

KG
11366
v. 476

General Catalogue
Observations & Reductions

A 12 1874-5
From 23^h 49^m to 0^h 0^m

h. l. 1874-5
Observations & Reductions

W₁₂

Row 2349^{h m} to 0^{h m}

1874	
2 98	43.47
0 42	32.28
94	+ 2.852
94	+ 2.858
2 98	
1875	
18	9.44
18	10
18	9.54
18	9.98

1875-
48 4627
42 5227
+ 2.850
+ 17.99

9.44776
12552
957328

$\text{Corr} =$
 $\text{corr}^2 =$
 $\text{larg}^2 = +$
 $\text{I} =$
 $\text{K} = -$

Oct-27
56 Nov. 6
11
16
21
26
Dec. 1
1

1874		1875	
48	46.94	42	586
	46.74		60.0
	46.53	-20	61.4
	46.30	21	62.7
	46.04	23	63.9
	45.76	26	64.9
	45.47	28	65.8
	45.17	29	66.6
	44.85	30	67.3
		32	

1874		
~~19~~		~~08~~
Nov. 2		
~~348~~		249
49	21.2	51.6
	28.0	.30
	35.7	.66

Nov. 7 ⁻¹⁸ ⁻¹⁰
~~60~~ -28
 48 30.749
 34.9
 39.1
 42.3
 46.2
 48.9
 53.1 49
 36.9
 0.1

	- .05	
Nov.	30	
48	- .077	48
	-	
	-	
38.6		87.60
41.2		.53
44.9		.57
48.8		.69
52.4		.72

	+02	
Dec. 2		
	+012	
48	22.0	48
	256	
	293	
	328	
	368	
	403	
	446	45
	487	
	524	

1874
Dec. 3 ⁺⁰⁰
-013
48 220 48
259
298
332
371
406
443
477
508

1875 - 28
101.3
- 284
353 49 40.
396
430
465
573
536 50 16
572 20
1.0 27
48

[illegible]

49 10.67
 49 39.96
 + 135
 - 62
 - 36 + 7.73
 - 311 - 26
 - 0.260 43.12
 75
 + 5.72
 39.87
 + 3.29
 46.140
 4936
 + 2 1033
 + 14
 - 29.40
 42 3158

		33 08
48	55.63	
	+ 780	48 36.756
	- 17	36.702
	- 175	+ 8.19
+ 1.100	43.45	+ 4
		- 1.63
		+ 6.60
		36.70
		43.30
		46.150
	4850	
+ 2	1426	
	+ 16	
	- 34.18	
42	3026	

			3314
48	55.43		
49	16.30	48	36.822
	+ 8.21		36768
	+ .07		+ 8.21
	- 163	+	4
+1,220	43.305	-	1.57
		+	6.60
			36.77
			43.37
	5109		43.184
+2	1443		
	+ 16		
	-3440		
42	3172		

		33/3	
		120	
48	115.67	451.3	49 40.30
		49 50.144	50 21.30
	+822	500.90	-5288
	7.00		-96
		- 5988	
	-157	- .98	-336
+1,280	43.42	- 3.36	45.89
		-6422	
		500.8	
		45.88	
46,220	40 5304		19 3636
+2	1392		-16 1524
	+16		+74
	-3460		-3040
42	3396	42	5212

[illegible]

$40 - 18.67 - 39.54 40 - 8.85$
 $- 2.89 - 2.90$
 $2 \quad 36.8 \quad 2 \quad 44.7 \quad 2 \quad 30.4$
 $\quad 44.8 \quad \quad 52.9 \quad \quad 37.0$
 $\quad 816 \quad \quad 976 \quad \quad 670$
 $422 \quad 40.80 \quad 422 \quad 48.80 \quad 422 \quad 33.70$
 $1.27117m \quad 1.59770m \quad 0.94694m$
 $0.830034m \quad 1.414614m \quad 0.496607m$
 $\quad -6.61 \quad \quad -14.00 \quad \quad -3.13$
 $42 \quad 34.19 \quad 42 \quad 34.80 \quad 42 \quad 30.67$
 $40 \quad 1416 \quad 1355 \quad 40 \quad 1778$
 $\quad 1885$
 $19 \quad 26 \quad 19 \quad 18$
 $1.54440 \quad 1.54440$
 $\quad +2029$
 $1.58608 \quad 1.58668 \quad 1.58668 \quad 1.58126$
 $\quad +3670 \quad \quad +3670 \quad \quad +3558$
 $-35 \quad -05.46 \quad -22 \quad -1$
 $\quad -32 \quad \quad -34 \quad \quad -31$
 $\quad +3633 \quad \quad +3614 \quad \quad +3526$
 $40 \quad 5049 \quad 4669 \quad 40 \quad 5304$
 $\quad +1427 \quad 15.77 \quad \quad +13.68$
 $\quad +150 \quad -14.41 \quad \quad +1.51$
 $\quad -3440 \quad \quad -3460$
 $3036 \quad +4137 \quad 3186 \quad +4059$
 $\quad \quad \quad 3106$

$+ 984 - 3116$
 $20 - 298$
 $3 \ 42.1 \ 2 \ 56.9$
 $47.4 \ 3.6$
 $198 \ 118.9$
 $23 \ 44.90 \ 23 \ 89.45$
 $0.99300 \ 1.49360$
 $0.06628 \ 1.0668$
 $+ 3.68 - 11.66$
 $23 \ 48.08 \ 23 \ 47.77$
 $58 \ 59.77 \ 45.6$
 0.16
 $20. \ 3 \ 19 \ 48$
 $1.54460 \ 1.54450$
 $+ 1772$
 $+ 55.00 \ 1.56232 \ 1.56222$
 $+ 35.58 \ + 36.50 \ + 36.50$
 $- 32 - 30 - 14$
 $- 22 - 24$
 $+ 36.27 \ + 36.12$
 $59 \ 36.04 \ 36.68$
 $- 16 \ 15.25 \ 13.71$
 $+ 154$
 32.40
 $33.63 - 16 \ 44.11 \ 42 \ 57.93$
 525.7

1874phae proj 1480.			1875			1874			
Oct-26	48	4976		42	80.3		84	4587	50.7
31		4978	-18		81.8	+1.5	85	4596	51.4
Nov 5		4954	21		832	1.4	92	4614	50.4
10		4934	23		845	1.3	92	4615	51.5
15		4909	25		854	1.2	92	46.22	53.6
20		4882	27		868	1.1			
25		4854	28		878	1.0	89	46.068	51.52
30		4824	30		886	.8			
Dec. 5		4792	32		893	.7		~~46.069~~ (5)	

1875

84	45.87	52.3
86	45.96	52.2
88	46.11	52.4
91	46.38	51.4
87	46.080	52.08
	<u>- 5(14)</u>	<u>+ 3</u>
	46.075	52.11

-28 Apr 11			-11 Apr 17			-09 Apr 29		
49	49	48.1 49	49	46.6 48	49	9.0		
32.9		54.1	40.1	55.9	38.1	12.4		
41.6		59.0	43.9	1.0	41.8	19.8		
45.3			47.4		45.8			
49.0			51.3		49.6			
52.4			55.1		53.3			
56.4 50	19.0		58.5 50	30.1	56.5 49	33.0		
59.9	23.6		2.2	39.9	0.6	40.0		
3.6	31.3		5.9	42.9	4.2	47.5		
7.2			9.8		8.2			
35.36			31.44		29.81			
12.0			18.0		18.0			
47.36	49 53.73		49.44 49	54.50	47.81 49	13.73		
49 52.622	50 24.63	49 54.933	50 36.90	48 53.122	49 40.83			
52.568		52.879		53.068				
- 62.07	-1 -26.4	- 65.72	-1 -5.69	- 4.42	-4.39			
- 9.4	-9.6	- 4.0	-3.8	- 3.0	-3.1			
- 2.96	-29.6	- 2.65	-26.5	- 1.97	-1.97			
- 66.61	48 45.98	- 68.77	46.16	- 6.69	46.40			
52.57		54.88		53.07				
45.96		46.11		46.38				
59 37.29		38.59		46.080	40.31			
-16 14.11		-16 14.05		-16 14.22				
+14		+1.5		+1.6				
- 32.40		-33.80		- 36.10				
42 53.18		4.3 52.24		4.2 67.59				

20	- 1.11	- 320.1	+ 0.43	- 4.97	- 20.61	- 47.71					
20	1 - 3.03		- 3.11		- 3.13						
3	43.1	3	56.9	3	482	4	0.3	3	53.1	4	2.1
	5.1		2.0		480		2.9		542		2.9
	932		1169		132		312		73		10
23	46.60	23	59.45	23	46.60	24	1.60	23	53.65	24	2.50
0	04582	0	58529	0	63347	1	62394	1	31408	1	67841
9	61800	1	07857	9	20678	1	19622	1	08736	1	25189
	- 0.41		- 11.48		+ 0.16		- 15.71		- 15.22		- 17.86
23	46.19	23	47.4723	46.76	23	45.89	23	46.72	23	46.64	
59	216	08859	1.59	246	59	242	371				
	152		202			306					
	+1276		+2476			+3567					
1	55736	1	55726	1	56936	1	56926	1	58027	1	58017
	+36.09		+36.08		+37.10		+37.09		+38.04		+38.03
-	0-31	-15	00	-52-27	-04-79	-33					
-23	-24	-38	-40	-58	-60						
+35.86	+35.69	+36.72	+36.42	+37.39	+37.10						
59	38.082	36.57	38.21	38.88	59	39.81	40.81				
	14.22	12.65	-14.02	12.91		-14.43	12.81				
+157		+161		+162		+162					
-3240		-3380		-3610		-3610					
-16	45.05	52.94	-46.21	52.10	-48.91	50.98					
		51.52		52.67		51.90					
42	52.24			52.28		51.40					

Piazzi XVIII 237

B.A. 8322

h m sec

23 50 51

+55° 0'

7-12 37

-22

1874

9.45859
9.44476
10.134
9.54910
9.85993
4.08222
9.91336

1875

50 5093
0 3673
+5.993
+20.01

9.75859
9.74476
12.552
9.54910
9.85993
9.88411

cond =
cond =

tange = +1.43

I = 3.59

K = -.027

1874

.83 50.97 38.02
.84 50.67 36.80
.85 50.82 36.80
.92 50.85 37.43
.92 50.96 38.65

.87 50.854 37.54
(5)

1874

Oct. 28

Nov. 2

Nov. 7

Nov. 30

Dec. 2

1874

1875

Nov. 3

23 50 35.7 50	21.6 50 33.3 50	26.5 50 30.1	29.0 50 35.4 49	59.7 50 20.4 49	58.5 51 3.1	51 56.6
30.1	25.3	30.1	34.0	38	3.1	1.0
43.0	28.1	32.7	36.8	6.0	5.7	4.3
52.0		42.4	40.8			
54.0		46.0	42.5 50	22.0	38.5	50.8
57.2		47.4	44.3	24.7	42.0	52.3
0.9	58.6 51	9.0	46.0		45.5 50	54.3
4.7	2.3	12.3	47.7 51	3.5	48.2	55.9 52 23.7
11.7	9.4	13.5	49.6	8.8	56.2	57.4
15.2	13.0	15			0.0	59.4
18.8	16.7	16.7	50 11.4		3.4	1.5
33.03	36.52			34.18		42.77
300	2.40		38.25	120		60
63.03 50 25.00	6.052 50 22.76	50 33.26	50 33.26	46.1 8 50 2.43		48.77
50 57.300	50 55.018 51 12.26 50 49.667	51 28.10 50 42.500	50 42.500	50 41.982 50 39.20	51 54.184 52 23.70	52 0.63
57.273	54.991	49.640	42.473	41.955	54.162	54.162
- 5.98	- 4.02	+ 1.20	+ 4.73	+ 8.19	- 59.88	
- .44	- .49	- .39	- .11	+ .02	- .41	
- 2.84 +0.123	- 2.80 +0.193	- 2.71 +0.283	- 2.23 +0.763	- 2.19 +0.803	- 3.03	
- 9.29	- 7.31	- 1.78 51	+ 5.39	+ 6.62	- 6.332	
50 57.27	50 54.99	50 49.64	50 42.47	50 41.95	51 54.16	
50 47.98	50 47.68	50 47.77	50 47.86	50 47.97	50 50.84	
50.973	50.673	50.823	50.853	50.963		
				47.890		
+ 32.30	+ 25.26	- 12.4	+ 16.41	- 38.43	+ 39.34 +19.15 - 24.27	+ 39.55 - 17.22 - 6.44 - 29.51
20	20	20	20	20	20	5
- 2.55	- 2.61	- 2.65	- 2.85	- 2.89	- 2.98	
3 58.2 4 49.7 4 6.1 4 35.9 4 11.5 4 50.4 3 36.2 4 42.0 3 52.0 4 33.0 0 40.5 0 57.7	3 58.8 4 10.8 4 42.3 4 18.0 4 57.4 3 59.9 4 47.6 3 59.9 4 41.9 0 48.4 0 61.4	3 58.8 4 10.8 4 42.3 4 18.0 4 57.4 3 59.9 4 47.6 3 59.9 4 41.9 0 48.4 0 61.4	3 58.8 4 10.8 4 42.3 4 18.0 4 57.4 3 59.9 4 47.6 3 59.9 4 41.9 0 48.4 0 61.4	3 58.8 4 10.8 4 42.3 4 18.0 4 57.4 3 59.9 4 47.6 3 59.9 4 41.9 0 48.4 0 61.4	3 58.8 4 10.8 4 42.3 4 18.0 4 57.4 3 59.9 4 47.6 3 59.9 4 41.9 0 48.4 0 61.4	3 58.8 4 10.8 4 42.3 4 18.0 4 57.4 3 59.9 4 47.6 3 59.9 4 41.9 0 48.4 0 61.4
126.7 108.5 16.9 78.2 2.95 107.8 116.1 8.96 111.9 7.49 37.45 5 44.45 6 2.05	126.7 108.5 16.9 78.2 2.95 107.8 116.1 8.96 111.9 7.49 37.45 5 44.45 6 2.05	126.7 108.5 16.9 78.2 2.95 107.8 116.1 8.96 111.9 7.49 37.45 5 44.45 6 2.05	126.7 108.5 16.9 78.2 2.95 107.8 116.1 8.96 111.9 7.49 37.45 5 44.45 6 2.05	126.7 108.5 16.9 78.2 2.95 107.8 116.1 8.96 111.9 7.49 37.45 5 44.45 6 2.05	126.7 108.5 16.9 78.2 2.95 107.8 116.1 8.96 111.9 7.49 37.45 5 44.45 6 2.05	126.7 108.5 16.9 78.2 2.95 107.8 116.1 8.96 111.9 7.49 37.45 5 44.45 6 2.05
1.50920	1.40243	1.23654	1.21511	1.58467	1.59483	1.28214
1.05530	0.95153	0.78564	1.07504	1.44460	1.14895	0.83137
+ 1.44	+ 8.94	- 6.10	+ 11.89	- 2.754	+ 13.93	+ 6.78
24 15.44	24 17.37	24 24.33	24 26.64	24 26.64	24 26.64	24 26.64
+ 54 58 23.56	+ 18.29	- 12.49	+ 11.89	- 2.754	+ 13.93	+ 6.78
58 21.59	58 21.59	58 21.59	58 21.59	58 21.59	58 21.59	58 21.59
+ 20.8	+ 18.93	+ 13.48	+ 13.47	+ 13.44	+ 13.43	+ 13.41
1.11288	1.12973	1.12943	1.12830	1.12800	1.14649	1.14619
+ 12.97	+ 13.48	+ 13.47	+ 13.44	+ 13.43	+ 14.01	+ 14.00
- 36 -38	- 16 -24	- 07	- 07	- 36	- 39	- 75
- 12	- 12	- 14	- 13	- 15	- 44	- 52
+ 12.59	+ 13.20	+ 13.26	+ 13.24	+ 12.91	+ 13.18	+ 13.33
54 34.18	58 34.81	35.00	58 34.95	35.20	34.99	34.46
+ 10.01	+ 9.20	9.77	+ 10.10	10.18	+ 14.47	15.70
- 26.74	- 27.89	- 27.89	- 28.96	- 28.96	- 32.40	- 32.40
+ 1 43.83	+ 41.88	16.69	+ 41.72	16.67	+ 42.70	17.69
		16.68		16.92		17.16
0 18.01	0 38.02	16.79	16.79	16.79	16.79	16.79
38.02	38.02	38.02	38.02	38.02	38.02	38.02

1875

84	50.84	37.34
86	50.91	37.12
88	51.02	37.09
91	51.77	36.47
	51.60	
87	50.95	37.01
	51.942	+ 2
	+ 1.1 (4)	37.03
	50.943	

Nov. 11				Nov. 17				Nov. 29			
51	35.451	37.6	51	51	20.0	50	36.650	24.1			
	39.0	46.2			52.5	23.5		40.3	26.7		
	42.6	46.1			54.2	26.3		48.2	29.5		
	49.6				56.2			50.7			
	53.4				59.9			54.5			
	57.0				56.6			58.1			
	06	52	31.9		1.5	52	7.3		18	51	11.0
	4.1		35.1		3.4		11.1		5.2		14.0
	11.2		38.6		5.1		14.1		12.4		17.7
	14.8				7.0				16.0		
	18.5								19.6		
	32.62				29.74				33.88		
	300				240				300		
	62.62	51	40.30		53.74	51	23.27		63.88	50	26.77
51	56.927	52	35.20	51	59.711	52	10.83	50	58.073	51	14.23
	56.500				59.684				58.046		
-	62.71			-	65.77			-	4.42		
-	39			-	.17			-	.12		
-	2.84			-	2.77			-	2.51		
-	65.99			-	68.66			-	7.05		
51	56.50			51	59.68			50	58.05		
50	50.91			50	51.02			50	57.00		
									50.968		

+ 16.63	- 38.27	+ 35.84	- 11.12	+ 31.30	- 16.16
- 3.03		- 3.11		- 3.13	
0 199	1 2.0	0 7.3	0 4.41	0 10.6	0 4.83
33.8	13.9	13.7	50.1	15.9	57.8
5.27	15.9	21.0	9.42	6.5	10.01
5 26.35	6 7.95	5 10.50	5 47.10	5 13.25	5 50.05
1.22089	1.58286	1.56158	1.04610	1.49584	1.20844
0.79417	1.15614	1.13486	0.61938	1.06882	0.78172
+ 4.22	- 14.33	+ 13.64	- 4.16	+ 11.72	- 6.65
5 32.57	6 52.62	5 24.14	5 45.74	5 24.97	5 44.00
+ 12.79	- 2.931	+ 2.791	- 8.52	+ 23.97	- 12.37
5 39.09	38.64	38.41	38.53	37.22	37.68
17 9.26	9.71	17 9.94	9.77	17 16.33	16.67
9.48		9.85		38 55	37 88
				1.11120m	1.11082m
+ 12.78		+ 24.81		+ 35.76	
1.12368	1.12348	1.13471	1.13551	1.14676	1.14656
+ 13.29	+ 13.29	+ 13.67	+ 13.66	+ 14.03	+ 14.01
- 0.26	- 34	- 33.23	- 0.3	- 25.23	- 0.7
- 0.2	- 0.7	- 0.2	- 0.8	- 0.3	- 1.2
+ 13.20	+ 12.85	+ 13.32	+ 13.55	+ 13.75	+ 13.82
17 22.46	22.56	17 23.26	23.32	17 24.88	24.49
+ 19.22	13.56	+ 14.02	13.34	+ 14.43	13.75
+ 6.6		+ 6.8		+ 6.8	
- 31.83		- 32.86		- 34.0344	
- 16 48.39	37.07	- 46.20	37.06	- 48.22	36.66
	37.17		37.12		36.27
0 37.12		37.09			36.47

w Piscium

23 52 54

 $\gamma = +6^{\circ} 10'$
 $\delta = +36^{\circ} 13'$ long = +59
lat = 9.99748
10.134
0.09912

long 9.02109

lat 16' 10.208

1874

Oct. 27

Nov. 1

Nov. 6

Nov. 11

Nov. 16

Nov. 21

Nov. 26

Dec. 1

Dec. 6

Dec. 11

Dec. 16

Dec. 21

Dec. 26

Dec. 31

Dec. 36

Dec. 41

Dec. 46

Dec. 51

Dec. 56

Dec. 61

Dec. 66

Dec. 71

Dec. 76

Dec. 81

Dec. 86

Dec. 91

Dec. 96

Dec. 101

Dec. 106

Dec. 111

Dec. 116

Dec. 121

Dec. 126

Dec. 131

Dec. 136

Dec. 141

Dec. 146

Dec. 151

Dec. 156

Dec. 161

Dec. 166

Dec. 171

Dec. 176

Dec. 181

Dec. 186

Dec. 191

Dec. 196

1874

Oct. 27

Nov. 1

Nov. 6

Nov. 11

Nov. 16

Nov. 21

Nov. 26

Dec. 1

Dec. 6

Dec. 11

Dec. 16

Dec. 21

Dec. 26

Dec. 31

Dec. 36

Dec. 41

Dec. 46

Dec. 51

Dec. 56

Dec. 61

Dec. 66

Dec. 71

Dec. 76

Dec. 81

Dec. 86

Dec. 91

Dec. 96

Dec. 101

Dec. 106

Dec. 111

Dec. 116

Dec. 121

Dec. 126

Dec. 131

Dec. 136

Dec. 141

Dec. 146

Dec. 151

Dec. 156

Dec. 161

Dec. 166

Dec. 171

Dec. 176

Dec. 181

Dec. 186

Dec. 191

Dec. 196

Dec. 201

Dec. 206

Dec. 211

Dec. 216

Dec. 221

Dec. 226

Dec. 231

Dec. 236

Dec. 241

Dec. 246

Dec. 251

Dec. 256

Dec. 261

Dec. 266

Dec. 271

Dec. 276

Dec. 281

corr =

corr =

corr =

corr =

corr =

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30. Piscium

h m sec

23 55 33

- 6° 43'

J = +49° 8'

Ann. J = +75

1874

 $\frac{d}{dt}$
 $\frac{d^2}{dt^2}$

Leop 9.99701

16' 10.139

16' 0.09835

Leop 9.06804

16' 1.0161

1875

55 32.73

42 3184

+ 3.078

+ 20.01

9.99701

12.552

0.12253

corr =

corr =

tange = -12

I = 308

K = -0.16

1874

83	32.95	31.40
84	32.97	32.38
85	33.00	32.70
89	32.98	34.14
94	32.99	34.10
87	32.972	32.34

(5)

1874

Oct. 28

Nov. 2

Nov. 7

Nov. 19

Dec. 10

1875

Jan. 3

23 55 30.5	16.6 55 34.5	94 55 24.7	57.0 55 10.7	52.5 55 1.0	29.1 56 28.5
28.4	18.6	11.2	13.0	10	25.9
30.6	20.2	13.5	15.1	3.0	25.0
34.8	32.7	27.5	12.1	189	22.0
36.8	34.8	29.5	21.2	210	34.3
38.9	36.7	31.6	23.2	130	36.3
40.9 55 58.3	39.0 55 58.8	33.8	25.4 55 45.2	25.1	38.2 56 54.4
43.0	41.1	35.8	27.5	27.3	40.4
45.2	43.3	40.0	31.6	49.0	44.4
49.3	47.3	42.0	33.7	—	46.6
57.5	49.3	44.1	35.8	—	48.6
42.80 55 18.46	40.62 55 11.36	34.79 55 58.00	25.63 55 1.10	115.3 55 31.10	39.88 56 19.67
55 38.909 56 17.76	55 36.927 56 0.16	55 31.627	55 23.300 55 47.06	55 23.060	56 36.255 56 56.20
38.893	36.911	31.611	23.284	23.044	36.239
- 5.98	- 4.01	+ 1.60	+ 9.51	+ 9.09	- 5.988
+ 4	+ 4	+ 3	+ 1	+ 1	+ 3
- 3.08-0.002	- 3.05+0.028	- 3.12+0.058	- 2.93+0.148	- 2.93+0.348	- 3.39+0.242
- 9.02	- 7.02	- 1.739	+ 6.59	+ 6.87	- 6.324
55 38.89	55 36.91	55 31.61	55 23.28	55 23.04	56 36.24
55 29.87	55 29.89	55 29.78	55 29.87	55 29.91	55 33.00
32.948	32.968	32.948	32.948	29.964 32.988	

5 + 20.45	- 21.85	+ 25.57	- 23.23	5 - 21.37	5 + 22.14	- 23.76	- 80.4	43 + 16.58	- 17.95
+ 2.65	- 2.61	- 2.65	- 2.65	- 2.65	- 2.78	- 2.93	- 2.93	- 2.98	- 2.98
0 47.9	1 42.9	0 42.0	1 42.9	1 41.9	1 59.1	0 51.2	1 48.2	2 11.5	2 59.9
5.9	59.4	56.9	56.3	57.1	13.9	0.2	57.1	14.7	20
113.8	102.3	98.9	99.2	99.0	133.0	111.4	105.3	62	122.2
5 56.90	6 51.15	5 49.45	6 49.60	6 49.50	7 65.0	5 55.70	6 52.65	47 13.10	48 1.10
1.31069	1.33945	1.40773	1.36605	1.32980	1.34518	1.37585	0.90526	1.21958	1.29994
1.41230	1.44106	1.50608	1.46442	1.42815	1.44363	1.47429	1.00861	1.34211	1.43247
+ 268.4	- 27.61	+ 32.08	- 29.14	- 26.80	+ 27.77	- 29.80	- 10.08	+ 21.98	- 26.45
6 23.74	6 23.54	6 21.53	6 20.46	6 22.50	6 23.47	6 22.85	6 21.17	47 35.08	47 34.75
- 6° 43' 34.39	35.19	43 33.18	32.11	43 38.35	43 35.12	35.50	43 38.82	24 46.73	46.60
+ 49 3 50	4 44				3 49 4 46			3 25 4 18	
1.82140	1.82170				1.82140	1.82170		1.82130	1.82160
+ 219		+ 18.88	+ 17.61		+ 26.80	+ 26.24		+ 17.84	+ 18.94
1.82359	1.82389	1.84028	1.84058	1.83901	1.83931	1.84820	1.84850	1.84764	1.84784
- 66.62	- 66.66	- 69.23	- 69.27	- 69.03	- 69.07	- 70.50	- 70.55	- 70.41	- 70.41
0	0	0	0	0	0	0	0	0	0
+ 0.3-0.1	+ 0.3	+ 0.4.00	+ 0.4	+ 0.3	+ 0.3-0.2	+ 0.4	+ 0.4	+ 0.1-0.18	+ 0.1-0.18
- 0.3	- 0.5	- 0.2	- 0.5	- 0.5	- 0.6	- 0.6	- 0.6	- 0.6	- 0.6
- 1 6.62	- 1 6.68	- 1 9.21	- 1 9.28	- 1 9.05	- 1 10.58	- 1 10.73	- 1 10.60	- 1 9.18	- 1 9.27
44 41.01	41.87	44 42.39	41.39	44 43.40	44 45.70	46.23	44 48.42	25 55.41	55.67
+ 2 10.01	8.10	+ 9.20	7.25	+ 10.10	8.12	+ 10.46	8.38	+ 15.54	13.35
- 1.91	+ 1.94	- 1.95	+ 2.26	- 1.98	+ 2.58	- 2.08	+ 3.44	- 2.19	+ 4.97
- 18.07		- 17.95		- 17.43		- 16.54		- 15.04	
+ 1 57.03	42 50.98	+ 49.50	52.89	+ 52.69	+ 51.81	53.89	+ 58.31	- 76 37.37	33.28
	57.84		51.89			54.42			33.04
42 51.41		52.37		52.91		54.15		51.11	
		52.38		52.70		54.14		51.10	
									42 33.16

$$\begin{array}{r}
 1875 \\
 \begin{array}{r}
 84, 33.76 \\
 86, 32.74 \\
 88, 32.87 \\
 91, 32.88 \\
 92, 32.98^{86} \\
 98, 32.92 \\
 \hline
 32.927
 \end{array}
 \end{array}$$

Apr. 11	Apr. 17	Apr. 29	Apr. 30
56 265.56 147.56	29.4 56 35.5 55	28.0 55 17.3 55	27.5 55 43.4
286 162	31.6 37.2	30.0 19.1	29.4
309 178	33.7 38.8	32.0 21.1	31.9
348	37.8	36.2	35.8
369	39.8	38.4	38.0
390	41.8	40.5	40.2
410 56 56.9	44.0 56 57.6	42.6 55 46.4	42.4 56 6.0
431 58.5	46.0 15	44.7 48.1	44.4
472 0.3	52.2 3.6	49.0 52.0	48.3
49.4	52.2	50.9	50.6
51.4	54.3	53.6	52.6
4286	4608	4454	4414

56 38.964 56 16.23	56 41.891 57 1.57	55 40.491 55 19.17	55 40.127 56 43.40
38.948	41.875	40.475	40.111
- 62.71	- 65.72	- 44.2	- 40.9
+ 3	+ 1	+ 1	+ 1
- 3.33	- 3.29	- 3.18	- 3.14
- 6.01	- 6.00	- 7.39	- 7.25
56 38.95	56 41.87	55 40.47	55 40.11
55 32.94	55 32.87	55 32.88	55 32.86
			32.910

+ 22.73 - 19.61 + 4.72 - 19.68 + 21.32 - 7.68 - 3.27 - 25.87			
- 3.03 - 3.11 - 3.13 - 3.13			
2 2.5 2 5.9 2 28.9 3 1.9 2 5.4 2 43.0 2 3.92 3 10.6			
10.2 4.9 28.6 2.8 5.1 48.5 33.8 4.6			
12.4 12.3 18.5 4.4 5 6.5 13.0 15.2			
47 6.35 48 1.95 47 29.25 48 2.35 47 5.25 47 43.25 47 36.50 48 7.60			
1.35260 1.29248 0.67394 1.29403 1.30879 0.88536 0.57455 1.41250			
1.44913 1.41501 0.79647 1.41656 1.45132 1.00782 0.68708 1.53533			
+ 30.14 - 26.01 + 6.28 - 26.10 + 28.22 - 10.18 - 4.34 - 34.31			
47 36.49 47 35.94 47 35.51 47 36.25 47 33.52 47 33.07 47 32.16 47 33.29			
24 48.14 47.59 24 47.16 47.90 24 45.17 44.72 24 43.81 44.94			
47.86 47.53 44.94			
+ 12.84 + 24.92 + 35.94			
1.83424 1.83454 1.84662 1.84662 1.85734 1.85764 1.87274 1.87294			
- 68.27 - 68.22 - 70.20 - 70.25 - 72.00 - 72.05 - 74.60 - 74.63			
- 0.3 - 1.8 - 0.2 + 4.28 - 0.2 - 0.2 - 3.6 + 1 - 0.45 - 0.4			
- 1.3 - 1.8 - 2.5 - 3.0 - 3.1 - 4.0 - 3.9 - 4.7			
- 1 8.43 - 1 8.52 - 1 10.46 - 1 10.58 - 1 12.34 - 1 12.45 - 1 15.61 - 1 15.16			
25 56.57 56.11 25 57.62 58.48 25 57.51 57.17 25 58.82 61.0			
- 16 14.22 16.49 - 14.02 16.35 - 14.43 16.77 - 12.77 15.11			
- 2.27 - 2.33 - 18.90 - 2.34 - 18.01 - 17.95			
- 16 35.82 32.39 - 35.25 32.87 - 34.78 32.24 - 33.06 31.86			
31.93 33.73 31.95 33.12 32.51			
112 32.16 33.30 32.12 32.51			

2 beti

h m sec

23 57 20

-18° 2'

z = +60° 25'

2m. z = +87

1874

2008 9.97812
26 10134
28 0.07946
26 0.08272
2008 9.49076n

1875

57 2016
1 5454
+ 3.077
+ 20.05

9.97812
12552
0.10364

1874

corad =

corad =

tange = -32

T = 2.16

K = -0.16

83 2012 53.88
84 20.29 54.01
85 20.32 54.43
86 20.21 54.51
89 20.27 55.46
94 20.21 54.28
86 20.220 54.43
7 (6)

1874

Oct. 28

Nov. 2

Nov. 7

Nov. 11

Nov. 19

Dec. 10

Oct. 28	Nov. 2	Nov. 7	Nov. 11	Nov. 19	Dec. 10
23 57 12.1 57	08 57 11.3 57	24 57 60 56	522 57 1.2 56	526 56 577 56	416 56 574.57
154	32	44	80	34	435
17.4	5.1	6.1	102	5.4	46.7
21.9	200	147	9.6	6.5	6.1
24.0	223	170	11.9	8.7	8.3
26.1	244	120	14.0	10.7	10.5
28.3 57	47.0	21.0 57	16.2 57	12.9 57	12.5 57
30.6	49.2	232	18.5	15.0	14.7
34.9	57.4	33.0	22.8	19.2	19.1
37.0	35.2	29.7	24.9	21.8	21.1
39.3	37.5	32.0	27.2	23.7	23.3
288.0	267.8	208.4	155.1	238.1	234.3
57 26.182 57 3.03	57 24.345 57 4.30	57 18.945 57 5.40	57 14.100 57 5.673	57 11.81 56 40.93	57 10.371 57 42.46
26.166	24.329	18.929	14.084	10.736 57	10.371 57
- 5.98	- 4.01	+ 1.18	+ 5.12	+ 9.51	+ 9.59
+ .10	+ .11	+ .9	+ .8	+ .4	+ .3
- 3.25 -0.173	- 3.22 -0.143	- 3.18 -0.103	- 3.15 -0.073	- 3.08 -0.003	- 2.86 -0.217
- 9.13	- 7.12	- 5.74	+ 2.05	+ 6.47	+ 6.76
57 26.17	57 24.33	57 18.93	57 14.08	57 10.72	57 10.37
57 17.04	57 17.21	57 16.29	57 17.13	57 17.19	57 17.13
20.117	20.287	20.217	19.207	20.267	20.207

Oct. 28	Nov. 2	Nov. 7	Nov. 11	Nov. 19	Dec. 10
+ 23.15	+ 20.04	+ 24.74	+ 18.37	+ 26.81	+ 31.72
- 23.02	- 15.96	- 29.06	- 12.23	- 31.72	- 8.74
- 23.02	- 15.96	- 29.06	- 12.23	- 31.72	- 8.74
4 36.2 0	4 37.6	4 33.0	4 43.1	4 34.0	4 45.0
53.9	49.9	49.7	0.1	39.2	43.6
9.01	8.18	8.27	103.2	59.6	77.6
24 45.05	24 44.80	24 41.35	24 51.60	24 38.80	24 49.55
1.36455	1.36211	1.30190	1.20303	1.59340	1.46330
1.44727	1.44483	1.38136	1.28249	1.47286	1.54276
+ 28.01	- 27.85	+ 24.06	- 19.16	+ 22.71	- 34.89
25 13.06	25 13.05	25 11.06	25 13.66	25 16.11	25 10.99
- 18° 2'	24.71	2 22.71	2 25.31	2 26.76	2 23.11
+ 60	22 38	23 34	22 32	23 32	23 32
2.00395	2.00424	2.0282	2.02189	2.03073	2.03108
+ 22.2	+ 18.87	+ 17.63	+ 7.76	+ 26.81	+ 26.81
2.00618	2.00646	2.02311	2.02189	2.03073	2.03108
- 10.143	- 10.150	- 10.546	- 10.516	- 10.733	- 10.742
0	0	0	0	0	0
+ 0.8 00	+ 0.8	+ 0.6 -0.8 +0.8	+ 0.9 -0.5 +1.3	+ 0.5 -0.4 +0.2	+ 1.0 -1.7 +1.5
- 14	- 02	- 14	- 15	- 01	- 51
- 1 41.49	- 1 41.44	- 1 45.49	- 1 45.15	- 1 42.79	- 1 47.76
4 620	4 614	4 600	4 786	4 814	4 855
+ 2 10.01	+ 7.80	+ 9.20	+ 10.10	+ 10.61	+ 10.46
- 22.1	+ 4.49	- 22.7	- 23.0	- 23.5	- 24.1
- 13.56	- 14.39	- 14.42	- 13.98	- 13.12	- 13.12
+ 1 52.24	2 13.96	+ 51.94	+ 53.38	+ 54.28	+ 54.93
2 13.93	2 13.90	2 13.90	2 13.90	2 13.90	2 13.90

1875

84 20.14 55.45
 86 20.13 54.17
 88 20.04 53.12
 91 19.99 53.75
 92 20.11 56.68

88 20.082 55.03
 -1
 20.081 (5)

1875

May 3	May 11	May 17	May 29	May 30
58 105.58 118 58 132.58 74 58 163.58 142 57 148.57 76 57 146.57 42				
12.7 13.9 15.4 8.7 18.4 16.7 17.0 9.3 16.6 6.8				
14.8 16.2 17.6 18.7 20.5 18.8 19.0 11.9 18.7 8.9				
19.2 21.9 24.8 23.4 23.4 26.3 27.5 27.5 27.5 27.5				
21.4 24.0 26.9 25.6 25.6 27.7 27.7 27.7 27.7 27.7				
23.5 26.3 29.2 27.7 27.7 29.7 29.7 29.7 29.7 29.7				
23.7 58 41.6 28.4 58 40.9 31.3 58 47.2 29.7 57 42.0 29.6 57 54.7				
27.9 45.3 30.6 42.3 33.5 49.2 32.1 43.9 32.1 56.9				
32.2 52.3 35.0 48.9 37.9 52.8 36.3 45.8 36.4 57.0				
34.4 37.2 40.0 42.2 38.5 46.8 38.3 40.3 38.3 40.3				
36.4 39.4 42.2 46.8 40.3 40.3 40.3 40.3 40.3 40.3				
25.87 28.90 32.10 30.51 30.28				
58 13.97 58 46.40 58 26.23 58 42.37 58 29.182 58 16.57 57 27.736 57 9.60 57 27.527 57 6.63				
23.502 26.257 29.166 27.720 27.511 27.511 27.511 27.511 27.511 27.511				
- 59.88 - 62.71 - 65.72 - 44.2 - 40.9				
+ 9 + 9 + 4 + 3 + 2				
- 3.54 - 3.51 - 3.45 - 3.84 - 3.33				
- 63.36 - 66.13 - 69.13 - 7.73 - 7.40				
58 23.50 58 26.26 58 29.17 57 27.72 57 27.51				
57 20.14 57 20.13 57 20.04 57 19.99 57 20.11				
				20.082

+ 9.55 - 24.88 + 17.34 - 16.10 + 12.61 - 19.89 + 18.14 - 16.16 + 20.90 - 29.34									
- 29.8 - 3.03 - 3.11 - 3.13 - 3.13									
1 9.5 1 53.9 1 0.3 1 42.8 1 8.1 1 49.0 0 57.0 1 41.3 1 0.1 1 54.9									
14.0 55.9 2.0 48.4 8.9 49.0 57.0 42.9 0 53.1 53.9									
23.5 9.8 7.3 11.2 10 49.0 57.0 40 11.52 11.18									
6 11.75 6 54.90 6 36.5 6 45.60 6 8.50 6 49.00 5 57.00 6 42.00 5 57.60 6 55.90									
0.78200 1.39585 1.23905 1.20683 1.10072 1.29863 1.25864 1.20844 1.32015 1.46746									
1.08364 1.49949 1.24469 1.31047 1.20436 1.40225 1.36228 1.31208 1.42379 1.57110									
+12.12 - 31.53 + 32.01 - 20.44 + 16.01 - 25.25 + 23.03 - 20.52 + 26.53 - 37.25									
6 23.87 6 23.82 6 23.66 6 23.76 6 24.57 6 23.75 6 20.03 6 21.48 6 23.13 6 18.65									
43.3552 36.97 43 37.31 36.81 43 36.16 35.40 43 31.68 33.13 43 33.78 30.30									
35.24 37.06 35.78 32.40 33.04 33.04 33.04 33.04 33.04 33.04									
22 24 23 7 22 10 23 8									
2.07389 2.00410 +17.86 +12.85 +24.94 +35.94 +57.35									
2.02185 2.02184 2.01674 2.01685 2.02882 2.02904 2.03983 2.04004 2.05315 2.05545									
-105.13 -105.19 -103.93 -103.98 -106.86 -106.92 -109.60 -109.66 -113.55 -113.62									
- 2 - 1 - 13 - 09 - 04 - 12 - 03 - 02 - 18 - 06 - 05 - 23 - 03 - 06 - 30 - 13									
- 07 - 11 - 07 - 11 - 11 - 18 - 13 - 13 - 25 - 13 - 28									
- 1 45.21 - 1 45.41 - 1 44.05 - 1 44.13 - 1 47.01 - 1 47.18 - 1 47.81 - 1 49.97 - 1 53.80 - 1 54.09									
45 20.73 20.38 45 21.36 20.94 45 23.17 22.58 45 21.49 23.10 45 29.58 24.39									
- 16 15.25 17.84 - 14.22 16.85 - 14.02 16.72 - 14.43 17.15 - 12.97 15.49									
- 2.59 - 2.63 - 2.70 - 15.53 - 2.72 - 14.31 - 2.72 - 14.31 - 2.72 - 14.31									
- 17.06 - 16.17 - 16.17 - 16.17 - 16.17 - 16.17 - 16.17 - 16.17 - 16.17 - 16.17									
- 16 34.90 1 55.63 - 33.02 59.38 - 32.25 54.42 - 31.96 52.95 - 29.70 50.28									
55.28 53.96 54.17 55.12 52.75 56.67									
1 55.45 54.17 55.12 52.75 56.67									

1875

.86	56.18	24.60
.88	56.12	24.92
.89	56.32	25.57
.91	56.13	23.58
.88	56.188	24.67
(4)	<u>17</u>	
	24.74	

1874

Dec. 10

-0.91		
23.58	340.58	28.6
35.9		30.6
38.0		32.5
42.2		
44.3		
46.3		
48.459	13.7	
50.6	15.2	
54.7	17.0	
56.7		
59.0		

51.01

58	30.56
58	46.33
59	13.30
46.357	

+	9.59
+	1
-	2.74 + 0.332
+	6.86
58	46.36

58	53.22
53.778	
53.778	
53.778	
53.778	

+	15.81	-	28.93
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45	-2.93
----	-------

2	54.5	3	50.1
	8.9		4.0
	12.34		11.41
48	1.70	48	57.05

1.19893	1.46135
1.39755	1.55907
+1.984	-36.31
48	21.54
48	20.74

25	33.19	32.39
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45	55	46	58
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1.81690	1.81710
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1.2628	
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1.84318	1.84338
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-69.69	-69.72
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-1	10.07	-1	10.24
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26	43.26		42.63
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+2	15.54	13.35
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-	2.19	+4.92
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-	15.28
---	-------

+1	58.14	45.12
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44.99	
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24	44.80
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24	24.64
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1875

Nov 3

beh f.

Nov 11

59	498.59	444	59
	51.8	46.5	
	54.0	48.1	
	58.2		
0	0.2		
	2.2		
	4.2	0	23.1
	6.3		25.2
	10.5		26.8
	12.6		
	14.7		

26.45	
24.10	
24.5	59
0	2.227
	2.211

62.71	
3	
-3.345	
-66.03	
0	2.21

58	56.18
----	-------

Nov 17

52.8	59	44.5	58
54.9		46.8	
56.9		48.7	
1.0			
3.0			
5.0			
7.2	0	22.8	
9.2		24.8	
10.5		26.8	
15.5			
17.6			

236.6	
18.0	
36.6	59
0	5.145
	24.80
	5.129

65.72	
1	
-3.30	
-69.01	
0	5.13

58	56.12
----	-------

Nov 21

52.8	59	44.5	58
54.9		46.8	
56.9		48.7	
1.0			
3.0			
5.0			
7.2	0	22.8	
9.2		24.8	
10.5		26.8	
15.5			
17.6			

246.0	
18.0	
36.6	58
0	5.145
	24.80
	5.129

64.1	
2	
-3.267	
-9.66	
59	5.98

58	56.32
----	-------

25

3	58.1	4	41.0
	59.4		43.2
	17.8		4.2
28	58.90	29	42.10

1.20140	1.35793
1.32420	1.48073
+2.110	-30.25
29	28.40
29	29.95

6	40.05	41.60
---	-------	-------

115	19	16	12
-----	----	----	----

1.81680	1.81700
---------	---------

1.82568	1.82588
---------	---------

-67.56	-67.59
--------	--------

0	
---	--

-0.14	-0.2
-------	------

-25	
-----	--

-1	4.82	-1	7.61
----	------	----	------

-16	4.787		4.821
-----	-------	--	-------

-16	14.22	16.49
-----	-------	-------

-19.57	
--------	--

-16	36.66	24	23.93
-----	-------	----	-------

25.27	
-------	--

24	24.60
----	-------

25

4	56.4	4	4.0
	32		3.2
	7.2		7.2
29	36.0	29	53.60

1.29358	1.17898
1.41638	1.30178
-26.05	+20.03
29	27.52
29	30.35

6	39.76	39.17
---	-------	-------

45	22	46	17
----	----	----	----

1.84118	1.84138
---------	---------

-69.47	-69.50
--------	--------

0	
---	--

-0.46	-0.2
-------	------

-40	-49
-----	-----

-1	9.89	-1	10.82
----	------	----	-------

-1	49.65		49.19
----	-------	--	-------

-16	14.02	16.35
-----	-------	-------

-233	
------	--

-19.75	
--------	--

-35.50	
--------	--

25.15	
-------	--

24.69	
-------	--

25

4	96	0	3.9
	10.9		1.1
	20.5		11.0
29	10.25	30	5.50

1.41830	1.41830
1.54110	1.54110
-34.76	-34.76
29	30.74

6	41.93	42.39
---	-------	-------

45	22	46	17
----	----	----	----

1.83348	1.83348
---------	---------

-68.15	-68.18
--------	--------

0	
---	--

-0.23	-0.3
-------	------

-42	-41
-----	-----

-1	8.58	-1	8.22
----	------	----	------

-1	58.51		58.61
----	-------	--	-------

-16	13.87	16.15
-----	-------	-------

-234	
------	--

-18.86	
--------	--

-35.01	
--------	--

25.52	
-------	--

25.62	
-------	--

Nov 29

58 51.3 58 45.2
 53.4 48.2
 55.6 50.0

59 59.6
 5.7
 3.7
 5.4 59 24.2
 7.9 26.5
 12.1 28.3
 14.2
 16.1

28.13

24.0

59 41.3 58 47.80
 3.755 59 26.33
 3.739

- 44.2

+ 1

- 3.20

- 7.61

59 3.74

58 56.13

56.188

+ 15.95 - 22.58

23 -

- 3.13

4 4.1 4 56.0

3.5 54.7

7.6 94

29 38.0 29 54.85

1.20276 1.85372 n

1.32556 1.47682 n

+ 21.16 - 29.96

29 34.96 29 34.89

6 36.61 36.54

36.57

45 16 46 7

1.81680 1.81690

+ 36.05

1.85288 1.85295

- 71.26 - 71.28

- 1 - 1

- 01 - 69 - 02

- 60 - 74

- 1 11.88 - 1 12.05

- 7 48.49 48.59

- 16 14.93 16.77

- 23.4

- 18.27

- 35.04

23.53

23.63

23.58

1874phae.proj.1480.

ξ Tauri
 $\begin{matrix} h & m & sec. \\ 3 & 20 & 24 \\ + 9^\circ & 18' \end{matrix}$

1875
Feb. 8

45'
 $\begin{matrix} ' & '' \\ 2 & 35.7 & 4 & 41.3 \\ & 36.5 & & 41.3 \\ & 12.2 & & 82.6 \\ 47 & 36.10 & 49 & 41.30 \end{matrix}$

v Eridani
^h 4 ^m 19 ^{sec} 19

1875
 Feb. 2

Feb. 4

20	'	"		20			
0	19.2	1	15.3	0	18.8	1	6.2
	26.9		22.4		26.6		13.6
	46.1		37.7		43.4		19.8
20	23.05	21	18.85	20	22.70	21	9.90

1874

Feb. 2

80 Jauri

$$\begin{array}{r} 4^h \quad 23^m \quad 1^s \\ + 15^\circ \quad 21' \end{array}$$

$$J = +29^\circ \quad 2'$$

$$\text{ann. } J = +45$$

1874

$$\begin{array}{l} L \\ S \\ \frac{dL}{dt} \\ \frac{dS}{dt} \end{array}$$

$$\begin{array}{l} \text{leoss} \quad 9.98422 \\ 10 \quad 11.678 \\ 20 \quad 0.10100 \\ \text{leoss} \quad 9.42278 \end{array}$$

1875

$$\begin{array}{l} 23 \quad 103 \\ 21 \quad 46.24 \\ + 3.413 \\ + 8.23 \end{array}$$

$$\begin{array}{l} 9.98422 \\ 12.552 \\ 0.10974 \end{array}$$

1874

.05 00.04 45.34

corr. =

corr. S =

tango' = +.28

$$T = \frac{S}{2.13}$$

$$K = \frac{S}{-0.16}$$

1874

Jan. 18

$$\begin{array}{r} 4 \quad 22 \quad 35.2 \quad 22 \quad 41.5 \\ 37.3 \quad 43.1 \\ 39.5 \quad 45.3 \\ 43.9 \\ 46.0 \\ 48.1 \\ 50.2 \\ 52.4 \quad 23 \quad 13.6 \\ 56.6 \quad 15.9 \\ 58.7 \quad 17.4 \\ 0.8 \end{array}$$

4687

60

528.7

$$\begin{array}{r} 22 \quad 48.064 \quad 23 \quad 15.63 \\ 48.048 \end{array}$$

+ 983

+ 7

- 031 3.103

+ 959

22 46.04

22 57.63

00.043

+ 476 - 27.67 0

50 - 2.36

2 1.8 3 42.9 2 16.2

48.0 29.3 20.9

109.8 72.2 37.1

51 54.90 53 36.10 2 16.55

0.67761 1.44044

0.77861 1.54144

+ 6.01 - 34.79

52 0.91 53 1.31

30 47.44 47.04

47.24

+ 26 59 27 1 8

1.46720 1.46770

+ 3259

1.49779 1.50029

- 31.61 - 31.64

+ 1.10 - 1.11

+ 11 + 22

- 31.51 - 31.53

+ 15 30 15.93 15.51

- 7 32.37 10.6

- 5.18

- 7 38.61 22 37.32

36.90

22 37.11

23 37.34

1875

Jan. 11

1875

Feb. 2

1874

Feb. 1

$$\begin{array}{r} 23 \quad 37.3 \quad 23 \quad 30.4 \\ 39.2 \quad 32.3 \\ 41.2 \quad 33.7 \\ 45.9 \\ 48.0 \\ 50.2 \\ 52.3 \\ 54.4 \\ 58.6 \\ 0.7 \\ 2.8 \end{array}$$

43.06

12.0

$$\begin{array}{r} 55.0 \quad 6.23 \quad 32.13 \\ 23 \quad 50.055 \\ 50.039 \end{array}$$

+ 20.39

+ 9

+ 17.92

40

40

4 30.3

19.8

11.1

4 55.55

4 37.1

41.3

78.4

4 39.20

h.e

(10)

85 Jauri

4 24 43

+ 15 34

7 = +26° 49

m.g. = +45

L.C. 9.98377

L.C. 0.10055

L.C. 9.42872

1874

1875

24 45.43

34 52.19

+ 3.418

+ 8.08

corr. =

corr. =

tango = +2.8

± = 2.14

K = -0.16

1874

05 440.02

52.65

1874

Jan. 18

+ 2.45

4 24 17.6 24 23.0

19.8 24.5

22.0 25.8

26.2

28.3

30.5

32.5 24 58.6

34.7 0.7

39.0 2.9

41.1

43.3

33 50 24 24.43

24 30.455 25 0.73

30439

+ 9.83

+ 0.32

+ 10.22 + 9.58

24 30.44

24 40.66 40.02

Ch. f.
Feb. 1

1874

Feb. 5

24 33.7

36.0

38.2

1875

Jan. 11

Jan. 14

Jan. 19

+ 6.02 - 30.28

35 - 23.6 40

4 34.1 0 40.0 0 20.2

40.0 26.5 2.9

9 41 6.65 2.31

39 47.05 40 33.25 40 11.55

0.779 60 1.481 16 2

0.880 15 1.581 17 1 2

+ 7.09 - 38.14

39 54.64 59 53.08

+ 15° 42' 53.51

53.49 58.27

+ 26 47 19 48 5

1.468 40 1.463 60

+ 32.61

1.496 01 1.496 21

- 31.33 - 31.35

- 1 + 10 - 12

+ 2.29 + 0.4

- 31.05 - 31.43

+ 15 42 22.66 21.84

- 7 32.37

- 18.6

- 5.26

- 7 38.68 34 43.98

43.16

34 43.54

34 43.54

1875
Jan 20 Feb. 2

30'		30	
1'	"	1	"
	2.8		2.9
	0.3		7.3
	3.1		10.2
31	4.55	31	5.10

p Tauri

h m sec
4 26 45
+ 14° 35' $\gamma = +27^{\circ} 48'$
 $\mu_{\alpha} = +47$
 $\mu_{\delta} = 9.98578$
 $\mu_{\alpha} = 11.678$
 $\mu_{\delta} = 0.10256$

1874

Jan. 15

26 21.2 26 14.6
23.4 16.2
25.5 18.5
29.6
31.6
33.8
36.1
38.2
42.5
44.6
46.7

3732

26 16.43
26 33.927
33.917

+ 8.41
+ 6
- 0.36 + 3.040
+ 8.11
26 33.91

26 42.02
45.420

+ 17.50
35

- 2.30
4 40.0
26.9
6.69
39 33.45

1.24304
1.34560
+ 22.16
39 53.61

+ 14° 42' 52.74

+ 27 47 5
1.48190
+ 3380
1.51570
- 32.79

- 0.4 + 10
+ 1.4

- 32.49
+ 14 42 20.05
- 7 33.01
- 1.07
- 5.07
- 7 37.15

34 40.90
34 48.82

1874

1875

26 45.37
34 46.18
+ 3.400
+ 7.92

9.98578
12.552
0.11130

corad =
corad =
tange = +2.6
 $\pm = \frac{5}{2.13}$
 $K = -0.16$

1874

24 45.42 46.82
05 45.38 45.18
06 45.93 46.39
09 45.51 47.66
10 45.44 47.84
12 45.37 45.39

1874

Feb. 14

25 58.0 26 1.1
0.3 3.1
2.3 5.0
6.7
8.8
11.0
13.0 26 38.4
15.2 40.4
19.4 42.3
21.6
23.7

1800

60
26 10.909 26 3.07
10.893 40.37

+ 31.07
+ 3
- 0.22 + 3.380
+ 31.08
26 10.89

26 41.97
45.370

+ 23.32 - 25.14 + 7.84 - 29.46
35

- 2.79
4 36.1 0 38.1 4 55.1 0 43.0
20.1 21.1 49.8 36.9
56.2 59.2 104.9 79.9
39 28.10 40 29.60 39 52.45 40 39.95

1.36773 1.40037 1.46943 1.46923
1.47029 1.50273 1.57768 1.57179
+ 22.53 - 31.84 + 9.93 - 37.31
39 57.63 39 57.76 40 2.38 40 26.4

42 50.72 50.59 42 45.97 45.71
50.65 45.84

47 24 48 12
1.48220 1.48230
+ 4034
1.52704 1.52724 1.49963 1.49993
- 33.66 - 33.67 - 31.60 - 31.62

- 0.4 + 0.7 - 0.8
+ 2.7 + 0.3
- 33.46 - 33.72 - 31.32 - 31.69
42 17.26 16.87 42 14.65 14.02

- 31.27
- 1.34
- 1.25
- 4.66
- 37.15
40.11
39.72

39.74
39.72
39.92
39.84
37.97
45.29

1875

Jan. 11

Jan. 14

Jan. 16

Jan. 19

Jan. 20

Feb. 2

45'

30

30

30

30

30

4 22.3
26.8
91
49 24.55

1 41.5
30.8
723
31 36.15

0 56.6
46.9
1035
30 51.75

0 16.2
34.3
505
30 25.25

0 43.7
42.1
58
30 42.90

0 36.2 1 28.5
42.2 32.9
784 614
30 58.20 31 30.70

1874phae.proj.1480.

A. Draconis.

h	m	sec.
4	28	14
+ 110° 58'		

1875
Jan. 14

10'

	"
1	10.3
	7.9
1	18.2
11	9.70

2 Tauri

$\begin{array}{ccc} n & m & sec \\ 4 & 28 & 45 \\ & + 16 & 15 \\ y = & + 26 & 8 \\ z & & \end{array}$

1874

Jan	20	28	4185	-
	25		4180	.05
	30		4175	.05
Feb.	9		4169	.06
	9		4163	.06
	14		4156	.07
	19		4148	.08
	24		4140	.08
Mar.	1		4131	.09

15	197	1
	196	1
	195	1
	194	1
	193	1
	192	1
	191	1
	190	1
	189	1

1874

$$\begin{aligned} L & 41.518 \\ \sigma & +15.1423 \\ \frac{dL}{d\lambda} & +3.436 \\ \frac{d\sigma}{d\lambda} & +7.614 \end{aligned}$$

$\cos \alpha =$
 $\cos \beta =$
 $\tan \beta = +.29$
 $I = 2.14$
 $K = -.016$

Am. Z. = +44
1874

		+2.24	
		Jan.	15
		+2.32	
4	28	20.6	28
		22.7	
		25.0	
		29.1	
		31.4	
		33.6	
		35.7	28
		37.7	
		42.0	
		44.1	
		46.2	

3681

+ 30
Feb. 1

28 8.2 2
10.5
12.6
17.0
19.0
21.2
23.4 2
25.6
29.9
32.0
34.1

2335

Feb. 5

28 5.4 27
7.5
9.7
13.9
16.0
18.4
20.4 28
22.6
26.4
28.9
30.9

2001

+ 30
Feb.

28 0.1⁺²
2.3
4.4
8.8
10.9
13.1
15.2
17.3
~~19.2~~
21.6
23.7

1623

+20
March 1

2	28	45.7	28	46.1
0		47.7		
6		50.0		
		54.3		
		56.5		
		58.6		
6		0.7		
2		2.9		
		7.1		
		9.4		
		11.5		

3444

1875
Jan. 11

[illegible]

$+ 2136 - 1727 + 1903 - 2494 + 2692 - 2541 - 618 - 3672 + 1208$
 $- 230 - 266 - 279 - 297 - 317$
 $3 \quad 4.1 \quad 4 \quad 51.5 \quad 4 \quad 7.9 \quad 0 \quad 5.9 \quad 3 \quad 37.5 \quad 0 \quad 8.5 \quad 4 \quad 45.8 \quad 0 \quad 22.8 \quad 4 \quad 16.8$
 $50.9 \quad 38.4 \quad 49.4 \quad 47.2 \quad 41.3 \quad 51.9 \quad 25.9 \quad 7.9 \quad 9.2$
 $115.0 \quad 89.9 \quad 117.3 \quad 113.1 \quad 98.8 \quad 120.4 \quad 71.7 \quad 30.7 \quad 26.0$
 $58 \quad 57.54 \quad 59 \quad 44.95 \quad 58 \quad 58.65 \quad 59 \quad 56.55 \quad 58 \quad 49.40 \quad 0 \quad 6.20 \quad 59 \quad 35.55 \quad 0 \quad 15.35 \quad 59 \quad 13.00$

1.32960 1.28729 1.37944 1.39690 1.43008 1.40580 1.49099 1.56490 1.08207
 1.42867 1.33636 1.37857 1.49597 1.52915 1.52407 1.89606 1.66397 1.18174
 $+26.53$ -21.40 $+23.91$ -31.33 $+33.82$ -31.92 -7.76 -46.13 $+15.18$
 58 2.438 59 2.235 59 2.256 59 2.522 59 3.222 59 2.828 59 2.809 59 2.922 59 2.898

+16	28	2402	2510	23	2579	2313	23	2513	2007	23	2026	1913	22	504	26.78
		2456			2446						1969			504	26.78
+26	6	29	7	17							7	8	7	47	26.78
		1.45050	1.45070								1.45060	1.45080			26.78
		+3385			+5200			+4504			+2508			+1189	26.78
		1.48435	1.48455	1.50250	1.50270	1.49554	1.49574	1.47468	1.47488	1.46249					26.78
		-30.50	-30.52	-31.81	-31.82	-31.30	-31.31	-2983	-29.85	-29.0					26.78

	-06 +08	-04	-05 +20	-08	-10 +02	-08	-1 +04	-20	-02 +02
	+12	+14	+24	+29	+23	00	+28	+01	+04
24 ₄	-3046	-3042	-3162	-3161	-3119	3139	-2956	-2964	-2898
15 ₂	5858	5468	5417	5752	5396	4868	5070	-3004	2755
+10	198		195		194		193	4409	22
+10	337	348	364	320		2937	310	298	189
	342		334		3467		3066		
-7	3301	15 1396	-3165	1605	-3127	1627	-3208	12384	-3040
-	101	1506	-117	1340	-122	1099	-130	1068	-139
-	560		-530		-520		-570		-470
-7	5962	15 1451	-3812	1472	-3169	1363	-3206	115844	-3649

1875
 Jan 0^m 28^s 45.68
 5
 10
 15
 20 45.60
 25
 30
 Feb. 4
 9 45.39
 14
 15' 29.2
 29.5
 29.1

1874.0 8
 41.55
 49
 53
 46
 55
 41.516
 518
 - .002
 1423
 Less 9.

1875.0

1875
 Jan. 16 Jan. 19 Jan. 20 Feb. 2 Feb. 4 Feb. 18

50'	50	50	50	50	50	50
0 21.1 10.5 31.6 50 15.80	0 4.7 3.4 8.1 50 4.058	0 7.7 6.3 14.0 50 7.00	0 59.0 3.9 122.9 51 1.45	1 10.0 14.8 48 51 12.40	0 11.6 16.3 79 50 13.95	0 58.1 1.1 119.2 50 59.60
	0 8.9 8.0 9 50 8.45	1 8.1 7.0 15.1 51 7.55				

1374

.04	44.97	22.12
.09	44.93	22.33
.10	44.97	21.24
.12	44.90	19.05
.17	44.99	

V Eridani

h m sec.

4 30 4

-3° 37'

 $\gamma = +46^{\circ} 0'$ lsin δ 8.79990lcos δ 9.99913l δ 11.678mz = +72 l δ 0.11591

1874

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

Feb. 2

Feb. 18

1875

Jan 20

25

30

Feb 4

7

14

19

24

Mar. 1

1874

Jan. 18

Feb. 14

1874

05	4.49	37.50
12	4.50	35.84

o' Can. Maj.

6^m 48 56

- 24° 1'

γ = +66° 24'

sin. γ = +92

1874

 $\frac{d\alpha}{dt}$
 $\frac{d\delta}{dt}$
L_{mid} 9.60960L_{cos} 9.96067L₆ 11.678L₆ 6.07745

1875

48 5681

1 45.30

+ 24189

+ 1.22

const.

comp.

long. = -44°

I = 226

K = -0.17

1874

March 8

1874

March 12

1875

March 8

1875

March 11

6	48	20.3	48	9.3	48	17.9	48	11.3
		22.5		11.1		20.0		13.4
		24.6		13.3		22.0		14.7
		28.8				26.4		
		30.9				28.4		
		33.2				30.5		
		35.5	48	33.0		32.7	48	35.3
		37.3		35.0		34.7		37.6
		41.5		37.8		38.9		39.5
		43.6				41.0		
		45.7				43.2		
		36.39	48	11.23		33.57	48	13.13
48		33.082	48	30.27	48	30.518	48	37.47
		33.065				30.501		
		- 12.27				- 9.54		
		- 6				- 11		
		- 0.50	1989			- 0.43	2.059	
		- 12.83				- 10.41		
48		33.06			48	30.50		
48		20.23			48	20.09		
		22.719				22.579		

+ 21.85 - 2.19 + 17.39 - 6.95

5 - 39.3 5 - 32.7 5

1	31.7	1	5.4	1	40.1	2	11.0	0	44.2	1	45.9	0	43.8	1	33.9
	22.1		56.4		25.3		55.7		47.1		47.9				39.3
	53.8		12.8		6.54		12.67		11.3		13.8				13.2
6	26.90	6	0.90	6	32.70	7	33.5	5	45.65	6	46.90			6	36.60
	31.1		17.1												

1.33945 0.34044 1.24030 0.84198

1.41690 0.41787 1.31775 0.91943

+ 26.12 - 2.62 + 20.78 - 8.31

6 58.028 58.2826 53.48 6 55.04

44 467 993 44 513 6.69

+66 13 59 134 33 14 5 14 35

2.11394 2.11414 2.11397 2.11414

+ 1050 + 2348

2.12444 2.12464 2.13745 2.13762

- 133.18 - 133.24 - 137.23 - 137.29

+ 09.16 + 0 + 06.15 + 1

+ 10 + 14 + 10 + 14

- 2 1299 - 2 1310 - 2 17.07 - 2 17.14

46 1766 23.03 46 2220 23.83

- 7 3048 - 29.51

- 2.97 - 300

+ 6.66 + 6.94

- 7 2878 49.54 25.57 47.77

49.81 49.40

55 1562

48.58



λ Vers. min.19^h 50^m 49^s 18^{sec}91° 4'
7 = -48° 41'1874 58 55 19
1875 58 55 28

5.37 = -75

0.11.3 = -75
1874

March 1

March 2

March 5

March 8

March 16

March 25

7	49	—	49	58.5	—	49	23.7	—	51	35.3	—	50	14.5	—	50	7.1	—	49	58.6
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11.7
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.3

466	49	46.6	49	39.1	34	49	37.0	30	49	42.3	43	50	36.9	35.2	51.1	50	32.1	37.4	49	51.0	510	
441	50	38.8	52	32.8	35.2	50	36.8	35.2	50	36.9	35.2	51.1	50	36.9	35.2	51.1	50	32.1	37.4	50	41.8	52
443	51	33.7	51	30.2	46.8	51	31.6	42	51	33.0	36	51	33.0	36	51.1	50	32.1	37.4	51	39.3	45.9	
458	52	30.0	52	20.8	36	52	27.0	45	52	27.7	35	52	27.7	35	51.1	50	32.1	37.4	52	32.1	45.9	
140	53	23.0	53	17.1	35.1	53	19.8	40.8	53	22.2	37	53	22.2	37	51.1	50	32.1	37.4	53	29.6	50.6	

49	44.960	49	38.540	49	33.70	49	30.80	49	28.60	49	26.40	49	24.20	49	22.00	49	19.80	49	17.60
49	45.85	52	41.70	49	39.37	52	29.04	49	36.71	52	26.40	49	23.39	52	21.27	49	18.15	52	15.03
49	46.34	52	41.72	49	39.37	52	29.04	49	36.71	52	26.40	49	23.39	52	21.27	49	18.15	52	15.03
49	46.34	52	41.72	49	39.37	52	29.04	49	36.71	52	26.40	49	23.39	52	21.27	49	18.15	52	15.03
49	46.34	52	41.72	49	39.37	52	29.04	49	36.71	52	26.40	49	23.39	52	21.27	49	18.15	52	15.03

49	45.79	49	39.37	49	33.70	49	30.80	49	28.60	49	26.40	49	24.20	49	22.00	49	19.80	49	17.60
49	45.79	49	39.37	49	33.70	49	30.80	49	28.60	49	26.40	49	24.20	49	22.00	49	19.80	49	17.60
49	45.79	49	39.37	49	33.70	49	30.80	49	28.60	49	26.40	49	24.20	49	22.00	49	19.80	49	17.60
49	45.79	49	39.37	49	33.70	49	30.80	49	28.60	49	26.40	49	24.20	49	22.00	49	19.80	49	17.60
49	45.79	49	39.37	49	33.70	49	30.80	49	28.60	49	26.40	49	24.20	49	22.00	49	19.80	49	17.60

10	13.54	10	17.674	10	14.84	10	17.096	10	11.432	10	19.212	10	31.54	10	18.814	10	27.90	10	23.23
10	13.54	10	17.674	10	14.84	10	17.096	10	11.432	10	19.212	10	31.54	10	18.814	10	27.90	10	23.23
10	13.54	10	17.674	10	14.84	10	17.096	10	11.432	10	19.212	10	31.54	10	18.814	10	27.90	10	23.23
10	13.54	10	17.674	10	14.84	10	17.096	10	11.432	10	19.212	10	31.54	10	18.814	10	27.90	10	23.23
10	13.54	10	17.674	10	14.84	10	17.096	10	11.432	10	19.212	10	31.54	10	18.814	10	27.90	10	23.23

1.13162	2.24734	1.17143	2.23290	2.05813	2.28425	1.49886	2.27448	1.44560	1.36605	2.25389					
9.52289	0.63861	9.56270	0.62417	0.44940	0.67552	9.89013	0.66575	9.83687	9.75732	0.64516					
11	48.83	11	48.75	11	30.54	11	46.66	11	51.36	11	52.19	11	47.88	11	47.43
10	59.52	58.60	10	57.81	58.69	10	56.99	56.16	10	50.47	0.92	11	3.23	2.93	
10	59.52	58.60	10	57.81	58.69	10	56.99	56.16	10	50.47	0.92	11	3.23	2.93	
10	59.52	58.60	10	57.81	58.69	10	56.99	56.16	10	50.47	0.92	11	3.23	2.93	

1.83068	1.83068	1.83062	1.83062	1.84333	1.84333	1.82652	1.82652	1.82652	1.82652	1.82652
1.83068	1.83068	1.83062	1.83062	1.84333	1.84333	1.82652	1.82652	1.82652	1.82652	1.82652
1.83068	1.83068	1.83062	1.83062	1.84333	1.84333	1.82652	1.82652	1.82652	1.82652	1.82652
1.83068	1.83068	1.83062	1.83062	1.84333	1.84333	1.82652	1.82652	1.82652	1.82652	1.82652
1.83068	1.83068	1.83062	1.83062	1.84333	1.84333	1.82652	1.82652	1.82652	1.82652	1.82652

1.83068	1.83068	1.83062	1.83062	1.84333	1.84333	1.82652	1.82652	1.82652	1.82652	1.82652
1.83068	1.83068	1.83062	1.83062	1.84333	1.84333	1.82652	1.82652	1.82652	1.82652	1.82652
1.83068	1.83068	1.83062	1.83062	1.84333	1.84333	1.82652	1.82652	1.82652	1.82652	1.82652
1.83068	1.83068	1.83062	1.83062	1.84333	1.84333	1.82652	1.82652	1.82652	1.82652	1.82652
1.83068	1.83068	1.83062	1.83062	1.84333	1.84333	1.82652	1.82652	1.82652	1.82652	1.82652

$$S = 88.55^{0.11.11} 28 \quad \text{lang } S = -53.29$$

1874.0	ρ	1875.0	ρ
α		α	
18.26		19.22	
16.68		18.21	
17.45		15.93	
18.75		15.97	
12.40		13.95	
16.88		17.54	
16.737		16.803	
<u>18.955</u>		<u>18.506</u>	
- 2.218	4270	- 1703	5197

[illegible][illegible]

$0 - 15.38 - 115.08 - 50.23 - 173.53 - 60.05 - 124.15 - 65.48 - 171.98 - 59.65 - 132.15 - 170.43$

-388				-387				-386				-378				-389				-383			
3	16.0	3	12.7	3	15.9	3	12.9	3	18.9	3	17.7	3	8.1	3	5.0	3	11.1	3	8.5	3	7.4		
	24.5		21.9		24.1		21.5		22.1		20.9		21.7		18.6		22.9		20.5		21.7		
	40.5		34.6		40.0		34.4		41.0		38.6		29.8		23.6		34.0		29.0		29.1		
3	20.25	3	17.30	3	20.00	3	17.20	3	20.50	3	19.30	3	14.90	3	11.80	3	17.00	3	14.50	3	14.55		

1.18696 _n	2.06100 _n	1.70096 _n	2.23938 _n	1.77851 _n	2.09395 _n	1.81611 _n	2.23548 _n	1.77561 _n	2.12107 _n	2.23155 _n
9.58597	0.46001	0.09597	0.63839	0.17752	0.45296	0.21512	0.63449	0.17462	0.52008	0.63056
+0.38	+2.88	+1.26	+4.35	+1.50	+3.11	+1.64	+4.31	+1.49	+3.31	+4.27
3 2063	3 2018	3 2126	3 2155	3 2200	3 2241	3 1654	3 1611	3 18.49	3 17.81	3 18.82

19 27.72	28.17	19 27.09	26.80	19 26.35	25.94	19 31.81	32.24	19 29.86	19 30.54	29.53
27.94		26.94		26.14		32.02		30.20		
40 28 40 31								40 31 40 31		
1.81550	1.81550							1.81550	1.81550	

+2/34		+2498		+3182		+998		+2188		+1912
1,83684	1,83684	1,84048	1,84048	1,84732	1,84732	1,82548	1,82548	1,83738	1,83738	1,83462
+68.68	+68.68	+69.26	+69.26	+70.36	+70.36	+66.91	+66.91	+68.77	+68.77	+68.33
+ .01	+ .01	+ .01	+ .01	+ .01	+ .01	.00	.00	+ .01	+ .01	.00
+ 62	+ 62	+ 62	+ 62	+ 56	+ 56	+ 44	+ 44	+ 54	+ 54	+ 54

[illegible][illegible]

L Aquarii

21 59 22

-0 56

 $\gamma = +43^{\circ} 19'$ $\sin. \gamma = +68$

1873(5)

Dec 6

21	59	13.3	59	9.3
		14.2		11.1
		16.2		13.5
		20.3		
		22.3		
		24.4		
		26.5		
		28.6		
	59	32.7		5.18
		34.8		54.1
		37.0		56.3
	59	26.95		11.30
59		24.482	59	54.07
		24.467		

- 0.14
+ 0

+ 13/8 - 29.59

1875

 α
 β
 $\frac{d\alpha}{dt}$
 $\frac{d\beta}{dt}$
 $\cos \alpha =$
 $\cos \beta =$
 $\tan \beta = .02$ $I = 2.6$ $K = -.05$ $\sin \delta = 8.21189$ $\log \rho = 9.99994$ $\log \rho = 12.352$ $\log \rho = 0.12546$

i⁰⁰ Pegasi
 22 1 12
 +24 44

$\frac{d\alpha}{dt}$
 $\frac{d\delta}{dt}$

lsin ρ 9.62159

lcos ρ 9.95821

l ρ 12.552

l ρ 9.08373

corr ρ =
 com ρ =

long ρ = +.46

I = 2.27

K = -.017

1873(?)

Dec 6

22	1	0.0	0	52.7
		2.3		54.3
		4.6		56.3
		9.2		
		11.4		
		13.7		
		16.0		
		18.2		
		22.7	1	38.7
		25.0		40.4
		27.2		42.2
	15.03	0		54.43
1	13.664	1		40.43
	13.647			
	- 0.14			
	- 6			

+ 19.23 - 26.77

12 Cass
h m s
0 17 54
+ 61 08

$\gamma = -18^{\circ} 45'$

$\sin \gamma = -.32$

1875
17 54.69
8 16.61
dt + 2.962
28 + 19.99

lsind 9.94238

lcosd 9.68374
l c 12.552
l b 9.80926

cosd =

cosd =

tangd = +1.81

$I = 4.26$

$K = -.032$

1875

Dec 13

17 110
44.8
47.0
49.0
51.2
53.3
55.5
57.4
59.8
78

4198
60
4798
17 53.311
53.279

+ 3.97
- 20
- 2.55
+ 1.22
17 53.28
17 54.57

Dec 14

17 080
44.1
46.3
48.3
50.6
52.6
54.8
56.9
59.1
1.0

4136
60
4736
17 52.622
52.590

+ 4.53
- .14
- 2.52
+ 1.87
17 52.69
17 54.46

+ 2984 - 772 + 9.09 - 2215

55

+ 3.71

2 38.1

423

814

57 40.70

1.47480

1.28406

+ 19.24

57 57.94

24 48.41

-18 46

1.29150

+ 737

1.29884

+ 19.90

18.89

-21

-40

+ 15.25

25 7.70

-16 1.33

+ 1.02

-37.08

-16 30.57

8 16.98

- 772

3 3.0

82

112

57 56.0

0.88762

0.69688

-4.98

58 57.2

47.63

45 42

1.29130

+ 19.89

1.29867

+ 19.89

-47

7.04

+ 19.81

25 7.58

-14.27

+ 1.03

-37.17

-50.41

17.17

13.30

16.23

+ 9.09

- 2215

2 56.0

56.6

6

57 56.30

0.95856

0.76782

+ 58.6

57 56.30

1.34537

1.15463

-14.28

58 57.2

47.19

45 52

1.29150

+ 27.54

1.31904

+ 20.85

20.84

-2.53

-44

25 7.58

-14.27

+ 1.03

-37.17

-50.41

17.17

13.30

16.23

O Piscium

h m s

1 38 48

+ 8.0 32.1

= +33.0 51

sin 9.17139

less 0.99517

12.552

12.0 0.12069

sin. 3 = +56

1875

Dec. 13

38 34.7 38 26.8

36.9 29.2

39.0 30.9

43.0

45.1

47.2

49.3 39 3.0

51.4 5.0

53.5 6.8

55.6 14.8

57.7

59.4

38 28.97

38 47.218 39 4.93

47.202

38 51.35 -01

-4.15 +40.2

+ 3.99 38 47.65

- .02

- 3.56

- 0.41

38 47.20 48 20.37

38 47.61 -16.1410

-7.8

-24.00

+8.31 40.47

+ 18.25 -17.71

30 -32.1

3 38.5 4 10.2

24.5 12.5

1 8.0 2.7

33 24.00 34 11.35

1.26126 1.24822 n.

1.38195 1.36891 n.

+24.09 -28.35

33 48.09 33 47.97

49 0.26 0.38

0.32

+33 49 36 50 23

1.58620 1.58640

+8.79

1.59499 1.59519

-39.35 -39.37

-02-59 -02

-51 -63

-32.88 -100.2

48 20.68 28.36

32 35

-16 14.33

-1.79

-24.00 46.26

-16 40.12 40.24

31 40.25

1875

Dec. 6 38 51.40

11 51.37 -03

16 51.33 .04

21 51.29 .04

26 51.26 .03

2 48.790

3 +31.39.47

12.552

12.0 +18.255

31 63.7

63.6 -0.3

63.4 .2

63.2 .2

63.0 .2

cos d =

cos d =

log d = +.15

I = 2.08

K = -.016

1875

V. Ceti

 α m.s.
 1 54 07
 0
 - 21 40

 α 54 6.95
 δ 41 1.30
 $\frac{d\alpha}{dt}$ + 2.828
 $\frac{d\delta}{dt}$ + 17.60

corr =

corr =

 $\log p = -4.10$ $I = 2.1$ $K = -0.17$ $\gamma = +64 \quad 3 \quad \text{Laird } 9.56727$
 $\sin z = +90$
 $\text{Laird } 9.96818$
 $\text{Laird } 12.552$
 $\text{Laird } 0.09370$

1875

Dec 12

-0.85

53 53453 46.9

55.4

57.9

54 2.4

4.5

6.8

8.9 54 32.1

11.3 34.0

15.8 35.9

18.0

20.1

25.48

18.0

54 748 53 46.90

54 6.800 54 34.00

6.783

+ 3.74

+ 3

+19.90 - 27.20

40

-32.0

4 592 0 53.4

56.1 53.9

133 13

44 56.65 45 53.65

1.29885 1.43457 n

1.39275 1.50827 n

+24.70 - 33.75

45 21.35 45 19.50

22 33.00 31.55

32.27

44 1 9 2 6

207037 207069

+12.51

2.08288 2.08320

-121.03 -121.12

- 8 3

- 17.54 -14

-74 -13

-2 1.87 -2 1.42

24 31.87 32.97

-16 14.53

- 2.88

5 Ury Min L. C.

2 27 54

+ 46. 15-
103 45 $\gamma = -61^\circ 22'$ sin. $\gamma = -88$

L.S. 9.98737

L.S. 9.97600n

L.S. 12552

L.S. 950152n

1875

L 27 48.72

S 15- 6.24

E -0.215

S +16.02

cond =

cond =

targ. +4.09

t = 6.71

K = +0.685

1875

Dec 12

-0.83

27 26 58.1

248 56

29.3 12.3

33.4 9.0

38.1

42.2

46.3 28 0.3

50.9 40

55.5 182

59.3 175

3798

27 5.33

27 42200 28 5.83

42265

+ 3.75

+ 35

+ 36.87 - 23.63

20

-320

3 45 2 48.1

13.4 538

209 1019

23 1045 22 5295

1.5664 1.37346n

1.06819 0.87498

= 1150 + 750

22 58.75 22 58.45

1040 1016

59 49.50 49.50

-61 20 38 20 57

2.02104 2.02116n

+1317

2.03421 2.03433

+10820 +10823

-18 57 -07

-48 -42

-1 47.54 -1 47.74

-58 206 216

-16 14.53

+ 281

47 Cephei 26

2 49 33

+ 48.55

$$y = -36.32$$

$$z = 9.99182$$

2001.9.28384

16. 12.552

16. 9.40936

2001.7 = -59

1875

Dec.	6	49	4404	-16
11			4388	.20
16			4368	.25
21			4343	.29
26			4324	

1875s
 α 33.478
 δ +55.16.14
 $d\alpha$ +7.655
 $d\delta$ +14.805
 $d\alpha$

55	465	+15
	480	14
	494	13
	507	13
	520	

$$\cos \delta = +1.95$$

$$\cos \delta = +1.44$$
 $\tan \delta = +5.10$ $\pm = 10.71$ $K = -080$

1875-

-06

Dec 12

-085

49	48	25.6
	18.9	31.8
	24.5	43.3
	29.5	10.0
	35.1	
	40.3	
49	49	43.9
	45.7	51.5
	57.1	
	56.5	2.6
	3.1	15.0

30.47

60

36.47 48 33.37

49 40.522 49 52.67

40.442

49 43.88 +3.76

-3.39

+ 3.75

- 4.3

- 10.35

- 7.03

49 40.44

12 1014

49 33.41 -16 1419

+ 3.0

- 3210

+ 78 55 2385

X

+ 7.15

- 12.15

10

- 32.0

1 102 1 31.0

145 34.9

47 59

11 12.35 11 32.95

0.85431 1.08458

1.26367 1.49894

+ 183 -312

11 1418.2 29.83

11 34.17 1852

36.32 36 32 15

1.62990 1.62990

+ 1362

1.64352 1.64352

+ 44.01 + 44.01

- 1 -21 -01

- 18 -23

+ 1382 + 1382

12 17.99 2.29

55 48.2

278

- 16 1453 55 33.24

+ 188 17.54

32.10

- 16 44.75

Corrections to the Pulkova positions from the
introduction to the Gursatz-Steiner observations.

R.A. h m	Star name	1874		1875-	
		corr ^d s	corr ^d "	corr ^d s	corr ^d "
0 56	ϵ Piscium	—	-0.90	s	"
1 10	α Ursae Minoris	+0.53	—		
2 2	β Trianguli	—	-0.80		
3 56	Gr. 750	+3.50	—		
5 22	Gr. 966	-3.09	—		
5 43	γ Aurigae	—	-2.50		
5 48	α Orionis	—	+0.40		
6 39	51 α Cephei	-.111	+1.50		
8 20	θ Ursae Majoris	—	+0.80		
9 11	38 Lynceis	—	-1.20		
9 18	1 α Draconis	+6.44	-0.70	+6.67	—
9 42	ν Ursae Majoris	—	+0.60		
10 24	9 β Draconis	-.134	—		
10 46	46 Orionis Minoris	—	-1.70		
11 24	α Draconis	+0.87	—		
12 6	4 α Draconis	-.029	—		
12 50	12 Can. Ven.	—	-0.60		
14 1	α Draconis	—	+0.10		
14 51	β Ursae Minoris	+0.78	—		
15 20	γ Ursae Minoris	-.114	—	-.115	—
15 26	γ Boötis	—	-1.50		
15 48	β Ursae Minoris	+3.36	—	+3.52	—
16 59	ϵ Ursae Minoris	+0.77	—		
18 12	δ Ursae Minoris	-.043	+0.70		
18 48	β Lyrae	—	-0.60		
19 50	α Ursae Minoris	-.193	—	-.198	—
21 16	α Cephei	—	+1.10		
21 26	β Cephei	+1.08	+1.00		
23 33	γ Cephei	+1.13	—		

Provisional Equator Point Corrections.

1874

From Jan. 1 to April 12

Date	R.A.	Reg
Jan 20	2 27	-7 33
Jan 18	2 45	-7 32
"	2 49	-7 31
Feb. 1	3 59	-7 32
Jan. 15	4 34	-7 34
Feb. 26	5 36	-7 33
Feb. 4	6 24	-7 26
Feb. 18	7 10	-7 34
March 21	8 25	-7 31
Mar. 24	9 13	-7 30
		-7 32

Corr. = +7' 32"
when applied to circle readings.

1874

From April 13 to June 28

Date	R.A.	Reg
April 16	8 46	+10 14
Apr. 21	9 13	+10 20
Apr. 27	10 9	+10 19
May 5	11 7	+10 16
May 19	13 6	+10 15
June 28	14 4	+10 21
June 22	14 57	+10 15
		+10 17

Corr. = -10' 17"
when applied to circle readings

Stars to be rejected from the solution of the time equations
on account of the magnitude of the error in R. A.

Star	R. A.		long	Corr.
	h	m		^s
α Cassi	0	41	+1.55	+19
7 Piscium	1	4	+0.56	-11
0 Piscium	1	38	+0.15	-14
ξ Gauri	3	20	+0.16	+14
2 Eridani	4	30	-0.36	-10
9 Canelop.	4	41	+2.25	+16
10 Canelop.	4	52	+1.75	-12
α Aurigae	5	42	+0.81	+10
δ Geminor.	6	44	+0.68	+11
1 A Draco.	9	18	+7.03	+37
ξ Urs. Maj	11	11	+0.63	+13
η Draconis	16	21	+1.86	-14
γ Draconis	17	54	+1.26	-12
110 Herculis	18	40	+0.37	-12
δ Sagittae	19	41	+6.33	-10
γ Lacertae	22	26	+1.17	+12
α Androm.	23	31	+1.03	-10

Provisional Equator Point Corrections.

1874

From June 30, 1874 to Jan. 12, 1875, (inclusive).

Date	R. A.	R. eq.
July 8	14 57	+2 2
July 23	15 50	+2 6
" "	16 14	+2 6
Aug. 10	16 55	+2 3
July 21	17 41	+2 8
July 26	" "	+2 6
Aug. 2	18 18	+2 6
Sept. 9	" "	+2 7
Aug. 13	19 40	+2 4
Sept. 9	" "	+2 5
Oct. 4	20 41	+2 8
Oct. 22	" "	+2 1
Oct. 6	22 10	+2 0
Nov. 18	" "	+2 8
Nov. 19	22 38	+2 9
Oct. 19	23 10	+2 6
Nov. 2	23 42	+2 11
¹⁸⁷⁴ Dec. 3	" "	+2 15
¹⁸⁷⁵ Jan. 9	2 0	+2 9
Jan 5	2 45	+2 15
		+2 7

Corr. = - 2' 7"
when applied to circle readings.

Provisional Equator Point Corrections.

1875

From Jan. 14 to Dec. 31 (inclusive).

Date	R. A.	R. eq.
Jan. 26	2 21	-16 8
Jan. 30	2 49	-16 9
" "	3 59	-16 9
Jan. 15	4 34	-16 11
Feb. 24	5 36	-16 11
March 29	7 10	-16 10
Apr. 21	11 7	-16 10
July 7	14 57	-16 12
" "	15 50	-16 8
Aug. 10	16 55	-16 9
Oct. 4	19 40	-16 14
Nov. 9	20 41	-16 14
" "	22 38	-16 13
Nov. 29	23 41	-16 12
Nov. 11	0 2	-16 14
Dec. 18	0 6	-16 18
Oct. 28	0 13	-16 16
Dec. 13	0 25	-16 12
		-16 12

Corr. = +16 12
when applied to circle readings.

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