

KG
11366
v. 468

General Catalogue
Observations & Reductions

From 6^h 20^m A4 1874-5^m to 8^h 47^m

L.H. 1854-5

Observations and Reductions

A4 h m
From 6^h 20^m to 847

Piazzi VI 110
B. A. C. 2079.
6h 19m 41s
- 36° 38'
z = + 79
sin z = + 98

1874
2
8
84
87

Sin. S 9.77570
Cos. S 9.90443
1.1678
0.02121

1875
19 4095
38 35.37
+2.078
-2.65
Long 9.90448
16 12.582
16' 0.2990

corr d =
corr d =
tang d = -74
I = 2.54
K = -0.20

1874 Feb. 10	1874 Feb. 11	1874 Feb. 12	1874 Feb. 16	1875 Feb. 17	March 8
+320 18 5369 39.3 19 49 69 12.3 15.0 17.5 22.6 25.0 27.6 25.51 12.0 135.1 18 19 12.282 19 12.262 + 24.84 - 24 + 0.98 +1.28 + 26.65 19 12.26 19 38.91 40.988	18 101 39.7 34.0 11 6.3 8.9 11.4 141 16.6 21.8 24.3 26.7 24.58 12.0 125.8 19 11.436 11.416 + 28.51 - 20 + 0.94 +1.138 + 27.37 19 11.42 19 38.79 40.868	18 403 43.1 43.0 11 6.3 8.9 11.4 141 16.6 21.8 24.3 26.7 23.63 12.0 116.3 18 19 10.573 10.553 + 29.35 - 22 + 0.92 +1.158 + 28.21 19 10.55 19 38.76 40.538	18 523 53.3 58.5 12 5.5 8.1 10.6 13.2 15.7 20.8 23.5 26.0 26.11 18.0 81.1 18 19 7.373 7.353 + 32.55 - 13 + 0.85 +1.228 + 31.84 19 7.35 19 38.92 38.845 40.998	18 505 52.8 53.3 12 5.5 8.1 10.6 13.2 15.7 20.8 23.5 26.0 37.99 19 34.536 34.516 + 7.54 - 23 + 1.03 +1.048 + 6.31 19 34.52 19 40.83	18 542 59.8 26.1 12.1 12.9 14.7 15.4 18.0 23.0 25.7 28.5 26.14 12.0 141.4 18 19 12.855 12.835 + 28.41 - 0.01 + 0.84 1.208 + 27.83 19 12.83 19 40.66 40.745
45 +21.01 -28.55 39 28.64 27.64 -19.39 45 +15.14 -28.26 +15.00 35 +22.41 -22.56 40 +16.55 -1.9 -28.70	45 +21.01 -28.55 39 28.64 27.64 -19.39 45 +15.14 -28.26 +15.00 35 +22.41 -22.56 40 +16.55 -1.9 -28.70	45 +21.01 -28.55 39 28.64 27.64 -19.39 45 +15.14 -28.26 +15.00 35 +22.41 -22.56 40 +16.55 -1.9 -28.70	45 +21.01 -28.55 39 28.64 27.64 -19.39 45 +15.14 -28.26 +15.00 35 +22.41 -22.56 40 +16.55 -1.9 -28.70	45 +21.01 -28.55 39 28.64 27.64 -19.39 45 +15.14 -28.26 +15.00 35 +22.41 -22.56 40 +16.55 -1.9 -28.70	45 +21.01 -28.55 39 28.64 27.64 -19.39 45 +15.14 -28.26 +15.00 35 +22.41 -22.56 40 +16.55 -1.9 -28.70
3 37.3 25.4 62.9 48 31.35 1.32243 1.34364 +22.06 48 53.41 36 26 50.6 47.2 +78 56 3 2.45664 +21.90 2.47854 -300.98 -52 +12 +39 +21 -5 1.17 -36 31 6.23 -7 31.44 287 +6.03 -7 28.28 38 34.85 38 34.5	4 28.8 17.1 45.9 49 22.95 1.45817 1.47458 -29.81 48 53.14 479 26 1.07 56 55 2.45721 2.48384 -301.37 -52 +20 +26 -5 1.43 31 5.88 -7 32.06 291 +6.21 -7 28.76 34.64 34.5	3 37.0 25.7 62.7 48 31.35 1.28758 1.30879 -26.36 48 50.84 249 25 58.90 56 3 2.45664 +31.61 2.48825 -301.78 -55 +10 +25 -5 5.27 31 6.95 -7 31.16 292 +6.39 -7 27.69 34.64 34.5	4 22.9 11.8 62.7 49 17.35 1.45117 1.47238 -29.67 48 47.25 593.3 26 13.85 56 49 2.45714 +11.48 2.48875 -308.14 -55 +20 +26 -5 8.05 31 7.56 -7 32.22 295 +7.04 -7 28.10 34.64 34.5	4 42.4 33.2 62.4 39 42.80 1.35144 1.38239 +24.01 40 6.81 17 18.46 18.57 55 55 2.45657 +32.76 2.48933 -308.55 -74 +13 -5 7.01 22 10.27 -16 10.22 +6.90 -16 8.04 38 36.51 38 36.42	0 29.2 33.2 62.4 40 22.65 1.35334 1.38329 -24.17 40 7.63 17 16.25 16.25 56 43 2.45708 +22.19 2.47916 -308.91 -14 +13 -5 9.61 22 10.29 -16 13.94 +7.88 -16 5.22 36.33 39.43 37.97

V. Geminor.
6th 21st 31st
+20° 17'

$$Z = +22 \quad 6$$

$$\text{mag} = +.38$$

$$\text{Sun. } P = 9.53991$$

$$\text{Obs. } P = 9.97220$$

$$1.1678$$

$$1.08898$$

$$1875$$

$$21 \quad 32.48$$

$$17 \quad 20.07$$

$$+3.565$$

$$-1.88$$

$$\text{corr } d =$$

$$\text{corr } P =$$

$$\text{long } P = +.34$$

$$I = 2.19$$

$$K = -0.16$$

$$\text{Obs. } P = 9.97220$$

$$1.1678$$

$$1.09772$$

1874	Feb. 4	Feb. 10	Feb. 12	Feb. 16	Feb. 26	Feb. 16
20	34.0	42.7	47.0	42.8	49.8	45.3
20	36.1	44.6	49.1	46.0	51.4	46.4
20	38.4	46.3	51.4	48.2	53.1	48.3
20	2.7	3.2	3.7	3.2	3.7	3.2
20	4.9	5.2	5.7	5.2	5.7	5.2
20	7.0	7.2	7.7	7.2	7.7	7.2
20	9.3	9.5	10.0	9.5	10.0	9.5
20	11.5	11.7	12.2	11.7	12.2	11.7
20	14.0	14.2	14.7	14.2	14.7	14.2
20	16.2	16.4	16.9	16.4	16.9	16.4
20	18.2	18.4	18.9	18.4	18.9	18.4
20	20.2	20.4	20.9	20.4	20.9	20.4
20	22.4	22.6	23.1	22.6	23.1	22.6
20	24.0	24.2	24.7	24.2	24.7	24.2
20	25.7	25.9	26.4	25.9	26.4	25.9
20	27.7	27.9	28.4	27.9	28.4	27.9
20	29.7	29.9	30.4	29.9	30.4	29.9
20	31.7	31.9	32.4	31.9	32.4	31.9
20	33.7	33.9	34.4	33.9	34.4	33.9
20	35.7	35.9	36.4	35.9	36.4	35.9
20	37.7	37.9	38.4	37.9	38.4	37.9
20	39.7	39.9	40.4	39.9	40.4	39.9
20	41.7	41.9	42.4	41.9	42.4	41.9
20	43.7	43.9	44.4	43.9	44.4	43.9
20	45.7	45.9	46.4	45.9	46.4	45.9
20	47.7	47.9	48.4	47.9	48.4	47.9
20	49.7	49.9	50.4	49.9	50.4	49.9
20	51.7	51.9	52.4	51.9	52.4	51.9
20	53.7	53.9	54.4	53.9	54.4	53.9
20	55.7	55.9	56.4	55.9	56.4	55.9
20	57.7	57.9	58.4	57.9	58.4	57.9
20	59.7	59.9	60.4	59.9	60.4	59.9
20	61.7	61.9	62.4	61.9	62.4	61.9
20	63.7	63.9	64.4	63.9	64.4	63.9
20	65.7	65.9	66.4	65.9	66.4	65.9
20	67.7	67.9	68.4	67.9	68.4	67.9
20	69.7	69.9	70.4	69.9	70.4	69.9
20	71.7	71.9	72.4	71.9	72.4	71.9
20	73.7	73.9	74.4	73.9	74.4	73.9
20	75.7	75.9	76.4	75.9	76.4	75.9
20	77.7	77.9	78.4	77.9	78.4	77.9
20	79.7	79.9	80.4	79.9	80.4	79.9
20	81.7	81.9	82.4	81.9	82.4	81.9
20	83.7	83.9	84.4	83.9	84.4	83.9
20	85.7	85.9	86.4	85.9	86.4	85.9
20	87.7	87.9	88.4	87.9	88.4	87.9
20	89.7	89.9	90.4	89.9	90.4	89.9
20	91.7	91.9	92.4	91.9	92.4	91.9
20	93.7	93.9	94.4	93.9	94.4	93.9
20	95.7	95.9	96.4	95.9	96.4	95.9
20	97.7	97.9	98.4	97.9	98.4	97.9
20	99.7	99.9	100.4	99.9	100.4	99.9
20	101.7	101.9	102.4	101.9	102.4	101.9
20	103.7	103.9	104.4	103.9	104.4	103.9
20	105.7	105.9	106.4	105.9	106.4	105.9
20	107.7	107.9	108.4	107.9	108.4	107.9
20	109.7	109.9	110.4	109.9	110.4	109.9
20	111.7	111.9	112.4	111.9	112.4	111.9
20	113.7	113.9	114.4	113.9	114.4	113.9
20	115.7	115.9	116.4	115.9	116.4	115.9
20	117.7	117.9	118.4	117.9	118.4	117.9
20	119.7	119.9	120.4	119.9	120.4	119.9
20	121.7	121.9	122.4	121.9	122.4	121.9
20	123.7	123.9	124.4	123.9	124.4	123.9
20	125.7	125.9	126.4	125.9	126.4	125.9
20	127.7	127.9	128.4	127.9	128.4	127.9
20	129.7	129.9	130.4	129.9	130.4	129.9
20	131.7	131.9	132.4	131.9	132.4	131.9
20	133.7	133.9	134.4	133.9	134.4	133.9
20	135.7	135.9	136.4	135.9	136.4	135.9
20	137.7	137.9	138.4	137.9	138.4	137.9
20	139.7	139.9	140.4	139.9	140.4	139.9
20	141.7	141.9	142.4	141.9	142.4	141.9
20	143.7	143.9	144.4	143.9	144.4	143.9
20	145.7	145.9	146.4	145.9	146.4	145.9
20	147.7	147.9	148.4	147.9	148.4	147.9
20	149.7	149.9	150.4	149.9	150.4	149.9
20	151.7	151.9	152.4	151.9	152.4	151.9
20	153.7	153.9	154.4	153.9	154.4	153.9
20	155.7	155.9	156.4	155.9	156.4	155.9
20	157.7	157.9	158.4	157.9	158.4	157.9
20	159.7	159.9	160.4	159.9	160.4	159.9
20	161.7	161.9	162.4	161.9	162.4	161.9
20	163.7	163.9	164.4	163.9	164.4	163.9
20	165.7	165.9	166.4	165.9	166.4	165.9
20	167.7	167.9	168.4	167.9	168.4	167.9
20	169.7	169.9	170.4	169.9	170.4	169.9
20	171.7	171.9	172.4	171.9	172.4	171.9
20	173.7	173.9	174.4	173.9	174.4	173.9
20	175.7	175.9	176.4	175.9	176.4	175.9
20	177.7	177.9	178.4	177.9	178.4	177.9
20	179.7	179.9	180.4	179.9	180.4	179.9
20	181.7	181.9	182.4	181.9	182.4	181.9
20	183.7	183.9	184.4	183.9	184.4	183.9
20	185.7	185.9	186.4	185.9	186.4	185.9
20	187.7	187.9	188.4	187.9	188.4	187.9
20	189.7	189.9	190.4	189.9	190.4	189.9
20	191.7	191.9	192.4	191.9	192.4	191.9
20	193.7	193.9	194.4	193.9	194.4	193.9
20	195.7	195.9	196.4	195.9	196.4	195.9
20	197.7	197.9	198.4	197.9	198.4	197.9
20	199.7	199.9	200.4	199.9	200.4	199.9
20	201.7	201.9	202.4	201.9	202.4	201.9
20	203.7	203.9	204.4	203.9	204.4	203.9
20	205.7	205.9	206.4	205.9	206.4	205.9
20	207.7	207.9	208.4	207.9	208.4	207.9
20	209.7	209.9	210.4	209.9	210.4	209.9
20	211.7	211.9	212.4	211.9	212.4	211.9
20	213.7	213.9	214.4	213.9	214.4	213.9
20	215.7	215.9	216.4	215.9	216.4	215.9
20	217.7	217.9	218.4	217.9	218.4	217.9
20	219.7	219.9	220.4	219.9	220.4	219.9
20	221.7	221.9	222.4	221.9	222.4	221.9
20	223.7	223.9	224.4	223.9	224.4	223.9
20	225.7	225.9	226.4	225.9	226.4	225.9
20	227.7	227.9	228.4	227.9	228.4	227.9
20	229.7	229.9	230.4	229.9	230.4	229.9
20	231.7	231.9	232.4	231.9	232.4	231.9
20	233.7	233.9	234.4	233.9	234.4	233.9
20	235.7	235.9	236.4	235.9	236.4	235.9
20	237.7	237.9	238.4	237.9	238.4	237.9
20	239.7	239.9	240.4	239.9	240.4	239.9
20	241.7	241.9	242.4	241.9	242.4	241.9
20	243.7	243.9	244.4	243.9	244.4	243.9
20	245.7	245.9	246.4	245.9	246.4	245.9
20	247.7	247.9	248.4	247.9	248.4	247.9
20	249.7	249.9	250.4	249.9	250.4	249.9
20	251.7	251.9	252.4	251.9	252.4	251.9
20	253.7	253.9	254.4	253.9	254.4	253.9
20	255.7	255.9	256.4	255.9	256.4	255.9
20	257.7	257.9	258.4	257.9	258.4	257.9
20	259.7	259.9	260.4	259.9	260.4	259.9
20	261.7	261.9	262.4	261.9	262.4	261.9
20	263.7	263.9	264.4	263.9	264.4	263.9
20	265.7	265.9	266.4	265.9	266.4	265.9
20	267.7	267.9	268.4	267.9	268.4	267.9
20	269.7	269.9	270.4	269.9	270.4	269.9
20	271.7	271.9	272.4	271.9	272.4	271.9
20	273.7	273.9	274.4	273.9	274.4	273.9
20	275.7	275.9	276.4	275.9	276.4	275.9
20	277.7	277.9	278.4	277.9	278.4	277.9
20	279.7	279.9	280.4	279.9	280.4	279.9
20	281.7	281.9	282.4	281.9	282.4	281.9
20	283.7	283.9	284.4	283.9	284.4	283.9
20	285.7	285.9	286.4	285.9	286.4	285.9
20	287.7	287.9	288.4	287.9	288.4	287.9
20	289.7	289.9	290.4	289.9	290.4	289.9
20	291.7	291.9	292.4	291.9	292.4	291.9
20	293.7	293.9	294.4	293.9	294.4	293.9
20	295.7	295.9	296.4	295.9	296.4	295.9
20	297.7	297.9	298.4	297.9	298.4	297.9
20	299.7	299.9	300.4	299.9	300.4	299.9
20	301.7	301.9	302.4	301.9	302.4	301.9
20	303.7	303.9	304.4	303.9	304.4	303.9
20	305.7	305.9	306.4	305.9	306.4	305.9
20	307.7	307.9	308.4	307.9	308.4	307.9
20	309.7	309.9	310.4	309.9	310.4	309.9
20	311.7	311.9				

Feb. 17				Feb. 24				March 8				March 11				March 22			
21	12.7	20	54.4	21	4.8	20	54.6	20	51.2	20	45.5	20	48.1	20	36.1	20	36.5	20	28.0
	14.8		56.3		9.0		56.6		53.5		47.1		50.5		37.8		38.6		29.8
	19.0		58.1		9.2		58.7		55.8		48.9		52.6		39.2		40.6		31.5
	21.3				13.6			21	0.3				56.8				45.1		
	23.4				15.8				2.4				59.1				47.4		
	25.9				18.0				4.0				1.3				49.6		
	27.9	21	44.8		20.1	21	39.6		6.8	21	2.6		3.5	21	15.0		51.9		
	30.2		46.9		22.4		41.6		8.9		25.4		5.8		16.7		53.9		
	34.6		48.6		26.9		42.3		13.2		26.9		10.1		18.2		55.4		
	36.9				29.0				15.5				12.4				57.4		
	39.0				31.1				17.9				14.6				59.4		
	28.33				19.77				23.01				31.48				42.53		
									18.0				30.0				12.0		
21	35.05	20	56.27	21	17.73	20	56.63	21	58.1	20	47.17	21	14.8	20	37.70	21	54.53	20	29.43
	25.739		46.77		17.53		41.50		4.555		25.30		1.343		16.63		49.573		
									4.535				1.325				49.553		
	+ 7.54				+ 15.44				+ 28.78				+ 31.44				+ 42.33		
	+ .31				- .01				+ .00				+ .02				+ .04		
	- 1.02				- 0.93				- 0.75				- 0.70				- 0.51		
	+ 6.66				+ 14.50				+ 27.94				+ 31.09				+ 42.86		
21	25.74			21	17.95			21	4.53			21	1.32			20	49.55		
21	32.40				32.45				32.50				32.41				32.41		
																	32.440		

45	+29.43	-21.02	45	+21.34	-23.53	45	+17.33	-20.75	45	+23.64	-15.29	45	+20.14	
1	-3.80			-3.87			-3.88			-3.88			-3.83	
3	6.5	4	9.8	3	14.7	4	10.9	3	21.2	4	8.2	3	20.6	
	6.8		10.4		25.1		21.9		25.5		13.7		21.5	
	1.3		20.2		39.8		32.8		6.7		21.9		21	
48	6.65	49	10.10	48	19.90	49	16.40	48	23.35	49	10.95	48	21.05	
1.46953	1.32263	1.32919	1.51162	1.26905	1.31702	1.37365	1.95441	1.30406						
1.56725	1.52035	1.42671	1.46934	1.38795	1.41474	1.47137	1.28213	1.40178						
+56.92	-26.32	+26.72	-29.47	+21.77	-25.99	+22.61	-19.15	+25.22						
43	43.07	48	43.78	43	46.62	48	46.53	43	45.12	48	46.76	43	46.27	
34	4.78	4.57	34	1.73	1.42	34	3.23	34	3.39	2.04	34	1.95	34	2.08
	4.67			1.57			3.31			1.99				
										4	2.9	5	17	
										1.36830	1.36860			
	+32.84			+660			+22.18			+19.38		+3204		
	1.40114	1.40154	1.37490	1.37530	1.39048	1.39088	1.38768	1.38790	1.40064					
	-25.18	-25.21	-23.71	-23.73	-24.57	-24.60	-24.42	-24.93	-25.16					
	-15.77	-0.8	-0.8	-76	-0.9	-0.5	-85	-0.7	-0.7	-84	-0.4	-0.7	-37	
	-56	-76	-59	-77	-71	-88	-69	-86	-68	-75				
	-25.89	-26.05	-24.38	-24.59	-25.33	-25.55	-25.26	-25.33	-25.91					
33	38.89	38.52	33	37.35	36.83	33	37.90	37.84	33	38.84	36.62	33	36.17	
-16	10.22	11.66	-16	8.19	9.66	-16	8.80	10.27	-16	8.52	9.99	-16	7.11	8.56
	1.44			1.47	9.39		1.47	9.55		1.47	9.59		1.45	9.71
	-7.40			-7.51	-9.39		-7.67	-9.55		-7.71	-9.59		-7.82	-9.71
-16	19.06		-16	19.14		-16	19.94		-16	19.40		-16	16.39	
17	19.83	19.46	20.18	19.66	19.96	19.90	19.14	18.92						
17	19.64		19.92		19.92		19.92							

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23 H. Camel.

6^m 24^m 52^{sec}
+79° 42'3 = -37 19
-61

1874

$$\begin{aligned} & 2 \quad 41391.4 \\ & 8 \quad +41.3848 \\ & 87 \quad +10.359 \\ & 88 \quad -2.814 \end{aligned}$$

Sun. 8 9.99294 1874

 Rev. 8 9.25237
 11678
 936910

 Feb. 9 24 4620
 14 4584 -36
 19 4540 -39
 24 4502 -43
 Mar 1 4466 -46

 41 575
 586 +11
 596 10
 605 9
 613 8
1874
Feb. 4 +36
$$\begin{aligned} & +334 \\ & 20 \quad 59.0 \quad 22 \quad 58.2 \quad 23 \quad 538 \\ & \quad 5.1 \quad \quad 5.1 \quad \quad 59.2 \\ & \quad 11.6 \quad \quad 16.3 \quad \quad 5.2 \\ & \quad 16.3 \quad \quad \quad \quad 108 \\ & \quad 22.6 \quad \quad \quad \quad 17.0 \\ & \quad 28.4 \quad \quad \quad \quad 22.2 \\ & \quad 33.8 \quad 24 \quad 31.6 \quad \quad 28.6 \\ & \quad 40.0 \quad \quad \quad \quad 34.1 \\ & \quad 46.2 \quad \quad \quad \quad 40.0 \\ & \quad 26.34 \\ & \quad 60 \\ & 20 \quad 24 \quad 23 \quad 7.53 \quad 15.0 \quad 9 \quad 22 \quad 46.53 \\ & 24 \quad 22.489 \quad 24 \quad 31.61 \quad 24 \quad 16.767 \end{aligned}$$

Feb. 10 +33

$$\begin{aligned} & +320 \\ & 22 \quad 37.6 \quad 23 \quad 52.0 \\ & \quad 45.3 \quad \quad 58.3 \\ & \quad 56.7 \quad 24 \quad 3.7 \\ & \quad \quad \quad \quad 9.0 \\ & \quad \quad \quad \quad 14.9 \\ & \quad \quad \quad \quad 20.7 \\ & \quad \quad \quad \quad 26.4 \\ & \quad \quad \quad \quad 32.0 \\ & \quad \quad \quad \quad 38.5 \end{aligned}$$

$$\begin{aligned} & 25.55 \\ & 12.0 \\ & 13.55 \quad 22 \quad 59.17 \\ & 24 \quad 15.056 \quad 24 \quad 30.57 \end{aligned}$$

Feb. 12 +35 -04

$$\begin{aligned} & +294 \\ & 22 \quad 50.4 \quad 23 \quad 45.7 \\ & \quad 58.6 \quad \quad 54.4 \\ & \quad 8.5 \quad 24 \quad 1.2 \\ & \quad \quad \quad \quad 6.3 \\ & \quad \quad \quad \quad 12.0 \\ & \quad \quad \quad \quad 18.0 \\ & \quad \quad \quad \quad 23.7 \\ & \quad \quad \quad \quad 29.4 \\ & \quad \quad \quad \quad 35.3 \end{aligned}$$

$$\begin{aligned} & 22.92 \\ & 12.0 \\ & 10.97 \quad 24 \quad 26.80 \\ & 24 \quad 12.133 \end{aligned}$$

Feb. 16 +17

$$\begin{aligned} & +190 \\ & 24 \quad 25.8 \quad 24 \quad 42.6 \\ & \quad 48.8 \\ & \quad 53.7 \\ & \quad 59.6 \\ & \quad 65.3 \\ & \quad 71.0 \\ & \quad 76.7 \\ & \quad 82.0 \\ & \quad 87.4 \end{aligned}$$

$$\begin{aligned} & 28.95 \\ & 24.0 \\ & 49.5 \quad 23 \quad 51.53 \\ & 25 \quad 5.500 \end{aligned}$$

Feb. 24 +21

$$\begin{aligned} & +190 \\ & 23 \quad 40.4 \quad 24 \quad 38.9 \\ & \quad 51.5 \quad \quad 45.9 \\ & \quad 51.7 \quad 24 \quad 3.6 \\ & \quad \quad \quad \quad 5.40 \\ & \quad \quad \quad \quad 8.9 \\ & \quad \quad \quad \quad 14.7 \\ & \quad \quad \quad \quad 20.2 \\ & \quad \quad \quad \quad 26.1 \end{aligned}$$

$$\begin{aligned} & 268.2 \\ & 24.0 \\ & 28.2 \quad 23 \quad 53.70 \\ & 25 \quad 3.133 \quad 26 \quad 6.20 \end{aligned}$$
+1874
Feb. 26 +26
$$\begin{aligned} & +223 \\ & 23 \quad 46.0 \\ & \quad 52.7 \\ & \quad 58.4 \\ & \quad 64.1 \\ & \quad 69.8 \end{aligned}$$

$$\begin{aligned} & 268.2 \\ & 24.0 \\ & 28.2 \quad 23 \quad 53.70 \\ & 25 \quad 3.133 \quad 26 \quad 6.20 \end{aligned}$$

$$\begin{aligned} & 22.404 \quad +2247 \quad 16.682 \quad +27.81 \quad 14.971 \quad +2927 \quad 12.048 \quad +3252 \quad 5.415 \quad -2.116 \\ & 24 \quad 46.542 \quad +1.88 \quad 24 \quad 46.151 \quad +1.81 \quad 24 \quad 46.44 \quad 45.96 \quad +19.224 \quad 45.70 \quad 67 \quad +.94 \quad 24 \quad 40.880 \quad +1.15 \\ & -24.182 \quad -2.9773 \quad -29.773 \quad -37.03099 \quad -22 \quad -33.632 \quad +20.39 \\ & -24.263 \quad -0.13 \quad -29.584 \quad -47.2 \quad -31.140 \quad -45.7 \quad -33.763 \quad -4.28 \quad +20.268 \quad -8.61 \\ & 24 \quad 41.72 \quad 24 \quad 41.84 \quad 24 \quad 41.76 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \\ & +22.43 \quad +1.90 \quad -5.13 \quad +5.2298 \quad -4.22 \quad +5.639 \quad -4.22 \quad +5.639 \quad -4.22 \quad +5.639 \\ & +19.20 \quad 49 \quad 28.23 \quad +24.88 \quad 29.74 \quad +26.39 \quad 28.01 \quad +29.23 \quad 31.37 \quad -23.71 \quad 33.36 \quad -2.186 \\ & 24 \quad 22.40 \quad -7 \quad 31.56 \quad 24 \quad 16.68 \quad -7 \quad 31.45 \quad 24 \quad 14.97 \quad -7 \quad 30.84 \quad 24 \quad 12.05 \quad -7 \quad 31.90 \quad 24 \quad 5.41 \quad -7 \quad 31.19 \quad 24 \quad 3.00 \quad -7 \quad 30.61 \\ & 24 \quad 41.60 \quad -1.80 \quad 24 \quad 41.86 \quad -1.930 \quad 24 \quad 41.36 \quad -1.970 \quad 24 \quad 41.28 \quad -20.50 \quad 24 \quad 41.70 \quad -22.10 \quad 24 \quad 41.19 \quad -22.40 \\ & 51.5979 \quad 41 \quad 42.67 \quad 51.919 \quad 41 \quad 40.77 \quad 51.719 \quad 41 \quad 39.27 \quad 51.639 \quad 41 \quad 40.77 \quad 51.059 \quad 41 \quad 40.77 \quad 51.549 \quad 41 \quad 39.85 \end{aligned}$$

$$\begin{aligned} & 22.404 \quad +2247 \quad 16.682 \quad +27.81 \quad 14.971 \quad +2927 \quad 12.048 \quad +3252 \quad 5.415 \quad -2.116 \\ & 24 \quad 46.542 \quad +1.88 \quad 24 \quad 46.151 \quad +1.81 \quad 24 \quad 46.44 \quad 45.96 \quad +19.224 \quad 45.70 \quad 67 \quad +.94 \quad 24 \quad 40.880 \quad +1.15 \\ & -24.182 \quad -2.9773 \quad -29.773 \quad -37.03099 \quad -22 \quad -33.632 \quad +20.39 \\ & -24.263 \quad -0.13 \quad -29.584 \quad -47.2 \quad -31.140 \quad -45.7 \quad -33.763 \quad -4.28 \quad +20.268 \quad -8.61 \\ & 24 \quad 41.72 \quad 24 \quad 41.84 \quad 24 \quad 41.76 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \\ & +22.43 \quad +1.90 \quad -5.13 \quad +5.2298 \quad -4.22 \quad +5.639 \quad -4.22 \quad +5.639 \quad -4.22 \quad +5.639 \\ & +19.20 \quad 49 \quad 28.23 \quad +24.88 \quad 29.74 \quad +26.39 \quad 28.01 \quad +29.23 \quad 31.37 \quad -23.71 \quad 33.36 \quad -2.186 \\ & 24 \quad 22.40 \quad -7 \quad 31.56 \quad 24 \quad 16.68 \quad -7 \quad 31.45 \quad 24 \quad 14.97 \quad -7 \quad 30.84 \quad 24 \quad 12.05 \quad -7 \quad 31.90 \quad 24 \quad 5.41 \quad -7 \quad 31.19 \quad 24 \quad 3.00 \quad -7 \quad 30.61 \\ & 24 \quad 41.60 \quad -1.80 \quad 24 \quad 41.86 \quad -1.930 \quad 24 \quad 41.36 \quad -1.970 \quad 24 \quad 41.28 \quad -20.50 \quad 24 \quad 41.70 \quad -22.10 \quad 24 \quad 41.19 \quad -22.40 \\ & 51.5979 \quad 41 \quad 42.67 \quad 51.919 \quad 41 \quad 40.77 \quad 51.719 \quad 41 \quad 39.27 \quad 51.639 \quad 41 \quad 40.77 \quad 51.059 \quad 41 \quad 40.77 \quad 51.549 \quad 41 \quad 39.85 \end{aligned}$$

$$\begin{aligned} & 22.404 \quad +2247 \quad 16.682 \quad +27.81 \quad 14.971 \quad +2927 \quad 12.048 \quad +3252 \quad 5.415 \quad -2.116 \\ & 24 \quad 46.542 \quad +1.88 \quad 24 \quad 46.151 \quad +1.81 \quad 24 \quad 46.44 \quad 45.96 \quad +19.224 \quad 45.70 \quad 67 \quad +.94 \quad 24 \quad 40.880 \quad +1.15 \\ & -24.182 \quad -2.9773 \quad -29.773 \quad -37.03099 \quad -22 \quad -33.632 \quad +20.39 \\ & -24.263 \quad -0.13 \quad -29.584 \quad -47.2 \quad -31.140 \quad -45.7 \quad -33.763 \quad -4.28 \quad +20.268 \quad -8.61 \\ & 24 \quad 41.72 \quad 24 \quad 41.84 \quad 24 \quad 41.76 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \\ & +22.43 \quad +1.90 \quad -5.13 \quad +5.2298 \quad -4.22 \quad +5.639 \quad -4.22 \quad +5.639 \quad -4.22 \quad +5.639 \\ & +19.20 \quad 49 \quad 28.23 \quad +24.88 \quad 29.74 \quad +26.39 \quad 28.01 \quad +29.23 \quad 31.37 \quad -23.71 \quad 33.36 \quad -2.186 \\ & 24 \quad 22.40 \quad -7 \quad 31.56 \quad 24 \quad 16.68 \quad -7 \quad 31.45 \quad 24 \quad 14.97 \quad -7 \quad 30.84 \quad 24 \quad 12.05 \quad -7 \quad 31.90 \quad 24 \quad 5.41 \quad -7 \quad 31.19 \quad 24 \quad 3.00 \quad -7 \quad 30.61 \\ & 24 \quad 41.60 \quad -1.80 \quad 24 \quad 41.86 \quad -1.930 \quad 24 \quad 41.36 \quad -1.970 \quad 24 \quad 41.28 \quad -20.50 \quad 24 \quad 41.70 \quad -22.10 \quad 24 \quad 41.19 \quad -22.40 \\ & 51.5979 \quad 41 \quad 42.67 \quad 51.919 \quad 41 \quad 40.77 \quad 51.719 \quad 41 \quad 39.27 \quad 51.639 \quad 41 \quad 40.77 \quad 51.059 \quad 41 \quad 40.77 \quad 51.549 \quad 41 \quad 39.85 \end{aligned}$$

$$\begin{aligned} & 22.404 \quad +2247 \quad 16.682 \quad +27.81 \quad 14.971 \quad +2927 \quad 12.048 \quad +3252 \quad 5.415 \quad -2.116 \\ & 24 \quad 46.542 \quad +1.88 \quad 24 \quad 46.151 \quad +1.81 \quad 24 \quad 46.44 \quad 45.96 \quad +19.224 \quad 45.70 \quad 67 \quad +.94 \quad 24 \quad 40.880 \quad +1.15 \\ & -24.182 \quad -2.9773 \quad -29.773 \quad -37.03099 \quad -22 \quad -33.632 \quad +20.39 \\ & -24.263 \quad -0.13 \quad -29.584 \quad -47.2 \quad -31.140 \quad -45.7 \quad -33.763 \quad -4.28 \quad +20.268 \quad -8.61 \\ & 24 \quad 41.72 \quad 24 \quad 41.84 \quad 24 \quad 41.76 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \quad 24 \quad 41.84 \\ & +22.43 \quad +1.90 \quad -5.13 \quad +5.2298 \quad -4.22 \quad +5.639 \quad -4.22 \quad +5.639 \quad -4.22 \quad +5.639 \\ & +19.20 \quad 49 \quad 28.23 \quad +24.88 \quad 29.74 \quad +26.39 \quad 28.01 \quad +29.23 \quad 31.37 \quad -23.71 \quad 33.36 \quad -2.186 \\ & 24 \quad 22.40 \quad -7 \quad 31.56 \quad 24 \quad 16.68 \quad -7 \quad 31.45 \quad 24 \quad 14.97 \quad -7 \quad 30.84 \quad 24 \quad 12.05 \quad -7 \quad 31.90 \quad 24 \quad 5.41 \quad -7 \quad 31.19 \quad 24 \quad 3.00 \quad -7 \quad 30.61 \\ & 24 \quad 41.60 \quad -1.80 \quad 24 \quad 41.86 \quad -1.930 \quad 24 \quad 41.36 \quad -1.970 \quad 24 \quad 41.28 \quad -20.50 \quad 24 \quad 41.70 \quad -22.10 \quad 24 \quad 41.19 \quad -22.40 \\ & 51.5979 \quad 41 \quad 42.67 \quad 51.919 \quad 41 \quad 40.77 \quad 51.719 \quad 41 \quad 39.27 \quad 51.639 \quad 41 \quad 40.77 \quad 51.059 \quad 41 \quad 40.77 \quad 51.549 \quad 41 \quad 39.85 \end{aligned}$$

$$\begin{aligned} & +74.96 \quad -9.11 \quad +90.24 \\ & 30 \quad -2.73 \\ & 3 \quad 56.1 \quad 4 \quad 15.0 \quad 3 \quad 48.9 \\ & \quad 43.9 \quad \quad 3.3 \quad \quad 37.3 \\ & \quad 10.00 \quad \quad 18.3 \quad \quad 86.2 \\ & 33 \quad 50.00 \quad 34 \quad 7.15 \quad 33 \quad 43.10 \\ & 1.87483 \quad 0.98982 \quad 1.90540 \\ & 1.24398 \quad 0.32867 \quad 1.32405 \\ & +17.04 \quad -2.13 \quad +21.11 \\ & 34 \quad 7.54 \quad 34 \quad 7.02 \quad 34 \quad 4.21 \\ & +79.48 \quad 40.81 \quad 41.33 \quad 48 \quad 44.14 \\ & -37 \quad 18 \quad 38 \quad 18 \quad 19 \\ & 1.64200 \quad 1.64200 \\ & +3189 \quad +2203 \\ & 1.67389 \quad 1.67389 \quad 1.66403 \\ & +47.19 \quad +47.19 \quad +46.14 \end{aligned}$$

$$\begin{aligned} & +74.96 \quad -9.11 \quad +90.24 \\ & 30 \quad -2.73 \\ & 3 \quad 56.1 \quad 4 \quad 15.0 \quad 3 \quad 48.9 \\ & \quad 43.9 \quad \quad 3.3 \quad \quad 37.3 \\ & \quad 10.00 \quad \quad 18.3 \quad \quad 86.2 \\ & 33 \quad 50.00 \quad 34 \quad 7.15 \quad 33 \quad 43.10 \\ & 1.87483 \quad 0.98982 \quad 1.90540 \\ & 1.24398 \quad 0.32867 \quad 1.32405 \\ & +17.04 \quad -2.13 \quad +21.11 \\ & 34 \quad 7.54 \quad 34 \quad 7.02 \quad 34 \quad 4.21 \\ & +79.48 \quad 40.81 \quad 41.33 \quad 48 \quad 44.14 \\ & -37 \quad 18 \quad 38 \quad 18 \quad 19 \\ & 1.64200 \quad 1.64200 \\ & +3189 \quad +2203 \\ & 1.67389 \quad 1.67389 \quad 1.66403 \\ & +47.19 \quad +47.19 \quad +46.14 \end{aligned}$$

$$\begin{aligned} & +74.96 \quad -9.11 \quad +90.24 \\ & 30 \quad -2.73 \\ & 3 \quad 56.1 \quad 4 \quad 15.0 \quad 3 \quad 48.9 \\ & \quad 43.9 \quad \quad 3.3 \quad \quad 37.3 \\ & \quad 10.00 \quad \quad 18.3 \quad \quad 86.2 \\ & 33 \quad 50.00 \quad 34 \quad 7.15 \quad 33 \quad 43.10 \\ & 1.87483 \quad 0.98982 \quad 1.90540 \\ & 1.24398 \quad 0.32867 \quad 1.32405 \\ & +17.04 \quad -2.13 \quad +21.11 \\ & 34 \quad 7.54 \quad 34 \quad 7.02 \quad 34 \quad 4.21 \\ & +79.48 \quad 40.81 \quad 41.33 \quad 48 \quad 44.14 \\ & -37 \quad 18 \quad 38 \quad 18 \quad 19 \\ & 1.64200 \quad 1.64200 \\ & +3189 \quad +2203 \\ & 1.67389 \quad 1.67389 \quad 1.66403 \\ & +47.19 \quad +47.19 \quad +46.14 \end{aligned}$$

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1875

Feb. 19	24	5693		41	570
24		5650	-43		588 +8
Mar. 1		5604	46		596 8
6		5585	49		603 7
11		5504	51		608 5
16		5451	53		612 4
21		5397	54		614 2

1875
 51.750
 $+41.3566$
 $+10.358$
 -2.829

could = $+1.14$
 could = $+1.36$
 $\tan \delta = +5.50$ 5.59
 $I = 11.54$
 $K = -.085$

1875 Feb. 16	1875 Feb. 17	1875 Feb. 24	1875 March 22
24 +300	24 +333	24 +333	23 +116
24 258	24 247	24 186	23 468
31.7	30.4	24.0	534
37.3	36.1	29.8	58.5
42.3	41.4	35.3	4.2
48.0	47.8	41.6	10.1
54.1	53.6	46.7	15.9
60.3	59.6	52.1	22.0
64	63.5	57.6	27.9
12.2	11.1	4.2	35.8
2687	3108	3119	3726
180	120	60	180
4387	4308	3719	92.6
24 48744	24 47867	24 41322	24 10289
48659	47782	41237	10204
24 54.81	24 54.1208	24 56.3248	24 53.843
-8.58	-9.340	-15.254	-43.673
-8.661	9.451	-15.395	-43.8074
+6.60	+5.58	+15.405	+43.83
+165	+1.72	+19	+2.08
-5.41	-5.33	-4.73	+41.88
+284	+8.97	+10.53	+10.20
24 48.66	24 47.78	24 41.24	24 10.20
24 51.50	24 51.75	24 51.71	24 52.08
41 8.671	41 3.726	41 3.631	41 3.754

25 +10.64	20 +11.87	20 +16.60	20 +19.89	25 +28.19	25 +42.49
1 -3.79	0 -3.80	4 -3.87	4 -3.87	0 -3.83	0 -3.83
0 39.9	0 25.1	4 36.1	4 34.7	0 25.0	0 14.7
1.9	27.9	57.9	10.4	40.5	18.9
13.0	14.0	80	125.1	65.5	13.6
25 80.80	25 26.50	24 57.00	25 24.00	25 25.5	25 32.75
2.03182	1.07445	1.22272	1.96497	1.45010	1.63839
1.40941	0.45234	0.60061	1.34586	0.82779	1.01628
+25.69	+2.83	+3.99	+32.18	+6.43	+10.38
25 26.9	25 29.33	25 27.7	25 24.73	25 39.48	25 37.18
57 227657	19.02	47.36	57 2036	57 2362	57 21.17
18 2039	18 22	18 46	18 15	18 15	18 15
1.64210	1.64200				
+38.14					
1.68024	1.68014	1.67507	1.67497	1.64881	1.64871
+47.89	+47.88	+47.32	+47.32	+44.55	+44.54
-1.01-54	-0.07	-0.03	-0.00	-0.04	-0.04
+46.88	+47.80	+46.41	+47.22	+43.72	+44.38
58 8.64	58 8.82	58 7.58	58 7.58	58 7.54	58 8.15
57.5	57.8	57.8	57.8	57.8	61.4
16 11.1	16 9.3	16 9.8	16 9.8	16 9.8	16 9.8
16 1020	16 28.4	16 30.4	16 30.4	16 30.4	16 30.4
16 88	16 39.6	16 39.6	16 39.6	16 39.6	16 39.6
16 949-24.63	16 10.22	16 10.22	16 10.22	16 10.22	16 10.22
23.1	23.1	23.1	23.1	23.1	23.1
27.80	27.80	27.80	27.80	27.80	27.80

13 Monocerotis.

6^h 26^m 8^s rec.

+7° 25'

γ = +34° 58'

μ = +.57

Sim. D. 9.11037

Cass. D. 9.99685

0.11323

1873

26 8.73

25 20.41

27 43.246

28 - 2.28

base 9.99685

16 1.20552

16' 0.13187

cond.

cond.

largo = +.13

I = 2.08

K = -.016

1874	1874	1875	1875	1875	1875
Feb. 10	Feb. 12	Feb. 24	Feb. 26	Feb. 16	Feb. 17
25 +32.0	25 +29.4	26 +1.90	26 +2.23	25 1.300	25 +3.13
25 25.9	25 11.0	26 23.0	26 131.26	25 52.6	25 49.25
25 25.0	25 13.7	26 24.0	26 13.2	25 52.7	25 51.7
25 30.0	25 15.4	26 25.0	26 17.3	25 54.9	25 53.9
25 34.1	25 32.6	26 26.1	26 21.4	25 57.1	25 57.8
25 36.2	25 34.8	26 27.2	26 23.5	26 1.0	26 1.0
25 38.2	25 36.8	26 28.3	26 25.6	26 3.0	26 2.0
25 40.3	25 38.8	26 29.2	26 27.6	26 5.1	26 4.1
25 42.3	25 40.8	26 30.3	26 29.7	26 7.1	26 6.3
25 44.3	25 42.7	26 31.4	26 31.8	26 9.3	26 8.3
25 46.3	25 44.7		26 33.8	26 11.3	26 10.3
25 48.3	25 46.7		26 36.0	26 13.5	26 12.4
25 50.8	25 49.3		26 38.0	26 15.6	26 14.5
25 42.13	25 40.47	26 24.45	26 28.12	25 69.39	25 68.28
25 38.300	25 36.791	26 27.167	26 25.564	26 30.82	26 20.55
38.284	36.775	27.151	25.548	30.66	20.29
+ 27.84	+ 22.35	- 21.14	- 19.65	+ 6.60	+ 7.58
+ 0.04	+ 0.04	+ 0.02	+ 0.03	+ 0.04	+ 0.04
- 0.71	- 0.67	- 0.56	- 0.53	- 0.98	- 0.94
+ 7.17	+ 78.70	- 21.68	- 20.15	+ 5.66	+ 6.66
25 38.28	25 36.77	26 27.15	26 25.55	26 3.07	26 2.03
26 33.5	26 5.47	26 52.7	26 5.40	26 8.73	26 8.68
8.696	8.716	8.716	6.448	8.646	
+ 24.77	- 13.70	+ 7.36	- 29.18	+ 15.06	- 25.17
45 - 10.93	45 - 2.98	45 - 3.12	45 - 3.13	40 - 3.79	40 - 3.80
3 39.9	4 31.2	3 1.9	4 50.5	3 53.7	4 43.9
27.2	18.5	50.0	38.3	43.8	33.9
6.1	4.7	11.9	8.8	7.5	7.8
48 33.55	49 24.85	48 55.95	49 44.40	48 48.75	49 38.90
1.39332	1.13672	0.87852	1.46502	1.17782	1.40088
1.50406	1.24985	0.99165	1.57822	1.29091	1.51401
+ 32.14	- 17.78	+ 9.81	- 57.26	+ 19.54	- 32.66
49 5.69	49 7.07	49 5.76	49 6.54	49 8.27	49 6.24
+ 7° 33' 42.66	41.28 33 42.59	41.81 33 42.75	42.11 42 20.67	42.11 42 20.67	42.11 42 20.67
+ 34 56 6 56 57	1.60420 1.60450	+ 3173	+ 3231	1.60430 1.60450	+ 3302
+ 22.06	1.62656	1.63593	1.63623	1.63311	1.63752
- 42.29	- 42.32	- 43.24	- 43.27	- 42.99	- 43.38
- 0.4	+ 2.2	- 0.1	+ 2.2	- 0.1	- 0.2
+ 2.2	+ 2.6	+ 2.3	+ 2.8	+ 0.4	+ 0.5
- 42.1	- 42.07	- 43.02	- 43.04	- 42.93	- 43.92
+ 7 33 0.55	32 39.21	32 39.57	32 39.68	32 37.13	32 36.75
- 7 31.44	31.11	31.16	31.17	- 30.88	- 30.88
1.67	1.69	1.69	1.77	1.78	1.78
- 2.67	- 2.60	- 2.27	- 2.27	- 2.21	- 2.21
- 7 35.18	- 7 35.45	- 7 35.44	- 7 35.44	- 7 35.44	- 7 35.44
25 24.77	25 24.72	25 24.72	25 24.72	25 24.72	25 24.72
25 24.77	25 24.72	25 24.72	25 24.72	25 24.72	25 24.72

Feb. 24			March 8			March 11		
25	-0.25		25	+0.10		25	+0.50	
26	2.8		25	28.3	25	25.2	25	17.8
	4.9			30.4			27.1	19.9
	6.9			32.5			29.2	21.8
52.2	54.16			36.6			33.4	
52.0	48			38.7			35.5	
54.1	10			40.7			37.5	
56.2	14			42.8	26		39.4	25 54.3
58.3	14			45.0	2.0		41.7	57.2
24	108			47.0	3.7		45.9	58.6
46	20			54.1			48.0	
6.6	12			53.1			50.1	
				44.82			41.34	

25	54.140	26	4.87	25	40.745	26	22.73	25	37.562	26	19.83
	54.124				40.729		2.07		37.566		36.70
+	15.45			+	28.92			+	31.48		
-	0.00			-	0.71			-	0.01		
+	0.89			+	28.00			+	31.12		
25	54.12			25	40.73			25	37.57		
26	8.68			26	8.784			26	8.69		
									8.702		

40	40.73	40	+18.01	40	-21.33	40	+17.75	40	-19.12		
1	-36.7	1	-3.88	1	-3.88	1	-3.88	1	-3.88		
0	40.6	0	4.2	0	57.1	0	4.9	0	54.0		
53.3	24.3	11.0	2.4	12.5	0.4						
9.39	31.7	15.2	11.95	17.4	11.44						
40	46.95	40	15.85	40	1.60	40	59.75	40	8.70	40	57.20
10.60991	0306.0	12555.1	132899	124920	128149						
10.73178	1.15247	1.37738	1.45086	1.37107	1.40336						
-5.392	1420	+23.84	23.24	+23.50	-25.31						
40	41.56	40	31.44	40	31.51	40	32.20	40	31.89		
42	15.60	42	16.91	42	16.84	42	16.15	42	16.46		
			16.87				16.30				
							56	21	57	9	
							1.60430	1.60450			
							+1948				
+6.76		+2228									
1.61166	1.61126	1.62658	1.62678	1.62378	1.62398						
-40.84	-40.86	-42.32	-42.34	-42.05	-42.07						
-0.1	-20	-3	-26	-02	-14	-03	-02	-12	-02		
-14	-23	-02	-14	-02	-21	-02	-02	-19	-02		
-40.99	-41.12	-42.36	-42.58	-42.09	-42.28						
41	34.48	41	34.55	34.26	41	34.06	34.18				
1035	-16	8.19	-16	8.80	11.01	-16	8.52	-10.73			
-3.77	-220	-2.21	-5.56	-3.25	-3.53						
-3.49		-3.28					-3.25				
-16	13.88	-16	14.29	-16	13.98						
25	20.60	20.26	19.77	20.08	20.26						
		20.12		20.14	20.26						

B. A. C. 2147.
6^h 27^m 59^s
- 31° 57'

$$z = +74.20$$

$$\sin z = +.96$$

Sin. 8 9.72360_m
Cos. 8 9.92866
11 678
104044

1873
27 5837
56 1860
25 +2.244
21 -2.39

Corr d =
sin d =
long d = -62
S
I = 244
K = -019

low d 9.92866
11 12582
16 106418

1874	1874	1874	1874	1874	1875	
Feb. 10	Feb. 12	Feb. 16	Feb. 24	March 8	Feb. 16	
27 ⁺ 320 147 171 197 213 25.0 29.3 31.7 34.2 39.0 41.4 440 3224	27 90 10.7 12.5 13.1 15.6 18.1 22.9 25.3 27.9 30.1 32.6 37.4 39.9 42.3 3052	27 294 31.9 34.1 12.3 15.0 17.8 22.0 24.6 27.0 29.4 31.7 34.2 39.1 2700	27 104 11.6 13.0 13.6 15.6 18.2 20.5 22.8 27.7 30.2 33.0 1993	27 342 36.6 38.5 39.2 40.6 42.0 43.3 45.1 48.1 51.4 53.0 1993	27 383 40.8 43.2 45.0 48.4 50.4 53.0 55.4 57.7 59.7 61.5 4021	
27 29309 29290 + 2785 - 20 + 0.91 + 26.74 27 2929 27 56.03 58274	27 10.73 3070 27 27.745 27 36.30 27 27.726 + 2936 - 18 + 0.88 + 28.30 27 27.73 27 56.03 58274	27 31.80 36.30 27 24.545 24.526 + 32.55 - 11 + 0.82 + 31.62 27 24.53 27 56.15 58394	27 11.67 28 18.118 18.099 - 21.13 - 12 - 0.68 - 21.93 28 18.10 27 56.17 58414	27 57.13 4827 28 9.000 8.981 - 12.28 - 0.09 - 0.44 - 12.81 28 8.98 27 56.17 58414	27 19.9 21.9 23.9 38.3 40.8 43.2 45.0 48.4 50.4 53.0 55.4 57.7 59.7 61.5 4021	
5 +16.58 - 81.37 2 49.4 3 33.9 3 12.4 3 40.1 2 58.6 2 52.8 7 86.8 8 53.9 7 43.0 8 27.95 1.20905 1.33021 1.37565 + 20.63 8 4.03 8 4.20 8 2.95 8 2.14 8 9.99 - 31° 45 15.68 15.76 74 15 15 16 2.304103 2.30436 + 2212 2.32615 2.32648 - 211.91 - 18 - 18 + 0.8 + 2.28 + 1.1 + 1.6 + 2.21 - 3 31.85 - 3 31.93 - 31 48 - 7 31.44 - 281 + 5.11 - 7 29.14 56 15.69 56 15.79	5 - 4.06 - 2.98 3 12.4 3 2.5 8 14.9 8 1.45 2.60853 1.45876 0.65397 - 4.50 8 2.95 8 2.14 8 9.99 45 14.60 14.19 2.30436 2.32648 2.33519 - 216.66 - 20 + 1.1 + 1.1 + 1.1 - 3 36.66 - 3 36.62 48 51.26 - 7 31.16 - 286 + 5.46 - 7 28.56 19.82 18.97 2.30436 2.32648 2.33519 - 216.66 - 20 + 1.1 + 1.1 + 1.1 - 3 36.66 - 3 36.62 48 51.26 - 7 31.16 - 286 + 5.46 - 7 28.56 19.82 18.97	5 +12.87 - 3.02 3 40.1 2 58.6 2 52.8 7 86.8 8 53.9 7 43.0 8 27.95 1.20905 1.33021 1.37565 + 20.63 8 4.03 8 4.20 8 2.95 8 2.14 8 9.99 45 21.64 14.19 2.30436 2.32648 2.33519 - 216.66 - 20 + 1.1 + 1.1 + 1.1 - 3 36.66 - 3 36.62 48 51.26 - 7 31.16 - 286 + 5.46 - 7 28.56 19.82 18.97	5 +12.87 - 3.02 3 40.1 2 58.6 2 52.8 7 86.8 8 53.9 7 43.0 8 27.95 1.20905 1.33021 1.37565 + 20.63 8 4.03 8 4.20 8 2.95 8 2.14 8 9.99 45 21.64 14.19 2.30436 2.32648 2.33519 - 216.66 - 20 + 1.1 + 1.1 + 1.1 - 3 36.66 - 3 36.62 48 51.26 - 7 31.16 - 286 + 5.46 - 7 28.56 19.82 18.97	5 +21.09 - 3.12 3 37.9 2 45.1 3 39.5 3 39.5 7 40.10 8 35.40 1.32408 1.47929 1.46045 1.19866 1.24410 1.57082 1.57082 + 23.42 - 38.48 + 32.05 - 17.84 + 35.14 8 3.52 8 1.92 8 1.43 8 3.08 45 15.17 14.37 15 12 16 4 2.30403 2.30441 + 8235 2.33638 2.33676 - 216.99 - 217.15 - 206.21 - 206.40 - 1.1 + 1.1 + 1.1 + 1.1 + 1.1 - 3 36.82 - 3 36.86 48 52.04 - 7 31.40 - 299 + 7.24 - 7 27.12 19.16 18.35 20.74 17.55 17.02 19.41	5 +21.09 - 3.12 3 37.9 2 45.1 3 39.5 3 39.5 7 40.10 8 35.40 1.32408 1.47929 1.46045 1.19866 1.24410 1.57082 1.57082 + 23.42 - 38.48 + 32.05 - 17.84 + 35.14 8 3.52 8 1.92 8 1.43 8 3.08 45 15.17 14.37 15 12 16 4 2.30403 2.30441 + 8235 2.33638 2.33676 - 216.99 - 217.15 - 206.21 - 206.40 - 1.1 + 1.1 + 1.1 + 1.1 + 1.1 - 3 36.82 - 3 36.86 48 52.04 - 7 31.40 - 299 + 7.24 - 7 27.12 19.16 18.35 20.74 17.55 17.02 19.41	5 +21.09 - 3.12 3 37.9 2 45.1 3 39.5 3 39.5 7 40.10 8 35.40 1.32408 1.47929 1.46045 1.19866 1.24410 1.57082 1.57082 + 23.42 - 38.48 + 32.05 - 17.84 + 35.14 8 3.52 8 1.92 8 1.43 8 3.08 45 15.17 14.37 15 12 16 4 2.30403 2.30441 + 8235 2.33638 2.33676 - 216.99 - 217.15 - 206.21 - 206.40 - 1.1 + 1.1 + 1.1 + 1.1 + 1.1 - 3 36.82 - 3 36.86 48 52.04 - 7 31.40 - 299 + 7.24 - 7 27.12 19.16 18.35 20.74 17.55 17.02 19.41

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Feb. 17

March 8

27	37.3	27	17.1	27	15.9	27	5.8
	36.9		19.8		18.3		8.5
	42.3		22.4		20.7		11.8
	47.2				25.6		
	49.3				28.0		
	51.8				30.3		
	54.4	28	9.0		32.8	27	53.1
	56.8		9.5		35.4		55.0
	1.6	11.2			40.1		56.5
	4.0				42.7		
	6.6				45.0		
	3911				3348		
	180						
	5711	27	19.77	27	8.70		
27	51.918	28	9.23	27	30.436	27	54.87
	51899				30.417		
	+ 7.58				+ 28.72		
	- .19				- .01		
	- 1.02				- 0.65		
	+ 6.37				+ 28.06		
27	57.90			27	30.42		
27	58.27			27	58.48		
					58.340		

55	+32.15	-17.31	+21.74	-04.63			
	-3.80		-3.88				
3	43.9	4	39.2	4	6.7	4	57.4
	44.3		39.9		10.9		0.4
	82		11		17.6		11.78
58	44.10	59	39.55	59	8.80	59	58.90
1.55718		1.23830		1.33726		1.35792	
45.6136		42.9248		43.9144		44.3210	
+36.42		-19.61		+24.63		-27.05	
59	20.52	57	19.94	57	33.43	57	31.85
36	32.17		31.59	36	45.08		43.50
	31.58				44.29		
			15	21	16	11	
			2.30403	2.30445			
	+33.12		+2234				
2.33696	2.33748	2.32637	2.32679				
-217.25	-217.51	-212.01	-212.22				
-26	-26	-16	-16				
+20	-60	+07	+11	-87	+15		
-67	-7.85	-86	-105				
-3	37.43	-3	38.55	-3	32.92	-3	33.28
40	10.10		10.14	40	18.00		16.78
-16	10.22		-16	8.80			
	3.64	13.86		3.72	12.52		
	+2.61			+4.87			
+5.00			+7.35	26			
-16	8.86		-16	5.26			
	16.96	19.08		23.26	22.04		
56	12.98			23.65			

John G. Wolbach Library, Harvard

Geminor.
6 30 29
+ 16° 30'

$z = +25$ 53
+144

Sin δ 9.40334

cos δ 9.98174

11678

09852

1874

Feb. 9 30 2672

14 2667

19 2662

24 2656

Mar. 1 2649

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Feb. 24

29 513

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1875
 α 29.420
 δ +30 13.449
 μ +3.467
 σ -2.709

1875
 α 29.420
 δ +30 13.449
 μ +3.467
 σ -2.709

1874.0

α
 25.941
 26.06
 25.95
 26.00
 26.02
 25.99
 25.96
 25.99
 25.99
 25.989
 25.93
 +.036

1'
 16.20

1875.0

α
 29.43
 42
 50
 41
 29.440
 42.0
 +.020

13.49

March 8 **March 11**

29	48.6	29	35.3	29	45.5	29	34.0
	51.0		34.4		47.7		36.4
	53.0		39.2		49.8		37.5
	54.1				54.1		
	55.3				56.3		
	57.4				58.2		
30	3.4	30	27.0	30	0.5	30	14.9
	5.9		29.2		2.6		16.0
	10.2		36.5		7.0		19.0
	12.4				9.1		
	14.4				11.4		
	31.74	29	37.30	29	34.23	29	35.97
	30.0	30	38.90	30	30.0	30	16.97
	17.4				64.23		
30	1.882	29	58.391	29	58.391	29	58.391
	1.566		+28.72		58.375		+31.71
30	30.21	30	30.17	30	30.17	30	+0.1
	-28.64		-31.80		-31.80		+0.6
			-0.79				-0.75
	+28.42	29	31.48	29	31.48	29	29.40
	+0.00		+0.01		+0.01		
	-0.79		-0.75		-0.75		
	+27.93	29	31.04	29	31.04	29	28.68
30	1.57	29	58.37	29	58.37	29	58.37
	-16.844		-16.844		-16.844		-16.844
30	29.50	30	29.41	30	29.41	30	-1.5
	-6.10		-6.20		-6.20		-6.20
	30	13.89	30	12.91	30	12.91	

35 **35**

+24.28	-27.32	+22.42	-18.58
1-38.88	-3.88		
0 16.3	1 21.8	0 19.4	1 12.0
	24.8		16.4
	6.6		8.4
85 18.10	36 23.30	35 21.45	36 14.20
1.38325	1.43648	1.33764	1.26903
1.49251	1.54374	1.45791	1.37631
+31.08	-34.77	+28.70	-23.79
35 49.18	35 48.53	35 54.18	35 54.41
46 59.17	0.02	46 58.20	57.94
59.59		51 58.07	
		51 33	52 26
+22.39	+19.54		
1.46799	1.46839	1.46517	1.46557
-29.37	-29.40	-29.19	-29.21

46 **46**

-07-27	-11	-07-22	-05
-06	-29	-08	-25
29.52	29.80	29.34	29.51
29.65	30.22	28.86	28.43
19.6		19.7	
10.0	10.6	9.2	8.4
-16 10.3	-16 16.60	9.0	-16 16.42
-16 8.80	10.5013.05	-16 8.52	10.2212.44
-1.70	4411.362	-1.70	4.4112.01
6.0	13.34	6.20	13.22

1874
 5 Aurigae.
 33 59
 +44° 38'
 -2° 15'
 dir f = -0.4

Sin δ 9.84669
 Cos δ 1.85225
 1.1478
 9.96903

corr d =
 corr δ =
 lat δ = +.99
 \pm = 2.89
 K = -0.32

1874 Feb. 10	Feb. 11	Feb. 12	Feb. 16	Feb. 24	Feb. 26
33 103 13.2 16.1 22.0 24.8 27.7 30.6 33.6 39.3 42.3 45.1 30.50	32 46.4 49.4 57.7 27.0 30.0 32.9 35.5 41.5 44.4 29.75	33 16.8 19.4 22.7 20.3 23.2 26.2 29.1 32.0 — — 13.08	33 5.7 8.6 11.4 17.0 20.0 23.0 26.0 28.9 34.5 40.5 25.31	33 9.3 12.0 14.5 10.7 13.6 16.5 19.4 22.4 28.0 31.1 33.9 24.19 60 181.9 33 42.60 34 16.536 16.514 — 2.113 + 1.129 — 0.89 — 2.183 34 16.51 33 54.68 59.054	33 40.0 42.7 45.1 9.1 12.0 15.0 18.0 21.0 26.5 29.4 32.3 22.54 60 16.54 33 44.73 34 15.036 15.014 — 1.764 + 0.22 — 0.86 — 2.028 34 15.01 33 54.73 59.104
33 27.727 27.705 + 27.85 + 32 — 1.11 + 27.06 33 27.70 33 54.76 59.134	33 27.045 27.023 + 28.52 + 27 — 1.09 + 27.70 33 27.02 33 54.72 59.094	33 26.160 26.138 + 29.36 + 39.29 — 1.08 + 28.57 33 26.14 33 54.71 59.084	33 23.009 22.987 + 32.55 + 17 — 1.03 + 31.69 33 22.99 33 54.68 59.054	34 16.536 16.514 — 2.113 + 1.129 — 0.89 — 2.183 34 16.51 33 54.68 59.054	34 15.036 15.014 — 1.764 + 0.22 — 0.86 — 2.028 34 15.01 33 54.73 59.104
35 +38.56 — 2.93 3.9 50.1 114.0 35 57.00 1.58614 1.50517 +30.91 36 33.91 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49	35 +7.41 — 2.97 1 53.9 40.7 9.46 36 47.30 1.16258 1.13841 — 13.75 36 33.55 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49	35 +39.73 — 2.98 2 18.0 4.1 2.21 37 11.05 1.59912 1.56815 — 37.00 36 34.05 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49	35 +11.08 — 3.02 1 24.8 18.3 4.31 36 21.55 1.04554 1.01357 +10.32 36 21.87 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49	35 +33.94 — 3.12 2 7.3 58.3 12.25 36 12.25 1.53071 1.49774 +31.60 36 32.85 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49	35 +30.31 — 3.13 1 9.0 55.8 9.7 36 48.5 1.48159 1.45062 +28.22 36 32.15 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49
33 103 13.2 16.1 22.0 24.8 27.7 30.6 33.6 39.3 42.3 45.1 30.50	32 46.4 49.4 57.7 27.0 30.0 32.9 35.5 41.5 44.4 29.75	33 16.8 19.4 22.7 20.3 23.2 26.2 29.1 32.0 — — 13.08	33 5.7 8.6 11.4 17.0 20.0 23.0 26.0 28.9 34.5 40.5 25.31	33 9.3 12.0 14.5 10.7 13.6 16.5 19.4 22.4 28.0 31.1 33.9 24.19 60 181.9 33 42.60 34 16.536 16.514 — 2.113 + 1.129 — 0.89 — 2.183 34 16.51 33 54.68 59.054	33 40.0 42.7 45.1 9.1 12.0 15.0 18.0 21.0 26.5 29.4 32.3 22.54 60 16.54 33 44.73 34 15.036 15.014 — 1.764 + 0.22 — 0.86 — 2.028 34 15.01 33 54.73 59.104
33 27.727 27.705 + 27.85 + 32 — 1.11 + 27.06 33 27.70 33 54.76 59.134	33 27.045 27.023 + 28.52 + 27 — 1.09 + 27.70 33 27.02 33 54.72 59.094	33 26.160 26.138 + 29.36 + 39.29 — 1.08 + 28.57 33 26.14 33 54.71 59.084	33 23.009 22.987 + 32.55 + 17 — 1.03 + 31.69 33 22.99 33 54.68 59.054	34 16.536 16.514 — 2.113 + 1.129 — 0.89 — 2.183 34 16.51 33 54.68 59.054	34 15.036 15.014 — 1.764 + 0.22 — 0.86 — 2.028 34 15.01 33 54.73 59.104
35 +38.56 — 2.93 3.9 50.1 114.0 35 57.00 1.58614 1.50517 +30.91 36 33.91 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49	35 +7.41 — 2.97 1 53.9 40.7 9.46 36 47.30 1.16258 1.13841 — 13.75 36 33.55 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49	35 +39.73 — 2.98 2 18.0 4.1 2.21 37 11.05 1.59912 1.56815 — 37.00 36 34.05 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49	35 +11.08 — 3.02 1 24.8 18.3 4.31 36 21.55 1.04554 1.01357 +10.32 36 21.87 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49	35 +33.94 — 3.12 2 7.3 58.3 12.25 36 12.25 1.53071 1.49774 +31.60 36 32.85 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49	35 +30.31 — 3.13 1 9.0 55.8 9.7 36 48.5 1.48159 1.45062 +28.22 36 32.15 +44° 46 — 2 16 0.35940 +22.25 0.38165 +2.41 — 4.0 +0.5 +2.06 +44 46 — 7 31.44 + 12 — 11.76 — 1 13.08 38 34.42 38 32.49

1875—
 α 33 59.06
 δ 38 30.08
 $\frac{\alpha\delta}{\alpha\gamma}$ +4.374
 $\frac{\alpha\delta}{\alpha\gamma}$ -2.98

Acad 985225
L.C. 12552
L.C. 997777

[illegible]

March 11

+050
33 110.33 6.8
13.8 8.8
16.7 11.3
22.4
25.5
28.3
31.2 33 53.5
34.3 55.1
39.9 58.0
42.8
46.9
31.21

33 28.33 33 8.97
33 28.35 33 55.20
28.351

+ 31.78
+ 0.75
- 1.05
+ 30.78
33 28.35

33 57.18
59.62

+17.40 -26.83
25

-388
2 3.6 3 17.1
42.1 24.8
75.7 41.9
27 37.85 28 20.95

1.28780 1.42862
1.26557 1.40639

+19.43 -25.47
27 56.28 27 55.46

54 56.07 52.89

52.48
16 10 15 28

0.35840 0.25620

+19.80

0.37820 0.37600

+2.39 +2.38

-10 -19

-55 -69

+1.74 +1.56

54 53.81 54.39

-16 85.2

+ 1.15 83.7

-15.62 -18.60

-16 23.99

38 24.82 30.90

-38 30.11

2 Can. Maj. ^{N.H.}
 6 39 38
 - 16° 32'
 $\gamma = +58$ 55
 $\sin \gamma = +.86$

Sun. 8 9.45419
 Box. 8 9.98166
 11.678
 .09844

1875
 2 39 38.40
 32 46.25
 +2.644
 -4.65
 6.38 9.98166
 16' .12552
 16' .10718

corr. =
 corr. =
 $\tan \delta = -.30$ 1.04
 $I = .215$
 $K = -.016$

$\times 6$ 39 38.40
 16 32 46.25

1874 +09 March 22	1875 +31 Feb. 15	1875 +35 Feb. 16	1875 +33 Feb. 17	1875 +20 Feb. 18	1875 +10 Feb. 28
6 39 38.40 2.71 2.93 3.18 3.50 7.00 7.80 7.90 8.00 8.10 8.20 8.30 8.40 8.50 9.00 9.10 9.20 9.30 9.40 9.50 10.00 10.10 10.20 10.30 10.40 10.50 11.00 11.10 11.20 11.30 11.40 11.50 12.00 12.10 12.20 12.30 12.40 12.50 13.00 13.10 13.20 13.30 13.40 13.50 14.00 14.10 14.20 14.30 14.40 14.50 15.00 15.10 15.20 15.30 15.40 15.50 16.00 16.10 16.20 16.30 16.40 16.50 17.00 17.10 17.20 17.30 17.40 17.50 18.00 18.10 18.20 18.30 18.40 18.50 19.00 19.10 19.20 19.30 19.40 19.50 20.00 20.10 20.20 20.30 20.40 20.50 21.00 21.10 21.20 21.30 21.40 21.50 22.00 22.10 22.20 22.30 22.40 22.50 23.00 23.10 23.20 23.30 23.40 23.50 24.00 24.10 24.20 24.30 24.40 24.50 25.00 25.10 25.20 25.30 25.40 25.50 26.00 26.10 26.20 26.30 26.40 26.50 27.00 27.10 27.20 27.30 27.40 27.50 28.00 28.10 28.20 28.30 28.40 28.50 29.00 29.10 29.20 29.30 29.40 29.50 30.00 30.10 30.20 30.30 30.40 30.50 31.00 31.10 31.20 31.30 31.40 31.50 32.00 32.10 32.20 32.30 32.40 32.50 33.00 33.10 33.20 33.30 33.40 33.50 34.00 34.10 34.20 34.30 34.40 34.50 35.00 35.10 35.20 35.30 35.40 35.50 36.00 36.10 36.20 36.30 36.40 36.50 37.00 37.10 37.20 37.30 37.40 37.50 38.00 38.10 38.20 38.30 38.40 38.50 39.00 39.10 39.20 39.30 39.40 39.50 40.00 40.10 40.20 40.30 40.40 40.50 41.00 41.10 41.20 41.30 41.40 41.50 42.00 42.10 42.20 42.30 42.40 42.50 43.00 43.10 43.20 43.30 43.40 43.50 44.00 44.10 44.20 44.30 44.40 44.50 45.00 45.10 45.20 45.30 45.40 45.50 46.00 46.10 46.20 46.30 46.40 46.50 47.00 47.10 47.20 47.30 47.40 47.50 48.00 48.10 48.20 48.30 48.40 48.50 49.00 49.10 49.20 49.30 49.40 49.50 50.00 50.10 50.20 50.30 50.40 50.50 51.00 51.10 51.20 51.30 51.40 51.50 52.00 52.10 52.20 52.30 52.40 52.50 53.00 53.10 53.20 53.30 53.40 53.50 54.00 54.10 54.20 54.30 54.40 54.50 55.00 55.10 55.20 55.30 55.40 55.50 56.00 56.10 56.20 56.30 56.40 56.50 57.00 57.10 57.20 57.30 57.40 57.50 58.00 58.10 58.20 58.30 58.40 58.50 59.00 59.10 59.20 59.30 59.40 59.50 60.00 60.10 60.20 60.30 60.40 60.50 61.00 61.10 61.20 61.30 61.40 61.50 62.00 62.10 62.20 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90.10 90.20 90.30 90.40 90.50 91.00 91.10 91.20 91.30 91.40 91.50 92.00 92.10 92.20 92.30 92.40 92.50 93.00 93.10 93.20 93.30 93.40 93.50 94.00 94.10 94.20 94.30 94.40 94.50 95.00 95.10 95.20 95.30 95.40 95.50 96.00 96.10 96.20 96.30 96.40 96.50 97.00 97.10 97.20 97.30 97.40 97.50 98.00 98.10 98.20 98.30 98.40 98.50 99.00 99.10 99.20 99.30 99.40 99.50 100.00 100.10 100.20 100.30 100.40 100.50 101.00 101.10 101.20 101.30 101.40 101.50 102.00 102.10 102.20 102.30 102.40 102.50 103.00 103.10 103.20 103.30 103.40 103.50 104.00 104.10 104.20 104.30 104.40 104.50 105.00 105.10 105.20 105.30 105.40 105.50 106.00 106.10 106.20 106.30 106.40 106.50 107.00 107.10 107.20 107.30 107.40 107.50 108.00 108.10 108.20 108.30 108.40 108.50 109.00 109.10 109.20 109.30 109.40 109.50 110.00 110.10 110.20 110.30 110.40 110.50 111.00 111.10 111.20 111.30 111.40 111.50 112.00 112.10 112.20 112.30 112.40 112.50 113.00 113.10 113.20 113.30 113.40 113.50 114.00 114.10 114.20 114.30 114.40 114.50 115.00 115.10 115.20 115.30 115.40 115.50 116.00 116.10 116.20 116.30 116.40 116.50 117.00 117.10 117.20 117.30 117.40 117.50 118.00 118.10 118.20 118.30 118.40 118.50 119.00 119.10 119.20 119.30 119.40 119.50 120.00 120.10 120.20 120.30 120.40 120.50 121.00 121.10 121.20 121.30 121.40 121.50 122.00 122.10 122.20 122.30 122.40 122.50 123.00 123.10 123.20 123.30 123.40 123.50 124.00 124.10 124.20 124.30 124.40 124.50 125.00 125.10 125.20 125.30 125.40 125.50 126.00 126.10 126.20 126.30 126.40 126.50 127.00 127.10 127.20 127.30 127.40 127.50 128.00 128.10 128.20 128.30 128.40 128.50 129.00 129.10 129.20 129.30 129.40 129.50 130.00 130.10 130.20 130.30 130.40 130.50 131.00 131.10 131.20 131.30 131.40 131.50 132.00 132.10 132.20 132.30 132.40 132.50 133.00 133.10 133.20 133.30 133.40 133.50 134.00 134.10 134.20 134.30 134.40 134.50 135.00 135.10 135.20 135.30 135.40 135.50 136.00 136.10 136.20 136.30 136.40 136.50 137.00 137.10 137.20 137.30 137.40 137.50 138.00 138.10 138.20 138.30 138.40 138.50 139.00 139.10 139.20 139.30 139.40 139.50 140.00 140.10 140.20 140.30 140.40 140.50 141.00 141.10 141.20 141.30 141.40 141.50 142.00 142.10 142.20 142.30 142.40 142.50 143.00 143.10 143.20 143.30 143.40 143.50 144.00 144.10 144.20 144.30 144.40 144.50 145.00 145.10 145.20 145.30 145.40 145.50 146.00 146.10 146.20 146.30 146.40 146.50 147.00 147.10 147.20 147.30 147.40 147.50 148.00 148.10 148.20 148.30 148.40 148.50 149.00 149.10 149.20 149.30 149.40 149.50 150.00 150.10 150.20 150.30 150.40 150.50 151.00 151.10 151.20 151.30 151.40 151.50 152.00 152.10 152.20 152.30 152.40 152.50 153.00 153.10 153.20 153.30 153.40 153.50 154.00 154.10 154.20 154.30 154.40 154.50 155.00 155.10 155.20 155.30 155.40 155.50 156.00 156.10 156.20 156.30 156.40 156.50 157.00 157.10 157.20 157.30 157.40 157.50 158.00 158.10 158.20 158.30 158.40 158.50 159.00 159.10 159.20 159.30 159.40 159.50 160.00 160.10 160.20 160.30 160.40 160.50 161.00 161.10 161.20 161.30 161.40 161.50 162.00 162.10 162.20 162.30 162.40 162.50 163.00 163.10 163.20 163.30 163.40 163.50 164.00 164.10 164.20 164.30 164.40 164.50 165.00 165.10 165.20 165.30 165.40 165.50 166.00 166.10 166.20 166.30 166.40 166.50 167.00 167.10 167.20 167.30 167.40 167.50 168.00 168.10 168.20 168.30 168.40 168.50 169.00 169.10 169.20 169.30 169.40 169.50 170.00 170.10 170.20 170.30 170.40 170.50 171.00 171.10 171.20 171.30 171.40 171.50 172.00 172.10 172.20 172.30 172.40 172.50 173.00 173.10 173.20 173.30 173.40 173.50 174.00 174.10 174.20 174.30 174.40 174.50 175.00 175.10 175.20 175.30 175.40 175.50 176.00 176.10 176.20 176.30 176.40 176.50 177.00 177.10 177.20 177.30 177.40 177.50 178.00 178.10 178.20 178.30 178.40 178.50 179.00 179.10 179.20 179.30 179.40 179.50 180.00 180.10 180.20 180.30 180.40 180.50 181.00 181.10 181.20 181.30 181.40 181.50 182.00 182.10 182.20 182.30 182.40 182.50 183.00 183.10 183.20 183.30 183.40 183.50 184.00 184.10 184.20 184.30 184.40 184.50 185.00 185.10 185.20 185.30 185.40 185.50 186.00 186.10 186.20 186.30 186.40 186.50 187.00 187.10 187.20 187.30 187.40 187.50 188.00 188.10 188.20 188.30 188.40 188.50 189.00 189.10 189.20 189.30 189.40 189.50 190.00 190.10 190.20 190.30 190.40 190.50 191.00 191.10 191.20 191.30 191.40 191.50 192.00 192.10 192.20 192.30 192.40 192.50 193.00 193.10 193.20 193.30 193.40 193.50 194.00 194.10 194.20 194.30 194.40 194.50 195.00 195.10 195.20 195.30 195.40 195.50 196.00 196.10 196.20 196.30 196.40 196.50 197.00 197.10 197.20 197.30 197.40 197.50 198.00 198.10 198.20 198.30 198.40 198.50 199.00 199.10 199.20 199.30 199.40 199.50 200.00 200.10 200.20 200.30 200.40 200.50 201.00 201.10 201.20 201.30 201.40 201.50 202.00 202.10 202.20 202.30 202.40 202.50 203.00 203.10 203.20 203.30 203.40 203.50 204.00 204.10 204.20 204.30 204.40 204.50 205.00 205.10 205.20 205.30 205.40 205.50 206.00 206.10 206.20 206.30 206.40 206.50 207.00 207.10 207.20 207.30 207.40 207.50 208.00 208.10 208.20 208.30 208.40 208.50 209.00 209.10 209.20 209.30 209.40 209.50 210.00 210.10 210.20 210.30 210.40 210.50 211.00 211.10 211.20 211.30 211.40 211.50 212.00 212.10 212.20 212.30 212.40 212.50 213.00 213.10 213.20 213.30 213.40 213.50 214.00 214.10 214.20 214.30 214.40 214.50 215.00 215.10 215.20 215.30 215.40 215.50 216.00 216.10 216.20 216.30 216.40 216.50 217.00 217.10 217.20 217.30 217.40 217.50 218.00 218.10 218.20 218.30 218.40 218.50 219.00 219.10 219.20 219.30 219.40 219.50 220.00 220.10 220.20 220.30 220.40 220.50 221.00 221.10 221.20 221.30 221.40 221.50 222.00 222.10 222.20 222.30 222.40 222.50 223.00 223.10 223.20 223.30 223.40 223.50 224.00 224.10 224.20 224.30 224.40 224.50 225.00 225.10 225.20 225.30 225.40 225.50 226.00 226.10 226.20 226.30 226.40 226.50 227.00 227.10 227.20 227.30 227.40 227.50 228.00 228.10 228.20 228.30 228.40 228.50 229.00 229.10 229.20 229.30 229.40 229.50 230.00 230.10 230.20 230.30 230.40 230.50 231.00 231.10 231.20 231.30 231.40 231.50 232.00 232.10 232					

March 4	March 8	March 11	March 17
+0.17	+0.02	+0.04 +0.06	+0.01 +0.06
+140	+0.10	+0.50	+0.76
39 20 39 58 38 57.5 38 54.3 38 54.2 38 47.5 38 46.6 38 39.0	39 57.5 38 54.3 38 54.2 38 47.5 38 46.6 38 39.0	39 57.5 38 54.3 38 54.2 38 47.5 38 46.6 38 39.0	39 57.5 38 54.3 38 54.2 38 47.5 38 46.6 38 39.0
44	57.5	56.3	50.6
66	58.5	58.6	53.8
107	6.1	2.9	5.1
13.0	8.2	5.2	5.2
15.0	10.5	7.2	14
19.0	12.9	9.3	3.6
19.4	14.9	11.4	5.9
23.6	18.9	15.6	10.0
25.8	21.2	17.9	12.1
28.0	23.2	20.0	14.4
16 5.5	23.45	25.86	31.55
39 15.045	120 114.5	180 78.6	300 155
15.029	39 10.409	39 7.145	39 1.409
+23.89	10.393	7.129	1.393
-	+28.73	+31.72	+37.35
+23.90	+28.43	+31.78	+37.33
- .04	- .00	- .01	- .02
- .70	- .63	- .58	- .47
+23.16	+28.10	31.19	38.32
15.03	10.39	7.183	38.33
38.19	38.48	38.38	38.28
16 38.99	16 41.97	16 41.02	16 41.44
-16 8.00	-16 8.44	-16 8.03	-16 6.91
- 2.5	- 2.5	- 2.5	- 2.5
+ 5.70	+ 6.07	+ 6.20	+ 6.60
32 43.79	32 46.41	32 45.35	32 44.25
35 +6.54	35 +13.94	35 +17.64	35 +20.74
1 -38.8	2 -38.8	2 -38.8	2 -38.7
2 33.8	2 30.1	2 25.3	2 20.3
35.9	32.4	28.2	24.4
37 34.85	37 31.25	37 26.75	37 22.65
1.81558	1.14426	1.24650	1.31681
1.92376	1.25144	1.35368	1.42399
+ 8.84	+ 1.84	+ 2.57	+ 3.654
37 43.23	37 49.07	37 49.32	37 48.89
14 54.47	15 0.74	15 0.97	15 0.54
54.87			
+36.53	+22.61	+19.78	+23.35
2.01489	2.00097	1.99814	2.00191
-103.49	-100.22	-99.57	-100.44
- 2	- 2	- 2	- 2
-60	+0.3	+0.4	+0.6
-60	-52.49	-50.46	-50.44
-1 44.12	-1 40.73	-1 40.05	-1 40.90
16 38.99	16 41.47	16 41.02	16 41.44
-16 8.50	-16 8.80	-16 8.52	-16 7.20
3.33 11.83	3.33 12.13	3.33 11.85	3.32 10.52
+ 8.70 +1.05	+ 6.00 +1.35	+ 6.20 +1.55	+ 6.60 +1.95
16 6.13	16 6.13	16 5.65	16 3.92
32 45.12	32 47.60	32 46.67	32 45.36

51 Cephei.
 m on sec
 6 40 44
 87° 14'

$\delta = -44^\circ 51'$
 $\gamma = -71'$

Sin. $\delta = 9.99949$

Co. $\delta = 8.68367$
 .11678
 8.80045

to δ $\delta A.$
 Corra = -1.11 + 0.06

Corra $\delta = +1.50$

Long $\delta = +20.75$

$\pm = 42.68$

$K = -317$

$\alpha 6 40 44.183$

$\delta 87 14 884$

δ

45.353

$7.07 + 1.00 = 8.57$

1874
 $\delta = 45.353$
 $\delta + 14.707$
 $\delta + 30.285$
 $\delta - 3.627$

868316

6.78672

5.41988

1874 $\delta + 30.254$

1874 $\delta + 30.236$

1874 $\delta - 3.59$

1874 $\delta - 3.62$

Use these

$\frac{d\alpha}{dt} = +30.246$

$\frac{d\delta}{dt} = -3.62$

$\frac{d\alpha}{dt} = -3.59$

$\frac{d\delta}{dt} = -3.62$

$\frac{d\alpha}{dt} = -3.59$

$\frac{d\delta}{dt} = -3.62$

1874
 Feb. 10
 $\delta + 3.30$

$\delta + 3.20$

39 30 34 318

39 26 38 196

39 48.4 35 42.0

40 10.9

40 31.6

40 30.7

41 14.0

41 34.7

41 38.0

3245

60

2645

Feb. 11
 $\delta + 3.30$

$\delta + 2.77$

39 30 34 318

39 26 38 196

39 48.1 35 42.0

40 10.2

40 30.6

41 19.0

41 28.7

41 39.5

38 38.3

339

361

562

2606

Feb. 12
 $\delta + 3.30$

$\delta + 2.77$

39 30 34 318

39 26 38 196

39 48.1 35 42.0

40 10.2

40 30.6

41 11.3

41 32.8

41 56.2

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Feb. 14
 $\delta + 3.30$

$\delta + 2.77$

39 30 34 318

39 26 38 196

39 48.1 35 42.0

40 10.2

40 30.6

41 11.3

41 32.8

41 56.2

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Feb. 16
 $\delta + 3.30$

$\delta + 2.77$

39 30 34 318

39 26 38 196

39 48.1 35 42.0

40 10.2

40 30.6

41 11.3

41 32.8

41 56.2

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Feb. 17
 $\delta + 3.30$

$\delta + 2.77$

39 30 34 318

39 26 38 196

39 48.1 35 42.0

40 10.2

40 30.6

41 11.3

41 32.8

41 56.2

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1874 A #1 P #4 A. Cor. 5 Cor. 6
 41 15.628 14.930
 +141.342 4.43
 +30.264
 -3.671

1874 A #1 P #4 A. Cor. 5 Cor. 6
 41 15.628 14.930
 +141.342 4.43
 +30.264
 -3.671

1575 Feb. 15 +31 +350	1575 Feb. 16 +35 +300	1575 Feb. 17 +33 +313	1575 Feb. 18 +20 +148	1575 Feb. 28 +10 +246	1575 March 4 +17 +140	
40 — 386 213 41 2.1 234 23.3 255 44.9 236 42 9.0 243 26.0 228 52.1 247	40 210.40 — 21.3 41.0 41 2.1 41 23.3 255 46.1 42 6.4 30.8 51.5 22.30	40 8.0 39 — 18.7 40.4 41 2.3 41 23.3 255 45.3 42 5.5 27.4 51.0 27.22 60 212.2	40 22.1 40 — 0.2 23.2 40.2 41 2.3 41 23.3 255 43.2 51 22.9 46.4 21.53	40 10.3 40 — 1.5 27.4 41 2.3 41 23.3 255 41 -40 50.4 14.0 32.6 25.8 77.8	40 36.6 40 — 1.3 24.1 41 2.3 41 23.3 255 41 56 27.3 46.4 11.0 32.8 231.5 51.5	
-41 23.83 40 2100 23.31 41 36.73 — 13.22 — 13.31 + 5.23 + 7.24 — 22.30 — 9.79 41 23.51 — 41 13.72 — + 62.83 50 — 37.7 2 49.4 51.9 101.3 52 50.65	40 2100 +535 +6.43 — 12.05 — 12.14 + 6.62 + 6.21 — 22.08 — 9.25 41 24.46 + 2.3 41 15.21 — 21.80 14 4.59 + 76.70 50 — 37.9 3 9.5 13.1 22.6 53 11.30	40 8.00 41 23.57 54.20 +660 +7.26 — 13.02 — 13.11 + 4.60 + 6.47 — 21.85 — 7.78 41 23.26 + 2.3 41 15.48 — 21.80 14 4.59 + 61.48 50 — 3.80 3 9.9 13.1 23.0 53 11.50	40 22.10 41 23.92 56.60 +7.58 +6.85 — 12.42 — 12.51 + 8.84 + 3.68 — 21.59 — 9.07 41 23.60 + 2.3 41 14.53 — 22.10 14 4.00 + 3.62 50 — 3.80 3 11.9 14.5 20.9 53 13.20	40 10.3 40 18.30 56.60 +8.83 +4.15 — 2.418 — 2.427 + 19.18 + 3.09 — 18.08 + 6.19 41 8.33 — 16 8.26 41 14.52 — 14 4.62 + 32.05 50 — 3.89 3 18.9 20.9 3.98 53 19.90	40 36.60 41 57.2 17.00 +19.22 +2.08 — 18.08 12.55 + 23.90 + 2.90 — 16.79 + 10.01 41 5.40 — 16 8.00 41 15.41 — 14 4.34 + 61.72 50 — 3.88 3 8.2 14.0 22.2 53 11.10	
1.79817 0.60736 +405 52 54.70 29 23.00 +4237 1.79984 +63.88 — 10 — 39 +1 2.39 14 26.0 30 35.31 — 16 9.3 — 16 9.3 — 16 8.8 — 16 8.22 + 1.79817 + 1.79984 + 63.88	1.88480 0.69399 +4.05 53 15.35 29 23.00 +3857 1.79591 +62.51 — 15.67 — 58 +1 1.78 30 33.79 — 16 9.3 — 16 9.3 — 16 8.8 — 16 8.22 + 1.88480 + 0.69399 + 4.05 53 15.35 29 23.00 +3857 1.79591 +62.51	1.46864 0.27783 +4.94 53 17.60 29 30.75 +3365 1.79591 +62.51 — 2 — 59 +1 1.90 30 32.65 — 16 9.3 — 16 9.3 — 16 8.8 — 16 8.22 + 1.46864 + 0.27783 + 4.94 53 17.60 29 30.75 +3365 1.79591 +62.51	1.78873 0.57702 +3.76 53 13.46 29 32.89 +3365 1.79105 +61.81 — 12.34 — 58.68 +1 1.13 30 34.02 — 16 9.3 — 16 9.3 — 16 8.8 — 16 8.22 + 1.78873 + 0.57702 + 3.76 53 13.46 29 32.89 +3365 1.79105 +61.81	1.51428 0.32347 +4.14 53 17.79 29 30.41 +4309 1.80049 +63.17 — 3.69 — 59 +1 2.55 30 33.11 — 16 9.3 — 16 9.3 — 16 8.8 — 16 8.22 + 1.51428 + 0.32347 + 4.14 53 17.79 29 30.41 +4309 1.80049 +63.17	1.50583 0.31502 +2.06 53 18.75 29 33.34 +4454 1.80194 +63.38 — 3.88 — 78 +1 2.48 30 35.95 — 16 9.3 — 16 9.3 — 16 8.8 — 16 8.22 + 1.50583 + 0.31502 + 2.06 53 18.75 29 33.34 +4454 1.80194 +63.38	1.68735 0.49654 +3.98 53 14.31 29 33.27 +3655 1.79395 +62.22 — 10.83 — 76 +1 1.48 30 34.65 — 16 9.3 — 16 9.3 — 16 8.8 — 16 8.22 + 1.68735 + 0.49654 + 3.98 53 14.31 29 33.27 +3655 1.79395 +62.22

1874.0 δ
 43.50
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1875.0 δ
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3.42

March 8 $+0.02$ $+0.010$				March 11 $+0.04 +0.06$ $+0.050$				March 17 $+0.01 +0.06$ $+0.076$				March 18 $+0.10 +0.06$ $+0.140$			
39	40	24		39	40	366	39	39	511	39	39	524			
35.0				333				248			200				
58.3				546				43.7			41.3				
40	18.3	41	41.7	40	15.4	41	464	40	3.5	40	16				
40.8				35.2				26.3	41	14.2	230	40	57.4		
41	1.1			56.5				47.9			44.5				
23.7				19.3				12.1			64				
44.2				40.1				30.8			27.6				
42	6.5			0.9				52.1			49.0				
28.8				24.0				15.2			17.4				
25.87				28.05				25.28			22.48				
18.7				82.05				24.0			480				
								16.28			404.8				
41	20.8	40	2.40	40	36.60	40	36.60	41	51.10	39	52.40	40	57.40		
1.76	+28.73			57.51	+31.72			51.10	47.65	+37.35	44.66	+38.30			
28.01	+ .42			28.37	+ .83			26.20	+ .21		25.81	+ 2.08			
27.85				30.86	+ 1.24			35.10	38.55	+ 1.24	4.115	+ 1.24			
27.94	- 15.18			30.95	- 13.94			35.18	- 11.77		41.24	- 11.38			
	15.73				17.36				14.68			14.90			
+ 28.73				+ 31.72				+ 34.34			+ 38.30				
+ 0.21				+ 1.03				+ 1.57			+ 3.52				
- 15.18				- 13.94				- 11.77			- 11.38				
+ 13.76	30	35.68		+ 15.88	30	35.81		+ 24.14	34.80		+ 30.49	36.13			
41	1.76	- 16	84.4	40	57.51	- 16	80.3	40	57.10	- 16	6.91	40	44.66	- 16	7.29
41	15.52	- 25.70		41	16.39	- 26.00		41	15.24	- 26.50	41	15.15	- 26.60		
	14	39.4			14	4.18			14	3.89		14	4.64		
+ 59.68	- 39.62	+ 21.23	- 48.57	+ 60.32	- 22.78	+ 52.58	- 12.12								
50	3.1	3	11.5	3	5.6	3	9.6	3	4.6	3	10.7	3	7.1	3	11.9
11.9				15.1				14.1			20.0	11.9			15.5
17.0				20.7				18.7			30.7	19.0			7.4
53	8.50	53	14.60	53	10.35	53	14.70	53	9.35	53	15.35	53	9.50	53	13.70
1.77583	1.59791 _m	1.32695	1.68637 _m	1.78046	1.35755 _m	1.72082	1.09412 _m								
0.58502	0.40710 _m	0.13614	0.49556 _m	0.58965	0.36074 _m	0.53001	9.90331 _m								
+385	- 2.55	+ 1.37	+ 313	+ 389	- 2.29	+ 339	- 0.80								
53	12.35	53	12.05	53	11.72	53	11.57	53	13.24	53	13.06	53	12.89	53	12.90
29	36.00	36.30	29	36.63	36.78	29	35.11	35.29	29	35.46	35.45				
36.15			36.70			35.20									
+ 22.64				+ 19.81				+ 23.58							
1.78004	1.78004	1.77721	1.77721	1.78098	1.78098	1.78782	1.78782								
+60.26	+60.26	+59.87	+59.87	+60.39	+60.39	+61.35	+61.35								
- 10.73	- 04	- 10.76	- 06	- 10.79	- 14	- 7.67	- 00								
- 65	- 67	- 67	- 67	- 67	- 67	- 64	- 64								
+ 59.51	+ 59.55	+ 59.08	+ 59.14	+ 59.62	+ 59.58	+ 0.64	+ 0.71								
30.1		30.4		30.9		31.0									
30	35.51	35.85	30	35.71	35.92	30	34.73	34.87	30	36.70	36.16				
- 16	5.4	5.8		5.3	5.5		3.8	4.0		5.1	6.2				
- 10	5.6	- 16	31.75	5.4	- 16	31.72	3.9	- 16	30.96	5.1	- 16	35.61			
- 16	4.1	6.05	3.76	3.9	3.4		2.4			3.6		4.49			
- 16	8.80	29.37	4.10	8.45	5.77	4.15	- 7.20	4.46	3.71	- 7.75	5.01	4.55			
	2.75	14	3.43	2.75	29.67	4.04	2.74	30.17	3.54	2.74	30.27	11.52			
	25.70														

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A Geminor
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+ 34° 7'
+ 8° 16'
+ .14 18

Lin. S 974887

Box 8 9.91798
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1874		1875		1876		1877		1878	
Feb.	9	44	29.92			6	47.3		
	14		24.87	-0.5			47.7	+4	
	19		29.80	.06			48.1	.4	
	24		29.15	.06			48.5	.4	
Mar.	1		29.68	.07			48.8	.3	
	6		29.60	.08			49.1	.3	
	11		29.51	.09			49.4	.3	
	16		29.42	.09			49.6	.2	
	21		29.32	.10			49.8	.2	

1874

	3
L	28.925
S	+ 6.3852
d ₂	+ 3.960
d ₃	- 3.898
d ₄	

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15 Lyncis.
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 +58° 35'
 Z = -16° 12'
 -28

Sin 8 9.93115
 Cos 8 9.71705
 11678
 9.83383

1874 3
 2 21618
 5 +35 370
 47 +5.216
 85 -4.180

1874
 Feb. 7 46 23.30 -09 34 77.7
 14 23.26 -09 78.6 +.9
 19 23.16 -10 79.5 .9
 24 23.04 -12 80.2 .7
 Mar. 1 22.92 -12 80.9 .7
 6 22.78 -14 81.5 .6
 11 22.64 -14 82.0 .5
 16 22.48 -16 82.4 .4
 21 22.31 -17 82.8 .4

1874 Feb. 17 +2.29				1874 March 8 +1.17 +1.144				1874 March 21 +0.04 +0.06				1875 Feb. 18 +2.20 +1.18				1875 Feb. 28 +1.10 +2.46				1875 March 8 +0.02 +0.10				
45-260	45-198	46-104	45-504	46-104	45-504	46-104	45-504	46-104	45-504	46-104	45-504	46-104	45-504	46-104	45-504	46-104	45-504	46-104	45-504	46-104	45-504	46-104	45-504	46-104
297	228	180	370	297	228	180	370	297	228	180	370	297	228	180	370	297	228	180	370	297	228	180	370	297
338	280	180	370	338	280	180	370	338	280	180	370	338	280	180	370	338	280	180	370	338	280	180	370	338
416	338	280	370	416	338	280	370	416	338	280	370	416	338	280	370	416	338	280	370	416	338	280	370	416
443	388	338	416	443	388	338	416	443	388	338	416	443	388	338	416	443	388	338	416	443	388	338	416	443
471	438	388	464	471	438	388	464	471	438	388	464	471	438	388	464	471	438	388	464	471	438	388	464	471
535	492	438	518	535	492	438	518	535	492	438	518	535	492	438	518	535	492	438	518	535	492	438	518	535
574	535	492	567	574	535	492	567	574	535	492	567	574	535	492	567	574	535	492	567	574	535	492	567	574
594	574	535	581	594	574	535	581	594	574	535	581	594	574	535	581	594	574	535	581	594	574	535	581	594
62	594	574	607	62	594	574	607	62	594	574	607	62	594	574	607	62	594	574	607	62	594	574	607	62
134	62	594	586	134	62	594	586	134	62	594	586	134	62	594	586	134	62	594	586	134	62	594	586	134
3649	180	5449	45 23.20	3649	180	5449	45 23.20	3649	180	5449	45 23.20	3649	180	5449	45 23.20	3649	180	5449	45 23.20	3649	180	5449	45 23.20	3649
45 49336	45 58.20	46 34855	47 1.47	45 49336	45 58.20	46 34855	47 1.47	45 49336	45 58.20	46 34855	47 1.47	45 49336	45 58.20	46 34855	47 1.47	45 49336	45 58.20	46 34855	47 1.47	45 49336	45 58.20	46 34855	47 1.47	45 49336
49307	+38.15	34826	-12.29	49307	+38.15	34826	-12.29	49307	+38.15	34826	-12.29	49307	+38.15	34826	-12.29	49307	+38.15	34826	-12.29	49307	+38.15	34826	-12.29	49307
46 2320	+4.8	46 2232	+2.8	46 2320	+4.8	46 2232	+2.8	46 2320	+4.8	46 2232	+2.8	46 2320	+4.8	46 2232	+2.8	46 2320	+4.8	46 2232	+2.8	46 2320	+4.8	46 2232	+2.8	46 2320
-33.69	-15.8	+12709	-110	-33.69	-15.8	+12709	-110	-33.69	-15.8	+12709	-110	-33.69	-15.8	+12709	-110	-33.69	-15.8	+12709	-110	-33.69	-15.8	+12709	-110	-33.69
+33.21	46 2136	-12.29	2172	+33.21	46 2136	-12.29	2172	+33.21	46 2136	-12.29	2172	+33.21	46 2136	-12.29	2172	+33.21	46 2136	-12.29	2172	+33.21	46 2136	-12.29	2172	+33.21
+39	-1.58	+110	+4.116	+39	-1.58	+110	+4.116	+39	-1.58	+110	+4.116	+39	-1.58	+110	+4.116	+39	-1.58	+110	+4.116	+39	-1.58	+110	+4.116	+39
+32.02	-13.13	-	-	+32.02	-13.13	-	-	+32.02	-13.13	-	-	+32.02	-13.13	-	-	+32.02	-13.13	-	-	+32.02	-13.13	-	-	+32.02
45 49.51	42 5149	46 3483	5211	45 49.51	42 5149	46 3483	5211	45 49.51	42 5149	46 3483	5211	45 49.51	42 5149	46 3483	5211	45 49.51	42 5149	46 3483	5211	45 49.51	42 5149	46 3483	5211	45 49.51
46 21.53	7 3133	46 2170	3012	46 21.53	7 3133	46 2170	3012	46 21.53	7 3133	46 2170	3012	46 21.53	7 3133	46 2170	3012	46 21.53	7 3133	46 2170	3012	46 21.53	7 3133	46 2170	3012	46 21.53
26746	-1540	26916	-1100	26746	-1540	26916	-1100	26746	-1540	26916	-1100	26746	-1540	26916	-1100	26746	-1540	26916	-1100	26746	-1540	26916	-1100	26746
+58 35	536	35 489	35 474	+58 35	536	35 489	35 474	+58 35	536	35 489	35 474	+58 35	536	35 489	35 474	+58 35	536	35 489	35 474	+58 35	536	35 489	35 474	+58 35
+26.34	-8.66	+41.18	-25.62	+26.34	-8.66	+41.18	-25.62	+26.34	-8.66	+41.18	-25.62	+26.34	-8.66	+41.18	-25.62	+26.34	-8.66	+41.18	-25.62	+26.34	-8.66	+41.18	-25.62	+26.34
35 -304	0 24.9	4 47.0	0 34.2	35 -304	0 24.9	4 47.0	0 34.2	35 -304	0 24.9	4 47.0	0 34.2	35 -304	0 24.9	4 47.0	0 34.2	35 -304	0 24.9	4 47.0	0 34.2	35 -304	0 24.9	4 47.0	0 34.2	35 -304
4 1.7	15.5	41.8	28.9	4 1.7	15.5	41.8	28.9	4 1.7	15.5	41.8	28.9	4 1.7	15.5	41.8	28.9	4 1.7	15.5	41.8	28.9	4 1.7	15.5	41.8	28.9	4 1.7
52.9	4.04	88.8	6.31	52.9	4.04	88.8	6.31	52.9	4.04	88.8	6.31	52.9	4.04	88.8	6.31	52.9	4.04	88.8	6.31	52.9	4.04	88.8	6.31	52.9
114.6	20.20	39 44.40	40 31.55	114.6	20.20	39 44.40	40 31.55	114.6	20.20	39 44.40	40 31.55	114.6	20.20	39 44.40	40 31.55	114.6	20.20	39 44.40	40 31.55	114.6	20.20	39 44.40	40 31.55	114.6
39 56.32	40 20.20	39 44.40	40 31.55	39 56.32	40 20.20	39 44.40	40 31.55	39 56.32	40 20.20	39 44.40	40 31.55	39 56.32	40 20.20	39 44.40	40 31.55	39 56.32	40 20.20	39 44.40	40 31.55	39 56.32	40 20.20	39 44.40	40 31.55	39 56.32
142062	0.93757	1.461469	1.40858	142062	0.93757	1.461469	1.40858	142062	0.93757	1.461469	1.40858	142062	0.93757	1.461469	1.40858	142062	0.93757	1.461469	1.40858	142062	0.93757	1.461469	1.40858	142062
1.25445	0.77140	1.44852	1.24241	1.25445	0.77140	1.44852	1.24241	1.25445	0.77140	1.44852	1.24241	1.25445	0.77140	1.44852	1.24241	1.25445	0.77140	1.44852	1.24241	1.25445	0.77140	1.44852	1.24241	1.25445
+17.97	-5.90	+28.09	-17.48	+17.97	-5.90	+28.09	-17.48	+17.97	-5.90	+28.09	-17.48	+17.97	-5.90	+28.09	-17.48	+17.97	-5.90	+28.09	-17.48	+17.97	-5.90	+28.09	-17.48	+17.97
40 15.27	40 14.30	40 12.49	40 14.07	40 15.27	40 14.30	40 12.49	40 14.07	40 15.27	40 14.30	40 12.49	40 14.07	40 15.27	40 14.30	40 12.49	40 14.07	40 15.27	40 14.30	40 12.49	40 14.07	40 15.27	40 14.30	40 12.49	40 14.07	40 15.27
+58° 42 3308	3405	42 3586	3428	+58° 42 3308	3405	42 3586	3428	+58° 42 3308	3405	42 3586	3428	+58° 42 3308	3405	42 3586	3428	+58° 42 3308	3405	42 3586	3428	+58° 42 3308	3405	42 3586	3428	+58° 42 3308
-16 12 31	12 8	12 44	11 58	-16 12 31	12 8	12 44	11 58	-16 12 31	12 8	12 44	11 58	-16 12 31	12 8	12 44	11 58	-16 12 31	12 8	12 44	11 58	-16 12 31	12 8	12 44	11 58	-16 12 31
1.22370	1.22350	1.22380	1.22350	1.22370	1.22350	1.22380	1.22350	1.22370	1.22350	1.22380	1.22350	1.22370	1.22350	1.22380	1.22350	1.22370	1.22350	1.22380	1.22350	1.22370	1.22350	1.22380	1.22350	1.22370
+28.01	+1048	+731	+1702	+28.01	+1048	+731	+1702	+28.01	+1048	+731	+1702	+28.01	+1048	+731	+1702	+28.01	+1048	+731	+1702	+28.01	+1048	+731	+1702	+28.01
1.23141	1.23151	1.23428	1.23398	1.23141	1.23151	1.23428	1.23398	1.23141	1.23151	1.23428	1.23398	1.23141	1.23151	1.23428	1.23398	1.23141	1.23151	1.23428	1.23398	1.23141	1.23151	1.23428	1.23398	1.23141
+17.85	+17.84	+17.15	+17.14	+17.85	+17.84	+17.15	+17.14	+17.85	+17.84	+17.15	+17.14	+17.85	+17.84	+17.15	+17.14	+17.85	+17.84	+17.15	+17.14	+17.85	+17.84	+17.15	+17.14	+17.85
-17 +0.8	-2	-41 -10	-16	-17 +0.8	-2	-41 -10	-16	-17 +0.8	-2	-41 -10	-16	-17 +0.8	-2	-41 -10	-16	-17 +0.8	-2	-41 -10	-16	-17 +0.8	-2	-41 -10	-16	-17 +0.8
+34	+0.2	+1.33	+0.3	+34	+0.2	+1.33	+0.3	+34	+0.2	+1.33	+0.3	+34	+0.2	+1.33	+0.3	+34	+0.2	+1.33	+0.3	+34	+0.2	+1.33	+0.3	+34
+18.02	+17.84	+17.07	+17.01	+18.02	+17.84	+17.07	+17.01	+18.02	+17.84	+17.07	+17.01	+18.02</												

1874phae.proj.1472.

1875

Feb. 9	46	29.11		34	746	
14		29.03	-.08		750	+ .9
19		28.93	.10		763	.8
24		28.82	.11		770	.7
Mar. 1		28.70	.12		777	.7
6		28.57	.13		783	.6
11		28.42	.15		788	.5
16		28.26	.16		792	.4
21		28.08	.18		795	.3

1875
26.834
+34 59.52
+5.216
-11.188

corr₁ = -0.04
corr₂ = +.29
lang₁ = +1.64 1.92
± = 3.96
K = -0.29

March 11	March 29
45- +.050	45- +.000
46 8.3	45 44.0
48.9	27.8
51.0	31.7
52.8	35.7
54.6	39.1
56.4	43.4
58.2	47.7
60.0	52.0
61.8	56.3
63.6	60.6
65.4	64.9
67.2	69.2
69.0	73.5
70.8	77.8
72.6	82.1
74.4	86.4
76.2	90.7
78.0	95.0
79.8	99.3
81.6	103.6
83.4	107.9
85.2	112.2
87.0	116.5
88.8	120.8
90.6	125.1
92.4	129.4
94.2	133.7
96.0	138.0
97.8	142.3
99.6	146.6
101.4	150.9
103.2	155.2
105.0	159.5
106.8	163.8
108.6	168.1
110.4	172.4
112.2	176.7
114.0	181.0
115.8	185.3
117.6	189.6
119.4	193.9
121.2	198.2
123.0	202.5
124.8	206.8
126.6	211.1
128.4	215.4
130.2	219.7
132.0	224.0
133.8	228.3
135.6	232.6
137.4	236.9
139.2	241.2
141.0	245.5
142.8	249.8
144.6	254.1
146.4	258.4
148.2	262.7
150.0	267.0
151.8	271.3
153.6	275.6
155.4	279.9
157.2	284.2
159.0	288.5
160.8	292.8
162.6	297.1
164.4	301.4
166.2	305.7
168.0	310.0
169.8	314.3
171.6	318.6
173.4	322.9
175.2	327.2
177.0	331.5
178.8	335.8
180.6	340.1
182.4	344.4
184.2	348.7
186.0	353.0
187.8	357.3
189.6	361.6
191.4	365.9
193.2	370.2
195.0	374.5
196.8	378.8
198.6	383.1
200.4	387.4
202.2	391.7
204.0	396.0
205.8	400.3
207.6	404.6
209.4	408.9
211.2	413.2
213.0	417.5
214.8	421.8
216.6	426.1
218.4	430.4
220.2	434.7
222.0	439.0
223.8	443.3
225.6	447.6
227.4	451.9
229.2	456.2
231.0	460.5
232.8	464.8
234.6	469.1
236.4	473.4
238.2	477.7
240.0	482.0
241.8	486.3
243.6	490.6
245.4	494.9
247.2	499.2
249.0	503.5
250.8	507.8
252.6	512.1
254.4	516.4
256.2	520.7
258.0	525.0
259.8	529.3
261.6	533.6
263.4	537.9
265.2	542.2
267.0	546.5
268.8	550.8
270.6	555.1
272.4	559.4
274.2	563.7
276.0	568.0
277.8	572.3
279.6	576.6
281.4	580.9
283.2	585.2
285.0	589.5
286.8	593.8
288.6	598.1
290.4	602.4
292.2	606.7
294.0	611.0
295.8	615.3
297.6	619.6
299.4	623.9
301.2	628.2
303.0	632.5
304.8	636.8
306.6	641.1
308.4	645.4
310.2	649.7
312.0	654.0
313.8	658.3
315.6	662.6
317.4	666.9
319.2	671.2
321.0	675.5
322.8	679.8
324.6	684.1
326.4	688.4
328.2	692.7
330.0	697.0
331.8	701.3
333.6	705.6
335.4	709.9
337.2	714.2
339.0	718.5
340.8	722.8
342.6	727.1
344.4	731.4
346.2	735.7
348.0	740.0
349.8	744.3
351.6	748.6
353.4	752.9
355.2	757.2
357.0	761.5
358.8	765.8
360.6	770.1
362.4	774.4
364.2	778.7
366.0	783.0
367.8	787.3
369.6	791.6
371.4	795.9
373.2	800.2
375.0	804.5
376.8	808.8
378.6	813.1
380.4	817.4
382.2	821.7
384.0	826.0
385.8	830.3
387.6	834.6
389.4	838.9
391.2	843.2
393.0	847.5
394.8	851.8
396.6	856.1
398.4	860.4
400.2	864.7
402.0	869.0
403.8	873.3
405.6	877.6
407.4	881.9
409.2	886.2
411.0	890.5
412.8	894.8
414.6	899.1
416.4	903.4
418.2	907.7
420.0	912.0
421.8	916.3
423.6	920.6
425.4	924.9
427.2	929.2
429.0	933.5
430.8	937.8
432.6	942.1
434.4	946.4
436.2	950.7
438.0	955.0
439.8	959.3
441.6	963.6
443.4	967.9
445.2	972.2
447.0	976.5
448.8	980.8
450.6	985.1
452.4	989.4
454.2	993.7
456.0	998.0
457.8	1002.3
459.6	1006.6
461.4	1010.9
463.2	1015.2
465.0	1019.5
466.8	1023.8
468.6	1028.1
470.4	1032.4
472.2	1036.7
474.0	1041.0
475.8	1045.3
477.6	1049.6
479.4	1053.9
481.2	1058.2
483.0	1062.5
484.8	1066.8
486.6	1071.1
488.4	1075.4
490.2	1079.7
492.0	1084.0
493.8	1088.3
495.6	1092.6
497.4	1096.9
499.2	1101.2
501.0	1105.5
502.8	1109.8
504.6	1114.1
506.4	1118.4
508.2	1122.7
510.0	1127.0
511.8	1131.3
513.6	1135.6
515.4	1139.9
517.2	1144.2
519.0	1148.5
520.8	1152.8
522.6	1157.1
524.4	1161.4
526.2	1165.7
528.0	1170.0
529.8	1174.3
531.6	1178.6
533.4	1182.9
535.2	1187.2
537.0	1191.5
538.8	1195.8
540.6	1200.1
542.4	1204.4
544.2	1208.7
546.0	1213.0
547.8	1217.3
549.6	1221.6
551.4	1225.9
553.2	1230.2
555.0	1234.5
556.8	1238.8
558.6	1243.1
560.4	1247.4
562.2	1251.7
564.0	1256.0
565.8	1260.3
567.6	1264.6
569.4	1268.9
571.2	1273.2
573.0	1277.5
574.8	1281.8
576.6	1286.1
578.4	1290.4
580.2	1294.7
582.0	1299.0
583.8	1303.3
585.6	1307.6
587.4	1311.9
589.2	1316.2
591.0	1320.5
592.8	1324.8
594.6	1329.1
596.4	1333.4
598.2	1337.7
600.0	1342.0
601.8	1346.3
603.6	1350.6
605.4	1354.9
607.2	1359.2
609.0	1363.5
610.8	1367.8
612.6	1372.1
614.4	1376.4
616.2	1380.7
618.0	1385.0
619.8	1389.3
621.6	1393.6
623.4	1397.9
625.2	1402.2
627.0	1406.5
628.8	1410.8
630.6	1415.1
632.4	1419.4
634.2	1423.7
636.0	1428.0
637.8	1432.3
639.6	1436.6
641.4	1440.9
643.2	1445.2
645.0	1449.5
646.8	1453.8
648.6	1458.1
650.4	1462.4
652.2	1466.7
654.0	1471.0
655.8	1475.3
657.6	1479.6
659.4	1483.9
661.2	1488.2
663.0	1492.5
664.8	1496.8
666.6	1501.1
668.4	1505.4
670.2	1509.7
672.0	1514.0
673.8	1518.3
675.6	1522.6
677.4	1526.9
679.2	1531.2
681.0	1535.5
682.8	1539.8
684.6	1544.1
686.4	1548.4
688.2	1552.7
690.0	1557.0
691.8	1561.3
693.6	1565.6
695.4	1569.9
697.2	1574.2
699.0	1578.5
700.8	1582.8
702.6	1587.1
704.4	1591.4
706.2	1595.7
708.0	1600.0
709.8	1604.3
711.6	1608.6
713.4	1612.9
715.2	1617.2
717.0	1621.5
718.8	1625.8
720.6	1630.1
722.4	1634.4
724.2	1638.7
726.0	1643.0
727.8	1647.3
729.6	1651.6
731.4	1655.9
733.2	1660.2
735.0	1664.5
736.8	1668.8
738.6	1673.1
740.4	1677.4
742.2	1681.7
744.0	1686.0
745.8	1690.3
747.6	1694.6
749.4	1698.9
751.2	1703.2
753.0	1707.5
754.8	1711.8
756.6	1716.1
758.4	1720.4
760.2	1724.7
762.0	1729.0
763.8	1733.3
765.6	1737.6
767.4	1741.9
769.2	1746.2
771.0	1750.5
772.8	1754.8
774.6	1759.1
776.4	1763.4
778.2	1767.7
780.0	1772.0
781.8	1776.3
783.6	1780.6
785.4	1784.9
787.2	1789.2
789.0	1793.5
790.8	1797.8
792.6	1802.1
794.4	1806.4
796.2	1810.7
798.0	1815.0
799.8	1819.3
801.6	1823.6
803.4	1827.9
805.2	1832.2
807.0	1836.5
808.8	1840.8
810.6	1845.1
812.4	1849.4
814.2	1853.7
816.0	1858.0
817.8	1862.3
819.6	1866.6
821.4	1870.9
823.2	1875.2
825.0	1879.5
826.8	1883.8
828.6	1888.1
830.4	1892.4
832.2	1896.7
834.0	1901.0
835.8	1905.3
837.6	1909.6
839.4	1913.9
841.2	1918.2
843.0	1922.5
844.8	1926.8
846.6	1931.1
848.4	1935.4
850.2	1939.7
852.0	1944.0
853.8	1948.3
855.6	1952.6
857.4	1956.9
859.2	1961.2
861.0	1965.5
862.8	1969.8
864.6	1974.1
866.4	1978.4
868.2	1982.7
870.0	1987.0
871.8	1991.3
873.6	1995.6
875.4	2000.0
877.2	2004.3
879.0	2008.6
880.8	2012.9
882.6	2017.2
884.4	2021.5
886.2	2025.8
888.0	2030.1
889.8	2034.4
891.6	2038.7
893.4	2043.0
895.2	2047.3
897.0	2051.6
898.8	2055.

50, Draco. L. C.

18 ~~th~~ 50 27^{sec}

$$104^{\circ} \quad 43'$$
$$Z = \begin{matrix} -62 & 20 \\ -89 \end{matrix}$$

Lin. P	9.98551
Loc. P	9.40470
	.11678
	9.52168

FFA, h -	5		
X - 1850	2552		
du	-1800		
T 25-17	205	92	50,55
W	444		

$$\begin{aligned} \cos \alpha &= \\ \cos \beta &= \\ \tan \beta &= -3.81 \\ I &= 8.13 \\ K &= +0.60 \end{aligned}$$
[illegible]

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1875
50 23.90
17 6.91 42 9319
-1.904
+4.16
50 2.40490
17 1.12552
50 7.53042

NA
x 50 2382
2755
-1.904
50 17 648
1 42 5351

1875 Feb. 18		Feb. 28		March 11	
49	20.1	49	47.8	49	52.4
55.6	25.7	45.5	53.0		
59.5	35.1	49.8	2.6		
50	40	54.5			
11.9		58.3		45.8	48.5
16.2	50	2.0		58.2	50.2
20.3	98	6.3	39.1	59.3	50.25
24.5	145	10.8		58.0	48.50
28.5	222	14.8		2.0	48.5
		18.8		6.0	49.80
22.83		26.03		2	29.55
120		240			
108.3		30.3		40	
50 12.033	49 26.97	50 18.45	49 54.47	49.975	49 52.40
50 15.80	50 2.256	50 39.10	49 50.04		
12.093		2.316	49 50.10		
+ 8.84		+ 19.18	+ 31.79		
- 6.8		- 9.4	- 1.9		
+ 4.12		+ 3.43	+ 2.16		
+ 12.28		21.67	+ 34.16		
12.09		2.32	50.10		
24.37		23.99	24.26		

25 +45.06	- 3.47	25 +7.79	-36.84	25 -2.36
-3.80		-3.89		-3.88
0 42.9	0 26.9	0 28.8	0 13.7	0 12.9
47.3	30.7	35.9	19.8	25.1
10.2	57.6	64.7	13.5	38.0
25 45.10	25 28.80	25 32.35	25 16.75	25 19.00
1.65379	1.65379	1.65379	1.65379	1.65379
-1.18431	0.07075	0.42196	1.09674	9.90333
-15.28	+1.18	-2.64	+12.50	+0.80
25 29.82	25 29.98	25 29.71	25 29.25	25 19.80
2 41.47	41.63	2 41.36	40.90	57 28.55
57 18.45	18.37	57 18.54	18.10	
62 18	18	18	18	31
2.03832	2.03841	2.03841	2.03847	
+43.27		+44.66		+20.02
2.08139	2.08168	2.08307	2.08313	2.05843
+120.66	+120.69	+121.07	+121.10	+114.40
+ 5	+ 5	+ 5	+ 5	+ 2
+27.02	+ 0	+ 1.00	+18	+ 0
-14	-0.09	-11	-0.07	-0.06
+2 10.844	2 0.615	+2 1.02	+2 1.26	-1 54.36
59 19.37	19.02	59 19.66	20.36	59 22.91
-16 8.49	5.11	-7.54	4.08	-8.52
+ 3.38	-19.24	+ 3.46	-21.24	+ 3.45
- 23.70	4.2	-25.70		-27.50
-16 28.81	50.21	-16 29.78	49.88	32.57
	50.38		50.58	50.34
			50.22	

E. Sav. Maj.
6 53 43
-28° 48'
Z = + 71° 11'

$$\alpha = 653.4292$$

$$\delta = -28.481197$$

Sin δ 9.682832

cos δ 9.74866
1871 11.678
1871 .05944

cond =

cond =

long δ - .55

I = 2.36

K = .018

1875

53 42.92
48 11.47
+2.358
-4.65

hasd 994266
16 12.552
66' .06818

1874	Feb. 17	March 1	March 2	March 8	March 30	1875	Feb. 18
6 52	520	520	520	520	520	520	520
53	53	53	53	53	53	53	53
52	52	52	52	52	52	52	52
53	53	53	53	53	53	53	53
54	54	54	54	54	54	54	54
55	55	55	55	55	55	55	55
56	56	56	56	56	56	56	56
57	57	57	57	57	57	57	57
58	58	58	58	58	58	58	58
59	59	59	59	59	59	59	59
60	60	60	60	60	60	60	60
61	61	61	61	61	61	61	61
62	62	62	62	62	62	62	62
63	63	63	63	63	63	63	63
64	64	64	64	64	64	64	64
65	65	65	65	65	65	65	65
66	66	66	66	66	66	66	66
67	67	67	67	67	67	67	67
68	68	68	68	68	68	68	68
69	69	69	69	69	69	69	69
70	70	70	70	70	70	70	70
71	71	71	71	71	71	71	71
72	72	72	72	72	72	72	72
73	73	73	73	73	73	73	73
74	74	74	74	74	74	74	74
75	75	75	75	75	75	75	75
76	76	76	76	76	76	76	76
77	77	77	77	77	77	77	77
78	78	78	78	78	78	78	78
79	79	79	79	79	79	79	79
80	80	80	80	80	80	80	80
81	81	81	81	81	81	81	81
82	82	82	82	82	82	82	82
83	83	83	83	83	83	83	83
84	84	84	84	84	84	84	84
85	85	85	85	85	85	85	85
86	86	86	86	86	86	86	86
87	87	87	87	87	87	87	87
88	88	88	88	88	88	88	88
89	89	89	89	89	89	89	89
90	90	90	90	90	90	90	90
91	91	91	91	91	91	91	91
92	92	92	92	92	92	92	92
93	93	93	93	93	93	93	93
94	94	94	94	94	94	94	94
95	95	95	95	95	95	95	95
96	96	96	96	96	96	96	96
97	97	97	97	97	97	97	97
98	98	98	98	98	98	98	98
99	99	99	99	99	99	99	99
100	100	100	100	100	100	100	100

Feb. 28

~~53~~ ~~105~~ ~~52~~ ~~55.0~~
~~12.4~~ ~~57.3~~
~~15.6~~ ~~59.8~~
~~19.7~~
~~22.0~~
~~24.5~~
~~26.8~~ ~~50~~ ~~32.3~~
~~29.4~~
~~33.0~~
~~36.2~~
~~38.6~~
~~93~~
~~2683~~

March 29

~~52~~ ~~390~~ ~~52~~ ~~30.4~~
~~36.4~~
~~41.7~~ ~~35.3~~
~~46.4~~
~~48.8~~
~~51.0~~
~~53.4~~ ~~50~~ ~~4.3~~
~~55.7~~ ~~6.7~~
~~0.6~~ ~~8.5~~
~~2.9~~
~~5.2~~
~~38.21~~
~~180~~

~~52~~ ~~24391~~ ~~50~~ ~~57.57~~ ~~52~~ ~~56.21~~ ~~52~~ ~~32.97~~
~~53~~ ~~22.30~~ ~~52~~ ~~51.100~~ ~~53~~ ~~6.47~~
~~24482~~
~~24464~~ ~~51082~~

~~+~~ ~~19.19~~ ~~+~~ ~~5222~~
~~-~~ ~~.13~~ ~~-~~ ~~.00~~
~~-~~ ~~.91~~ ~~-~~ ~~.33~~
~~18.15~~ ~~+~~ ~~5189~~
~~24.46~~ ~~56.05~~
~~42.61~~ ~~42.97~~

~~50~~ ~~+27.11~~ ~~-7.82~~ ~~50~~ ~~+18.13~~ ~~-15.57~~

~~-389~~ ~~-384~~
~~1~~ ~~16.0~~ ~~1~~ ~~56.1~~ ~~1~~ ~~36.0~~ ~~2~~ ~~14.9~~
~~17.0~~ ~~57.5~~ ~~43.5~~ ~~22.8~~
~~130~~ ~~136~~ ~~195~~ ~~377~~
~~51~~ ~~16.50~~ ~~51~~ ~~56.80~~ ~~51~~ ~~39.75~~ ~~52~~ ~~18.85~~
~~1.43313~~ ~~0.89326~~ ~~1.25840~~ ~~1.18667~~
~~1.50131~~ ~~1.96139~~ ~~1.32608~~ ~~1.25785~~
~~+31.72~~ ~~-9.18~~ ~~+21.21~~ ~~-17.98~~
~~51~~ ~~48.32~~ ~~50~~ ~~47.65~~ ~~52~~ ~~0.96~~ ~~52~~ ~~0.87~~

~~28~~ ~~59.97~~ ~~59.30~~ ~~29~~ ~~1261~~ ~~125.2~~
~~59.63~~ ~~12.56~~

~~7~~ ~~52~~ ~~8~~ ~~31~~
~~2.222~~ ~~36~~ ~~2.222~~ ~~60~~

~~+4470~~ ~~+1935~~
~~2.26685~~ ~~2.26726~~ ~~2.24171~~ ~~2.24195~~
~~-184.86~~ ~~-185.03~~ ~~-174.45~~ ~~-174.55~~
~~-1.16~~ ~~-1.16~~ ~~-1.08~~ ~~-1.08~~ ~~-1.08~~ ~~-1.08~~
~~-30~~ ~~-44~~ ~~-34~~ ~~-46~~
~~-3~~ ~~8.16~~ ~~-3~~ ~~8.62~~ ~~-2~~ ~~34.76~~ ~~-2~~ ~~55.01~~
~~32~~ ~~513~~ ~~492~~ ~~32~~ ~~737~~ ~~753~~
~~-16~~ ~~7.54~~ ~~11.33~~ ~~-8.53~~ ~~12.17~~
~~-~~ ~~3.69~~ ~~+1.15~~ ~~-3.64~~ ~~+1.25~~
~~+~~ ~~5.82~~ ~~+5.80~~

~~-16~~ ~~5.43~~ ~~10.56~~ ~~13.64~~
~~10.35~~ ~~6.27~~ ~~13.80~~
~~10.95~~ ~~13.72~~

7 Geminor.
6^h 56^m 42^{sec.}
+20° 45'

$$z = +21 \quad 38$$

Sind	9.54936
Coz. D	9.97087
	.11678
	.08765

1874	36 ^m	35 ⁰⁰	45'	18 ⁸	
Feb.	9	35 ⁰⁰		18 ⁸	
	14	35 ⁴⁶	-04	15.9	+1
	17	38.92	.04	16.0	.1
	24	38.87	.05	16.1	.1
Mar.	1	38.81	.06	16.3	.2
	6	38.74	.07	16.5	.2
	11	38.67	.07	16.6	.1
	16	38.59	.08	16.7	.1
	21	38.50	.08	16.7	.2
	26	38.41	.09	17.0	.2
	31	38.32	.09	17.1	.2

1874
2 38.096
S + 45 10.47
45 + 3.563
45 - 4.907

[illegible]

1875	1875	1875
56 9 56 42.89	45 11 5 11.9	45 11 5 11.9
19 42.85	12.0	12.0
24 42.80	12.1	12.1
42.74	12.3	12.3
42.67	12.4	12.4
42.60	12.5	12.5
42.52	12.6	12.6
42.43	12.8	12.8
42.35	12.9	12.9
42.27	13.0	13.0

1875
41.659
+45.556
+3.563
-4.912
Lead 9.97087
12.052
12.09639

corr₀ =
corr₁ =
lang₀ = +.88
I = 2.20
K = -.017

1875	1875	1875
Feb. 18	Feb. 28	March 29.
56 30.9 56 8.4	56 10.2 56 0.7	55 36.9 55 20.7
22.9	10.5	20.4
25.1	12.0	41.4
29.5	19.0	45.8
31.7	21.1	48.0
33.9	23.4	50.1
36.0 59 0.0	25.5 56 4.48	52.4
38.3	27.0	54.6
42.8	32.2	59.0
45.0	34.5	7.1
49.1	36.7	3.4
3730	2575	4318
56 18.30	56 2.83	55 18 22.80
56 33.909 57 3.07	56 23.409 56 46.47	55 50.164
33.892	23.392	50.147
56 42.86	42.75	42.30
-8.04	-19.36	-52.15
+ 8.85 56 4.61	+ 19.19	+ 52.23
+ .07	+ .09	+ .00
- 12.0	- 1.09	- 0.64
+ 7.72	+ 18.19	+ 51.59
56 33.89 1 31.51	56 23.39	55 50.15
56 41.61 -16 8.26	56 41.58 -16 7.17	56 41.74 -16 8.11
-6.40	-1.3	-1.2
20 45 5.5 5	45 6.07	45 5.99

20 +23.61	-28.16	+21.58	-23.06	20 +27.86
-380	-389	-384	-384	-384
0 31.8 1 36.0	0 35.0	1 29.2 0 23.1	1 29.8	1 29.8
31.9 36.9	38.0	29.9 31.7	38.9	38.9
1 1.7 9 13.0	11 54.8	6.4	6.4	6.4
20 31.85 21 36.45	20 36.50	21 29.55 20 27.40	21 34.35	21 34.35
1.37310 1.44963	1.39345	1.36282 1.43712	1.43712	1.43712
1.46749 1.54682	1.40584	1.40726 1.53851	1.53851	1.53851
+21.48 -35.16	+25.70	-08.77 +34.13	+27.11	+27.11
21 1.33 21 1.29	21 2.30	21 0.76 20 5.53	156 1.03	156 1.03
1 47.02 47.06	1 46.15	47.59 53.82	46.79	46.79
36 44 37 48	37 48	37 48	37 48	37 48
1.35810 1.35850	+44.73	+ 19.39	+ 19.39	+ 19.39
+43.38				
1.40148 1.40188	1.40283	1.40323	1.37749	1.37789
-25.20 -25.23	-25.28	-25.31	-23.85	-23.57
-10 -21 -15 -33	-08 -33	-10 -35	-14 -24	-32
-09 -29	-14 -35	-10 -35	-10 -35	-32
-25.39 -25.67	-25.50 -25.76	-24.09	-24.09	-24.09
1 21.63 21.39	1 20.65 21.83	1 22.70	1 22.70	1 22.70
12 12 12 12	12 12	12 12	12 12	12 12
-16 96 94	84 95	84 95	84 95	84 95
-16 95 -16 16.29	8.9 -16 15.67	8.9 -16 15.67	8.9 -16 15.67	8.9 -16 15.67
-16 8.49 989.534	-7.54 8.97498	-7.53 8.95	-7.53 8.95	-7.53 8.95
1.40 5.10	1.43 6.16	1.42 6.16	1.42 6.16	1.42 6.16
6.40 45 5.23	6.40 5.23	6.40 5.23	6.40 5.23	6.40 5.23

63 Aurigae.
 γ 3^{sec}
 $+39^{\circ} 31'$
 $z = +2^{\circ} 52'$
 $+ .05$

1874

Feb.	9	2 ^m	60.36		
	14		60.31	-.05	
	19		60.26	.05	
	24		60.20	.06	
Mar.	1		60.13	.07	
	6		60.05	.08	
	11		59.96	.09	
	16		59.86	.10	
	21		59.76	.10	

31	34.2	
"	34.8	+6
"	35.3	.5
"	35.8	.5
"	36.3	.5
"	36.7	.4
"	37.1	.4
"	37.4	.3
"	37.7	.3

1874
 $59.168''$
 $+31.52503$
 $+4.138$
 -5.423
 59.88430
 59.11678
 59.00408
 $\sin 9.80366$

corr. $\alpha = -0.16''$
 corr. $\delta = -61''$
 long. $\delta = +82$
 $I = .269$
 $K = -.020$

x 1874 Feb. 18 +2.28				x March 4 +0.4				x March 21 +0.4				
3	10.1	2	59.0	2	3.20	3	11.6	2	4.06	3	23.8	
	12.8	0	0.0		1.7				4.87		36.4	
	15.4	3	3.4		4.4				5.1		38.5	
	20.7				9.9				12.0			
	23.4				12.5				15.2			
	26.1				15.2				18.4			
	28.9	3	45.2		17.8	3	48.0	3	2.1			
	31.3		48.0		20.5		50.2		7.8		24.2	
	37.0		50.3		25.8		52.9		13.1		26.7	
	39.5				28.5				15.8			
	42.2				31.2				18.4			
	28.76				22.65				32.63			
					60				300			
3	26.145	3	1.10	3	16.65	3	11.60	3	2.63	3	36.23	
	26.125	3	47.83	3	15.136	3	50.37	3	2.391	3	24.10	
3	0.27		-26.13		15.116		-13.70		2.371		-2.64	
	+25.85		+2.3	3	4.8		+0.3	2	59.76		+0.3	
	+25.87				+15.04				+2.61			
			-1.10		+15.06		-0.91		+2.63		-0.59	
	22	59.13					59.14				59.14	
	-26.10				15.10				-2.64			
	+ .17				+ .02				+ .00			
	- 1.10	+3.038			- 0.91	+3.228			- 0.59	3.548		
	- 27.03	89	4.72		- 15.99		66.1		- 3.23		7.10	
3	26.12	7	36.06	3	15.12	7	30.74	3	2.37	7	3.928	
			-2								-2	
2	59.09	-10.20	2	59.13	-11.60	2	59.14	-12.70				
	322837.31	2426		3268	31	341.7		3278	31	249.3		
	+2504	-2169	40	+354	-3523	+26.16	-21.71					
40												
	3	20.0	8	7.2	(3)	35.2	4	13.4	3	11.1	3	59.9
		10.7		57.9		36.3		14.9		12.7		1.4
		30.7		125.1		11.5		8.3		3.8		10.4
43	15.35	44	255	43	35.75	44	14.15	43	11.90	44	0.20	
	1.39843	1.33626	0.54960	1.34691	1.41764	1.33666						
	1.40371	1.34034	0.55308	1.55079	1.42172	1.34074						
	+25.28	-21.90	+3.57	-36.36	+26.41	-21.92						
43	40.63	43	40.65	43	37.32	43	38.57	43	38.31	43	38.28	
	+39° 39'	7.72	7.70	39	9.03	9.76	39	10.04	10.07			
	+2	50	47	51	35	50	44	51	32			
	0.45690	0.45890				0.45660	0.45880					
	+32.13				+254		+741					
	0.48903	0.49103	0.45944	0.46144	0.46401	0.46611						
	-3.08	-3.10	-2.88	-2.89	-2.91	-2.92						
	-17	+11	-12	-	0	+11	-33	-18	-04	-12		
	+22		+28		+25		+29	+10		+12		
	-3.03	-2.94	-2.63	-2.63	-2.99	-2.92						
39	4.69	4.76	39	6.40	6.83	39	7.05	7.15				
31	38.2			36.6			37.7					
	28.5	29.6		29.8	30.2		29.4	29.5				
-7	29.53	40.68		30.80	42.8		29.55	42.29				
-7	30.2	31	24.01	30.6	23.59		30.1	24.76				
-7	30.33	30.18	24.08	-7	31.05	31.21	29.42	29.59				
-7	15	15.62	24.08	15	16	17.02	24.04	17	18.12	24.81		
-7												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics

Star Maj.
 Jan 3rd 18th
 -26° 11'

$\gamma = +68$ 34
 $\delta = +93$
 $\alpha = 1859$
 $\delta = +2.489$
 $\gamma = -26$ 11
 $\delta = -5.46$

Sin. δ 9.64466m
 Cos. δ 9.75298
 11678
 .06976

NAK ~ 5
 $\alpha = 7$ 3 16.153 11593
 $+2.440$ 2.439

$\delta = -26$ 11 3880 1144.23
 -5.43 -5.44

1875
 $\alpha = 8.306$ 3 18.59
 $+31.1960$ 11 47.24
 $+4.158$ +2.439
 -5.429 -5.46
 1875 9.95298
 11678
 .07880

Corr. $\alpha =$
 Corr. $\delta =$
 Long. $\delta = -48.9$
 $I = 2.38$
 $K = .017$

1874	1874	1875	Feb. 28	March 29
March 8	March 30	Feb. 18	Feb. 28	March 29
7 3 13.3 3	1.6 2 58.4 2	54.4 2 57.2 2	443 2	13.0 1 59.0
17.4	8.2	59.5	46.2	15.4
17.9	5.7	58.1 3	48.3	17.7
24.5	9.0	6.8	55.6	26.2
26.7	10.3	8.6	58.0	24.5
28.0	12.5	10.8	0.2	26.8
31.1 3	14.8	18.2 3	32.5 3	24.2 2
32.6	17.2	15.5	35.4	31.4
33.2	21.0	20.0	38.0	36.0
40.6	24.0	22.4	—	38.3
42.7	26.3	24.6	—	40.6
3195	1978	2399	3014	2951
3 29.045 3	3 12.527	3 10.920 3	3 0.280	2 26.827 2
29.028	12.510	10.883	0.263	26.810
-122.6	+3.83	+8.85	+19.19	+52.23
-1.07	-1.01	-1.09	-1.12	-1.00
-1.57	-1.19	-1.09	-1.12	-1.39
-12.90	+3.68	+7.67	+18.12	+51.84
29.13	12.51	10.88	0.26	26.81
16.13	16.19	18.55	18.38	18.65
18.569	16.160	18.629	18.556	18.556
+2587	-30.43	+16.23	+24.63	+25.26
20	20	15	15	15
4 8.1 0	4 13.6 4	0 17.8	0 14.8	0 25.4
0.0	5.9	17.1	15.3	31.8
8.1	19.5	9	10.1	57.2
24 4.05 25	24 9.75 24	15 17.45	16 15.05	15 28.60
1.41280	1.43830	1.39146	1.38917	1.40213
1.48262	1.55306	1.46996	1.46967	1.48093
+30.38	-35.73	+29.51	-29.35	+30.27
24 34.43 24	34.02 24	15 46.96	15 45.70	15 58.87
37.61	37.61	52 38.61	57.35	53 10.52
46.08	45.67	57.98	57.35	10.18
45.87	49.26	31 29	31 29	31 41
2.16230	2.16270	2.16227	2.16263	2.16234
+1063	+674	+4350	+4481	+1956
2.17293	2.17333	2.20577	2.20613	2.20708
-148.91	-149.05	-160.61	-160.75	-161.09
-4	-4	-10	-10	-11
17.38	124	+16	+16	+17
+29	+0.1	-0.5	-0.5	-0.3
-2 28.49	-2 28.49	-2 40.60	-2 40.91	-2 41.39
4 14.57	4 14.51	55 39.21	55 38.26	55 39.05
-7 30.48	-7 29.14	-16 54.9	-16 54.9	-16 54.9
33.48	33.48	12.02	12.02	11.15
3.00	3.15	3.53	3.53	3.61
+7.00	+5.10	+3.70	+3.70	+5.20
-7 26.48	-7 26.48	-16 8.22	-16 8.22	-16 8.22
4.05	4.05	47.53	47.53	47.53
40.99	40.85	46.55	46.55	46.55
41.02	41.02	47.05	47.05	47.05

1875-
 5 2886
 17 1612
 + 3.066
 - 5.63

1875
 26' .12552
 46' .12537

1875									
Feb. 28					March 23				
4 7.246					4 +1.150				
5 58.3	5	18.3	4	32.5	4	27.0	4	25.0	4 7.3
5 8.8		18.6		34.4		28.3		27.0	9.4
2.9		18.8		36.4		30.0		28.1	11.0
6.5				40.7				30.1	
8.5				42.8				35.2	
10.6				44.4				37.8	
12.8	5	42.9		46.8	5	9.0		39.3	4 55.8
14.8		44.5		48.9		10.9		41.4	57.8
18.9		46.7		52.9		13.0		45.4	59.6
21.0				55.0				47.6	
23.0				59.1				49.7	
176.9				492.0				41.01	
5 10.677	5	15.90		4 28.43	4	9.23			
5 10.61	5	44.63	4	44.727	5	10.97	4	57.282	4 57.73
				44.712				57.267	
+ 19.19				+ 44.79				+ 53.273	
- .00				- .00				- .00	
- 0.98				- 0.65				- 0.55	
+ 18.21				+ 44.14				+ 57.68	
5 10.61				4 44.71				4 57.27	
5 28.82				5 28.85				5 28.95	
								28.873	

- 5.27	- 34.00	+ 16.30	- 26.24	+ 28.15	- 20.45
20		20		20	
- 3.89		- 3.81		- 3.84	
3 59.9	3 58.5	2 36.1	3 32.8	2 18.1	3 23.5
0.1	38.9	36.7	31.6	24.9	28.9
12.0	14	8	44	43.0	124
24 0.00	33 38.70	22 36.40	23 32.20	22 21.50	23 26.20
0.72181 _n	1.53148 _m	1.21219	1.41896 _n	1.44793	1.31069 _n
0.84732 _n	1.66659 _n	1.33740	1.54447 _n	1.57344	1.43620 _n
- 7.04	- 45.35	+ 21.76	- 33.03	+ 37.45	- 27.30
22 52.96	28 53.35	22 58.16	22 47.77	22 58.75	22 58.90
1 4.61	5.00	9.81	59 58.82	0 10.60	10.55
(0) 4.80				10.57	
	38 48 39 44				
	1.72420	1.72440			
+ 44.84		+ 35.68		+ 19.61	
1.76894	1.76914	1.73988	1.76008	1.74381	1.74401
- 58.74	- 58.77	- 57.53	- 57.55	- 55.44	- 55.47
	- 31	- 27.0	- 78	- 21	- 21
- 92.57	- 83	- 52.57	- 70	- 48.58	- 68
- 37.66	59.60	58.05	58.25	- 58.92	- 56.15
211 4.27	4.60	7.86		6.52	6.70
- 16 7.54	10.18	- 7.49	10.08	- 8.53	11.14
- 2.64	6.18	- 2.59	- 5.68	- 2.61	- 6.18
- 0.55	15.33	+ 0.05		+ 0.55	17.29
- 16 10.73		- 10.03		- 10.59	
17 15.16		17.89		17.20	

15

64 Aurigae.
7^h 9^m 21^{sec}
+ 41° 6'

$$Z = +1^{\circ} 17'$$

$$\begin{array}{r} 1874 \text{ S} \\ 2 \quad 16.380 \\ 8 + 6 \quad 16.78 \\ \cancel{877} + 4.184 \\ \cancel{87} - 5.951 \end{array}$$

		1874			
Lin. S	9.81781	Feb	9	17.65	- .03
			14	17.60	- .05
Coz S	9.87712		19	17.55	- .05
	11.648		24	17.49	- .06
	9.99397	Mar.	1	17.42	- .07
			6	17.34	- .08
			11	17.25	- .09
			16	17.15	- .10
			21	17.04	- .11
			26	16.94	- .10
			31	16.83	- .11

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18 λ Geminor.
 γ 10m 55^{sec}
 $+16^{\circ} 46'$
 $2 = +25.37$
 $+1.43$

1874

Feb.	9	10 ^m	52.00	-03	45 ⁱ	60.2	
	14		52.97	04		60.3	+1
	19		51.93	04		60.3	0
	24		51.88	05		60.3	0
Mar.	1		51.83	05		60.4	1
	6		51.77	06		60.5	1
	11		51.70	07		60.6	1
	16		51.62	08		60.7	1
	21		51.54	08			1
	26		51.46	08			1
	31		51.38	08		61.0	1

1874

51.065 con =
 $+45.5604$ con =
 $+3.453$ long = $+2.29$ 1.04
 -6.140 I = 2.14
 6.98113 R = -0.06
 116.48
 109.791
 9.16011

1874
Feb. 18
 $+2.00$

11	5.0	10	33.6
	7.1		35.5
	9.4		57.6
	12.7		8.7
	15.8		10.8
	17.8		13.0
	20.1	11	27.8
	22.4		31.3
	26.5		33.6
	28.8		21.6
	30.8		23.8
			25.8
1974			1428

Feb. 24
 $+2.1$
 $+1.90$

11	0.1	10	48.4
	2.2		50.5
	4.4		52.3
	8.7		2.7
	10.8		4.8
	13.0		7.0
	15.1	11	33.7
	17.3		35.8
	21.6		37.8
	23.8		17.6
	25.8		18.8
			2560
			180

March 4
 $+0.4$
 $+0.30$

10	34.0	10	47.2
	36.2		48.9
	38.3		57.9
	2.7		38.7
	4.8		1.8
	7.0		4.0
	9.2	11	25.6
	11.2		27.5
	13.4		29.1
	17.6		14.7
	18.8		16.8
			2836
			240

March 8
 $+1.7$
 $+1.44$

10	31.1	10	43.5
	33.2		45.6
	35.3		47.3
	38.7		48.9
	1.8		52.0
	4.0		54.2
	6.1	11	36.4
	8.2		38.4
	12.7		2.8
	14.7		5.0
	16.8		7.1
			4162
			180

March 21
 $+0.4$
 $+0.00$

10	11.3	10	27.8
	43.5		30.5
	45.6		31.2
	48.9		32.0
	52.0		34.2
	54.2	11	12.7
	58.4		14.5
	2.8		16.0
	5.0		18.8
	7.1		20.8
			4760
			47.6

March 30
 $+0.4$
 $+0.30$

10	—		
	—		
	—		
	—		
	47.6	47.60	
	48.7	56	
	49.7	72	
	52.0	64	
	56.2	60	
	58.3	56	
	0.4		
		368	

1873		1874		1875		1876	
Feb.	9	55.80		45'	54.9"	2	54.518
	14	55.77	-.03		54.9	3	+45 119.90
	17	55.74	.02		54.9	4	+3.453
	24	55.69	.05		55.0	5	-6.145
Mar	7	55.64	.05		55.0		
	6	55.58	.06		55.1	6	9.98113
	11	55.51	.07		55.2	7	12.552
	16	55.43	.08		55.3	8	10.663
	21	55.35	.08		55.4		
	26	55.27	.08		55.5		
	31	55.19	.08		55.6		

[illegible]

[illegible]

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S. Draco. L.C.
7^h 12^m 31^{sec}
112° 34'

66 Aurigae.
y^h 15^m 28^{sec}
+ 40° 35'
= + 1° 28'
+ .03

1874
 $\frac{90}{\frac{25}{100}}$
 LMS 987833
 66 11678
 66 99971
 LMS 9.81622

$$\begin{array}{r} 1875 \\ 15 \overline{) 2891} \\ \underline{54} 3752 \\ \underline{+ 4169} \\ - 650 \end{array}$$
$$\begin{aligned} \text{corr } d &= \\ \text{corr } P &= \\ \text{tang } P &= +.65^{.87} \\ \pm &= 2.72^S \\ K &= -.020 \end{aligned}$$
[illegible]

1874phae.proj.1472

1874										1875										3
Ge. 1308																				
17 51																				
+68° 43'																				
-26 20																				
-44																				
Mar. 1 17 47.93										Mar. 21 17 53.60										
6 47.23 -20										26 53.84 -26										
11 47.02 .21										31 53.09 -25										
16 46.80 .22										Apr. 5 52.85 24										
21 46.57 .23										10 52.61 24										
26 46.33 .24										15 52.37 24										
31 46.09 .24										20 52.14 23										
Apr. 5 45.84 .25										25 51.92 .22										
10 45.58 .26										30 51.70 22										
X 1874										X 1874										
March 12 +26										March 22 +07 1875										
17 43.5 17 138 17 43.5										16 19.3 16 19.3										
47.1 47.1 47.1										58.4 58.4 58.4										
53.4 53.4 53.4										4.0 4.0 4.0										
54.4 54.4 54.4										6.7 6.7 6.7										
55.1 55.1 55.1										12.0 12.0 12.0										
1.9 1.9 1.9										15.2 15.2 15.2										
4.7 4.7 4.7										18.0 18.0 18.0										
7.5 7.5 7.5										21.1 21.1 21.1										
326.3 326.3 326.3										87.3 87.3 87.3										
180 180 180										16 21.23 16 21.23										
506.3 506.3 506.3										17 9.700 17 9.700										
17 56.256 17 56.256										17 9.660 17 9.660										
17 56.216 17 56.216										17 53.564 17 53.564										
17 46.994 17 46.994										17 43.908 17 43.908										
+9.235 +9.235 +9.235										+43.42 +43.42 +43.42										
-9.85 -9.85 -9.85										+43.39 +43.39 +43.39										
+6.1 +6.1 +6.1										+3.30 +3.30 +3.30										
-2.03 -2.03 -2.03										-2.29 -2.29 -2.29										
2.03+4.2784+4.2784										2.29+4.2784+4.2784										
11.27 11.27 11.27										41.40 41.40 41.40										
17 56.22 17 56.22										17 9.66 17 9.66										
17 44.95 17 44.95										17 51.06 17 51.06										
51.258 51.258 51.258										59 29.89 59 29.89										
29.34 29.34 29.34										-16 6.61 -16 6.61										
+1.44 +1.44 +1.44										+1.15 +1.15 +1.15										
-1.770 -1.770 -1.770										-2.170 -2.170 -2.170										
+6.8 4.3 4.3										4.3 3.18 4.3 3.18										
+3.23 +3.23 +3.23										+4.847 +4.847 +4.847										
-2361 -2361 -2361										+12.07 +12.07 +12.07										
+29.34 +29.34 +29.34										+4.357 +4.357 +4.357										
-36.62 -36.62 -36.62										-20.97 -20.97 -20.97										
+14.50 +14.50 +14.50										-3.79 -3.79 -3.79										
-3.35 -3.35 -3.35										3 23.2 3 23.2										
-3.39 -3.39 -3.39										3 41.1 3 41.1										
2 9.8 2 9.8										3 21.9 3 21.9										
58.4 58.4 58.4										3 53.7 3 53.7										
27.3 27.3 27.3										3 58.9 3 58.9										
3.9 3.9 3.9										3 12.6 3 12.6										
34.8 34.8 34.8										3 36.30 3 36.30										
9.4 9.4 9.4										23 24.80 23 24.80										
35.5 35.5 35.5										23 42.30 23 42.30										

1874.0
 α 44.939
 δ +43.889
 α +4.308
 δ -6.742

$\cos \delta$ 9.55988
 $\sin \delta$.11678
 $\sin \delta$ 9.67666

$\sin \delta$ 9.96932

1875.0
 α 51.246
 δ +43.224
 α +6.307
 δ -6.752

9.55988
 $\sin \delta$.12552
 $\sin \delta$ 9.68840

$\cos \delta =$
 $\cos \delta =$
 $\tan \delta = +2.57$
 $\tan \delta = +9.2 - 2.75$
 $\tan \delta = 3$
 $\tan \delta = 5.67$
 $\tan \delta = 5$
 $\tan \delta = -.040$

1874.0 δ
 α 44.95
 δ 94
 δ 96
 δ 95
 δ 44.950
 δ 9.39
 δ +.611

8.99

1875.0 δ
 α 51.06
 δ 26
 δ 51.160
 δ 2.46
 δ -.086

2.24

i Geminor
yⁿ 17^m 58^{sec}
+ 28° 3'
= + 14° 20'

1874

Mar.	1	17 ^m	5468
	6		54781
	11		54773
	16		5465
	21		5487
	26		5449
	31		5448
Apr.	5		5431
	10		5422

2 ' 543"
543
54.8
55.0
55.3
55.5
55.7
55.9
56.0

1875

Feb. 9	59.77		2	470
14	59.14	-.03		473 +
19	59.10	.04		476
24	59.05	.05		479
Mar. 7	59.00	.05		482
Mar. 14				
6	58.94	.06		484
11	58.84	.07		487
16	58.79	.08		489
21	58.70	.09		492

62

1874
Feb. 24
Ch. F.

March 24

March 5

X 1874
+17
March 8

1875
+04
Feb. 22

Feb. 24 + 00

7	17	5.59	17	45.7
		5.83		47.6
18		0.5		48.8
		5.2		
		7.6		
		9.9		
	18	12.3	30.8	
		14.5	32.8	
		19.2	34.1	
		21.5		
		23.8		
		23.87		
		120		
	10.87	17	47.66	
18	9.882	18	32.8	
	9.864		-15.08	
17	54.843		+1.02	
	+15.083			
			-0.86	
-	15.09	17	53.94	
+	0.02			
-	0.86		+2.877	
-	15.93			
18	9.86	10	23.9	
		-7	30.7	
17	53.93		-7.5	
	57.667			
	+2.8	2	47.0	

17	1140	17	33.6
	33.9		
	37.4		
	35.7		
18	21.6		
	6.8		
	9.1		
	11.4	18	34.8
	13.8		36.8
	18.4		38.6
	20.8		
	23.1		
	2803		
	279.9		
	180		
	2803		
18	9.1	17	33.60
	9.1	18	36.47
	9.1		-1443
17	34.82		+0.0
	+14.28		
	8		-0.85
-	14.46		5389
+	0.07		
-	0.85		+2587
-	15.24		
18	9.10		246
		-7	30.2
17	53.86		-7
	57597		-760
		2	46.11

17	529	17	32
	533		34
	578		405
18	582		
	46		
	69		
	92	18	16
	115		
	163		
	186		
	209		
	2562		
	180		
	762	17	4445
18	6927	18	1670
	6989		-1228
17	54787		+09
	+12134		
	-1225		-08
+	08		539
=	080		
=	1297		+2837
18	691	10	260
17	5394	7	301
	5767		-8
			-77
		2	473

17	31.7	17	17.5
	340		19.8
	364		21.9
	41.1		
	433		
	45.8		
	48.1	18	6.1
	50.5		9.2
	53.1		11.
	55.5		
	59.8		
	5033		

[illegible]

[Handwritten mathematical calculations on grid paper]

1874
 ϕ 53.974
 $+2.4688$
 $+3.737$
 -6.773

lens 9.94573
 1.6 1.1678
 1.6 1.06307

lens 9.67232

1875
 ϕ 54.711
 $+2.4010$
 $+3.737$
 -6.779

9.94573
 1.2552
 1.07125

corr d =
 corr d =

tangl = $\frac{+53}{+47}$
 $\frac{S}{I} = 2.34$

$K = -0.18$

+07
 March 23

+1.50
 16 59.716 52.8
 2.0 54.3
 4.4 56.4
 9.0
 11.4
 13.7
 16.1
 18.3
 23.0
 25.4
 27.7

210.7
 60

150.7 16 54.50

17 13.700
 13.682 +44.87
 17 58.665 +5.04
~~44.987~~

-0.94
 + 44.80 57.65
 + .08

- 0.94
 + 43.94

17 13.68 58.19

17 57.62 -16 7.13

-9.20

2 42.96

0 +19.20

-3.81

3 10.2 4 2.7

11.5 2.9

1.1 1.6

3 10.85 2.50

1.28330

1.35455

+22.62

3 33.47

19 1488

19 23 20 15

1.16740 1.16780

+86.05

1.20345 1.20385

-15.97 -15.99

-08 -72

-64 -80

-16.69

18 58.19

49.3

8.9

8.9

-16 7.49 8.44

-93 -15.98

9.20 40.55

1875

Feb.	9	20	23.52	32	24.7		Cond =
	14		23.49		24.5	-2	Cond =
	17		23.46		24.3	2	
	24		23.42		24.2	1	Lang ² = 4.15 1.01
Mar.	1		23.37		24.1	1	I = 2.08
	6		23.31		24.0	1	K = -0.16
	11		23.25		24.0	0	
	16		23.18		24.0	0	
	21		23.10		24.0	0	

1875

Feb. 22	Feb. 24	March 22	March 23	March 25	March 27
19 57.619	19 55.419	19 25.019	19 25.619	19 23.019	150
20 1.9	20 5.5	20 2.9	20 2.9	20 2.9	165
5.9	5.9	5.9	5.9	5.9	18.3
8.0	8.0	8.0	8.0	8.0	
10.8	10.8	10.8	10.8	10.8	
12.2 20	12.2 20	12.2 20	12.2 20	12.2 20	
14.4	14.4	14.4	14.4	14.4	
18.4	18.4	18.4	18.4	18.4	
20.6	20.6	20.6	20.6	20.6	
22.9	22.9	22.9	22.9	22.9	
23.17 19	23.17 19	23.17 19	23.17 19	23.17 19	
120 30	120 30	120 30	120 30	120 30	
111.7	111.7	111.7	111.7	111.7	
20 10.155	20 10.155	20 10.155	20 10.155	20 10.155	
10.139	10.139	10.139	10.139	10.139	
20 23.443	20 23.443	20 23.443	20 23.443	20 23.443	
-13.3029	-13.3029	-13.3029	-13.3029	-13.3029	
+ 13.24	+ 13.24	+ 13.24	+ 13.24	+ 13.24	
+ .01	+ .01	+ .01	+ .01	+ .01	
- 1.15	- 1.15	- 1.15	- 1.15	- 1.15	
+ 12.13	+ 12.13	+ 12.13	+ 12.13	+ 12.13	
20 10.14 48	20 10.14 48	20 10.14 48	20 10.14 48	20 10.14 48	
-16 9.00	-16 9.00	-16 9.00	-16 9.00	-16 9.00	
20 22.27	20 22.27	20 22.27	20 22.27	20 22.27	
32 21.78	32 21.78	32 21.78	32 21.78	32 21.78	
+16.82	+16.82	+16.82	+16.82	+16.82	
30 -3.83	30 -3.83	30 -3.83	30 -3.83	30 -3.83	
3 7.9	3 7.9	3 7.9	3 7.9	3 7.9	
10.1	10.1	10.1	10.1	10.1	
18.0	18.0	18.0	18.0	18.0	
33 9.00	33 9.00	33 9.00	33 9.00	33 9.00	
1.22533	1.22533	1.22533	1.22533	1.22533	
1.34650	1.34650	1.34650	1.34650	1.34650	
+22.21	+22.21	+22.21	+22.21	+22.21	
33 3.121	33 3.121	33 3.121	33 3.121	33 3.121	
49 17.14	49 17.14	49 17.14	49 17.14	49 17.14	
16.84	16.84	16.84	16.84	16.84	
49 21 50	49 21 50	49 21 50	49 21 50	49 21 50	
1.58620	1.58620	1.58620	1.58620	1.58620	
+23.47	+23.47	+23.47	+23.47	+23.47	
1.60967	1.60967	1.60967	1.60967	1.60967	
-40.71	-40.71	-40.71	-40.71	-40.71	
-01 -65	-01 -65	-01 -65	-01 -65	-01 -65	
-08	-08	-08	-08	-08	
-41.30	-41.30	-41.30	-41.30	-41.30	
48 35.84	48 35.84	48 35.84	48 35.84	48 35.84	
32 2.92	32 2.92	32 2.92	32 2.92	32 2.92	
-16 1.6	-16 1.6	-16 1.6	-16 1.6	-16 1.6	
-16 112	-16 112	-16 112	-16 112	-16 112	
-16 9.24	-16 9.24	-16 9.24	-16 9.24	-16 9.24	
2.14-9.64	2.14-9.64	2.14-9.64	2.14-9.64	2.14-9.64	
-14.0	-14.0	-14.0	-14.0	-14.0	

Mar. 1st
6
11
16
21
26
31
Apr. 5
10

Mar.	1	21
	6	
	11	
	16	
	21	
	26	
	31	
Apr.	5	
	10	

$\frac{1}{2}P +$
 $\frac{1}{2}P +$
 $\frac{1}{2}P -$
 Case
 66
 66
 66

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1874
0.248
+1.5733
+3.867
-6.754

1875
4.115
+1.5857
+3.867
-6.759

corr α $\frac{s}{s}$ +.007
corr δ $\frac{s}{s}$ -.21

tang δ $\frac{s}{s}$ +.62 1.18

I $\frac{s}{s}$ = 2.44

K $\frac{s}{s}$ = -.019

9.92826

9.92826

11.678

11.678

0.04504

0.04504

9.72461

+07 +07
March 25

+14.0
20 2.9 20 9.5
5.4 11.6
8.0 18.6
12.9
15.2
17.4
20.0 20 42.4
22.5
24.4
26.8
29.2

1940

20 17.636 20 11.57
17.617 20 42.48
21 5.121 +47.42
-47.5049 +.04
-47.50 +.08
-47.50 -1.00
21 41.8 6
+ 47.41
+ 1.09
- 1.00
+ 46.50 1083
20 17.62 -16 776
21 4.12 -1050
1 57.77

0 +6.07 -24.76

-3.79
4 16.6 4 51.4
21.7 54.6
1 38.3 6.0
4 19.15 4 5300

0.78319 1.39375
0.83697 1.4453
+6.84 -28.02
4 26.02 4 2428

18 22.33 23.37
22.85
20 51 21 5
1.02150 1.02200
+2049
1.04169 1.04249
-11.01 -11.03

-1-100 -15
-86.9 -98
-11.98 -12.16
18 10.45 11.21
1.1
9.3 10.1
2.70 -16 19.61
9.9 50.84
-16 84.3 9.11 51.60
-58 -17.26 51.22

1875

March 22				March 23				March 25				March 27			
+116				+150				+140				-073			
21	55.0	21	44.4	21	53.4	21	48.0	21	51.0	21	41.4	21	48.4	21	36.0
	54.1		46.7		55.4		44.6		53.0		43.2		50.6		38.1
	50.1		48.5		57.9		46.9		55.2		45.0		52.6		37.8
22	34			22	22			22	50.3				56.9		
	5.5				4.1				4.5				58.9		
	4.6				6.4				3.6				1.0		
	9.8	22	33.6		8.4	22	29.0		5.7	22	21.8	22	3.2	22	26.8
	12.0		35.4		10.6		31.0		7.8		23.6		5.3		25.2
	16.0		37.5		14.7		33.0		12.0		25.1		9.5		31.2
	18.2				16.9				14.1				11.7		
	20.4				19.0				16.3				13.8		
	26.41				24.94				27.95				31.19		
	18.0				18.0				24.0				30.0		
	8.41	21	46.63		6.94	21	44.83		3.95	21	43.20		11.9	21	37.97
22	7.645	22	35.50	22	6.309	22	31.01	22	3.591	22	23.50	22	10.82	22	29.10
	7.629				6.293				3.575				10.66		
+	48.39			+	44.80			+	47.41			+	48.98		
+	.02			+	.03			+	.03			-	.02		
-	0.83			-	0.83			-	0.80			-	0.77		
+	42.56			+	44.00			+	46.64			+	49.19		
22	7.63			22	6.29			22	3.57			22	1.07		
22	50.19			22	50.29			22	50.21			22	50.26		
50.338															

45	+21.01	-27.86	45	+21.48	-24.69	45	+20.37	-19.91	45	+23.11	-28.02
	-3.83			-3.81			-3.79			-3.78	
4	45.3	0	49.8	4	44.1	0	45.4	4	46.1	0	46.1
	45.0		50.1		44.8		45.3		47.8		45.3
	3		99.9		9		7		93.9		53
49	45.15	50	49.95	49	44.45	50	45.35	49	46.95	50	49.25
	49.25				49.25				49.25		49.70
1.322	4.3	1.404	9.6	1.332	0.3	1.372	2.52	1.307	4.2	1.299	0.7
1.487	9.2	1.560	0.4	1.447	3.2	1.508	0.1	1.424	9.1	1.414	5.0
	1.479				1.479				1.479		1.479
	+27.41	-36.33		+28.02	-32.22		+26.60	-23.97		+30.15	-36.55
57	1.332	50	13.60	57	12.47	57	13.13	57	13.33	50	13.28
	13.28				13.13				13.28		13.15
32	35.79		34.75	32	35.88		35.22	32	34.80		35.07
	35.27				35.55				34.93		35.07
5	54	4	2							5	55
	1.523	330	1.523	360						1.523	330
	+33.75				+36.19				+20.52		+9.60
	1.537	0.3	1.557	3.3	1.539	4.0	1.557	7.9	1.543	8.2	1.532
	-36.06		-36.09		-36.26		-36.29		-35.80		-35.00
											-34.11
	-05	-55	-08		-05	-53	-06		-04	-52	-04
	-96		-02		-94		-02		-96		-01
	-37.07		-36.19		-37.25		-36.33		-36.80		-35.05
	-37.07		-36.19		-37.25		-36.33		-36.80		-35.05
31	58.72		58.56	31	58.63		58.85	31	58.00	32	0.02
	58.72		58.56		58.63		58.85		58.00		0.02
-16	7.11		9.02		-7.49		-9.37		-8.43		10.32
	1.91	-10.71			1.90	-10.73			1.89	-10.76	
	-3.62	15	46.08		-3.64		45.60		-3.67		44.01
	-16	12.64	45.92		-13.03		45.82		-13.99		46.03
	15	46.42			45.71				45.02		
											47.16

1472. phase proj.

Geminid.
Jan 26 37
+ 32° 10'
+ 10° 13'

ain $\delta = +.18$

1874

Mar.	1	26	54.26		53.3
	6		54.19	-.07	53.7
	11		54.11	.08	54.0
	16		54.03	.08	54.3
	21		53.95	.08	54.6
	26		53.86	.04	54.9
	31		53.77	.09	55.1
Apr.	5		53.68	.09	55.3
	10		53.58	.10	55.5

1874

2	33.243
0	+9.45.08
20	+3.839
22	-7.471
Lead	9.92763
21	11.678
22	0.04441
Lead	9.72622
17	23.77

corr =
corr =
tang $\delta = +.63$ 118
I = 245
K = .019

17	27.22	17	25.33	17	26.08	17	24.16	17	21.72	24.82	17	25.02	25.19	17	25.52	24.63
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1874

March 1	March 2	March 4	March 5	March 8	March 12
7 26 +192	26 +120	26 +030	26 +140	26 +144	26 +234
305 370 26	220 359 363 26	171 344 350 26	269 337 342 26	188 316 320 26	180 291 296 26
390 395	238 384 388 26	225 369 373 26	300 362 366 26	213 340 344 26	213 315 319 26
414 418	253 407 411	393 398	386 390	365 368	338 343
463 468	268 436 460	44.3 44.7	435 440	413 417	387 391
488 493	48.0 48.5	46.7 47.2	46.1 46.4	43.7 44.2	412 416
513 517 26	425 505 509	49.2 49.6	48.4 48.8	47.3 47.8	427 431
536 542	455 530 534 27	146 514 519 27	223 509 512 27	166 511 515	460 464 26 54.9
560 565	533 538 27	180 540 544 27	235 522 526 27	177 539 543	485 489 26 57.2
09 14 27	27.1 0.2 0.6	58.9 59.4	58.1 58.5	58.3 58.7	53.9 54.3
33 37	30.9 2.7 3.1	1.2 1.7	1.5 0.8	0.9 1.2	53.9 54.4
57 62	5.1 5.4	3.8 4.2	2.7 3.3		58.2 58.7

38.28 38.83 26	22903754	3799 26	171 4202	4252 26	269 4421	4164 26	188	5092	4801	4855 26	12.2
180 180 26	260580	180 26	206 720	120 26	300 120	120 26	21.5			26	15.1
5628 5683 26	44065554	5599 27	146 5602	5452 27	223 521	5364 27	186	26 18.05		26	14.9
5164 5166 427	240050491	50900 27	180 49109	49564 27	253 49282	48764 27	19.4	4629 26	213 43645	44136 26	892
51145 51645	50472 50881	49090 49545	49545 +0.3	48354 48745	48745 +0.8			4627 -1227	43626 44717	-9.86	
163426 34.26	2634254 34284	2634.22 34.22	26 3420	3420	26 34185	34185		4627 +1.1	43626 44717	-9.86	
+16.88 +17.38	-1.02 +16.23	+16.64 -1.00	+14.87 +15.2	-0.98 +14.13	+14.54 -0.96			-0.91 +9.54	+1003 -0.85		
26 33.52	26 33.52	26 33.52	26 33.52	26 33.52	26 33.44			46 33.28	26 33.57		
-17.23	-16.47	-15.09	-14.46	-12.25	-10.9			-9.85	-9.85		
+1.2+1.2	+1.07 +.07	+1.02 +.02	+1.09 +.09	+1.09 +.09	+1.09 +.09			+1.15 +1.15	+1.15 +1.15		
-102 -102+2519	-1.00 -100+2839	-0.98 -0.98+2859	-0.96 -0.96+2879	-0.91 -0.91+2929	-0.91 -0.91+2929			-0.85 -0.85+2959	-0.85 -0.85+2959		
15.13 17 2627	1240 2512 -1605	2327 -1533	2510 -13067	2552				-1035	2420		
26 5114 5164	7301526 5047	5088 7301626 4909	4954 730726 4835	4874 730266 4629	73012			26 4363	4412 -7 2934		
26 3301 3351	-5 26 3307	3348 -5 26 3304	3349 -5 26 3302	3341 -5 26 3320	-5			26 3308	3357 -5		
36849 37349	-820 36909	37319 -830 38875	37329 -840 36859	37249 -850 37044	-880			36919 37409	-900		
329 4743	9 4636	9 4363	9 4582	1.0349 4610					9 4536		

+7.66	-3734	+3040	-2710	+1956	-3694	+2726	-3064	+2499	+2904	-1506
0 8.4 0 54.6 4 39.0 0 43.9 4 50.7 0 52.1 4 45.4 0 48.7 4 48.0 0 47.9 4 48.0 0 35.7	-4.6 52.0 36.4 42.7 51.8 53.1 39.1 43.1 41.4 40.6 35.1 23.0	3 8 66 15 4 6 6 25 52 84 5 118 9 4 85 8 31 58 7	5 1.90 5 53.30 4 37.70 5 43.30 4 51.25 5 52.60 4 42.25 5 45.90 4 44.70 5 44.25 4 41.55 5 29.35	088428 1.57 217 1.48 287 1.43 297 1.28 137 1.55 558 1.43 553 1.48 629 1.39 777	0.92 864 1.61 658 1.52 731 1.47 738 1.32 548 1.59 999 1.47 994 1.53 090 1.44 228	+848 -4136 +3368 -3022 +2117 -3981 +3020 -3394 +2768	+5 1038 1194 5 1138 -5028 5 1642 1279 5 1245 1196 5 1238	17 3797 3691 17 3697 3507 17 3193 3556 17 3590 3639 17 3597 35.97	1.46 300 1.17 782 1.50 741 1.22 123 +3217 -1664 5 1372 1271	17 3463 3564 17 3513
+10 12 34 13 25	1.01580 1.016410	+1572	+1445	+438	+2667	+1083	+2466			
1.03082 1.03142	1.03625 1.03085	1.02018 1.02078	1.04247 1.04307	1.02663 1.02723	1.04046 1.04106					
-10.73 -10.75	-10.72 -10.74	-10.17 -10.19	-1103 -1104	-10.63 -10.65	-10.98 -10.99					
-0.02 -17 -34	-22 -17 -18	-8 -01 -31	-18 -01 -22	-15 -18 -	-21 -05 -5					
+00 +01	+05 +01	+34 +06	+33 +06	+33 +05	+33 +05					
8 3075 -11.08	-10.89 -10.91	-10.78 21 -10.74	-10.88 -11.20	-10.45 -10.45	-10.86 -11.01					
17 2722 25.33	17 2608 24.16	17 2126 24.82	17 2519 25.19	17 2552 25.52	17 2377 24.63					
9 533	539	535	536	539	541					
-7 3040 3094	-7 3027 30.64	-7 31.05 31.62	-7 30.40 30.94	-7 30.48 31.06	-7 2951 30.09					
-57 -15.67	-57 -15.77	-54 -15.87	-57 -15.87	-58 -16.27	-58 -16.47					
-8.20 9 4805	-8.30 4694	-8.40 4302	-8.50 4118	-8.50 4055	-8.50 4055					
-7 39.17 47.10	-39.14 4598	-40.02 4324	-39.97 4563	-39.86 4566	-39.09 4554					
39.17	39.17	39.17	39.17	39.17	39.17					

+17 March 16										+18 March 24										+23 March 25										1874 +04 March 30										1875 +00 Feb. 24										+17 March 4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
26	25.5	25.8	26	16.0	187	201	26	145	190	19426	3.7	152	15.6	26	3.6	26	8.8	25	53.3	26	0.1	25	45.1	26	2.5	45.3	26	4.8	49.1	26	11.2	52.2	26	13.9	54.2	26	18.5	54.2	26	21.0	54.2	26	23.4	54.2	26	25.9	54.2	26	28.3	54.2	26	33.0	54.2	26	35.6	54.2	26	38.0	54.2	26	41.1	54.2	26	44.6	54.2	26	47.6	54.2	26	50.2	54.2	26	52.3	54.2	26	54.7	54.2	26	57.1	54.2	26	59.3	54.2	26	61.5	54.2	26	63.7	54.2	26	65.9	54.2	26	68.1	54.2	26	70.3	54.2	26	72.5	54.2	26	74.7	54.2	26	76.9	54.2	26	79.1	54.2	26	81.3	54.2	26	83.5	54.2	26	85.7	54.2	26	87.9	54.2	26	90.1	54.2	26	92.3	54.2	26	94.5	54.2	26	96.7	54.2	26	98.9	54.2	26	101.1	54.2	26	103.3	54.2	26	105.5	54.2	26	107.7	54.2	26	109.9	54.2	26	112.1	54.2	26	114.3	54.2	26	116.5	54.2	26	118.7	54.2	26	120.9	54.2	26	123.1	54.2	26	125.3	54.2	26	127.5	54.2	26	129.7	54.2	26	131.9	54.2	26	134.1	54.2	26	136.3	54.2	26	138.5	54.2	26	140.7	54.2	26	142.9	54.2	26	145.1	54.2	26	147.3	54.2	26	149.5	54.2	26	151.7	54.2	26	153.9	54.2	26	156.1	54.2	26	158.3	54.2	26	160.5	54.2	26	162.7	54.2	26	164.9	54.2	26	167.1	54.2	26	169.3	54.2	26	171.5	54.2	26	173.7	54.2	26	175.9	54.2	26	178.1	54.2	26	180.3	54.2	26	182.5	54.2	26	184.7	54.2	26	186.9	54.2	26	189.1	54.2	26	191.3	54.2	26	193.5	54.2	26	195.7	54.2	26	197.9	54.2	26	200.1	54.2	26	202.3	54.2	26	204.5	54.2	26	206.7	54.2	26	208.9	54.2	26	211.1	54.2	26	213.3	54.2	26	215.5	54.2	26	217.7	54.2	26	219.9	54.2	26	222.1	54.2	26	224.3	54.2	26	226.5	54.2	26	228.7	54.2	26	230.9	54.2	26	233.1	54.2	26	235.3	54.2	26	237.5	54.2	26	239.7	54.2	26	241.9	54.2	26	244.1	54.2	26	246.3	54.2	26	248.5	54.2	26	250.7	54.2	26	252.9	54.2	26	255.1	54.2	26	257.3	54.2	26	259.5	54.2	26	261.7	54.2	26	263.9	54.2	26	266.1	54.2	26	268.3	54.2	26	270.5	54.2	26	272.7	54.2	26	274.9	54.2	26	277.1	54.2	26	279.3	54.2	26	281.5	54.2	26	283.7	54.2	26	285.9	54.2	26	288.1	54.2	26	290.3	54.2	26	292.5	54.2	26	294.7	54.2	26	296.9	54.2	26	299.1	54.2	26	301.3	54.2	26	303.5	54.2	26	305.7	54.2	26	307.9	54.2	26	310.1	54.2	26	312.3	54.2	26	314.5	54.2	26	316.7	54.2	26	318.9	54.2	26	321.1	54.2	26	323.3	54.2	26	325.5	54.2	26	327.7	54.2	26	329.9	54.2	26	332.1	54.2	26	334.3	54.2	26	336.5	54.2	26	338.7	54.2	26	340.9	54.2	26	343.1	54.2	26	345.3	54.2	26	347.5	54.2	26	349.7	54.2	26	351.9	54.2	26	354.1	54.2	26	356.3	54.2	26	358.5	54.2	26	360.7	54.2	26	362.9	54.2	26	365.1	54.2	26	367.3	54.2	26	369.5	54.2	26	371.7	54.2	26	373.9	54.2	26	376.1	54.2	26	378.3	54.2	26	380.5	54.2	26	382.7	54.2	26	384.9	54.2	26	387.1	54.2	26	389.3	54.2	26	391.5	54.2	26	393.7	54.2	26	395.9	54.2	26	398.1	54.2	26	400.3	54.2	26	402.5	54.2	26	404.7	54.2	26	406.9	54.2	26	409.1	54.2	26	411.3	54.2	26	413.5	54.2	26	415.7	54.2	26	417.9	54.2	26	420.1	54.2	26	422.3	54.2	26	424.5	54.2	26	426.7	54.2	26	428.9	54.2	26	431.1	54.2	26	433.3	54.2	26	435.5	54.2	26	437.7	54.2	26	439.9	54.2	26	442.1	54.2	26	444.3	54.2	26	446.5	54.2	26	448.7	54.2	26	450.9	54.2	26	453.1	54.2	26	455.3	54.2	26	457.5	54.2	26	459.7	54.2	26	461.9	54.2	26	464.1	54.2	26	466.3	54.2	26	468.5	54.2	26	470.7	54.2	26	472.9	54.2	26	475.1	54.2	26	477.3	54.2	26	479.5	54.2	26	481.7	54.2	26	483.9	54.2	26	486.1	54.2	26	488.3	54.2	26	490.5	54.2	26	492.7	54.2	26	494.9	54.2	26	497.1	54.2	26	499.3	54.2	26	501.5	54.2	26	503.7	54.2	26	505.9	54.2	26	508.1	54.2	26	510.3	54.2	26	512.5	54.2	26	514.7	54.2	26	516.9	54.2	26	519.1	54.2	26	521.3	54.2	26	523.5	54.2	26	525.7	54.2	26	527.9	54.2	26	530.1	54.2	26	532.3	54.2	26	534.5	54.2	26	536.7	54.2	26	538.9	54.2	26	541.1	54.2	26	543.3	54.2	26	545.5	54.2	26	547.7	54.2	26	549.9	54.2	26	552.1	54.2	26	554.3	54.2	26	556.5	54.2	26	558.7	54.2	26	560.9	54.2	26	563.1	54.2	26	565.3	54.2	26	567.5	54.2	26	569.7	54.2	26	571.9	54.2	26	574.1	54.2	26	576.3	54.2	26	578.5	54.2	26	580.7	54.2	26	582.9	54.2	26	585.1	54.2	26	587.3	54.2	26	589.5	54.2	26	591.7	54.2	26	593.9	54.2	26	596.1	54.2	26	598.3	54.2	26	600.5	54.2	26	602.7	54.2	26	604.9	54.2	26	607.1	54.2	26	609.3	54.2	26	611.5	54.2	26	613.7	54.2	26	615.9	54.2	26	618.1	54.2	26	620.3	54.2	26	622.5	54.2	26	624.7	54.2	26	626.9	54.2	26	629.1	54.2	26	631.3	54.2	26	633.5	54.2	26	635.7	54.2	26	637.9	54.2	26	640.1	54.2	26	642.3	54.2	26	644.5	54.2	26	646.7	54.2	26	648.9	54.2	26	651.1	54.2	26	653.3	54.2	26	655.5	54.2	26	657.7	54.2	26	659.9	54.2	26	662.1	54.2	26	664.3	54.2	26	666.5	54.2	26	668.7	54.2	26	670.9	54.2	26	673.1	54.2	26	675.3	54.2	26	677.5	54.2	26	679.7	54.2	26	681.9	54.2	26	684.1	54.2	26	686.3	54.2	26	688.5	54.2	26	690.7	54.2	26	692.9	54.2	26	695.1	54.2	26	697.3	54.2	26	699.5	54.2	26	701.7	54.2	26	703.9	54.2	26	706.1	54.2	26	708.3	54.2	26	710.5	54.2	26	712.7	54.2	26	714.9	54.2	26	717.1	54.2	26	719.3	54.2	26	721.5	54.2	26	723.7	54.2	26	725.9	54.2	26	728.1	54.2	26	730.3	54.2	26	732.5	54.2	26	734.7	54.2	26	736.9	54.2	26	739.1	54.2	26	741.3	54.2	26	743.5	54.2	26	745.7	54.2	26	747.9	54.2	26	750.1	54.2	26	752.3	54.2	26	754.5	54.2	26	756.7	54.2	26	758.9	54.2	26	761.1	54.2	26	763.3	54.2	26	765.5	54.2	26	767.7	54.2	26	769.9	54.2	26	772.1	54.2	26	774.3	54.2	26	776.5	54.2	26	778.7	54.2	26	780.9	54.2	26	783.1	54.2	26	785.3	54.2	26	787.5	54.2	26	789.7	54.2	26	791.9	54.2	26	794.1	54.2	26	796.3	54.2	26	798.5	54.2	26	800.7	54.2	26	802.9	54.2	26	805.1	54.2	26	807.3	54.2	26	809.5	54.2	26	811.7	54.2	26	813.9	54.2	26	816.1	54.2	26	818.3	54.2	26	820.5	54.2	26	822.7	54.2	26	824.9	54.2	26	827.1	54.2	26	829.3	54.2	26	831.5	54.2	26	833.7	54.2	26	835.9	54.2	26	838.1	54.2	26	840.3	54.2	26	842.5	54.2	26	844.7	54.2	26	846.9	54.2	26	849.1	54.2	26	851.3	54.2	26	853.5	54.2	26	855.7	54.2	26	857.9	54.2	26	860.1	54.2	26	862.3

[illegible]

1875 +01 +06 March 17				+10 +06 March 18				+07 +05 March 22				+07 March 23				+07 +07 March 25				-06 March 27				
+046				+140				+116				+160				+140				-043				
25	466	25	29.1	25	454	25	32.3	25	405	25	27.0	25	389	25	24.0	25	—	25	54.2	25	32.9	25	23.3	
	48.8		31.8		47.9		34.8		42.8		29.3		41.5		26.5		—		56.2		36.3		26.1	
	51.4		33.5		50.4		36.9		45.2		30.8		48.8		28.4		—		58.3		38.7		27.6	
	56.2				55.0				50.0				48.7				46.0				43.5			
	58.7				57.6				52.4				51.1				48.5				46.0			
26	0.9				2.1				55.0				53.4				50.9				48.4			
	3.5	26	36.8		2.4	26	17.3		57.5	26	5.0		56.0	26	10.6		53.4				52.9	26	10.8	
	6.0		39.0		4.0		19.2		59.9		6.7		58.2		13.2		55.8				55.3		13.8	
	12.8		41.0		9.7		21.4		4.7		9.9		3.2		14.9		—				58.2		16.3	
	13.3				15.1				7.4				5.7				—				0.7			
	15.8				14.5				9.6				8.2				—				3.0			
	31.20				30.00				42.53				40.87				25.46				41.30			
	300				300				180				180								120			
	120	25	31.47		0.00	25	34.67		60.53	25	29.03		58.87	25	26.31			25	56.23		53.30	25	25.67	
26	1.091	26	38.93	26	0.00	26	19.30	26	530.26	26	7.20	25	535.18	26	12.90	25	50.920			25	48.455	26	13.63	
	1.072		+37.39		59.81		+38.35	25	530.07		+43.43		534.99		+44.88		50.901		+47.43		48.436		+49.96	
26	38.26		+0.01	26	38.254		+0.06	26	38.18		+0.04	26	38.16		+0.04	26	38.13 2		+0.04	26	38.09		+0.04	
	-37.19		+0.07		-38.84		+0.07		-43.17		+0.06		-44.66		-1.08		-47.232		+0.08		-48.65		-1.01	
			-11.8		4.3		-11.6				-1.10				-1.04				-1.04				-1.01	
+	37.37	26	37.36	+	38.38		37.13	+	43.39		37.44	+	44.80		37.34	+	47.41		37.41	+	49.98		37.35	
+	.05			+	.11			+	.07			+	.09			+	.09			+	.04			
-	1.18			-	1.16			-	1.10			-	1.08			-	1.04			-	1.01			
+	36.24			+	37.33			+	42.36			+	43.81			+	46.46			+	48.93			
26	1.07	25	57.37	25	59.81		55.58	25	55.01		55.85	25	53.50		55.86	25	50.90		57.21	25	48.44		55.95	
	-16		6.91		-16		7.29		-16		6.61		-16		7.13		-16		7.76		-16		7.66	
26	37.31		-9.0	26	37.14		-9.0	26	37.37		-10.20	26	37.41		-10.20	26	37.36		-10.40	26	37.37		-10.50	
	+32.9		32.96		9		37.79		9		38.44		9		37.93		9		38.45		9		37.19	
	+22.62		-37.84		+25.33		-19.80		+26.00		-12.17		+27.22		-19.33		-5.31				+22.78		-25.18	
55	-3.87			55	-3.86			55	-3.83			55	-3.81			55	-3.79			55	-3.78			
1	3.5	2	18.9	1	11.7	2	2.1	1	10.1	1	34.0	1	9.1	2	1.9	1	44.0	2	13.5	1	11.0	2	4.2	
	9.2		24.4		13.4		3.9		12.7		55.4		11.3		3.0		47.8		17.7		20.3		15.1	
	12.7		4.3		5.1		6.0		2.8		9.4		2.04		4.9		11.8		11.2		3.13		1.93	
56	6.35	57	21.65	56	12.55	57	3.00	56	11.40	56	54.70	56	10.20	57	2.45	56	45.90	57	15.60	56	15.65	57	9.65	
1.47159	1.57795		1.40364	1.28556		1.41497	1.08529	1.43489	1.28735		0.72509		1.35755		1.40106		1.41070		1.45421					
1.32474	1.63112		1.45679	1.33871		1.46812	1.13844	1.48804	1.34050		0.77824		1.45755		1.45421		1.45755		1.45421					
+33.43	-42.77		+28.63	-21.82		+29.39	-13.75	+30.77	-21.91		-6.00		1.35755		1.40106		1.45755		1.45421					
56	39.83	56	38.88	56	41.18	56	41.18	56	40.74	56	40.95	56	40.97	56	40.54	56	39.90	56	41.40	56	41.19			
26	8.52		9.47	26	7.17		7.17		7.56		7.40	26	7.38		7.81		8.45			26	6.95		7.16	
	8.99				7.17				7.48				7.59								7.05			
	+24.51				+31.35				+33.85				+34.29				+20.58				12	28	18	22
1.04011	1.04091		1.04695	1.04775		1.04945	1.05025	1.05189	1.05269		1.03618	1.03698	1.03698		1.02545	1.02605				1.01580	1.01640			
-10.97	-10.99		-11.14	-11.16		-11.20	-11.23	-11.27	-11.29		-10.87	-10.88	-10.88		-10.60	-10.62								
-21	-41	-35		-15	-44	-09		-17	-41	-04		-18	-45	-09		-1	-37				-12	-47	-16	
-23	-64	-50		-24		-40		-24		-38		-24		-40		-36		-46			-26		-44	
	11.41	-11.84		11.53	11.65			11.61	11.65			11.69	11.78		11.24						10.98		11.22	
25	54.11	57.63	25	55.64	55.52			55.45	55.75			55.69	56.03		57.21						54.97		55.94	
	47.5			47.8				47.8				47.8									47.8			
-16	7.20	7.89	39.32	-7.75	8.44			-7.11	7.70			-7.49	8.17				8.43	9.11			-7.96	8.64		
	6.9	-17.3	39.84	-6.9	-17.33			-6.8	-17.68			-6.8	-17.68				-6.8	-17.88			-6.8	-17.99		
	3.90			3.90				3.90				3.90					3.90				3.90			
-16	17.79	9	39.59	-18.34				-10.20	37.96			-10.20	37.32				10.40	37.70			-10.50	36.83		
								-17.99	37.76			-18.37	37.66				19.51				-19.14	36.80		
									37.86				37.49									36.81		

0 Geminor.
 7 31 0
 +34° 52'
 7 = + 7° 31'
 +.13

1874
 1874
 1874

base 9.91407
 16' 116.78
 16' 123.685
 22nd 9.75714

conv =
 conv =
 long d = +70
 I = 252
 K = -.019

1874	March 1	March 2	March 4	March 5	March 8	March 12
7 31 +192	262 30 +120	532 30 +030	496 30 +140	417 30 +144	411 30 +234	469 30
288 31	586 30	573 30	578 30	543 30	517 30	469 30
31.3	7.2	33.7	31.0	43.7	48.1	48.1
93	38	57.9	24	15	43.3	568
17.9	8.7	24	7.4	4.3	31	2.6
145	11.2	24	9.9	6.9	4.1	4.1
170	13.8	14.8	12.3	14	6.9	6.9
195	16.1	31 34.9	31 42.0	31 26.0	238	9.4 31 85.0
	18.8	87.5	44.3	28.4	268	12.0 87.0
	23.8	40.0	46.5	26.9	277	12.0 87.0
	26.3	27.4	27.4	24.3	22.1	19.3
	28.9	27.4	27.4	26.7	24.5	21.9
72.2	211.2	195.2	247.8	283.9	256.0	
31 14440	31 151.2 30 55.60	31 13.82 30 51.88	31 127.8 30 43.77	31 103.9 30 43.23	31 76.0 30 49.43	
14.421	31 13.745 31 37.47	31 12.291 31 44.27	31 116.18 31 28.53	31 9.445 31 25.77	31 6.909 31 37.80	
	13.726	12.272	11.599	9.426	6.890	
- 1723	- 16.66	- 15.09	- 14.46	- 12.28	- 9.84	
+ 1.13	+ .08	+ .02	+ .10	+ .10	+ .16	
- 1.08 2848	- 1.06 2868	- 1.04 2888	- 1.02 2908	- 0.98 2948	- 0.92 3008	
- 18.18	- 17.44	- 16.11	- 15.38	- 13.13	- 10.60	
31 14.42	31 13.73	31 12.77	31 11.60	31 9.43	31 6.89	
30 56.24	30 56.29	30 56.16	30 56.27	30 56.30	30 56.29	
0.168	0.218	0.088	0.148	0.228	0.218	
-4.37	+18.14	-13.73	+2.172	-30.75	+27.85	-16.91
20	20	20	20	20	20	20
2 4.3	2 27.1	2 23.9	2 31.1	2 18.0	2 20.7	2 33.0
58.1	23.9	8.7	49.4	11.0	59.9	59.9
122.4	110	20.9	100.5	90	14.7	20.5
22 1.20	22 25.50	22 23.95	22 30.25	22 14.50	22 17.70	22 26.75
1.107 46.0	1.258 66.4	1.336 86	1.487 85	1.444 83	1.448 47	1.212 99
1.188 31	1.289 49	1.367 71	1.518 70	1.473 68	1.447 32	1.243 84
-15.39	+19.47	+23.32	-33.02	+29.90	+28.14	-17.53
21 45.87	22 44.97	22 47.27	22 47.23	22 44.40	22 44.85	22 45.27
+35 1 258	0 3.38	0 1.08	1.12	0 3.95	3.50	0 2.51
0 254	3.38	1.10	3.72	3.72	2.82	3.13
+150.6	0.879 70	0.880 40	+4.75	+26.91	+10.87	0.879 70
1.030 86	1.031 46	0.894 29	0.884 25	0.885 15	0.890 57	0.891 27
-10.74	-10.75	-7.84	-7.66	-7.68	-7.77	-7.78
-85.01	-0.09	-0.14	-12.01	-23	-20	-0.07
+02.03	+02.09	+0.3	+17	+16	+15	+21
-14.77	-7.91	-7.96	-7.61	-7.75	-8.11	-7.94
35 8 51.77	59 55.47	55.42	59 53.47	53.37	59 55.84	55.56
-7 30.40	-7 30.27	30.65	-7 31.05	31.06	-7 30.40	30.81
-8.81	-8.92	15.88	-9.07	12.94	-9.17	15.86
34.62	39.59	15.83	40.53	12.84	39.98	15.58
52 13.15	15.85	12.89	12.89	15.72	14.31	14.31
52 4.3	50.1	50.1	50.1	78.5	68.8	77.3

1876

$\sqrt{}$	31	0.24
δ	52	5430
$\frac{d\delta}{d\tau}$		+3.928
$\frac{d\delta}{d\tau}$		-7.84

head 991407
lb 12552
lb' .03959

[illegible]

1874

4phae.proj.1472.
L Corp. Min. 54
7^h 32^m 45^{sec}
+ 5° 33'
+ 36° 50'

1874		
Mar.	1	32 ^m 43.05
	6	42.87
	11	42.93
	16	42.86
	21	42.77
	26	42.72
	31	42.64
Apr.	5	42.58
	10	42.47

32'	46.2	
	46.1	- .1
	46.0	.0
	45.9	.1
	45.9	- .0
	45.9	+ .0
	46.0	.1
	46.1	.1
	46.2	.1

$$\begin{array}{r}
 18748 \\
 42.253 \\
 + 32.4555 \\
 \hline
 + 3.142 \\
 \hline
 - 8.775 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 \cos 99.99996 \\
 16 \quad .11678 \\
 16' \quad .11474 \\
 \hline
 \sin 8.98549
 \end{array}$$

$$\begin{array}{r} 1875 \\ 45.483 \\ + 32.3663 \\ + 3.144 \\ - 8.769 \\ \hline 2.99796 \\ + 12.552 \\ \hline 0.12348 \end{array}$$

(This star not to be taken) ?

1874
+26
March 1

+12
March 1

+04
March 2

+13
March 5

+17
March 8

+26
March 12

7 32 478 32 526 32 471 32 368 32 457 32 418 32 425 32 315 32 448 32 343 32 403 32 288

489 544 483 386 477 434 470 332 448 363 424 313

520 566 512 405 489 461 420 352 470 381 445 334

560 554 540 520 532 533 531 527

582 574 582 573 532 531 527

0.1 596 582 573 532 531 527

2.3 33 294 1.6 33 199 33 8.2 33 9.0 33 1.75 33 1.7 33 1.7 33 2.3

4.5 8.7 2.3 11.0 1.5 1.7 1.7 1.7

8.5 2.7 2.4 13.1 2.6 2.6 2.6 2.6

10.8 9.8 8.5 7.6 5.6 5.6 5.6 5.6

12.8 11.9 10.5 7.8 7.7 7.7 7.7 7.7

3029 3547 3394 3907 4271 4008

300 300 300 240 180 180

2.9 32 54.58 6.547 32 38.68 6.394 32 43.77 6.307 32 33.30 6.071 32 36.30 5.808 32 31.20

33 1.74 33 2.41 32 59.518 33 22.23 32 58.127 33 11.03 32 57.336 33 19.57 32 55.191 33 13.13 32 52.800 33 4.33

0.2686 -1.723 59.502 -16.44 58.111 -15.08 57.320 -14.42 55.175 -12.27 52.784 -9.85

0.2620 +1.02 59.502 +0.1 58.111 +0.0 57.320 +0.1 55.175 +0.2 52.784 +0.3

32 4305 32 4304 32 4301 32 4300 32 4299 32 4298 32 4297 32 4296 32 4295 32 4294 32 4293 32 4292 32 4291 32 4290 32 4289 32 4288 32 4287 32 4286 32 4285 32 4284 32 4283 32 4282 32 4281 32 4280 32 4279 32 4278 32 4277 32 4276 32 4275 32 4274 32 4273 32 4272 32 4271 32 4270 32 4269 32 4268 32 4267 32 4266 32 4265 32 4264 32 4263 32 4262 32 4261 32 4260 32 4259 32 4258 32 4257 32 4256 32 4255 32 4254 32 4253 32 4252 32 4251 32 4250 32 4249 32 4248 32 4247 32 4246 32 4245 32 4244 32 4243 32 4242 32 4241 32 4240 32 4239 32 4238 32 4237 32 4236 32 4235 32 4234 32 4233 32 4232 32 4231 32 4230 32 4229 32 4228 32 4227 32 4226 32 4225 32 4224 32 4223 32 4222 32 4221 32 4220 32 4219 32 4218 32 4217 32 4216 32 4215 32 4214 32 4213 32 4212 32 4211 32 4210 32 4209 32 4208 32 4207 32 4206 32 4205 32 4204 32 4203 32 4202 32 4201 32 4200 32 4199 32 4198 32 4197 32 4196 32 4195 32 4194 32 4193 32 4192 32 4191 32 4190 32 4189 32 4188 32 4187 32 4186 32 4185 32 4184 32 4183 32 4182 32 4181 32 4180 32 4179 32 4178 32 4177 32 4176 32 4175 32 4174 32 4173 32 4172 32 4171 32 4170 32 4169 32 4168 32 4167 32 4166 32 4165 32 4164 32 4163 32 4162 32 4161 32 4160 32 4159 32 4158 32 4157 32 4156 32 4155 32 4154 32 4153 32 4152 32 4151 32 4150 32 4149 32 4148 32 4147 32 4146 32 4145 32 4144 32 4143 32 4142 32 4141 32 4140 32 4139 32 4138 32 4137 32 4136 32 4135 32 4134 32 4133 32 4132 32 4131 32 4130 32 4129 32 4128 32 4127 32 4126 32 4125 32 4124 32 4123 32 4122 32 4121 32 4120 32 4119 32 4118 32 4117 32 4116 32 4115 32 4114 32 4113 32 4112 32 4111 32 4110 32 4109 32 4108 32 4107 32 4106 32 4105 32 4104 32 4103 32 4102 32 4101 32 4100 32 4099 32 4098 32 4097 32 4096 32 4095 32 4094 32 4093 32 4092 32 4091 32 4090 32 4089 32 4088 32 4087 32 4086 32 4085 32 4084 32 4083 32 4082 32 4081 32 4080 32 4079 32 4078 32 4077 32 4076 32 4075 32 4074 32 4073 32 4072 32 4071 32 4070 32 4069 32 4068 32 4067 32 4066 32 4065 32 4064 32 4063 32 4062 32 4061 32 4060 32 4059 32 4058 32 4057 32 4056 32 4055 32 4054 32 4053 32 4052 32 4051 32 4050 32 4049 32 4048 32 4047 32 4046 32 4045 32 4044 32 4043 32 4042 32 4041 32 4040 32 4039 32 4038 32 4037 32 4036 32 4035 32 4034 32 4033 32 4032 32 4031 32 4030 32 4029 32 4028 32 4027 32 4026 32 4025 32 4024 32 4023 32 4022 32 4021 32 4020 32 4019 32 4018 32 4017 32 4016 32 4015 32 4014 32 4013 32 4012 32 4011 32 4010 32 4009 32 4008 32 4007 32 4006 32 4005 32 4004 32 4003 32 4002 32 4001 32 4000 32 3999 32 3998 32 3997 32 3996 32 3995 32 3994 32 3993 32 3992 32 3991 32 3990 32 3989 32 3988 32 3987 32 3986 32 3985 32 3984 32 3983 32 3982 32 3981 32 3980 32 3979 32 3978 32 3977 32 3976 32 3975 32 3974 32 3973 32 3972 32 3971 32 3970 32 3969 32 3968 32 3967 32 3966 32 3965 32 3964 32 3963 32 3962 32 3961 32 3960 32 3959 32 3958 32 3957 32 3956 32 3955 32 3954 32 3953 32 3952 32 3951 32 3950 32 3949 32 3948 32 3947 32 3946 32 3945 32 3944 32 3943 32 3942 32 3941 32 3940 32 3939 32 3938 32 3937 32 3936 32 3935 32 3934 32 3933 32 3932 32 3931 32 3930 32 3929 32 3928 32 3927 32 3926 32 3925 32 3924 32 3923 32 3922 32 3921 32 3920 32 3919 3

corr d =
corr p =

long P = +10.100

I = 207

K = -0.16

March 16	March 24	March 25	March 30	Feb. 24	March 4
+17 +180	+18	+23	1874 +04	1875 +00	+17
32 36.7 32 300 32 310 32 169 32 30.3 32 23.0 32 26.5 32 9.8 32 18.7 32 5.1 32 16.3 31 56.1	32 31.7 32 33.1 32 18.9 32 32.4 32 24.9 32 28.5 32 11.9 32 20.9 32 9.3 32 11.9 32 58.1	32 34.5 32 26.5 32 30.5 32 34.6 32 36.7 32 35.8 32 40.9 32 37.4 32 59.4 32 1.7 32 4.0 32 4.2 32 3.2	32 26.5 32 28.5 32 30.5 32 34.6 32 36.7 32 35.8 32 40.9 32 37.4 32 59.4 32 1.7 32 4.0 32 4.2 32 3.2	32 18.7 32 20.9 32 22.9 32 26.9 32 29.0 32 31.0 32 33.1 32 35.1 32 37.1 32 39.1 32 41.4 32 43.4	32 16.3 31 56.1 32 11.9 32 58.1 32 9.3 32 11.9 32 58.1 32 9.3 32 11.9 32 58.1 32 9.3 32 11.9 32 58.1
480.3	478.3	469.6	426.8	341.7	246.2
540.3 32 31.90 32 49.18 33 49.102 32 42.86 +6.24	32 43.482 33 43.466 32 42.754 +0.723 42.15 20	32 42.691 32 42.675 32 42.73 -0.06 42.24	32 38.800 32 38.784 32 42.655 -3.87 -0.40 42.24	32 31.064 32 31.048 32 46.58 -15.53 -1.08 45.48	32 22.382 32 22.366 32 46.4858 -24.41 -1.01 45.33
-6.33 +.02 -0.61 +2.53 -6.942 32 49.10 -7 49.10 -7 42.168 45.30 32 45.27	-0.81 +.02 49 1.1028 265 1793 32 43.47 -7 43.47 -7 42.819 45.57 32 46.82	+0.01 +.02 48 0.28 45.26 1682 32 42.67 -7 42.67 -7 42.92 45.52 32 45.38	+3.85 +.00 40 0.21 45.27 40 3.64 45.27 40 3.64 45.27 40 3.64 45.27 40 3.64 45.27	+15.49 -1.08 +14.41 48 48.66 +22.94 32 31.05 -16 31.05 -16 45.46 -1.50 32 37.23	+23.94 +.01 -1.01 +22.94 -16 49.29 32 22.37 -16 45.31 -1.30 32 37.99
+17.22 -18.85 +24.65 -23.42 +17.87 -16.81 +27.03 -21.03 +23.76 -22.84 +24.35 -17.79	-3.34 -3.34 -3.34 -3.34 -3.34 -3.34 -3.34 -3.34 -3.34 -3.34 -3.34 -3.34	-3.35 -3.35 -3.35 -3.35 -3.35 -3.35 -3.35 -3.35 -3.35 -3.35 -3.35 -3.35	-3.89 -3.89 -3.89 -3.89 -3.89 -3.89 -3.89 -3.89 -3.89 -3.89 -3.89 -3.89	-3.87 -3.87 -3.87 -3.87 -3.87 -3.87 -3.87 -3.87 -3.87 -3.87 -3.87 -3.87	-3.88 -3.88 -3.88 -3.88 -3.88 -3.88 -3.88 -3.88 -3.88 -3.88 -3.88 -3.88
1 25.9 2 12.1 1 18.1 2 19.1 1 28.1 2 12.9 1 14.0 2 15.7 2 35.3 3 40.3 2 37.2 3 33.1	1 18.1 2 19.1 1 28.1 2 12.9 1 14.0 2 15.7 2 35.3 3 40.3 2 37.2 3 33.1	1 28.1 2 12.9 1 14.0 2 15.7 2 35.3 3 40.3 2 37.2 3 33.1	1 14.0 2 15.7 2 35.3 3 40.3 2 37.2 3 33.1	2 35.3 3 40.3 2 37.2 3 33.1	3 33.1 2 37.2 3 33.1
41 22.95 42 9.00 41 12.55 42 14.05 41 24.00 42 9.00 41 12.10 42 13.80 32 43.75 33 44.95 32 38.80 33 35.25	41 12.55 42 14.05 41 24.00 42 9.00 41 12.10 42 13.80 32 43.75 33 44.95 32 38.80 33 35.25	41 24.00 42 9.00 41 12.10 42 13.80 32 43.75 33 44.95 32 38.80 33 35.25	41 12.10 42 13.80 32 43.75 33 44.95 32 38.80 33 35.25	32 43.75 33 44.95 32 38.80 33 35.25	33 35.25 32 38.80 33 35.25
1.23603 1.27531 1.39182 1.36959 1.25261 1.23557 1.43185 1.32284 1.37585 1.35870 1.38460 1.26018	1.27531 1.39182 1.36959 1.25261 1.23557 1.43185 1.32284 1.37585 1.35870 1.38460 1.26018	1.36959 1.25261 1.23557 1.43185 1.32284 1.37585 1.35870 1.38460 1.26018	1.32284 1.37585 1.35870 1.38460 1.26018	1.37585 1.35870 1.38460 1.26018	1.35870 1.38460 1.26018
41 25.2 440 41 3.04 5.43 41 0.58 1.69 41 0.33 2.50 49 32.83 33.75 49 37.20 36.74	41 3.04 5.43 41 0.58 1.69 41 0.33 2.50 49 32.83 33.75 49 37.20 36.74	41 0.58 1.69 41 0.33 2.50 49 32.83 33.75 49 37.20 36.74	41 0.33 2.50 49 32.83 33.75 49 37.20 36.74	49 32.83 33.75 49 37.20 36.74	33.75 49 37.20 36.74
1.66813 1.66833 1.66597 1.66597 1.64688 1.64708 1.64193 1.64223 1.64345 1.64375 1.67142 1.67172	1.66833 1.66597 1.66597 1.64688 1.64708 1.64193 1.64223 1.64345 1.64375 1.67142 1.67172	1.66597 1.66597 1.64688 1.64708 1.64193 1.64223 1.64345 1.64375 1.67142 1.67172	1.64688 1.64708 1.64193 1.64223 1.64345 1.64375 1.67142 1.67172	1.64345 1.64375 1.67142 1.67172	1.64375 1.67142 1.67172
-46.57 -46.59 -46.32 -46.34 -44.35 -44.37 -43.84 -43.88 -44.00 -44.03 -46.93 -46.96	-46.59 -46.32 -46.34 -44.35 -44.37 -43.84 -43.88 -44.00 -44.03 -46.93 -46.96	-46.32 -46.34 -44.35 -44.37 -43.84 -43.88 -44.00 -44.03 -46.93 -46.96	-44.35 -44.37 -43.84 -43.88 -44.00 -44.03 -46.93 -46.96	-44.03 -46.93 -46.96	-46.93 -46.96
-0.1 +1.1 -0.1 +0.4 -0.3 +0.7 -0.1 +0.4 -0.1 +0.7 -0.3 -0.1 -0.1	-0.1 +0.4 -0.3 +0.7 -0.1 +0.4 -0.1 +0.7 -0.3 -0.1 -0.1	-0.3 +0.7 -0.1 +0.4 -0.1 +0.7 -0.3 -0.1 -0.1	-0.1 +0.4 -0.1 +0.7 -0.3 -0.1 -0.1	-0.3 -0.1 -0.1	-0.1 -0.1
40 16.04 19.95 40 16.73 19.13 40 16.26 19.38 40 16.49 19.64 48 48.31 48.02 48 47.64 48.94	40 16.73 19.13 40 16.26 19.38 40 16.49 19.64 48 48.31 48.02 48 47.64 48.94	40 16.26 19.38 40 16.49 19.64 48 48.31 48.02 48 47.64 48.94	40 16.49 19.64 48 48.31 48.02 48 47.64 48.94	48 48.31 48.02 48 47.64 48.94	48 47.64 48.94
-7 30.10 32.00 43.54 -7 29.99 31.79 44.54 -7 29.43 31.44 44.2 -7 29.14 31.17 44.12 -7 29.14 31.17 44.12	-7 29.99 31.79 44.54 -7 29.43 31.44 44.2 -7 29.14 31.17 44.12 -7 29.14 31.17 44.12	-7 29.43 31.44 44.2 -7 29.14 31.17 44.12 -7 29.14 31.17 44.12	-7 29.14 31.17 44.12 -7 29.14 31.17 44.12	-7 29.14 31.17 44.12	-7 29.14 31.17 44.12
12.13 32.16	32.16	32.16	32.16	32.16	32.16

1875

Mar.	1	32 ^m	46.52		32 ^m	38.0	
	6		46.46	-06		37.9	-1
	11		46.40	.06		37.8	.1
	16		46.33	.07		37.7	.1
	21		46.26	.07		37.7	-0
	26		46.19	.07		37.6	+1
	31		46.11	.08		37.8	.0
Apr.	5		46.03	.08		37.8	.0
	10		45.94	.09		37.9	.1

+01 +06 March 17				+10 +06 March 18				+07 +05 March 22				+07 March 23				+07 +07 March 25				-06 March 27			
+076				+110				+116				+130				+140				-043			
31	564	31	489	32	—	32	225	31	522	31	435	31	491	31	354	31	463	32	42	31	413.8	31	352
	586		508		—		249		525		457		510		391		484		60		459		394
32	0.7		53.1		—		266		546		476		531		391		504		8.1		480		393
	4.6				3.7				589				573				546				521		
	6.9				5.7			32	6.7				59.4				56.7				543		
	8.9				7.6				2.9			32	14				57.6				563		
	11.0	32	29.1		9.9				5.0	32	245		3.5	32	18.0	32	0.8				554	32	7.9
	13.0		31.3		18.1				7.0		266		5.6		20.1		2.9				04		16.1
	15.2		33.4						11.0		286		9.4		21.6		7.0				4.5		128
	17.2				—				13.2				17.8				9.0				66		
	21.3				—				15.2				13.8				11.1				8.6		
	2178				392				2710				3157				3458				3789		
	126								240				300				300				240		
	97.8	31	50.87		32	2467			31.0	31	45.60		15.7	31	37.20		6458	32	6.10		6189	31	37.30
32	889.1	32	51.23	32	7840			32	2818	32	2657	32	1.427	32	19.90	31	58.719			31	56264	32	10.37
	88.75		+37.40		7824		+38.36		2802		+42.44		1.411		+44.89		58.719		+47.43		56248		+49.97
32	46.381		+0.0	32	46.38		+0.01	32	46.254		+0.01	32	46.23		+0.01	32	46.20		+0.01	32	46.17		-0.01
	-37.423		+0.06		-38.48		+0.06		-43.484		+0.05		-44.82		-0.07		-47.11		+0.07		-49.92		
	+37.33		-0.84		+38.38		-0.82		+43.40		-0.77		-0.76		-0.72		-0.72		-0.72		-0.69		-0.69
	+0.01				+0.02				+0.01				+0.01				+0.01				-0.01		
	-0.84				-0.82				-0.77				-0.76				-0.72				-0.69		
	+36.54				+37.58				+42.64				+44.06				+46.71				+49.29		
32	88.7	48	48.51	32	7.82		4758	32	2.80		4693	32	1.41		4936	31	58.719		4835	31	56.25		4528
	-16	6.91			-16	7.29		-16	6.61		-16	6.61		-16	7.13		-16	7.76		-16	7.66		-16
32	45.41		-2.0	32	45.40		-2.0	32	45.44		-2.0	32	45.47		-2.0	32	45.40		-2.0	32	45.54		-2.0
	-11.0				-11.0				-11.0				-11.0				-11.0				-11.0		
	+5.0	32	37.50	32	37.19			32	37.22			32	37.13			32	37.19			32	37.19		
30	+18.02		-22.34	30	-16.83			30	+17.22		-22.34	30	+24.23		-18.47	30	-4.38			30	+18.96		-14.11
	-3.67				-3.66				-3.63				-3.61				-3.79				-3.78		
2	47.1	3	40.4	3	36.1	4	8.1	2	51.0	3	44.7	2	40.8	3	36.1	3	22.6	4	0.4	2	46.0	3	30.5
	57.9		46.2		36.1		8.9		57.9		46.3		42.1		37.1		28.3		2.9		53.2		38.8
	99.0		66		10		9		99.0		110		29		732		79		3.3		99.2		93
32	49.50	33	43.30	33	36.10	34	8.50	32	51.45	33	45.50	32	41.45	33	36.60	33	23.95	34	1.65	32	49.60	33	34.65
	1.25070	1.34908	1.22608	1.23603	1.23603	1.23603	1.35566	1.38435	1.26647	1.36806	1.27784	1.11953	1.37923	1.47256	1.34956	1.38995	1.29157	1.40132	1.27307	1.38995	1.29157	1.40132	
	+23.95	-23.69	-22.37	+22.88	-31.56	+32.20	-24.69	-9.81	-9.81	+25.20	-16.75	+23.95	-23.69	-22.37	+22.88	-31.56	+32.20	-24.69	-9.81	-9.81	+25.20	-16.75	
33	13.20	33	13.51	33	13.73	33	14.35	33	13.94	33	13.65	33	12.06	33	14.14	33	14.80	33	15.70	33	14.80	33	15.70
49	3490		3474	49	3462			49	3402		3441	49	3470		3629	49	3421			49	3355		3245
	34.82							34.21				35.49								49	3300		
	+24.68				+31.48			+34.02				+23.48				+20.68				49	2		41
	1.65888	1.65918	1.66568	1.66598	1.66822	1.66852	1.65768	1.65798	1.65488	1.65518	1.64394	1.64414								1.63420		1.63440	
	-45.59	-45.62	-46.31	-46.34	-46.58	-46.61	-45.46	-45.50	-45.17	-45.20	-45.05	-44.07											
	-0.01	-0.02	-0.01	-0.03	-0.01	-0.03	-0.03	-0.05	-0.01	-0.01	-0.02	-0.05	-0.01										
	-5.9	-7.8	-7.2	-7.2	-5.8	-7.6	-5.4	-7.2	-6.8	-8.0	-5.6	-7.2											
	46.19	-46.42	-47.04	-47.14	-47.14	-47.40	-46.03	-46.23	-45.86	-45.86	-43.63	-44.80											
48	48.71	48.32	48	47.58	48	46.85	47.01	48	48.67	50.06	48	48.35	48	48.2	47.65								
	36	37.7		37.7		37.7		37.7		37.8		37.8		37.8									
	-16	7.20	38.01	-7.75	10.04	-7.11	24.3639	-7.49	9.783779	-8.43	10.70	-7.96	10.21	7.19									
	232	9.52	170	-232	-9.87	-230	9.873650	-227	-9.873912	-2.27	-9.97	-2.27	9.773622	36.85									
	1.10	-9.87		1.10		1.10		1.10		1.20		1.20		1.20									
	-16	10.62	32	37.90		10.51	36.42	-10.88	38.48	-11.90	36.45	-11.43	36.85	36.85									

26
 } Monocerotis.
 7^h 35^m 17^{sec.}
 - 9° 16'
 + 51° 39'
 + .78

1874	1875
35	1653
15	4084
+	2866
-	812
6.500 299429	9.99429
66 11648	12552
66 11107	11981
6.500 29.20691m	

$$\begin{aligned} \text{corr } \rho &= \\ \text{corr } \rho &= \\ \text{long } \rho &= -.16 \\ T &= 2.09 \\ K &= -.016 \end{aligned}$$
[illegible]

1874										1875																			
March 16					March 25					Feb. 24					March 4					March 17					March 18				
7 35	8.1	35	40 35	15 84	570 34	40.9	34	462 34	483 34	40.9	34	358 34	273 34	144 34	264 34	18.6	284	21.6	22.5	30.6	34.6	36.8	38.9	41.0	35	70	9.5	12.0	
10.0	67	8.5	5.8	0.5	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	
12.3	8.5	5.8	0.5	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.8	
165	99	12.1	14.1	16.2	35	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	
18.6	14.1	16.2	35	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	360	
20.6	18.3	22.5	24.5	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	
22.7	24.5	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	
24.8	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	
29.0	31.0	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	
32.6	35	6.40	15.52	34	58.77	26.39	34	48.30	34	37.93	34	16.48	34	9.30	34	20.57	34	9.50	34	9.50	34	9.50	34	9.50	34	9.50	34	9.50	34
35	20.609	35	41.67	35	14.109	35	37.57	240	35	40.63	35	2.173	35	2.157	35	53.00	35	53.48	35	53.48	35	53.48	35	53.48	35	53.48	35	53.48	35
20.593	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	14.093	
- 6.83	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01	
- 0.3	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	
- 0.34	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	- 0.43	
- 6.93	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	- 0.46	
35 20.59	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	35 14.09	
35 13.66	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	35 13.63	
16.526	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	13.644	
+14.21 -21.06 +15.34 -23.46 +13.87 -32.16 +11.57 -30.63 +23.51 -29.36 +18.32 -30.61										+14.21 -21.06 +15.34 -23.46 +13.87 -32.16 +11.57 -30.63 +23.51 -29.36 +18.32 -30.61										+14.21 -21.06 +15.34 -23.46 +13.87 -32.16 +11.57 -30.63 +23.51 -29.36 +18.32 -30.61									
25	4	22.9	0	8.7	4	25.5	0	15.1	0	45.3	1	54.1	0	39.3	1	41.0	0	33.3	1	43.2	0	42.8	1	46.4	1	46.4	1	46.4	
15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	
26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	26.8	
29 18.40	30	3.80	29 18.40	30	3.80	29 18.40	30	3.80	29 18.40	30	3.80	29 18.40	30	3.80	29 18.40	30	3.80	29 18.40	30	3.80	29 18.40	30	3.80	29 18.40	30	3.80	29 18.40	30	
1.15239	1.32346	1.18383	1.37033	1.14205	1.58301	1.19229	1.41615	1.37125	1.46776	1.26093	1.48036	1.26346	1.43453	1.26670	1.48140	1.26189	1.70482	1.31210	1.60586	1.44106	1.58757	1.58274	1.60567	1.58274	1.60567	1.58274	1.60567	1.58274	
+18.85	-27.20	+19.81	-30.50	+18.85	-27.20	+19.81	-30.50	+18.85	-27.20	+19.81	-30.50	+18.85	-27.20	+19.81	-30.50	+18.85	-27.20	+19.81	-30.50	+18.85	-27.20	+19.81	-30.50	+18.85	-27.20	+19.81	-30.50	+18.85	
29 36.75	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	29 36.60	
48.40	6 48.25	6 53.71	6 51.30	58 1913	18.77	12.42	12.89	58 16.88	17.21	58 17.74	16.97	48.32	36 50	37 36	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	
48.32	36 50	37 36	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	48.32	36 50	37 36	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	1.86070	
23.89	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	23.89	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	+12.64	
1.88439	1.88479	1.87334	1.87354	1.87006	1.87046	1.89795	1.89835	1.88540	1.88580	1.89224	1.89264	1.88439	1.88479	1.87334	1.87354	1.87006	1.87046	1.89795	1.89835	1.88540	1.88580	1.89224	1.89264	1.88439	1.88479	1.87334	1.87354	1.87006	
-76.66	-76.70	-74.70	-74.74	-74.14	-74.21	-79.06	-79.13	-76.81	-76.88	-78.03	-78.10	-76.66	-76.70	-74.70	-74.74	-74.14	-74.21	-79.06	-79.13	-76.81	-76.88	-78.03	-78.10	-76.66	-76.70	-74.70	-74.74	-74.14	
+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	
+30	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+30	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+30	+0.1	+0.1	+0.1	+0.1	
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-8 47.6	4.92	8 5.77	5.99	5.99	33.40	5.99	33.40	5.99	33.40	5.99	33.40	-8 47.6	4.92	8 5.77	5.99	5.99	33.40	5.99	33.40	5.									

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14° 16'
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z = + 56 39
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lens 9.98640
1.0 1.11678
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cond =
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March 8

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March 16

7	40	141.38	586	453	460	40	131	40	111	40	102	40	114	40	21	10	64	39	367	40	17	40	17
		16240	20	477	481		248		133		112		111		111		8.9	58.1	58.1	5.1	3.2		
		182	4.1	188	303				133		133		6.1		10.7		10.7	32.3	32.3	7.2	5.3		
		223		57.1	546				197		174				15.1		15.1			11.4			
		247		593	566				213		174				17.2		17.2			13.4			
		269		583	557				240		218				12.3		12.3			15.7			
		28040	462	04	11				260	40	568		260	40	260		21.5	40	45.0	17.7	40	325	
		311	474	2.5	3.0				281		576				23.7		23.7		47.8	20.0	345		
		353	48.3	6.7	172				323		0.3				27.6		27.6		49.2	24.1	361		
		376		9.0	9.5				345						30.0		30.0			26.4			
		397		11.0	11.6				367						32.0		32.0			28.5			
		2953		3413	3467				2628						2126					1727			
				300	300																		
40	36845	40	1.90	6413	6467	40	18.75	40	16.20	40	16.20	40	4.10	40	37.90	40	19.327	40	58.20	40	5.40	40	34.07
	26829		47.30	58300	58791			40	33.891	40	58.07			40	21.791	40	19.327	40	47.33	40	15.700	40	34.07
				58284	58775				23.875						21.775		19.311			15.681			
	- 1722			- 1646					- 14.45						- 12.24		- 9.84			- 6.33			
	- .05			- .03					- .03						- .04		- .06			- .04			
	- 0.974-1.974			- 0.78+1.984					- 0.74+2.024						- 0.70+2.064		- 0.63+2.114			- 0.59+2.174			
	- 18.06			- 17.27					- 15.22						- 12.98		- 10.53			- 6.96			
40	26.83		40	58.77				40	23.87				40	21.77		40	19.21			15.68			
40	8.77			1150				40	8.65				40	8.79		40	8.76			8.72			
	11.534								11.414					11.554			11.524			11.484			

²⁵ +24.94	³⁵ -20.46	¹ +14.80	²⁵ +26.01	¹ current 1369	²⁵ -34.68	²⁵ +17.69	²⁵ -16.11	²⁵ +21.13	²⁵ -28.00	²⁵ +12.30	²⁵ -18.67
diff = -3.17		-3.18		-3.22		-3.23		-3.27		-3.28	
3 55.1	4 52.0	3 20.1	3 67.6	0 7.0	3 6.2	4 48.7	3 3.9	4 24.2	4 11.0	4 50.8	
45.1	43.9	14.9	37.9	58.6	57.0	39.5	48.0	49.9	2.0	41.9	
100.2	95.9	35.0	135.5	125.6	123.2	88.2	111.9	124.1	13.0	92.7	
28 50.10	29 47.95	37 17.50	28 27.5	30 2.80	28 1.60	29 44.10	28 55.95	29 57.05	29 6.50	29 46.35	
1.52690	1.31091	1.37492m	1.36449m	1.13640	1.54008	1.24773	1.20710	1.32490	1.44716	1.08991	1.27114
1.52808	1.41609	1.41810m	1.44767m	1.23958	1.64326	1.35091	1.31028	1.42828	1.35034m	1.19307	1.37432m
+3.63	-25.95	-25.49	-25.22	+17.36	-42.98	+22.43	-20.43	+26.30	-35.51	+15.60	-23.63
29 31.73	29 22.00	36 50.21	36 45.47	29 20.11	29 18.82	28 24.03	29 23.67	29 22.75	29 24.54	29 22.10	29 22.67
-14° 6'	3338	3365	14 47.92	15 21.4	6 3176	3047	5 3568	3532	6 3440	3379	6 3375
33.51					31.11		35.50		33.79	33.79	34.03
+56 36 22	37 20									36 38 37 18	
1.94014	1.94044									1.94019	1.94044
+15.12		+14.86		+27.37		+10.94		+25.09		+23.98	
1.95526	1.95536	1.95500	1.95530	1.96751	1.96781	1.95108	1.95138	1.96513	1.96553	1.96417	1.96442
-90.21	-90.27	-90.16	-90.22	-92.68	-92.86	-89.35	-89.41	-92.31	-92.37	-92.08	-92.13
0	0	0	0	-22.79	-1	-1	-1	-2	-2	-1	-1
+06	+09	+04	+03	+02+18	+14	+03	+02	+03	+03	+03	+03
+04	+05	+02	+07	+21	.00	+21	+33	+27	+34	+29	+34
-1 30.11	-1 30.18	-1 30.11	-1 32.73	-1 32.73	-1 29.12	-1 29.07	-1 32.01	-1 31.97	-1 31.79	-1 31.79	-1 31.77
-14 8 3.49	3.83	16 18.03	8 433	320	7 580	439	8 641	516	8 554	609	
-7 30.40	33.03	-7 30.27	33.07	-7 30.48	33.16	-7 29.51	32.22	-7 30.10	32.82	-7 30.10	32.82
2.63	-4.86	2.63	-4.45	2.63	-4.17	2.63	-3.85	2.63	-3.59	2.63	-3.59
+3.63	15 32.89	+3.73	+4.04	33.36	+4.32	33.64	+4.64	33.99	+4.90	33.46	
-7 2940	33.23	-7 29.03	32.23	-7 28.94	33.28	-7 27.58	32.74	-7 27.92	31.01		
15 3306	47.72		41.25	41.25		41.25	41.25		41.25	41.25	
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 33 -8.49
 1874 9.98640
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1874	1875	1876	1877	1878	1879
March 25	March 17	March 18	March 22	March 25	March 27
39 +233	39 +076	39 +170	39 +116	39 +140	39 -073
39 56.5 39 530	39 222 39 396	39 480 39 49.9	39 16.1 39 4.3	39 120 39 6.0	39 9.2 39 0.9
58.7 54.6	244 41.9	20.3 51.8	18.1 6.7	140 7.9	11.5 2.5
0.8 56.1	266	24.7	20.3 8.7	16.2 10.0	12.6 4.2
5.1	30.8	29.6	24.7	20.4	18.0
7.3	32.9	31.8	26.6	22.5	20.1
9.4	35.0	34.0	28.8	24.8	22.2
11.5	37.1	36.0	31.0 39 390	26.9 39 39.3	24.3 39 57.9
13.6	39.3	38.2	33.0 48.4	29.0 39 43.0	26.5 39 39.9
15.8	41.4	—	34.3 42.4	31.3 43.5	28.8 42.8
17.0	43.5	—	36.4	33.6	30.8
18.1	45.6	—	38.5	35.7	32.8
19.2	47.7	—	40.6	37.8	34.9
20.3	49.8	—	42.7	39.9	37.0
21.4	51.9	—	44.8	42.0	39.1
22.5	54.0	—	46.9	44.1	41.2
23.6	56.1	—	49.0	46.2	43.3
24.7	58.2	—	51.1	48.3	45.4
25.8	60.3	—	53.2	50.4	47.5
26.9	62.4	—	55.3	52.5	49.6
28.0	64.5	—	57.4	54.6	51.7
29.1	66.6	—	59.5	56.7	53.8
30.2	68.7	—	61.6	58.8	55.9
31.3	70.8	—	63.7	60.9	58.0
32.4	72.9	—	65.8	63.0	60.1
33.5	75.0	—	67.9	65.1	62.2
34.6	77.1	—	70.0	67.2	64.3
35.7	79.2	—	72.1	69.3	66.4
36.8	81.3	—	74.2	71.4	68.5
37.9	83.4	—	76.3	73.5	70.6
39.0	85.5	—	78.4	75.6	72.7
40.1	87.6	—	80.5	77.7	74.8
41.2	89.7	—	82.6	79.8	76.9
42.3	91.8	—	84.7	81.9	79.0
43.4	93.9	—	86.8	84.0	81.1
44.5	96.0	—	88.9	86.1	83.2
45.6	98.1	—	91.0	88.2	85.3
46.7	100.2	—	93.1	90.3	87.4
47.8	102.3	—	95.2	92.4	89.5
48.9	104.4	—	97.3	94.5	91.6
50.0	106.5	—	99.4	96.6	93.7
51.1	108.6	—	101.5	98.7	95.8
52.2	110.7	—	103.6	100.8	97.9
53.3	112.8	—	105.7	102.9	100.0
54.4	114.9	—	107.8	105.0	102.1
55.5	117.0	—	109.9	107.1	104.2
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57.7	121.2	—	114.1	111.3	108.4
58.8	123.3	—	116.2	113.4	110.5
59.9	125.4	—	118.3	115.5	112.6
61.0	127.5	—	120.4	117.6	114.7
62.1	129.6	—	122.5	119.7	116.8
63.2	131.7	—	124.6	121.8	118.9
64.3	133.8	—	126.7	123.9	121.0
65.4	135.9	—	128.8	126.0	123.1
66.5	138.0	—	130.9	128.1	125.2
67.6	140.1	—	133.0	130.2	127.3
68.7	142.2	—	135.1	132.3	129.4
69.8	144.3	—	137.2	134.4	131.5
70.9	146.4	—	139.3	136.5	133.6
72.0	148.5	—	141.4	138.6	135.7
73.1	150.6	—	143.5	140.7	137.8
74.2	152.7	—	145.6	142.8	139.9
75.3	154.8	—	147.7	144.9	142.0
76.4	156.9	—	149.8	147.0	144.1
77.5	159.0	—	151.9	149.1	146.2
78.6	161.1	—	154.0	151.2	148.3
79.7	163.2	—	156.1	153.3	150.4
80.8	165.3	—	158.2	155.4	152.5
81.9	167.4	—	160.3	157.5	154.6
83.0	169.5	—	162.4	159.6	156.7
84.1	171.6	—	164.5	161.7	158.8
85.2	173.7	—	166.6	163.8	160.9
86.3	175.8	—	168.7	165.9	163.0
87.4	177.9	—	170.8	168.0	165.1
88.5	180.0	—	172.9	170.1	167.2
89.6	182.1	—	175.0	172.2	169.3
90.7	184.2	—	177.1	174.3	171.4
91.8	186.3	—	179.2	176.4	173.5
92.9	188.4	—	181.3	178.5	175.6
94.0	190.5	—	183.4	180.6	177.7
95.1	192.6	—	185.5	182.7	179.8
96.2	194.7	—	187.6	184.8	181.9
97.3	196.8	—	189.7	186.9	184.0
98.4	198.9	—	191.8	189.0	186.1
99.5	201.0	—	193.9	191.1	188.2
100.6	203.1	—	196.0	193.2	190.3
101.7	205.2	—	198.1	195.3	192.4
102.8	207.3	—	200.2	197.4	194.5
103.9	209.4	—	202.3	199.5	196.6
105.0	211.5	—	204.4	201.6	198.7
106.1	213.6	—	206.5	203.7	200.8
107.2	215.7	—	208.6	205.8	202.9
108.3	217.8	—	210.7	207.9	205.0
109.4	219.9	—	212.8	210.0	207.1
110.5	222.0	—	214.9	212.1	209.2
111.6	224.1	—	217.0	214.2	211.3
112.7	226.2	—	219.1	216.3	213.4
113.8	228.3	—	221.2	218.4	215.5
114.9	230.4	—	223.3	220.5	217.6
116.0	232.5	—	225.4	222.6	219.7
117.1	234.6	—	227.5	224.7	221.8
118.2	236.7	—	229.6	226.8	223.9
119.3	238.8	—	231.7	228.9	226.0
120.4	240.9	—	233.8	231.0	228.1
121.5	243.0	—	235.9	233.1	230.2
122.6	245.1	—	238.0	235.2	232.3
123.7	247.2	—	240.1	237.3	234.4
124.8	249.3	—	242.2	239.4	236.5
125.9	251.4	—	244.3	241.5	238.6
127.0	253.5	—	246.4	243.6	240.7
128.1	255.6	—	248.5	245.7	242.8
129.2	257.7	—	250.6	247.8	244.9
130.3	259.8	—	252.7	249.9	247.0
131.4	261.9	—	254.8	252.0	249.1
132.5	264.0	—	256.9	254.1	251.2
133.6	266.1	—	259.0	256.2	253.3
134.7	268.2	—	261.1	258.3	255.4
135.8	270.3	—	263.2	260.4	257.5
136.9	272.4	—	265.3	262.5	259.6
138.0	274.5	—	267.4	264.6	261.7
139.1	276.6	—	269.5	266.7	263.8
140.2	278.7	—	271.6	268.8	265.9
141.3	280.8	—	273.7	270.9	268.0
142.4	282.9	—	275.8	273.0	270.1
143.5	285.0	—	277.9	275.1	272.2
144.6	287.1	—	280.0	277.2	274.3
145.7	289.2	—	282.1	279.3	276.4
146.8	291.3	—	284.2	281.4	278.5
147.9	293.4	—	286.3	283.5	280.6
149.0	295.5	—	288.4	285.6	282.7
150.1	297.6	—	290.5	287.7	284.8
151.2	299.7	—	292.6	289.8	286.9
152.3	301.8	—	294.7	291.9	289.0
153.4	303.9	—	296.8	294.0	291.1
154.5	306.0	—	298.9	296.1	293.2
155.6	308.1	—	301.0	298.2	295.3
156.7	310.2	—	303.1	300.3	297.4
157.8	312.3	—	305.2	302.4	299.5
158.9	314.4	—	307.3	304.5	301.6
160.0	316.5	—	309.4	306.6	303.7
161.1	318.6	—	311.5	308.7	305.8
162.2	320.7	—	313.6	310.8	307.9
163.3	322.8	—	315.7	312.9	310.0
164.4	324.9	—	317.8	315.0	312.1
165.5	327.0	—	319.9	317.1	314.2
166.6	329.1	—	322.0	319.2	316.3
167.7	331.2	—	324.1	321.3	318.4
168.8	333.3	—	326.2	323.4	320.5
169.9	335.4	—	328.3	325.5	322.6
171.0	337.5	—	330.4	327.6	324.7
172.1	339.6	—	332.5	329.7	326.8
173.2	341.7	—	334.6	331.8	328.9
174.3	343.8	—	336.7	333.9	331.0
175.4	345.9	—	338.8	336.0	333.1
176.5	348.0	—	340.9	338.1	335.2
177.6	350.1	—	343.0	340.2	337.3
178.7	352.2	—	345.1	342.3	339.4
179.8	354.3	—	347.2	344.4	341.5
180.9	356.4	—	349.3	346.5	343.6
182.0	358.5	—	351.4	348.6	345.7
183.1	360.6	—	353.5	350.7	347.8
184.2	362.7	—	355.6	352.8	349.9
185.3	364.8	—	357.7	354.9	352.0
186.4	366.9	—	359.8	357.0	354.1
187.5	369.0	—	361.9	359.1	356.2
188.6	371.1	—	364.0	361.2	358.3
189.7	373.2	—	366.1	363.3	360.4
190.8	375.3	—	368.2	365.4	362.5
191.9	377.4	—	370.3	367.5	364.6
193.0	379.5	—	372.4	369.6	366.7
194.1	381.6	—	374.5	371.7	368.8
195.2	383.7	—	376.6	373.8	370.9
196.3	385.8	—	378.7	375.9	373.0
197.4	387.9	—	380.8	378.0	375.1
198.5	390.0	—	382.9	380.1	377.2
199.6	392.1	—	385.0	382.2	379.3
200.7	394.2	—	387.1	384.3	381.4
201.8	396.3	—	389.2	386.4	383.5
202.9	398.4	—	391.3	388.5	385.6
204.0	400.5	—	393.4	390.6	387.7
205.1	402.6	—	395.5	392.7	389.8
206.2	404.7	—	397.6	394.8	391.9
207.3	406.8	—	399.7	396.9	394.0
208.4	408.9	—	401.8	399.0	396.1
209.5	411.0	—	403.9	401.1	398.2
210.6	413.1	—	406.0	403.2	400.3
211.7	415.2	—	408.1	405.3	402.4
212.8	417.3	—	410.2	407.4	404.5
213.9	419.4	—	412.3	409.5	406.6
215.0	421.5	—	414.4	411.6	408.7
216.1	423.6	—	416.5	413.7	410.8
217.2	425.7	—	418.6	415.8	412.9
218.3	427.8	—	420.7	417.9	415.0
219.4	429.9	—	422.8	420.0	417

Navis
0 Puppis
y 42 52
- 25° 38'
z = + 68° 1'

1874
9.95500
11678
0.07178
Lind 9.63610m

1875
42 5343
37 4046
+ 2495
- 8.65
9.95500
12532
0.08032

corr =
corr =
long = -118
I = 2.28
K = -0.17

1874
March 12

1874
March 16

1875
March 17

March 18

March 22

March 27

7 42 18.5 42 41.7 51.1 44.0 52.4 46.0 52.0 52.3 52.0 4.0 48 16.4 4.3 18.6 10.2 20.3 13.0 15.4 3179 30.0 17.9 42 43.90 43 16.27 43 18.43 1.610 - 9.84 - .11 - 0.66 + 1.835 - 10.61 48 1.61 42 51.00 53495	42 14.2 42 32.7 42 3.1 42 18.9 5.4 20.9 7.9 24.0 12.3 14.6 16.9 19.2 42 44.5 21.5 46.5 26.1 48.9 28.3 30.6 1857 3374 30.0 637.4 42 35.40 42 57.945 43 24.87 57.928 - 6.33 - .09 - 0.50 + 1.905 - 7.01 42 57.93 42 50.92 58.415 50.960	42 3.1 42 18.9 5.4 20.9 7.9 24.0 12.3 14.6 16.9 19.2 42 44.5 21.5 46.5 26.1 48.9 28.3 30.6 1857 3374 30.0 637.4 42 35.40 42 57.945 43 24.87 57.928 - 6.33 - .09 - 0.50 + 1.905 - 7.01 42 57.93 42 50.92 58.415 50.960	42 2.2 41 52.5 4.4 55.0 6.8 56.6 11.2 12.5 15.4 19.9 42 34.0 20.5 36.6 24.9 38.9 27.2 29.6 1739 41 54.70 42 15.809 15.792 + 38.10 - .08 - 0.72 + 37.33 42 15.79 42 53.32	41 57.2 41 46.5 57.3 48.3 1.6 52.1 6.0 8.4 10.6 13.0 42 19.0 15.2 21.2 20.0 23.6 22.2 24.5 2380 12.0 115.0 41 48.30 42 10.727 42 21.27 16.770 + 43.40 - .05 - 0.72 + 42.33 42 10.71 42 53.44 3	41 50.2 41 39.0 52.4 38.9 55.0 40.5 59.6 1.9 4.1 6.4 42 39.9 8.4 32.9 13.2 34.1 15.6 17.9 2854 24.0 45.4 41 38.73 42 41.27 42 32.00 41.10 + 49.99 + .03 - 0.62 + 49.40 42 4.11 42 53.57
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50 +17.73 -16.50 50 -3.27 0 13.1 0 54.0 38.4 38.9 31.5 9.39 50 57.5 50 46.45 124.87 122.531 132.049 137.707 +20.92 -19.82 36.67 50 26.63 - 25° 27' 3832 + 67 57 38 57 2.15000 2.15014 +2516 2.17516 2.17530 -149.68 -149.73 - .07 + .01 +10 +06 - 2 29.67 - 2 29.68 30 29.9 30 29.6 - 7 29.51 32.55 304 -7.65 +7.00 37 33.7 - 7 25.55 33.51 37 33.52 42.12	50 +22.54 -26.43 50 -3.28 0 3.5 0 1.9 56.8 53.8 120.3 115.7 50 0.15 49 57.55 135.395 142.210 142.473 147.388 +26.59 -31.18 50 26.74 50 26.67 27 3839 38.35 2 17403 -149.29 - .05 + .11 +16 +15 - 2 29.23 - 2 29.17 30 1.62 30 1.44 - 7 30.10 33.13 3.05 -1.24 +7.41 33.36 - 7 25.74 33.23 33.29 42.12	40 -4.37 -29.75 40 -3.87 1 58.9 2 58.5 2.5 1.7 120.4 120.2 42 0.70 42 30.10 0.64246 147.349 272.278 135.401 -5.23 -35.81 41 53.12 41 54.39 19 7.07 65.0 2.15018 2.15039 +2485 2.17503 2.17524 -149.64 -149.71 - .05 + .11 +16 +15 - 2 30.10 - 2 30.10 21 31.17 21 31.17 - 16 7.20 35.9 10.79 +7.07 40.89 - 16 3.92 39.75 37 40.32 42.12	40 +21.11 -20.02 40 -3.86 1 28.8 2 17.8 28.6 17.8 14 14 41 28.70 42 17.80 130.449 130.146 140.401 138.198 +25.86 -24.10 41 54.06 41 53.70 19 5.71 5.53 2.18187 2.18208 -152.01 -152.08 - .08 + .10 -28 +09 - 30 -46 - 52 - 2 32.29 - 2 32.53 21 38.06 21 37.88 - 7.75 11.33 - 35.8 -1.49 +7.16 42.17 - 4.17 42.05 42.11	40 +22.43 -10.54 40 -3.83 1 26.0 2 7.4 25.5 6.3 115 13.7 41 25.75 42 6.55 130.083 102.284 143.135 110.336 +27.01 -12.69 41 52.76 41 53.16 19 4.41 4.61 2.18449 2.18470 -152.93 -153.00 - .08 + .11 -28 +02 - 28 -42 - 2 33.18 - 2 33.48 21 37.59 21 38.29 - 7.11 10.67 - 35.5 -1.16 +7.49 40.77 - 3.18 41.77 41.12	40 +25.40 -27.87 40 -3.78 1 29.1 2 33.0 35.9 40.5 68.0 73.5 41 32.50 42 36.75 140.483 114.4514 148.535 152.566 +30.57 -33.58 42 30.07 42 32.20 19 14.72 14.78 2.16004 2.16028 -144.57 -144.64 - .02 + .14 26 +16 - 2 24.75 - 2 25.02 21 39.47 21 39.87 - 7.86 11.47 - 3.51 -2.83 +7.82 43.12 - 3.65 43.52 43.32
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March 28

March 31

~~-0.63~~
 41 49.4 41 36.9 41 45.5 41 44.8
 51.6 39.6 46.0 47.2
 53.9 41.4 57.0 49.0
 58.5 54.6
 42 0.8 57.0
 3.1 59.1
 5.3 42 27.3 1.5 42 21.6
 7.6 29.4 7.8 23.5
 12.2 31.2 8.3 23.5
 14.5
 16.7 10.7
 12.9
 27.36 35.14
 24.0 30.0
 33.6 41 39.30 65.14 41 47.00
 42 30.55 42 29.30 41 59.218 42 63.53
 32.38 59.201
 + 5.11 - 16.184
 + .03 + .02
 - 0.3560 - 0.87
 + 50.54 - 16.69
 42 3.04 41 59.20
 42 52.58 41 42.51
 53.448

40 +23.75 -26.25 +12.20 -24.31
 -37.7 40 -36.2
 1 24.1 2 25.1 1 39.5 2 22.5
 30.5 31.0 46.7 29.8
 54.6 56.1 86.2 12.3
 41 27.30 42 28.05 41 43.10 42 76.15
 139566 141913 108470 138576
 1145618 140963 116758 146610
 +28.59 -31.68 +14.71 -29.26
 41 55.89 41 36.45 41 57.81 41 56.89
 19 7.54 8.10 19 9.46 8.54
 7.82 9.00
 57 55 58 38
 2,150.11 2,150.36
 +2166 +2523
 2,171.84 1,172.05 2,175.34 2,175.59
 -148.55 -148.61 -149.74 -149.83
 -5 -5 -4 -4
 +12.26 +15 +.03 -21 +13
 -30 -50 -24 -84
 -2 28.78 -2 29.01 -2 29.99 -1 30.08
 21 36.32 37.11 21 39.45 38.62
 -16 8.23 11.73 -8.70
 3.57 -7.8 -3.55
 +7.87 40.18 +8.05 43.65
 -16 3.86 43.77 -44.00 42.82
 37 48.57 43.23

75
 1374.
 7^h 45^m 77^s
 74° 15'
 $\gamma = -3^{\circ} 52'$
 -53

1874

Mar. 1 46^m 75^s -24
 6 45^m 73^s 26
 11 45^m 71^s 28
 16 45^m 69^s 31
 21 45^m 67^s 31
 26 45^m 65^s 31

14^m 75^s +1.1
 75^s 8.2
 81.3 8
 82.0 7
 82.6 6

1874
 3.835
 15.097
 7.312
 8.909
 9.43367
 11.648
 9.55845
 9.98338

corr = +.100
 corr = +.59
 $\log \rho = +3.55$
 $I = 7.62$
 $K = -.056$

941703
 673672
 618377

+ 1874
 +20
 March 1

+ 1874
 +12
 March 2

+ 1874
 +13
 March 5

+ 1874
 +17
 March 8

+ 1874
 +26
 March 12

+ 1874
 +17
 March 16

7 45	43	37.2	45 9.2	43	38.7	45 6.7	44	204	45 4.3	44	180	45 1.1	44	160	44 58.1	44	35.0
182	37.3	13.0	45.8	10.5	26.8	8.2	183	5.1	37.4	45	2.0	42.0	182	5.1	37.4	45	2.0
183	44	4.4	16.8	50.8	14.1	34.1	12.1	24.0	8.8	37.7	6.0	48.3	24.0	8.8	37.7	6.0	48.3
21.0	24.6	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
24.0	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
32.4	44	44.3	32.0	44	40.3	20.7	45	22.6	27.0	31.0	32.0	46.0	35.6	21.1	45	31.8	39.1
36.2	52.7	35.8	47.6	32.3	21.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
39.9	56.8	39.5	52.7	37.0	28.0	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
223	4	2193	1967	1762	1499	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812	1812

45 24.822 45 57.63 45 24.36 45 46.87 45 21.856 45 19.578 45 16.656 45 13.467 45 11.212 45 9.087

45 24.766	-17.22	45 24.31	-16.43	21.800	-14.41	19.522	-12.27	16.600	-9.85	13.411	-6.30
45 24.820	+7.1	45 24.775	+7.43	45 21.631	+4.6	45 19.485	+6.0	45 17.264	+9.2	45 15.042	+6.0
+16.58	45 39.7	+16.58	-3.92	+13.78	-3.78	+12.07	-3.62	+9.84	-3.41	+6.33	-3.19
45 42.9	45 42.9	45 42.9	45 42.9	45 42.9	45 42.9	45 42.9	45 42.9	45 42.9	45 42.9	45 42.9	45 42.9
-17.22	-17.22	-17.22	-17.22	-17.22	-17.22	-17.22	-17.22	-17.22	-17.22	-17.22	-17.22
+6.8	+6.8	+6.8	+6.8	+6.8	+6.8	+6.8	+6.8	+6.8	+6.8	+6.8	+6.8
-3.97	-3.97	-3.97	-3.97	-3.97	-3.97	-3.97	-3.97	-3.97	-3.97	-3.97	-3.97
-20.51	-20.51	-20.51	-20.51	-20.51	-20.51	-20.51	-20.51	-20.51	-20.51	-20.51	-20.51
45 24.77	45 24.77	45 24.77	45 24.77	45 24.77	45 24.77	45 24.77	45 24.77	45 24.77	45 24.77	45 24.77	45 24.77
45 4.26	45 4.26	45 4.26	45 4.26	45 4.26	45 4.26	45 4.26	45 4.26	45 4.26	45 4.26	45 4.26	45 4.26
11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57	11.57

+87.19 -25.78 +99.27 +37.50 +54.76 -8.47 +62.15 +24.79 -23.97 +31.70 -25.40

8.5	0	49.7	0	3.0	0	35.9	0	22.0	0	45.5	0	17.1	0	36.0	0	53.1	0	26.9	0	47.9
2.9	43.3	0.20	22.9	15.0	38.1	9.7	22.9	40.7	21.9	42.0	58.9	9.38	8.8	29.45	0	46.90	0	24.40	0	45.95
11.4	13.0	3.2	88	370	836	268	58.9	9.38	8.8	29.45	0	46.90	0	24.40	0	46.90	0	24.40	0	45.95
5.70	46.50	0	1.60	0	24.40	0	18.50	0	41.80	0	13.40	0	29.45	0	46.90	0	24.40	0	45.95	45.95

1.94047	1.41123	1.99682	1.57403	1.73346	0.73802	1.79344	1.39428	1.39964	1.50106	1.40488
1.49092	0.76173	1.55727	1.12448	1.28891	0.78847	1.34387	0.94473	0.93012	1.03751	0.95528
+36.97	-9.16	+36.08	+13.32	+19.40	-3.08	+22.07	+8.80	-8.51	+11.26	-9.22
0	36.97	0	37.68	0	37.95	0	38.72	0	38.72	0

+74 22 1168 1101 22 1067 1063 22 1040 9.63 22 1288 22 1010 9.96 22 1269 1192
 -34 52 11.34 52 4 51 43
 1.55380 1.54050 1.54050 1.55260

1.56895	1.56875	1.56780	1.56760	1.58101	1.58121	1.56478	1.56458	1.57904	1.57884	1.57187	1.57767
+37.06	+37.05	+36.97	+36.96	+38.15	+38.13	+36.71	+36.69	+37.94	+37.92	+37.83	+37.81

-108-58	-09	-1.40-79	-19	-44-19	-1	-54-28	-09-04	-09	-14-07	-09
0.00	+0.01	0.00	+0.00	+0.02	+0.05	+0.01-56	+0.03	+0.06	+0.03	+0.06
+35.98	+36.97	+35.87	+36.76	+37.73	+38.17	+36.15	+37.88	+37.89	+37.72	+37.78
22 47.66	47.98	22 46.24	47.39	22 48.13	47.80	22 47.03	22 47.88	47.85	22 50.71	49.70
15 18.6	29.4	15.8	28.6	19.4	28.4	19.8	20.7	27.1	21.3	28.4
-7 29.1	29.4	-7 28.0	46.39	-7 28.55	47.10	-7 29.20	-7 29.20	47.48	-7 28.70	46.67
-7 28.7	15.134	-7 28.7	15.134	-7 28.7	15.134	-7 28.7	-7 28.7	15.134	-7 28.7	15.134
-7 30.45	28.55	-7 30.45	28.55	-7 30.45	28.55	-7 30.45	-7 30.45	28.55	-7 30.45	28.55
+7 30.45	28.55	+7 30.45	28.55	+7 30.45	28.55	+7 30.45	+7 30.45	28.55	+7 30.45	28.55

1875-

Mar. 21 45 1494
26 1482 -32
31 1429 33
Apr. 5 13.46 33
10 13.62 34

14 735
14.1 +6
745 4
748 3
750 2

1875-

11.147
+14 52.06
+4.311
-8.918
RMS 9.43367
16 12.552
20 7.55419

X 1874	+23	March 25	+233	+01 1875	+06	March 17	+10	+06	March 18	+07	+05	March 22	+07	+07	March 25	-06	March 27
44 50.944	216	44 43	464 44	22.8	53.3	21.5	42.1	44	16.2	43	34.1	44	11.8	43	13.7	44	43 56.9
34.6	344	22.8	53.3	21.5	42.1	44	16.2	43	34.1	44	11.8	43	13.7	44	43 56.9		
38.8	36.4	26.5	57.1	25.1	55.1	19.7	46.8	15.8	21.1	13.9	7.9	19.7	28.6	27.2	25.0	25.0	
2.4	30.2	33.2	36.7	40.2	44	19.7	35.2	44	21.1	31.0	44	24.8	34.6	31.7	32.8	32.8	
6.3	34.0	33.2	36.7	40.2	44	19.7	35.2	44	21.1	31.0	44	24.8	34.6	31.7	32.8	32.8	
10.1	38.3	41.9	44	48.0	44	19.7	35.2	44	21.1	31.0	44	24.8	34.6	31.7	32.8	32.8	
13.4	45	24.5	48.0	55.5	44	19.7	35.2	44	21.1	31.0	44	24.8	34.6	31.7	32.8	32.8	
17.6	31.9	48.0	55.5	44	19.7	35.2	44	21.1	31.0	44	24.8	34.6	31.7	32.8	32.8	32.8	
21.5	27.8	40.4	2.7	47.6	35.4	42.7	33.2	38.3	42.4	40.6	22.65	43 2.67					
23.57	18.0	34.20	32.88	28.14	24.44	22.65	43 2.67										
55.7	44 34.20	43 52.93	43 48.60	43 46.83	43 20.53	43 2.67											
45 6.189	45 31.44	44 36.000	44 55.40	44 36.533	44 57.60	44 31.267	44 27.57	44 27.156	44 32.16	44 25.167	44 25.167	44 25.167					
6.133	+0.01	37.944	+37.41	36.477	+38.37	31.211	+43.46	27.100	+47.45	25.111	+49.99						
45 6.485	+8.2	45 15.22	18 +0.4	45 15.18	+3.6	45 14.90	86 +2.5	45 14.70	67 +2.5	45 11.54	4 -2.1						
-0.382	-37.84	+2.2	-38.63	+2.2	-43.675	+1.8	-47.605	+2.6	-49.423	-49.423	-33.9						
-0.752	-2.62	-37.684	-4.03	-39.073	-3.96	-44.095	-3.71	-48.00	-3.52	-49.863	-33.9						
4.34	45 11.58	114.8	114.8	114.8	114.8	114.8	114.8	114.8	114.8	114.8	114.8						
+0.01	+0.01	37.944	+37.41	36.477	+38.37	31.211	+43.46	27.100	+47.45	25.111	+49.99						
+0.83	+0.83	37.944	+37.41	36.477	+38.37	31.211	+43.46	27.100	+47.45	25.111	+49.99						
-2.62	-2.62	37.944	+37.41	36.477	+38.37	31.211	+43.46	27.100	+47.45	25.111	+49.99						
+1.80	+1.80	37.944	+37.41	36.477	+38.37	31.211	+43.46	27.100	+47.45	25.111	+49.99						
45 6.13	7	29.244	37.94	-16 6.91	44 36.48	-16 7.29	44 31.21	-16 6.61	44 27.10	-16 7.76	44 25.11	-16 7.64					
45 7.93	435	-2150	45 11.56	-20.90	45 11.52	-21.00	45 11.32	-21.50	45 11.41	-21.90	45 11.46	-22.10					
15.242	11.66	15.164	17.4	14 52.12	14 51.74	14 52.74	14 52.74	14 52.74	14 52.74	14 52.74	14 52.74	14 52.74					
8	5	5	5	5	5	5	5	5	5	5	5	5					
0 +31.99	-25.21	50 +4.07	-17.40	50 +4.773	+8.93	50 +50.94	+3.70	50 +66.63	-5.08	50 +22.150	50 +22.150	50 +22.150					
-3.35	-3.35	-3.87	-3.87	-3.87	-3.87	-3.87	-3.87	-3.87	-3.87	-3.87	-3.87	-3.87					
0 23.1	1	47.8	2 10.8	1 49.4	2 4.7	1 47.9	2 5.9	1 39.0	2 4.9	1 34.0	1 50.5						
21.0	54.0	17.5	50.6	5.9	49.4	7.0	42.9	8.9	46.8	1.8	1.8						
61	101.8	83	100.0	10.6	17.3	12.9	81.9	13.8	80.8	11.23	11.23						
0 23.05	51	50.90	52 14.15	54 50.00	52 5.30	51 48.65	52 6.45	51 40.95	52 6.90	51 40.40	51 56.15						
150501	1.40157	1.62397	1.24155	1.68061	0.95785	1.70716	0.56820	1.82367	0.70415	1.35218	1.35218						
1.05546	0.95282	1.18316	0.77977	1.33981	0.51004	1.26625	0.12739	1.38286	0.26334	0.91637	0.91637						
+11.36	-8.95	+11.36	-6.31	+17.37	+3.24	+18.46	+1.34	+24.15	-1.88	+8.15	8.15						
0 34.41	52	7.84	52 7.84	52 7.84	52 7.84	52 7.84	52 7.84	52 7.84	52 7.84	52 7.84	52 7.84						
22 13.94	30 42.20	40.51	30 40.98	39.81	30 41.24	40.56	30 43.25	43.25	30 43.25	30 43.25	30 43.25						
+12.80	+12.80	+12.80	+12.80	+12.80	+12.80	+12.80	+12.80	+12.80	+12.80	+12.80	+12.80						
1.56660	1.56660	1.57860	1.57830	1.58564	1.58834	1.58807	1.58797	1.57461	1.57451	1.56362	1.56352						
+86.87	+86.87	+86.87	+86.87	+86.87	+86.87	+86.87	+86.87	+86.87	+86.87	+86.87	+86.87						
-14 -13 -09	-29 -58 -04	-33 -56 -1	-36 -42 -36	-36 -42 -36	-36 -42 -36	-36 -42 -36	-36 -42 -36	-36 -42 -36	-36 -42 -36	-36 -42 -36	-36 -42 -36						
+01	-38	-46	-36	-42	-36	-42	-36	-42	-36	-42	-36						
+36.74	+37.23	+37.39	+37.81	+38.06	+38.00	+38.30	+38.62	+37.11	+36.20	+36.15	+36.15						
22 54.68	31 18.34	17.90	31 18.79	17.87	31 19.24	18.86	31 19.77	20.34	31 20.20	31 20.20	31 20.20						
22.5	15	130	131	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6						
28.2	16	54	119	5.7	4.8	5.6	5.3	5.9	6.4	6.4	6.4						
28.2	16	54	119	5.7	4.8	5.6	5.3	5.9	6.4	6.4	6.4						
276	276	276	276	276	276	276	276	276	276	276	276						
29.43	30.41	16	720	51.85	29.82	7.75	51.85	29.82	7.75	51.85	29.82						
1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71						
21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50	21.50						

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♌ Geminoid.

7 h 45 sec

+27° 5'

$\gamma = +15^{\circ} 18'$
+26

1874

2
25
25
25

1.058 2.94956
1.6 1.11678
16 0.66634

1.058 9.65828

1875

45 50.70
5 14.37
+3.682
-8.95

2.94956
1.20621
0.7588

corr. =

corr. =

tang. = +.51

I = 23.2

K = -0.17

+1874

March 2

7 45 +1.20
46 1.0
2.1
3.3
4.5
5.6
6.8
8.0
9.1

10.01

6.0

4.01 46 16.77

46 4.456

4.439

-16.46

+ .06

-1.03 +2.652

-17.43

46 4.44

45 4.701

50.692

5

-12.31

4 45.6

43.9

9 44.75

1.09016

1.10660

+14.34

9 52.27

+27° 12' 49.26

+15 17 17

1.19710

+15.24

1.21214

-16.30

-0.3 +.01

+0.5

-16.28

+27 12 32.98

-7 30.27

-6.16

-7 37.25

+ 55.13

March 5

7 45 +1.40
46 1.0
2.1
3.3
4.5
5.6
6.8
8.0
9.1

7.18

6.0

1.18 46 12.80

46 2.360

2.343

-14.45

+ .07

-1.00 +2.682

-15.38

46 2.34

45 4.6.96

50.642

5

-10.44

4 45.9

39.4

9 42.65

1.01870

1.10850

+12.14

9 41.82

12 53.53

+27.18

1.22478

-16.78

-0.2 +.16

+0.33

-16.47

12 37.06

-7 30.40

-6.35

-7 37.58

5.48

1874

March 8

7 45 +1.44
46 1.0
2.1
3.3
4.5
5.6
6.8
8.0
9.1

30.21

6.0

4.0 46 18.47

46 0.191

46 0.174

-13.24

+ .07

-0.96 +2.722

-13.13

46 0.17

45 4.7.04

47.003 50.722

5

-18.28

-36.98

-4.88

-3.23

4 54.9

49.0

10.39

9 51.95

10 12.50

1 6.10

1 47.30

1 26.20

1.26198

1.56797

1.32832

1.63431

-21.30

-43.08

-5.76

0 59.82

9 30.65

9 29.42

0.34

1875

March 25

7 45 +1.40
46 1.0
2.1
3.3
4.5
5.6
6.8
8.0
9.1

8.16

6.0

2.16 45 9.17

45 4.32

4.30

+47.43

+ .07

-1.10

+46.40

45 4.30

45 50.70

5

-18.28

-36.98

-4.88

-3.79

4 54.9

49.0

10.39

9 51.95

10 12.50

1 6.10

1 47.30

1 26.20

1.341616

1.42124

+26.38

0 59.82

21 48.53

21 48.53

21 48.53

21 48.53

21 48.53

21 48.53

21 48.53

March 27

7 45 +1.40
46 1.0
2.1
3.3
4.5
5.6
6.8
8.0
9.1

12.87

6.0

0.87 45 23.93

45 1.744

1.723

+52.00

- .01

-1.08

+48.88

45 1.72

45 50.60

5

-18.28

-36.98

-4.88

-3.78

4 54.9

49.0

10.39

9 51.95

10 12.50

1 6.10

1 47.30

1 26.20

1.341616

1.42124

+26.38

0 59.82

21 48.53

21 48.53

21 48.53

21 48.53

21 48.53

21 48.53

21 48.53

March 28

7 45 +1.40
46 1.0
2.1
3.3
4.5
5.6
6.8
8.0
9.1

30.74

6.0

7.4 44 48.53

45 0.673

0.656

+51.11

- .03

-1.05

+50.03

45 0.66

45 50.69

5

-18.28

-36.98

-4.88

-3.77

4 54.9

49.0

10.39

9 51.95

10 12.50

1 6.10

1 47.30

1 26.20

1.341616

1.42124

+26.38

0 59.82

21 48.53

21 48.53

21 48.53

21 48.53

21 48.53

21 48.53

21 48.53

March 31
~~44 43.114 34.9~~
~~44 43.4 34.9~~
~~44 43.4 40.6~~
~~53.5~~
~~53.9~~
~~54.0~~
~~53.2~~
~~7.8~~
~~6.1~~
~~8.5~~
~~10.8~~
~~386.9~~
~~24.0~~
~~44 626.9 44 37.80~~
~~44 56.97~~
~~56.974~~
~~44 -16.121~~
~~-1.02~~
~~-1.00~~
~~-17.16~~
~~44 56.97~~
~~44 39.81~~
~~39.80~~

+19.17
~~38.2~~
~~0 30.1 0 30.4~~
~~41.7 41.8~~
~~7.18 72.2~~
~~0 33.90 0 36.10~~
~~1.08304~~
~~1.35815~~
~~+22.87~~
~~0 58.71~~
~~21 49.64~~

+25.24
~~1.22214 1.22241~~
~~-16.68 -16.69~~
~~-17.16~~
~~+0.08 -0.08~~
~~-16.84~~
~~21 32.80~~
~~-16 57.0 9.69~~
~~-9.9 -17.14~~
~~-8.09~~
~~-16 17.88~~
~~5 14.92~~

E Draco L.C.
 $19^\circ 48' 35''$
 $110^\circ 3'$
 $69^\circ 57'$
 $z = -67^\circ 40'$
 -92

$$\begin{array}{r}
 18.44 \\
 11 \quad 35.358 \\
 + 56.6830 \\
 \hline
 73.9 - 0.172 \\
 73 + 9.146
 \end{array}$$

$\text{corr}d =$
 $\text{corr}d =$
 $\text{long}d = -2.75 - 2.90$
 $T = 6.02$
 $K = +0.41$

$\Delta A.$ 1175 1274
 $\times 194 + 35088$ 35,271
 $\sqrt{46956 \quad 56.98}$ 56 47.83

[illegible]

March 31

~~-0.33~~
 44 43.44 34.9
 454 34.9
 454 40.6
 52.5
 54.7
 54.0
 57.2
 7.8
 6.1
 8.5
 10.9
 386.9
 240
 626.9 44 37.80
 44 36.97
 36.974
 - 16.14
 - 1.02
 - 1.00
 - 17.16
 44 36.97
 44 39.81
 39.81

+19.17
~~38.2~~
 0 30.1 0 30.4
 41.7 41.8
 7.8 72.2
 0 35.90 0 36.10
 1.28304
 1.35815
 +22.81
 0 88.71
 21 49.64

+2524
 1.22214 1.22244
 -16.68 -16.69
 -0.8 -16
 -0.8 -0.8
 -16.84
 21 32.80
 -16 37.0 9.69
 -8.09 -17.14
 -16 17.88
 5 17.92

E. Draco. L. Co.

19x^h 48 23

110° 3'

$$Z = \begin{pmatrix} -690 & 571 \\ -67 & 40 \\ -92 & \end{pmatrix}$$
$$\begin{array}{r} 18714 \\ \alpha \quad 35.358^{\circ} \\ \beta \quad +56.48.30'' \\ \frac{d\alpha}{dt} \quad -0.172 \\ \frac{d\beta}{dt} \quad +9.146 \end{array}$$

LcosD 9.53509m
 L6 11678
 L6' 9.65187m
 LsinD 9.97285

corr d.
corr p.

long $\rho = -2.75$ 2.90

IL 6024

$$K = +,041$$

NA.

1495

1279

x 19 4f 35098

35, 27!

✓ 46956 56.98

56 47.83

1874
+ 20
March 21

+12
March 2

+13
March 5

March 8

March 16

+23
March 28

[illegible]

49708	-17.22	48819	-16.42	47052	-14.40	45197	-12.27	39574	-6.28	34230	+0.01
	85		33		36		47		47		63
-17.21		-16.46		-14.45		-12.24		-6.83		+0.01	
33	+3.33	33	+3.28	38	+3.14	40	+2.97	49	+2.53	64	+1.99
+3.23	48 35.27	+3.28	35.35	+3.14	35.43	+2.97	35.40	+2.53	35.35	+1.99	35.60
-7.441		-13.51		-11.69		-9.47		-4.29		+0.38 ⁶	
49.71		48.82		47.05		45.20		39.57		34.23	
5.64	10 59.85	35.31	11 06.4	35.36	11 07.8	35.43	11 2.54	35.28	11 1.79	38.56	11 4.49
35.30	-7 30.15		-7 30.06		-7 30.28		-7 30.12		-7 29.62		-7 29.24
	+ 2.7		+ 2.7		+ 2.7		+ 2.7		+ 2.8		+ 2.8
	21.90		- 22.10		- 22.60		- 23.20		- 24.60		- 25.90
110	3 10.05	3	11.18	3	10.60	3	11.92	3	10.37	3	12.15

[illegible]

3 H. Ursa. Maj.
8^h 0^m 15^s recf.
+ 68° 50'

$\beta = -26 \quad 29$
-45

1874
0 14.906
50 29.70
+ 60.67
- 10.87

Lead 9.55761
26' 11678
26' 9.67439
Lead 9.96966

1875
0 20.773
50 19.63
+ 61.066
- 10.06

9.55761
12552
9.63318

1874
corr = Mar 1 0^m 18.09
corr = 6 17.93 -16 45.0
11 17.78 -18 46.1 +11
16 17.55 -20 47.1
21 17.34 -21 48.0
26 17.12 -22 48.7
31 16.88 -24 49.3
K = -0.40

1874
March 1
+1.20
+1.92

8 0 23.1 0 4.7 0
26.1 10.8
28.9
32.0
34.6
37.5
40.5 0 27.9
43.3 33.3
46.2 38.6

31.23 0 5.17
0 34.700 0 33.27

1875
March 25
+2.23
+2.33

58 4.7 0 5.0 59 422 59
7.8 468
10.7 518
13.4
16.4
19.4
22.2 0 35.5
25.0 41.4
27.9 45.3

15.81 59 46.93
15.844 0 40.73
16.457

1875
March 17
+0.1 +0.6
+0.76

0 5.0 59
11.0
15.4
34.1
36.9
39.5
42.3
45.4
48.4
51.1
54.0
56.9

4.635 0 10.47
46.335

1875
March 18
+1.0 +0.6
+1.10

59 46.2
57.0
54.4
34.1
36.9
39.5
42.3
45.4
48.4
51.1
54.0
56.9

59 45.400 59 50.20

March 29

59 58 546
18.4 58.8
21.5 40
24.4
27.1
30.2 33.3
32.7 59 38.9
35.4 43.1
38.4
41.3

59 30.222 59 38.43

March 30

58 59.15
59 38.43

34.660

-17.21
+5.2

15.344
16.417

+0.02
+5.9

59 46.295

+37.42
+0.3
+1.7

45.360

+38.39
+2.6
+1.7

30.182

+53.53
-0.8

+ 17.21 -318

+ 1.49 0 14.79

+ 0.02 -2.25

+ 0.60 14.78

+ 37.39 -33.5

+ 2.0 59 20.57

+ 38.41 -33.0

+ 1.44 30.88 8

+ 3.18 +2.89

+ 1.63 15.30

+ 35.55 59 43.36

+ 53.54 -277

+ 19.90 0 34.66

+ 2.25 +3.82

+ 3.35 59 46.29

+ 3.30 59 43.36

+ 2.77 20.88

+ 50.10 59 30.18

0 14.76

58 15.23

0 13.67

58 19.00

0 20.53

16 45.24

0 20.91

16 44.25

0 20.88

16 7.77

0 20.83

58 15.30

0 20.86

58 19.50

0 20.91

16 44.25

0 20.88

16 7.77

50 31.18

50 31.76

50 24.33

50 19.66

50 18.60

50 24.33

50 19.66

50 18.60

50 24.33

50 19.66

50 18.60

50 24.33

50 19.66

50 18.60

50 24.33

50 19.66

50 18.60

50 24.33

20 +29.53

+1.43

20 +29.53

+1.43

20 +29.53

+1.43

20 +29.53

+1.43

20 +29.53

+1.43

20 +29.53

+1.43

20 +29.53

+1.43

20 +29.53

+1.43

20 +29.53

+1.43

4 51.1 0 4.7

4 47.9 0 12.0

4 41.2 1 55.9

1 5.0 1 35.2

1 13.5 1 36.1

1 10.2 1 29.0

4 46.2 59.7

4 42.3 8.1

4 48.1 0.8

4 8.0 38.8

4 24.2 46.4

4 22.1 41.5

4 9.7 124.4

4 10.2 20.1

4 9.3 116.7

4 13.0 140

4 37.7 82.5

4 32.3 70.5

24 48.65 25 2.20

24 45.10 25 10.05

16 44.65 16 58.35

16 6.50 16 37.00

16 18.85 16 41.25

16 16.15 16 35.25

1.47026 0 15.534

1.47026 1.38507

1.38274

0.68728

1.49262 0.91434

1.14465 9.82913

1.14465 1.05946

1.06587

1.16701 0.58873

+13.95 +0.68

+14.69 -3.88

16 30.84 16 31.37

25 2.60 25 2.88

24 59.05 24 58.58

16 33.01

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

16 34.73

1.47026 0 15.534

1.47026 1.38507

1.38274

0.68728

1.49262 0.91434

1.14465 9.82913

1.14465 1.05946

1.06587

1.16701 0.58873

+13.95 +0.68

+14.69 -3.88

16 30.84 16 31.37

16 30.84 16 31.37

16 30.84 16 31.37

16 30.84 16 31.37

16 30.84 16 31.37

16 30.84 16 31.37

16 30.84 16 31.37

+68° 57' 45.75

45.47 57 49.30

49.77 6 15.34

6 34.58 6 13.62

6 17.51 16.98

17.24

27 32 27 13

1.45720 1.45712

+19.45

1.47665 1.47655

+29.97 +29.96

1.47665 1.47655

+29.97 +29.96

1.47665 1.47655

+29.97 +29.96

1.47665 1.47655

+29.97 +29.96

1.47665 1.47655

-26 27 39 27 26

1.45720 1.45712

+15.25

1.47245 1.47233

+29.68 +29.67

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1.47245 1.47233

+15.25

1.47245 1.47233

+29.68 +29.67

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1.47245 1.47233

+29.68 +29.67

1.47245 1.47233

+29.68 +29.67

1.47245 1.47233

+0.05 +0.00

+0.05 +0.00

+0.05 +0.00

+0.05 +0.00

+0.05 +0.00

+0.05 +0.00

+0.05 +0.00

+0.05 +0.00

+0.05 +0.00

+0.05 +0.00

1875

	10	0	24.59		50	37.0	
Mar	15		24.16	-19		37.9	+7
	20		24.19	.21		38.7	.8
	25		23.97	.22		39.4	.7
	30		23.74	.23		39.9	.5
	4		23.50	.24		40.4	.5
Apr.	9		23.26	.24		40.7	3

1874
 3 Cancun. pr
 8^h 3^m 2^{sec}
 + 18° 2'
 $\gamma = +24^{\circ} 21'$
 + 41'
 Obs 9.97812
 66' 11678
 66' 09490
 Obs 9.49076

1875-
5 2.49
1 22.35
+ 3.450
- 10.50

997812
112552
010264

$$\begin{aligned} \text{corr } S &= \\ \text{corr } P &= \\ \text{lang } P &= +.323 \\ I &= 2.17 \\ K &= -.016 \end{aligned}$$

1874

March 25

Apr. 4

Pr

8 4 ⁺²⁸³ 4 37.0 Chf.

46.7

49.0

57.1

53.4

57.5

59.4

1.9 5 21.0

4.1 22.8

8.4 24.3

10.6

12.7

3571

300

65.71 4 37.00

4 59.736 5 20.70

59.720

+ 1.02

+ .08

- 0.14 +27.10

- 0.64

4 59.72

4 59.08

2.530

1875
March 8
+ 010

4	—	4	422
	—		457
	30.4		47
	32.9		
	35.0		
	37.2		
	39.3		
	—		
	—		
	251		
4	35.020	4	44.88
	35.004		
+	28.49		
+	1.00		
—	1.32		
+	27.47		
4	35.00		
5	247		

March 18		March 29	
4	13.9	4	14.9
	14.3		16.8
	16.5		19.0
	21.0		6.9
	23.0		9.0
	25.2		11.2
4	29.3	4	13.4
	29.5		15.7
	33.8		—
	36.0		—
	38.1		—
27	68	56	2
4	8.37	4	16.70
4	51.87	4	11.240
	25.148		11.224
+	38.41	+	52.88
+	0.06	+	0.00
-	1.20	-	1.04
+	37.27	+	51.24
4	25.10	4	11.22
5	2.42	5	2.46
			2.4500

$$\begin{array}{r}
 10 \quad + 2274 \quad - 2296 \quad 10 \\
 \text{Hgt.} - 335 \\
 2 \quad 51.3 \quad 3 \quad 46.9 \\
 \quad 41.8 \quad \quad 37.8 \\
 \quad 931 \quad \quad 847 \\
 12 \quad 46.55 \quad 13 \quad 42.35 \\
 1.35679 \quad 1.36097_n \\
 1.45169 \quad 1.45387_n \\
 + 28.29 \quad - 28.57 \\
 13 \quad 14.84 \quad 13 \quad 13.78 \\
 + 18^\circ \quad 9 \quad 33.51 \quad 34.57 \\
 \quad \quad 34.04 \\
 + 24 \quad 20 \quad 19 \quad 21 \quad 14 \\
 1.41570 \quad 1.41600 \\
 + 13.15 \\
 1.42885 \quad 1.42915 \\
 - 2684 \quad - 2686 \\
 - 07 + 02 \quad - 08 \\
 + 08 \quad + 11 \\
 - 2683 \quad - 2683 \\
 + 18 \quad 9 \quad 6.68 \quad 7.74 \\
 - 7 \quad 29.43 \quad 30.80 \\
 \quad \quad 131 \quad - 14.48 \\
 \quad \quad - 395 \quad 1 \quad 3190 \\
 - 7 \quad 34.78 \quad 3296 \\
 1 \quad 3296 \quad 32.43
 \end{array}$$

$0 \rightarrow 481$
 -388
 $7 \quad 4 \quad 56.9$
 $8 \quad 59.1$
 $0 \quad 16.0$
 $0 \quad 4 \quad 58.0$
 0.99167
 1.07531
 -12.46
 $5 \quad 14.44$
 $4 \quad 46.54$
 $79 \quad 8.81$
 $18 \quad 2$
 $+2461$
 $1,44031$
 -27.56
 -2
 -1.05
 -26.63
 $161 \quad 82.18$
 $-16 \quad 8.58$
 -1.59
 -3.51
 $-16 \quad 13.90$
 $1 \quad 20.28$
 20.28

0	+1679	-2879	0	-5.66	
	-3.86			-3.84	
4	23.9	0	19.2	4	48.5
	22.1		19.1		54.8
	60		3		103.3
4	23.00	5	19.15	4	51.65
1.22505	1.41347	n	0.75282		
1.32867	1.57711	n	1.85646		
+21.31	-32.89		7.79		
4	44.31	4	46.36	4	58.44
					44.46
18	4.04	2.09			3.89
	3.06				
20	35	21	31		
1.41530	1.41600				
+3214				+2096	
1.44794	1.44814	1.43676	1.43696		
-28.05	-28.06	-27.34	-27.35		
-04	-53	-07		-49	
-88		-06		-98	-99
-28.97		-28.21		-28.33	
17	35.07	33.88		3556	
-7.75	9.33			-8.53	10.10
-158	-14.36			-1.57	-14.76
-3.86		21.88		-4.26	
-13.19		20.69		1936	
2128				2120	

1874pnae.proj.1472.
 20 Navis
 30 35 sec
 15° 24'
 + 57° 47'
 + .85

1874	1875
7	3528
24	4756
	+ 2758
	- 1060
Acid 9.98412	9.98412
16	12532
16	0.10090
Grind 9.42416	

$$\begin{aligned} \cos \alpha &= \\ \cos \beta &= \\ \tan \alpha &= -0.28 \\ I &= 215 \\ K &= -0.16 \end{aligned}$$
 $7 =$ [illegible][illegible]

1875-

Feb.	19	45.42		24	99	
	6	45.38	-.04		99	+0
	11	45.33	.05		99	.0
	16	45.27	.06		99	.0
	21	45.21	.06		99	.0
	26	45.15	.06		100	.1
	31	45.08	.07		10.1	.1
Apr.	5	45.00	.08		10.2	.1
	10	44.92	.08		10.3	.1

1874.0	8	1875.0	8
40.81		44.11	
85		44.09	
81		43.90	
86		44.10	
76		44.11	
		44.11	
		44.14	
40.818		44.080	
852	1949	111	8.69
-.034		-.031	

+0.04 +0.06		+0.01 +0.06		+0.10 +0.06		-0.02		-0.03		-0.12						
March 11		March 17		March 18		March 29		March 30		April 5						
9	0.8 8	52.5 8	55.3 8	56.9 8	54.2 8	41.3 8	40.8 8	350 8	391 8	30.1 8	36.0 8					
	2.9	54.9	57.9	59.8	56.4	43.1	42.4	350	41.1	31.5 9	38.0 9					
	5.1	56.5	59.6	1.2	58.5	45.0	44.5	39.2	43.1		40.2					
	9.3		16	9	2.6		48.6		47.4		44.3					
	11.5		5.6		4.6		52.8		49.6		46.4					
	13.5		7.9		6.7		52.9		51.6		48.5					
	15.6 9	32.4	9.0 9	29.5	8.9 9	24.0	54.9 9	13.9	53.7 9	2.1	50.6 8					
	17.7	33.9	12.0	31.4	11.0	26.1	57.0	15.6	55.4	4.4	52.7 10					
	21.9	36.3	16.1	33.0	15.2	28.5	1.1	17.3	57.2		56.8					
	23.9		18.3		17.3		3.2		1.9		59.0					
	26.0		20.5		19.3		5.4		4.1		1.0					
	148.2 8	57.57	26.42 8	69.30	25.47 8	40.13	40.1 8	57.17	44.71 8	30.80	47.35 8					
	9	34.20	18.0 9	31.50	18.0 9	20.20	18.0 9	18.60	12.6 9	3.25	6.0 8					
			84.2		74.7		58.11		56.71		53.35 10					
9	13.473		9	7.564	9	6.791	8	52.87	8	51.555	8	48.500				
		+31.81		7.655		+37.43		+52.29		+53.56		-3.48				
	13.457	+0.01		7.639		+0.02		-0.00		-0.01		-0.02				
9	45.33	+0.06	9	45.265	+0.06	9	45.254	+0.06	9	45.09	9	45.00				
	-81.87	-1.22		-37.621	-1.14		-38.48	-1.13		-53.55		-56.52				
		44.13		43.99		44.13		44.11		44.11		+5.98				
	+31.884		+37.433		+38.483		+52.29		+53.55		-3.43					
	+0.01		+0.01		+0.03		+0.00		-0.00		-0.02					
	-1.22		-1.14		-1.13		-0.99		-0.98		-0.89					
	+30.63	50	+36.26	2022	+37.33	2047	+51.30	2106	+52.57	1937	+4.34					
9	13.46	-16	9	7.64	-16	6.77	8	52.81	-16	51.54	-16	48.48				
		-18		-18		-18		-18		-18		-17				
9	44.09	-120	9	43.90	-120	9	44.10	-120	9	44.11	-140	9	44.14			
	9	34		34		34		34		34		34				
		7.55		10.31		10.18		27.5		8.43		9.60				
30	+18.90	-20.73	30	+8.35	-23.65	+23.66	-14.41	+10.76	-22.77	+20.75	-11.70	30	+21.23	-16.33		
	-3.88			-3.87		-3.86		-3.84		-3.83			-3.61			
1	21.5	2	13.7	1	35.1	2	16.8	1	17.1	2	14.0	1	23.5	2	14.8	
	25.1		17.9		39.8		20.6		17.5		14.0		30.8		21.1	
	6.6		11.6		14.9		3.74		6		0		54.3		35.9	
31	23.30	32	15.80	31	37.45	32	18.70	31	17.30	32	14.00	31	21.15	32	17.95	
	1.27646	1.31639	0.92169	1.37383	1.37403	1.28803	1.17756	1.35736	1.31702	1.06819	1.32695	1.18354	1.37590	1.43585	1.04113	
	1.37590	1.43585	1.04113	1.47327	1.47347	1.40747	1.31700	1.47680	1.43646	1.18763	1.44637	1.30498	1.4488	-27.28	+10.99	
	+24.88			-30.43	+31.15	-25.55	+20.75	-27.98	+27.32	-13.09	+27.00	-20.18	31	48.18	31	48.52
	31	48.18	31	48.41	31	48.27	31	48.45	31	48.97	31	50.81	31	48.00	31	50.32
51	0.17	39.83	50	59.91	0.08	50	59.90	51	0.45	0.38	51	0.38	51	0.35	51	0.35
	0.06			59.99		59.90		0.41		58.46				59.19		58.03
														47	33	48
														1.56920	1.56940	22
														110.44		
	+21.79		+25.41		+32.24		+21.07		+19.75		+15.89		+15.89	1.57964	1.57984	
	1.59002	1.59129	1.59461	1.59491	1.59144	1.59174	1.59027	1.59057	1.58895	1.58925	1.57964	1.57984				
	-38.99	-39.02	-39.32	-39.35	-39.03	-39.06	-38.93	-38.96	-38.81	-38.84	-37.99	-38.01				
	-03.41	-04	-1.43	-04	-04	-03	-02	-40	-03	-03	-26	-01	-03	-27	-02	
	-29	-46	-34	-48	-26	-44	-30	-46	-20	-29	-18	-31	-18	-31	-31	
	-39.31	-39.52	-39.64	-39.87	-39.33	-39.53	-39.25	-39.45	-39.04	-39.14	-38.20	-38.34				
50	20.86	20.31	50	20.24	20.21	50	20.57	20.37	50	20.20	20.3	50	20.34	18.40	50	22.15
	9.9			9.9			9.9			10.1				10.2		19.69
	16	11.0	10.3	10.3	10.7	10.5	11.1	10.8	10.2	8.3	11.2	7.5				
	16	10.7	10.3	10.3	10.6	10.3	11.0	10.8	10.2	8.3	11.2	7.5				
	8.52	10.61	9.05	7.20	9.28	9.76	8.53	10.60	8.36	10.42	8.52	8.69	10.63	10.02		
	2.09	12.00	8.50	2.08	13.00	9.73	2.07	12.20	2.06	12.20	6.58	1.94	12.30	7.56		
	1.20	34	8.79	1.20	34	8.75	1.20	34	1.40	9.06	1.40	8.79				

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к Сепкевич Л.С.

20 ~~x~~ h' $13^m 3^s$ sec.

$$\begin{array}{r} 102^{\circ} \\ 77 \end{array} \quad \begin{array}{r} 40 \\ 20 \end{array}$$
$$Z = -\frac{60}{.87}$$
$$\text{cond} = \text{cond}$$

Länge $\delta = -4.45 \quad 4.55$

I. 9.30

$K = 1.47$

$$K = +0\%$$

1874
+ 09
March 22

+23
March 23

March 30

1874
+ 08
April 6

1875
March 8

+04 +06
March 11

8 12 $+0.97$
4.11
4.92
3.46
5.80
4.1
8.7
13.3
18.0
22.7
27.53
240
353
13 3.922

$+2.233$
 $-12 \quad 439$
 485
 332
 58.2
 2.7
 72
 178
 166
 22.1
 2642
 240
 242
 132689

12	2863	13	220
	540		284
	5263		38.1
12	58.478	13	39.00

7	1.080		
42	35.1	11	56.2
	39.4		6.7
	44.3		11.0
	48.7		
	53.6		
	58.6		
	3.1	12	59.1
	7.4		4.7
	12.5		13.7
	30.27		
	180		
	48.27	12	4.63
12	53.633	13-	5.83

12	12	12
10.7	11.7	
15.0	21.9	
20.2	40.8	
24.4		
29.0		
33.8		
38.6		
43.4		
47.9		
26.28	12	8.15
	12	12.75
12, 29.200		31.35
		12

7.050	11	186
9.9		283
125		349
180		
21.4		
26.7		
31.3		
36.1		
40.5		
45.1		
23 88	11	27.20
26.533		

$$\begin{array}{r}
 3.99\overset{2}{8} \\
 13 \quad 1.76 \quad 1.21 \\
 + 2.83 \quad 98 \quad +4. \\
 \hline
 13 \quad 5.68 \quad 15 \\
 3.76 \quad 1.22 \\
 \hline
 3.65
 \end{array}$$

$$\begin{array}{r}
 2750 \\
 13 \overline{) 1438} \\
 \underline{+ 135} \\
 29 \\
 \underline{+ 003} \\
 104 \\
 \underline{+ 396} \\
 295 \\
 13 \overline{) 276} \\
 \underline{26} \\
 16 \\
 \underline{13} \\
 3
 \end{array}$$

$$\begin{array}{r}
 1 \\
 58,548 \\
 13 \quad 1,888 \quad 92 \\
 - 6,253 \\
 \hline
 39 \\
 + 3.84 \\
 - 13 \\
 + 3.51 + 1610 \\
 + 7.25 \quad 47 \quad 59.50 \\
 12 \quad 58,55 \quad - 2653 \\
 + 27 \\
 13 \quad 580 \quad - 2490 \\
 \hline
 3,900 \quad 40 \quad 8.75
 \end{array}$$

	83,703	+962
		-36
13	2589	
	-888	+284
	89	580
+	958	
	36	
+	284	+0940
+	1206	48 0.12
12	5370	-7 269°
		+ 38
13	576	- 2550
	3860	40 8.45

$$\begin{array}{r} 29.270 \\ 12 \overline{) 57.775} \\ \underline{-28.448} \\ + 28.880 \\ 04 \\ + 5.78 \\ + 34.54 \\ 12 \overline{) 29.27} \quad -16 \quad 844 \\ \phantom{12 \overline{) 29.27}} + 30 \\ 13 \quad 3.81 \quad - \quad 2120 \\ 39 \quad 58.26 \end{array}$$

$$\begin{array}{r}
 +31.81 \\
 26.600 \\
 -18 \\
 \hline
 57.926 \\
 -27 \\
 \hline
 -31.326 \\
 +53.7 \\
 \hline
 3.53
 \end{array}$$

[illegible]

-31.02
 35
 -239
 $1 \quad 22.2$
 23.3
 55
 $36 \quad 22.75$
 $1.49164n$
 0.94942
 $+8.90$
 $36 \quad 31.65$
 $13 \quad 43.30$
 $46 \quad 16.70$
 -60
 $+932$
 2.01131
 $+10264$
 $+ .01$
 $+11 \quad +07$
 $+04 \quad +15$
 $+1 \quad 12.80$
 $15 \quad 46.10$
 $2 \quad 258$
 $0 \quad 342$
 $47 \quad 54.0$
 253
 253
 20.11
 211

	+49.00	-12.20
35	-3.48	
1	44.4	1 26.4
	48.1	30.3
	12.5	56.9
36	46.25	36 28.45
1.69020	1.08636	
1.14798	0.54414	
-14.06	+3.80	
36 32.19	36 31.95	
13	43.84	43.60
46	16.16	16.40
15	16.2	15 00
2.00193	2.00202	
+1390		
2.01583	2.01592	
+103.71	+103.73	
+ .01	+ .01	
	+29.10	+0.1
	-.05	-.04
+1	43.06	43.71
15	24.80	24.31
62.0	2.82	+30.2
3.90	3.98	-25.50
48	912.7	515.60.11
	25.3	85.4
	25.3	85.3
	29.40	29.40

25	21.05 677	-2.15	25
	-3.88		
3	12.0	3	3.9
	19.5		12.4
	115		16.3
28	15.75	28	8.15
	1.32 325		
	0.475 43	0.332 44	
	0.44 19.5	7.9 896	
	1.75 115	+0.62	
	28 12.78		
	7.59	28 8.99	28
	5 24.63	20.92 5	
	54 38.76	3.98	
	15 32.1	15 40	
	2.00 188	2.00 193	
	+2481		
	2.02669	2.02674	
	+106.34	+106.34	
	+ .02	+ .02	
	+0.5	-63	
	-67	+65	
	+1 46.74	+1 48.71	
	7 678	7 713	
	40	+3.37	3.48
	195	-21.20	-32.20
56	24.30	16.26	29.9
-16	50	57.87	78
-16	64	58.6	

$+ 59.33$
 $- 3.58$
 $3 \quad 21.9 \quad 2 \quad 56.0$
 $31.7 \quad 51.9$
 $53.6 \quad 121.9$
 $8 \quad 26.80 \quad 8 \quad 0.93$
 0.327
 23979
 $- 17.37$
 9.43
 $- 21.08$
 $4 \quad 38.92$
 $+ 21.88$
 $0.2376 \quad 2023.81$
 $+ 105.63 \quad + 105.65$
 $+ .02 \quad + .02$
 $+ .42 - .29$
 $- 71 \quad - .68$
 $1 \quad 45.36$
 $7 \quad 644 \quad 51.5$
 $39.9 \quad + 3.37$
 $20.1 \quad - 21.89$
 $56 \quad 292.8 - 16 \quad 24.5$
 42
 42
 $- 82 \quad 512.8$

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W. Purpus
 8th 16th 28th
 - 32° 40'
 = + 75° 3'
 + .97

1874	1875
S	16 27.6
P	39 38.01
and	+ 2.365
at	- 11.26
at	
land 9.92522	9.92522
bb .11673	.12552
bb' .043.00	.05074
land 9.73219u	

$$\begin{aligned} \cos \alpha &= \\ \cos \beta &= \\ \tan \beta &= -0.64 \\ I &= 2.45 \\ K &= -0.19 \end{aligned}$$
[illegible]

s																					
+17.42 -3358 +2875 -2695 +9.23										-0.62 -2679 +2573 -1594 +2597 -1646											
50	50				50				50				40	40				40			
0	49.9	1	44.5	0	34.9	1	35.7	0	38.5	0	4.5	1	32.9	1	55.1	2	40.1	1	58.7	2	44.1
	47.6		44.0		33.1		33.5		34.3		1.9		30.1		59.0		43.5		4.5		50.1
	47.5		5		8.0		9.2		12.8		6.4		3.0		14.1		3.6		123.2		99.7
50	48.75	51	44.25	50	34.00	51	34.60	50	36.40	50	3.20	51	31.50	41	57.05	42	41.80	42	1.60	42	47.35
1.24106	1.53608	1.45864	1.43056	0.96320						9.79239	1.42797	1.41044	1.20249	1.41447	1.21678						
1.28305	1.56808	1.50064	1.47256	1.00720						9.83432	1.46997	1.46118	1.25333	1.46521	1.26717						
+19.19	-36.99	+31.67	-29.69	+10.87						-0.68	-29.37	+28.92	-17.92	+29.19	-18.50						
51	49.4	51	43.6	51	3.67	51	4.97	51	6.57	51	3.52	51	1.99	42	35.77	42	23.88	42	36.79	42	23.80
28	19.59	18.91	28	17.32	16.56	28	18.22			28	14.17	13.64	19	37.62	35.53	19	42.44	40.50			
+74	58	21	59	16						58	35	59	3	58	9	58	54	58	14	58	59
2.32466	2.32515									2.32481	2.32500	2.32456	2.32495	2.32461	2.32500						
+783										+1682											
2.33249	2.33298	2.33757	2.33806	2.33400	2.33458					2.34163	2.34182	2.34944	2.34983	2.34658	2.34694						
-215.02	-215.27	-217.55	-217.80	-215.82	-216.06					-219.60	-219.69	-223.58	-223.88	-222.10	-221.18						
-	0.14	+2.1	+2.7	+1.9	+2.1	+1.7	+3	+0.4		-	14	-	14	-	18	-	18	-	14	-	14
+0.2	+0.5	+0.2	+0.5	+0.3	+0.5					+0.05	+0.7	+1.6	-37	+0.6	+1.7	-33	+0.4				
-3	35.06	-3	35.02	-3	37.45	-3	37.69	-3	35.84	-3	39.77	-3	39.70	-3	44.00	-3	44.57	-3	42.49	-48.14	
-32	31	54.59	53.93	31	54.77	54.25	31	54.06		31	53.94	53.34	23	21.62	20.16	23	24.93	28.64			
-7	29.42	32.62	-7	29.49	32.72	-7	29.14	32.42		-7	29.32	32.65	-16	8.80	12.56	-16	8.52	12.28			
3.20	-2.18	3.23	-2.06	3.28	-1.25					3.33	-1.01	3.76	-4.22	3.76	-3.71						
+9.08	39	18.13	+9.20	18.29	+10.01					+10.80	16.34	+10.4	39	27.14	+10.56	24.65					
-7	23.54	17.97	-23.52	17.97	-22.41					-22.90	15.94	-16	5.52	25.62	-4.72	25.56					
39	17.80	18.03	16.47	16.47	16.47					16.04	39	26.38	29.68								

1875

March 17

March 18

+0.76
15 - 16 6.0 15 - 15 50.9
86 53.3
108 56.3
46.1 45.2
48.8 49.8
51.1 52.3
53.6 52.8
56.0 55.2
—
—
—
25.56 16 8.47 25.13 15 53.50
15 51.20 15 50.26

51.101 50.241
+ 37.40 + 38.42
— .05 — .11
— .093 — .091
+ 36.42 + 37.40
15 51.10 15 50.24
16 27.52 16 27.64
27.632

-17.35 - 3.24
40 - 3.87 40 - 3.86
2 44.2 2 29.6 3 6.4
49.1 30.2 8.1
133 59.8 14.5
42 46.65 42 29.90 43 7.25
1.23930 2.01055
1.09004 0.56127
-19.50 - 36.11
42 27.15 42 29.54 26.26
19 38.80 19 41.19 37.91

+25.59 +32.37
2.35015 2.35054 2.35698 2.35737
-223.95 -224.15 -227.50 -227.70
— .23 — .28 — .28
+0.8 -2.5 +1.1 -2.5
-59 -57 -52 -57
-3 44.69 -3 48.29
23 23.49 23 29.75 26.20
-16 7.25 10.95 -7.75 11.49
— 3.75 -2.76 -3.14 -2.64
+8.48 +8.62
-16 2.47
29 25.96 32 29.07

33

0 Versae Maj.

8 h 19 sec

+61° 8'

1874 87 = -14° 45'

46.723

+8.1133 -32

+5.044

-11.629

1874 87 = -14° 45'

46.723

+8.1133 -32

+5.044

-11.629

1874 87 = -14° 45'

46.723

+8.1133 -32

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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1874 87 = -14° 45'

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+8.1133 -32

+5.044

-11.629

1874 87 = -14° 45'

46.723

+8.1133 -32

+5.044

1874

Mar. 21

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Apr. 5

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Mar. 21

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Apr. 5

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Mar. 21

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Apr. 5

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Apr. 5

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Mar. 21

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Apr. 5

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Mar. 21

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cond = -

cond = +0.88

large = +1.81 2.07

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1875

Mar. 1

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Apr. 5

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Mar. 1

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Mar. 1

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109

114

1874.0 δ
 α
 46.72
 .69
 .90
 .74
 46.763
 .723
 +.040
 11.33

1875.0 δ
 α
 51.83
 .49
 .82
 51.843
 .706
 +.081
 .047
 59.70

1875
 +10 +26
 March 18
 +170
 19 18 52.1
 7.5 560
 9.6 597
 11.6
 13.6
 15.8
 17.8
 20.2
 22.3
 24.4
 1428

19 15.867 18 55.93
 15.835
 19 54.531 +38.41
 -38.74 +1.8
 .67 +.12
 -2.74
 +38.42 57.51
 + .31
 -2.74
 + 35.99
 19 15.83 24 2237
 -16 729
 19 57.82 +1.1
 -1540
 8 0.78

+19.94
 55
 -38.86
 33.0 3 0.3
 33.8 2.0
 8 2.3
 58 33.40 58 1.15
 2

1.29978
 1.10899
 +12.85
 58 46.25

24 210

1.29120 ~ 1.29100
 +32.45
 1.32365 1.32345
 +21.07 +21.06

-08 -40
 -72 -80
 +20.27
 24 2237
 15.1
 -15 7.3
 -16 6.5 -21.42
 -16 7.75 -6.32
 + 1.23 -27.03
 - 15.40 8 0.45

B. A. C. 2846.
8th 22nd 35th

$$Z = \begin{matrix} -25^{\circ} & 43' \\ +68^{\circ} & 6' \\ +93^{\circ} & \end{matrix}$$

Land 9.5374120

1874

$$\begin{array}{r} 1875 \\ 22 \ 3539 \\ 43 \ 1363 \\ + 2544 \\ - 1171 \end{array}$$
$$\begin{aligned} \cos \alpha &= \\ \cos \beta &= \\ \tan \beta &= -48 \\ I &= 2.24 \\ K &= -0.1 \end{aligned}$$

9.95470
.12552
.08022

1874
March 21

March 22

March 23

1875
March 8

March 17

March 18

+000				+100				+200				+300				+400				+500				+600				+700				+800				+900			
22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22				
36.300	36.283	36.266	36.249	35.800	35.783	35.766	35.749	35.100	35.083	35.066	35.049	34.400	34.383	34.366	34.349	33.700	33.683	33.666	33.649	33.000	32.983	32.966	32.949	32.300	32.283	32.266	32.249	31.600	31.583	31.566	31.549	31.000	30.983	30.966	30.949				
1815	1814	1813	1812	1790	1789	1788	1787	1760	1759	1758	1757	1740	1739	1738	1737	1720	1719	1718	1717	1700	1699	1698	1697	1680	1679	1678	1677	1660	1659	1658	1657	1640	1639	1638	1637				
36.300	36.283	36.266	36.249	35.800	35.783	35.766	35.749	35.100	35.083	35.066	35.049	34.400	34.383	34.366	34.349	33.700	33.683	33.666	33.649	33.000	32.983	32.966	32.949	32.300	32.283	32.266	32.249	31.600	31.583	31.566	31.549	31.000	30.983	30.966	30.949				
36.300	36.283	36.266	36.249	35.800	35.783	35.766	35.749	35.100	35.083	35.066	35.049	34.400	34.383	34.366	34.349	33.700	33.683	33.666	33.649	33.000	32.983	32.966	32.949	32.300	32.283	32.266	32.249	31.600	31.583	31.566	31.549	31.000	30.983	30.966	30.949				
36.300	36.283	36.266	36.249	35.800	35.783	35.766	35.749	35.100	35.083	35.066	35.049	34.400	34.383	34.366	34.349	33.700	33.683	33.666	33.649	33.000	32.983	32.966	32.949	32.300	32.283	32.266	32.249	31.600	31.583	31.566	31.549	31.000	30.983	30.966	30.949				
36.300	36.283	36.266	36.249	35.800	35.783	35.766	35.749	35.100	35.083	35.066	35.049	34.400	34.383	34.366	34.349	33.700	33.683	33.666	33.649	33.000	32.983	32.966	32.949	32.300	32.283	32.266	32.249	31.600	31.583	31.566	31.549	31.000	30.983	30.966	30.949				
36.300	36.283	36.266	36.249	35.800	35.783	35.766	35.749	35.100	35.083	35.066	35.049	34.400	34.383	34.366	34.349	33.700	33.683	33.666	33.649	33.000	32.983	32.966	32.949	32.300	32.283	32.266	32.249	31.600	31.583	31.566	31.549	31.000	30.983	30.966	30.949				
36.300	36.283	36.266	36.249	35.800	35.783	35.766	35.749	35.100	35.083	35.066	35.049	34.400	34.383	34.366	34.349	33.700	33.683	33.666	33.649	33.000	32.983	32.966	32.949	32.300	32.283	32.266	32.249	31.600	31.583	31.566	31.549	31.000	30.983	30.966	30.949				
36.300	36.283	36.266	36.249	35.800	35.783	35.766	35.749	35.100	35.083	35.066	35.049	34.400	34.383	34.366	34.349	33.700	33.683	33.666	33.649	33.000	32.983	32.966	32.949	32.300	32.283	32.266	32.249	31.600	31.583	31.566	31.549	31.000	30.983	30.966	30.949				
36.300	36.283	36.266	3																																				

$$\begin{array}{r}
 5 \\
 - 42033 \\
 \hline
 55 \\
 \text{Hfl} = 1 - 330 \\
 1 \quad 25.5 \\
 \quad 22.9 \\
 \quad \quad 8.4 \\
 56 \quad 24.20
 \end{array}$$

$$\begin{array}{r} 1.30814m \\ 1.37962m \\ - 23.97 \\ \hline 56 \quad 0.23 \end{array}$$

-25 33 1188

$$\begin{array}{r}
 +787 \\
 2,15985 \\
 -144.49 \\
 \hline
 \end{array}$$

$- 10.53$
 55
 $- 2.33$
 1 14.3
 9.7
 240
 56 12.00

$$\begin{array}{r} 1.02243m \\ 1.09391m \\ - 12.41 \\ \hline 55.59.59 \end{array}$$

33 11.24

$$\begin{array}{r} + 1306 \\ 2.16504 \\ - 146.23 \\ \hline - 4 \\ + .02 + .03 \\ + .04 + .06 \\ - 2 \quad 2621 \\ 35 \quad 3745 \\ - 7 \quad 2949 \quad 32.58 \\ \hline + 4.99 \quad - 3.72 \\ \hline 2459 \\ 204 \quad 13. \end{array}$$

55	+19.13	-30.80	55?
	-3.33		
0	39.1	1	33.9
	3.3		26.4
	104		60.3
55	35.20	56	30.15
			58

1.28171	1.48855
1.35319	1.56003 _m
+22,55	- 3631
55 57,75	55 53,84

$$\begin{array}{r}
 33 \quad 940 \quad 5,49 \\
 \quad 7,44 \\
 +68 \quad 3 \quad 4 \quad 2 \\
 2,15198 \quad 2,15230 \\
 +2682 \\
 2,17880 \quad 2,17912 \\
 -150,94 \quad -151,06 \\
 - \quad 4 \quad - \quad 7 \\
 \quad +08+17 \quad +2 \\
 \quad +02 \quad +02 \\
 -2 \quad 3091 -2 \quad 3089 \\
 35 \quad 40,31 \quad 36,38 \\
 - \quad 29,86 \quad 32,95 \\
 \quad 8,09 \\
 +8,09 \quad -3,62 \\
 -24,86 \quad 5,17 \\
 \quad 3,20 \quad 1,24 \\
 \quad \quad 14,91
 \end{array}$$

45	+ 21.94	- 32.37	45	+ 12.28	- 34.02
	- 3.87			- 3.86	
3	1 58.1	3 4.8	2	8.5	3 7.2
7	0.0	7.3		8.1	4.9
0	118.1	12.1		6	12.1
00	46 59.05	48 6.05	47	8.30	48 6.05

1.34124 1.51706 1.08920 1.53807
1.42146 1.59728 1.16942 1.61822
+26.39 -39.56 +14.77 -41.52
47 25.44 47 26.49 47 23.07 47 24.53

Handwritten calculations on red grid paper:

Top row:
24 3709 3814 24 3472 3618

Second row:
3 3761 35.45

Third row:
3 11 4 18

Fourth row:
2,15201 2,15241

Fifth row:
+ 2568 + 8251

Sixth row:
2,17769 2,17809 2,18452 2,18492

Seventh row:
~~-150.54~~ -150.68 -15294 -153.08

Eighth row:
- - - -

Ninth row:
+ .09 - .38 + .22 - .03 - .38 + .25

Tenth row:
~~- .42~~ - .65 - .42 - .62

Eleventh row:
- 2 3094 - 2 3118 - 2 3341 - 2 3353

Twelfth row:
267 8.03 9.32 267 8.13 9.71

Thirteenth row:
-16 -720 10.99 -775 11.33

Fourteenth row:
~~-3.59~~ -4.29 -3.58 -4.17

Fifteenth row:
+ 742 1150 + 734 11.22

Sixteenth row:
-16 337 12.69 - 379 13.50

Seventeenth row:
43 1204 12.41

1875

March 31

April 10

~~1033~~
 22 38.6 22 28.0 22 22.9 22 45.0
 40.8 29.9 25.3
 43.1 31.7 27.7
 47.9 32.2
 49.9 34.4
 52.2 36.9
 54.5 23 10.5 39.6
 56.8 12.0 41.5
 6.4 14.5 46.0
 3.6 48.2
 5.9 52.8
 39.47 22 29.87 40.49 22 45.00
 18.0 23 12.83
 57.47
 22 52.245 22 36.809
 52.228 36.792
 8
 - 16.11 - 9.79
 + 0.01 + 0.06
 - 0.74 - 0.56
 - 16.84 - 1.29
 22 52.23 22 36.79
 22 35.39 22 35.50
 35.388

45 +22.37 -2.007 - 3.19
 1 -382 45 -3.53
 .1 58.9 2 48.5 2 43.8
 5.9 53.9 51.9
 12.48 102.47 95.7
 47 2.40 47 51.20 47 47.85
 134767 130298 m 0.91328
 142989 138320 m 0.79350
 +26.91 -24.17 +9.85
 47 29.31 47 27.03 47 27.00
 24 40.96 38.68 25 38.00
 39.82 24 37.65
 3 14 4 3
 2,152.01 2,152.34 +13.4
 +2537
 2,177.38 2,177.71 2,153.35
 -150.44 -150.56 -142.35
 - 4 0
 +10.25 +10.8 +2.28
 -28 -41 -39.37
 -2 30.66 -2 30.93 -2 22.72
 27 11.62 9.61 27 12.37
 -16 87.0 12.25 -8.09 11.37
 35.5 -2.92 -3.28 -2.39
 +8.77 15.08 +9.32
 -16 3.76 13.07 -2.05
 43 14.08 14.42

March 31	April 5	April 7	April 10
1675 -03 -033	-12 -130	-01 -010	-13 -120
25 328 25 252 25 200 25 126 25 176 25 126 25 173 25 74	349 26.8 22.3 14.1 19.8 14.3 19.5 8.6	372 28.8 24.6 16.0 22.0 16.0 21.7 10.6	417 28.9 26.3 26.1 28.4 30.5 32.7 35.0 39.3 41.5 48.8
43.8 31.2 28.5 28.4 30.5 32.7 35.0 39.3 41.5 48.8	46.0 33.3 30.8 32.9 35.2 39.6 41.8 44.0	48.2 35.5 32.9 35.2 39.6 41.8 44.0	50.4 37.8 35.2 39.6 41.8 44.0
54.8 42.1 39.6 41.8 44.0	57.1 44.3 41.8 44.0	59.3 46.5 44.0	506.2 25 26.93 36.65 25 14.23 538.5 25 14.80 335.8 25 8.87
25 46.018 25 33.318 25 30.773 25 30.527			
46.001 -16.11 33.301 -0.46 30.756 -1.53 30.510 -0.77	25 29.88 -01 25 29.81 -05 25 29.789 -00 25 29.73 -05	+16.12 +3.49 +0.789 +0.78	+16.13 -1.18 +3.50 -1.11 +0.99 -1.07 +0.79 -1.03
-16.11 38.70 -3.42 -0.50 -1.07 -1.03 -1.86 -1.2	-01 -05 -00 -05	-1.49 0.00 -0.79 0.04 1.03 1.86 1.2	25 46.00 -16 8.46 25 33.30 -16 5.30 25 30.76 -16 7.74 25 30.51 -16 7.66
25 28.70 -4.30 25 28.72 -4.50 25 28.80 -4.60 25 28.65 -4.50	51 50.77 51 49.57 51 50.73 51 50.08		
10 +19.09 10 +19.09 10 +16.47 10 +21.66			
3 -3.82 3 51.0 59.4 104 13 55.20	3 52.7 1.5 114.2 13 57.10	3 55.0 2.9 117.9 13 58.75	3 48.6 58.8 108.4 13 54.20
1.25081 1.37687 +23.82 14 17.02 8 29.33	1.25081 1.37687 +23.82 14 20.92 8 27.43	1.21669 1.31275 120.55 14 19.50 8 28.85	1.33566 1.43172 +27.02 14 21.22 8 27.13
+2537 1.38094 -24.04	+1075 1.36655 -23.24	+2415 1.37975 -23.98	+146 1.35706 -22.76
-07 -31 -55.62 8 24.66 46.4 50.3 8.2 8.1 -14.52 -8.69 10.02 -133 -16.48 -4.50 49.05	-07 -31 -55.62 8 23.86 3.84 50.3 8.2 8.1 -14.52 -8.69 10.02 -133 -16.48 -4.50 49.05	-04 -30 -56.60 8 24.58 4.27 5.54 8.9 8.8 -13.50 -7.88 9.20 -132 -16.53 -4.60 50.44	-08 -31 -55.63 8 23.39 3.74 50.6 8.1 8.0 -14.19 -8.09 9.39 -130 -16.73 -4.80 49.55
-16 9.7 -16 14.41 -16 8.70 -1.01 -16 1.41 -16.23 -4.30 51 50.26	-16 9.7 -16 14.41 -16 8.70 -1.01 -16 1.41 -16.23 -4.30 51 50.26	-16 9.7 -16 14.41 -16 8.70 -1.01 -16 1.41 -16.23 -4.30 51 50.26	-16 9.7 -16 14.41 -16 8.70 -1.01 -16 1.41 -16.23 -4.30 51 50.26

Gr. 1446
 8^h 25^m 46^s
 + 74° 4'
 $\gamma = -31^\circ 21'$
 $\gamma = -53$

corr. = -104
 corr. = +59

tang. = +3.510 3.65

$I = \frac{S}{1.52}$

$K = -0.054^5$

1874

Mar. 21 25 4260
 26 4239 -28
 31 4207 .30
 Apr. 8 4146 .81
 10 4143 .33

3 786
 774 +.8
 801 .7
 806 .5
 811 .5

1874

2 35826
 3 35998
 4 36838
 5 12207
 Less 2.43857
 46 .11678
 66 255335
 Less 9.98299

1875

45,663
 + 3 47.97
 + 6.836
 - 12.015
 443867
 12352
 956409

+ 1874
 + 12
 March 23
 + 120

8 25 282.24 322
 32.4 39.5
 36.0 44.9
 38.3
 42.3
 47.0
 51.4 25 58.1
 55.1 26 3.0
 58.8 7.3

+ 1874
 + 23
 March 25
 + 233

26 38.0 25
 45.7
 53.1
 41.40
 41.38
 26 120
 26.5

+ 1875
 + 8.2
 March 8
 + 0.10

24 21.25
 268
 340
 7.0
 10.1
 14.1
 18.5
 22.0
 26.0 25 12.0
 29.9 20.1
 33.1 26.5
 37.0

+ 0.04 + 0.06
 March 11
 + 0.50

25 420 24
 49.0
 56.5 25
 58.4
 5.8
 9.4
 13.1
 16.6 25 6.5
 20.4
 24.2
 27.9

+ 0.01 + 0.06
 March 17
 + 0.46

24 13.2 25
 18.8
 24.1
 25 13.000 25 6.00
 12.945
 25 32.6159
 - 37.675
 - 37.675

- 0.06
 March 27

11.825 25.74
 14.1 31.6
 30.3 35.4
 38.9
 45.3

39 17 24 38.87
 25 43.522 26 2.80
 43.467
 25 42.553
 + 0.934
 + 1.02

26 40.60
 41.39
 41.31
 26 42.441
 - 1.07
 - 0.97

25 22.038 25 19.33
 21.978
 25 51.020
 - 29.042
 - 28.942

24 27.30
 25 19.33
 14.66
 25 16.61
 25 30.891
 - 32.286
 - 32.186

25 47.47
 49.17
 25 13.000 25 6.00
 12.945
 25 32.6159
 - 37.675
 - 37.675

25 50.70
 25 50.70

- 1.40
 + .42
 - 3.70 + 3.138 - 3.70
 - 4.73 25 58.78
 25 43.47

- 1.41
 + .42
 + .003
 + .81
 - 3.58 + 3.258 - 3.58
 - 2.74
 25 41.34

+ 0.04
 + .61
 + 28.81
 + .03
 - 5.34
 + 23.50
 25 21.98

+ 28.82
 + .07
 + 31.86
 + .17
 - 5.34
 + 26.82
 25 18.61

+ 31.83
 + .14
 + 37.41
 + .22
 - 5.21
 + 32.74
 25 12.94

+ 37.45
 + .04
 + .22
 - 4.93
 + 45.73

25 38.74
 45.578 11 44.70
 - 7 29.31
 + 1.7
 - 1.890
 + 7.4 3 58.21

25 38.60
 45.438
 - 7 29.24
 + 1.6

25 45.48
 20 116.4
 - 16 84.4
 + 18
 - 1590
 3 47.10

25 45.43
 14.03
 - 16 103
 + 1.7
 - 1660
 3 37.10

25 45.68
 11.82
 - 16 6.91
 + 1.8
 - 1160
 3 47.11

3 47.11

+ 64.65 - 19.28 - 64.21

- 64.21

+ 54.73 + 2.50 - 30.51

- 30.51

+ 54.10 + 6.50

+ 6.50

10 19.3 1 52.3 1 2.4
 13.7 46.7 55.2
 33.0 99.0 117.6
 11 16.50 11 49.50 10 58.50

10 19.3 1 52.3 1 2.4
 13.7 46.7 55.2
 33.0 99.0 117.6
 11 16.50 11 49.50 10 58.50

2 52.0 3 10.9 3 19.2 3 38.9 2 50.9 3 8.5 3 15.0
 55.0 14.1 24.9 42.5 53.0 14.6 21.9
 7.0 5.0 4.1 8.4 5.9 2.3 3.9
 2 53.50 3 12.50 3 22.05 3 40.70 2 52.95 3 11.55 3 19.75

2 52.0 3 10.9 3 19.2 3 38.9 2 50.9 3 8.5 3 15.0
 55.0 14.1 24.9 42.5 53.0 14.6 21.9
 7.0 5.0 4.1 8.4 5.9 2.3 3.9
 2 53.50 3 12.50 3 22.05 3 40.70 2 52.95 3 11.55 3 19.75

2 52.0 3 10.9 3 19.2 3 38.9 2 50.9 3 8.5 3 15.0
 55.0 14.1 24.9 42.5 53.0 14.6 21.9
 7.0 5.0 4.1 8.4 5.9 2.3 3.9
 2 53.50 3 12.50 3 22.05 3 40.70 2 52.95 3 11.55 3 19.75

2 52.0 3 10.9 3 19.2 3 38.9 2 50.9 3 8.5 3 15.0
 55.0 14.1 24.9 42.5 53.0 14.6 21.9
 7.0 5.0 4.1 8.4 5.9 2.3 3.9
 2 53.50 3 12.50 3 22.05 3 40.70 2 52.95 3 11.55 3 19.75

181057 128511 180760m
 1.86592 2.84046 1.36295n
 + 23.22 - 6.93 - 27.06
 11 39.72 11 42.57 10 35.74

181057 128511 180760m
 1.86592 2.84046 1.36295n
 + 23.22 - 6.93 - 27.06
 11 39.72 11 42.57 10 35.74

1.73823 0.39794 1.48444m
 1.30233 0.96203 1.04853m
 + 20.06 + 0.92 - 11.18
 3 13.56 3 13.42 3 10.87

1.73823 0.39794 1.48444m
 1.30233 0.96203 1.04853m
 + 20.06 + 0.92 - 11.18
 3 13.56 3 13.42 3 10.87

1.73320 0.81291
 1.39729 0.37700
 + 19.83 + 2.38
 3 12.78 3 13.73

1.73320 0.81291
 1.39729 0.37700
 + 19.83 + 2.38
 3 12.78 3 13.73

+ 74° 11 8.63
 7.20
 - 31 41 12 40 39
 1.55070 1.55050m
 + 20.91

578 12 13.61
 + 13.52
 1.57741 1.57741 1.56422 1.56402
 + 37.81 + 37.79 + 36.66 + 36.65

19 34.79 34.93 19 37.48
 34.86
 40 55 40 36
 1.55060 1.55050m
 + 23.10

19 34.79 34.93 19 37.48
 34.86
 40 55 40 36
 1.55060 1.55050m
 + 23.10

19 35.57 34.42
 34.99
 40 55 40 36
 1.55060 1.55050m
 + 25.75

19 35.57 34.42
 34.99
 40 55 40 36
 1.55060 1.55050m
 + 25.75

1.57741 1.57741 1.56422 1.56402
 + 37.81 + 37.79 + 36.66 + 36.65
 - 6.1 - 28 - 00 - 6.0 - 28
 + 0.4 + 0.5 + 0.3
 + 37.24 37.79 + 36.09
 11 45.87 45.54 12 48.70
 4 18.9 19.3
 27.0 24.9
 25.85 47.00
 25.3 56.67
 298.62 30.10
 298.62 30.10

1.57741 1.57741 1.56422 1.56402
 + 37.81 + 37.79 + 36.66 + 36.65
 - 6.1 - 28 - 00 - 6.0 - 28
 + 0.4 + 0.5 + 0.3
 + 37.24 37.79 + 36.09
 11 45.87 45.54 12 48.70
 4 18.9 19.3
 27.0 24.9
 25.85 47.00
 25.3 56.67
 298.62 30.10
 298.62 30.10

1.57741 1.57741 1.56422 1.56402
 + 37.81 + 37.79 + 36.66 + 36.65
 - 6.1 - 28 - 00 - 6.0 - 28
 + 0.4 + 0.5 + 0.3
 + 37.24 37.79 + 36.09
 11 45.87 45.54 12 48.70
 4 18.9 19.3
 27.0 24.9
 25.85 47.00
 25.3 56.67
 298.62 30.10
 298.62 30.10

1.57741 1.57741 1.56422 1.56402
 + 37.81 + 37.79 + 36.66 + 36.65
 - 6.1 - 28 - 00 - 6.0 - 28
 + 0.4 + 0.5 + 0.3
 + 37.24 37.79 + 36.09
 11 45.87 45.54 12 48.70
 4 18.9 19.3
 27.0 24.9
 25.85 47.00
 25.3 56.67
 298.62 30.10
 298.62 30.10

1.57741 1.57741 1.56422 1.56402
 + 37.81 + 37.79 + 36.66 + 36.65
 - 6.1 - 28 - 00 - 6.0 - 28
 + 0.4 + 0.5 + 0.3
 + 37.24 37.79 + 36.09
 11 45.87 45.54 12 48.70
 4 18.9 19.3
 27.0 24.9
 25.85 47.00
 25.3 56.67
 298.62 30.10
 298.62 30.10

1.57741 1.57741 1.56422 1.56402
 + 37.81 + 37.79 + 36.66 + 36.65
 - 6.1 - 28 - 00 - 6.0 - 28
 + 0.4 + 0.5 + 0.3
 + 37.24 37.79 + 36.09
 11 45.87 45.54 12 48.70
 4 18.9 19.3
 27.0 24.9
 25.85 47.00
 25.3 56.67
 298.62 30.10
 298.62 30.10

Mar.	1	25	5	15	3	22	
	6		5127			634	+1.2
	11		5188	.18		645	11
	16		5065	.23		635	10
	21		5038	.27		666	10
	26		5310	.28		673	8
	31		4980	.30		680	7
Apr	5		4949	.31		686	6
	10		4917	.32		690	4

$$-16 - 823 \quad - 870$$

B.A. 2887

8^h 28^m 39^s

+53° 51'

$$\gamma = -11^\circ 28'$$

$$\delta = -20$$

 1874
 28 9.77078
 28 11678
 28 9.88756

28 9.90713

 1875
 29 154
 30 304
 +4522
 -12.17

 9.77078
 1.2552
 9.89630

 conk =
 cond =
 longd = +1.37
 $I = 2.49$
 $K = -0.26$

1874	1874	1874	1875	1875	1875
March 23	March 25	April 4	March 8	March 11	March 17
28 39.2 28 170 28 37.6 28 196 28 29.3 28 158 28 14.3 27 59.4 28 24 28 24.9 28 330 28 56 27 530	28 37.6 28 196 28 29.3 28 158 28 14.3 27 59.4 28 24 28 24.9 28 330 28 56 27 530	28 29.3 28 158 28 14.3 27 59.4 28 24 28 24.9 28 330 28 56 27 530	28 14.3 27 59.4 28 24 28 24.9 28 330 28 56 27 530	28 330 28 56 27 530	28 56 27 530
425 23.7 46.4 57.4 56.4 0.0 3.5 7.0 14.0 17.6 20.9	40.9 23.1 41.4 23.5 57.4 56.4 0.0 3.5 7.0 14.0 17.6 20.9	40.9 23.1 41.4 23.5 57.4 56.4 0.0 3.5 7.0 14.0 17.6 20.9	40.9 23.1 41.4 23.5 57.4 56.4 0.0 3.5 7.0 14.0 17.6 20.9	40.9 23.1 41.4 23.5 57.4 56.4 0.0 3.5 7.0 14.0 17.6 20.9	40.9 23.1 41.4 23.5 57.4 56.4 0.0 3.5 7.0 14.0 17.6 20.9
300.2 300 0.2 28 28.77 29 22.7 28 58.4 18 29 18.23 28 50.245 29 6.53 28 35.191 28 55.57 28 32.122 29 8.20 28 36.464 28 48.43	34.26 300 64.26 28 22.7 28 58.4 18 29 18.23 28 50.245 29 6.53 28 35.191 28 55.57 28 32.122 29 8.20 28 36.464 28 48.43	37.37 180 55.37 28 18.27 28 50.245 29 6.53 28 35.191 28 55.57 28 32.122 29 8.20 28 36.464 28 48.43	38.71 28 2.27 28 55.57 28 32.122 29 8.20 28 36.464 28 48.43	28.91 28 36.60 29 8.20 28 36.464 28 48.43	29.11 27 56.27 28 48.43
59992 58392 58310 35.165 32.026 26.438	58392 58310 35.165 32.026 26.438	58310 35.165 32.026 26.438	35.165 32.026 26.438	32.026 26.438	26.438
- 1.45 +.16 - 1.70 +2822 - 2.99 28 39.99 28 57.00 1.522	+ 0.04 +.32 - 1.66 +2862 - 1.30 28 58.39 29 57.09 1.612	+ 4.84 +.28 - 1.41 +3.12 +6.74 28 50.31 28 57.05 1.57 57.047	+ 28.81 +.01 - 2.53 +26.29 28 35.16 29 1.45	+ 31.86 +.07 - 2.48 +29.40 28 32.10 29 1.55	+ 37.41 +.10 - 2.34 +35.14 28 26.44 29 1.58
+3925 -2268 +35.85 -15.41 +31.37 -16.29 +32.92 -22.38 -4.88 -36.15 +30.19 -21.97	-2268 +35.85 -15.41 +31.37 -16.29 +32.92 -22.38 -4.88 -36.15 +30.19 -21.97	+31.37 -16.29 +32.92 -22.38 -4.88 -36.15 +30.19 -21.97	-16.29 +32.92 -22.38 -4.88 -36.15 +30.19 -21.97	-4.88 -36.15 +30.19 -21.97	-36.15 +30.19 -21.97
4 32.1 0 20.0 4 34.5 0 14.0 4 39.0 0 16.0 1 8.4 1 53.0 1 36.0 2 0.7 1 8.2 1 49.2	4 34.5 0 14.0 4 39.0 0 14.0 4 39.0 0 16.0 1 8.4 1 53.0 1 36.0 2 0.7 1 8.2 1 49.2	4 39.0 0 16.0 1 8.4 1 53.0 1 36.0 2 0.7 1 8.2 1 49.2	4 16.0 1 8.4 1 53.0 1 36.0 2 0.7 1 8.2 1 49.2	4 53.0 1 36.0 2 0.7 1 8.2 1 49.2	4 36.0 2 0.7 1 8.2 1 49.2
24 30.85 25 17.00 24 31.75 25 11.40 24 36.50 25 13.00 16 10.85 16 54.95 16 39.85 17 4.70 16 11.50 16 52.35	24 31.75 25 11.40 24 36.50 25 13.00 16 10.85 16 54.95 16 39.85 17 4.70 16 11.50 16 52.35	24 36.50 25 13.00 16 10.85 16 54.95 16 39.85 17 4.70 16 11.50 16 52.35	24 10.85 16 54.95 16 39.85 17 4.70 16 11.50 16 52.35	24 54.95 16 39.85 17 4.70 16 11.50 16 52.35	24 39.85 17 4.70 16 11.50 16 52.35
1.59384 1.35564 1.55255 1.18780 1.49790 1.20925 1.51746 1.36884 0.64147 1.55727 1.49986 1.34183	1.35564 1.55255 1.18780 1.49790 1.20925 1.51746 1.36884 0.64147 1.55727 1.49986 1.34183	1.55255 1.18780 1.49790 1.20925 1.51746 1.36884 0.64147 1.55727 1.49986 1.34183	1.51746 1.36884 0.64147 1.55727 1.49986 1.34183	1.55727 1.49986 1.34183	1.49986 1.34183
1.48140 1.24320 1.44011 1.07536 1.38546 1.09681 1.41376 1.26514 0.53777 1.45357 1.37616 1.23813	1.24320 1.44011 1.07536 1.38546 1.09681 1.41376 1.26514 0.53777 1.45357 1.37616 1.23813	1.44011 1.07536 1.38546 1.09681 1.41376 1.26514 0.53777 1.45357 1.37616 1.23813	1.41376 1.26514 0.53777 1.45357 1.37616 1.23813	1.45357 1.37616 1.23813	1.37616 1.23813
+30.30 -17.57 +2.65 -1.90 +24.29 -12.50 +25.93 -18.42 -3.15 -28.42 +28.78 -17.30	-17.57 +2.65 -1.90 +24.29 -12.50 +25.93 -18.42 -3.15 -28.42 +28.78 -17.30	+2.65 -1.90 +24.29 -12.50 +25.93 -18.42 -3.15 -28.42 +28.78 -17.30	-1.90 +24.29 -12.50 +25.93 -18.42 -3.15 -28.42 +28.78 -17.30	+24.29 -12.50 +25.93 -18.42 -3.15 -28.42 +28.78 -17.30	-12.50 +25.93 -18.42 -3.15 -28.42 +28.78 -17.30
25 23.3 24 37.9 24 53.0 24 57.5 25 0.79 25 0.50 16 36.78 16 36.53 16 36.40 16 36.38 16 35.38 16 35.05	24 37.9 24 53.0 24 57.5 25 0.79 25 0.50 16 36.78 16 36.53 16 36.40 16 36.38 16 35.38 16 35.05	24 53.0 24 57.5 25 0.79 25 0.50 16 36.78 16 36.53 16 36.40 16 36.38 16 35.38 16 35.05	24 57.5 25 0.79 25 0.50 16 36.78 16 36.53 16 36.40 16 36.38 16 35.38 16 35.05	24 0.79 25 0.50 16 36.78 16 36.53 16 36.40 16 36.38 16 35.38 16 35.05	24 0.50 16 36.78 16 36.53 16 36.40 16 36.38 16 35.38 16 35.05
+53 57 48.00 57 48.85 57 47.56 47.85 6 11.57 11.82 6 11.95 12.01 12.07 6 13.07 13.30	57 48.00 57 48.85 57 47.56 47.85 6 11.57 11.82 6 11.95 12.01 12.07 6 13.07 13.30	57 48.85 57 47.56 47.85 6 11.57 11.82 6 11.95 12.01 12.07 6 13.07 13.30	57 47.56 47.85 6 11.57 11.82 6 11.95 12.01 12.07 6 13.07 13.30	57 11.57 11.82 6 11.95 12.01 12.07 6 13.07 13.30	57 11.82 6 11.95 12.01 12.07 6 13.07 13.30
-11 27 58 27 11 1.06750 1.06690 1.09450 1.09390 1.08107 1.08047 1.09738 1.09698 1.09237 1.09187 1.08942 1.08892 1.09301 1.09251	27 58 27 11 1.06750 1.06690 1.09450 1.09390 1.08107 1.08047 1.09738 1.09698 1.09237 1.09187 1.08942 1.08892 1.09301 1.09251	27 11 1.06750 1.06690 1.09450 1.09390 1.08107 1.08047 1.09738 1.09698 1.09237 1.09187 1.08942 1.08892 1.09301 1.09251	27 1.06750 1.06690 1.09450 1.09390 1.08107 1.08047 1.09738 1.09698 1.09237 1.09187 1.08942 1.08892 1.09301 1.09251	27 1.06690 1.09450 1.09390 1.08107 1.08047 1.09738 1.09698 1.09237 1.09187 1.08942 1.08892 1.09301 1.09251	27 1.09450 1.09390 1.08107 1.08047 1.09738 1.09698 1.09237 1.09187 1.08942 1.08892 1.09301 1.09251
+2.70 +12.43 +12.41 +13.57 +12.05 +12.04 +12.51 +12.50 +12.37 +12.36 +12.28 +12.27 +12.39 +12.37	+12.43 +12.41 +13.57 +12.05 +12.04 +12.51 +12.50 +12.37 +12.36 +12.28 +12.27 +12.39 +12.37	+12.41 +13.57 +12.05 +12.04 +12.51 +12.50 +12.37 +12.36 +12.28 +12.27 +12.39 +12.37	+12.41 +13.57 +12.05 +12.04 +12.51 +12.50 +12.37 +12.36 +12.28 +12.27 +12.39 +12.37	+12.41 +13.57 +12.05 +12.04 +12.51 +12.50 +12.37 +12.36 +12.28 +12.27 +12.39 +12.37	+12.41 +13.57 +12.05 +12.04 +12.51 +12.50 +12.37 +12.36 +12.28 +12.27 +12.39 +12.37
-40 -19 -13 -32 -12 -06 -25 -23 -07 -27 -53 -14 -0 -57 -34 -24 -51 -13	-19 -13 -32 -12 -06 -25 -23 -07 -27 -53 -14 -0 -57 -34 -24 -51 -13	-13 -32 -12 -06 -25 -23 -07 -27 -53 -14 -0 -57 -34 -24 -51 -13	-32 -12 -06 -25 -23 -07 -27 -53 -14 -0 -57 -34 -24 -51 -13	-12 -06 -25 -23 -07 -27 -53 -14 -0 -57 -34 -24 -51 -13	-06 -25 -23 -07 -27 -53 -14 -0 -57 -34 -24 -51 -13
+12.16 +12.29 1.15 58 0.91 0.84 57 59.68 0.27 6 23.42 23.04 6 23.87 23.56 6 24.97 25.14	+12.29 1.15 58 0.91 0.84 57 59.68 0.27 6 23.42 23.04 6 23.87 23.56 6 24.97 25.14	1.15 58 0.91 0.84 57 59.68 0.27 6 23.42 23.04 6 23.87 23.56 6 24.97 25.14	58 0.91 0.84 57 59.68 0.27 6 23.42 23.04 6 23.87 23.56 6 24.97 25.14	0.91 0.84 57 59.68 0.27 6 23.42 23.04 6 23.87 23.56 6 24.97 25.14	0.84 57 59.68 0.27 6 23.42 23.04 6 23.87 23.56 6 24.97 25.14
-7 29.86 29.96 -13.79 50 17.18 -7 29.43 28.76 -14.03 18.12 -13.15 16.04 -11.52 26.50 4.14 -11.47 4.34 -12.45 5.99	29.86 29.96 -13.79 50 17.18 -7 29.43 28.76 -14.03 18.12 -13.15 16.04 -11.52 26.50 4.14 -11.47 4.34 -12.45 5.99	29.96 -13.79 50 17.18 -7 29.43 28.76 -14.03 18.12 -13.15 16.04 -11.52 26.50 4.14 -11.47 4.34 -12.45 5.99	-13.79 50 17.18 -7 29.43 28.76 -14.03 18.12 -13.15 16.04 -11.52 26.50 4.14 -11.47 4.34 -12.45 5.99	-7 29.43 28.76 -14.03 18.12 -13.15 16.04 -11.52 26.50 4.14 -11.47 4.34 -12.45 5.99	-13.79 50 17.18 -7 29.43 28.76 -14.03 18.12 -13.15 16.04 -11.52 26.50 4.14 -11.47 4.34 -12.45 5.99
-7 42.98 18.17 -42.77 18.05 -43.64 16.63 -16 19.28 4.36 -19.53 4.03 -19.18 5.96	42.98 18.17 -42.77 18.05 -43.64 16.63 -16 19.28 4.36 -19.53 4.03 -19.18 5.96	18.17 -42.77 18.05 -43.64 16.63 -16 19.28 4.36 -19.53 4.03 -19.18 5.96	-42.77 18.05 -43.64 16.63 -16 19.28 4.36 -19.53 4.03 -19.18 5.96	-7 42.98 18.17 -42.77 18.05 -43.64 16.63 -16 19.28 4.36 -19.53 4.03 -19.18 5.96	42.98 18.17 -42.77 18.05 -43.64 16.63 -16 19.28 4.36 -19.53 4.03 -19.18 5.96

March 18				March 27				March 28				March 31				April 5				April 7			
+140				-043				-063				-033				+130				-010			
28	4.3	27	51.1	27	53.2	29	50.3	27	51.6	27	47.0	28	58.9	29	09	28	46.1	28	30.9	28	43.4	28	44.8
	9.8		54.8		56.3		51.8		55.0		49.9		2.1				49.6		32.3		46.9		
	11.3		56.9		59.4		55.1		58.1		52.7		5.7				53.1		36.6		50.3		
	18.3			28	61.1			28	57.1				12.5			29	0.1				57.2		
	21.9				10.2				9.1				16.3	29	45.4		3.5			29	0.8	29	20.8
	25.5				13.8				12.9				19.8		45.8		7.0				4.4		23.9
	28.7	28	38.2		14.3	28	43.3		16.1	28	29.0		23.0		51.0		10.6	29	32.3		8.0		27.3
	32.2		43.2		20.9		46.8		19.6		34.4		26.9				14.0		35.0		11.3		
	39.4		45.4		27.4		48.7		26.4		36.8		33.7				21.0		38.9		18.2		
	43.7				31.2				31.2				89.1				24.4				21.9		
	46.2				34.3				33.7				40.7				28.0				25.2		
27.9	27	64.27		33.0	27	52.40		31.5	27	49.87		27.67	29	0.90		25.4	28	33.60		28.76	28	44.80	
	28	40.87			18.0	28	46.27		18.0	28	33.40		6.0	29	43.40		18.0	29	35.40		24.6	29	24.17
					150.6				138.5				216.7				77.4				47.6		
28	35.264			28	13.691			28	12.591			29	19.700			29	7.036			29	4.327		
	25.238				13.665				12.565				14.674				7.010				4.301		
+	38.43			+	50.03			+	51.14			-	16.10			-	3.42			-	1.7900		
+	23.1			-	10.			-	09.			-	0.04			-	0.18			-	0.01		
-	2.35			-	2.15			-	2.12			-	2.04			-	2.08			-	1.86		
+	56.31			+	47.78			+	48.93			-	18.18			-	5.81			-	2.56		
28	25.24			28	13.66			28	12.56			29	19.67			29	7.01			29	4.30		
29	1.55			29	1.44			29	1.49			29	1.49			29	1.50			29	0.77		
																	1.506				1.53		

15	+30.99	-17.01	15	+21.29	-32.53	15	+22.72	-20.81	15	+18.80	-23.70	15	+33.44	-28.36	15	+17.53	-19.74
-	3.86		-	3.78		-	3.77		-	3.82		-	3.61		-	3.60	
1	10.8	1	48.2	1	10.9	1	53.2	1	44.9	1	50.0	1	0.0	1	49.0	1	43.9
	12.9		51.8		21.7		4.5		55.8		1.3		11.9		59.3		35.4
	3.7		100.0		32.6		117.7		32.5		111.3		11.9		108.9		99.9
16	11.85	16	50.00	16	16.30	16	58.85	16	16.25	16	50.35	16	18.85	16	55.65	16	5.95
1.47122	1.23070	1.32818	1.51295	1.35641	1.31827	1.27416	1.45788	1.52427	1.45071	1.29070	1.29535						
1.38752	1.12700	1.32448	1.40923	1.25271	1.21457	1.17016	1.25418	1.42057	1.34901	1.18700	1.19165						
+24.41	-13.40	+16.77	-25.66	+17.90	-16.89	+15.50	-22.61	+20.34	-22.34	+15.38	-15.55						
16	34.36	16	36.60	16	33.07	16	33.19	16	34.15	16	33.76	16	34.35	16	33.04	16	32.29
6	12.09	6	11.75	6	15.28	6	15.16	6	14.20	6	14.59	6	14.00	6	15.31	6	16.06
11.92		15.22				14.39				14.65				16.30			
+32.64		+105.4		+231.0		+253.8		+107.9		+107.9		+107.9		+107.9		+107.9	
1.09984	1.09934	1.07744	1.07724	1.09030	1.08980	1.09258	1.09208	1.07799	1.07749	1.09136	1.09106						
+12.39	+12.57	+11.96	+11.95	+12.31	+12.29	+12.37	+12.36	+11.92	+11.91	+12.34	+12.33						
-25	-46	-07	-11	-52	-27	-13	-43	-11	-09	-37	-21						
-24		-36		-26	-40	-26		-36		-18	-27						
+12.10	+12.14	+11.59	+11.28	+11.92	+11.82	+12.10	+11.88	+11.53	+11.47	+12.06	+11.98						
6	21.19	23.89	6	26.87	26.44	6	26.12	26.41	6	26.10	27.19	6	27.35	28.01	6	26.78	26.23
-16	17.5	6.98	-7.96	7.20	-8.23	-8.70	7.94	-8.69	7.97	-7.88	7.16						
+	-12.71	-28.03	+4.30	-14.19	5.48	-14.31	4.33	-14.67	4.42	-14.59	4.23						
-16	19.89	4.00	-21.39	5.05	-21.79	4.62	-22.61	4.58	-23.14	4.84	-22.55	3.68					
50	4.15	5.26	5.26		4.47	4.03		4.63		3.95							

March 27				March 28				March 30				March 31				April 5				April 10			
30	1.0	29	53.6	29	59.8	29	49.7	30	47.6	30	54.3	30	58.1	30	54.3	30	48.1	30	51.1	30	45.0		
	3.0		56.2	30	1.9		51.8		52.0		9.2	31	0.0		56.4		52.1		53.6		47.0		
	5.0		58.0		4.0		53.4				11.1		2.2		58.5		51.6		55.7		49.0		
	9.2				8.1				5.5		15.2			31	2.5				59.7				
	11.3				10.2				7.5		17.2				4.6			31	1.9				
	13.3				12.4				9.5		19.3				6.7				4.0				
	15.5	30	31.7		14.3	30	28.4		11.7		21.5	31	50.2		8.9	31	22.6		6.1	31	20.8		
	17.6		33.9		16.3		30.3		13.7		23.5		52.2		10.9		24.2		8.2		22.8		
	21.5		35.6		20.4		32.2				27.6				15.0		25.8		12.3		24.5		
	23.7				22.7						29.8				17.1				14.3				
	25.8				24.9						31.8				19.2				16.4				
	146.9	29	53.93		19.53	29	61.63		30	49.80		21.33	31	0.10		25.41	30	49.93		28.39	30	47.00	
	30	33.67		60	30	32.30						31	31.70		18.0	31	24.20		24.0	31	22.70		
					13.53																		
30	13.355			30	12.300			30	9.5870		31	19.391			31	7.41			31	4.39			
	13.339				12.284				9.564			19.379				6.736				3.991			
																6.720				3.975			
+	5004			+	5114			+	53.56			-	16.10			=	3.42			-	0.49		
-	.01			-	.01			-	.08			-	.00			-	.01			-	.01		
+	1.08			+	1.07			+	1.04			-	1.03			-	0.96			-	0.84		
+	48.93			+	50.06			+	52.52			-	17.13			-	4.39			-	1.69		
30	13.58			30	12.28			30	9.56			31	19.38			31	6.72			31	3.97		
31	2.84			31	2.34			31	2.08			31	2.25			31	2.30			31	2.28		
	2.9																				2.278		
4																							
55	+1.32			55	-20.32			55	+20.67			55	+1.27			55	+16.81			55	+16.97		
	-3.78				-3.77				-3.83				-3.82				-3.61				-3.53		
2	10.7	3	0.3	2	4.4	2	57.1	2	44.3	3	23.1	2	5.1	2	47.8	2	11.7	2	36.5	2	10.7	2	37.9
	17.8		8.1		12.5		4.3		53.5		31.9		13.1		55.0		20.2		5.0		21.1		8.1
	85		8.4		16.9		12.14		9.78		55.0		182		102.8		31.9		12.15		31.8		126.0
57	14.25	58	4.20	57	8.45	58	0.70	57	48.90	58	27.50	57	9.10	57	51.40	57	15.95	58	0.75	57	15.90	58	3.00
12.5855				130792				1.31534				1.25527				1.22557			1.24204		1.23019		1.27207
1.36406				1.43093				1.43835				1.37828				1.34858			1.36525		1.35320		1.37503
+23.93				-26.97				+27.44				-23.89				+22.31			-23.18		+22.55		-24.84
57	37.24	57	37.23	57	37.89	57	36.81	56	55.51	57	34.11	57	34.71	57	30.06	57	38.26	57	37.57	57	38.45	57	38.16
25	11.71			11.12	25	12.46		11.54				25	14.24	25	13.64		13.29	25	10.49		10.78	25	9.40
	10.97				12.50								13.46						10.43				10.19
	10.64																						
+	10.58			+	23.18			+	20.13			+	25.38			+	10.83						
1.63548				1.63568				1.64808				1.64533				1.65028			1.65048		1.63573		1.63593
-43.20				-43.22				-44.47				-44.19				-44.70			-44.72		-43.23		-43.25
					-44.47			-44.49				-44.21				-44.72			-44.72		-43.23		-43.25
	-02.55				-03			-03.53				-13.26				-02.37			-01.38		-02		
	-44				-62			-42				-39.52				-31			-32		-32		
	-43.66				-43.87			-44.92				-45.11				-45.03			-45.14		-43.56		-43.69
24	27.31			24	27.54			24	27.53			24	28.61			24	28.15			24	28.53		27.09
-16	9.6				8.23				10.45			-8.36				-8.70			-8.69		-8.09		10.17
	10.17				11.67				11.68			-2.25				-11.71			-2.25		-2.08		-11.89
+	0.58				0.57				0.55			0.54				0.54			0.54		0.56		17.45
16	9.61				9.88				16.55			-10.41				-10.41			-10.36		-9.81		17.61
8	17.67				17.10				17.10			17.97				17.97			16.45		17.53		

6 Hydraz.

8^h 34^m 6^s

- 12° 2'

γ = +54° 25'

+ .81

1874

log P 9.99035

CG .11678

CG' .10713

laid 9.31907m

1876

34 6.16

2 7.40

+ 2.843

- 12.51

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March 27				March 28				March 29				March 30				March 31				April 7			
-0.73				-0.63				+0.00				-0.28				-0.33				-0.10			
33	4.5	33	42.33	32	3.2	32	51.4	33	2.0	32	54.0	33	0.6	32	53.7	34	1.05	34	2.6	33	55.1	33	45.3
	6.7		40		5.4		53.5		4.2		55.6		2.8		56.0		12.8		4.2		57.2		46.8
	8.8		106		7.5		55.3		6.8		57.9		5.0		57.9		14.8		6.8		59.4		48.2
	12.8				11.7				10.5				4.1				18.9			34	3.4		
	14.9				13.9				13.5				11.4				21.0				5.6		
	19.1				15.2				14.9				13.5				23.2				7.9		
	19.2	33	37.4		18.1	33	40.4		16.8	33	32.0		15.7	33	39.3		25.2	34	40.6		10.2	34	28.7
	21.3		39.5		20.3		43.9		19.0		33.9		14.6		39.7		27.9		43.1		12.1		30.8
	25.4		41.6		24.4		46.6		23.1		35.4		21.9		41.3		31.5		44.6		16.2		32.3
	27.6				26.5				25.2				23.8				33.7				18.3		
	29.7				28.6				27.4				26.0				35.9				20.5		
1879				1754				1617				1474				2549				2657			
33	17.082	33	8.93	32	53.75			32	55.77			32	55.80			34	4.27			33	85.7	33	46.77
33	17.064	33	39.50	33	15.936	33	43.57	33	14.700	33	33.70	33	13.400	33	39.43	34	23.173	34	42.77	34	7.791	34	30.60
33	17.066				15.929				14.684				13.384				23.157				7.775		
+ 5.004				+ 57.14				+ 52.51				+ 53.56				- 16.10				- 1.7260			
- 0.01				- 0.01				+ 0.00				- 0.02				- 0.01				- 0.00			
- 0.94				- 0.93				+ 0.91				- 0.90				- 0.89				- 0.78			
+ 49.09				+ 50.20				+ 51.40				+ 52.66				- 17.00				- 12.2778			
33	17.67			33	15.93			33	14.68			33	13.38			34	23.16			34	7.77		
34 6.16				34 6.13				34 6.08				34 6.04				34 6.16				34 5.20			
																				5.99			
+ 8.15				- 22.42				+ 18.93				- 17.00				+ 15.60				- 26.03			
5	1-388			5	+22.54			5	+22.54			5	-388			5	+18.50			5	+21.02		
2	13.6	2	53.3	1	51.4	2	58.9	1	57.3	2	47.2	1	58.1	2	54.0	1	57.5	2	46.5	1	52.7	2	50.5
	19.9		59.1		57.5		3.8		3.4		52.9		5.3		0.5		3.5		52.1		0.1		56.5
	13.5		124		89		1227		1207		1001		1234		1145		1210		986		1128		70
7	16.75	7	56.20	6	54.45	8	1.35	7	0.35	7	50.05	7	1.70	7	57.25	7	0.50	7	49.30	6	56.40	7	53.50
0.91116	1.35064	1.35295	1.44138	1.27775	1.27875	1.24551	1.41547	1.27646	1.29226	1.32263	1.35813	1.02703	1.46651	1.46882	1.35723	1.37302	1.37462	1.36138	1.53134	1.39263	1.40813	1.11333	1.47400
1.02703	1.46651	1.46882	1.35723	1.37302	1.37462	1.36138	1.53134	1.39263	1.40813	1.11333	1.47400												
	+10.64	-2928	12243	-3208	+2472	-2181	+2278	-3397	+2474	-2557	+2745	-2979											
7	27.39	7	26.92	7	23.88	7	25.27	7	25.07	7	25.24	7	24.68	7	23.26	7	25.29	7	23.71	7	23.25	7	23.71
44	39.04	38.57	44	35.53	36.92	44	36.72	36.89	44	36.33	36.91	44	36.89	35.36	44	35.50	35.36	44	35.50	35.36	44	35.50	
	38.50		36.22		36.50				35.62				36.12										
+ 10.62				+ 23.29				+ 21.63				+ 20.52				+ 23.39				+ 24.45			
1.91492	1.91512	1.92759	1.92779	1.92593	1.92613	1.92482	1.92502	1.92969	1.92989	1.92865	1.92895	-82.21	-82.25	-84.64	-84.32	-84.10	-84.14	-85.05	-85.09	-84.55	-84.51	-84.91	
	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	-0	
	+4.49	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	
-1	2.66	-1	2.78	-1	2.98	-1	2.51	-1	2.49	-1	2.88	-1	2.35	-1	2.48	-1	2.30	-1	2.34	-1	2.08	-1	2.28
46	1.70	46	1.35	46	0.51	46	2.13	46	1.41	46	1.77	46	0.68	46	0.59	46	2.19	46	0.80	46	0.58	46	0.64
-16	7.96	-16	11.02	-16	8.23	-16	11.28	-16	8.53	-16	11.64	-16	8.36	-16	11.46	-16	8.70	-16	11.79	-16	8.88	-16	10.79
	-3.06	-6.86	-3.05	-6.81	-3.05	-6.81	-3.05	-6.81	-3.05	-6.81	-3.05	-6.81	-3.05	-6.81	-3.05	-6.81	-3.05	-6.81	-3.05	-6.81	-3.05	-6.81	
	+ 5.65	2	7.02	-	+ 5.70		6.09		+ 5.74		7.31		+ 5.79		6.35		+ 5.83		8.15		+ 6.05		5.32
-16	5.37	6.72	-	5.58	4.71	-	5.90		7.17		5.61		5.06		5.96		6.76		4.74		5.35		5.38
2	6.87			6.90			7.49				5.70				7.45								

γ Cancri.
8^h 36^m 2^{sec.}

 $+ 21^{\circ} 53'$
$$Z = +20^{\circ} 30'$$

Cost 9.96752

$2.6 \quad .11678$
 $2.6' \quad .08430$

Land 9.57138

1874

1875

36	3.01
54	59.24

$$\begin{array}{r} + 3.482 \\ - 12625 \\ \hline \end{array}$$

996752

12332
09304

conv =

$$cont =$$
$$\text{lang } d = +.40$$
$$I = 222$$
$$K = -0.017$$

1874

1875

March 2

March 22

March 23

March 23

April 4

March 8

+005		+007		+100		+203		+206		+010	
35 48.9	35 37.0	35 48.3	35 36.9	35 48.4	35 48.8	35 47.1	35 39.2	35 49.0	35 22.6	35 22.5	35 9.7
52.1	37.2	51.3	37.0	50.8	37.0	49.3	41.9	41.2	24.9	24.9	10.7
54.3	41.0	53.8	40.8	53.1	56.3	51.5	43.5	43.5	26.8	26.8	12.6
58.8		58.3		57.6	58.1	53.8		47.9		31.2	
1.6		0.4		55.7		57.1		57.1		33.5	
3.2		2.6		2.0		0.4		52.3		35.9	
5.4	36 21.7	4.9	36 22.1	4.2	36 22.5	2.6	36 17.4	5.7	36 15.3	39.9	35 51.0
	23.8	7.0	23.5	6.3	25.2	4.8		5.8	17.3	42.7	53.7
15.0	26.0	11.4	25.3	10.7	27.3	9.3		1.2	15.1	44.5	55.6
14.3		13.7		13.0		11.5		3.4		46.7	
16.6		15.7		15.2		13.7		5.6		48.9	
275.2		268.8		321.0		304.1		395.7		391.6	
24.0		24.0		300		300		180			
35.2	35 39.07	28.8	35 38.90	21.0	35 54.30	4.1	35 41.53	575.7	35 24.77		35 11.00
36 3.200	36 23.83	36 2.618	36 23.65	36 1.909	36 25.00	36 0.373	36 19.83	35 52.336	36 17.23	35 35.600	35 53.43
3.183		2.601		1.892		0.356		52.319		35.583	
- 2.59		- 2.12		- 1.44		+ 0.04		+ 4.84		+ 28.82	
+ .00		+ .03		+ .05		+ .09		+ .08		+ .00	
- 1.01	+2472	- 1.00	+2482	- 0.98	+2502	- 0.96	+2522	- 0.81	+2672	- 1.52	
- 3.60		- 3.09		- 2.37		- 0.83		+ 7.14		+ 29.30	
36 3.18		36 2.60		36 1.89		36 0.36		35 52.32		35 35.58	
35 59.58		35 59.51		35 59.52		35 59.53		35 59.46		36 2.88	
3.062		2.992		3.002		3.012		59.520	2.94		

[illegible]

March 27				March 28				March 29				March 30				March 31				April 5				
35	1.0	34	57.7	35	0.0	34	56.0	34	58.4	34	46.4	34	57.5	35	2.4	36	7.0	36	0.7	35	54.3	35	4.18	
	3.1		53.9		2.1		57.2	35	0.8		48.6		54.5		3.8		9.2		2.6		56.5		48.7	
	5.5		56.0		4.2		58.6		3.0		50.4	35	1.8		5.8		11.5		4.5		58.7		45.4	
	9.4				8.8				7.5				6.0	35	8.2		15.9			36	3.2			
	12.1				11.0				9.7				10.6				18.3				5.5			
	14.2				13.1				11.9				12.9				24.4				7.7			
	16.5				15.4				14.2	35	2.48		15.0	35	35.1		22.6	36	40.3		9.8	36	27.0	
	18.4				17.7				16.3		27.3		19.6		37.2		25.0		42.8		12.1		28.6	
	20.1				22.0				20.8		29.6		21.7		38.9		29.1		44.6		16.5		30.4	
	25.4				24.3				23.0				24.0				37.6				18.8			
	27.5				26.5				25.3								33.8				21.0			
	15.68	34	53.80		14.51	34	57.27		19.12	34	48.57		23.67	35	4.00		22.44	36	2.60		26.41	35	43.63	
									6.0	35	27.23		12.0	35	37.17		36	42.37			18.0	36	28.67	
									13.12				11.67								8.41			
35	14.255			35	13.191			35	11.927			35	10.609			36	20.400			36	7.645			
	14.238				13.174				11.910				10.592				20.383				7.627			
	+ 50.04				+ 51.14				+ 52.31				+ 53.54				- 16.10				- 3.42			
	- .03				- .02				+ .00				- .01				- .01				- .05			
	- 1.31				- 1.29				- 1.28				- 1.27				- 1.25				- 1.18			
	+ 48.70				+ 49.83				+ 57.03				+ 52.29				- 17.36				- 4.65			
35	14.244			35	13.17			35	11.91			35	10.59			36	20.38			36	7.63			
36	2.94			36	3.00			36	2.94			36	2.88			36	3.02			36	2.98			
																							2.949	
10	+20.15			10	+15.72			10	+23.36		-15.30	10	+6.61		-26.46	10	+17.50		-22.17	10	+24.01		-21.03	
	- 3.78				- 3.77				- 3.84				- 3.83				- 3.82				- 3.61			
0	43.9	1	31.2	0	48.3	1	39.5	0	39.7	1	28.0	0	58.3	1	58.7	0	45.0	1	34.3	0	58.0	1	34.0	
	53.5		41.9		57.9		49.5		49.8		37.9		11.2		50.5		55.7		44.7		49.6		45.9	
	97.4		73.1		106.2		89.0		89.5		6.59		12.95		89.2		10.07		7.90		87.6		70.9	
10	48.70	11	36.55	10	53.10	11	44.50	10	44.75	11	32.95	11	4.75	11	44.60	10	50.35	11	39.50	10	43.80	11	30.95	
	1.31069				1.20194				1.36847		1.18469		0.82020		1.42259		1.35042		1.34577		1.35039		1.32281	
	1.40378				1.29478				1.46151		1.27773		0.71324		1.51563		1.34346		1.43881		1.47343		1.41582	
	+25.33				+19.72				+28.94		-18.96		+8.19		-32.78		+22.05		-27.47		+29.75		-26.05	
11	14.03			11	12.82			11	13.67	11	12.99	11	12.94	11	11.82	11	12.40	11	12.03	11	13.55	11	13.90	
11	34.32			11	35.53			11	34.66		34.36	11	35.41		36.53	11	35.95		36.32	11	34.80		34.45	
									34.51				35.97				36.13				34.62			
	+10.65				+23.33				+21.67				+20.58				+25.40				26	56	27	52
1.34145		1.34275		1.33513		1.35543		1.35347		1.35377		1.35238		1.35268		1.35720		1.35750		1.34272		1.34312		
-21.95		-22.02		-22.65		-22.67		-22.57		-22.58		-22.51		-22.53		-22.76		-22.78		-22.01		-22.03		
	-0.77	-1.11		-0.44	-1.11			-1.0	-2.9	-0.4		-1	-2.6	-1.3		-0.5	-2.4	-0.9		-1.1	-2.6	-1.8		
-16	-23	-32		-18	-22	-34		-14		-30		-15		-24		-11		-24		-10		-24		
11	12.14			11	12.66			11	11.85		11.44	11	12.7		13.63	11	13.03		13.21	11	12.58		12.10	
-16	7.96	9.28		-16	8.23	9.54		-16	8.53	9.87		-16	8.86	9.70		-8.70	10.03			-8.69	9.95			
-1.52	-16.64			-1.31	-16.70			-1.34	-16.76			-1.34	-16.81			-1.33	-16.87			-1.26	-17.14			
-4.02				-4.08				-4.14		57.84		-4.19		58.85		-4.23		58.95		-4.32		58.11		
-16	13.30			-16	13.62			-16	14.01		57.43		-16	13.89		57.74		-14.28		58.93		57.63		
54	58.84				59.04				57.64				59.30				58.64				57.87			

6^3
S Camm.
 $gh\ 37\ 35$
 $+18^\circ\ 37'$
 $Z = +23^\circ\ 46'$
 $+40$

1874
 Mar. 21 37^m 3233 -.07 36' 57.3
 26 3226 -.07 57.6 3
 31 3219 .07 57.8 2
 Apr. 5 3212 .07 60.1 3
 10 3205 -.07 60.3 2
 15 3198 .07 60.5 2
 20 3191 .07 60.7 2
 25 3184 .07 60.9 2
 30 3176 .08 61.1 2

1874
 $L\ 31.348$
 $P +36\ 56.46$
 $Q +3.420$
 $R -12.963$
 $cond = +34.106$

1875
 34.768
 $+36\ 45.50$
 $+3.420$
 -12.967
 $cond =$
 $I = 2.17$
 $K = -.016$

9.97666
 1.12552
 0.10218
 $bind\ 9.50411$

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1875

Mar.	1	40	1072		52	33	
	6		10.69	-03		33.0	-1
	11		10.65	.04		32.9	.
	16		10.60	.05		32.9	0
	21		10.55	.05		32.9	-0
	26		10.49	.06		32.9	+0
	31		10.43	.16		32.9	.
Apr	5		10.36	.07		33.0	.
	10		10.28	.08		33.1	-1

1874.0

 α
 6.04
 12
 13
 11
 09

 α
 6.118
 .149
 - .031

4660

1875.0

 α
 9.30
 32
 33
 27
 30
 33
 41
 9.323
 .333
 - .010

33.68

1875

March 11

March 27

March 28

March 29

March 31

April 5

39	263	39	168	39	8.1	38	556	39	6.9	39	2.1	39	5.4	38	553	40	14.1	40	3.7	40	1.4	39	528
	284		18.9		10.1		55.6		8.9		4.2		7.4		54.5		16.0		6.1		8.6		54.6
	305		20.4		10.1		57.1		10.1		6.0		9.8		57.4		18.3		8.2		5.6		56.4
	346				16.3				15.0				14.0				22.3				9.6		
	36.7				18.3				17.1				16.0				24.5				11.8		
	38.4				21.5				19.2				18.1				26.7				13.9		
	40.8	39	57.9		23.5	39	52.0		21.3	39	34.6		20.2	39	33.4		28.5	40	36.0		16.0	40	33.7
	42.9		53.6		24.6		34.3		23.4		36.1		22.3		36.0		30.7		38.1		18.0		35.6
	45.1		55.0		28.4		36.1		27.6		37.3		26.4		38.0		34.9		39.6		22.1		37.6
	49.2				30.9				29.4				28.5				37.0				24.2		
	51.3				35.0				31.8				30.7				39.0				26.4		
	42.65				22.51				21.20				19.94				29.20				15.26		

39	38.73	39	53.83	39	20.46	39	34.13	39	19.27	39	86.00	39	18.12	39	38.90	40	26.54	40	6.00	40	37.90	40	13.87	40	85.63
	38.757		+3184		20.448		+5006		19.257		+5715		18.111		+5234		26.529		-1608		37.90		13.857		-344
40	10.65		+00	40	10.48		-01	40	10.44		-01	40	10.45		-06	40	10.45		-00	40	10.36		-01		-01
	-52.89		+06		-50.03		-115		-57.20		-113		-52.34		-112		-52.80		+16.10		-110		-3.48		-103
+	31.87	40	9.34	+	50.04		9.35	+	51.16		9.27	+	52.31		9.33	-	16.10		9.34	-	3.48		9.38		
-	1.32			-	1.15			-	1.13			-	1.12			-	1.10			-	1.03				
+	30.56			+	48.88			+	50.01			+	51.19			-	17.20			-	4.45				
39	38.76	8	42.47	39	20.45		42.58	39	19.26		42.52	39	18.11		43.48	40	26.53		43.92	40	13.86		42.47		
	-16	803			-16	766			-16	784			-16	811			-16	840			-16	830			
40	9.32		-1.9	40	9.33		-1.9	40	9.27		-1.9	40	9.30		-1.9	40	9.33		-1.9	40	9.41		-1.8		
	+0.80				+0.80				+0.80				+0.80				+0.80				+0.70				
	52	33.34		52	33.33		472	52	33.58			52	34.27			52	34.41			52	33.07				

10	+20.14		+15.06	10	+25.03		-13.67	10	+15.14		-16.73	10	+20.73		-17.77	10	+20.84		-11.56	10	+19.27		-21.76
-	3.88			-	3.78			-	3.77			-	3.84			-	3.82			-	3.61		
2	52.7	3	39.0	2	45.8	3	37.2	2	57.9	3	39.9	2	49.9	3	41.0	2	49.0	3	30.2	2	33.7	3	47.1
	58.2		44.4		53.7		45.3		7.0		46.7		57.1		48.3		58.6		39.7		2.9		55.6
	10.9		8.34		9.9		8.25		12.49		8.66		10.70		9.3		10.76		9.9		11.66		10.27
12	55.45	13	41.70	12	49.75	13	41.25	13	24.5	13	43.30	12	53.50	13	44.65	12	53.80	13	34.95	12	58.30	13	51.35

130406	1.17782	1.39846	1.13577	1.18013	1.22350	1.31660	1.24969	1.31260	1.05538	1.28488	1.33766
142645	1.30021	1.52083	1.25816	1.30252	1.34889	1.43899	1.37208	1.43479	1.17777	1.40727	1.46005
+22.70	+19.96	+33.18	-18.12	+20.07	-22.18	+27.47	-23.55	+27.22	-15.06	+23.54	-28.84
13 22.15	13 21.74	13 22.93	13 23.13	13 22.52	13 21.12	13 20.97	13 21.10	13 21.02	13 12.89	13 23.84	13 22.57

9	26.20	26.61	9	25.42	25.22	9	25.83	27.23	9	27.38	27.25	9	27.33	28.46	9	24.57	25.84		
	26.40			25.32			26.53			27.31			27.89			25.17			
																29	10	30	3
																1.61310	1.61330		
	+22.48			+10.71			+23.46			+21.77			+25.41			+12.00			
	1.63558	1.63578	1.62381	1.62401	1.63656	1.63676	1.63487	1.63507	1.63851	1.63871	1.62510	1.62530							
	-43.21	-43.23	-42.05	-42.07	-43.32	-43.33	-43.14	-43.16	-43.50	-43.52	-42.18	-42.20							

-03-71	-01	-04-67	-01	-01-68	-01	-03-68	-02	-03-47	-01	-02-51	-03						
-61	-78	-56	-74	-60	-74	-58	-74	-41	-50	-42	-55						
4385	4402	4265	4282	4293	4408	4375	4392	4394	4403	4262	4278						
8	4235	4259	8	4277	4290	8	4290	4315	8	4363	4333	8	4339	4443	8	4189	4306
02	329		329		329		329		329		329		329		330		330
-16	9.4	9.7	9.9	9.5	10.0	10.2	10.4	10.5	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	
-16	5.52	5.2	5.38	10.7	1.96	10.15	33.42	8.23	10.41	8.27	8.53	10.75	33.68	8.70	10.91	33.28	
-	2.25	31.62	-12.12	2.19	12.12	33.05	2.18	-12.12	33.54	2.25	-12.12	33.38	2.25	-12.12	33.22	2.25	
+	0.80	32.50		32.50		32.50		32.50		32.50		32.50		32.50		32.50	32.50

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p Hydrac.
8 41 48
+6° 18'
7 = +36 5
+59

1874

Sp
ad
200
200

heads 9.99737
6.6 .11678
16. .11415

6.6" .80729

Wind 9.04034

con a =
con b =
long d = +11
I = 2.07
K = -.016

1874

March 21

March 22

March 23

March 25

April 4

April 23

8	41	+0.00	26.4	41	+0.44	26.4	41	22.8	41	+1.20	35.4	41	33.0	41	+2.23	33.8	41	22.4	41	+2.06	21.7	41	20.0	41	+0.30	7.8	41	2.5
		38.6	28.5		38.1	28.1		26.1		37.4	27.4		35.8		35.8	24.5		27.9		27.9	22.1		22.1		8.9			
		40.7	30.5		40.2	22.5		39.4		39.4	38.0		37.8		37.8	26.1		30.0		30.0	23.7		23.7		12.0			
		44.8			44.3			43.6		43.6			42.0		42.0			34.1		34.1					16.1			
		46.1			46.4			45.6		45.6			44.1		44.1			36.2		36.2					18.1			
		49.0			48.5			47.8		47.8			46.3		46.3			38.3		38.3					20.2			
		51.0	42	4.3	50.6	42	0.0	49.4	42	5.8	48.4	42	4.2	4.2	4.2			40.3	41	37.5					22.3			
		53.1			52.7		8.3	51.7		6.8	50.4		6.7	6.7	6.7			42.4		39.2					24.4			
		57.2			56.7		11.0	56.0			54.5		9.6	9.6	9.6			44.5		39.7					28.5			
		59.3			58.8			58.1			56.6							46.6		40.0					30.6			
		1.4			0.7			0.3			58.7							50.4		50.4					32.7			
		47.86			47.32			46.54			50.84							42.07							22.26			
		6.0			6.0			6.0																				
		53.86	41	28.47	53.32	41	26.73	52.54	41	35.60		41	24.53					41	31.40					41	2.50			
	41	48.96	42	4.30	41	48.47	42	8.43	41	47.76	42	6.30	41	46.21	42	6.80	41	38.24	41	53.47	41	20.23	41	20.22				
		48.948			48.457			47.748			46.202							38.229										
	-	2.59			-	2.12		-	1.44		+	0.04		+	0.04		+	1.84		+	25.13				+	25.13		
	+	.08			+	.01		+	.01		+	.02		+	.02		+	.02		+	.00				-	.00		
	-	0.88	+2.303		-	0.84	+2.313	-	0.86	+2.323	-	0.83	+2.353	-	0.83	+2.353	-	0.69	+2.483	-	0.44	+2.743			-	0.44	+2.743	
	-	3.47			-	2.98		-	2.29		-	0.77		-	0.77		+	2.18		+	25.29				+	25.29		
	41	48.95			41	48.46		41	47.75		41	46.20		41	46.20		41	38.23		41	20.22				41	20.22		
	41	48.48			41	45.48		41	45.46		41	43.43		41	43.43		41	45.48		41	45.07				41	45.07		
		48.663				48.663			48.643			48.613						48.583							48.693			
																		60							45.160			

8	+2049	-1534	+21.74	-19.96	+12.16	-18.54	+21.89	-20.61	+16.34	-15.23	1774										
55	-3.30	-3.33	-3.33	-3.35	-3.35	-3.47	-3.47	-3.47	-3.47	-3.47	-3.47										
0	4.0	1	49.9	0	2.3	1	36.9	1	3.9	1	59.0	1	9.0	1	49.7	3	29.3				
	1.0		47.7		57.3		52.0		6.9		46.0		56.2		1.1		40.9				
	5.0		17.6		119.6		89		20.8		100.0		12.01		10.1		110.6				
55	2.50	56	48.80	54	59.80	56	54.45	56	10.40	56	50.00	55	0.05	56	55.35	56	5.05	56	45.30	13	56.00
1.31154	1.18583	1.33726	1.30016	1.08493	1.26811	1.314025	1.31408	1.21245	1.18270	1.24895	1.42833	1.32660	1.29683	1.25634	1.425634	1.425634	1.425634	1.425634	1.425634	1.425634	
1.425634	1.29798	1.45141	1.41431	1.19908	1.38226	1.45440	1.42833	1.32660	1.29683	1.25634	1.42833	1.32660	1.29683	1.25634	1.425634	1.425634	1.425634	1.425634	1.425634	1.425634	
+26.65	-19.95	+28.28	-25.96	+15.82	-24.11	+28.44	-26.81	+21.21	-19.81	+48.04	-26.81	+21.21	-19.81	+48.04	-26.81	+21.21	-19.81	+48.04	-26.81	+21.21	-19.81
56	29.15	56	28.80	56	28.08	56	28.49	56	26.22	56	25.87	56	28.52	56	28.54	56	26.26	56	25.49	14	14.04
+6°	26 19.20	19.50	26 20.27	19.86	26 22.13	22.46	26 19.83	26 19.81	26 22.09	26 22.86	8 34.31	26 22.47	26 22.47	26 22.47	26 22.47	26 22.47	26 22.47	26 22.47	26 22.47	26 22.47	26 22.47
+36	3 34 4 21	1.62230	1.62250	+13.51	+23.39	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80	+13.80
	1.62230	1.62250	1.63048	1.63581	1.63601	1.64469	1.64989	1.63610	1.63630	1.65268	1.65288	1.65268	1.65288	1.65288	1.65288	1.65288	1.65288	1.65288	1.65288	1.65288	1.65288
	-42.68	-42.70	-43.23	-43.25	-44.64	-44.66	-43.26	-43.26	-43.26	-44.94	-44.97	-44.97	-44.97	-44.97	-44.97	-44.97	-44.97	-44.97	-44.97	-44.97	-44.97
	-03.00	-01.00	-03.07	-03.08	-01.03	-02.00	-03.00	-03.00	-03.00	-03.00	-03.00	-03.00	-03.00	-03.00	-03.00	-03.00	-03.00	-03.00	-03.00	-03.00	-03.00
	-42.71	-42.66	-43.11	-43.22	-44.61	-44.63	-43.29	-43.25	-44.98	-45.03	-45.03	-45.03	-45.03	-45.03	-45.03	-45.03	-45.03	-45.03	-45.03	-45.03	-45.03
+6	25 36.19	36.84	25 37.16	36.64	25 37.52	37.83	25 36.54	36.56	25 37.11	37.83	7 31.44	25 37.11	37.83	25 37.11	37.83	25 37.11	37.83	25 37.11	37.83	25 37.11	37.83
-7	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42	29.42
	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94
	+0.68	18 5.81	+0.67	6.28	+0.67	6.37	+0.67	6.37	+0.67	6.37	+0.67	6.37	+0.67	6.37	+0.67	6.37	+0.67	6.37	+0.67	6.37	+0.67
-7	30.68	6.16	-7 30.78	58.6	-7 31.15	6.68	-7 30.73	58.3	-7 30.62	58.3	-7 30.62	58.3	-7 30.62	58.3	-7 30.62	58.3	-7 30.62	58.3	-7 30.62	58.3	-7 30.62
18	5.98	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12	6.12

1875

March 8 +010				March 11 +030				March 27 -073				March 28 -063				March 29 +080				March 31 -033			
41	8.7	41	0.5	41	5.8	40	53.0	40	—	40	2.5	40	46.2	40	39.1	40	45.2	40	38.0	41	53.3	41	44.6
	10.9		2.4		9.4		53.1		—		4.6		48.2		41.2		49.1		39.7		53.5		46.6
	13.0		3.9		9.8		54.0		—		6.2		50.3		42.8		49.2		41.1		54.6		48.4
	14.0				14.0				52.5				54.5				58.3			40	1.6		
	19.1				16.0				57.7				56.6				55.4				3.7		
	21.2				18.0				57.9				58.6				57.4				5.8		
	23.3	41	32.2		20.1	41	34.5		1.8				0.4	41	100		59.7	41	18.4		8.0	42	17.4
	25.3		34.4		22.3		39.5		4.0				2.8		12.1		1.4		20.4		10.9		19.6
	26.4		38.9		26.4		41.2		—				7.0		14.2		5.4		21.9		14.1		21.2
	31.5				28.4				—				9.0				7.8				16.3		
	33.7				30.6				—				11.0				9.9				18.4		
23.3	1			19.2				29.9				34.9				39.2				24.3			
							55.03																
							55.07																
41	21.19	41	2.27	41	18.109	40	39.40	40	4.43			40	64.49	40	41.03		63.2	40	39.60		64.3	41	46.53
	21.175		34.17		18.093								58.627	41	12.10	40	57.473	41	20.23	42	5.845	42	19.40
													58.611				57.457				5.829		
+	28.83			+	31.54			+	50.04			+	51.15			+	52.31			-	10.10		
+	.00			+	.00			-	.01			-	.01			+	.00			-	.00		
-	1.33			-	1.31			-	1.14			-	1.12			-	1.11			-	1.09		
+	27.50			+	30.56			+	48.89			+	50.02			+	51.20			-	17.19		
41	21.17			41	18.09			40	59.76			40	58.61			40	57.46			42	5.83		
41	48.67			41	48.65			41	48.65			41	48.63			41	48.66			41	48.64		

48.650

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March 22	March 27	March 28	March 29	March 31	April 5
+116 42 - 43 7/1 - 15.0 - 12.7 57.4 51.40 54.4 .53 57.3 .56 5.0 .52 59.0 .55 8.8 .58 314	-043 42 27.5 42 9.9 31.5 12.3 32.3 14.7 39.2 42.0 44.8 45.7 43 8.6 51.7 10.6 56.4 13.2 59.2 2.3 4336 60 42 4936 42 12.30 42 44873 43 10.80 44852 + 5005 - .07 - 1.84 + 45.11 42 44.85 43 32.96	-063 42 26.6 42 14.0 29.6 16.8 32.4 18.6 38.2 41.0 43.9 46.7 43 0.5 49.7 3.6 55.3 6.3 58.2 1.1 4225 60 42 4825 42 16.47 42 43864 43 3.47 43843 + 51.16 - .06 - 1.85 + 49.25 42 43.84 43 33.09	+000 42 25.2 42 16.1 28.1 19.6 31.0 22.1 36.8 39.5 42.5 45.5 42 52.9 48.5 55.5 54.1 57.3 59.0 59.8 4680 42 19.27 42 42545 42 55.17 42524 + 52.32 + .00 - 1.84 + 50.48 42 42.52 43 33.00	-033 43 33.7 43 23.1 36.6 25.6 39.6 27.9 45.2 48.1 51.0 53.8 44 6.3 56.8 8.8 2.6 11.2 5.3 8.4 3811 180 43 5011 43 25.53 43 51009 44 8.77 50989 - 16.09 - .03 - 1.80 - 17.92 43 5099 43 33.07	-130 43 21.0 43 5.2 23.8 7.7 26.9 9.9 32.5 35.5 38.3 41.1 43 59.1 44.0 2.4 49.9 4.5 52.7 55.6 4213 43 7.60 43 38300 44 2.00 38279 - 3.42 - .13 - 1.70 - 5.25 43 38.28 43 33.03 23.044
42 51.52 43 9.93 42 51.502 42 51.502 + 43.48 + .11 - 1.96 + 41.61 42 51.50 43 33.11	42 4936 42 12.30 42 44873 43 10.80 44852 + 5005 - .07 - 1.84 + 45.11 42 44.85 43 32.96	42 4825 42 16.47 42 43864 43 3.47 43843 + 51.16 - .06 - 1.85 + 49.25 42 43.84 43 33.09	42 42545 42 55.17 42524 + 52.32 + .00 - 1.84 + 50.48 42 42.52 43 33.00	43 5011 43 25.53 43 51009 44 8.77 50989 - 16.09 - .03 - 1.80 - 17.92 43 5099 43 33.07	43 38300 44 2.00 38279 - 3.42 - .13 - 1.70 - 5.25 43 38.28 43 33.03 23.044
- 18.41 55 - 3.83 0 25.5 27.6 13.1 55 26.55 1.26505m 1.24616m - 17.63 55 892 27 39.43	+32.57 -25.73 50 - 3.78 4 29.9 0 27.0 4 35.0 0 21.3 4 40.6 0 14.2 4 36.6 0 18.1 4 30.2 0 23.5 40.5 38.1 44.9 31.3 49.5 22.9 46.2 28.4 41.6 34.7 70.4 65.1 79.9 52.6 10.1 37.1 82.8 46.5 71.8 58.2 54 35.20 55 82.55 54 39.95 55 26.30 54 45.05 55 18.55 54 41.40 55 28.25 54 35.90 55 29.10 1.51282 1.41380 1.43759 1.29248 1.36650 1.10140 1.40620 1.24944 1.48714 1.37475 1.49393 1.39491 1.41870 1.27359 1.34791 1.08251 1.38731 1.23055 1.46825 1.35586 +31.18 +24.83 +26.22 -18.77 +22.28 -12.07 +24.40 -17.00 +29.39 -22.69 55 63.8 55 77.2 55 61.7 55 75.3 55 73.3 55 64.6 55 58.0 55 62.5 55 52.9 55 64.1 27 49.7 40.63 27 42.18 40.82 27 41.02 41.84 27 42.55 42.10 27 43.06 41.94 41.30 41.50 41.45 42.32 42.50 42.50 42.50 42.50 42.50 42.50 49 12 48 19 0.26240 0.25880 +1206 0.27446 0.27086 +1.88 +1.87	+27.39 -12.61 50 - 3.77 4 35.0 0 21.3 4 40.6 0 14.2 4 36.6 0 18.1 4 30.2 0 23.5 44.9 31.3 49.5 22.9 46.2 28.4 41.6 34.7 79.9 52.6 10.1 37.1 82.8 46.5 71.8 58.2 54 39.95 55 26.30 54 45.05 55 18.55 54 41.40 55 28.25 54 35.90 55 29.10 1.43759 1.29248 1.36650 1.10140 1.40620 1.24944 1.48714 1.37475 1.41870 1.27359 1.34791 1.08251 1.38731 1.23055 1.46825 1.35586 +26.22 -18.77 +22.28 -12.07 +24.40 -17.00 +29.39 -22.69 55 61.7 55 75.3 55 73.3 55 64.6 55 58.0 55 62.5 55 52.9 55 64.1 27 42.18 40.82 27 41.02 41.84 27 42.55 42.10 27 43.06 41.94 41.50 41.45 42.32 42.50 42.50 42.50 42.50 42.50 42.50 42.50 49 12 48 19 0.25880 +1206 0.27086 +1.87	+23.27 -12.63 50 - 3.84 4 40.6 0 14.2 4 36.6 0 18.1 4 30.2 0 23.5 49.5 22.9 46.2 28.4 41.6 34.7 10.1 37.1 82.8 46.5 71.8 58.2 54 45.05 55 18.55 54 41.40 55 28.25 54 35.90 55 29.10 1.10140 1.40620 1.24944 1.48714 1.37475 1.08251 1.38731 1.23055 1.46825 1.35586 -12.07 +24.40 -17.00 +29.39 -22.69 55 64.6 55 58.0 55 62.5 55 52.9 55 64.1 27 41.84 41.84 27 42.55 42.10 27 43.06 41.94 41.45 42.32 42.50 42.50 42.50 42.50 42.50 42.50 42.50 42.50 49 12 48 19 0.28065 +1.91 0.27086 +1.87	+25.48 -17.76 50 - 3.82 4 36.6 0 18.1 4 30.2 0 23.5 46.2 28.4 41.6 34.7 82.8 46.5 71.8 58.2 54 41.40 55 28.25 54 35.90 55 29.10 1.40620 1.24944 1.48714 1.37475 1.38731 1.23055 1.46825 1.35586 +24.40 -17.00 +29.39 -22.69 55 58.0 55 62.5 55 52.9 55 64.1 27 42.55 42.10 27 43.06 41.94 42.32 42.50 42.50 42.50 42.50 42.50 42.50 42.50 42.50 42.50 49 12 48 19 0.28423 +1.92 0.27086 +1.87	+30.70 -23.70 50 - 3.61 4 30.2 0 23.5 41.6 34.7 71.8 58.2 54 35.90 55 29.10 1.48714 1.37475 1.46825 1.35586 +29.39 -22.69 55 52.9 55 64.1 27 43.06 41.94 42.50 42.50 42.50 42.50 42.50 42.50 42.50 42.50 42.50 42.50 49 12 48 19 0.25880 +1206 0.27086 +1.87
+36.04 0.29844 0.29484 +1.99 +1.97 -2.09 -0.8 -0.8 -1.7 +1.82 27 41.25 -16 7.11 7.00 + -9.80 -16 16.80 11 24.45	+10.77 0.27317 0.26957 +1.88 +1.86 -28 -32 -18 -09 -10 +1.51 +1.58 27 43.48 42.21 -16 7.96 7.85 + -11 -23.53 -10.43 25.20 - 12.28 23.93 24.56	+23.57 0.28547 0.28237 +1.93 +1.92 -20 -65 -09 -94 -08 +0.79 +1.75 27 42.97 42.57 - 8.23 8.12 + -11 -23.65 -10.55 24.30 - 18.67 23.90 24.10	+21.85 0.28425 0.28065 +1.92 +1.91 -74 -60 -04 -86 -06 +0.82 +1.81 27 41.84 43.70 - 8.53 -8.42 + -11 -23.77 -10.44 22.75 - 19.07 24.61 23.68	+25.43 0.28783 0.28423 +1.94 +1.92 -17 -49 -09 -66 -06 +1.11 +1.74 27 43.66 43.87 - 8.70 -8.59 + -11 -23.99 -10.89 24.18 - 19.98 24.39 24.28	+34.70 -23.70 50 - 3.61 4 30.2 0 23.5 41.6 34.7 71.8 58.2 54 35.90 55 29.10 1.48714 1.37475 1.46825 1.35586 +29.39 -22.69 55 52.9 55 64.1 27 43.06 41.94 42.50 42.50 42.50 42.50 42.50 42.50 42.50 42.50 42.50 42.50 49 12 48 19 0.25880 +1206 0.27086 +1.87

57 Cane med.
 2 Cane
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 46 37
 + 31° 3'
 $\lambda = +11.26$
 $+2.20$

1874

Mar. 21 46

3430
 3423 .07
 3415 .08
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 3384 .08
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Apr. 5

3408 .07
 3400 .08
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 3367 .09

3357 .07
 240 +5
 244 4
 248 4
 252 4
 255 3
 258 3
 261 3
 264 3

1874

33.091
 +3' 17.45
 +3.675
 13.344
 9.93284
 .11678
 .24962

16" .04276

Lsind 9.71247

cond. +.350

cond. - .77"

long. +.60 117

±. 241

K = .018

+1874
 +.04
 March 21

46 22.6 46 17.0 46 22.6 46 17.0 46 22.6 46 17.0
 23.0 24.3 24.3 24.3 24.3 24.3
 24.4 24.4 24.4 24.4 24.4 24.4
 31.2 31.2 31.2 31.2 31.2 31.2
 34.6 34.6 34.6 34.6 34.6 34.6
 37.4 37.4 37.4 37.4 37.4 37.4
 41.8 41.8 41.8 41.8 41.8 41.8
 46.6 46.6 46.6 46.6 46.6 46.6
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 34.6 34.6 34.6 34.6 34.6 34.6
 37.4 37.4 37.4 37.4 37.4 37.4
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 37.4 37.4 37.4 37.4 37.4 37.4
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 -1.21 +2.475 -1.21 +2.475 -1.21 +2.475 -1.21 +2.475 -1.21 +2.475 -1.21 +2.475
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10 +18.00 -20.83 10 +22.25 -19.15 10 +9.74 -33.46 10 +13.59 -27.74 25 +14.82 -24.04 25 +12.75

46 1.215 2 6.4 1 17.8 2 4.3 1 33.4 2 21.0 1 27.3 2 14.9 4 8.9 4 51.3 4 11.7

22.7 5.1 16.4 2.7 27.0 15.5 21.9 8.1 9.0 51.2 20.8

42 11.5 14.2 7.0 6.04 36.5 9.2 23.0 17.9 5 32.5

11 22.10 12 5.75 11 17.18 12 3.50 11 30.20 12 18.25 11 24.60 12 11.50 29 8.95 29 51.25 29 16.25

1.25527 1.31869 1.34733 1.28217 0.93856 1.52453 1.13322 1.44311 1.17085 1.38093 1.10551

1.30489 1.36831 1.39495 1.33179 1.03818 1.57415 1.18284 1.47273 1.21361 1.42369 1.14827

+2028 -2335 +2494 -2147 +1092 -3757 +1524 -3110 +1635 -2652 +1407

11 42.38 11 42.40 11 42.04 11 42.63 11 41.12 11 40.74 11 39.84 11 40.40 29 28.30 29 24.73 29 30.42

11 5.97 5.95 11 6.31 6.32 11 7.23 7.61 11 8.51 11 7.553 23.05 23.62 53 17.92

11 18.54 19 38 1.06150 1.06200 +1362 +2754 +3053 +1110 +107280 1.07330 +658

1.06951 1.07001 1.07512 1.07562 1.08904 1.08954 1.09203 1.09253 1.07280 1.07330 1.06828

+1174 +11.75 +11.89 +11.90 +12.28 +12.29 +12.36 +12.37 +11.83 +11.84 +11.70

-08 -03 -07 -11 -04 -08 -3 -10 -27 -04 -16 -18 -08 -22 -14 -03 -04

+04 +06 +04 +06 +05 +04 +07 -04 -07 -07 -12 -12 -12 -12 -12 -12 -12

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-7 30.2 30.2 30.2 30.2 30.2 30.2 30.2 30.2 30.2 30.2 30.2 30.2 30.2 30.2 30.2 30.2

-7 30.7 30.7 30.7 30.7 30.7 30.7 30.7 30.7 30.7 30.7 30.7 30.7 30.7 30.7 30.7 30.7

-7 31.8 31.8 31.8 31.8 31.8 31.8 31.8 31.8 31.8 31.8 31.8 31.8 31.8 31.8 31.8 31.8

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