22.52		22.48	22.47				22.46	22.46		22.41	22.41		
		18.93	22.62			26.99	27.08	27.08	29.46	29.46		-3.08	-3.07				-3.27	-3.27		3.34	3.34		
			18.96																				
		9.63078				55.47	55.47	55.47	53.06	53.06		19.40	19.40				19.19	19.19		19.07	19.07		
		118.04				+26.76	+26.76	+26.76	+2.97	+2.97		+2.71	+2.71				+2.97	+2.97		+3.03	+3.03		
		9.94882				+4.5	+4.5	+4.5	+4.5	+4.5		+4.5	+4.5				+4.0	+4.0		+3.6	+3.6		
			3.66			55.47	55.47	55.47	53.06	53.06		+0.2	+0.2				+0.4	+0.4		+0.9	+0.9		
			+16.67			+26.76	+26.76	+26.76	+2.97	+2.9													

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39.9	39.9	39.9	39.9
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1 19.95	1 19.95	1 19.95	1 19.95
1 40.82	1 40.82	1 40.82	1 40.82
21 28.3	21 28.3	21 28.3	21 28.3
0 5.07	0 5.07	0 5.07	0 5.07
+ 0 4.89	+ 0 4.89	+ 0 4.89	+ 0 4.89
0 14.3	0 14.3	0 14.3	0 14.3
1 57.0	1 57.0	1 57.0	1 57.0
4 1.13	4 1.13	4 1.13	4 1.13
2 5.65	2 5.65	2 5.65	2 5.65
- 2.48	- 2.48	- 2.48	- 2.48
1.39445m	1.39445m	1.39445m	1.39445m
1.35188m	1.35188m	1.35188m	1.35188m
- 22.48	- 22.48	- 22.48	- 22.48
2 5.65	2 5.65	2 5.65	2 5.65
7 43.17	7 43.17	7 43.17	7 43.17
21 5.18	21 5.18	21 5.18	21 5.18
+ 0 4.89	+ 0 4.89	+ 0 4.89	+ 0 4.89
0 5.2	0 5.2	0 5.2	0 5.2
1 42.1	1 42.1	1 42.1	1 42.1
47.3	47.3	47.3	47.3
1 23.65	1 23.65	1 23.65	1 23.65
- 8.3	- 8.3	- 8.3	- 8.3
0.91707m	0.91707m	0.91707m	0.91707m
0.87650m	0.87650m	0.87650m	0.87650m
- 7.53	- 7.53	- 7.53	- 7.53
1 53.65	1 53.65	1 53.65	1 53.65
1 46.12	1 46.12	1 46.12	1 46.12
21 2.23	21 2.23	21 2.23	21 2.23
+ 5.29	+ 5.29	+ 5.29	+ 5.29
0 1 27.7	0 1 27.7	0 1 27.7	0 1 27.7
19.3	19.3	19.3	19.3
36.4	36.4	36.4	36.4
1 18.20	1 18.20	1 18.20	1 18.20
+ 25.2	+ 25.2	+ 25.2	+ 25.2
1.40140	1.40140	1.40140	1.40140
1.35883	1.35883	1.35883	1.35883
+ 2.251	+ 2.251	+ 2.251	+ 2.251
1 18.20	1 18.20	1 18.20	1 18.20
1 41.03	1 41.03	1 41.03	1 41.03
21 7.30	21 7.30	21 7.30	21 7.30
+ 4.95	+ 4.95	+ 4.95	+ 4.95
0 1 28.7	0 1 28.7	0 1 28.7	0 1 28.7
12.2	12.2	12.2	12.2
40.9	40.9	40.9	40.9
1 20.45	1 20.45	1 20.45	1 20.45
+ 23.2	+ 23.2	+ 23.2	+ 23.2
1.36548	1.36548	1.36548	1.36548
1.32291	1.32291	1.32291	1.32291
+ 21.03	+ 21.03	+ 21.03	+ 21.03
1 20.45	1 20.45	1 20.45	1 20.45
1 41.98	1 41.98	1 41.98	1 41.98
21 6.87	21 6.87	21 6.87	21 6.87
+ 4.99	+ 4.99	+ 4.99	+ 4.99
0 1 28.7	0 1 28.7	0 1 28.7	0 1 28.7
2 21.4	2 21.4	2 21.4	2 21.4
1 39.4	1 39.4	1 39.4	1 39.4
2 20.8	2 20.8	2 20.8	2 20.8
2 10.40	2 10.40	2 10.40	2 10.40
- 8.1	- 8.1	- 8.1	- 8.1
1.47850	1.47850	1.47850	1.47850
1.43313	1.43313	1.43313	1.43313
+ 2.72	+ 2.72	+ 2.72	+ 2.72
12 10.40	12 10.40	12 10.40	12 10.40
1 43.11	1 43.11	1 43.11	1 43.11
21 5.06	21 5.06	21 5.06	21

21	7.9	21	10.1	21	7.5	21	12.3	21	11.9	21	10.1
22	10.0	22	11.3	22	11.7	22	12.1	22	12.2	22	12.4

$+0.8$	J	$+1$	2.2	2.3	$+1$	1.2	1.3	$+1$	4.2	4.2	$+0$	59.8	59.9	$+1$	0.3	0.4	$+1$	2.3	2.4
$S = +47$	21	2.83	21	5.18	21	3.23	21	7.30	21	6.87	21	5.06	21	7.90	21	7.90	21	7.90	21
	$-$	15.70		$-$	0.80		2.1		7.60		7.70		7.90						

Jan 1 3 59 22.59

+47° 22'

10" 7

22.63

6 54 .05
 11 49 .05
 16 42 .07
 21 (+0%) 22.35 .07
 26 (+0%) 26 .09
 31 (+0%) 16 .10
 5 22.09 .11
 10 21.99 .11
 15 82 .12
 20 69 .13
 25 36 .13
 1 21.44 .12

11.4
 12.0
 12.5
 13.0
 13.4
 13.7
 13.9
 14.0
 14.0
 14.0
 13.8
 13.6

22.63
 55 .61 +9
 58 .54 +4
 60 .57 +7
 55 .56 +0
 54 .53 +3
 46 .49 +4
 63 .64 +14
 22.5
 22.5
 9.33
 182/9

A. N. O. W.
Jan. 30

Jan. 31

Feb. 4

Feb. 18

421 571.58 488.58 56.558 514.58 54.769 47.758 512.58 43.7
 490 0.2 49.7 59.6 52.6 57.5 49.6 54.3 45.1
 509 3.3 50.6 2.6 53.7 0.7 50.9 57.3 46.7
 47.0 9.2 149.1 8.6 54.8 6.7 148.2 3.4 135.5
 12.1 49.70 11.7 212.5 9.9 6.4
 15.4 59 46.5 14.5 12.7
 18.5 43.5 17.8 16.0
 21.5 40.0 20.9 19.0
 27.6 10.3 25.0
 30.6 43.43 28.0
 32.8 58 49.7 33.0 58 53.1 31.1 58 49.4
 229.3 28.23 26.14 25.89 58 45.2
 60 120
 169.3 162.3 141.6
 15.39 14.758 12.87
 15.37 15.37 14.73 14.73 12.85 12.85 9.43 9.43
 22.8 22.18 22.16 22.16 22.07 22.07 21.78 21.78
 6.81 6.81 7.43 7.43 9.22 9.22 12.22 12.22
 15.37 15.37 14.73 14.73 12.85 12.85 9.43 9.43
 +6.32 15.37 +6.93 4.73 +8.70 12.85 +11.99 9.43
 +5.34 +6.32 +5.4 +6.94 +4.8 +8.73 +4.9 +12.00
 +32 +32 +34 +36 +43 +48 +42 +46
 22.55 1.332 22.54 +3.4 22.46 +.43 22.63 +.40
 2.8198 22.53 22.54 22.49 22.64

0 0
 2 3.51 146 1 58.0 2 0.0 1 59.3
 1 27.2 89.3 253 30.0
 3 30.7 1 53.9 253 89.3
 1 45.35 0 56.95 12.65 44.65
 -28.2 +28.2
 1 22.53 1 21.81
 -18 -22
 +26.7 12.18
 1.40993 1.33685
 1.35875 1.28527
 +22.54 -19.29
 1 45.35 1 41.00
 1 22.51 1 21.71
 21 25.84 21 26.64
 +4.87 +5.21
 21 30.7 21 31.8
 22 13.76 22 13.7
 21 31.6 21 30.8
 22 13.9 22 14.0

+0 42.9 42.9 +0 41.9 42.0 +0 42.3 42.4 +0 43.7 43.8
 21 25.84 21 26.64 21 26.89 21 25.21
 9.18 9.28 9.40 -9.50

B.A. 6 1272

sin ✓ 9.4853
 cos ✓ 9.9806
 6.7367

$$\cos \sqrt{9.9806} \\ 1175 \\ .0981$$
$$\begin{array}{r} 4037 \\ + 1702 \\ + 31 \\ \hline \end{array}$$

1872
Jan. 30

Feb. 1

Feb. 22

0	0	46.80	18.90	10.60	13.10	7.2
		47.6	21.0	11.5	15.3	8.5
		49.0	23.2	12.0	17.4	9.7
28.8		53.4	27.7	24.1	21.6	25.4
30.9		47.80	29.8		23.8	6.5
32.01		3.5	32.0		26.00	39.2
35.3		4.7	34.1		28.1	
37.3		6.0	36.2		30.3	
1653		14.2	40.5		34.6	
		40.3	42.6		36.9	
0		47.8	44.80	11.3	38.90	8.5
		35.08			28.60	
-		-				
3306		31.89			26.00	

Set ✓ 9.46593

cor $\int 9.98060$
11804
.09864

$$\begin{array}{r} -148 \\ 1,703 \\ \hline 1,555 \end{array}$$
$$+ 17.5 - 13.2$$

20 3	10.52	51.7	3	56.5	20 3	33.52	54.6
7	42.6	22.7		29.0		5.7	28.8
5	53.1	74.4		85.8		42.0	
2	56.55	37.20		42.70		2.110	
+	18.55	+397.9					
3	85.10	169.3					
	-14.7	+31.4		+20.5		+17.5	
1.16731m	1.3341	1.31180		1.24303		1.34167	
1.26595m	1.42905	1.41044		1.34167			
	-26.86	-25.73		-2196			
22	14.44	23 42.50		42.50	23	21.10	
28	14.99	23 46.49		17.17	22	59.14	
41° 9	33.36	9	31.18		9	49.21	

5 1 30
 ϕ Tauri
 4 3 00
 +26 09
 +49

sin \int 9.6442 cos \int 9.9531
 cos \int 9.9531
 6.7367
 6.3340
 1171
 .0706

1871 Dec. 27 1872 Jan. 5 Jan. 13 Jan. 15 Jan. 30 Jan. 31

sin \int 9.6442
 2 29.12 18.12 21.62 14.6 45.42 43.72 45.42 39.02 41.72 34.22 46.22 31.8
 32.0 19.7 24.0 16.0 47.6 47.6 47.6 40.4 44.1 35.2 43.5 32.6
 34.2 21.0 26.3 17.2 50.0 50.0 50.0 41.8 46.8 36.1 45.8 33.2
 38.8 58.8 30.8 47.8 52.8 54.6 54.6 121.2 53.2 35.16 52.6 97.6
 41.1 33.0 39.0 59.0 59.0 59.0 53.5 3 14.8 54.9
 43.5 35.3 13 1.3 57.8 16.2 57.2
 45.7 37.6 3.6 3.7 0.1 17.3 59.4
 48.0 40.0 8.2 8.3 4.7 18.3 40
 52.6 44.4 10.5 10.6 6.9 16.10 6.4
 54.82 19.6 46.82 15.8 12.92 44.3 12.92 40.4 9.32 35.2 8.72 32.5
 57.1 49.1 34.98 35.02 61.06 60.41
 47.5 38.59 30.6 30.0 59.11 55.51 54.92
 649.4 59.07
 9.95310
 11804
 .07114
 4341
 35.354

+203 -206
 1,3075 1,3138
 2,6150 2,6276

10 4 28.2 10 4 32.7 10 4 37.2 10 4 35.9 15 4 7.8 10 4 18.9 15 4 8.8
 12.0 17.4 22.8 17.1 35.2 3 47.3 21.6 8.8
 40.2 50.1 60.0 53.0 43.0 8 06.2 21.4 10.2
 4 20.10 4 25.05 4 30.00 4 26.50 4 5.15 4 3.10 10.20 58.0
 -22.89 +24.23
 4 23.61 4 27.33
 +23.8 +19.5 +14.8 +18.7 +20.3 +22.4
 1,37657 1,29003 1,17026 1,27184 1,30749 1,35024
 1,45632 1,36979 1,25001 1,35159 1,37863 1,42138
 +2860 +2343 +17.8 +2247 +22391 +2639
 14 20.10 14 25.05 14 30.00 14 26.50 14 5.15 14 3.10 58.60
 14 48.90 14 48.90 14 48.90 14 48.90 14 27.54 14 28.21 28.21
 +26 7 59.65 7 59.87 8 0.57 7 59.38 8 20.76 8 21.14

Feb. 18

Feb. 22

2	35.72	29.22	34.72	26.11
	38.0	30.4	37.0	27.3
	40.4	31.6	39.4	28.5
	45.0	91.2	43.9	31.9
	47.2		46.2	27.13
	48.5		48.53	4.6
	51.8		50.9	5.6
	54.1		53.2	6.7
	55.7		57.7	16.6
	1.0		0.0	5.6
	3.32	30.4	213.2	27.3
	54.47		533.8	
	49.518		48.53	

+21.2 - 17.1

15

0 7.2
39.9
47.1
23.55

10 4 48.9 4 5.0
21.0 34.9
68.9 98.5
34.95 49.95

+19.1
1.28103
1.35217
+2250
14 53.55
14 31.05
8 17.30

+21.2 8.50
1.22633 1.23300
1.39747 1.30414
+2495 +2014
14 34.45 14 48.95
14 9.58 14 19.89
8 38.37

Feb. 18

Feb. 22

5.8	5	12.35	8.0	5	11.25	4.8
10.0		14.4	9.0		13.32	6.0
11.3		16.4	9.9		15.3	7.0
30.1		20.7	26.9		19.6	17.8
		22.7			21.6	5.9
		24.8			23.8	38.2
		26.9			25.8	39.6
		29.0			27.8	40.6
		33.1			31.9	11.84
		35.2			34.0	39.4
10.0		37.3	8.9		36.1	5.9
		27.28			26.04	
		245.00			23.67	
		32.27			32.22	
		36.70			36.64	

$$+17.8 - 15.7$$

8	25.1	30	3	4.7	2	19.3
	5.13			42.0		57.9
	80.4			46.7		13.2
	15.20			23.35		8.60
	+15.9			+17.8		-15.9
	1.20139			1.25042		1.20140
	1.31601			1.36504		1.31602
	+2070			-23.18		+2070
32	15.20	32	53.35	32	8.60	
32	54.50	32	30.17	32	29.30	
10	6.15	9	41.82			
	32.8		32.7			

Q₂ Eridani
4 9 24
- 7 50
- 14

1871 Dec. 27 1872 Jan. 5 Jan. 8 Jan. 15 Feb. 4 Feb. 18

8	52.09	16.58	43.98	38.08	41.68	35.6	9	7.69	0.09	1.58	57.48	58.08	52.5
	54.1	17.3	46.0	39.8	43.5	38.8		9.7	1.0	3.6	58.3	0.2	53.5
	56.1	18.2	48.1	41.3	45.7	38.2		11.9	2.1	5.7	59.4	2.3	55.0
	0.2	18.2	52.1	119.1	49.5	110.6		16.0	3.1	9.9	175.1	6.5	161.6
	2.3	52.6	54.3		52.0			18.0		11.9		8.4	
	4.4		56.3		54.0			20.0		14.0		10.5	
	6.4		58.5		56.1			22.0		16.0		12.6	
	8.5		0.5		58.2			24.2		18.1		14.7	
	12.7		4.6		2.8			28.3		22.4		19.0	
	14.7	9 (174)	6.8	397	4.4	369		30.4		24.5		20.8	
	16.8	(18.2)	8.9		6.5			32.6	9 1.0	26.5	8 5.24	23.0	8 5.39
	22.2		62.0		59.4			22.07		15.4		17.6	
	18.0											16.0	
	45.2											1.0545	
	4.38		5636		54.01			20.06		14.01			

10 4 17.1	3 39.7	3 39.6	3 35.2	4 10.0	4 15.3
6.3	30.6	25.1	22.4	46.0	53.9
23.4	7.03	64.7	57.6	86.0	67.2
4 11.70	3 35.15	32.35	28.80	28.00	34.60
- 15.0	+ 16.7	+ 15.1	+ 14.1	+ 15.6	+ 16.2
1.13957 m	1.22271	1.23299	1.28103	1.19313	1.22010
1.26245 m	1.34529	1.35557	1.40361	1.30707	1.33407
- 18.25	+ 22.15	+ 22.68	+ 25.33	+ 20.28	+ 21.58
14 11.70	13 35.15	13 32.35	13 28.80	13 58.00	14 4.60
13 53.40	13 57.30	13 55.03	13 54.13	13 37.72	13 48.02
- 7° 51 50.5	51 89.5	51 66.8	51 57.8	50 49.37 ✓	50 54.67

Feb. 22

52.5
53.5
55.0
56.6

5	57.08	44.6
	59.1	45.7
	11.2	46.7
	5.2	117.0
	7.2	45.7
	9.4 9	31.5
	11.5	33.0
	13.5	34.5
	17.8	90
	19.9	33.0
9	22.08	45.7
	223.8	
	120	
	103.8	
	9.44	

53.9

+ 237 - 23.6

10	4	0.3	2	59.0
		37.3		36.2
		87.6		9.52
		18.80		47.60
		12.37		23.6
		1.37474		1.57290
		1.48871		1.48689
		-3081		730.68
		13 4880	12	4760
		13 1799	13	1825
50		29.54		

$30.61 - 3$
 $30.66 + 3$
 $61 .66 + 2$
 $50 .61 - 3$
 $65 .67 + 3$
 $68 .67 + 3$
 $61 .64 + 0$
 $61 .65 + 4$
 $57 .59 - 5$
 $30.64 - 3.41 = 27.23$

+44+445
Feb. 4

+45+417
Feb. 18

+41+400
Feb. 22

577 12	8.7 12	0.4 12	5.2 11	56.7 12	4.2 11	50.0
590	10.8	1.8	7.4	58.0	6.3	51.4
600	13.0	3.3	7.5	59.0	8.4	52.8
667	17.3	5.5	13.8	173.7	12.6	154.2
	19.4		16.0		14.9	51.4
	21.5		18.2		17.0 12	34.2
	23.7		20.3		19.0	35.5
	25.8		22.4		21.2	36.8
	30.1		26.7		25.6	16.5
	32.2		28.8		27.7	35.5
529	34.4 12	1.6	30.9 11	57.9	28.8 11	51.4
581	236.9		199.2		18.67	
	21.54		18.109		16.97	
	21.52		18.09		16.95	
	30.37		30.16		30.10	
	-8.85		-12.07		-12.15	

21.52	21.52	18.09	18.09	16.95	16.95
+8.70	30.37	+11.99	30.16	+12.97	30.09
+12	-8.85	+12	-12.07	+11	-18.14
+27		+48		+54	
30.61	21.52	30.68	18.09	20.857	16.95
	+8.73		+12.00		+12.98
	+1.12		+1.11		+1.11
	+27		+28		+25
	30.64		30.68		30.59
4 39.2		4 42.2		4 26.2	3 32.1
13.0		19.0		1.7	6.0
02.2		61.2		27.9	38.1
20.10		30.60		13.95	19.25
+19.1		+20.2		+25.6	
1.27446		1.30535		1.41824	
1.39677		1.40768		1.51057	
-2493		-2556		-3240	
4 26.10		4 30.60		4 13.95	
4 01.17		4 5.04		3 41.55	
18 47.18		18 43.31		19 6.80	
-32.21		-31.71		-31.47	

18 15.0	18 11.6	18 25.3
18 58.1	18 57.8	18 57.8

+0 42.1 142.7	+0 46.2 145.8	+0 22.5 22.0
18 47.18	18 43.31	19 6.80
1.00	1.30	+1.30

5 04 00

0.41 0.00

$\sin \theta$ 9.4717 $\cos \theta$ 9.9805

$\cos \theta$ 9.9805

6.7367

6.1889

0.0980

29.78

4 15 31

33.24

17 14 32.4

29.78

$$\begin{array}{r} \delta_- + 17^{\circ} \quad 14' \quad 15.5'' \\ \delta_- + 17 \quad 14 \quad 24.3 \end{array}$$

$$+3!$$

$+350$ $+12$ $+120$
 (H) Dec. 27 (H) Jan. 8

+41 +405-
Jan. 12

+33+350
Jan. 15-

~~+49~~ ~~+49~~
Jan. 30

Jan. 31

[illegible]

5 3 416	3 54.0	3 40.3	3 37.7	4 15.8	8 20.1	3 36.7
270	2) 37.2	28.7	23.4	3 47.9	2 50.4	9.3
680	6 51.2	700	611	8 037	6 105	46.0
3 340	3 45.60	3 35.00	3 30.55	4 185	3 525	28.00
				-24.93	+30.83	
				3 3692	3 3608	
+18.9	+9.6	+16.6	+17.3	+19.8	-10.1	
1.27646	0.98227	1.22011	1.28555	1.29666	1.00432	20
1.38316	1.08897	1.32680	1.37225	1.39475	1.10241	20
+24.6	+122.7	+122	+246.7	-248.2	+126.6	
8 3400	8 45.64	8 35.00	8 30.55	8 31.88	8 23.00	
8 0816	8 07.89	8 06.22	8 05.22	8 05.22	8 35.66	
13 50.19	13 50.48	13 52.13	13 53.13	14 113.2	14 126.9	
- 29.88	- 30.09	- 28.67	- 30.11	- 30.96	- 30.34	
13 20.3	13 20.4	13 23.5	13 23.0	13 40.4	13 42.3	
14 24.5	14 24.2	14 24.3	14 24.2	14 24.0	14 24.0	

-39	I	$+1$	4.2	3.8	$+1$	5.9	3.5	$+1$	0.8	0.4	$+1$	1.2	0.8	$+0$	4.6	4.3	$+0$	4.7	4.3
8	$= +17$	13	50.19		13	50.48		13	52.13		13	53.13		14	11.32		14	12.69	
			-9.00			$+0.00$			$+0.00$			0.10			0.30			0.30	

Jan 4 15 33.26 +17° 14' 24".4
 6 24 02 24.4
 11 22 02 24.3
 16 19 03 24.2
 21 33.15 04 24.2
 26 (+06) 10 05 24.1
 31 24 06 24.0
 5 (+07) 97 07 23.9
 10 32.56 07 23.8
 15 82 08 23.7
 20 74 08 23.6
 25 66 08 23.5
 32.57 .09 23.4

23.38 +14
 33.31 .30 +6
 29 .29 +5
 30 .30 +6
 27 .26 +2
 31 .33 +9
 28 .31 +7
 31 .31 +7
 26 .28 +4
 33.30 33.31 +0.7
 - 3.46
 29.85

+44+445
Feb. 4+407.917
Feb. 18+41+400
Feb. 22

362 15 11.3 15 2.6 15 7.7 14 58.6 15 6.7 14 55.6
 13.5 4.0 7.4 54.5 8.8 57.0
 15.6 5.0 12.0 60.3 11.2 58.0
 20.0 11.6 16.4 178.4 15.3 20.6
 22.0 18.5 17.4 56.9
 24.2 20.7 19.5 15 27.8
 26.3 23.0 21.8 28.8
 28.5 25.1 24.0 16.6
 32.8 29.4 28.4 28.3
 35.0 31.6 30.4
 36.2 37.4 15 3.9 33.7 14 57.5 32.6 14 56.9
 26.63 22.80 21.61
 24.209 20.727 19.645
 24.19 24.19 20.71 21.71 19.63 19.62
 32.85 32.85 32.77 32.77 32.71 32.70
 - 8.79 - 8.79 - 12.06 - 12.06 - 13.08 - 13.07
 24.18 - 8.85 - 20.71 - 12.12 19.63 - 13.13
 + 8.70 + 11.99 + 12.94
 + 13 24.19 + 14 20.71 + 13 19.62
 + 26 + 8.73 + 47 + 12.00 + 13 + 12.99
 33.28 + 13 33.31 + 13 33.26 - 13.12
 + 26 33.31 33.31 33.28
 33.31 33.31 33.28

4 17.1 4 19.2 5 4 0.3 3 22.0
 48.9 55.5 34.8 56.0
 66.0 77.7 35.1
 03.00 37.35 47.55

+20.3 +21.2 +22.7
 1.30749 6.22633 1.35602
 1.40558 1.42442 1.45411
 - 25.44 - 26.57 - 28.40
 8 03.00 8 7.35 8 47.55
 8 37.56 8 40.78 8 49.10
 14 10.79 14 7.84 14 29.25
 - 29.82 - 29.16 - 28.92

13 41.2 13 38.4 14 0.3
 14 23.9 14 23.6 14 23.6

+0 42.7 42.3 +0 45.2 44.8 +0 23.3 22.9
 14 10.79 14 7.57 14 29.25
 6.40 0.70 +0.70

4 53 00

1/2 Tauri
4 16 42
+17 07
+31

Sum \int 84688
cos \int 9.9803
6.7367

0.070 9.9103
1175
-0998

1871 Dec. 27 1872 Jan. 8

Jan. 15

Jan. 30

Jan. 31

Feb. 4

16	11.5 16	3.5 16	1.0 15	5.12	16	35.6 16	54.0 16	23.5 16	20.2 16	23.0 16	18.5 16	29.7 16	44.2
	13.6	5.3	3.1	52.7		37.5	55.1	25.6	21.4	25.2	19.3	31.9	45.4
	15.8	6.3	5.3	54.1		40.0	56.0	27.9	22.3	27.2	20.5	34.0	46.7
Sum \int 846882	20.0	15.1	9.6	152.0		42.2	165.4	32.1	3.9	31.6	58.3	36.0	136.3
	22.1		11.8			44.3		34.3	21.30	33.7		38.2	
	24.4		13.9			19.9		36.6 17	5.2	36.0		16.9 8	
	26.7		16.0			98		38.6	6.5	38.1			
	28.6		18.1					40.8	8.0	40.2			
cos \int 9.98033	33.0		22.5					45.0	19.7	44.5			
12665	35.1 16	5.0	24.6 15	52.7	16	55.0		47.2	6.56	46.7			
10698	37.2		26.8					49.4 16	21.3	49.0 16	19.8		16 45.4
	2080		152.7					40.10		39.52			
9.98033													
11814	24.363		13.882			39.980		36.459		35.927		15.43	
0.9837												38.960	

+153 - 300
1.1847 1.4771

10 4 19.8	10 4 20.8	15 0 5.3	10 4 50.8 3	10 4 54.5 4	4 18.3
69	4.1	0 49.0	22.8	26.2	51.2
267	2 49	54.3	36	807	69.5
4 13.35	4 12.45	0 5 15	4 36.80 3	4035	34.75
			19.16	37.59	
			4 19.65 3	17.94	
+174	+21.2	-15.2	+15.2	+16.5	-11.4
1.28780	1.32633	1.18184 m	1.18184	1.121748	1.05690 m
1.39478	1.43331	1.28882 m	1.28021	1.31585	1.15521 m
+2482	+2712	+1944	1906	-2069	+1830
14 13.35	14 12.45	15 58.15	14 36.80	14 38.50	15 47.5
14 38.17	14 39.57	14 37.71	14 17.74	14 17.81	15 29.05 20
+17° 8' 10.18	8 8.78	8 10.4	8 30.61	8 30.54	7 29.30

Feb. 18

Feb. 22

16	17.6 16	47.6 16	16.4 16	5.3
	19.8	48.5	18.7	6.3
	22.0	49.2	20.8	7.3
	26.2	145.3	25.4	19.3
	28.5		27.3	6.4
	30.6		29.5 16	46.0
	32.7		31.5	46.7
	34.9		33.8	48.8
	37.2		38.1	21.5
	41.4		40.3	47.2
	43.5 16	48.4	42.6 16	6.4
	33.64		32.44	
	30.582		29.491	

$$+ 23.1 - 17.9$$

4	10.3	10	4	42.7 3	50.8
	48.2			16.3	25.3
	58.5			59.0	71.1
	59.25			29.50	36.05

-178	
1.25042 m	
134879 m	
+ 223.2	
18 59.25	
14 21.57 Se.	
8 26.78	

+23.1	
1.36361	1.24787
1.46198	1.34634
- 28.25	22.0
14 29.50	18 36.05
14 0.53	13 58.25
8 47.2	

V_5 Eridani

$\sin J = -9.7511$ $\cos J = 9.9169$
 $\cos J = 9.9169$
 $\sin J = 6.7367$
 $\cos J = 5.4047$

4 19 16

— 34 19

-68

1872 Jan. 8

Jan. 10

Jan. 30

18	30.7	18	38.0
	33.1		38.0
	35.8		36.1
	40.6		
10	43.1		
	45.6		
	48.3		
	50.6		
	55.7		
	58.0		
94	06	18	38.3
65	50		
59	50		

29.2	19	5.7
31.5		7.3
34.1		9.0
39.0		22.2
41.4		
44.0		
46.4		
49.0		
52.0		
56.4		
58.8	19	7.4
46.3	8	

834	18	49.0
55.7		50.5
38.2		52.1
3.2		15.16
5.6		50.53
8.1	19	32.8
10.8		34.5
13.3		36.6
18.2		13.9
20.7		34.63
23.0	18	52.5
26.9	9	

18	50.6	18	45.0
	53.2		45.9
	55.6		47.6
	50.6		13.8.5
	3.0		
	5.5		
	8.0		
	10.6		
	15.5		
	18.0		
	20.7		
241.3			
18.0			
61.3			
5.573			
	1/18		46.2

Feb. 18

Feb. 22

19	19.7	18	45.9	18	40.0
	21.0		48.2		40.9
	22.8		50.8		41.6
	23.5		56.0		25
			58.3		30.8
			0.8	19	20.1
			3.4		26.2
			3.9		22.7
			10.9		24.0
			12.3		8.0
			16.0		22.0
		30	9.5		
		30	6		
			9.5		
00			0.86	4	
19	21.2			18	40

$$S_2 = 9.75110$$

con $\int 9.91694$
12665
104359

9.91694
11804
.03498

45.645

43.982

89.9
8.173

$$+ 177 - 264$$
 $+ 20,0 - 21,2$
$$\begin{array}{r} 35 \quad 3 \quad 37.8 \\ 22.4 \\ 602 \\ 3 \quad 3 \quad 0.10 \end{array}$$
$$\begin{array}{r} 35 \\ 4 \quad 14.4 \\ 5.5 \\ 149 \\ 9.95 \end{array}$$

35
3 48182 1.14 0.3
23.2 1 35.0 35.0
72.0 3 36.1 35.0
3 36.0 1 48.05 47.65
19.6 28.0
8 16.4 16.2

$$\begin{array}{r} 3 \quad 221 \\ \quad 22 \\ \hline 243 \\ 1215 \end{array}$$

3 32.8 2 49.1
10.7 26.4
43.8
21.70 2 37.7)

$$\begin{array}{r} + 7.4 \\ 0.86923 \\ 0.91282 \\ + 8.18 \\ \hline 38 \quad 30.10 \\ 38 \quad 38.28 \end{array}$$

$$\begin{array}{r} - 23.4 \\ 1.36921 \text{ m} \\ 1.41280 \text{ m} \end{array}$$

$$\begin{array}{r} - 2587 \\ 39 \quad 9.95 \\ 38 \quad 44.08 \end{array}$$

$$\begin{array}{r} + 17\% \\ 1.24797 \\ 1.28295 \\ - 19.18 \\ \hline 38 \quad 3600 \\ 38 \quad 1682 \end{array}$$
$$\begin{array}{r} + 19.4 \\ 1.28780 \\ 1.32278 \\ \hline 38 - 21.03 \\ 38 \quad 47.65 \\ 38 \quad 26.62 \end{array}$$

$$\begin{array}{r} -193 \\ 1.28555m \\ 1.32053m \\ + 2092 \\ 38 \quad 12.15 \\ 38 \quad 330 \end{array}$$

$+ 20.1$ $- 211$
 1.30319 1.6490
 1.33817 1.64588
 $- 2179$ $+ 2170$
 $38 \quad 21.705$ 37.375
 $37 \quad 5996$ 37.8946

$$- 34^{\circ} 15' 49.93''$$

15 5573

15 28.47

B 38.27

15 4472

15 1161 340

Feb. 24

10.0	18	45.8	18	37.2
10.9		47.9		38.8
11.6		50.5		40.4
2.5		55.4		116.4
0.18		57.9		
20.1		0.4		
1.2		2.4		
2.7		5.4		
4.0		10.4		
8.0		12.7		
2.0		15.5		
	30	45		
	30	0		
		4.5		
		0.409	18	38.8

9.1	3	55.3
6.4		35.3
7.75		90.6
		40.30

44	+ 21.6
50	1.33446
88	1.36743
220	- 23.91
775	38 45.30
246	38 21.89
466	15 33.54

e Lauri

4 21 07
+ 18 54

+34

(+.34)

Pmi Z = +.40

Jan 1 4 21 .869
6 67.02
11 65.02
16 62.02
21 8.58.04
26 (00) 53.105
31 (00) 47.06
5 40.107
10 8.33.07
15 25.08
20 17.08
25 09.08
Mar. 1 8.00.09

+18° 53' 40.0
40.0
39.9
39.8
39.8
39.7
39.6
39.5
39.4
39.3

S = +18° 53' 39.4

1872 Jan 10	Jan 12	Jan 15	Feb. 4	Feb. 12	Feb. 18
-016 20 24.820 57.620 27.0 54.3 29.2 60.8 33.5 177.7 35.7 3.5 37.9 5.8 40.1 20 59.2 42.2 10.2 46.6 14.4 48.7 16.7 50.9 18.8 52.6 24.38 54.6 6.38 56.1 5.800 57.5 8.63 58.8 2.83 59.9 5.78 61.2 8.64 62.5 5.98 63.8 5.98 65.1 5.98 66.4 5.98 67.7 5.98 69.0 5.98 70.3 5.98 71.6 5.98 72.9 5.98 74.2 5.98 75.5 5.98 76.8 5.98 78.1 5.98 79.4 5.98 80.7 5.98 82.0 5.98 83.3 5.98 84.6 5.98 85.9 5.98 87.2 5.98 88.5 5.98 89.8 5.98 91.1 5.98 92.4 5.98 93.7 5.98 95.0 5.98 96.3 5.98 97.6 5.98 98.9 5.98 100.2 5.98	20 52.820 13.820 27.0 45.0 29.2 46.6 33.5 135.4 35.7 3.5 37.9 5.8 40.1 20 45.1 42.2 10.2 46.6 14.4 48.7 16.7 50.9 18.8 52.6 24.38 54.6 6.38 56.1 5.800 57.5 8.63 58.8 2.83 59.9 5.78 61.2 8.64 62.5 5.98 63.8 5.98 65.1 5.98 66.4 5.98 67.7 5.98 69.0 5.98 70.3 5.98 71.6 5.98 72.9 5.98 74.2 5.98 75.5 5.98 76.8 5.98 78.1 5.98 79.4 5.98 80.7 5.98 82.0 5.98 83.3 5.98 84.6 5.98 85.9 5.98 87.2 5.98 88.5 5.98 89.8 5.98 91.1 5.98 92.4 5.98 93.7 5.98 95.0 5.98 96.3 5.98 97.6 5.98 98.9 5.98 100.2 5.98	20 52.420 46.420 27.0 48.0 29.2 48.5 33.5 143.9 35.7 3.5 37.9 5.8 40.1 20 47.9 42.2 10.2 46.6 14.4 48.7 16.7 50.9 18.8 52.6 24.38 54.6 6.38 56.1 5.800 57.5 8.63 58.8 2.83 59.9 5.78 61.2 8.64 62.5 5.98 63.8 5.98 65.1 5.98 66.4 5.98 67.7 5.98 69.0 5.98 70.3 5.98 71.6 5.98 72.9 5.98 74.2 5.98 75.5 5.98 76.8 5.98 78.1 5.98 79.4 5.98 80.7 5.98 82.0 5.98 83.3 5.98 84.6 5.98 85.9 5.98 87.2 5.98 88.5 5.98 89.8 5.98 91.1 5.98 92.4 5.98 93.7 5.98 95.0 5.98 96.3 5.98 97.6 5.98 98.9 5.98 100.2 5.98	20 46.520 42.820 27.0 48.7 29.2 48.8 33.5 53.2 35.7 53.3 37.9 53.4 40.1 20 42.2 42.2 10.2 46.6 14.4 48.7 16.7 50.9 18.8 52.6 24.38 54.6 6.38 56.1 5.800 57.5 8.63 58.8 2.83 59.9 5.78 61.2 8.64 62.5 5.98 63.8 5.98 65.1 5.98 66.4 5.98 67.7 5.98 69.0 5.98 70.3 5.98 71.6 5.98 72.9 5.98 74.2 5.98 75.5 5.98 76.8 5.98 78.1 5.98 79.4 5.98 80.7 5.98 82.0 5.98 83.3 5.98 84.6 5.98 85.9 5.98 87.2 5.98 88.5 5.98 89.8 5.98 91.1 5.98 92.4 5.98 93.7 5.98 95.0 5.98 96.3 5.98 97.6 5.98 98.9 5.98 100.2 5.98	20 44.020 39.3 27.0 46.2 29.2 46.4 33.5 41.3 35.7 121.020 37.9 51.9 40.1 20 54.0 42.2 56.2 46.6 58.4 48.7 61.5 50.9 64.6 52.6 67.7 54.6 70.8 56.1 73.9 57.5 77.0 58.8 80.1 59.9 83.2 61.2 86.3 62.5 89.4 63.8 92.5 65.1 95.6 66.4 98.7 67.7 101.8 69.0 104.9 70.3 108.0 71.6 111.1 72.9 114.2 74.2 117.3 75.5 120.4 76.8 123.5 78.1 126.6 79.4 129.7 80.7 132.8 82.0 135.9 83.3 139.0 84.6 142.1 85.9 145.2 87.2 148.3 88.5 151.4 89.8 154.5 91.1 157.6 92.4 160.7 93.7 163.8 95.0 166.9 96.3 170.0 97.6 173.1 98.9 176.2 100.2 179.3	20 21 5.6 27.0 6.7 29.2 7.7 33.5 121.020 35.7 51.9 37.9 54.0 40.1 20 56.2 42.2 58.4 46.6 61.5 48.7 64.6 50.9 67.7 52.6 70.8 54.6 73.9 56.1 77.0 57.5 80.1 58.8 83.2 59.9 86.3 61.2 89.4 62.5 92.5 63.8 95.6 65.1 98.7 66.4 101.8 67.7 104.9 69.0 108.0 70.3 111.1 71.6 114.2 72.9 117.3 74.2 120.4 75.5 123.5 76.8 126.6 78.1 129.7 79.4 132.8 80.7 135.9 82.0 139.0 83.3 142.1 84.6 145.2 85.9 148.3 87.2 151.4 88.5 154.5 89.8 157.6 91.1 160.7 92.4 163.8 93.7 166.9 95.0 170.0 96.3 173.1 97.6 176.2 98.9 179.3 100.2 182.4

$$\begin{array}{r}
 671 \quad 69 + 4 \\
 64 \quad 63 - 2 \\
 64 \quad 64 - 1 \\
 64 \quad 65 - 0 \\
 66 \quad 67 + 2 \\
 (77) \quad (78) \\
 62 \quad 63 + 2 \\
 \hline
 8.65 \quad 8.65 + 0.0 \\
 \hline
 - 3.49 \\
 \hline
 5.16
 \end{array}$$

+414400
Feb. 22

$$\begin{array}{r}
 20 \quad 42.0 \quad 20 \quad 32.8 \\
 \quad 44.2 \quad 33.6 \\
 \quad 46.3 \quad 34.7 \\
 \quad 50.7 \quad 101.7 \\
 \quad 52.8 \quad 38.7 \\
 \quad 53.0 \quad 21 \quad 17.0 \quad 20 \quad 22.7 \\
 \quad 57.1 \quad 18.1 \\
 \quad 59.3 \quad 19.7 \\
 \quad 61.7 \quad 24.8 \\
 \quad 61.9 \quad 18.3 \\
 \quad 8.1 \\
 6051 \quad 54.99
 \end{array}$$

55.009

54.99

8.14

- 13.15

+ 54.99

+ 742.8823.3

+ .14

+ .51

- 8.62

4 48.0 3 49.9

18.8 23.1

68.8

31.90

+ 21.3

1.32535

1.42235

- 26.40

29 31.80

29 5.45

53 42.90

- 0 26.84

53 161

53 67.9

53 59.4

+ 23.3

- 39.5

39.5 + 23.0

53 42.90

+ 0.00

4 51 30

 $\sin \sqrt{9.9059}$
 $\cos \sqrt{9.7730}$
 $\cos \sqrt{9.7730}$
 1175
 9.8905
 $\delta = +53^\circ 37' 45.7''$

1 Camelopard.

 4 21 50
 21 54.10 +9.87
 +53 38

 $(+1.36)$ $\sin Z = -19$
 $(+1.36)$ +42.420

+49.477

+50.473

+52.455

+42.400

+3.4372

Jan. 2	Jan. 8	Jan. 30	Jan. 31	Feb. 1	Feb. 24	Feb. 26
-025 21	4.0 20	55.6 21	26.0 21	13.4 21	24.5 21	43.3 21
	7.2	58.3	29.5	15.2	28.1	29.0
	10.7	61.5	33.0	16.8	31.4	32.4
	17.5	64.4	40.0	45.4	38.4	39.4
$\sin \sqrt{9.9059} 2$	21.0	43.4	15.1 3	41.9	42.8	
	24.7	46.7 22	16.0	45.5	46.2	
	28.3	50.4	18.0	49.0	47.7	
	31.7	54.0	34.0	52.2	53.2	
	38.6	0.8	1.7 00	59.1	0.1	
$\cos \sqrt{9.7730} 2$	42.1	4.3	2.6	3.7		
12666	45.5	8.5 21	15.1	6.2	7.0 21	43.3
9.89967	27.1 3	51.5 9	49.8 9	50.2 1	42.8 13	35.2 1
7.77302	24.6 64	46.9 00	45.3 54	46.2 64	45.6 55	38.4 36
11804						
9.89106	24.64	46.88	46.88	45.32	46.24	45.24
	24.35	53.98	53.98	53.96	53.96	53.96
	-29.71	-29.71	-7.10	-8.64	-7.72	-8.32
	+29.05	+6.32	+6.93	+6.93	+7.50	+7.50
	+57	+67	+68	+68	+68	+68
	-25	+3.16	+6.88	+14	+14	+14
	+57	+6.65	+6.65	+7.0	+7.0	+7.0
	54.01	53.99	53.07	53.99	53.09	53.09
	52.01	53.98	53.07	53.99	53.07	53.91

45	1	2	3	4	5	6	7	8	9	10
1 17	27.70	39.81	57.3	1 22.2	1 6.3	8 55.3				
0 38.2	51.80	-4.5	23.0	48.2	38.9	22.0				
309	19.5	4.3	80.3	70.4	46.2	7.8				
0 19.95	57.50	22.15	40.15	85.20	32.61	88.65				
	24.56	23.52								
0 45.19	0 45.69									
+26.6	+31.8	+2.0	+3.0	+24.8	+45.0	+36.6				
1.42488	1.50243	0.30103		1.39445	1.65321	1.56348				
1.32455	1.39349	0.19209		1.28551	1.54427	1.45454				
+21.11	-24.75	-15.56		-19.30	-35.01	+28.48				
45 49.95	46 9.75	46 40.15		46 5.20	45 52.60	45 52.60				
46 11.06	46 45.00	46 24.59		46 45.90	45 17.59	46 21.08				
+53 36 87.29	37 3.35	36 23.76		37 2.45	36 2.72	37 2.72				
+0 12.28	+0 12.41	+0 12.52		+12.42	+10.98	+10.98				
36 49.6	37 15.8	36 36.2		37 14.9	36 38.2	37 33.7				
37 53.6	37 56.3	37 36.4		37 56.5	37 57.4	37 47.4				

+17 I	+1	40.42	+40.5	40.7	+1	202	20.3	+41.6	41.8	+1	19.2	19.4	+0	23.7	23.8
$\delta = +53$	36	37.29	37	33.5	36	23.76	37	24.0	36	23.27	37	21.24	37	21.24	
		-4.90		-10.60		-10.70		10.80		11.70		11.70			

+0 + Jan 4 21 54.41
 6 .37 .04
 11 .32 .05
 16 .25 .07
 21 (-11) 54.17 .08
 26 .07 .10
 31 (-11) 53.96 .11
 Res. 6 .89 .13
 10 53.71 .13
 15 .57 .14
 20 .42 .15
 25 .27 .15
 Mar. 1 53.13 .14

+53° 37' 52" 3
 53.2 9
 54.0 8
 54.7 7
 55.3 6
 55.9 5
 56.4 4
 56.8 3
 57.1 2
 57.3 1
 57.4 0
 57.4 1
 57.3 -1

53.07.07 54.01 54.01 -9
 53.99 53.98 -12
 53.99 53.99 -11
 53.96 54.04 -6
 53.99 53.91 -19
 53.99 53.99 -11
 53.07 56 53.99 53.99
 -4.72
 49.26

+41.138
 Feb. 28

21 18.5 21 28.4
 22.4 29.7
 25.9 30.9
 32.4 39.0
 36.0
 39.6
 43.1
 46.5
 53.6
 57.0
 10.7 21 29.7
 43.65
 39.682
 39.66 39.66
 53.18 53.18
 -18.52 -18.52
 39.66 + 0.11
 +12.92 13.94
 + 5.6 39.66
 + 9.2 12.85
 53.06 + 6.0
 +.93
 54.04

1 53.5 X X
 20.7 X
 74.2 X
 37.10 X X X

+10.0
 1.00000
 0.89106
 -7.78
 46 37.10
 46 29.32
 36 19.03
 + 14.98

56 31.0
 36 5.3

+0 26.3 26.5
 36 19.03
 -1.60

$$+ 19.9 - 15.3$$

0	1	2	3	4	5	6	7	8	9
596	356	251	183	185	588	135	509	490	
472	64	359	514	472	318	492	248	227	
1068	420	1010	598		906		757	717	
5340	2100	365	3985		4530		3785	3585	
+4.0	+21.8		+16.1		+19.8		+13.5	+10.7	
0.60206	1.33266		1.20683		1.29666		1.13033	1.06889	
0.71290	1.44069		1.30906		1.39889		1.23256	1.17042	
+5.16	-27.8	-27.8	-20.38		-25.05		-1708	-1480	
1 5340	1 2100	1 2205	1 5985	1 4530	1 2025	1 3785	1 3585	1 2105	
1 5856	0 53420	2247	1 3947	1 2025	1 2025	1 2047	1 2047	1 2105	
+15° 20'	49.79	21 888	21 888	21 2810	21 2810	21 2758	21 2730		

26.3
27.0
1
-33

6.6
25

88 Tami

4 24 31

+15 35

+28

$$\sin \sqrt{9.4292} \quad \cos \sqrt{9.8837}$$

$$\cos \sqrt{9.4292} \quad \sin \sqrt{9.8837}$$

$$\frac{1175}{1012}$$

Jan. 10	Jan. 15	Jan. 30	Feb. 1	Feb. 4	Feb. 12
23 49.728 443 24	172 24	7.6 24	27.3 24	12.7 24	9.2 24
51.7	19.5	9.0	27.8	14.8	10.1
53.9	21.6	10.0	28.5	16.0	11.1
58.1 137.1	25.9	26.6	22.4	21.2	20.4
0.4	21.9	24.5	23.6	23.4	20.0
2.4	30.1	26.6 25	21.86	23.4	22.0
4.5	32.2	28.7	4.4	25.4	24.1
6.7	34.4	30.6	5.6	27.6	26.3
11.6	38.6	13 28	7.7	29.6	28.4
13.1	40.7	5.90	17.7	34.0	32.7
15.2 23	43.0 24	24 27.9	26.1	34.7	34.7
26.6 7	35.1 1	27.9	38.3 24	37.0 24	37.0 24
24.0	30.100	26.5 60	27.9	26.5 6	26.5 6
26.7			253 73	24.1 5	24.1 5
24 2.4 37					21.5 91

$$-11 \quad -392$$

$$0.12124 \quad -1.3223$$

45 3 35.7	3 30.8	3 41.8 2	55.3 4	41	4 8.2
240	14.9	13.7	35.8	36.0	41.8
59.7	45.7	55.5	91.1	100.1	110.0
29.85	22.65	3 27.75 2	40.55	50.05	55.00
		+1.39	48.50		
		29.14	30.8		
+16.7	+21.2	-1.1	+15.3	+18.6	+25.8
1.22272	1.33634	0.04139 m	1.18469	1.26951	1.41162
1.33310	1.44672	0.14316 m	1.28646	1.37128	1.51339
+2153	+2797	+1.39	-19.34	-23.57	-3261
48 29.85	48 22.85	48 27.75	48 50.05	48 55.00	48 54.0
48 57.38	48 50.82	48 29.14	48 30.1	48 31.48	48 32.99
+15° 33 56.97 J	33 57.53	34 19.21	34 17.64	34 16.86 J	34 16.56

4 52 10
p Lauri

sin \checkmark 9.4010
cos \checkmark 9.9858

9.9858
1175
1033

4 26 32
+ 14 35
+ 26
Ex. degrees.

Feb. 12	Jan. 10	Jan. 15	Jan. 30	Feb. 1	Feb. 4				
26 10.526 13.0 15.1 19.4 21.5 23.5 25.7 27.9 32.1 34.3 36.526 25.95 23.618	10.425 1.2 2.4 4.0 22.7 1.3 26 23.618 26 4.440	0.126 2.3 4.5 6.6 8.7 15.8 15.8 15.8 15.8 15.8 15.8 15.8 15.8	13.726 15.6 17.8 23.5 27.7 30.0 32.0 34.2 36.3 40.6 42.7 44.826 35.25 32.045	19.326 21.4 23.5 27.7 30.0 32.0 34.2 36.3 40.6 42.7 44.826 35.25 28.664	16.026 16.7 17.7 50.4 28.626 30.8 32.9 37.2 39.3 41.526 31.53 27.409	14.626 15.2 16.8 18.9 23.2 25.2 27.4 29.6 31.7 35.9 38.1 40.126 30.15 26.100	2.826 3.7 4.2 10.7 21.9 24.0 26.1 28.2 30.3 34.7 36.7 38.826 28.74 26.100	13.326 15.5 17.6 21.9 24.0 26.1 28.2 30.3 34.7 36.7 38.826 28.74 26.100	45.4 46.7 48.3 10.4 46.8 46.8 46.8 46.8 46.8 46.8 46.8 46.8

+137 -20.1
1.367 1.3032

5 4 108 55.1 70.8 35.45	45 4.162 4.4 2.06 10.30	15 4 162 4.4	45 3 43.5 27.8 71.3 35.65	4 65.3 3 36.8 42.1 4 210.5 3 1789 4 366 4	23.1 4 18.0 55.4 51.7 78.5 69.7 34.85 25.50 4.75	3 21.8 56.7 79.5 89.25
+ 32.8 1.34830 1.45212 - 28.82 49 5.45 48 37.13 34 11.22	- 11.0 1.04139m 1.15382m + 14.25 49 10.30 48 56.05 33 32.30		+ 15.2 1.15184 1.29427 + 19.68 48 30.65 48 55.34 33 53.01	+ 18.8 1.13988 1.24370 - 17.03 48 51.05 48 33.52 34 14.83	+ 23.8 1.37658 1.48040 - 30.23 49 4.25 48 34.62 34 13.73	- 20.7 1.31597m 1.41977m + 26.28 48 9.25 48 42.26 35.54 34 12.81

~~A~~ Droco S.B.
4 28 00
110 57 -261

$\sin \sqrt{9.9703}$ $\cos \sqrt{9.5530}$
 $\cos \sqrt{9.5533}$ 1175
 96705

$$\begin{array}{r} ^0 ^1 ^1 \\ 1872 \text{ NA} = 69 \ 2 \ 4203 \\ P = 69 \ 2 \ 4164 \end{array}$$
$$\sin z = -.93$$

1872
 8.11.1944
 9.5.1937
 7.7.1930
 9.4.1920
 9.5.1939
 11.8.04
 9.6.1938

[illegible]
$$\begin{array}{r} +145 \\ 1,1614 \end{array} \quad \begin{array}{r} -171 \\ 1,2330 \end{array}$$

25% $\frac{25}{3}$ 48.3 4. 64.4 3 41.7 2 47.9 3 23.4 3 39.16
5.8 3 22.7 2.5 18.7 50.6
54.1 26.5 44.3 66.6 99.3
27.05 43.25 23.10 33.0 49.6
+6.79 8.01
3884 85.4

$+14.5$
 1.16137
 0.8325 m
 $+681$
 $28 \quad 27.05$
 $28 \quad 33864 \quad 43.25$
 $+110^\circ \quad 54 \quad 1449$
 $+2 \quad 41.99$
 $+56 \quad 565$

1588	1588	-9.2
1.7704	1.76860	0.963792
1.44149	43978	0.63517
27.64	+2708	-4.32
27 33 30	33 30	28 19 60
28 0.54	0.85	28 15.8
54 47.50		54 33.07
2 26.52		2 37.00
27 14.0		57 16.1
204		206
20.3		20.2
35.7		35.8

-0.41	69	2	342	214	204	106	
			238	210	203	202	
	110	57	362	380	397	398	
+86	I	+0	397	40.6	+0	463	47.1
			-1280		+0	257	266
						297	306
						-2130	-2140

a Pami

4 28 33
28 34.64
+16 16 34.64 31.21

+2.9
(+2.9)

mi z = +44

Jan 4 28 34.71 +16° 14' 59".1
6 70 101 59.0
11 68 102 58.9
16 65 103 58.8
21 (-01) 34.61 104 58.7
26 57 104 58.6
31 (-02) 52 105 58.5
Feb 6 45 107 58.4
10 34.38 107 58.4
15 30 108 58.3
20 22 108 58.2
25 14 108 58.1
Mar 3 34.05 109 58.0

$\delta = +16^\circ 14' 59''$

Jan 10 +44+384

Jan 15 +33+350

Feb 1 +52+505

Feb 4 +44+445

Feb 12 +32+338

Feb 18 +44+419

-016	27	51.027	39.028	18.828	10.628	14.028	12.828	25	13.328	10.327	57.828	9.328	6.7
		53.1	40.6	20.9	12.1	16.3	14	12.6	10.0	12.5	59.0	11.4	7.7
		53.4	42.0	22.9	13.4	18.4		14.8	11.0	14.6	59.8	13.5	8.7
22	9.44689	59.6	121.6	27.2	86.1	22.6		17.0	21.0	18.9	176.6	11.7	23.1
		1.8		29.4		24.8		21.2	24.0	21.0		19.9	
		3.8		31.5		26.9		23.3	26.1	23.1		22.1	
		6.0		33.7		29.0		25.5	28.2	25.3		24.3	
		8.2		35.8		31.1		27.7	30.3	27.4		26.4	
		12.4		40.0		35.6		29.9	34.6	31.6		30.7	
00	9.58289	14.6		42.2		37.7		33.9	36.7	33.8		32.9	
	12668	16.6		44.4		39.7		36.2	38.8	36.0		35.1	
	10894	26.25	27	40.5	34.6828	12.0	29.6128	12.3	28.06	28	10.5	25.4527	58.9
		24.0											
		42.5											
9.98229		38.64		31.5827		26.948		25.509		23.187		22.118	
11804				34.68									
10033				31.51	31.07	26.90	26.50	25.49	25.49	23.13	23.13	22.10	22.10
		3.85	3.25	34.68	34.65	34.51	34.51	34.46	34.46	34.31	34.31	34.25	34.25
		34.68	34.68	31.14	31.14	26.90	26.90	25.49	25.49	23.13	23.13	22.10	22.10
		-30.83	-30.83	-3.14	-3.14	26.90	26.90	25.49	25.49	23.13	23.13	22.10	22.10
		3.85	3.85	31.07	31.07	26.90	26.90	25.49	25.49	23.13	23.13	22.10	22.10
		+30.70	+30.72	+3.03	+3.02	+7.99	+7.45	+8.72	+8.74	+11.17	+11.18	+11.99	+12.01
		+12	+11	+1.10	+1.10	+1.10	+1.10	+1.13	+1.13	+1.10	+1.10	+1.13	+1.12
		-4	-4	-1	-1	+1.13	+1.13	+1.18	+1.18	+1.10	+1.10	+1.13	+1.12
		34.63	34.64	34.63	34.62	34.67	34.63	34.52	34.54	34.69	34.70	34.61	34.62

5 2 58.6
45.8
10.44
52.20

5 3 6.2
2 50.2
56.4
2 58.20

3 31.8
4.4
36.2
18.10

3 34.9
9.2
44.1
22.05

3 45.0
23.6
68.6
84.31

3 33.9
12.8
46.7
28.35

+23.4
1.36222
1.47816
+30.07
7 52.20
8 22.27

+19.5
1.29003
1.39897
+35.06
7 58.20
8 23.26

+14.1
1.14322
1.24955
-17.76
8 18.10
8 0.34

+15.0
1.17609
1.27642
-18.90
8 22.05
8 8.15

+24.2
1.38382
1.48415
-30.49
8 34.30
8 3.81

+14.4
1.15836
1.25869
-18.14
8 23.35
8 8.21

+16° 14' 26.08
30.44

14 25.09
-31.38

14 48.01
-32.07

14 45.20
-30.82

14 44.54
-30.08

14 43.14
-30.38

13 55.6
14 58.9

13 53.7
14 58.8

14 15.9
14 58.5

14 14.4
14 58.4

14 14.5
14 58.4

14 12.8
14 58.2

-40 I	+1	3.3	2.9	+1	5.1	4.7	+0	42.6	42.2	+0	44.0	43.6	+0	43.9	43.5	+0	45.4	44.9
$\delta' = +16^\circ$	14	26.08		14	25.09		14	48.01		14	45.20		14	44.54		14	43.14	
		+0.10			0.20			0.50			0.60			0.60			0.80	

34.63 64 +0
 60 62 -2
 67 63 -1
 (52) 58 -10
 69 70 +6
 61 62 -2
 60 62 -2
 (74) 68 -4
 34.63 34.63 -0.2
 3.44
 31.19

+41+400
Feb. 22

+41+438
Feb. 28

28	8.3	27	59.6	28	8.4	28	0.4
	10.4		1.0		10.4		1.6
	12.4		2.6		12.6		2.9
	16.7	16	3.2		16.8		4.9
	18.9		6.1		19.0		
	21.0	28	86.7		21.2		
	23.1		38.3		23.3		
	25.4		39.8		25.4		
	29.7		24.8		29.8		
	31.8		38.3		31.9		
	34.0				34.0		
	231.7	28	0.7		232.8	28	1.6

21.064

21.164

21.05	21.05	21.15	21.15
34.19	34.15	34.09	34.09
-13.14	-12.13	-12.94	-12.94
21.05	21.05	21.15	21.15
+12.98	+12.99	+12.92	+12.92
+12	+12	+12	+12
+4.0	+4.6	+5.5	+5.5
34.60	34.62	34.74	34.68

3	19.8	2	35.0	3	23.3
	54.7		9.2		57.9
	24.5				81.2
	37.25				40.60
	+2.04	+2.00			+19.6
	1.20963	1.30103			1.29226
	1.40378	1.40130			1.39259
	-2.520	-2.520			-2.469
8	07.25	7.25	8	10.60	
7	41.55	42.05	7	45.91	
15	63.0		15	24.4	
	-30.14			-30.43	

14	36.2	14	32.0
14	58.2	14	58.0

+0	22.0	216	+0	25.6	25.6
15	6.30		15	2.44	
	0.80			+1.00	

4 5210
L EridaniSWJ - 8.7999
coro + 9.99919.9991
1175
1166

h. 848 431

 $\delta = -3^{\circ} 36' 57''$

4 2953

-8 37 58.38 52.39

(-.06)

(-.06)

Lin 2 = +.72

187 ~ Jan. 10 +41.394

Jan. 30 +49.477

Feb. 12 +32.338

Feb. 15 +37.400

Feb. 24 +42.400

Feb. 26 +35.372

-0.16	29	20.929	33.929	36.929	32.629	42.029	59.5	29	54.029	29	53.3	29	29.7	29	23.7
		22.9	35.0	38.9	33.5	44.1			54.7		54.2		31.7		24.9
		25.0	36.4	40.9	34.6	46.2			55.6		55.1		32.8		26.5
		27.0	105.3	44.9	10.67	45.3	29	39.8	164.3		162.6		38.0		75.4
		29.0		47.2	33.56	52.3		42.0			39.6		40.1		
		12.48		49.080	10.7	54.3		44.0			41.8		42.1		
				51.1	12.0	56.5		46.0			43.8		44.2		
				53.3	13.5			48.0			46.0		46.3		
				57.4	36.2						208.8		50.3		
				59.4	12.06								52.3		
				61.629	23.6								54.4	29	25.1
				54.06									46.29		

SWJ 8.79990
12663
12578

24.96	24.96	49.145	44.120	43.960	41.760	42.082
24.94	24.94	49.13	44.10	43.95	41.74	42.07
33.52	33.52	53.35	53.18	53.13	53.98	53.61
-30.58	-30.58	-6.22	-1.08	-1.18	-14.24	-13.88
24.94	24.94	49.13	44.10	43.95	41.74	42.07
+30.70	+30.70	+6.33	+11.17	+11.33	+13.31	+13.05
-2	-2	-3	-2	-2	-2	-2
-14	-14	+3	+20	+25	+40	+43
55.48	55.48	1.5546	55.45	55.51	55.42	55.53
55.50	55.50	55.46	55.46	55.49	55.43	55.52

0 0 8.7	0 2.24	4 22.8	4 28.7	4 8.1	4 45.3
-0.3	36.0	3.8	6.8	49.7	23.7
8.4	38.2	26.6	38.5	57.8	69.0
0 4.20	59 49.10	13.3	17.75	28.90	34.50
	28.14				
	28.96				

-10.1	+15.5	-15.4	-10.8	-12.4	+17.0
1.00432m	1.19033	1.19590	1.03342m	1.09842m	1.23045
1.13010m	1.30750	1.31307	1.15059m	1.21059m	1.34762
-13.49	-20.30	+20.56	+14.14	+16.24	+22.26
60 4.20	59 49.10	59 13.30	59 17.75	58 58.90	59 34.50
59 50.71	59 28.80	59 23.86	59 31.89	59 15.14	59 32.24
-3 37 23.6	36 40.45	36 45.13	36 43.54	36 26.79	36 23.89
-1 3.26	-1 7.12	1 7.62	1 3.52	-1 00.36	-1 4.94
3.17					

38 5.5	37 47.6	37 47.8	27 47.1	37 27.1	37 28.8
36 62.3	26 64.1	36 64.8	36 64.9	36 65.2	36 65.2

-66 I +1 3.2 2.5	+ 43.5 42.9	+ 42.0 42.3	+ 42.2 41.6	+ 21.9 21.2	+ 23.6 23.0
S' = -3 37 23.6	36 40.45	36 45.13	36 43.54	36 26.79	36 23.89
+ 4.70	6.50	7.20	7.30	7.60	7.60

Jan 4 29 55.56
 6 54.102
 11 52.102
 16 49.103
 21 (+09) 55.45.04
 26 40.05
 Feb 31 (+10) 34.06
 5 28.06
 10 58.21.07
 15 13.08
 20 15.08
 25 97.08
 Mar 8 54.49.08

- 3° 36'

61.3 6
 61.9 5
 62.4 5
 62.9 5
 63.4 5
 63.8 4
 64.1 3
 64.4 3
 64.7 3
 64.9 2
 65.1 2
 65.2 1
 65.3 1

65.48 50 +12
 46 .46 +8
 45 .46 +8
 51 49 +19
 42 43 +5
 53 52 +14
 (60) 52.2 +14
 55.47 58.48 +10
 -2.99
 52.49

+41+438
 Feb. 28

29 45.0
 45.4
 90.4
 29 38.1
 40.1
 42.3
 44.4
 46.4
 21 13

29 45.2

42.26
 52.52
 13.68
 42.24
 +12.92
 2
 +.46
 55.60
 42.24
 54.52
 13.68
 13.7
 42.24
 +12.83
 55.60
 +.46
 55.62

4 24.1
 1.3
 25.4
 12.70

- 29
 0.46240m
 0.57957m
 + 3.80
 59 12.70
 59 16.50
 36 28.75
 - 1 2.59
 360

37 31.7
 36 65.6

+ 26.4 25.7
 36 38.15
 + 7.70

4 55 30 Epidemi
63 ~~1000~~ Sin $\int -9.4001$
Cos $\int 9.9858$
4 32 20
-14 33
-26

[illegible]
$$\begin{array}{r} + 194 \\ 1, 2878 \end{array} \quad \begin{array}{r} - 266 \\ 1, 4249 \end{array}$$

55 0 23.4 15.7 39.1 0 19.55	55 0 1 2.0 0 0 37.3 1 39.3 1 49.5 -24.61 250.4	40 4.1 1 2.1 -21.4 -12.5 -86.1 +22.74 25.08	1 5.12 47.3 83.5 26.25	0 43.3 25.0 68.8 34.40	0 42.0 21.0 63.0 21.50
+17.6 1.29226 1.40475 +25.39 55 19.05 55 44.54 -14° 32' 56.59	+17.5 1.29603 1.39391 -2477 55 49.65 55 24.88 32 36.53	+21.0 1.32222 1.42610 -2667 55 50.00 55 23.33 32 34.98	+18.9 1.29585 1.40273 -2528 55 56.25 55 30.97 32 42.62	+16.6 1.22010 1.32398 -2299 55 31.40 55 13.2 32 24.97	+18.1 1.25768 1.36156 -2299 55 31.50 55 28.51 32 20.16

Feb. 28

31 33.2 31 568
 55.4 55
 57.4
 1.8
 3.9
 6.0
 8.3
 10.4
 14.6
 16.7
 18.8 31 568
 2465
 180
 66.5
 6045-

0 37.0
 15.7
 53.7
 36.35-

+9.2
 0.96379
 1.06767
 - 1169
 5-5 26.35
 55. 14.66
 32 26.31

P Pami

$$\begin{array}{r} 43431 \\ 34 \quad 33.83 \\ +224333 \\ \hline \end{array}$$

$\sin \beta$ 9.5868 $\cos \beta$ 9.9649
 $\cos \beta$ 9.9649 1145
 0824

$$\delta = +22^{\circ} 42' 31.9''$$
$$\begin{array}{r} (+42) \\ (+42) \end{array}$$
$$\rho_{ii} z = +.34$$
$$+4/+394$$

$+49 + 477$

$+32 + 338$

 $728,290$

$+42 + 400$

+357372

1872 Jan. 10

Jan. 30

Feb. 12

Feb. 14

Feb. 24

Feb. 26

[illegible]

40	0	34.7	18.6	53.3	0	26.65	40	1	13.5	0	20.1	1	15.6	1	14.0	0	52.0	0	52.1
								0	39.8		-13.2		51.3		46.3		27.1		23.7
								1	53.3		6.9		67.1		60.8		79.1		25.8
								0	56.5	0	3.45		33.55		30.15		39.55		37.90
								-	24.53		28.41								
								1	32.12		31.86								

+32.5	+20.3	+23.4	+21.0	+19.3	+18.9
1.35218	1.30750	1.36922	1.32222	1.28536	1.27446
1.44376	1.39047	1.45219	1.40519	1.36853	1.35743
+27.78	-24.58	-28.32	-25.72	-23.36	-22.77
40 26.65	40 56.65	40 3.58	40 0.15	40 39.55	40 37.90
40 54.43	40 32.07	40 35.23	40 34.73	40 16.19	40 15.13
41 53.92	42 16.28	42 13.12	42 13.62	42 32.60	42 33.22
0 22.07	-0 23.28	-0 21.79	-0 22.14	-0 20.98	-0 22.57

41	31.8	41	53.0	41	51.3	41	51.5	42	11.2	42	10.7
42	33.3	42	33.6	42	33.8	42	33.5	42	33.4	42	33.6

-32	I	$+1$	1.5	1.2	$+40.6$	40.3	$+42.3$	41.9	$+42.0$	41.7	$+22.2$	21.9	$+22.7$	22.3
$\delta = +22$	41	53.92	42	16.28	42	13.12	42	13.62	42	32.16	42	33.22		
	1.40		1.70		1.70		1.60		1.50		1.50			

Feb Jan 1 4 34 33.91 + 22° 42' 33.2 2
 6 80 101 33.2
 11 88 102 33.3
 16 85 103 33.4
 21 33.82 103 33.5
 26 (+05) 77 105 33.5
 31 71 106 33.6
 Feb. 5 (+04) 65 106 33.6
 10 33.58 107 33.6
 15 50 108 33.6
 20 41 109 33.5
 25 33 108 33.4
 Mar. 1 33.24 109 33.4

33.47 88 +5
 93 92 +9
 87 88 +5
 86 85 +2
 86 85 +2
 88 87 +4
 88 86 +5
 90 89 +1
 33.88 33.88 +0.4
 -30.99
 30.28

+41 +438

Feb. 28

34 69 34 4.8
 9.0 5.7
 11.4 6.6
 15.8 17.1
 18.0
 20.3
 22.5
 24.8
 29.2
 31.4
 33.7 34 5.7
 223.0

20273 20.26
 20.26 33.28
 33.28 13.02
 -18.02 5-

20.26 -13.07
 +12.92 20.26
 +.17 +12.80
 +.15 +.15
 33.90 33.84

0 51.9
 21.3
 78.2
 36.60

+14.6
 1.16435
 1.24732
 -176.0
 40 36.60
 40 18.93

42 2.42
 -0 22.04

42 74
 42 33.4

+ 26.0 257

44 29.42
 -1.50

4 Camel

$$\sin \sqrt{9.9213} \cos \sqrt{9.7417}$$

$$\cos \sqrt{9.7417} \quad \frac{11.95}{9.8592}$$

$$\delta = +56^{\circ} 31' 34.8''$$

4 37 16
37 20.94

+56 32 15.87

(1.51)

+1.51

$$\sin z = -24$$

+1.1+394

+1.1+405

+49+477

+32+338

+28+90

+42+400

Jan. 10

Jan. 12

Jan. 30

Feb. 12

Feb. 14

Feb. 24

-027	36	27.636	15.136	55.736	46.736	57.536	42.736	46.536	37.536	46.536	23.136	44.036	30.8
		31.4	17.2	59.1	48.6	55.3	44.6	50.4	38.8	50.1	35.2	47.7	33.6
		35.0	19.3	3.0	50.5	59.0	46.8	54.1	40.2	54.0	37.0	51.5	36.0
		42.5	57.6	10.5	145.8	6.6	134.1	57.5	116.5	1.3	105.3	54.0	100.4
		46.2		14.4		10.1	44.70	5.2		5.1		2.6	
		50.0		18.0		13.827	51.8	8.937	06	8.7		-6.4	
		53.6		21.7		17.6	53.4	12.6		12.5		10.1	
		57.3		25.5		21.6	55.7	16.3		16.1		13.9	
		61.7		32.9		28.9	10.19	23.8		23.8		21.4	
		65.1		36.8		32.4	53.63	27.6		27.6		25.0	
		68.5		40.5	26 48.6	36.436	44.7	31.336	38.8	31.336	35.1	28.836	33.5
		71.9		44.0		33.32		27.83		27.70		31.04	
		75.3		47.4		18.0		18.0		18.0		24.00	
		78.7		50.8		153.17		9.813		9.70		17.00	
		82.1		54.2		13.978		1.8986		2.5182		6.400	
		85.5		57.6		13.89	13.89	8.91	8.91	8.918	8.91	6.37	6.37
		88.9		61.0		21.00	20.99	20.65	20.65	20.659	20.65	20.78	20.78
		92.3		64.4		-7.11	-7.10	-11.74	-11.74	-11.80	-11.80	-13.91	-13.91
		95.7		67.8		+6	+6	8.91	+6	8.79	+6	20.28	20.28
		99.1		71.2		13.89	-7.04	+11.17	-11.68	+11.33	-11.74	6.37	6.37
		102.5		74.6		+6.33	+4.5	+4.8	8.91	+4.2	8.79	+13.31	6.37
		105.9		78.0		-2.5	+6.33	+29	+11.18	+3.5	+11.32	+6.3	+13.31
		109.3		81.4		+72	+72	+5.1		+3.5	+4.4	+6.6	+6.6
		112.7		84.8		-20.91	-6.5	20.85	+2.29	20.89	+3.5	20.97	+6.6
		116.1		88.2		1.4654	1.5988						
		119.5		91.6		20.80	20.80						
		122.9		95.0		20.89	20.89						
		126.3		98.4		20.90	20.90						
		129.7		101.8		20.94	20.94						

u Eridani

$$\begin{array}{r} 499.06 \\ 99.624 \\ - 329.624 \\ \hline 30 \end{array}$$
 (-16)

A

$$\operatorname{Im} z = +.72$$

Su \int 8.7836 co \int 9.9992
co \int 9.9992
1175
1167

$$\delta = -3^{0} 29' 29.1''$$

1872 Jan. 10 +414.394

+49 +477
Jan. 30

$+32+338$
Feb. 12

$+28 + 396$
Feb. 14

Feb. 24

+3) +372
Feb. 26

[illegible]

50 2 52.2
44.0
962
48.10

2	31.3	1	42.9	2	28.8
	4.7		16.7		10.3
2	36.0		59.6		39.1
	18.00		29.80		19.55
	19.10		28.56		
2	58.90		58.36		

$$\begin{array}{r} 2 \quad 22.0 \\ \quad 0.2 \\ \hline 22.2 \\ 11.10 \end{array}$$
$$\begin{array}{r} 2 \quad 15.5 \\ 56.9 \\ \times 72.4 \\ \hline 362 \end{array}$$

2 5.0
41.8
46.8
23.40

$\begin{array}{r} \text{---} 20.7 \\ 1.31597 \text{ n} \\ 1.44181 \text{ n} \\ \hline - 27.66 \\ 52 \quad 48.10 \\ 52 \quad 20.44 \\ \hline 29 \quad 32.09 \\ 1 \quad 5.22 \end{array}$

$$\begin{array}{r} +14.6 \\ 1.16435 \\ 1.28158 \\ -19.12 \\ \hline 52 \quad 18.00 \\ 51 \quad 58.88 \\ \hline 29 \quad 1053 \\ -1 \quad 652 \end{array}$$
$$\begin{array}{r} + 13.0 \\ 1.11394 \\ 1.23117 \\ - 17.03 \\ \hline 52 \quad 19.55 \\ 52 \quad 2.52 \\ \hline 29 \quad 14.17 \\ - 1 \quad 2.12 \end{array}$$
$$\begin{array}{r} + 7.8 \\ 0.89209 \\ \hline 1.00932 \\ - 10.20 \\ 52 \quad 11.10 \\ 52 \quad 0.90 \\ \hline 29 \quad 12.55 \\ - 1 \quad \frac{3.79}{3.20} \end{array}$$
$$\begin{array}{r} +14.9 \\ 1.17319 \\ 1.29042 \\ -19.52 \\ \hline 526.20 \\ 514668 \\ \hline 28 \quad 58.33 \\ -1 \quad 00.00 \end{array}$$
$$\begin{array}{r} + 7.6 \\ 0.88081 \\ 0.99804 \\ - 9.95 \\ \hline 51 \quad 53.40 \\ 51 \quad 43.45 \\ \hline 28 \quad 55.10 \\ 1 \quad 4.48 \end{array}$$

30	35.3
29	33.5

30 17.0
29 35.4

30	16.3
29	36.1

30	15.7
29	36.2

29	58.3
29	36.5

29	59.6
29	36.5

$$S' = -3 \quad 29 \quad 32.09$$
$$\begin{array}{r} + 1.77 \text{ 441.1} \\ 29 \quad 10.53 \\ \quad 6.20 \end{array}$$
$$\begin{array}{r} + 40.2 \quad 39.5 \\ 29 \quad 14.17 \\ \hline 7.00 \end{array}$$
$$\begin{array}{r} + 39.5 \\ 29 \quad 12.55 \\ \hline 38.9 \\ \quad 7.10 \end{array}$$
$$\begin{array}{r} + \quad 21.8 \quad 211 \\ 28 \quad 58.33 \\ \hline 7.40 \end{array}$$
$$+ 23.1225$$

$$28 \quad 55.10$$

$$7.40$$

Jan 1	4 39	6.44	-3° 29'	32.5	6
6		43		33.1	6
11		41		33.6	6
16		38		34.1	6
21		6.35		34.6	6
26	(-03)	30		35.0	6
31	(-03)	28		35.4	6
Feb. 5		29		35.7	6
10		6.12		36.0	6
15		08		36.2	6
20		5.95		36.4	6
25		5.87		36.5	6
Mar. 1		5.70		36.6	6

6.21	23	-1
19	20	-4
22	23	-1
23	22	-2
18	19	-5
18	18	-6
22	20	-4
0.21	6.21	-03
	8.00	
	8.21	

+41+438
Feb. 28

38	40.6	38	33.2
	42.7		34.3
	44.7		35.5
	48.9		103.0
	50.9		
	53.0		
	55.0		
	57.0		
	1.3		
	3.3		

51.338 34.3

58.27

52973

52.96	52.96
5.82	5.82
-12.86	-12.86
	1.8
52.96	+12.83
+12.92	
	52.96
+ .92	+12.85
6.28	+ .92
	6.20

2	24.3
	1.1
	25.4
	12.70

	+13.7
	1.27184
	1.38907
	- 24.40
52	12.50
51	48.21
28	59.86
-1	3.18

30	03.10
29	36.6

	+ 26.4
	25.7
38	59.86
	+ 7.50

19) Camelops

 $\sin \int 9.9611$ $\cos \int 9.6073$
 $\cos \int 9.6073$ 9.248

$$S = +66^\circ 7' 16.9''$$

4 41 12
 20.21
 $+66^\circ 07' 19.80$
 $+2.26$
 $+2.26$

$$\sin Z = -.40$$

	+41+354	+47+338	+49+477	+32+338	+28+290	+42+400
	Jan. 10	Jan. 12	Jan. 30	Feb. 12	Feb. 14	Feb. 24
-037	40	40	40	40	40	40
19.42	19.42	17.3	17.3	17.5	18.1	18.0
24.3	24.3	22.1	22.1	22.8	23.3	23.0
29.3	29.3	27.3	27.3	28.0	28.5	28.0
39.5	39.5	37.3	37.3	38.0	38.5	38.0
44.6	44.6	42.3	42.3	43.0	43.5	43.0
49.6	49.6	47.3	47.3	48.0	48.5	48.0
54.8	54.8	52.3	52.3	53.0	53.5	53.0
59.9	59.9	57.3	57.3	58.0	58.5	58.0
10.1	10.1	9.3	9.3	9.5	9.8	9.5
14.0	14.0	13.0	13.0	13.2	13.5	13.0
18.665	18.665	17.665	17.665	17.865	18.165	17.865
20.2	20.2	19.2	19.2	19.5	19.8	19.5
49.66	49.66	47.66	47.66	48.66	49.16	48.66
366.6	366.6	346.6	346.6	356.6	361.6	356.6
1.2	1.2	1.0	1.0	1.1	1.2	1.1
546.6	546.6	526.6	526.6	536.6	541.6	536.6
22.8	22.8	21.8	21.8	22.1	22.4	22.1
9.60732	9.60732	9.40732	9.40732	9.50732	9.60732	9.50732
11.804	11.804	11.604	11.604	11.704	11.804	11.704
9.72536	9.72536	9.52536	9.52536	9.62536	9.72536	9.62536
49.66	49.66	47.66	47.66	48.66	49.16	48.66
21.03	21.03	19.03	19.03	20.03	20.53	20.03
-31.37	-31.37	-29.37	-29.37	-30.37	-30.87	-30.37
49.66	49.66	47.66	47.66	48.66	49.16	48.66
+30.70	+30.70	+28.70	+28.70	+29.70	+30.20	+29.70
+92	+92	+80	+80	+85	+90	+85
-82	-82	-70	-70	-75	-80	-75
20.46	20.46	18.46	18.46	19.46	19.96	19.46
circle mit read.	circle mit read.	circle mit read.	circle mit read.	circle mit read.	circle mit read.	circle mit read.
15	15	15	15	15	15	15
36.2	36.2	34.2	34.2	35.2	35.7	35.2
16.5	16.5	14.5	14.5	15.5	16.0	15.5
52.7	52.7	50.7	50.7	51.7	52.2	51.7
26.35	26.35	24.35	24.35	25.35	25.85	25.35
+43.2	+43.2	+41.2	+41.2	+42.2	+42.7	+42.2
1.63246	1.63246	1.61246	1.61246	1.62246	1.62746	1.62246
1.36643	1.36643	1.34643	1.34643	1.35643	1.36143	1.35643
+23.25	+23.25	+21.25	+21.25	+22.25	+22.75	+22.25
16	16	16	16	16	16	16
26.35	26.35	24.35	24.35	25.35	25.85	25.35
16	16	16	16	16	16	16
49.60	49.60	47.60	47.60	48.60	49.10	48.60
+66°	+66°	+64°	+64°	+65°	+65.5°	+65°
5	5	5	5	5	5	5
58.75	58.75	56.75	56.75	57.75	58.25	57.75
+	+	+	+	+	+	+
0	0	0	0	0	0	0
26.75	26.75	24.75	24.75	25.75	26.25	25.75
25.93	25.93	23.93	23.93	24.93	25.43	24.93
6	6	6	6	6	6	6
24.7	24.7	22.7	22.7	23.7	24.2	23.7
7	7	7	7	7	7	7
26.8	26.8	24.8	24.8	25.8	26.3	25.8
2.1	2.1	2.1	2.1	2.1	2.1	2.1
+37	+37	+37	+37	+37	+37	+37
I	I	I	I	I	I	I
+1	+1	+1	+1	+1	+1	+1
2.5	2.5	2.5	2.5	2.5	2.5	2.5
+42.3	+42.3	+40.3	+40.3	+41.3	+41.8	+41.3
42.7	42.7	40.7	40.7	41.7	42.2	41.7
+43.2	+43.2	+41.2	+41.2	+42.2	+42.7	+42.2
43.5	43.5	41.5	41.5	42.5	43.0	42.5
+44.5	+44.5	+42.5	+42.5	+43.5	+44.0	+43.5
44.9	44.9	42.9	42.9	43.9	44.4	43.9
+24.2	+24.2	+22.2	+22.2	+23.2	+23.7	+23.2
24.5	24.5	22.5	22.5	23.5	24.0	23.5

Jan 1 4 41 21.15
 6 10 .05
 11 02 .08
 16 92 .10
 21 20.10 .12
 26 65 .15
 31 (+17) 48 .16
 Feb 5 (+17) 31 .18
 10 20.11 .20
 15 90 .21
 20 18.68 .22
 25 18.45 .23
 Mar 5 19.22 .23

+66° 7'
 24.3 1.2
 25.5 1.1 43
 26.6 1.0
 27.6 1.0
 28.6 0.8
 29.4 0.8
 30.2 0.6 28
 30.8 0.6
 31.4 0.6
 31.8 0.4
 32.1 0.3 10
 32.3 0.2
 32.4 0.1

P = 20.21
 NA = 20.27
 C = 20.38
 W 1868 20.43
 1869 20.39
 1868 20.20
 1867 20.15

20.46 45 124
 38 37 16
 36 34 13
 26 32 11
 45 48 27
 35 31 10
 38 39 18
 20.38 20.38 1.1
 5.91
 1447

Feb 26

+41.438
 Feb 28

41 31.0 41 25.7 40 35.2 40 27.5
 18.0 40.3 29.4
 23.8 45.3 31.1
 28.4 55.5 32.0
 33.4 0.6 40 120.4
 38.7 5.6
 43.9 10.7
 49.0 15.9
 54.2 26.0 40 500
 59.2 31.1 5.64
 36.3 +12.65
 30.25 +.99
 24.0 +.91
 62.5 20.39
 5.65
 5.64
 19.31
 13.67

5.64 5.64
 +12.92 19.30
 +.92 13.68
 +.90 1.17
 20.38 138.3

1 46.8
 11.7
 58.5
 29.25

+35.7
 1.55267
 1.27803
 -1497
 16 29.25
 16 10.28
 6 38.07
 + 26.58

7 4.6
 7 32.4

+ 27.8 282

6 38.07
 - 15.50

π , Orionis
4 42 53
+ 6 45
+ 12

$$\sin \sqrt{90702} \cos \sqrt{99970}$$

$$\frac{1175}{1195}$$

Jan. 30. Feb. 12 Feb. 15 Feb. 22 Feb. 24 Feb. 28

42 34.7 42 29.6 42	42 47.5 42 29.6 42 16.8 42	42 27.8 42 15.6	42 36.0 42 36.1 42 51.5
36.7 31.2	48.6 31.6 17.6	29.9 19.5	38.1 52.3
39.10 33.6 38.0	49.14 33.6 18.7	32.0 20.6	mdgn 40.3 53.2
43.10 45.1 40.0	145.5 38.0 53.1	36.0 58.7 42 35.7	42.4 157.0
45.1 31.5 42.2	40.0	38.0 37.7	44.4
47.2 43 5.0	42.1 40.1 44 45.0	40.1 44 45.0 39.8	20.13
49.3 9.6	44.1 42.2 45.0	42.2 45.0 42.0	
51.4 11.0 21.08	46.2 44.4 47.0 44.0	44.4 47.0 44.0	
55.4 28.6	50.3	48.5 199.2	
57.6 9.53	52.4	50.5	
59.7 42 31.5	54.5 42 17.7	52.6 42 17.6	42 36.0 42 52.3
51.91	46.24	44.20	
47.191	42.160	42.036	40.182 39.440 40.260

157 223
1.1956 1.3483

35 4 12.0 3 27.6 3 43.0	4 6.8	4 3.0	3 38.6	3 22.0
45.5 2 54.4 23.2	43.0	34.6	19.6	57.2
57.5 77.0 66.8	49.8	37.6	59.2	79.8
58.75 3 86.50 33.10	24.90	18.80	29.10	39.60
20.44 25.09				
38.31 3 87.54				
+15.7	+24.3	+20.6	+3.8	-12.0
1.19590	1.38561	1.31387	0.57978	1.07918m
1.31092	1.50063	1.42889	0.67480	1.19420m
-20.45	-31.67	-26.85	-49.5	156.4
38 58.55	38 54.90	38 48.80	38 29.10	38 89.60
38 38.30	38 23.23	38 21.95	38 24.15	38 25.24
+6 44 10.05	44 25.12	44 26.40	44 24.20	44 23.11
44 7.04				

sin $\sqrt{9.07018}$

cos $\sqrt{9.98688}$
11804
.11502

9 Orionis

4 45 16

+14 03

+25

$$\begin{array}{r} \text{Sun } \checkmark 9.3552 \text{ cor } \checkmark 9.9868 \\ 002 \checkmark 9.9868 \\ \hline 1175 \\ 1043 \end{array}$$

1872

Jan. 30

Feb. 15

Feb. 22

Feb. 24

Feb. 26

44	58.544	52.5 44	53.3 44	41.4 44	51.4 44	45.0 44	51.0 44	42.16 44	51.3 44	43.8
	0.6	53.6	56.4	42.2	53.5	46.0	53.1	43.6	53.4	44.7
	2.7	55.0	57.5	42.8	55.5	47.0	55.3	44.6	55.6	45.7
	6.9	11.13	1.7	12.64	10.0	13.80	59.6	13.05	59.8	139.2
	9.0	53.76	4.0		2.1		1.7		1.9	
	11.0 45	40.0	6.0		-4.2		-3.5		4.0	
	13.2	41.6	8.1		6.3		5.9		6.2	
	15.3	43.6	10.3		8.4		8.0		8.3	
	19.6	5.2	14.6		12.6		12.2		12.6	
	21.6	41.73	16.6		14.7		14.5		14.7	
	24.0 44	53.8	18.7 44	42.1	17.0 44	46.0	16.6 44	43.6	16.7 44	44.7
	18.24		24.62		22.57		28.17		28.45	
	6.0		1.5		18.5		24.0		24.0	
	12.24		6.62		45.7		41.7		44.5	
	11.11	27	6.618		41.545		3.791		4.045	

Sun 9.3552

$$\begin{array}{r} \text{cor } 9.9868 \\ 11804 \\ 10485 \end{array}$$

20	272.0	25.7 1	36.7	1	9.8	1	9.8	1	11.0
	58.2	-2.0	12.0		43.0		50.8		46.3
	2.54	23.7	48.7		52.8		64.6		57.3
	12.70	11.85	24.35		26.40		30.30		28.65
	+17.3	+23.9			+18.1		+20.2		+19.3
	1.23805	1.37840			1.25768		1.30535		1.28556
	1.34290	1.48325			1.36253		1.41020		1.39041
	-22.02	-30.43			-23.04		-25.72		-24.07
	21 12.70	21 24.35			20 56.40		21 0.30		20 58.65
	20 50.68	20 53.92			20 33.36		20 34.58		20 34.08
+14	1 57.67	1 54.43			1 14.99		1 13.77		1 14.27

i Aurigae

$$\begin{array}{r} \sin 9.7357 \\ \cos 9.9238 \\ \hline \sin 9.9238 \\ \cos 11.75 \\ \hline .0413 \end{array}$$
 $\delta = +32^\circ 51' 38.8''$

$$\begin{array}{r} 48.36 \\ 48.3960 \\ +32.58 \\ \hline 80.9760 \\ +.65 \\ \hline 81.6260 \end{array}$$
 $\sin z = +.16$

1872 Jan. 10	Jan. 12	Jan. 30	Feb. 22	Feb. 24	Feb. 26
-019 47 54.247 44.048 22.248 11.448 18.248 11.1	47 54.247 44.048 22.248 11.448 18.248 11.1	47 54.247 44.048 22.248 11.448 18.248 11.1	47 54.247 44.048 22.248 11.448 18.248 11.1	47 54.247 44.048 22.248 11.448 18.248 11.1	47 54.247 44.048 22.248 11.448 18.248 11.1
56.5 45.5 24.6 12.9 20.6 12.5	56.5 45.5 24.6 12.9 20.6 12.5	56.5 45.5 24.6 12.9 20.6 12.5	56.5 45.5 24.6 12.9 20.6 12.5	56.5 45.5 24.6 12.9 20.6 12.5	56.5 45.5 24.6 12.9 20.6 12.5
58.9 47.1 27.0 14.4 23.1 13.4	58.9 47.1 27.0 14.4 23.1 13.4	58.9 47.1 27.0 14.4 23.1 13.4	58.9 47.1 27.0 14.4 23.1 13.4	58.9 47.1 27.0 14.4 23.1 13.4	58.9 47.1 27.0 14.4 23.1 13.4
3.8 13.6.6 81.9 28.9 25.0 37.0 48 21.1 102.6	3.8 13.6.6 81.9 28.9 25.0 37.0 48 21.1 102.6	3.8 13.6.6 81.9 28.9 25.0 37.0 48 21.1 102.6	3.8 13.6.6 81.9 28.9 25.0 37.0 48 21.1 102.6	3.8 13.6.6 81.9 28.9 25.0 37.0 48 21.1 102.6	3.8 13.6.6 81.9 28.9 25.0 37.0 48 21.1 102.6
6.3 6.8 11.2 13.7 15.6 21.0 23.5 47 45.5	6.3 6.8 11.2 13.7 15.6 21.0 23.5 47 45.5	6.3 6.8 11.2 13.7 15.6 21.0 23.5 47 45.5	6.3 6.8 11.2 13.7 15.6 21.0 23.5 47 45.5	6.3 6.8 11.2 13.7 15.6 21.0 23.5 47 45.5	6.3 6.8 11.2 13.7 15.6 21.0 23.5 47 45.5
27.6 5 9.63 8.773 36.800 32.909 25.960 25.618 25.809	27.6 5 9.63 8.773 36.800 32.909 25.960 25.618 25.809	27.6 5 9.63 8.773 36.800 32.909 25.960 25.618 25.809	27.6 5 9.63 8.773 36.800 32.909 25.960 25.618 25.809	27.6 5 9.63 8.773 36.800 32.909 25.960 25.618 25.809	27.6 5 9.63 8.773 36.800 32.909 25.960 25.618 25.809
8.75 8.75 39.74 39.74 -30.99 -30.99 8.75 -30.98 +30.72 +.27 8.75 +.14 -12.73 39.60 +.26 -14 39.60	8.75 8.75 39.74 39.74 -30.99 -30.99 8.75 -30.98 +30.72 +.27 8.75 +.14 -12.73 39.60 +.26 -14 39.60	8.75 8.75 39.74 39.74 -30.99 -30.99 8.75 -30.98 +30.72 +.27 8.75 +.14 -12.73 39.60 +.26 -14 39.60	8.75 8.75 39.74 39.74 -30.99 -30.99 8.75 -30.98 +30.72 +.27 8.75 +.14 -12.73 39.60 +.26 -14 39.60	8.75 8.75 39.74 39.74 -30.99 -30.99 8.75 -30.98 +30.72 +.27 8.75 +.14 -12.73 39.60 +.26 -14 39.60	8.75 8.75 39.74 39.74 -30.99 -30.99 8.75 -30.98 +30.72 +.27 8.75 +.14 -12.73 39.60 +.26 -14 39.60
25 0 39.9 25.0 6.49 0 32.48 +22.3 1.36736 1.41777 +26.16 25 32.45 25 58.61 +32 56 49.74 0 10.37	25 0 39.9 25.0 6.49 0 32.48 +22.3 1.36736 1.41777 +26.16 25 32.45 25 58.61 +32 56 49.74 0 10.37	25 0 39.9 25.0 6.49 0 32.48 +22.3 1.36736 1.41777 +26.16 25 32.45 25 58.61 +32 56 49.74 0 10.37	25 0 39.9 25.0 6.49 0 32.48 +22.3 1.36736 1.41777 +26.16 25 32.45 25 58.61 +32 56 49.74 0 10.37	25 0 39.9 25.0 6.49 0 32.48 +22.3 1.36736 1.41777 +26.16 25 32.45 25 58.61 +32 56 49.74 0 10.37	25 0 39.9 25.0 6.49 0 32.48 +22.3 1.36736 1.41777 +26.16 25 32.45 25 58.61 +32 56 49.74 0 10.37
56 39.4 57 42.4	56 39.4 57 42.4	56 39.4 57 42.4	56 39.4 57 42.4	56 39.4 57 42.4	56 39.4 57 42.4
-15 I +1 3.0 2.9 8' +32 56 49.74 -3.60	-15 I +1 3.0 2.9 8' +32 56 49.74 -3.60	-15 I +1 3.0 2.9 8' +32 56 49.74 -3.60	-15 I +1 3.0 2.9 8' +32 56 49.74 -3.60	-15 I +1 3.0 2.9 8' +32 56 49.74 -3.60	-15 I +1 3.0 2.9 8' +32 56 49.74 -3.60

Jan 1	4 48	39.76	+32° 57'	41" 7	14
6		25		42.1	13
11		24		42.4	13
16		21		42.7	13
21		39.67		43.0	13
26		62		43.3	13
31	(-01)	57		43.5	12
Feb. 5		50		43.7	12
10	(-02)	39.42		43.9	12
15		33		44.0	11
20		24		44.0	11
25		16		44.0	11
Mar 1		39.05		44.0	10

39.60	60	+0
62	61	+1
57	56	-4
59	59	-1
61	61	+1
53	54	-6
62	56	-4
39.59	39.58	-02
	380	
	3888	

+411438
Feb. 28

48	11.248	4.1
	13.7	5.2
	10.4	6.4
	21.0	15.7
	23.6	
	25.8	
	28.4	
	30.8	
	35.8	
	38.3	
	40.648	5.2
	28.53	

25986

25.92	25.92
39.09	39.09
13.17	-18.17
	-13.16

25.92	
+12.92	20.92
+ 2.1	+12.85
+ 5.1	+ 28
39.62	39.56

0	57.9
	29.3
	87.2
	43.64

+20.7	
1.31597	
1.35177	
- 22.14	
25	43.60
20	21.96
50	26.89
	10.37

57	16.5
57	44.0

+	27.5	27.4
57	26.89	
-	5.30	

2.35	32	-15
36	35	-12
29	37	-10
31	30	-17
40	38	-9
<hr/>		
2.36	234	-120
	-5.31	
	57.03	

$$\delta = +60^{\circ} 15' 51''$$

E Aurigae Jan 1

4 52 44
52 44.15
+43 37.15 42.86

(+95)

+95

P.s.b.

10

15

20

25

Mar. 1

10 April 4 52 3.14

12 02

108 04

01 07

2.93 08

82 11

70 12

56 14

2.42 14

25 17

08 17

91 17

1.73 18

4 52 47.41

40 04

39 04

38 04

47.31 04

24 07

17 07

09 08

48.00 09

70 10

79 11

68 11

46.50 12

+ 43°

37'

56.1

56.8

57.5

58.1

58.6

59.1

59.5

59.9

60.2

60.4

60.6

60.8

P.m. 2 = -02

1872 Jan. 10

+41/400 Feb. 22

+92+400 Feb. 24

+41+438 Feb. 28

-021 52

52 40.5 52

41.8

43.8

13.7 -17.0

-16.5 1

19.4 2

22.2 0

27.8 -1

30.7 1

33.6 -17.0 3

33.36 33.936

17.825 16.993

15.461 16.47

16.44 3

30.9 3.09

16.66

45 12.8
21.0
19.8
0 6.10

Re stone

+43°

37'

10

34.49

1.12

+0.2

37

34.49

-8.86

16.4 52

19.3 9.1

22.1 10.6

27.9 27.8

30.6

33.4

36.4

39.4

45.0 52 9.3

47.8 33.52

50.6 42.99

36.89 +.38

+41

33.53 47.30

33.52 33.52

+12.88 46.74

+3.9 -13.22

+4.0 -10

47.29 13.32

0 53.1

20.6

73.7

36.85

+24.2

1.38382

1.36146

-22.99

46 36.85

48 13.86

37 34.49

10 1.12

37 35.6

37 60.6

16.1 52

18.8

21.8

27.4 22.0

30.2

33.1

35.9

38.8

44.4 52 7.3

47.3 33.08

50.3 13.31

36.41 +.38

+45

33.100 47.22

33.08 33.08

+13.31 46.70

+4.0 -13.62

+4.5 -10

47.24 13.32

0 49.4

25.2

74.6

37.30

+25.8

1.41162

1.38926

-24.51

48 37.30

48 12.79

37 35.56

10 1.04

37 36.6

37 60.5

6.0 52

7.3

8.7 ndqz 32.4

36.4

39.0

16.69

32.36

33.36

+12.25

16.69 +.41

+45

33.380 47.17

33.36 33.36

+12.92 46.60

+3.9 -13.24

+4.4 -10

47.21 13.34

0 32.1

1.2

38.3

16.65

+2.3

1.36173

1.33937

-21.59

40 16.65

48 14.48

37 33.88

10 1.30

37 35.2

37 60.5

$$\begin{array}{r}
 47.29 \quad .30 \quad +15 \\
 24 \quad .22 \quad +7 \\
 21 \quad .17 \quad +2 \\
 \hline
 47.25 \quad 47.23 \quad +08 \\
 -4.29 \\
 \hline
 42.94
 \end{array}$$

$$\delta = +43^{\circ} 37' 51.8''$$

3 Amigal

$$\begin{array}{r} \text{Sun } \checkmark 9.8159 \text{ } \checkmark 9.8765 \\ \text{cor } \checkmark 9.8785 \end{array}$$
 $\delta = +40^{\circ} 53' 10.1''$

4 53 27

+40 53 32.00 27.82 Feb. 5 (+0.8)

(+0.8)

Eni 2 = +0.03

Jan 21 4 53 32.23

$$\begin{array}{r} 26 \\ 31 \\ 10 \\ 15 \\ 20 \\ 25 \\ 1 \end{array}$$

$$\begin{array}{r} 32.14 \\ 22.01 \\ 21.03 \\ 32.14 \\ 28.06 \\ 27.06 \\ 31.15 \end{array}$$

$$\begin{array}{r} +40^{\circ} 53' 16.2'' \\ 16.7 \\ 17.1 \\ 17.4 \\ 17.9 \\ 17.8 \\ 18.1 \\ 18.2 \end{array}$$

1872 Jan. 30

Feb. 15

Feb. 22

Feb. 24

Feb. 26

$$\begin{array}{r} -0.20 \quad 53 \quad 53 \quad 34.653 \\ 35.8 \\ 37.2 \\ 19.9 \\ 22.5 \\ 25.353 \\ 27.9 \\ 30.6 \\ 126.2 \end{array}$$

$$\begin{array}{r} 53 \quad 53 \quad 34.653 \\ 6.6 \\ 9.2 \\ 14.8 \\ 17.3 \\ 20.1 \\ 22.9 \\ 25.6 \\ 31.0 \\ 33.8 \\ 36.6 \end{array}$$

$$\begin{array}{r} 53 \quad 27.6 \quad 53 \\ 28.4 \\ 31.1 \\ 12.7 \\ 15.7 \\ 18.3 \\ 21.1 \\ 23.8 \\ 26.6 \end{array}$$

$$\begin{array}{r} 53 \quad 16.3 \quad 63 \\ 4.4 \\ 7.0 \\ 12.5 \\ 15.2 \\ 18.0 \\ 20.7 \\ 23.4 \\ 26.9 \end{array}$$

$$\begin{array}{r} 18.5 \quad 52 \quad 55.8 \\ 4.7 \\ 7.3 \\ 12.7 \\ 15.5 \\ 18.3 \\ 21.0 \\ 23.7 \\ 26.3 \end{array}$$

$$\begin{array}{r} 25.240 \\ 25.22 \\ 32.203 \\ -6.89 \\ 25.22 \\ +6.34 \\ +0.3 \\ = 25.3 \\ 31.96 \\ 31.94 \end{array}$$

$$\begin{array}{r} 20.155 \\ 20.14 \\ 32.053 \\ -11.94 \\ 20.14 \\ +11.34 \\ +32 \\ +25 \\ 32.05 \\ 32.05 \end{array}$$

$$\begin{array}{r} 18.320 \\ 18.30 \\ 31.7861 \\ -13.68 \\ 18.30 \\ +12.98 \\ +36 \\ +39 \\ 32.03 \\ 32.03 \end{array}$$

$$\begin{array}{r} 17.993 \\ 17.95 \\ 31.7458 \\ -13.99 \\ 17.95 \\ +13.31 \\ +37 \\ +42 \\ 32.05 \\ 32.05 \end{array}$$

$$\begin{array}{r} 18.286 \\ 18.21 \\ 31.7450 \\ -13.70 \\ 18.21 \\ +13.04 \\ +30 \\ +50 \\ 32.05 \\ 32.06 \end{array}$$

$$\begin{array}{r} 30 \\ 0 \quad 18.4 \\ 4 \quad 45.4 \\ 4 \quad 63.8 \\ 2 \quad 31.90 \end{array}$$

$$\begin{array}{r} 0 \quad 31.5 \\ 2.2 \\ 33.7 \\ 16.55 \end{array}$$

$$\begin{array}{r} 0 \quad 0.12 \\ 27.2 \\ 37.4 \\ 43.70 \end{array}$$

$$\begin{array}{r} 0 \quad 6.1 \\ -17.0 \\ -10.9 \\ -5.145 \\ -5.455 \end{array}$$

$$\begin{array}{r} 0 \quad 29.7 \\ -0.3 \\ 29.4 \\ 14.70 \end{array}$$

$$\begin{array}{r} -10.7 \\ 1.029882 \\ 1.025972 \\ +106.2 \\ 30 \quad 15.90 \\ 30 \quad 12.52 \\ +40^{\circ} 52' 35.83 \\ -0 \quad 1.71 \end{array}$$

$$\begin{array}{r} +39. \\ 0.59106 \\ 0.58765 \\ -38.7 \\ 30 \quad 16.88 \\ 30 \quad 12.98 \\ 52 \quad 35.37 \\ -0 \quad 1.63 \end{array}$$

$$\begin{array}{r} -11.1 \\ 1.045322 \\ 1.041912 \\ +11.07 \\ 29.1850 \\ 29.5471 \\ 52 \quad 53.64 \\ -0 \quad 1.95 \end{array}$$

$$\begin{array}{r} +1.7 \\ 0.23045 \\ 0.22704 \\ -16.9 \\ 29 \quad 54.55 \\ 29 \quad 52.86 \\ 52 \quad 55.49 \\ -0 \quad 1.56 \end{array}$$

$$\begin{array}{r} +21.1 \\ 1.32428 \\ 1.32087 \\ -20.93 \\ 30 \quad 14.70 \\ 29 \quad 53.77 \\ 52 \quad 54.58 \\ -1.77 \end{array}$$

$$\begin{array}{r} 52 \quad 34.1 \\ 53 \quad 17.0 \\ 52 \quad 35.83 \\ \checkmark 6.96 \end{array}$$

$$\begin{array}{r} 52 \quad 33.7 \\ 53 \quad 17.9 \\ 52 \quad 35.37 \\ 7.80 \end{array}$$

$$\begin{array}{r} 52 \quad 51.7 \\ 53 \quad 18.1 \\ 52 \quad 53.64 \\ 8.00 \end{array}$$

$$\begin{array}{r} 52 \quad 53.6 \\ 53 \quad 18.2 \\ 52 \quad 55.49 \\ 8.10 \end{array}$$

$$\begin{array}{r} 52 \quad 52.8 \\ 53 \quad 18.2 \\ 52 \quad 54.58 \\ -8.10 \end{array}$$

$$\begin{array}{r} -0.2 \quad I \quad + \quad 42.9 \quad 42.9 \\ + \quad 44.2 \quad 44.2 \\ + \quad 26.4 \quad 26.4 \\ + \quad 24.6 \quad 24.6 \\ + \quad 25.4 \quad 25.4 \end{array}$$

31.78	31.86	31.84	-6
82	32.05	32.05	+5
86	.03	.03	+3
89	.05	.05	+5
94	.05	.06	+6
31.70	32.03	32.03	+3
		-4.15	
		27.88	

85 Tauri

424 31

+ 15 35

p Tauri

Feb. 18	Feb. 22	Feb. 24	Feb. 18	Feb. 22	Feb. 2
24 7.9 24 0.3 24 6.7 23 55.2 24 6.8 23 56.9 26 9.9 26 2.3 26 8.5 26 0.8					
10.1 1.1 8.9 56.1 5.6 57.8 12.1 3.3 10.9 1.9					
12.3 2.0 11.0 57.1 10.7 58.6 14.2 4.2 13.0 2.9					
16.6 18.6 15.3 18.4 15.0 17.1 18.5 19.5 17.4 5.6					
20.8 22.8 25.0 27.2 31.4 33.4 228.1 19.7 24 40.2 19.3 21.9 23.5 27.8 30.2 32.8 215.4					
20.736	19.582	19.273	22.718	21.582	

+ 236 - 21.5

+ 19.7 - 25.1

45 4 10.7

3 55.0 2 59.1 3 52.0
 27.1 33.2 30.0
 82.1 82.0
 41.05 41.00

45 4 15.4
 52.0
 67.4
 33.70

4 45.9 2 58.4
 29.7 32.9
 25.6
 37.80

all the stars in this book have been readed.

158



Whole number stars in this book = 50
Pr. " " Obs. " " " = 354

1011pbaa, p.01, 1459