KG
11366
v.578

http://hdl.handle.net/1874/...

Zone Observations & Reductions

C. 9.

From August 2, 1871. To August 28, 1871.

Charles W. Sever, University Bookstore, Cambridge.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phtae.proj.15758

C 9

Aug 2 1871 to Aug 28 1871

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.15758

Runs

((δ)

((δ)

((δ)

((δ)

((δ)

((δ)

((δ)

((δ)

((δ)

((δ)

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											

Log 15 tan i = 0.12669 for all dates in this book
When applied to Declinations the sign is ~~changed~~ negative
& it becomes 0.12669 n See also C δ.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.15752

101

Date$_1$ = Aug. 2 1871 n = -.48 c = +.87 Observer W.A.H. Recorder H.G.

102

Date$_2$ = Aug 3 1871 n = -.150 c = -.07 Observer H.G. Recorder W.A.R.

2

Star.	α			Mag.	T_δ	1 T_m	2 T_e	3 T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17	h 11	m 27	s 58 11	8.6	m 11	s 21.3	s 38.4	s 41.8	s 45.0	s 48.1	s 51.4	s 224.7	s 44.94	m 11	s 44.94
	11	23	58 11.5	8.6		22.5					-160.38				-15.46
	κ					23.9					-15.94				- 567
	((δ) — D) $\frac{\kappa'}{100}$					22.6									+ 11
															- 2
	c_1													11	29.00
															- 1.72
														11	27.28
				9.0	11	12.6	38.7	42.0	45.0	48.3	51.5	225.5	45.10	11	45.10
						13.9					-16.19				-15.46
	κ					16.3									- 60
	((δ) — D) $\frac{\kappa'}{100}$					14.2									- 11
															- 2
	c_2													11	28.91
															- 1.70
														11	27.21
17	13	04	50 51	9.3	13	8.9	15.1	18.0	21.6	24.9	28.1	107.7	21.54	13	21.54
	12	29.9	50 54.2	9.3		10.3					-15.96				-15.46
	κ					12.5									- 59
	((δ) — D) $\frac{\kappa'}{100}$					10.5									+ 11
															- 2
	α_1													13	5.58
															- 1.74
														13	3.84
				9.5	13	2.8	15.2	18.2	21.1	25.0	28.6	108.1	21.62	13	21.62
											-16.19				-15.46
	κ										21				- 62
	((δ) — D) $\frac{\kappa'}{100}$														- 11
															- 2
	α_2													13	5.41
															- 1.72
														13	3.69
17	14	57	50 43	9.2	14	41.9	15 5.0	8.3	11.4	14.9	18.0	57.6	11.52	15	11.52
	14	27.0	50 42.7	8.9		43.6					-15.95				-15.46
	κ					46.0									- 58
	((δ) — D) $\frac{\kappa'}{100}$					43.8									+ 11
															- 2
	α_1													14	55.57
															- 1.75
														14	53.82
				9.0	~~14~~ 14	~~45.0~~ 41.4	15 5.1	8.3	12.0	14.8	18.4	58.6	11.72	15	11.72
						45.3					-16.20				-15.46
	κ					49.5									- 61
	((δ) — D) $\frac{\kappa'}{100}$					46.4									- 11
															- 2
	α_2													14	55.52
															- 1.73
														14	53.79
17	16	56	50 45	8.8	16	45.0	17 7.7	11.0	14.1	17.4	20.6	70.8	14.16	17	14.16
	16	31.9	50 46.2	9.0		47.0					-15.95				-15.46
	κ					49.0									- 58
	((δ) — D) $\frac{\kappa'}{100}$					47.0									+ 11
															- 2
	α_1													16	58.21
															- 1.76
														16	56.45
				8.8	16	50.2	17 8.1	11.4	14.3	17.7	20.8	72.2	14.44	17	14.44
						53.2					-16.20				-15.46
	κ					55.5									- 61
	((δ) — D) $\frac{\kappa'}{100}$					52.9									- 11
															- 2
	α_2													16	58.24
															- 1.74
														16	56.50
17	17	47	50 12	8.8	17	39.4	57.6	0.9	4.0	7.3	10.5	32.03	6.406	18	4.06
	17	22.7	50 12.5	8.8		40.7					-15.94				-15.46
	κ					41.9									- 57
	((δ) — D) $\frac{\kappa'}{100}$					43.3									+ 11
															- 2
	α_1					41.3								17	48.12
															- 1.76
														17	46.36
				8.2	17	49.2	57.9	1.0	4.3	7.6	10.6	32.14	6.428	18	4.28
						50.8					-16.19				-15.46
	κ					52.7									- 60
	((δ) — D) $\frac{\kappa'}{100}$					50.9									- 11
															- 2
	α_2													17	48.09
															- 1.74
														17	46.35

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R

Aug. 2 +0' 46.″~~80~~ 23 +.27
3 +0 45.09 +.27

Runs "

3

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+22.8	2′ 11.″4	13.″3	12″	12.″35	10	36.00		10′	− 0.57	
	1.34830					50 11	22.80			50 11 3.60	
d	9.80641						− 19.20			− 13	+8.29
	1.28140n									+ .59	
((δ) − D) $\frac{d'}{100}$										+ 7.62	
										+ 21	
+6.02										− 13.65	
−0 16.84 δ_1		11 33.30		10 40.8	×1″					10 57.67	
16	+30.9	2 5.0	7.1	12	6.05	10	42.30		10	11 0.90	+8.09
	1.48996					50 11	27.39			− 26	
d	9.80641						− 26.49			+ 57	
	1.42306n									+ 7.52	
((δ) − D) $\frac{d'}{100}$										+ 26	
										− 13.85	
+6.02											
−0 16.84 δ_2		11 33.23		10 37.3						10 54.14	
	+11.0	0 13.0	12.8	30	12.90	52	35.45		30	50 53 12.96	
	1.04139					50 53	22.25			− .3	+8.57
d	9.79996						− 9.29			+ .5	
	0.96804n									+ 8.31	
((δ) − D) $\frac{d'}{100}$										+ 24	
										− 1.37	
+5.85										13.70	
−0 16.28 δ_1		13 9.69		52 51.0						53 7.26	
8	+18.8	0 4.8	7.4	30	6.10	52	42.25		30	53 11.46	
	1.27416					50 53	27.34			− 10	+8.41
d	9.79996						− 15.88			+ 2	
	1.20081n									+ 8.20	
((δ) − D) $\frac{d'}{100}$										+ 29	
										− 1.37	
+5.85										13.96	
−0 16.28 δ_2		13 9.54		52 49.7						53 5.97	
	+27.7	0 5.6	6.6	40	6.10	42	42.25		40	50 43 5.58	
	1.44248					50 43	29.05			− 20	+8.19
d	9.80151						− 23.47			+ 3	
	1.37058n									+ 8.12	
((δ) − D) $\frac{d'}{100}$										+ 24	
										− 13.65	
+5.88											
−0 15.68 δ_1		14 59.70		42 43.9						42 59.55	
20	+26.3	0 5.7	7.2	40	6.45	42	41.90		40	43 4.70	
	1.41996					50 43	26.99			− 19	+8.14
d	9.80151						− 22.29			+ 3	
	1.34816n									+ 8.01	
((δ) − D) $\frac{d'}{100}$										+ 29	
										− 13.85	
+5.88											
−0 15.68 δ_2		14 59.67		42 43.3						42 58.99	
	+27.2	3 26.5	29.5	38	28.00	44	20.35		35	50 44 44.11	
	1.43457					50 45	7.15			− 20	+9.13
d	9.80120						− 23.04			+ 95	
	1.36246n									+ 8.14	
((δ) − D) $\frac{d'}{100}$										+ 24	
										− 1360	
+5.86											
−0 14.96 δ_1		17 2.31		44 24.1						44 39.07	
28	+21.5	3 30.8	33.7	38	32.25	44	16.10		35	44 42.98	
	1.33244					50 45	1.19			− 12	+9.14
d	9.80120						− 18.21			+ 95	
	1.26033n									+ 802	
((δ) − D) $\frac{d'}{100}$										+ 29	
										− 1380	
+5.86											
−0 14.96 δ_2		17 2.36		44 23.4						44 38.32	
	+22.8	D 5.7	5.7.9	10	5.750	11	50.85		10	50 12 18.06	
	1.35793					50 12	37.65			− 14	+7.95
d	9.80625						− 19.59			+ 25	
	1.29087n									+ 7.63	
((δ) − D) $\frac{d'}{100}$										+ 21	
										− 13.55	
+5.98				11 57.2							
−0 14.68 δ_1		17 52.34		×2 2.2						12 11.89	
22	+13.4	1 2.8	5.6	11	4.20	11	44.15		10	12 17.76	
	1.12710					50 12	29.24			− 5	+8.03
d	9.80625						− 11.48			+ 30	
	1.06004n									+ 7.52	
((δ) − D) $\frac{d'}{100}$										+ 26	
										− 13.70	
+5.98											
−0 14.68 δ_2		17 52.33		11 57.4						12 12.09	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.15758

Date$_1$ = Aug 2, '17 (101) Observer W. A. R Recorder H. G

Date$_2$ = Aug 3 (102) Observer H. G Recorder W. A. R

4

Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
16k	19m 00	51° 31'	9.2	18m 54.4	19m 12.0	15.1	18.4	22.0	25.1	926	16.52	m 19	18.52
	18 36.9	51 33.0	9.0	55.9						−15.97			−15.46
	κ			57.9									− 60
	((δ) — D) $\frac{\kappa'}{100}$			56.0									+ 11
													− 2
	c_1											19	2.55
												19	− 1.80
												19	0.75
			9.2	18 57.2	19 12.2	15.6	18.8	22.0	25.3	939	18.78	19	18.78
				0.0						−16.23			−15.47
	κ			58.5									− 63
	((δ) — D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											19	2.55
												19	−1.77
												19	0.78
17	21 15	50 34	7.0	21 3.0	27.4	30.7	34.8	37.2	40.6	1699	33.98	21	33.98
	20 51.4	50 34.5	6.8	4.5						17.02			−15.46
	κ			6.7						−15.95			− 58
	((δ) — D) $\frac{\kappa'}{100}$			4.7									+ 11
													− 2
	a_1											21	17.81
												21	−1.79 16.24
			7.5	21 12.2	13.0 27.9	30.9	34.3	37.2	40.5	17 06	34.08	21	34.12
				13.0						−16.44			−15.47
	κ			13.8						1.21			− 61
	((δ) — D) $\frac{\kappa'}{100}$			16.2									− 11
				13.8									− 2
	a_2											21	17.91
												21	−1.79 16.12
17	22 36	52 53	6.5	22 22.4	44.7	48.0	51.6	55.0	58.3	25 76	51 52	22	51.52
	22 13.3	52 54.7	6.5	24.5						−16.00			−15.46
	κ			26.7									− 64
	((δ) — D) $\frac{\kappa'}{100}$			24.5									+ 12
													− 2
	a_1											22	35.52
												22	− 1.82 3
												22	33.69
			6.2	22 37.2	44.8	48.1	52.0	55.1	58.3	2582	51 66	22	51.66
				38.3						−16.27			−15.47
	κ			41.0									− 66
	((δ) — D) $\frac{\kappa'}{100}$			38.8									− 12
													− 2
	a_2											22	35.39
												22	− 1.81
												22	33.58
17	24 08	52 05	9.2	24 0.2	19.0	22.3	25.6	29.0	32.3	1282	25 64	24	25.64
	23 45.1	52 6.7	8.7	1.5						−15.98			−15.46
	κ			4.0									− 61
	((δ) — D) $\frac{\kappa'}{100}$			3.0									+ 11
													− 2
	a_1											24	9.66
												24	− 1.83
												24	7.83
			9.0	24 8.0	19.3	22.6	25.8	29.0	32.5	1292	25 84	24	25.84
				9.4						−16.24			−15.47
	κ			14.5									− 64
	((δ) — D) $\frac{\kappa'}{100}$			9.6									− 11
													− 2
	a_2											24	9.60
												24	1.81
												24	7.79
17	25 45	50 23	9.0	lost									
	25 22.0	50 23.5	9.2										
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	a_1												
			9.0	25 43.3	59.3	2.0	5.5	8.3	11.8	3269	65.3 6	26	5.38
				45.0						−16.21			−15.47
	κ												− 61
	((δ) — D) $\frac{\kappa'}{100}$	26 27		44.1									− 11
		27 44											− 2
	a_2	29 2										25	49.14
													− 1.80
												25	47.34

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+22.5	0 45.8	45.8	50	45,80	32	2.55		50	51 32 30.61	
	1.35218				51 32	49.35				− 13	+9.32
d	9.77383					− 18.74				+ 20	
	1.27270n									+ 8.97	
										+ 28	
((δ) − D) $\frac{d'}{100}$										− 13.65	
+5.66										− 0.57	
−0 14.24 δ₁		19 6.41		32 11.5						32 25.71	
26	+20.3	0 49.1	49.8	50	49,45	31	58.90		50	32 27.08	
	1.30750				51 32	43.99				− 11	+9.28
d	9.79383					− 16.91				+ 22	
	1.22802n									+ 8.84	
										+ 33	
((δ) − D) $\frac{d'}{100}$										− 13.80	
+5.66											
−0 14.24 δ₂		19 6.44		32 8.3						32 22.56	
	+29.3	0 27.2	29.2	50	28,20	32	20.15		50	50 32 42.03	
	1.46687				50 33	6.95				− 23	+8.13
d	9.80305					− 24.92				+ 16	
	1.39661n									+ 8.97	
										+ 23	
((δ) − D) $\frac{d'}{100}$										− 13.50	
+5.88											
−0 13.48 δ₁		21 22.12		32 22.6						32 36.09	
14	+20.3	0 14.0	36.9	50	35,45	32	12.90		50	32 40.72	
	1.30750				50 32	57.99				− 11	+8.17
d	9.80305					− 17.27				+ 16	
	1.23724n									+ 8.84	
										+ 28	
((δ) − D) $\frac{d'}{100}$										− 13.70	
+5.88											
−0 13.48 δ₂		21 22.80		32 21.7						32 35.19	
	+ 27.0	3 52.8	54.9	28	53,85	53	54.50		25	52 54 19.50	
	1.43136				52 54	41.30				− 19	+11.47
d	9.78047					− 21.80				+ 1.05	
	1.33852n									+ 10.31	
										+ 80	
((δ) − D) $\frac{d'}{100}$										− 13.70	
+5.31											
−0 13.00 δ₁		22 39.02		54 3.7						54 16.70	
17	+12.9	4 3.3	5.0	29	4,15	53	44.20		25	54 18.87	
	1.11059				52 54	29.29				− 5	+11.58
d	9.78047					− 10.42				+ 1.11	
	1.01775n									+ 10.17	
										+ 35	
((δ) − D) $\frac{d'}{100}$										− 13.83	
+5.31											
−0 13.00 δ₂		22 38.89		54 3.6						54 16.60	
	+22.6	2 32.9	35.1	17	34,00	5	14.35		15	52 5 42.56	
	1.35411				52 6	1.15				− 14	+10.37
d	9.78837					− 18.59				+ 70	
	1.26917n									+ 9.57	
										+ 30	
((δ) − D) $\frac{d'}{100}$										− 13.60	
+5.51											
−0 12.48 δ₁		24 13.34		5 26.3						5 38.76	
20	+16.2	2 39.1	41.0	17	40,25	5	8.30		15	5 40.07	
	1.20952				52 5	53.39				− 7	+10.38
d	9.78837					− 13.32				+ 72	
	1.12458n									+ 9.38	
										+ 35	
((δ) − D) $\frac{d'}{100}$										− 13.75	
+5.51											
−0 12.48 δ₂		24 13.30		5 24.2						5 36.70	
		0 20.6	23.6	15	22,10	7	~~26.25~~		0		
d											
((δ) − D) $\frac{d'}{100}$											
δ₁											
	+7.3 +21.3	0 28.3	30.7	0	29,50	22	18.85		0	50 22 45.76	
	1.32838				50 23	3.94				− 12	+8.02
d	9.80458					− 18.18				+ 16	
	1.25965n									+ 7.71	
				28.3						+ 27	
((δ) − D) $\frac{d'}{100}$										− 13.60	
+5.86											
−0 11.92 δ₂		25 53.23		22 ~~34.3~~						22 40.18	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

101

Date$_1$ = Aug 2 '71 Observer W. A. R Recorder H. G

102

Date$_2$ = Aug 3 Observer H. G Recorder W. A. R

6

Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17	30 31	50 34	—	30 44.5	43.0	46.2	49.3	52.7	56.1	247.34	49.46	30	49.46
	30 8.6	50 33.3	9.4							−15.96			−15.46
	K												− 59
	((δ) — D) $\frac{\kappa'}{100}$												+ 11
													− 2
	c_1											30	33.50
													− 1.85
												30	31.65
			9.2	30 28.7	43.2	46.3	49.8	52.9	56.3	24 85 4	49.70	30	49.70
				32.9						−16.23			−15.48
	K			30.8									− 62
	((δ) — D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											30	33.47
													− 1.83
												30	31.64
17	33 44	50 12	8.4	33 30.9	57.2	0.6	3.8	7.0	10.3	31 89	63.78	34	3.78
	33 21.4	50 13.2	8.6	32.7						−15.94			−15.46
	K			34.6									− 57
	((δ) — D) $\frac{\kappa'}{100}$			32.5									+ 11
													− 2
	a_1											33	47.84
													− 1.86
												33	45.98
			8.3	33 42.1	57.4	0.9	3.9	6.9	10.2	31 93	63.86	34	3.86
				44.7						−16.21			−15.48
	K			43.4									− 60
	((δ) — D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											33	47.65
													− 1.84
												33	45.81
17	34 23	50 32	8.3	34 32.6	33.0	36.3	39.5	42.8	46.1	197 7	39.54	34	39.54
	34 59.8	50 32.6	8.5							−15.95			−15.46
	K												− 58
	((δ) — D) $\frac{\kappa'}{100}$												+ 11
													− 2
	a_1											34	23.59
													− 1.87
												34	21.72
			8.2	34 47.8	33.4	36.6	39.5	42.8	46.3	198 6	39.72	34	39.72
				49.9						−16.22			−15.48
	K			48.8									− 61
	((δ) — D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											34	23.50
													− 1.85
												34	21.65
17	37 49	50 03	8.7	37 44.7	38 1.5	4.7	8.0	11.2	14.3	3 97	7.94	38	7.94
	37 25.8	50 4.0	9.4	46.5						−15.94			−15.46
	K			48.6									− 57
	((δ) — D) $\frac{\kappa'}{100}$			46.6									+ 11
													− 2
	a_1											37	52.00
													− 1.88
												37	50.12
			9.0	37 45.1	38 1.8	4.8	8.2	11.1	14.4	4 03	8.06	38	8.06
				47.0						−16.21			−15.48
	K			46.0									− 60
	((δ) — D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											37	51.85
													− 1.86
												37	49.99
17	38 38	50 33	7.0	38 32.3	50.6	53.9	57.0	0.1	3.5	28 51	57.02	38	57.02
	38 14.9	50 33.6	6.8							−15.95			−15.46
	K												− 58
	((δ) — D) $\frac{\kappa'}{100}$												+ 11
													− 2
	a_1											38	41.07
													− 1.90
												38	39.17
			7.7	38 42.3	~~47.8~~ 50.8	54.0	57.1	0.4	3.6	28 59	57.18	38	57.18
				44.8						−16.22			−15.48
	K			43.5									− 61
	((δ) — D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											38	40.96
													− 1.88
												38	39.08

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+5.0	3 42.2	43.8	~~36~~ 28	43,50	5 54	5.35		35	50 54 47.93	
	0.69897					50 54.84	52.15			− 01	+9.55 ~~35~~
d	9.79965					5	− 4.22			+ 1.00	
	0.62531n									+ 8.32	
((δ) − D) $\frac{d'}{100}$										+ 24	
										−13.30	
+5.76											
−0 10.24 δ_1		30 37.41		54 33.4						54 ~~42.61~~ 43.61	
24	+18.9	3 29.0	31.8	28	30,40	54	1795		25	54 47.09	
	1.27646					50 55	3.04			− 10	+9.34
d	9.79965						− 15.95			+ 95	
	1.20280n									+ 8.20	
((δ) − D) $\frac{d'}{100}$										+ 29	
										−13.50	
+5.76											
−0 10.24 δ_2		30 37.40		54 32.7						54 42.93	
	+31.3	1 14.0	16.4	11	15,20	11	33.15		10	50 11 53.13	
	1.49554					50 12	19.95			− 27	+7.89
d	9.80625						− 26.82			+ 32	
	1.42848n									+ 7.63	
((δ) − D) $\frac{d'}{100}$										+ 21	
										−13.20	
+5.91											
−0 9.12 δ_1		33 51.89		11 38.1						11 47.25	
8	+20.5	1 23.1	25.7	11	24,40	11	23.95		10	11 51.47	
	1.31175					50 12	9.04			− 11	+8.06
d	9.80625						− 17.57			+ 38	
	1.24469n									+ 7.53	
((δ) − D) $\frac{d'}{100}$										+ 26	
										−13.40	
+5.91				7							
−0 9.12 δ_2		33 51.72		11 ~~38.0~~						11 46.13	
	+6.9	0 1.9	4.1	50	~~30~~ 24,40	32	45.35		50	50 33 26.28	
	0.83885					50 33	32.15			− 1	+8.20
d	9.80305						− 5.87			+ 1	
	0.76859n									+ 7.97	
((δ) − D) $\frac{d'}{100}$				12.4						+ 23	
				~~11.79~~						−13.20	
+5.83											
−0 8.92 δ_1		34 27.55		33 ~~26.51~~						33 ~~20.71~~ 21.31	
18	−9.1	0 13.9	15.2	50	14,55	32	33.80		50	33 26.63	
	0.95904n					50 33	18.89			− 2	+8.18
d	9.80305						+ 7.74			+ 5	
	0.88878									+ 7.87	
((δ) − D) $\frac{d'}{100}$										+ 28	
										−13.40	
+5.83											
−0 8.92 δ_2		34 27.48		33 12.5						33 21.41	
	+21.3	4 22.0	25.9	19	23,95	3	24.40		15	50 3 52.90	
	1.32838					50 4	11.20			− 12	+8.76
d	9.80746						− 18.30			+ 1.19	
	1.26253n									+ 7.49	
((δ) − D) $\frac{d'}{100}$										+ 20	
										−13.05	
+5.93											
−0 7.68 δ_1		37 56.05		3 40.4						3 48.04	
12	+22.1	4 21.8	24.9	19	23,35	3	25.00		15	3 51.10	
	1.34439					50 4	10.09			− 13	+8.69
d	9.80746						− 18.99			+ 1.19	
	1.27854n									+ 7.38	
((δ) − D) $\frac{d'}{100}$										+ 25	
										−13.30	
+5.93											
−0 7.68 δ_2		37 55.92		3 38.8						3 46.49	
	+24.7	0 16.9	18.2	50	17,55	32	30.80		50	50 32 56.59	
	1.39270					50 33	17.60			− 16	+8.14
d	9.80305						− 21.01			+ 8	
	1.32244n									+ 7.99	
((δ) − D) $\frac{d'}{100}$										+ 23	
										−13.10	
+5.82											
−0 7.40 δ_1		38 44.99		32 43.7						32 51.06	
16	+13.7	0 25.3	27.9	50	26,60	32	21.75		50	32 53.19	
	1.13672					50 33	6.84			− 5	+8.21
d	9.80305						− 11.65			+ 11	
	1.06446n									+ 7.87	
((δ) − D) $\frac{d'}{100}$										+ 28	
										−13.80	
+5.82											
−0 7.40 δ_2		38 44.90		32 42.7						32 50.10	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.pro.15758

Date$_1$ = Aug 2 '71 (101) Observer W. A. R. Recorder H. G. Date$_2$ = Aug 3 (102) Observer H. G. Recorder W. A. R. 8

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17 K	39m 46s	50° 18′	8.7	39m 39.0	57.9	1.0	4.2	7.6	10.8	32 156	4.30	m 40	s 4.30
	39 22.8	50 18.7	9.0	40.4						−15.94			−15.46
				42.1									− 57
													+ 11
													− 2
				40.5								39	48.36
													− 1.90
												39	46.46
			9.0	39 41.0	58.1	1.3	4.4	7.8	11.1	32 27	64.54	40	4.54
				42.8						−16.21			−15.48
													− 60
				41.9									− 11
													− 2
												39	48.33
													− 1.88
												39	46.45
17	40 32	50 07	9.1	40 31.0	43.1	46.3	49.7	52.8	56.2	24 81	49.62	40	49.62
40	8.9	50 8.0	9.2	33.0						−15.94			−15.46
				35.3									− 57
													+ 11
													− 2
				33.1								40	33.68
													− 1.90
												40	31.78
			8.9	41 15.0	40 43.8	46.7	49.9	53.0	56.3	24 97	49.94	40	49.94
				17.6						−16.21			−15.48
													− 60
				16.3									− 11
													− 2
												40	33.73
													− 1.88
												40	31.85
17	41 45	50 05	6.5	41 34.1	55.9	59.1	2.4	5.6	8.8	31 186	62.36	42	2.36
41	22.1	50 6.0	7.5							−15.94			−15.46
													− 57
													+ 11
													− 2
												41	46.42
													− 1.91
												41	44.51
			7.2	41 41.3	56.1	59.5	2.7	5.8	9.0	31 81	62.62	42	2.62
				43.5						−16.21			−15.48
													− 60
				42.4									− 11
													− 2
												41	46.41
													− 1.89
												41	44.52
17	43 20	50 42	9.1	43 11.0	30.3	33.7	37.0	40.1	43.4	18 45	36.90	43	36.90
42	56.9	50 42.1	9.0	12.5						−15.945			−15.46
				14.1									− 58
													+ 11
													− 2
				12.5								43	20.95
													− 1.93
												43	19.02
			9.1	43 22.0	30.6	33.8	37.0	40.1	43.6	18 51	37.02	43	37.02
				25.7						−16.23			−15.49
													− 61
				23.8									− 11
													− 2
												43	20.79
													− 1.91
												43	18.88
17	45 32	50 13	9.3	45 32.8	44.5	47.8	51.0	54.2	57.4	25 49	50.98	45	50.98
45	9.3	50 14.2	9.2	34.3						−15.94			−15.46
				36.3									− 57
													+ 11
													− 2
				33.3								45	35.04
													− 1.93
												45	33.11
			9.1	45 39.0	44.5	48.0	51.1	54.3	57.9	25 58	51.16	45	51.16
				36.3						−16.22			−15.48
													− 60
				33.1									− 11
													− 2
												45	34.94
													− 1.91
												45	33.03

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+23.8	0′ 14.9	15.5	5′	15.20	17	33.15		5′	50 17 59.60	
	1.37658					50 18	19.95			− 0.57 − 15	+7.85
d	9.80534						− 20.35			+ 5	
	1.30861n									+ 7.74	
((δ) − D) $\frac{d'}{100}$										+ 21	
										−13.05	
+5.87 δ₁		39 52.33		17 46.8						17 53.83	
−0 7.04											
20	+ 22.6	0 16.2	18.2	5′	17.20	17	31.15		5′	17 56.92	
	1.35411					50 18	16.24			− 14	+7.82
d	9.80534						− 19.32			+ 8	
	1.28614n									+ 7.62	
((δ) − D) $\frac{d'}{100}$										+ 26	
										−13.25	
+5.87 δ₂		39 52.32		17 44.4						17 51.49	
−0 7.04											
	+16.5	140.8	43.0	16′	41.90	6	6.45		15′	50 6 39.09	
	1.21748					50 16	53.25			− 7	+ 8.14
d	9.80701						− 14.16			+ 46	
	1.15118n									+ 7.54	
((δ) − D) $\frac{d'}{100}$										+ 21	
										−13.00	
+5.91 δ₁		40 37.69		6 26.9						6 33.66	
−0 6.76											
32	+33.6	2 18.8	20.1	17	18.45	5	29.90		15′	6 37.65	
	−26.4					50 6	14.99			− 19	+ 8.12
d	1.42160n						+ 22.66			+ 62	
	9.80701									+ 7.43	
((δ) − D) $\frac{d'}{100}$	1.35530									+ 26	
										−13.25	
+5.91 δ₂		40 37.76		6 25.8						6 32.52	
−0 6.76											
	+28.3	2 17.2	18.0	17	17.60	5	30.75		15′	50 5 53.25	
	1.45179					50 6	17.55			− 22	+ 8.14
d	9.80716						− 24.30			+ 62	
	1.38564n									+ 7.54	
((δ) − D) $\frac{d'}{100}$		3								+ 20	
										−13.00	
+5.92 δ₁		41 50.46		5 41.5						5 47.82	
−0 6.36											
26	+20.2	2 20.3	23.7	17	22.00	5	26.35		15′	5 54.09	
	1.30535					50 6	11.44			− 11	+ 8.22 +8.82
d	9.80716						− 17.35			+ 65	
	1.23920n									+ 7.43	
((δ) − D) $\frac{d'}{100}$										+ 25	
										−13.20	
+5.92 δ₂		41 50.44		5 42.8						5 49.11	
−0 6.36											
	+24.4	0 55.5	57.4	40	56.45	41	51.90		40′	50 42 18.01	
	1.38739					50 42	38.70			− 16	+ 8.44
d	9.80166						− 20.69			+ 24	
	1.31574n									+ 8.13	
((δ) − D) $\frac{d'}{100}$										+ 23	
										−13.00	
+5.77 δ₁		43 24.79		42 7.1						42 12.88	
−0 5.80											
12	+13.2	1 3.1	5.2	41	4.15	41	44.20		40′	42 18.10	
	1.12057					50 42	29.29			− 5	+ 8.56
d	9.80166						− 11.19			+ 30	
	1.04892n									+ 8.02	
((δ) − D) $\frac{d'}{100}$										+ 29	
										−13.20	
+5.77 δ₂		43 24.65		42 7.7						42 13.46	
−0 5.80											
	+17.7	3 52.2	56.1	8	54.15	13	54.20		5′	50 14 25.84	
	1.24797					50 14	41.00			− 9	+ 8.87
d	9.80595						− 15.16			+ 106	
	1.18061n									+ 7.69	
((δ) − D) $\frac{d'}{100}$										+ 21	
										−12.90	
+5.88 δ₁		45 38.99		14 16.2						14 21.24	
−0 5.00											
18	+18.1	3 50.5	53.0	8	51.75	13	56.60		5′	14 26.19	
	1.25768					50 14	41.69			− 9	+ 8.81
d	9.80595						− 15.50			+ 106	
	1.19032n									+ 7.55	
((δ) − D) $\frac{d'}{100}$										+ 26	
										−13.10	
+5.88 δ₂		45 38.91		14 16.9						14 21.90	
−0 5.00											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.pro.15758

Date$_1$ = Aug 2 '71 (101) Observer W. A. R Recorder H. G

Date$_2$ = 3 Aug. (102) Observer H. G Recorder W. A. R

10

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17	47m 15s	51° 23′	9.1	47m 5s.0	24s.0	27s.5	30s.8	34s.2	37s.3	15 38	30s.76	47	30.76
	46 52.3	51 25.0	9.2	6.8						−15.97			−15.46
	κ			8.7									− 60
	((δ) − D) $\frac{\kappa'}{100}$			6.8									+ 11
													− 2
	α_1											47	14.79
													− 1.96
												47	12.83
			9.4	47 7.3	24.1	27.6	30.8	34.1	37.4	15 40	30.80	47	30.80
				9.8						−1625			−15.49
	κ			8.6									− 63
	((δ) − D) $\frac{\kappa'}{100}$												− 11
													− 2
	α_2											47	14.55
													− 1.94
												47	12.61
17	48 08	51 14	9.3	48 42.3	—	48 22.4	25.7	29.3	32.4	−15.96		48	25.80
	47 45.3	51 15.5	9.0	43.5									−15.46
	κ			46.4									− 59
	((δ) − D) $\frac{\kappa'}{100}$			44.0									+ 11
													− 2
	α_1											48	9.84
													− 1.97
												48	7.87
			9.5	48 35.0	48 19.7	23.0	26.1	29.5	32.7	13 10	26s.20	48	26.20
				40.0						−1624			−15.49
	κ			37.5									− 62
	((δ) − D) $\frac{\kappa'}{100}$												− 11
													− 2
	α_2											48	9.96
													− 1.94
												48	8.02
17	49 20	50 24	8.0	49 19.3	31.6	35.0	38.1	41.3	44.5	19 05	38s.10	49	38.10
	48 56.6	50 25.1	8.0							−15.95			−15.46
	κ												− 58
	((δ) − D) $\frac{\kappa'}{100}$												+ 11
													− 2
	α_1											49	22.15
													− 1.96
												49	20.19
			8.2	49 24.0	32.0	35.1	38.3	41.4	44.6	19 14	38s.28	49	38.28
		50 23		26.0						−1623			−15.49
	κ												− 61
	((δ) − D) $\frac{\kappa'}{100}$			25.0									− 11
													− 2
	α_2											49	22.05
													− 1.94
												49	20.11
17	52 46	50 58	9.5	52 32.5	58.6	2.0	5.1	8.1	11.7	32 55	65s.10	52	51.0
	52 22.9	50 59.0	9.2	34.7						−15.96			−15.46
	κ			37.4									− 59
	((δ) − D) $\frac{\kappa'}{100}$			34.8									+ 11
													− 2
	α_1											52	49.14
													− 1.98
												52	47.16
			9.5	52 42.0	58.8	2.0	5.3	8.4	11.6	32 61	65s.22	53	8.22
				47.5						−16.24			−15.49
	κ			44.7									− 62
	((δ) − D) $\frac{\kappa'}{100}$												− 11
													− 2
	α_2											52	48.98
												52	47.01
17	53 38	51 30	2.0	53 27.0	34.9	38.1	41.7	45.0	51.4	60 25	54s.76	53	54.76
	53 15.4	51 31.5	2.2	28.5	48.0	54.4	54.7	58.0	1.0	−15.97			−15.46
	κ			30.5	54.7	58.0	1.1	8.0	11.3				− 60
	((δ) − D) $\frac{\kappa'}{100}$			28.6									+ 11
				54 27.5	14.5	11 wires laid.							− 2
				29.4								53	38.64
	α_1			30.8									− 2.00
													36.67
		56 11	—	53 31.7	35.2	38.3	41.5	45.1	51.4	60 25	54s.77	53	54.77
		57 11		32.8	47.1	51.4	54.8	58.1	1.3	−1625			−15.49
	κ			33.0	54.8	58.1	1.3	8.1	11.2				− 63
	((δ) − D) $\frac{\kappa'}{100}$	58 1		34.7									− 11
				54 22.0	14.5								− 2
	α_2			28.1								53	38.49
				25.0									− 1.94
												53	36.55

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+24.0	4′ 6.4	8.6	59	7.50	23	40.85		55	51 24 7.61	
	1.380221					51 24	27.65			− 15	+10.06
d	9.795 10						− 20.04			+ 111	
	1.302 00 n									+ 8.83	
$((\delta) - D)\frac{d'}{100}$										+ 27	
										− 12.95	
+5.60 δ_1		47 18.43		23 59.7						24 2.15 4.15	
−0 4.44											
.02	+22.2	4 8.1	10.3	59	9.20	23	39.15		55	24 5.70	
	1.346 35					51 24	24.24			− 13	+10.01
d	9.795 10						− 18.54			+ 112	
	1.268 14 n									+ 870	
$((\delta) - D)\frac{d'}{100}$										+ 32	
										− 13.15	
+5.60 δ_2		47 18.21		23 58.1						24 2.56	
−0 4.44											
	−18.2	3 51.7	53.1	8	52.40	13	55.95		5	51 14 58.00	
	1.260 07 n					51 14	42.75			− 9	+9.91
d	9.796 52						+ 15.25			+ 106	
	1.183 28									+ 8.68	
$((\delta) - D)\frac{d'}{100}$										+ 26	
+5.63										− 12.90	
−0 4.16 δ_1		48 13.50		14 50.3						14 54.44	
40	− 11.3	3 45.1	47.4	8	46.25	14	2.10		5	14 56.66	
	1.053 08 n					51 14	47.19			− 3	+9.87
d	9.796 52						+ 9.47			+ 103	
	0.976 29									+ 856	
$((\delta) - D)\frac{d'}{100}$										+ 31	
										− 13.35	
+5.63 δ_2		48 13.65		14 49.2						14 53.38	
−0 4.16											
	+18.8	2 58.1	61.5	57	59.80	24	48.55		55	50 25 19.31	
	1.274 16					50 25	35.35			− 10	+8.78
d	9.804 28						− 16.04			+ 81	
	1.205 13 n									+ 8.85	
$((\delta) - D)\frac{d'}{100}$										+ 22	
										− 12.80	
+6.83 δ_1		49 26.62		25 11.0						25 14.72	
−0 3.68											
	+13.3	3 3.5	6.2	58	4.85	24	43.50		55	25 17.24	
	1.123 85					50 25	28.59			− 5	+8.78
d	9.804 28						− 11.35			+ 84	
	1.054 82 n									+ 7.72	
$((\delta) - D)\frac{d'}{100}$										+ 27	
										− 13.00	
+5.83 δ_2		49 25.94		25 9.3						25 13.02	
−0 3.68											
	+30.3	0 09.1	11.4	25	10.25	57	38.10		25	50 57 59.35	
	1.481 44					50 58	24.90			− 25	+8.45
d	9.799 18						− 25.55			+ 5	+8.45
	1.407 31 n									+ 8.40	
$((\delta) - D)\frac{d'}{100}$										+ 25	
										− 12.75	
+5.70 δ_1		52 52.86		57 52.0						57 54.48	
−0 2.52											
	+20.5	0 15.3	18.1	25	16.70	57	3 16.5		25	57 59.46	
	1.311 75					50 58	16.74			− 11	+8.54
d	9.799 18						− 17.28			+ 8	+8.54
	1.237 62 n									+ 8.27	
$((\delta) - D)\frac{d'}{100}$										+ 30	
+5.70										− 13.00	
01 −0 2.52 δ_2		52 52.71		57 52.5						57 55.00	
	+26.0	2 57.0	53.0	52	52.00	29	56.35		50	51 30 21.48	
	1.414 97					51 30	− 43.15			− 18	+9.82
d	9.794 15						− 21.67			+ 79	+9.82
	1.335 81 n									+ 8.94	
$((\delta) - D)\frac{d'}{100}$										+ 27	
+5.56										− 12.80	
67 −0 2.24 δ_1		53 42.23		30 15.7						30 17.93	
	+21.7	2 52.4	56.1	52	54.25	29	54.10		50	30 21.11	
	1.336 46					51 30	39.19			− 13	+9.80
d	9.794 15						− 18.08			+ 79	
	1.257 30 n									+ 8.81	
$((\delta) - D)\frac{d'}{100}$										+ 33	
										− 13.00	
+5.56											
−0 2.24 δ_2		53 42.07		30 15.7						30 17.91	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 2' 71 | Observer W.A.K / Recorder H.G | Date$_2$ = 3 Aug. | Observer H.G / Recorder W.A.K | 12 | Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	h m s	° ′ ″		m s	s	s	s	s	s			m	s
17h	59 57	50 04	8.1	lost.									
	59 34.9	50 3.9	8.0										
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	α_1												
			8.4	59 57.4	0 11.8	15.0	18.1	21.3	24.5	9 07	18.14	0	18.14
				59.9						−1623			−15.50
				58.6									− 60
													− 11
													− 2
												0	1.91
													− 1.99
												59	59.92
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	α_2												
18	1 18	50 47	—	lost									
	0 55.7	50 47.4	8.5										
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	α_1												
			8.1	1 23.0	28 31.7	35.0	38.1	41.5		17 44	34.88	1	34.88
				24.8						−16.24			−15.50
				24.7									− 61
				24.8									− 11
													− 2
												1	18.64
													− 2.01
												1	16.63
	κ	2 42											
	((δ) — D) $\frac{\kappa'}{100}$												
	α_2												
18	3 42	50 27	9.0	3 31.0	54.5	57.8	1.0	4.2	7.5	30 50	61.00	4	1.00
	3 19.7	50 26.9	8.8							−15.95			−15.46
	κ												− 58
													+ 11
													− 2
												3	45.05
													− 2.04
												3	43.01
	((δ) — D) $\frac{\kappa'}{100}$												
	α_1												
			8.8	3 35.9	55.0	58.2	1.3	4.6	8.0	30 71	61.42	4	1.42
				37.5						−16.24			−15.50
				37.0									− 61
													− 11
													− 2
												3	45.18
													− 2.02
												3	43.16
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	α_2												
18	4 42	50 52	8.2	4 30.8	54.0	57.2	0.5	3.7	7.0	30 24	60.48	5	0.48
	4 19.6	50 57.9	8.2	32.5						−15.96			−15.46
	κ			34.4									− 59
													+ 11
													− 2
												4	44.52
													− 2.05
												4	42.47
	((δ) — D) $\frac{\kappa'}{100}$			32.5									
	α_1												
			8.0	4 41.3	54.0	57.5	0.8	4.1	7.3	30 37	60.74	5	0.74
				43.8						−16.25			−15.50
				46.6									− 62
													− 11
													− 2
												4	44.49
													− 2.03
												4	42.46
	κ												
	((δ) — D) $\frac{\kappa'}{100}$			43.9									
	α_2												
18	6 32	50 22	7.2	6 24.0	43.9	47.0	50.2	53.4	56.8	25 13	50.26	6	50.26
	6 9.8	50 21.6	7.0	26.4						−15.95			−15.46
	κ			28.1									− 58
													+ 11
													− 2
												6	34.31
													− 2.05
												6	32.26
	((δ) — D) $\frac{\kappa'}{100}$			26.1									
	α_1												
			7.9	6 34.4	44.0	47.2	50.6	53.5	56.9	25 22	50.44	6	50.44
				35.4						−16.25			−15.51
				36.6									− 61
													− 11
													− 2
												6	34.19
													− 2.03
												6	32.16
	κ												
	((δ) — D) $\frac{\kappa'}{100}$			35.4									
	α_2												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	s	4 16.1	22.2	19	20.15	. 3	28.20		15	− 0.57	
						50 4	15.00			−	
d											
$\frac{((\delta) - D)\ d'}{100}$										+	
δ_1											
	+19.5	4 28.7	31.8	19	30.25	3	18.10		15	50 3 46.43	
	1.290003					50 4	3.19			− 10	+8.75
d	9.807 46						− 16.76			+ 121	
$\frac{((\delta) - D)\ d'}{100}$	1.224 18n									+ 7.39	
										+ 25	
										−12.70	
+5.90 δ_2		0 5.82		3 42.5						3 42.48	
+0 0.04											
		0 11.3	12.0	35	11.65	47	36.70		35		
						48	23.50				
d											
$\frac{((\delta) - D)\ d'}{100}$											
δ_1											
	+10.1	0 53.2	54.9	35	54.05	46	54.30		35	50 47 30.84	
	1.004 32					50 47	39.39			− 3	+8.62
d	9.800 89						− 8.55			+ 24	
$\frac{((\delta) - D)\ d'}{100}$	0.931 90n									+ 8.12	
										+ 29	
										−12.80	70
+5.73 δ_2		1 22.36		47 27.2						47 26.76	
+0 0.48											
42	+30.0	1 4.6	6.5	56	5.55	26	42.80		55	50 27 4.03	
	1.477 12					50 27	29.60			− 24	+8.18
d	9.803 97						− 25.57			+ 30	
$\frac{((\delta) - D)\ d'}{100}$	1.407 78n									+7.90	
										+ 22	
										−12.40	
+5.81 δ_1		3 48.82		27 0.6						26 59.24	
+0 1.32											
42	+24.0	1 8.1	10.0	56	9.05	26	39.30		55	27 3.93	21
	1.380 21					50 27	24.39			− 15	+8.11
d	9.803 97						− 20.46			+ 31	
$\frac{((\delta) - D)\ d'}{100}$	1.310 87n									+7.78	
										+ 27	
										−12.65	
+5.81 δ_2		3 48.97		27 0.8						26 59.49	
+0 1.32											
28	+28.0	0 57.8	59.4	30	58.60	51	49.75		30	50 52 12.89	
	1.447 16					50 52	36.55			− 21	+8.63
d	9.800 12						− 23.66			+ 27	
$\frac{((\delta) - D)\ d'}{100}$	1.372 97n									+ 8.33	
										+ 24	
										−12.40	
+5.72 δ_1		4 48.19		52 10.2						52 8.55	
+0 1.68											
26	+16.8	1 0.3	8.7	31	9.50	51	40.85		30	52 11.75	
	1.225 31					50 52	25.94			− 8	+8.71
d	9.800 12						− 14.19			+ 30	
$\frac{((\delta) - D)\ d'}{100}$	1.152 12n									+ 8.20	
										+ 29	
										−12.80	
+5.72 δ_2		4 48.18		52 9.4						52 7.76	
+0 1.68											
	+24.2	~~4 47.8~~		0	35.0	22	13.25		0	50 22 39.39	
	1.383 82	0 33.6	36.6			50 23	6.05			− 16	+8.07
d	9.804 58						− 20.66			+ 16	
$\frac{((\delta) - D)\ d'}{100}$	1.315 09n									+ 7.85	
										+ 22	
										~~−12.70~~	
										−12.30	
+5.84 δ_1		6 38.10		22 32.3						22 34.59	
−0 2.32											
18	+15.0	0 41.9	43.7	0	42.80	22	5.55		0	22 37.84	
	1.176 09					50 22	50.64			− 6	+8.14
d	9.804 58						− 12.80			+ 19	
$\frac{((\delta) - D)\ d'}{100}$	1.107 36n									+ 7.74	
										+ 27	
										−12.55	
+5.84 δ_2		6 38.00		22 31.1						22 33.43	
−0 2.32											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.pro1.1575R

Date$_1$ = Aug 2, '71 Observer W.A.R Recorder H.G Date$_2$ = 3 Aug. Observer H.G Recorder W.A.R 14

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18	7 30	50 35	9.0	7 46.2	8 4.5	7.9	11.0	14.0	17.5	3 49	10.98	8	10.98
	7 27.5	50 33.5	8.8	47.7						−15.95			−15.46
	κ			50.5									− 58
													+ 11
	((δ) − D) $\frac{\kappa'}{100}$			48.2									− 2
												7	55.03
	c_1												− 2.06
												7	52.97
			8.8	7 47.9	8 5.0	7.8	11.0	14.4	17.8	5 60	11.20	8	11.20
				50.9						−16.25			−15.51
	κ			53.3									− 61
													− 11
	((δ) − D) $\frac{\kappa'}{100}$			50.7									− 2
												7	54.95
	c_2												− 2.04
												7	52.91
18	8 56	51 08	9.5	~~45.8~~	9 5.3	8.7	12.0	15.2	18.6	59.8	11.96	9	11.96
	8 33.3	51 7.6	9.2									8 56.00	
	κ		8.6	9 ~~1.1~~	7.3	10.6	13.9	17.0	20.5	6 93	13.86	9	13.86
				8 59.2						−15.96		8 52.92	−15.46
	((δ) − D) $\frac{\kappa'}{100}$											56.6	− 59
												59.58	+ 11
	a_1												− 2
												8 57.90	55.82
			9.0	8 50.7	9 ~~5.7~~	(10.7)	14.0	17.5	20.6			9	14.07
			8.8	53.7	7.4					−16.26			−15.51
	κ												− 62
				52.2									− 11
	((δ) − D) $\frac{\kappa'}{100}$												− 2
												8 57.78	
	a_2												− 2.06
												8 55.72	
18	10 21	50 58	9.0	10 50.7	10 32.8	35.9	39.0	42.3	45.7	19 57	39.14	10	39.14
	9 58.8	50 58.3	8.7	52.1						−16.14			−15.46
	κ			54.0						−15.96			− 59
													+ 11
	((δ) − D) $\frac{\kappa'}{100}$			52.2									− 2
												10 23.18	
	a_1												− 2.08
												10 21.10	
			8.9	10 57.3	10 32.8	36.1	39.3	42.7	~~48.8~~	19 67	39.34	10	39.34
				59.1						−16.26			−15.51
	κ			1.0									− 62
													− 11
	((δ) − D) $\frac{\kappa'}{100}$			59.1									− 2
												10 23.08	
	a_2												− 2.07
												10 21.01	
18	12 16	50 56	6.8	12 7.6	22.0	30.3	33.6	36.9	40.0	16 78	33.56	12	33.56
	11 53.9	50 55.7	7.5	10.1						−15.96			−15.46
	κ			12.0									− 59
													+ 11
	((δ) − D) $\frac{\kappa'}{100}$			9.9									− 2
												12 17.60	
	a_1												− 2.09
												12 15.51	
			7.8	12 ~~18.7~~	27.2	30.5	33.8	37.0	40.3	16 88	33.76	12	33.76
				20.3						−16.26			−15.51
	κ			22.0									− 62
													− 11
	((δ) − D) $\frac{\kappa'}{100}$			20.3									− 2
												12 17.50	
	a_2												− 2.07
												12 15.43	
18	13 20	50 34	8.3	13 20.0	~~32.8~~	35.7	38.9	42.2	45.7	19 51	39.02	13	39.02
	12 57.1	50 33.8	7.6	21.5						−15.95			−15.46
	κ			28.6									− 58
14	8												+ 11
	((δ) − D) $\frac{\kappa'}{100}$			21.7									− 2
												13 23.07	
	a_1												− 2.09
												13 20.98	
			8.0	13 25.6	32.6	35.9	39.1	42.3	45.6	19 55	39.10	13	39.10
				27.5						−16.25			−15.51
	κ			36.0									− 61
													− 11
	((δ) − D) $\frac{\kappa'}{100}$			27.7									− 2
												13 22.85	
	a_2												− 2.07
												13 20.78	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+22.8	2 12.0	3.5	47	2.75	35	45.60		45	50 36 13.03	
	1.357793					50 36	32.40			− 14	+8.67
d	9.802597						− 19.37			+ 54	
	1.287211									+ 8.04	
((δ) − D) $\frac{d'}{100}$										+ 23	
										−12.30	
+5.78 δ₁		7 58.75		36 11.6						36 8.83	
+0 2.76											
22	+20.5	2 1.7	3.9	47	2.80	35	45.55		45	36 13.22	
	1.311475					50 36	30.64			− 11	+8.64
d	9.802597						− 17.42			+ 54	
	1.241103									+ 7.93	
((δ) − D) $\frac{d'}{100}$										+ 28	
										−12.50	
+5.78 δ₂		7 58.69		36 12.1						36 9.36	
+0 2.76											
		0 −0.6	+2.0	15	0.70	7	47.65		15	51 ~~8 23.70~~	
	+12.8					51 8	34.45			− 4	+8.77
d	1.107121						− 10.75			+ 0	
	9.797622									+8.55	
((δ) − D) $\frac{d'}{100}$	1.031524	8 59.58								+ 26	
+5.66										−12.20	
+0 3.16 δ₁		~~9 3.56~~ 8	1.48	8 22.9						8 19.70	
18	+21.8	0 4.5	6.0	15	5.25	7	43.10		15	8 9.88	
	1.338462					51 8	28.19			− 13	+8.65
d	9.797622						− 18.31			+ 3	
	1.262277									+8.44	
((δ) − D) $\frac{d'}{100}$										+ 31	
										−12.60	
+5.66 δ₂		9 1.38		8 9.1						8 5.93	
+0 3.16											
	−13.1	0 9.4	10.4	25	9.90	57	38.45		25	50 58 36.30	
	1.117277					50 58	25.25			− 5	+8.68
d	9.799118						+ 11.05			+ 4	
	1.043114									+8.44	
((δ) − D) $\frac{d'}{100}$										+ 25	
										−12.25	
+5.70 δ₁		10 26.80		58 35.8						58 32.16	
+0 3.64											
20	+19.8	0 14.2	15.1	25	14.65	57	33.70		25	58 35.48	
	1.296677					50 58	18.79			− 11	+8.49
d	9.799118						+ 16.69			+ 5	
	1.222541									+ 8.30	
((δ) − D) $\frac{d'}{100}$										+ 25	
										−12.50	
+5.70 δ₂		10 26.72		58 35.1						58 31.47	
+0 3.64											
	+23.7	2 24.1	26.6	27	2.35	55	23.00		25	50 55 49.81	
	1.374475					50 56	9.80			− 15	+9.14
d	9.799150						− 19.99			+ 65	
	1.300941									+8.39	
((δ) − D) $\frac{d'}{100}$										+ 25	
										−12.15	
+5.71 δ₁		12 21.22		55 58.6						55 48.23	
+0 4.32											
20	+13.5	2 33.3	34.8	27	34.05	55	14.30		25	55 48.00	
	1.130333					50 55	59.39			− 5	+9.20
d	9.799150						− 11.39			+ 70	
	1.056521									+8.25	
((δ) − D) $\frac{d'}{100}$										+ $\frac{23}{30}$	
										−12.40	
+5.71 δ₂		12 21.14		55 49.1						55 44.80	
+0 4.32											
	+17.3	4 6.4	8.9	49	7.60	33	40.70		45	50 34 12.79	
	1.238051					50 34	27.50			− 8	+9.28
d	9.802902						− 14.71			+ 111	
	1.167641									+8.02	
((δ) − D) $\frac{d'}{100}$										+ 23	
+5.80										−12.15	
+0 4.68 δ₁		13 26.78		34 14.0						34 9.35	
08	+11.4	4 9.1	12.2	49	10.65	33	37.70		45	34 13.10	
	1.056902					50 34	27.79			− 3	+9.27
d	9.802902						− 9.69			+ 113	
	0.986491									+7.89	
((δ) − D) $\frac{d'}{100}$										+ 28	
										−12.35	
+5.80 δ₂		13 26.58		34 14.7						34 10.02	
+0 4.68											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.pro.15758

Date$_1$ = Aug 2 Observer W.A.K Recorder H.G Date$_2$ = 3 Aug. Observer H.G Recorder W.A.K Rur

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	h m s	° ′ ″		m s	s	s	s	s	s		s	m	s
	15 32	51 30	8.8	15 26.5	42.1	45.5	48.8	52.0	55.3	243 7	48.74	15	48.74
	15 9.4	51 29.4	8.5							−15.98			−15.47
	κ												− 60
	((δ) — D) $\frac{\kappa'}{100}$												+ 11
													− 2
	α_1											15	32.76
													− 2.12
												15	30.64
			8.2	15 31.6	42.3	45.7	48.9	52.1	55.6	24 46	48.92	15	48.92
				33.5						−16.27			−15.51
	κ			35.4									− 63
	((δ) — D) $\frac{\kappa'}{100}$			33.4									− 11
													− 2
	α_2											15	32.65
													− 2.10
												15	30.55
18	16 56	51 17	6.0	16 45.6	17 6.2	9.7	12.9	16.2	19.5	6 45	12.90	17	1290
	16 33.7	51 16.4	6.2	46.9						−15.97			−15.47
	κ			48.5									− 59
	((δ) — D) $\frac{\kappa'}{100}$			47.0									+ 11
													− 2
	α_1											16	56.93
													− 2.12
												16	54.81
			6.5	16 55.3	6.7	10.0	13.0	16.3	19.6	6 56	13.12	17	13.17
				57.7						−16.27			−15.52
	κ			59.2									− 62
	((δ) — D) $\frac{\kappa'}{100}$			57.4									− 11
													− 2
	α_2											16	56.85
													− 2.10
												16	54.75
18	18 01	50 31	9.0	17 55.7	18 16.0	19.1	22.3	25.7	28.8	11 19	22.38	18	22.38
	17 58.0	50 30.9	8.5	57.0						−15.96			−15.47
	κ			58.1									− 58
	((δ) — D) $\frac{\kappa'}{100}$			56.9									+ 11
													− 2
	α_1											18	6.42
													− 2.11
												18	4.31
			8.5	18 5.2	18.1	19.4	22.6	26.0	29.0	11 31	22.62	18	2262
				7.4						−16.26			−15.52
	κ			9.5									− 61
	((δ) — D) $\frac{\kappa'}{100}$			7.3									− 11
													− 2
	α_2											18	6.36
													− 2.10
												18	4.26
18	19 03	50 57	8.8	18 58.9	19 15.0	18.3	21.8	25.0	28.1	10 82	21.64	19	21.64
	18 40.3	50 56.2	8.5	0.8						−15.97			−15.47
	κ			2.9									− 59
	((δ) — D) $\frac{\kappa'}{100}$			0.8									+ 11
													− 2
	α_1											19	5.67
													− 2.13
												19	3.54
			8.8	19 3.7	15.1	19.0	22.0	25.1	28.4	10 96	21.92	19	21.92
				6.5						−16.27			−15.52
	κ			5.1									− 62
	((δ) — D) $\frac{\kappa'}{100}$												− 11
													− 2
	α_2											19	5.65
													− 2.11
												19	3.54
18	20 29	50 44	8.4	20 20.3	40.5	43.8	47.0	50.1	53.4	23 48	46.96	20	46.96
	20 6.7	50 44.0	8.5	22.1						−15.96			−15.47
	κ			23.9									− 58
	((δ) — D) $\frac{\kappa'}{100}$			22.1									+ 11
													− 2
	α_1											20	31.00
													− 2.13
												20	28.84
			8.5	20 21.4	40.9	44.0	47.1	50.4	53.8	23 62	47.24	20	47.24
				23.2						−16.26			−15.52
	κ			25.0									− 61
	((δ) — D) $\frac{\kappa'}{100}$			23.2									− 11
													− 2
	α_2											20	30.98
													− 2.12
												20	28.86

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+22.2	3 34.4	37.7	53	36.65	29	12.30		50	51 29 40.60	
	1.34635					51 29	59.10			− 13	+10.06
d	9.79415						− 18.50			+ 97	
	1.26719n									+ 8.95	
((δ) − D) $\frac{d'}{100}$										+ 27	
										− 12.10	
+5.58 δ_1		15 36.22		29 43.4						29 37.99	
+0 5.44		[38.9]			40.50					40.02	
18	+15.8	3 48.9	42.1	53	~~45.20~~	29	~~2.85~~	7.85	50	29 ~~35.02~~	
	1.19033					51 29	~~47.94~~	52.94		− 6	+10.08
d	9.79415						− ~~12.92~~	− 12.92		+ 101	
	1.11117n									+ 8.81	
((δ) − D) $\frac{d'}{100}$										+ 32	
										− 1235	
+5.58 δ_2		15 36.13		29 43.2						29 37.75	
+0 5.44											
	+25.9	0 38.8	38.9	5	38.85	17	9.50		5	51 17 34.62	
	1.41330					51 17	56.30			− 18	+8.99
d	9.79605						− 21.68			+ 16	
	1.33604n									+ 8.75	
((δ) − D) $\frac{d'}{100}$				37.0						+ 26	
+5.64										− 12.05	
+0 5.96 δ_1		17 0.45		17 ~~25.0~~						17 30.99	
22	+15.7	0 46.0	46.8	5	46.40	17	1.95		5	17 33.90	
	1.19590					51 17	47.04			− 7	+9.09
d	9.79605						− 13.14			+ 22	
	1.11864n									+ 8.62	
((δ) − D) $\frac{d'}{100}$				366						+ 32	
+5.64										− 12.30	
+0 5.96 δ_2		17 0.39		17 24.7						17 30.69	
	+25.5	2 34.8	38.3	52	36.55	30	11.80		50	50 30 36.89	
	1.40654					50 30	58.60			− 17	+8.72
d	9.80336						− 21.71			+ 70	
	1.33659n									+ 7.96	
((δ) − D) $\frac{d'}{100}$										+ 23	
										− 12.00	
+5.82 δ_1		18 10.13		30 39.4						30 33.04	
+0 6.32				30 39.36							
24	+15.3	2 43.0	45.0	52	44.00	30	4.35		50	30 36.42	
	1.18469					50 30	49.44			− 6	+8.78
d	9.80336						− 13.02			+ 72	
	1.11474n									+ 7.84	
((δ) − D) $\frac{d'}{100}$										+ 28	
										− 12.20	
+5.82 δ_2		18 10.08		30 39.3						30 33.00	
+0 6.32											
28	+20.8	0 22.0	23.4	25	23.20	57	25.15		25	50 57 54.41	
	1.31806					50 58	11.95			− 12	+8.66
d	9.79918						− 17.54			+ 11	
	1.24393n									+ 8.42	
((δ) − D) $\frac{d'}{100}$										+ 25	
+5.72										− 11.95	
+0 6.72 δ_1		19 9.26		57 57.3						57 50.55	
	+16.8	0 23.1	25.6	25	24.35	57	24.00		25	57 54.93	
	1.22531					50 58	9.09			− 8	+8.63
d	9.79918						− 14.16			+ 11	
	1.15118n									+ 8.30	
((δ) − D) $\frac{d'}{100}$										+ ~~25~~ 30	
+5.72										− 12.20	
+0 6.72 δ_2		19 9.26		57 58.1						57 51.36	
28	+24.9	4 42.2	48.8	39	45.50	43	2.85		35	50 43 28.54	
	1.39620					50 43	49.65			− 17	+9.53
d	9.80151						− 21.11			+ 128	
	1.32440n									+ 8.18	
((δ) − D) $\frac{d'}{100}$										+ 24	
										− 11.90	
+5.77 δ_1		20 34.64		43 32.8						43 25.60	
+0 7.20											
	+24.0	4 45.7	49.9	39	47.80	43	0.55		35	43 25.30	
	1.38021					50 43	45.64			− 15	+9.50
d	9.80157						− 20.34			+ 130	
	1.30841n									+ 8.06	
((δ) − D) $\frac{d'}{100}$										+ 29	
										− 12.15	
+5.77 δ_2		20 34.63		43 29.8						43 22.65	
+0 7.20											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.pro.15758

Date$_1$ = Aug 2 — Observer W.A.R / Recorder H.G — Date$_2$ = 3 Aug. — Observer H.G / Recorder W.A.R — 18 — Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	21 42	80 24	8.4	21 26.0	54.1	57.6	0.7	4.0	7.2	3036	60.72	22	07.2
	21 19.1	80 23.3	8.7	27.5						−1596			−15.47
	κ			29.0									− 58
	((δ) − D) $\frac{\kappa'}{100}$			27.5									+ 11
													− 2
	a_1											21	44.76
													− 2.13
												21	42.63
			8.3	21 37.1	54.6	57.7	0.9	4.0	7.2	3044	60.88	22	0.88
				39.6						−1626			−15.52
	κ			38.3									− 61
	((δ) − D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											21	44.62
													− 2.11
												21	42.51
18	28 27	30 29	8.5	28 25.0	41.5	44.7	48.0	51.1	54.1	2394	47.88	28	47.88
	28 5.7	30 28.8	8.7	26.1						−15.96			−15.47
	κ			27.2									− 58
	((δ) − D) $\frac{\kappa'}{100}$			26.1									+ 11
													− 2
	a_1											28	31.93
													− 2.16
												28	29.86
			8.4	28 22.0	41.8	45.0	48.1	51.3	54.7	2409	48.18	28	48.18
				23.9						−1629			−15.53
	κ			22.9									− 61
	((δ) − D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											28	31.91
													− 2.15
												28	29.76
18	30 2.3	51 44	8.6	30 13.0	34.3	37.6	41.0	44.3	47.7	2049	40.98	30	40.98
	30 0.8	51 43.7	9.0	14.0						−15.98			−15.47
	κ			15.3									− 60
	((δ) − D) $\frac{\kappa'}{100}$			14.1									+ 11
													− 2
	a_1											30	25.00
													− 2.20
												30	22.80
			9.5	30 19.2	34.8	37.8	41.1	44.8	47.8	2056	41.12	30	41.12
										−16.29			−15.53
	κ												− 63
	((δ) − D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											30	24.83
													− 2.18
												30	22.65
18	31 18	51 01	7.0	31 14.7	30.2	33.7	36.9	40.0	43.3	1841	36.82	31	36.82
	30 55.4	50 57.9	7.4	15.7						−1597			−15.47
	κ			16.6									− 59
	((δ) − D) $\frac{\kappa'}{100}$			16.7									+ 11
													− 2
	a_1											31	20.85
													− 2.19
												31	18.66
			8.0	31 20.4	30.8	33.8	37.0	40.3	43.8	1858	36.96	31	37.10
				22.7						−1628			−15.53
	κ			21.5									− 62
	((δ) − D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											31	20.68
													− 2.17
												31	18.51
18	33 11	50 41	9.4	33 2.6	25.0	28.1	31.4	34.7	37.9	1571	31.42	33	31.42
	32 48.9	50 39.9	9.0	4.1						−15.96			−15.47
	κ			6.0									− 58
	((δ) − D) $\frac{\kappa'}{100}$			4.2									+ 11
													− 2
	a_1											33	15.46
													− 2.19
													13.27
			9.2	33 2.7	25.1	28.5	31.8	34.8	38.1	1576	31.52	33	31.52
				8.5						−16.27			−15.53
	κ			4.6									− 61
	((δ) − D) $\frac{\kappa'}{100}$												− 11
													− 2
	a_2											33	15.25
													− 2.18
												33	13.07

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+33.7	4′ 9.8	12.4	59	11.10	23	3.25		55	50 23 55.73	
	1.52114					50 24	24.05			− 30	+8.91
d	9.80443						− 28.33			+ 113	
	1.45226									+ 7.86	
$((\delta) - D)\frac{d'}{100}$										+ 22	
										− 11.85	
+5.85 δ_1		21 48.48		23 59.8						23 52.22	
+0 7.60											
16	−~~27.4~~	4 17.6	21.0	39	19.50	23	29.05		55	23 54.85	
	+22.6					54 24	14.14			− 14	+9.03
d	1.35411						− 19.29			+ 116	
	9.80443									+ 7.74	
$((\delta) - D)\frac{d'}{100}$	1.28523									+ 27	
										− 12.10	
+5.85 δ_2		21 47.36		23 59.4						23 51.78	
+0 7.60											
	+21.8	3 22.8	25.2	53	24.50	29	24.35		50	29 52.59	
	1.33846					50 30	11.15			− 13	+8.94
d	9.80351						− 18.56			+ 92	
	1.26866									+ 7.96	
$((\delta) - D)\frac{d'}{100}$										+ 22	
										− 11.60	
+5.85 δ_1		28 35.61		29 59.4						29 49.39	
+0 9.96											
30	+25.3	3 20.3	23.1	53	21.70	29	26.65		50	29 50.20	
	1.40312					50 30	11.74			− 17	+8.84
d	9.80351						− 21.54			+ 90	
	1.33332									+ 7.84	
$((\delta) - D)\frac{d'}{100}$										+ 27	
										− 11.90	
+5.85 δ_2		28 35.61		29 57.1						29 47.14	
+0 9.96											
	+26.9	3 46.5	48.5	38	47.50	44	0.85		35	51 44 25.35	
	1.42975					51 44	47.65			− 19	+10.32
d	9.79192						− 22.30			+ 103	
	1.34836									+ 919	
$((\delta) - D)\frac{d'}{100}$				34.1						+ 29	
										− 11.60	
+5.56 δ_1		30 28.36		44 ~~33.5~~						44 23.50	
+0 10.64											
14	+21.9	3 49.3	51.7	38	50.50	43	57.85		35	44 24.78	
	1.34044					51 44	42.94			− 13	+10.32
d	9.79192						− 18.16			+ 104	
	1.25905									+ 907	
$((\delta) - D)\frac{d'}{100}$										+ 34	
+5.56										− 11.85	
+0 10.64 δ_2		30 28.29		44 33.9						44 23.25	
	+21.1	2 37.2	38.1	22	37.65	0	10.70		20	51 0 39.73	
	1.32428					51 0	57.50			− 12	+9.28
d	9.79872						− 17.77			+ 70	
	1.24969									+ 8.45	
$((\delta) - D)\frac{d'}{100}$										+ 25	
+5.74										− 11.53	
+0 10.96 δ_1		31 24.40		0 47.8						0 36.89	
14	+15.5	2 41.1	43.0	22	42.05	0	6.30		20	0 38.34	
	1.19033					51 0	51.39			− 6	+9.29
d	9.79872						− 13.05			+ 73	
	1.11574									+ 8.32	
$((\delta) - D)\frac{d'}{100}$										+ 30	
+5.74										− 11.80	
+0 10.96 δ_2		31 24.39		0 46.8						0 35.83	
	+27.2	2 27.0	29.4	42	28.20	40	20.15		40	50 40 43.88	
	1.43457					50 41	6.95			− 20	+8.86
d	9.80182						− 23.07			+ 68	
	1.36308									+ 8.05	
$((\delta) - D)\frac{d'}{100}$										+ 23	
										− 11.45	
+5.83 δ_1		33 19.10		40 52.4						40 40.72	
+0 11.64											
10	+26.9	2 28.3	31.0	42	29.65	40	18.70		40	40 40.97	
	1.42975					50 41	3.79			− 19	+8.81
d	9.80182						− 22.82			+ 68	
	1.35826									+ 8.04	
$((\delta) - D)\frac{d'}{100}$										+ 28	
										− 11.70	
+5.83 δ_2		33 19.00		40 49.4						40 38.08	
+0 11.64											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

101

Date$_1$ = Aug 2 — Observer W.A.R / Recorder A.G

102

Date$_2$ = 3 Aug. — Observer A.G / Recorder W.A.R

20

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18	3 34 07	50 11	8.5	34 2.0	19.2	22.3	25.8	28.9	32.1	128 22	56 4	34	25.64
	33 44.0	50 10.2	8.4	3.8						−15.95			−15.47
	κ			5.8									− 57
	((δ) − D) $\frac{\kappa'}{100}$			3.8									+ 11
36	α_1												− 2
												34	9.69
													− 2.18
												34	7.51 +5.94 +0 11.
			8.5	34 8.1	19.9	22.8	25.9	28.8	32.2	128 9	25.78	34	25.78
				10.0						−16.26			− 15.47
	κ			12.5									− 60
	((δ) − D) $\frac{\kappa'}{100}$			10.2									− 11
	α_2												− 2
												34	9.52
													− 2.17
												34	7.35 +5.9 +0 11
18	37 26	50 41	9.0	37 25.6	39.2	43.0	46.1	48.4	52.7	23 09	46.18	37	46.18
	37 3.9	50 40.9	8.7	27.3						−15.95			− 15.47
	κ			29.0									− 58
	((δ) − D) $\frac{\kappa'}{100}$			27.3									+ 11
	α_1												− 2
												37	30.23
													− 2.21
												37	28.01 +5.84 +0 13.
			8.5	37 21.7	40.0	43.0	46.3	49.6	52.9	23 18	46.36	37	46.36
				24.9						−16.27			− 15.53
	κ			23.3									− 61
	((δ) − D) $\frac{\kappa'}{100}$												− 11
	α_2												− 2
												37	30.09
													− 2.19
												37	27.90 +5.8 +0 1
18	38 39	51 00	8.0	38 31.7	50.2	53.6	56.9	0.1	3.4	28 42	56.84	38	56.84
	38 16.7	50 57.2	7.8	33.0						−15.97			− 15.47
	κ			34.2									− 59
	((δ) − D) $\frac{\kappa'}{100}$			32.9									+ 11
	α_1												− 2
												38	40.87
													− 2.22
												38	38.65 +5.7 +0 13.
			8.0	38 42.5	50.6	53.9	57.1	0.3	3.5	28 54	57.08	38	57.08
				44.8						−16.28			− 15.53
	κ			43.6									− 62
	((δ) − D) $\frac{\kappa'}{100}$												− 11
	α_2												− 2
												38	40.80
													− 2.21
												38	38.59 +5.7 +0 1.
18	40 04	50 28	8.1	39 39.4	40 17.1	20.6	23.9	27.0	30.2	11 88	23.76	40	23.76
	39 44.8	50 27.4	7.8	0.6						−15.96			− 15.47
	κ			2.1									− 58
41	57 ((δ) − D) $\frac{\kappa'}{100}$			40 [5.0] 0.7									+ 11
	α_1												− 2
												40	7.80
													− 2.20
												40	5.58 +5.9 +0 1
			8.2	40 7.5	17.3	20.4	23.8	27.1	30.3	11 88	23.78	40	23.76
				9.5						−16.28			− 15.47
	κ	41	57	11.7									− 61
	((δ) − D) $\frac{\kappa'}{100}$			9.5									− 11
	α_2												− 2
												40	7.48
													− 2.20
												40	5.28 +5.9 +0 1
18	43 48	50 27	9.1	43 36.0	44 08	3.9	7.1	10.4	13.8	3 58	7.16	44	7.16
	43 25.5	50 26.0	8.8	37.5						−15.96			−15.47
	κ			39.0									− 58
	((δ) − D) $\frac{\kappa'}{100}$			37.5									+ 11
	α_1												− 2
												43	51.20
													− 2.23
												43	48.97 49.0 +5. +0 1
			9.0	43 51.8	44 1.8	4.1	7.2	10.8	13.8	3 69	7.38	44	7.38
				55.8						−16.28			− 15.47
	κ			59.0									− 61
	((δ) − D) $\frac{\kappa'}{100}$			55.5									− 11
	α_2												− 2
												43	51.10
													− 2.22
												43	48.88 +5. +0 1.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+29.8	2 12.0	15.0	12	13.50	10	34.85		10	50 11 2.76	
	1.33846					50 11	21.65			− 13	+8.34
d	9.80641						− 18.69			+ 59	
	1.27156n									+7.67	
$((\delta) - D)\frac{d'}{100}$										+ 21	
										−11.40	
+5.94 δ_1		34 13.47		11 11.2						10 59.33	
+0 11.92											
14	+15.6	2 18.6	20.9	12	19.75	10	28.60		10	11 0.32	
	1.19312					50 11	13.69			− 7	+8.35
d	9.80641						− 13.37			+ 62	
	1.12622n									+7.54	
$((\delta) - D)\frac{d'}{100}$										+ 26	
+5.94										−11.65	
+0 11.92 δ_2		34 13.37		11 8.9						10 57.02	
	+18.9	1 42.7	44.9	41	43.80	41	4.55		40	50 41 35.32	
	1.27646					50 41	51.55			− 10	+8.75
d	9.80166						− 16.03			+ 46	
	1.20481n									+8.16	
$((\delta) - D)\frac{d'}{100}$										+ 23	
+5.84										−11.30	
+0 13.08 δ_1		37 33.85		41 45.3	39					41 32.20	
18	+23.1	1 39.8	41.6	41	40.70	41	7.65		40	41 33.15	
	1.36361					50 41	32.74			− 14	+8.65
d	9.80166						− 19.59			+ 45	
	1.29196n									+8.05	
$((\delta) - D)\frac{d'}{100}$										+ 29	
		37		443						−11.60	
+5.84 δ_2		33.74		41 ~~43.9~~						41 ~~33.20~~	
+0 13.08										31.	
	+23.9	3 9.0	10.7	23	985−	59	38.50		20	51 0 5.16	
	1.37840					51 0	25.30			− 15	+9.40
d	9.79887						− 20.14			+ 85	
	1.30396n									+8.45	
$((\delta) - D)\frac{d'}{100}$										+ 25	
										−11.30	
+5.78 δ_1		38 44.43		0 16.2						0 2.69	
+0 13.48											
24	+13.5	3 18.1	20.4	23	1925−	59	29.10		20	F 0 2.82	
	1.13033					51 0	14.19			− 5	+9.47
d	9.79887						− 11.37			+ 89	
	1.05589n									+8.33	
$((\delta) - D)\frac{d'}{100}$										+ 30	
										−11.35	
+5.78 δ_2		38 44.37		0 14.2	5110					0 0.74	
+0 13.48										~~1251~~	
	231										
	~~+29.8~~ 33.61	4 (49.3	53.0)	54	~~39.5~~ 32.5	28	57.20	1964	50	50 28 ~~+8.60~~	
d	1.47422					50 28	44.00	5.507		− 23	+9.24
	9.80382						− ~~25.40~~ 31.00			+ 131	
	1.40473n 49412									+ 794	
$((\delta) - D)\frac{d'}{100}$	2							1968		+ 22	
										−11.20	
+5.90 δ_1		40 11.48		28 3 35.8						28 ~~16.40~~ 21.87	21.7
+0 13.96											
	+14.3	4 55.3	58.4	54	568.5−	27	51.50		50	28 24.40	
	1.15534					50 28	36.59			− 5	+9.40
d	9.80382						− 12.19			+ 134	
	1.08585n									+ 784	
$((\delta) - D)\frac{d'}{100}$										+ 27	
+5.90										−11.45	
+0 13.96 δ_2		40 11.28		28 36.3						28 22.35	
	+29.7	0 45.0	46.6	53−	458.0	27	2.55		55	50 27 24.03	
	1.47276					50 27	49.35			− 23	+8.09
d	9.80397						− 25.32			+ 20	
	1.40342n									+7.90	
$((\delta) - D)\frac{d'}{100}$										+ 22	
										−11.05	
+5.93 δ_1		43 54.94		27 35.8						27 20.50	
+0 15.28											
22	+11.9	1 0.0	2.2	56	1.10	26	47.25		55	27 22.20	
	1.07555					50 27	32.34			− 4	+8.28
d	9.80397						− 10.14			+ 27	
	1.00621n									+7.78 ~~+7.90~~	
$((\delta) - D)\frac{d'}{100}$										+ 22	
										−11.36	
+5.93 δ_2		43 54.89		27 34.4						27 ~~19.13~~	
+0 15.28											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 2, '71 (101) Observer W.A.R Recorder H.G

Date$_2$ = 3 Aug. (102) Observer H.G Recorder W.A.R

22

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17h	45m 43s	50° 41'	9.1	45m 35s.7	55s.3	58s.6	2s.0	5s.1	8s.3	309 3	6 18.6	46m	1.46
#5	20.5	50 38.6	9.0	37.5						−15.96			−15.47
κ				39.7									− 58
													+ 11
((δ) — D) $\frac{\kappa'}{100}$				37.5									− 2
												45	45.90
α_1													− 2.25
												45	43.65
			9.0	45 34.0	56.0	59.0	2.1	5.3	8.8	31 26 24		46	2.24
				38.4						−16.28			−15.54
κ													− 61
				36.2									− 11
((δ) — D) $\frac{\kappa'}{100}$													− 2
												45	45.96
α_2													− 2.23
												43	43.73
18	47 13	58 59	8.2	47 5.1	26.4	29.7	32.9	36.2	39.5	164 7	32.94	47	32.94
46	50.9	58 58.4	8.2	7.6						−15.97			−15.47
κ				9.5									− 59
													+ 11
((δ) — D) $\frac{\kappa'}{100}$				7.4									− 2
												47	16.97
α_1													− 2.26
												47	14.71
			8.0	47 11.6	26.6	29.8	33.0	36.3	39.4	165 1	33.02	47	33.02
κ				12.9						−16.29			−15.54
				14.3									− 62
((δ) — D) $\frac{\kappa'}{100}$				12.9									− 11
													− 2
α_2												47	16.73
													− 2.25
												47	14.48
18	48 18	50 54	7.5	48 17.1	30.0	33.3	36.6	39.9	43.1	162 9	36.58	48	36.58
47	55.8	50 53.4	7.9	19.1						−15.97			−15.47
κ				21.2									− 59
													+ 11
((δ) — D) $\frac{\kappa'}{100}$				19.1									− 2
												48	20.61
α_1													− 2.26
												48	18.35
			8.5	~~48~~ ~~30.2~~	48 30.2	33.5	36.8	40.0	43.3	163 8	36.76	48	36.76
κ				~~33.6~~						−16.29			−15.54
				~~36.8~~									− 62
((δ) — D) $\frac{\kappa'}{100}$				49 0.0									− 11
				1.6									− 2
α_2				4.0								48	20.47
													− 2.25
				2.8								48	18.22
18	50 01	50 33	5.0	~~50~~ 33.4	0.7	~~3.9~~	~~7.1~~	~~13.7~~	~~26.7~~	424 8.48		50	~~8.48~~
49	38.4	50 32.0	8.2	35.0	13.7	17.0	20.1	23.3	26.7	−15.96			20.16
κ				36.1	20.1	23.3	26.7	30.1	36.3				−15.47
				48 37.2									− 58
((δ) — D) $\frac{\kappa'}{100}$				35.4	39.6	11 wires Obsd							+ 11
				50 ~~30.4~~									− 2
α_1				~~31.9~~								50	4.20
				~~31.9 — 33.5~~									− 2.26 194
			5.2	50 3.9	14.0	17.1	20.3	23.5	26.7	10 16	20.32	50	20.32
κ				6.5						−16.28			−15.54
				8.6									− 61
((δ) — D) $\frac{\kappa'}{100}$				6.1									− 11
													− 2
α_2												50	4.04
													− 2.25
												50	1.79
18	51 04	50 25	9.4	51 11.3	17.7	20.6	24.3	27.5	30.7	120 8	24.16	51	24.16
50	41.0	50 24.3	9.4	13.0						−15.96			−15.47
κ				14.4									− 58
													+ 11
((δ) — D) $\frac{\kappa'}{100}$				12.9									− 2
												51	8.20
α_1													− 2.26
												51	5.94
			9.3	50 57.0	51 16.0	21.1	24.5	27.7	30.3	121 6	24.32	51	2432
κ				2.0						−16.28			−15.54
				59.5									− 61
((δ) — D) $\frac{\kappa'}{100}$													− 11
													− 2
α_2												51	8.04
													− 2.25
												51	5.79

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+~~9~~4.4	2 51.0	53.8	42	52.50	39	55.65		40	50 40 21.75	
d	1.38739					50 40	42.45			− 16	
	9.80197						− 20.70			+ 78	+9.01
((δ) − D) $\frac{d'}{100}$	1.31605n									+ 8.16	
										+ 23	
+5.89 δ_1										−11.00	
+0 15.92		45 49.54		40 35.1						40 19.19	
38	+26.0	2 49.8	51.8	42	50.80	39	54.55		40	40 20.58	
d	1.41494					50 40	42.64			− 18	+8.91
	9.80197						− 22.06			+ 77	
((δ) − D) $\frac{d'}{100}$	1.34363n									+ 8.04	
										+ 28	
+5.89 δ_2										−11.30	
+0 15.92		45 49.62		40 34.1						40 18.19	
	+25.5	3 34.0	35.6	23	34.80	59	13.55		20	50 59 38.87	
d	1.40654					51 0	0.35			− 17	+9.51
	9.79887						− 21.48			+ 97	
((δ) − D) $\frac{d'}{100}$	1.33210n									+ 8.46	
										+ 25	
+5.82 δ_1										−10.95	
+0 16.44		47 20.53		59 53.3						59 36.86	
.8	+20.1	3 38.7	40.9	23	39.80	59	8.55		20	59 36.71	
d	1.30320					50 59	53.64			− 11	+9.51
	9.79887						− 16.93			+ 98	
((δ) − D) $\frac{d'}{100}$	1.22876n									+ 8.34	
										+ 30	
+5.82 δ_2										−11.25	
+0 16.44		47 20.30		59 51.4						59 34.97	
	+17.5	3 41.5	44.0	28	42.75	54	5.60		25	50 54 37.63	
d	1.24304					50 54	52.40			− 8	+9.53
	9.79965						− 14.77			+ 100	
((δ) − D) $\frac{d'}{100}$	1.16938n									+ 8.36	
										+ 25	
+5.85 δ_1										−10.90	
+0 16.80		48 24.20		54 52.5						54 35.69	
18	+ ~~37.7~~	4 15.7	19.8	29	17.75	53	30.60		25	~~53 53.75~~	
	−26.0					50 54	15.69			34 37.63	
d	1.41494n						+ 21.94			− 18	+9.50
	9.79965n									+ 116	
((δ) − D) $\frac{d'}{100}$	1.34131n									+ 822	
										+ 30	
+5.85 δ_2	~~+14.8~~									− 11.20	
+0 16.80		48 24.07		54 52.7						54 35.93	
16	~~4.8~~	0 − 3.0	− 1.1	49	5.75	32	50 40.97		50	50 33 ~~24.87~~	
	− ~~5.2~~					50 33	37.20			50.13	
d	1.18184n	1.65128					+ 12.93			− 6	+8.17
	9.80290	9.80290					− 38.10			~~+~~ 801	
((δ) − D) $\frac{d'}{100}$	1.11143n	1.58087								+ 23	
										− 1085	
+5.94 δ_1										~~33 46.88~~	
+0 17.40		50 7.88		33 13.8						32 56.42	
	+14.2	0 22.8	25.1	50	24.45	32	23.90		50	32 56.92	
d	1.15229					50 33	8.99			− 5	+8.22
	9.80290						− 12.07			+ 11	
((δ) − D) $\frac{d'}{100}$	1.08188n									+ 7.81	
										+ 28	
+5.94 δ_2										−11.15	
+0 17.40		50 7.73		33 11.4						~~33~~ 53.99	
16	+11.3	3 00.0	24	58	1.20	24	47.15		55	50 25 24.31	
d	1.05308					50 25	33.95			− 3	+8.87
	9.80428						− 9.64			+ 81	
((δ) − D) $\frac{d'}{100}$	0.98405n									+ 7.87	
										+ 22	
+5.98 δ_1										−10.80	
+0 17.76		51 11.92		25 39.6						25 21.81	
	+24.8	2 49.0	51.1	57	58.25	24	58.30		55	25 22.23	
d	1.39445					50 25	43.39			− 16	+8.62
	9.80428						− 21.16			+ 77	
((δ) − D) $\frac{d'}{100}$	1.32542n									+ 7.74	
										+ 27	
+5.98 δ_2										−11.16	
+0 17.76		51 11.77		25 37.5						25 19.75	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 2 Observer W. A. R Recorder H. G Date$_2$ = 3 Aug. Observer H. G Recorder W. A. R 24

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18	51m 51s	50° 45'	8.7	52m 7.0 10.0	13.1	18.3	17.6	22.8		8 18 −16.96	16.36	52m	16.36
	51 34.3	50 43.7	8.9										−15.47
	K												− 58
	((δ) − D) $\frac{\kappa'}{100}$												+ 11
	a_1												− 2
												52	0.40
													− 2.27
												51	58.13
			8.8	52 43.3 46.7 45.0	10.1	13.2	16.5	19.9	23.0	8 27 −16.29	16.54	52	16.54
	K												−15.55
	((δ) − D) $\frac{\kappa'}{100}$												− 61
	a_2												− 11
													− 2
												52	0.25
													− 2.26
												51	57.99
18	54 31	50 53	8.8	54 24.9 27.2 28.8 26.9	43.5	46.7	50.0	53.2	56.6	25 00 −15.97	50.00	54	50.00
	54 8.3	50 57.7	8.8										−15.47
	K												− 59
	((δ) − D) $\frac{\kappa'}{100}$												+ 11
	a_1												− 2
												54	34.03
													− 2.29
												54	31.74
			8.5	54 25.1 26.9 28.9 26.9	43.7	47.0	50.2	53.3	56.6	25 08 −16.30	50.16	54	50.16
	K												−15.55
	((δ) − D) $\frac{\kappa'}{100}$												− 62
	a_2												− 11
													− 2
												54	33.86
													− 2.28
												54	31.58
18	55 40	50 38	6.0	55 31.0 33.6 35.7 33.4	58.9	2.8	5.6	8.7	12.0	32 75 −15.96	65.50	56	5.80
	55 24.0	50 36.7	6.2										−15.47
	K												− 58
	((δ) − D) $\frac{\kappa'}{100}$												+ 11
	a_1												− 2
												55	49.54
													− 2.29
												55	47.25
			7.5	55 46.7 48.8 37.0 48.8	59.0	2.8	5.6	8.9	12.0	32 78 −16.29	65.56	56	5.56
	K												−15.55
	((δ) − D) $\frac{\kappa'}{100}$												− 61
	a_2												− 11
													− 2
												55	49.27
													− 2.27
												55	47.00
18	56 8.7	50 21	5.0	56 46.6 48.0 49.2 47.7 57 27.8 29.2 31.2 29.4	~~58.2~~ 10.9 ~~12.3~~ ~~36.6~~	~~1.2~~ 14.0 ~~20.4~~ H wires	~~4.5~~ 17.3 ~~23.6~~ Obsd	~~10.9~~ 20.4 ~~30.2~~	~~14.0~~ 23.6 ~~33.4~~	31 88 −15.96	63.76	57	3.76
	56 34.7	50 20.1	4.8										17.24
	K												−15.47
	((δ) − D) $\frac{\kappa'}{100}$												− 58
	a_1												+ 11
													− 2
												56	1.10
													− 2.29 58.99
			6.0	57 2.4 4.1 6.1 4.2	11.0	14.3	17.6	20.7	24.0	8 76 −16.29	17.52	57	17.52
	K												−15.55
	((δ) − D) $\frac{\kappa'}{100}$												− 61
	a_2												− 11
													− 2
												57	1.23
													− 2.27
												56	58.96
18	57 57	51 08	—	58 23.0 25.1 24.0	58 11.0	14.1	17.3	20.6	24.1	8 91 −15.97	17 42	58	17.42
	57 28.5	51 7.3	8.8										−15.47
	K												− 59
	((δ) − D) $\frac{\kappa'}{100}$												+ 11
	a_1												− 2
												58	1.45
													− 2.31
												57	59.14
			9.0	58 57.4	4.7	7.8	11.2	14.4	17.8	5 59 −16 ~~20~~ 30	11.18	58	11.18
	K												−15.55
	((δ) − D) $\frac{\kappa'}{100}$												− 62
	a_2												− 11
													− 2
												57	54.88
													− 2.29
												57	52.59

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1974phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	s +9.4	3 56.0	58.7	38	57.35	43	51.00		35	50 44 29.83	
	0.997313					50 44	37.80			− 0.57	
d	9.801136						− 7.97			− 3	+ 9.50
	0.901188									+ 107	
((δ) − D) $\frac{d'}{100}$										+ 822	
										+ 24	
										− 10.80	
+5.91 δ₁		52 4.04		44 46.0						44 27.96	
+0 18.04											
12	−28.5	4 28.0	30.0	39	29.00	43	19.35		35	44 28.58	
	1.454843					50 44	4.44			− 22	+ 9.37
d	9.801120						+ 24.14			+ 122	
	1.382732									+ 808	
((δ) − D) $\frac{d'}{100}$										+ 29	
										− 11.05	
+5.91 δ₂		1 52 3.90		44 44.9						44 26.90	
+0 18.04											
	+23.1	0 4.6	8.4	30	6.50	52	41.85		30	50 53 9.14	
	1.363612					50 53	28.65			− 14	+ 8.50
d	9.799962						− 19.51			+ 3	
	1.290262									+ 837	
((δ) − D) $\frac{d'}{100}$										+ 24	
+5.90										− 10.65	
+0 18.92 δ₁		54 37.64		53 25.3						53 6.42	
16	+23.3	0 4.1	6.2	30	5.15	52	43.20		30	53 8.61	
	1.367362					50 53	28.29			− 14	+ 8.39
d	9.799962						− 19.68			+ 2	
	1.294012									+ 822	
((δ) − D) $\frac{d'}{100}$										+ 29	
										− 11.00	
+5.90 δ₂		54 37.48		53 24.9						53 6.00	
+0 18.92											
	+32.1	0 13.2	15.8	45	14.50	37	33.85		45	50 37 53.38	
	1.506512					50 38	20.65			− 28	+ 8.09
d	9.802282						− 27.27			+ 5	
	1.435482									+ 8.09	
((δ) − D) $\frac{d'}{100}$										+ 23	
										− 10.60	
+5.96 δ₁		55 53.21		38 9.7						37 50.30	
+0 19.36											
06	10.8	0 25.2	27.2	45	26.20	37	22.15		45	37 52.97	
	1.225312					50 38	7.24			− 8	+ 8.26
d	9.802282						− 14.27			+ 11	
	1.154282									+ 7.95	
((δ) − D) $\frac{d'}{100}$										+ 28	
										− 10.95	
+5.96 δ₂		55 52.96		38 9.6						37 50.28	
+0 19.36											
2	+29.5	2 1.0	2.2	2	1.60	20	46.75		0	50 21 8.35	
	1.469822					50 21	33.55			− 23	+ 8.35
d	9.804892						− 25.20			+ 54	
	1.401402									+ 7.82	
((δ) − D) $\frac{d'}{100}$										+ 22	
				21 25.3						− 10.55	
+6.04											
+0 19.76 δ₁		58 5.03		50 41.3						21 ~~4.58~~ 5.58	
899										1976 2534	
28	+13.3	2 12.9	14.9	2	13.90	20	34.45		0	21 8.18	
	1.123852					50 21	19.54			− 5	+ 8.49
d	9.804892						− 11.36			+ 57	
	1.055432									+ 7.68	
((δ) − D) $\frac{d'}{100}$										+ 27	
										− 10.90	
+6.04 δ₂		57 5.00		21 25.5						21 5.77	
+0 19.76											
~~3.4~~	4 54.6	56.7	14	55.65	7	52.70		10	51 8	45.04	
− 0.6					51 8	39.50				− 1	+10.18
d	0.819544					+ 5.54				+ 132	
	9.797462									+ 861	
((δ) − D) $\frac{d'}{100}$	0.743692									+ 26	
										− 10.50	
δ₁										8 44.15	
	−46.2	0 27.3	24.0	15	22.65	7	25.70		15	8 49.57	
	1.664642					51 8	10.79			− 57	+9.15
d	9.797462						+ 38.80			+ 892	
	1.588792									+ 849	
((δ) − D) $\frac{d'}{100}$										+ 51	
+5.86										− 10.85	
+0 20.04 δ₂		57 58.45		9 7.9						8 47.89	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 2 '71 (101) Observer W.A.R Recorder R.G

Date$_2$ = 3 Aug. (102) Observer R.G Recorder W.A.R

26

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
19	3 59 33	50 28	8.9	59 28.0	48.1	49.3	52.1	55.9	59.8	26 27	52.54	59	52.60
	3 59 10.0	50 27.2	8.9	24.7						−15.96			−15.47
	K			26.8									−58
													+11
	((δ) − D) $\frac{\kappa'}{100}$			24.8									−2
												59	36.58
	α_1												−2.30
												59	34.28 34
			8.3	59 0 16.4	59 46.3	49.4	52.8	55.7	59.8	26 30	52.60	59	52.64
	19 0 31			17.4						−16.29			−15.55
	K												−61
	2 45			16.4									−11
	((δ) − D) $\frac{\kappa'}{100}$												−2
												59	36.31
	α_2												−2.29
												59	34.02 06
19	3 58	51 28	8.0	4 4.7	9.8	13.0	16.3	19.6	23.0	8 17	16.34	4	16.34
	3 34.5	51 26.4	7.5							−15.98			−15.47
	K												−60
													+11
	((δ) − D) $\frac{\kappa'}{100}$												−2
												4	0.36
	α_1												−2.34
												3	58.02
			8.5	3 55.8	4 10.2	13.4	16.6	20.0	23.1	8 33	16.66	4	16.66
	K			57.7						−16.31			−15.55
													−63
				56.7									−11
	((δ) − D) $\frac{\kappa'}{100}$												−2
									12.7			4	0.35
	α_2												−2.33
												3	58.02
19	4 47	51 54	8.2	5 13.4	4 53.4	2.7	—	9.1	13.5			5	6.18 5.96
	4 23.9	51 52.9	7.5							−15.99			−15.47
	K												−61
													+11
	((δ) − D) $\frac{\kappa'}{100}$												−2
												4	50.19
	α_1												−2.36
												4	47.83 61
			8.8	4 52.8	59.8	2.9	6.1	9.4	12.7	3306	66.12	5	6.2 16
	K									−1632			−15.55
													−64
													−11
	((δ) − D) $\frac{\kappa'}{100}$												−2
												4	49.80
	α_2												−2.35
												4	47.45 49
19	6 47	51 12	8.0	6 37.5	59.4	2.3	5.7	9.1	12.4	3289	65.78	6	5.7 82 −.04
	6 23.2	51 10.1	9.0	39.0						−15.94			−15.47
	K			40.8									−59
													+11
	((δ) − D) $\frac{\kappa'}{100}$			39.1									−2
												6	49.87
	α_1												−2.35
												6	47.46
			8.9	0.9	6 59.4	2.3	0.8	9.1	12.6			6	5.90 5.84
	K			5.5						−1631			−15.56
													−62
				3.2									−11
	((δ) − D) $\frac{\kappa'}{100}$												−2
												6	49.59
	α_2												−2.33
												6	47.26
19	7 47	51 45	8.8	7 39.0	59.6	3.0	6.3	9.7	12.7	3313	66.26	8	6.26
	7 23.8	51 43.3	8.7	40.4						−15.98			−15.47
	K			42.3									−60
													+11
	((δ) − D) $\frac{\kappa'}{100}$			40.2									−2
												7	50.28
	α_1												−2.36
												7	47.92
			8.7	7 49.4	8.0	3.4	6.6	10.1	13.1	3 32	6.64	8	0.64
	K			51.1						−16.32			−15.56
				53.1									−63
													−11
	((δ) − D) $\frac{\kappa'}{100}$			51.2									−2
												7	50.32
	α_2												−2.35
												7	47.97

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+27.7	4 36.1	39.6	54	37.85	28	10.50		50	50 28 33.70	
	1.442248					50 28	57.30			− 0.57	
d	9.980382						− 23.60			− 20	+9.22
	1.372990									+ 124	
((δ) − D) $\frac{d'}{100}$										+ 7.96	
										+ 22	
										− 10.45	
+6.02 δ₁		59 40.36		28 52.5						28 31.90	
+0 20.64											
	+35.2	0 20.9	22.7	53	2.80	27	26.55		55	28 31.36	
	−23.8					50 28	11.64			− 31.92	+8.05
d	1.376558						+ 20.28			+ 9	
	9.980382									+ 7.84	
((δ) − D) $\frac{d'}{100}$	1.307090									+ 27	
										− 10.75	
+6.02											
+0 20.64 δ₂		59 40.08		28 49.9						28 29.22	
	+ 11.6	1 5.4	6.0	56	57.90	26	42.65		55	51 27 39.77	
	1.064446					51 27	29.45			− 4	+9.44
d	9.794639						− 7.68			+ 30	
	0.985785									+ 8.71	
((δ) − D) $\frac{d'}{100}$										+ 27	
										− 10.30	
+6.83											
+0 22.12 δ₁		4 3.85		27 40.5						27 18.34	
	+ 20.0	0 59.2	60.3	33.	59.75	26	48.60		55	27 17.00	
	1.301030					51 27	33.69			− 11	+9.28
d	9.794639						− 16.69			+ 27	
	1.222350									+ 8.80	
((δ) − D) $\frac{d'}{100}$										+ 32	
										− 10.65	
+5.83											
+0 22.12 δ₂		4 3.85		27 37.8						27 15.63	
	− 7.2	4 52.6	53.6	29	53.10	52	55.25		25	51 53 48.00	
	0.857333					51 53	42.05			− 2	+10.94
d	9.790031						+ 5.95			+ 132	
	0.771433									+ 9.35	
((δ) − D) $\frac{d'}{100}$										+ 29	
										− 10.25	
+5.74 δ₁		4 53.35		54 10.5						53 48.12	
+0 22.40											
	+ 13.4	4 31.2	33.3	29	32.25	53	16.10		25	53 50.12	
	1.127100					51 54	1.19			− 5	+10.77
d	9.790031						− 11.07			+ 122	
	1.044100									+ 921	
((δ) − D) $\frac{d'}{100}$										+ 39	
										− 10.60	
+5.74 δ₂		4 53.23		54 12.7						53 50.29	
+0 22.40											
	+ 26.7	1 37.5	38.3	11	37.90	11	10.45		10	51 11 34.85	
	1.426571					51 11	57.25			− 19	+9.16
d	9.796999						− 22.40			+ 43	
	1.350190									+ 866	
((δ) − D) $\frac{d'}{100}$										+ 26	
										− 10.15	
+5.92 δ₁		6 53.38		11 56.4						11 33.29	
+0 23.08											
	+ 2.7	1 57.1	59.0	11	58.05	10	50.30		10	11 33.12	
	0.431360					51 11	35.39			− 0	+9.38
d	9.796999						+ ~~32.16~~			+ 857	
	0.355040						− 2.27			+ 853	
((δ) − D) $\frac{d'}{100}$										+ 31	
										− 10.50	
+5.92 δ₂		6 53.12		11 55.1						11 32.00	
+0 23.08											
	+ 26.1	3 20.5	21.6	38	21.05	44	27.30		35	51 44 52.47	
	1.416644					51 45	14.10			− 18	+10.21
d	9.791176						− 21.63			+ 90	
	1.335090									+ 9.20	
((δ) − D) $\frac{d'}{100}$										+ 29	
										− 10.10	
+5.80 δ₁		7 53.72		45 15.4						44 52.01	
+0 23.40											
38	+ 15.4	3 26.8	28.9	38	27.85	44	20.50		35	44 52.84	
	1.187520					51 45	5.59			− 6	+10.28
d	9.791176						− 12.75			+ 93	
	1.105970									+ 9.07	
((δ) − D) $\frac{d'}{100}$										+ 34	
										− 10.45	
+5.80 δ₂		7 53.77		45 16.1						44 52.67	
+0 23.40											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

101

Date$_1$ = Aug 2 '71 — Observer W.A.R / Recorder H.G

102

Date$_2$ = Aug. 3 — Observer H.G / Recorder W.A.R

28

Ru

Star.	α	δ	Mag.	T_s	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17	3m 38	51 00	6.8	4m 54.8	5m 18.6	21.8	25.0	28.2	31.6	1252	25.04	5m	25.04
	43.9	51 1.7	6.5	56.3						-1597			15.47
	κ			57.7									59
													+ 11
	((δ) — D) $\frac{\kappa'}{100}$			56.2									− 2
												5	09.07
	a_1												1.69
Aug 2												5	7.38
18	14 08	51 00	9.3	14 49.0	—	23.2	26.6	29.9	33.3			14	26.61
	13 47.8	50 59.9	9.4									14 10.63	
	45.0		8.8	14 41.6	—	24.4	27.7	31.2	34.3			− 2.1014	27.46
	κ									-1598		14 8.53	15.48
													59
	((δ) — D) $\frac{\kappa'}{100}$												+ 11
	a_2												− 2
Aug 2												14	11.78 9.68
													2.10
18	36 07	50 08	8.6	36 2.9	20.7	24.0	27.1	30.3	33.6	1357	27.14	36	27.14
	35 44.8	50 7.5	8.3	4.7						-1596			15.48
	κ			7.0									57
													+ 11
	((δ) — D) $\frac{\kappa'}{100}$			4.8									− 2
												36	11.18
	a_1												2.19
Aug. 2												36	8.99
18	41 57	50 52	9.0	41 43.5	42 2.2	6.0	9.2	12.6	15.8	4 58	9.16	42	9.16
	41 28.2	50 51.4	9.0	45.1						-1598			15.48
	κ			46.6									57
													+ 11
	((δ) — D) $\frac{\kappa'}{100}$			45.0									− 2
												41	53.18
	a_2												2.24
Aug 3												41	50.94
17	26 27	50 40	8.0	26 29.9	40.0	43.2	46.2	49.5	52.8	2317	46.34	26	46.34
	26 3.5	50 41.1	8.4	33.8						-16.21			15.47
	κ												61
				31.2									11
	((δ) — D) $\frac{\kappa'}{100}$												− 2
												26	30.13
	a_1												1.80
Aug 3												26	28.33
17	27 44	50 10	8.3	27 47.1	56.7	0.0	3.3	6.6	9.7	3163	63.26	28	8.26
	27 21.4	50 11.2	8.4	48.9						-16.20			15.47 ✓
	κ			51.7									60
													11
	((δ) — D) $\frac{\kappa'}{100}$			49.2									− 2
												27	47.06
	a_2												1.80
Aug 3												27	45.26
17	29 02	50 30	8.8	29 51.1	14.5	17.6	20.9	24.1	27.3	1044	20.88	29	20.88
	28 37.3	50 29.7	8.9	7.6						-16.21			15.47
	κ												61
				6.3									11
	((δ) — D) $\frac{\kappa'}{100}$												− 2
												29	4.67
	a_1												1.82
Aug 3												29	2.85
17	50 23	50 22	9.2	50 51.0	51 7.9	10.7	13.7	17.0	20.2	695	13.90	51	13.90
	54 0.3	50 23.2	9.0	50.0						-1623			13.49
	1 κ												61
				50.5									11
	((δ) — D) $\frac{\kappa'}{100}$												− 2
												50	57.67
	a_2												1.95
Aug 3												50	55.72
17	56 11	51 11	8.8	56 8.0	22.1	25.1	28.2	31.7	34.7	1418	28.36	56	28.36
	50 50.2	51 7.4	8.8	11.0						-16.25			15.49
	55 κ 47.6	51 3.1											58
				9.5									62
	((δ) — D) $\frac{\kappa'}{100}$												11
													− 2
	a_1											56	12.11
													1.99
Aug 3												56	10.12
17	57 11	50 34	9.0	57 26.0	29.9	32.4	36.2	39.0	42.8	1503	36.06	57	36.06
	56 54.2	50 34.4	9.2	29.0						-1624			15.50
	κ												61
				27.5									11
	((δ) — D) $\frac{\kappa'}{100}$												− 2
												57	19.82
	a_2												1.99
												57	17.83

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+28.8	2′ 38.8″	40.1	22	39.45	0	8.90		20′	51 0 31.44	
	1.45939					51 0	55.70			− 22	+9.15
d	9.79887						− 24.26			+ 71	
	1.38495									+ 841	
										+ 25	
((δ) − D) $\frac{d'}{100}$										−13.90	
+5.87											
−0 19.00 δ_1		5 13.25		0 9.1						0 26.12	
	−22.4	3 57.7	60.4	23	59.05	58	49.30		20	50 59 54.77	47.73
	1.35025					50 59	36.10			− 13	+9.64 +9.72
d	9.79887			23	58.05		+ 18.87			+ 108	
	1.27581						+ 11.63			+ 844	
	− 13.8									+ 25	
((δ) − D) $\frac{d'}{100}$	1.13988	14 14.23		59 56.8						−12.15	
+5.70	9.79887										
68 +0 4.96 δ_2	1.06544	14 15.38		59 49.7						59 51.89	44.73
	+22.3	4 56.0	58.4	14	57.20	7	51.15		10	50 8 18.81	
	1.34830					50 8	37.95			− 13	+8.99
d	9.80686						− 13.14			+ 134	
	1.28185									+ 757	
										+ 21	
((δ) − D) $\frac{d'}{100}$										−11.30	
+5.96											
+0 12.64 δ_1		36 14.95		8 28.6						8 15.93	
	+24.2	0 46.0	46.9	30	46.45	52	1.90		30	50 52 28.25	
	1.38382					50 52	48.70			− 16	+8.64
d	9.80 ~~850~~ 012						− 20.45			+ 22	
	1.31063									+834	
										+ 24	
((δ) − D) $\frac{d'}{100}$										−11.15	
+5.82											
+0 14.60 δ_2		41 56.76		52 39.8						52 25.17	
	+15.1	2 51.3	53.7	42	52.50	39	55.85		40	50 40 28.13	
	1.17898					50 40	40.94			− 6	+9.03
d	9.80197						− 12.81			+ 78	
	1.10764									+8.02	
										+ 29	
((δ) − D) $\frac{d'}{100}$										−13.60	
+5.83											
−0 11.68 δ_1		26 34.16		40 11.9						40 23.56	
	+14.1	3 18.1	21.2	13	19.65	9	28.70		10	50 10 1.70	
	1.14922					50 10	13.79			− 5	+8.61
d	9.80656						− 12.09			+ 89	
	1.08247									+7.51	
										+ 24	
((δ) − D) $\frac{d'}{100}$										−13.50	
+5.94											
−0 11.24 δ_2		27 51.20		9 45.6						9 56.81	
	+18.6	4 17.8	21.0	54	19.40	28	28.95		50	50 29 1.60	
	1.16435					50 29	14.04			− 6	+9.19
d	9.80366						− 12.44			+116	
	1.09470									+782	
										+ 27	
((δ) − D) $\frac{d'}{100}$										−13.50	
+5.86											
−0 10.76 δ_1		29 8.71		28 46.5						28 57.29	
	+23.4	0 16.8	18.2	0	17.50	22	30.85		0	50 22 55.97	
	1.36922					50 23	15.94			− 14	+7.93
d	9.80458						− 19.97			+ 8	
	1.30049									+7.72	
										+ 27	
((δ) − D) $\frac{d'}{100}$										−13.00	
δ_2										22 50.90	
	+18.9	0 3.7	5.0	10	4.35	12	44.00		10	51 13 23.24	
	1.27646					51 13	29.09			− 10	+8.75
d	9.79684						− 15.85			+ 2	
	1.19999									+8.52	
										+ 31	
((δ) − D) $\frac{d'}{100}$										−12.90	
+5.63											
−0 1.32 δ_1		56 15.75		13 7.8						13 19.09	
	+8.6	4 50.0	52.7	49	51.35	32	57.00		45	50 33 34.78	
	0.93450					50 33	42.09			− 2	+9.45
d	9.80290						− 7.31			+ 131	
	0.86409									+788	
										+ 28	
((δ) − D) $\frac{d'}{100}$										−12.85	
+5.78											
−0 0.92 δ_2		57 23.61		33 30.5						33 31.38	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 3 Observer H. G Recorder W. A. R Date$_2$ = ~~Aug 3~~ Observer ~~H. G~~ Recorder ~~W. A. R~~ 30 Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17	h m s 2 58 01	° ′ ″ 51 12	9.1	m 58	s 34.0	m s 58 14.0	s 17.0	s 20.0	s 23.3	s 26.6	10 09	20.18	m 58	s 20.18
	57 37.5	51 14.4	9.0		36.2						-1625			-15.50
	κ													-62
					32.1									-11
	((δ) — D) $\frac{\kappa'}{100}$													-2
													58	3.93
	a_1													-2.00
Aug 3													58	1.93
18	2.42	50 21	8.4	2	38.1	54.0	57.1	0.3	3.4	6.7	30 15	60.30	3	0.30
	2 19.5	54 20.6	8.3		39.5						-1624			-15.50
	κ				41.0									-61
														-11
	((δ) — D) $\frac{\kappa'}{100}$				39.5									-2
													2	44.06
	a_2													-2.01
Aug 3													2	42.05
18	41 31	50 52	9.5	42	~~55.3~~	41 55.3	58.6	1.8	5.1	8.6	30 94	61.88	42	1.88
	41 28.2	50 57.4	9.0		~~58.6~~						-1629			-15.54
	κ				~~1.8~~									-62
					24.0									-11
	((δ) — D) $\frac{\kappa'}{100}$				27.6									-2
					25.8								41	45.59
	a_1													-2.22
Aug 3													41	43.37
19	0 31	50 04	8.9	0	47.9	45.4	48.7	51.9	55.0	58.3	25 93	51.86	0	51.86
	0 6.2	50 2.5	8.9		50.1						-1628			-15.55
	κ													-60
					49.0									-11
	((δ) — D) $\frac{\kappa'}{100}$													-2
													0	35.58
	a_2													-2.28
Aug 3													0	33.30
19	2 45	51 52	8.5	2	38.3	57.6	~~0.4~~ 1.1	4.5	7.8	~~10.9~~ 11.2	32 15	64.30	3	4.38
	2 22.1	51 50.2	9.0		41.1						-1632			-15.55
	κ													-64
					39.7									-11
	((δ) — D) $\frac{\kappa'}{100}$													-2
													2	47.98
	a_1													-2.34
													2	45.64
	κ													
	((δ) — D) $\frac{\kappa'}{100}$													
	a_2													
	κ													
	((δ) — D) $\frac{\kappa'}{100}$													
	a_1													
	κ													
	((δ) — D) $\frac{\kappa'}{100}$													
	a_2													
	κ													
	((δ) — D) $\frac{\kappa'}{100}$													
	a_1													
	κ													
	((δ) — D) $\frac{\kappa'}{100}$													
	a_2													

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	~~8.1~~	2 40.0	43.2	7	41.60	15	6.75 45		5	51 16 1.84 57	
	−11.9				90	51 15	51.84			− 4	+9.60
d	1.075556						+ 9.97			+ 73	
	9.79636									+8.60	
((δ) − D) $\frac{d'}{100}$	0.99860									+ 31	
				0						−12.90 80	
+5.63 δ_1		58 7.56		15 58.~~29~~						15 58.61 31	
	+20.8	3 42.7	45.6	3	44.15	10	4.20		0	50 19 31.57	
	1.31806					50 19	49.29			− 12	+8.83
d	9.80519						− 17.78			+ 100	
	1.24994									+ 7.63	
((δ) − D) $\frac{d'}{100}$										+ 32	
										−12.65	
+5.83 δ_2		2 47.88		19 28.7						19 27.69	
+0 1.00											
	−23.9	4 40.8	40.4	34	40.~~25~~	48	7.75		30	50 49 13.04	
	1.37840					50 48	52.84			− .15	+9.52
d	9.80058						+ 20.20			+ 126	
	1.30567									+ 812	
((δ) − D) $\frac{d'}{100}$										+ 29	
										−11.40	
δ_1										49 11.16	
	+ 2.9	4 34.2	33.9	19	32.55	3	15.80		15	50 3 58.40	
	0.46240					50 4	0.89			− 0	+ 8.88
d	9.80731						− ~~24.91~~			+ 122	
	0.39640						2.49			+ 741	
((δ) − D) $\frac{d'}{100}$										+ 25	
										−10.75	
+6.12 δ_2		0 39.42		4 17.5						3 56.53	
+0 20.96											
	+24.6	1 50.1	50.9	31	50.50	50	54.85		30	51 51 22.60	
	1.39094					51 51	42.94			− .16	+9.83
d	9.79079						− 20.34			+ 49	
	1.30842									+9.16	
((δ) − D) $\frac{d'}{100}$										+ 34	
										−10.70	
+5.73 δ_1		2 51.37		51 43.4						51 21.73	
+0 21.72											
d											
((δ) − D) $\frac{d'}{100}$											
δ_2											
d											
((δ) − D) $\frac{d'}{100}$											
δ_1											
d											
((δ) − D) $\frac{d'}{100}$											
δ_2											
d											
((δ) − D) $\frac{d'}{100}$											
δ_1											
d											
((δ) − D) $\frac{d'}{100}$											
δ_2											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

104

Date$_1$ = Aug 9, 1871 n = −.54 Observer Y. G. Recorder H. G.

105

Date$_2$ = Aug 10 n = −.57 Observer A. M. Recorder A. M.

32

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17 h	45 m 52 s	50° 35′	9.8	~~45. 46.0~~	46. 2.2	5.2	9.2	12.3	15.5	444	8.88	m 46	8.88
	45 28.9	50 35.9	9.5	~~46. 24.8~~						−14.23			−13.56
	κ			45 46.0									− 65
	((δ) − D) $\frac{\kappa'}{100}$												− 2
												45	54.65
42 2	a_1												− 1.78
												45	52.87
			10.0	46 24.9	26	5.9	8.9	12.3	15.6	453	9.06	46	9.06
				27.4						−14.53			−13.82
	κ			26.1									− 69
	((δ) − D) $\frac{\kappa'}{100}$												− 2
												45	54.53
	a_2												− 1.76
												45	52.77
17	49 47	57 33.6	50 08 50 8.7	9.0 8.8	~~49. 44.4~~ ~~48.6~~	53. 7.3	10.9	13.9	16.8	20.1	690	13.80	50	13.80
	κ			~~50. 23.4~~						−14.22			−13.56
	((δ) − D) $\frac{\kappa'}{100}$			49 44.9									− 64
				45.0									− 2
	a_1			Praem 46.4								49	59.58
			—	lost									− 1.81
												49	57.77
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	a_2												
17	52 52	55 32.3	50 29 50 30.0	8.5 8.6	52. 57.6 57.9	53.5.3	8.7	11.9	14.8	18.5	592	11.84	53	11.84
	κ									−14.23			−13.56
	((δ) − D) $\frac{\kappa'}{100}$												− 65
													− 2
												52	57.61
	a_1												− 1.82
												52	55.79
			8.5	52. 50.7	53.5.6	8.8	11.9	15.5	18.7	605	12.10	53	12.10
				57.4						−14.53			−13.82
	κ			53.7									− 69
	((δ) − D) $\frac{\kappa'}{100}$			52.1									− 2
												52	57.54
	a_2												− 1.79
												52	55.78
17	54 54	53 30.3	50 20 50 20.0	8.3 8.3	54. 48.0 49.0	55. 2.2	5.5	8.7	11.9	15.2	435	8.70	55	8.70
	κ			57.2						−14.23			−13.56
	((δ) − D) $\frac{\kappa'}{100}$			49.0									− 65
													− 2
												54	54.47
	a_1												− 1.84
												54	52.63
			8.0	54 51.0	55 2.2	5.7	9.0	12.1	15.5	445	8.90	55	8.90
				52.8						−14.53			−13.82
	κ			54.5									− 69
	((δ) − D) $\frac{\kappa'}{100}$			52.7									− 2
												54	54.37
	a_2												− 1.81
												54	52.56
17	57 56	11 54.2	50 34 50 34.4	9.0 9.2	57 1.8 4.6	27.7	30.8	34.1	37.4	40.5	705	34.10	57	34.10
	κ			3.2						−14.23			−13.56
	((δ) − D) $\frac{\kappa'}{100}$												− 65
													− 2
												57	19.87
	a_1												− 1.86
												54	18.01
			9.2	57 12.0	27.8	31.0	34.4	37.5	40.8	705	34.30	57	34.30
				13.6						−14.53			−13.82
	κ			15.7									− 69
	((δ) − D) $\frac{\kappa'}{100}$			13.7									− 2
												57	19.77
	a_2												− 1.83
												57	17.94

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Aug. 9 +0′ 45.51 +.27
10 +0 44.96 +.27

Runs

	$T_m - T_s$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+~~3~~.28	2 30.9	31.6	47	31.25	35	17.10		45′	50 ~~35 43.24~~	
	~~+3.56~~					50 36	2.61			~~35 49.10~~	✓
	1.26140m						+~~13.57~~			~~36 16.12~~	+8.95
d	9.80259						−19.37			− 7	
	1.13068									+ 68	
((δ) − D) $\frac{d'}{100}$										+ 8.01	
				33.0						+ 33	
+5.79										−14.25	
−0 4.92 δ_1		45 58.66		35 ~~42.9~~						35 ~~10.82~~	
										37.44	
18	−17.0	3 5.8	7.8	48	6.80	34	41.55		45	35 40.96	✓
	1.23045m					50 35	26.51			− 8	+9.15
d	9.80259						+ 14.45			+ 84	
	1.15973									+ 8.06	
((δ) − D) $\frac{d'}{100}$										+ 33	
				30.7						− 14.45	
+5.79											
−0 4.92 δ_2		45 58.56		35 ~~40.6~~						35 3.566	
+ 274	−~~9.2~~	4 53.7	55.5	14	54.60	7	53.75		10	50 8 ~~47.15~~	15.76
1.43775	0.96378m					50 18	39.26			− ~~20~~	~~+9.15~~
9.80d671	9.80671						+ ~~7.89~~			+ 132	+8.97
1.37115m	0.89719						−23.50			+ ~~754~~ 826	
((δ) − D) $\frac{d'}{100}$										+ 31	
										− 14.15	
+5.89 δ_1		50 3.66		8 7.1						8 ~~42.15~~	
−0 3.48										1058	
		0 25.3	26.8	13−	26.05−	N	22.30		15−		
						~~8~~	7.26				
d											
((δ) − D) $\frac{d'}{100}$											
δ_2											
	+13.9	3 47.0	50.5−	53	48.75−	28	54.60		50	50 29 33.27	
	1.14301					50 29	45.11			− 5	+9.22
d	9.80366						− 11.84			+ 103	
	1.07336m									+ 792	
((δ) − D) $\frac{d'}{100}$										+ 32	
										−14.15	
+5.80 δ_1		53 1.59		29 25.9						29 28.34	
−0 2.44											
26	+20.0	3 41.8	43.0	53	42.40	29	59.5		50	29 33.87	
	1.30103					50 29	50.71			− 11	+9.17
d	9.80366						− 17.04			+ 100	
	1.23138m									+ 7.96	
((δ) − D) $\frac{d'}{100}$										+ 32	
										− 14.30	
+5.80 δ_2		53 1.58		29 26.3						29 28.74	
−0 2.44											
	+19.7	3 4.9	6.2	3	5.55	19	42.80		0	50 20 11.86	
	1.29444					50 20	28.31			− 11	+8.82
d	9.80504						− 16.45			+ 84	
	1.22620m									+ 7.77	
((δ) − D) $\frac{d'}{100}$										+ 32	
										− 14.10	
+5.84 δ_1		54 58.47		20 4.8						20 6.58	
−0 1.76											
20	+16.2	3 5.7	7.7	3	6.70	19	41.65		0	20 12.77	
	1.20952					50 20	26.61			− 7	+8.89
d	9.80504						− 13.84			+ 84	
	1.14125m									+ 7.80	
((δ) − D) $\frac{d'}{100}$										+ 32	
										− 14.25	
+5.84 δ_2		54 58.40		20 5.6						20 7.41	
−0 1.76											
	+30.9	4 32.2	33.0	49	32.60	33	15.75		45	50 33 34.99	
	1.48996					50 34	1.26			− 26	+9.25
d	9.80290						− 26.27			+ 122	
	1.41955m									+ 796	
((δ) − D) $\frac{d'}{100}$										+ 33	
										− 14.05	
+5.78 δ_1		57 23.79		33 29.3						33 30.19	
−0 0.92											
20	+20.6	4 38.2	38.9	49	38.55	33	9.80		45	33 37.24	
	1.31387					50 33	54.76			− 12	+9.47
d	9.80290						− 17.52			+ 125	
	1.24346m									+ 801	
((δ) − D) $\frac{d'}{100}$										+ 33	
										− 14.25	
+5.78 δ_2		57 23.72		33 31.5						33 32.46	
−0 0.92											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

104 105 34

Date$_1$ = Aug 9 Observer H. G Recorder H. G Date$_2$ = 10 Observer A. M. Recorder A. M. Run

Star.	α	δ	Mag.	T_s	T_m	T_o	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18h	0h 28s	58 52	9.0	1. ~~47.8~~	s	s	s	s	s	2265	45.30	m	s
	1 6.1	50 52.0	9.2	1 15.1	38.8	42.1	45.3	48.6	51.7	-14.26		1	45.30
	κ		8.6										- 13.57
				1 29.8	38.8	42.1	~~45.3~~	~~48.6~~	51.7	2265	45.30		- 67
													- 2
	((δ) — D) $\frac{\kappa'}{100}$											1	31.04
													- 1.89
	α_1											1	29.15
			9.0	1 24.0	—	—	45.6	48.9	52.1			1	45.61
			9.0	25.2						-14.54			- 13.82
	κ			26.7									- 70
				25.3 39.0	—	—							- 2
	((δ) — D) $\frac{\kappa'}{100}$			40.4								1	31.07
				41.8									- 1.86
	α_2			40.4								1	29.21
18	3 49	50 48	7.0	3. 36.1	58.1	1.3	4.7	7.8	11.1	3230	64.60	4	4.60
	3 26.9	50 48.9	6.5	38.8						-14.24			- 13.57
	κ			40.6									- 65
				38.5									- 2
	((δ) — D) $\frac{\kappa'}{100}$											3	50.36
													- 1.90
	α_1											3	48.46
			6.8	~~4~~ ~~58.4~~	3 58.5	1.7	4.9	8.3	11.5	3249	64.98	4	4.98
				4 13.8						-14.53			- 13.82
	κ			14.8									- 69
				16.8									- 2
	((δ) — D) $\frac{\kappa'}{100}$			15.1								3	50.45
													- 1.88
	α_2											3	48.57
18	8 00	50 45	8.2	7. ~~57.0~~	8. 11.5	14.8	17.9	21.2	24.4	898	17.96	8	17.96
	7 37.6	50 45.5	8.5	58.1						-14.24			- 13.57
	κ			56.7									- 65
													- 2
	((δ) — D) $\frac{\kappa'}{100}$											8	3.72
													- 1.92
	α_1											8	1.80
			8.3	7 56.4	8 11.7	15.1	18.4	21.5	24.8	915	18.30	8	18.30
				57.9						-14.54			- 13.82
	κ			60.1									- 70
				58.1									- 2
	((δ) — D) $\frac{\kappa'}{100}$											8	3.76
													- 1.90
	α_2											8	1.86
18	10 23	50 30	8.3	10 18.3	33.7	36.9	40.1	43.5	46.6	2008	40.16	10	40.16
	10 0.9	50 29.6	8.7	20.0						-14.24			- 13.57
	κ			19.1									- 65
													- 2
	((δ) — D) $\frac{\kappa'}{100}$											10	25.92
13 12													- 1.93
15 50	α_1										✓	10	23.99
			8.5	10 19.6	33.8	37.1	40.3	43.7	47.1	2020	40.40	10	40.40
				20.9						-14.53			- 13.82
	κ			23.0									- 69
				21.1									- 2
	((δ) — D) $\frac{\kappa'}{100}$											10	25.87
													- 1.91
	α_2											10	23.96
18	18 25	50 19	8.8	18 20.9	36.7	40.0	43.5	46.7	50.0	2169	43.38	18	43.38
	18 2.0	50 18.5	8.6	23.6						-14.24			- 13.57
	κ			22.2									- 65
													- 2
	((δ) — D) $\frac{\kappa'}{100}$											18	29.14
													- 1.98
	α_1											18	27.16
			8.8	18 23.2	37.2	40.6	43.7	46.8	50.2	2185	43.70	18	43.70
				24.8						-14.52			- 13.82
	κ			27.2									- 68
				25.0									- 2
	((δ) — D) $\frac{\kappa'}{100}$											18	29.18
													- 1.96
	α_2												27.22

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′	
	+30.2	1 8.1	9.0	31	8.55	51	39.80		30	50 51 59.79	52 12.21	
	1.48001	1 8.1	9.0	31	8.55	50 52	25.31		30	− 25	+ 8.68 − 6	+8.87
d	9.80012						− 25.52			+ 30	+ 30	
	1.40682						− 13.10			+ 8.29	+ 8.29	
((δ) − D) $\frac{d'}{100}$	+15.5									+ 34	+ 34	
	1.19033									− 14.00	− 14.00	
+5.72 δ₁	9.80012	1 34.87		51 5[illegible]0						51 54.47	52 7.08	
+0 0.52	1.11714											
31	+20.3	1 15.8	17.0	31	16.40	51	31.95		30	51 59.76		
	1.30750	1 15.8	17.0	31	16.40	50 52	16.91		30	− 11	+8.91	
d	9.80012						− 17.15			+ 35		
	1.23431									+ 8.33		
((δ) − D) $\frac{d'}{100}$										+ 34		
										− 14.20		
+5.72 δ₂		1 34.93		51 5[illegible]0						51 54.47		
+0 0.52												
	+26.1	4 56.5	58.1	34	57.30	47	51.05		30	50 48 14.48		
	1.41664					50 48	36.56			− 18	+9.71	
d	9.80074						− 22.08			+ 134		
	1.34407									+ 821		
((δ) − D) $\frac{d'}{100}$										+ 34		
										− 13.95		
+5.73 δ₁		3 54.19		48 10.6						48 10.24		
+0 1.36												
38	+4[illegible]	0 25.6	26.9	35	26.25	47	22.10		35	48 15.61		
	−10.1					50 48	7.06			− 3	+8.8	
d	1.00432						+ 8.55			+ 11		
	9.80074									+ 826		
((δ) − D) $\frac{d'}{100}$	0.93175									+ 34		
										− 14.15		
+5.73 δ₂		3 57.30		48 11.5						48 10.14		
+0 1.36												
	+21.3	2 16.8	17.7	37	17.25	45	31.10		35	50 45 58.58		
	1.32838					50 46	16.61			− 13	+8.99	
d	9.80105						− 18.03			+ 62		
	1.25612									+ 8.16		
((δ) − D) $\frac{d'}{100}$										+ 34		
										− 13.85		
+5.74 δ₁		8 7.54		45 56.6						45 53.72		
+0 2.84												
34	+20.2	2 16.1	17.9	37	17.00	45	31.35		35	45 59.21		
	1.30535					50 46	16.31			− 11	+9.08	
d	9.80105						− 17.10			+ 62		
	1.23309									+ 823		
((δ) − D) $\frac{d'}{100}$										+ 34		
										− 14.05		
+5.74 δ₂		8 7.60		45 57.1						45 54.24		
+0 2.84												
	+21.1	3 44.6	47.0	53	45.80	29	2.55		50	50 29 30.09		
	1.32428					50 29	48.06			− 12	+9.13	
d	9.80366						− 17.97			+ 101		
	1.25463									+ 792		
((δ) − D) $\frac{d'}{100}$										+ 32		
										− 13.80		
+5.81 δ₁		10 29.80		29 29.1						29 25.42		
+0 3.68												
24	+19.3	3 44.8	46.7	53	45.75	29	2.60		50	29 31.12		
	1.28556					50 29	47.56			− 10	+9.19	
d	9.80366						− 16.44			+ 101		
	1.21591									+ 796		
((δ) − D) $\frac{d'}{100}$										+ 32		
										− 13.95		
+5.81 δ₂		10 29.77		29 30.0						29 26.36		
+0 3.68												
	+21.2	4 46.2	42.5	4	41.85	18	6.50		0	50 18 33.89		
	1.32634					50 18	52.01			− 12	+9.19	
d	9.80519						− 18.12			+ 127		
	1.25822									+ 772		
((δ) − D) $\frac{d'}{100}$										+ 32		
										− 13.53		
+5.86 δ₁		18 33.02		18 36.0						18 29.53		
+0 6.48												
32	+18.7	4 40.0	42.3	4	41.15	18	7.20		0	18 36.17		
	1.27184					50 18	52.16			− 10	+9.25	
d	9.80519						− 15.99			+ 127		
	1.20372									+ 776		
((δ) − D) $\frac{d'}{100}$										+ 32		
										− 13.75		
+5.86 δ₂		18 33.08		18 38.2						18 31.67		
+0 6.48												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

104

Date$_1$ = Aug 9 — Observer H.G — Recorder H.G

105

Date$_2$ = 10 — Observer A.M. — Recorder A.M.

36

Star.	α	δ	Mag.	T_δ	T_m	T_ε	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T	Run
	h m s	° ′ ″		m s	s	s	s	s	s			m	s	
	21 53	50 28	8.8	21. 42.5	5.7	9.0	12.1	15.5	18.9	6 1 2	12.24	22	12.24	
	21 30.3	50 27.5	9.0	44.7						-1424			-13.57	
	κ			47.6									- 65	
	((δ) — D) $\frac{\kappa'}{100}$			44.9									- 2	
												21	58.00	
	α_1												- 2.00	
												21	56.00	+5.84
														+0 7.1
			9.0	21 49.4	22 5.9	9.2	12.6	15.7	18.9	6 23	12.46	22	12.46	22
				50.7						-1453			-13.82	
	κ	24	23	52.9									- 69	
	((δ) — D) $\frac{\kappa'}{100}$			50.6									- 2	
												21	57.93	
	α_2												- 1.98	
				31.0								✓ 21	55.95	+5.84
														+0 7.6
18	27 20	50 05	8.5	27. 2.8	34.2	37.3	40.4	43.9		18.68	37.36	27	37.36	
	26 57.0	50 4.8	8.5	4.2						-14.23			-13.57	
	κ			5.7									- 64	
	((δ) — D) $\frac{\kappa'}{100}$			8.0									- 2	
												27	23.13	
	α_1			5.1									- 2.02	
												27	21.11	+5.94
														+0 9.5
	27 1.2		9.2	27 19.0	36.1	39.3	42.4	45.6	48.8	21 22	42.44	27	42.44	17
				21.7						-1452			-13.82	
	κ			36.1									- 68	
	((δ) — D) $\frac{\kappa'}{100}$			20.3									- 2	
												27	27.92	
	α_2												- 2.01	
												27	25.91	+5.94
														+0 9.5
18	30 50	50 52	9.0	30. 39.8	31. 2.4	5.7	8.6	12.0	15.4	4 4 1	8.82	31	8.82	
	30 29.0	50 51.3	8.8	43.0						-1427			-13.58	
	κ												- 67	
	((δ) — D) $\frac{\kappa'}{100}$			41.4									- 2	
												30	54.55	
	α_1												- 2.06	
												30	52.49	+5.78
														+0 10.
			8.8	30 51.6	31 2.3	5.9	9.0	12.3	15.7	4 5 2	9.04	31	9.04	22
				54.2						-1454			-13.82	
	κ												- 70	
	((δ) — D) $\frac{\kappa'}{100}$			52.9									- 2	
												30	54.50	
	α_2												- 2.04	
												30	52.46	+5.78
														+0 10
18	33 32	51 48	7.8	33. 20.0	40.1	43.6	46.9	50.2	53.6	2 3 4 4	46.88	33	46.88	
	33 9.1	51 45.8	8.0	22.2						-1428			-13.58	
	κ			24.0									- 68	
	((δ) — D) $\frac{\kappa'}{100}$			22.0									- 2	
												33	32.60	
	α_1												- 2.09	
												33	30.51	+5.57
														+0 11
			7.9	33 25.3	40.6	44.0	47.2	50.5	53.8	2 3 6 1	47.22	33	47.22	34
				26.8						-1456			-13.82	
	κ			28.6									- 72	
	((δ) — D) $\frac{\kappa'}{100}$			26.9									- 2	
												33	32.66	
	α_2												- 2.07	
												33	30.59	+5
														+0 11
18	36 07	50 08	8.5	35. 57.4	18.7	22.0	25.3	28.5	31.8	1 2 6 3	25.26	36	25.26	
	35 44.8	50 7.5	8.3	36. 6.0						-1424			-13.58	
	κ			2.0									- 64	
	((δ) — D) $\frac{\kappa'}{100}$			59.8									- 2	
												36	11.02	
	α_1												- 2.07	
												36	8.95	+5.96
														+0 12
			8.2	36 9.8	19.1	22.4	25.4	28.7	32.1	1 2 7 7	25.54	36	25.54	28
				12.0						-1452			-13.82	
	κ			14.0									- 68	
	((δ) — D) $\frac{\kappa'}{100}$			11.9									- 2	
												36	11.02	
	α_2												- 2.06	
												36	8.96	+5.96
														+0 12

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+27.3	0 -1.0	-0.1	54	59.45	27	48.90		55	50 28 11.16	
	1.43616					50 28	34.41			− .20	+9.37
d	9.80382						− 23.26			+ 135	
	1.36667									+ 790	
((δ) − D) $\frac{d'}{100}$										+ 32	
		22 1.								−13.45	
+584 δ_1		~~21 56.84~~		28 14.8						28 7.08	
+0 7.68											
22	+21.9	0 2.3	3.9	55	310	27	45.25		55	28 11.42	
	1.34044					50 28	30.21			− 13	+8.15
d	9.80382						− 18.79			+ 1	
	1.27395									+ 7.96	
((δ) − D) $\frac{d'}{100}$										+ 32	
										−13.70	
+584 δ_2		22 1.79		28 13.6						28 6.87	
+0 7.68											
	+32.3	2 37.9	39.7	17	38.80	5	9.55		15	50 ~~6~~ 27.32	✓
	1.50920					50 ~~6~~ 5	55.06			− 29	+8.25
d	9.80716					5	− 27.74			+ 71	
	1.44305									+ 7.52	different #s ?
((δ) − D) $\frac{d'}{100}$										+ 31	
										−13.30	
+5.94 δ_1		27 27.05		5 31.8						~~6~~ 22.27	
+0 9.56										5	
~~11~~	+22.1	0 40.0	41.1	20	40.55	2	7.80		20	50 2 33.76	✓
	1.34439					50 2	52.76			− 13	+7.87
d	9.80777						− 19.08			+ 19	
	1.27885									+ 7.37	
((δ) − D) $\frac{d'}{100}$										+ 30	
										−13.55	
+5.94 δ_2		27 31.85		2 37.6						2 28.08	
+0 9.56											
	+27.4	1 2.8	6.5	31	7.05	51	41.30		30	50 52 3.66	
	1.43775					50 52	26.81			− 20	+8.73
d	9.80012						− 23.15			+ 30	
	1.36456									+ 8.29	
((δ) − D) $\frac{d'}{100}$										+ 34	
										−13.25	
+5.78 δ_1		30 58.27		52 9.9						51 59.14	
+0 10.76											
22	+16.1	1 15.1	15.8	31	15.45	51	32.90		30	52 4.26	
	1.20683					50 52	17.86			− 7	+8.93
d	9.80012						− 13.60			+ 33	
	1.13364									+ 8.33	
((δ) − D) $\frac{d'}{100}$										+ 34	
										−13.45	
+5.78 δ_2		30 58.24		52 10.5						51 59.74	
+0 10.76											
	+24.9	2 11.1	12.0	37	11.55	45	36.80		35	51 46 1.68	
	1.39620					51 46	22.31			− 17	+10.01
d	9.79160						− 20.63			+ 59	
	1.31449									+9.20	
((δ) − D) $\frac{d'}{100}$										+ 39	
										−13.20	
+5.57 δ_1		33 36.08		46 10.2						45 ~~58~~ 49	
+0 11.72											
34	+20.3	2 12.5	12.7	37	12.60	45	35.75		35	46 3.89	
	1.30750					51 46	20.71			− 11	+10.12
d	9.79160						− 16.82			+ 59	
	1.22579									+925	
((δ) − D) $\frac{d'}{100}$										+ 39	
										−13.45	
+5.57 δ_2		33 36.16		46 12.3						46 0.56	
+0 11.72											
	+25.5	4 52.0	54.0	14	53.50	7	55.35		10	50 8 18.98	
	1.40654					50 8	40.86			− 17	+9.00
d	9.80686						− 21.88			+ 132	
	1.34009									+ 7.54	
((δ) − D) $\frac{d'}{100}$										+ 31	
										−13.05	
+5.96 δ_1		36 14.91		8 27.6						8 14.93	
+0 12.64											
28	+13.6	0 0.3	1.2	15	0.75	7	47.60		15	8 20.89	
	1.13354					50 8	32.56			− 5	+7.86
d	9.80686						− 11.67			+ 0	
	1.06709									+ 7.60	
((δ) − D) $\frac{d'}{100}$										+ 31	
										−13.30	
+5.96 δ_2		36 14.92		8 28.1						8 15.45	
+0 12.64											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

104 105

Date$_1$ = Aug 9, 71 Observer H.G Recorder H.G Date$_2$ = 10 Observer A.M Recorder A.M 38 Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
8	38 55	50 11	8.9	38. 44.8	39. 5.1	8.5	11.7	15.0	18.3	586	11.72	39	11.72
	38 32.1	50 10.8	9.0	46.8						-14.24			-13.58
	κ			48.6									- 64
													- 2
	$((\delta) - D)\frac{\kappa'}{100}$			46.7								38	57.48
													- 2.09
	α_1											38	55.39
			9.0	38 47.7	39 5.4	8.7	11.9	15.3	18.5	598	11.96	39	11.96
				48.6						-14.52			-13.82
	κ			50.0									- 68
													- 2
	$((\delta) - D)\frac{\kappa'}{100}$			48.7								38	57.44
													- 2.07
	α_2											38	55.37
18	41 51	50 32	9.3	41. 41.6	42. 0.8	41.2	7.7	10.7	13.9	373	7.46	42	7.46
	41 28.2	50 57.4	9.0	45.0						-14.27			-13.58
	κ												- 67
				43.3									- 2
	$((\delta) - D)\frac{\kappa'}{100}$											41	53.19
													- 2.12
	α_1											41	51.07
			9.0	41 54.7	42 4.3	4.7	7.8	11.1	14.3	392	7.84	42	7.84
				56.1						-14.54			-13.82
	κ			57.3									- 70
													- 2
	$((\delta) - D)\frac{\kappa'}{100}$			56.0								41	53.30
													- 2.10
	α_2											41	51.20
18	45 11	51 32	8.5	45 11.5	26.0	29.2	32.8	36.0	39.3	1833	32.66	45	32.66
	44 52.9	51 31.5	8.5	13.9						-14.28			-13.58
	κ			15.9									- 68
													- 2
	$((\delta) - D)\frac{\kappa'}{100}$			13.7								45	18.38
													- 2.15
	α_1											45	16.23
			8.9	45 11.3	26.4	29.7	33.0	36.3	39.6	1650	33.00	45	33.00
				13.0						-14.56			-13.82
	κ			14.8									- 72
													- 2
	$((\delta) - D)\frac{\kappa'}{100}$			13.0								45	18.44
													- 2.13
	α_2											45	16.31
18	47 30	50 27	8.0	47. 23.8	41.8	44.9	48.0	51.3	54.6	2406	48.12	47	48.12
	47 7.8	50 25.6	8.9	27.0						-14.25			-13.58
	κ			29.6									- 65
													- 2
	$((\delta) - D)\frac{\kappa'}{100}$			26.8								47	33.87
													- 2.14
	α_1											47	31.73
			9.0	47 32.3	42.0	45.2	48.3	51.5	55.0	2420	46.40	47	48.40
				34.5						-14.53			-13.82
	κ			36.5									- 69
													- 2
	$((\delta) - D)\frac{\kappa'}{100}$			34.5								47	33.87
													- 2.12
	α_2											47	31.75
18	50 02	50 30	~~8.0~~	~~50.~~ 53.7	12.0	15.1	18.3	21.5	24.9	918	15.38	50	18.36
	49 ~~27.9~~	50 ~~24.0~~	8.0	49. 55.2						-14.26			-13.58
	κ 38.4	32.0		~~54.6~~									- 65
			8.0	50. 4.0	14.3	17.6	20.8	24.0	27.2				- 2
	$((\delta) - D)\frac{\kappa'}{100}$ 49 39.9	29.0								-14.26		50	4.12
													- 2.15
	α_1												1.97
													- 65
													- 2
												50	6.52
													- 2.15
													4.37
	49 39.9	29.0	7.5	50 2.0	14.7	17.8	21.0	24.3	27.5	1053	21.06	50	21.06
	κ			3.5						-14.53			-13.82
				5.5									- 69
													- 2
	$((\delta) - D)\frac{\kappa'}{100}$			3.6								50	6.53
													- 2.14
	α_2											50	4.39

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+25.0	1 24 4.0	25.0	11	24 50	11	23.86		10′	50 11 47.94	
	1.39794					50 12	9.36			− 17	+8.14
d	9.80625						− 21.42			+ 38	
	1.33088n									+ 7.62	
((δ) − D) $\frac{d'}{100}$										+ 31	
										−13.00	
+5.96 δ_1		39 1.35		11 56.7						11 43.98	
+0 13.60											
	+23.3	1 23.4	24.6	11	24 00	11	24.35		10	11 49.35	
	1.36736					50 12	9.31			− 14	+8.21
d	9.80625						− 17.96			+ 38	
	1.30020n									+ 7.66	
((δ) − D) $\frac{d'}{100}$										+ 31	
										−13.20	
+5.96 δ_2		39 1.33		11 58.0						11 ~~43.36~~	44.36
+0 13.60											
	+24.2	0 42.9	44.3	30	43.60	52	4.75		30	50 52 29.81	
	1.38382					50 52	50.26			− 16	+8.66
d	9.80012						− 20.45			+ 19	
	1.31063n									+ 8.29	
((δ) − D) $\frac{d'}{100}$				2						+ 34	
										−12.90	
+5.82 δ_1		41 56.89		52 40.17						52 25.57	
+0 14.60											
	+11.8	0 53.2	54.5	30	53.85	51	54.50		30	52 29.49	
	1.07188					50 52	39.46			− 4	+8.87
d	9.80012						− 7.97			+ 24	
	0.99869n									+ 8 33	
((δ) − D) $\frac{d'}{100}$				8						+ 34	
										−13.20	
+5.82 δ_2		41 57.02		52 39.76						52 25.16	
+0 14.60											
	+19.0	0 57.2	57.9	50	57.55	31	56.80		50	51 32 20.49	
	1.27875					51 32	36.31			− 10	+9.48
d	9.79383						− 15.82			+ 25	
	1.19927n									+ 8.95	
((δ) − D) $\frac{d'}{100}$										+ 38	
										−12.85	
+5.68 δ_1		45 21.91		32 32.9						32 17.12	
+0 15.76											
	+20.0	0 54.8	55.1	50	54.95	31	53.40		50	32 21.70	
	1.30103					51 32	38.36			− 11	+9.52
d	9.79383						− 16.66			+ 24	
	1.22155n									+9 01	
((δ) − D) $\frac{d'}{100}$										+ 38	
										−13.10	
+5.68 δ_2		45 21.99		32 33.9						32 18.12	
+0 15.76											
	+21.3	1 25.9	26.3	56	26.10	26	22.25		55	50 26 49.60	
	1.32838					50 27	7.76			− 12	+8.46
d	9.80397						− 18.46			+ 39	
	1.25903n									+ 7.87	
((δ) − D) $\frac{d'}{100}$										+ 32	
+5.95										−12.75	
+0 16.52 δ_1		47 37.68		27 1.8						26 45.31	
	13.9	1 29.3	30.2	56	29.45	26	18.60		55	26 51.21	
	1.14301					50 27	3.56			− 5	+8.59
d	9.80397						− 11.85			+ 41	
	1.07367n									+ 7.91	
((δ) − D) $\frac{d'}{100}$										+ 32	
										−13.00	
+5.95 δ_2		47 37.70		27 3.8						26 47.30	
+0 16.52											
	+24.0	3 17.4	19.4	53	18.40	29	29.95		50	50 29 55.02	30′ 1.15
	1.38021					50 ~~30~~ 30	15.46			− 15	+8.98 − 8 +9.05
d	9.80351						− 20.44			+ 89	+ 89
	1.31041n						− 14.31			+ 7.92	+ 7.92
((δ) − D) $\frac{d'}{100}$	+16.8									+ 32	+ 32
	1,22531	507.92								−12.65	−12.65
+5.95 δ_1	9.80351	50 10.32		30 8.8						29 51.35	29 57.55
+0 17.40	1.15551n			14.9							
	+17.5	3 22.9	24.8	53	23.80	29	24.55		50	29 54.61	14.95
	1.24304	22.7				50 30	9.51			− 8	+9.12
d	9.80351						− 14.90			+ 92	
	1.17324n									+ 7.96	
((δ) − D) $\frac{d'}{100}$										+ 32	
+5.95										−12.90	
+0 17.40 δ_2		50 10.34		30 8.2						29 50.83	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

104

Date$_1$ = Aug 9, '71 Observer H. G Recorder H. G

105

Date$_2$ = 10 Observer A. M. Recorder A. M

40

Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
1 h	52m 35s	50° 23'	—	52m 35.1	46.8	50.1	53.4	s	s		s	m	°
	52 12.4	50 22.3	8.6	37.3						-14.26		52	53.33
	K			36.2									-13.59
	((δ) — D) $\frac{\kappa'}{100}$												- 65
													- 2
	α_1											52	39.07
													- 2.16
												52	36.91
			9.0	52 42.2	47.0	50.3	53.5	56.9	60.0	267 53.54		52	53.54
		18 55 31		44.2						-14.58			-13.82
	K	58 4											- 69
				48.2									- 2
	((δ) — D) $\frac{\kappa'}{100}$	19 0 52										52	39.01
		4 15											- 2.15
	α_2	6 44										52	36.86
Aug 9													
17	42 02	50 18	8.8	Lost.									
	41 38.8	50 19.0	8.9										
	K												
	((δ) — D) $\frac{\kappa'}{100}$												
	α_1												
Aug 9													
18	13 12	50 10	8.3	13 2.8	25.1	28.3	31.4	34.6	38.0	157 31.48		13	31.48
	12 47.3	50 10.1	8.3	4.7						-14.24			-13.57
	K			6.8									- 65
	((δ) — D) $\frac{\kappa'}{100}$												- 2
				4.7								13	17.24
	α_2												- 1.95
Aug 9												13	15.29
18	15 50	51 28	8.8	15 53.3	59.4	2.7	6.0	9.3	12.6	330 66.00		16	6.00
	15 27.1	51 27.3	8.8	55.4						-14.27			-13.57
	K			57.2									- 68
	((δ) — D) $\frac{\kappa'}{100}$												- 2
				55.3								15	51.73
	α_1												- 1.98
Aug 10												15	49.75
18	55 31	52 00	8.7	55 32.7	40.5	43.8	47.1	50.5	53.8	235 47.14		55	47.14
	55 8.1	51 58.5	8.4	34.3						-14.57			-13.82
	K			35.6									- 69
	((δ) — D) $\frac{\kappa'}{100}$												- 2
				34.2								55	32.57
	α_2												- 2.19
Aug 10												55	30.38
18	24 23	50 21	9.0	24 24.6	37.1	40.5	43.6	46.7	50.0	217 9 43.58		24	43.58
	24 0.0	50 20.5	9.1	26.1						-14.53			-13.82
	K			25.3									- 69
	((δ) — D) $\frac{\kappa'}{100}$												- 2
												24	29.05
	α_1												- 1.99
Aug 10												24	27.06
18	58 04	51 02	9.0	58 10.3	14.3	17.8	21.0	24.3	27.6	10 50 21.00		58	21.00
	57 41.0	51 0.7	8.8	12.5						-14.54			-13.82
	K			11.4									- 70
	((δ) — D) $\frac{\kappa'}{100}$												- 2
												58	6.46
	α_2												- 2.19
Aug 10												58	4.27
19	00 52	51 39	9.2	0 48.1	1 2.1	5.7	8.9	12.2	15.6	445 8.90		1	8.90
	0 28.6	51 37.2	9.0	49.5						-14.56			-13.82
	K			50.5									- 72
	((δ) — D) $\frac{\kappa'}{100}$												- 2
				49.3								0	54.34
	α_1												- 2.22
Aug 10												0	52.12
19	4 15	50 28	8.8	4 19.0	25.9	29.2	32.5	35.8	38.9	162 32.46		4	32.46
	3 51.4	50 26.4	8.6	21.1						-14.53			-13.82
	K			20.0									- 69
	((δ) — D) $\frac{\kappa'}{100}$												- 2
												4	17.93
	α_2												- 2.21
												4	15.72

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+17.1	0 0.0	00 0.4	0	0.20	22	48.15		0	50 23 19.06	
	1.23300					50 23	33.66			− 8	+8.06
d	9.80458						− 14.60			+ 0	
	1.16427									+ 7.82	
((δ) − D) $\frac{d'}{100}$										+ .32	
										−12.60	
+5.99 δ₁		52 42.90		23 32.8						23 14.52	
21	+10.3	0 3.9	5.0	0	4.45	22	43.90		0	23 20.07	
	1.01284					50 23	28.86			− 3	+8.17
d	9.80458						− 8.79			+ 2	
	0.94411									+ 7.86	
((δ) − D) $\frac{d'}{100}$										+ 32	
										−12.85	
+5.99 δ₂		52 42.85		23 33.7						23 15.39	
		4 19.4	21.9	4	20.65	18	27.70		0		
						50 19	13.21				
d											
((δ) − D) $\frac{d'}{100}$											
δ₁											
	+26.8	1 44.5	45.3	11	44.90	11	3.45		10	50 11 25.99	
	1.42813					50 11	48.96			− 19	+8.21
d	9.80641						− 22.97			+ 47	
	1.36123									+7.62	
((δ) − D) $\frac{d'}{100}$										+ 31	
										−13.65	
+5.89 δ₂		13 21.18		11 25.2						11 20.55	
+0 4.64											
	+10.7	0 7.7	7.4	55	7.55	27	40.80		55	51 28 17.39	
	1.02938					51 28	26.31			− 3	+9.27
d	9.79447						− 8.92			+ 3	
	0.95054									+8.90	
((δ) − D) $\frac{d'}{100}$										+ 37	
										−13.70	
+5.59 δ₁		1555.34		28 18.5						28 12.96	
+0 5.56											
	+12.9	3 14.3	14.1	23	14.20	59	34.15		20	52 0 8.48	
	1.11059					52 0	19.11			− 3	+10.67
d	9.78934						− 10.63			+ 86	
	1.02662									+9.46	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−12.80	
+5.64 δ₂		55 36.02		0 25.6						0 6.35	
+0 19.24											
	+18.3	2 22.7	25.6	2	24.15	20	24.20		0	50 20 53.53	
	1.26245					50 21	9.16			− 9	+8.70
d	9.80489						− 15.63			+ 65	
	1.19403									+ 7.82	
((δ) − D) $\frac{d'}{100}$										+ 32	
										−13.60	
+5.87 δ₁		24 32.93		20 57.2						20 48.63	
+0 8.56											
	9.6	1 16.0	17.8	21	16.90	1	31.45		20	51 2 8.33	
	0.98224					51 2	16.41			− 3	+9.17
d	9.79856						− 8.08			+ 35	
	0.90752									+8.80	
((δ) − D) $\frac{d'}{100}$										+9.13 35	
										−12.70	
+5.89 δ₂		58 10.16		2 25.0						·2 4.80	
+0 20.16											
	+19.6	4 52.3	53.3	44	52.80	37	55.55		40	51 38 24.22	
	1.29226					51 38	40.51			− 11	+10.72
d	9.79288						− 16.29			+ 132	
	1.21183									+9.13 38	
((δ) − D) $\frac{d'}{100}$										−12.60	
+5.77 δ₁		0 57.89		38 43.4						38 22.34	
+0 21.08											
	+12.5	0 27.7	29.3	55	28.50	27	19.85		55	50 27 54.16	
	1.09691					50 28	4.81			− 4	+8.34
d	9.80382						− 10.65			+ 13	
	1.02742									+7.93	
((δ) − D) $\frac{d'}{100}$										+ 32	
+6.06										−12.45	
+0 22.24 δ₂		4 21.78		28 12.3						27 50.05	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

105

Date$_1$ = Aug 10 71 Observer A.M Recorder A.M Date$_2$ = 10 Observer A.M Recorder A.M 42 Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
19 κ	6m 44.5s	50° 13'	9.0	7m 11.3s	8m 53.3s	56.6s	1.6s	5.0s	7.8s	3083	61.66	m	s
	6 20.0	50 11.5	9.0	12.6						-1482			1.66
	κ												- 13.82
	$((\delta) - D)\frac{\kappa'}{100}$			11.9									- 68
													- 2
												6	47.14
	α_1												- 2.22
												6	44.92
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												

See C. 12 after the observations for Sept. 8
for the observations of Aug. 11 & 12.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	~~+~~0.2	0′ 35.2	86.2	10	35.0	12	12.65		10′	50 13 6.35	
	− 10.2					50 12	57.61			− 3	+8.10
d	1.00860						+ 8.74			+ 16	
$((\delta) - D)\frac{d'}{100}$	9.80610									+ 7.66	
	0.94139									+ 31	
+6/14										−12.40	
+0 23.08 δ_1		6 51.06		13 25.1						13 2.05	
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 5, '71 n = −.50 | Observer W.A.R. | Recorder H.G. | Date$_2$ = ~~12~~ Aug 13. n = −.62: | Observer W.A.R. | Recorder A.M.

Star.	α	c = −.10 δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17	33	18	8.0	33	7.8	25.3	31.7	35.1	38.5	41.9	17 55	35.10	33	35.10
	32	55.3	8.0		9.2						−16.99			−16.16
	κ	52 33.7			11.1									−65
	((δ) − D) $\frac{\kappa'}{100}$				9.3									−16
														−2
27	34	α_1											33	18.11
29	24													−1.83
													33	16.28
32	7		8.4	33	10.6	26.3	29.7	33.1	36.4	39.9	16 54	33.08	33	33.08
					13.0						−15.20			−14.37
	κ				15.3									−81
	((δ) − D) $\frac{\kappa'}{100}$				12.7									−2
		α_2											33	17.88
														−1.62
													33	16.26
17	35	21	9.1	35	8.7	~~9.7~~	35.8	39.0	42.2	45.9	19 51	39.02	35	39.02
	34	55.1	8.8		9.9	32.2					−17.00			−16.16
	κ	52 41.5			12.0									−65
	((δ) − D) $\frac{\kappa'}{100}$				10.2									−17
		α_1												−2
													35	22.02
														−1.84
													35	20.18
			8.9	35	4.2	30.3	33.7	36.9	40.5	43.8	18 52	37.04	35	37.04
					5.8						−15.20			−14.37
	κ				7.9									−81
	((δ) − D) $\frac{\kappa'}{100}$				5.9									−2
		α_2											35	21.84
														−1.63
													35	20.21
17	37	43	9.0	37	37.3	54.9	58.4	1.7	5.0	8.4	30 84	61.68	37	1.68
	37	20.3	8.8		38.5						−16.97			−16.16
	κ	51 41.4			40.1									−63
	((δ) − D) $\frac{\kappa'}{100}$				41.6									−16
		α_1			39.3									−2
													37	44.71
														−1.84
													37	42.87
			8.7	37	23.6	52.9	56.2	59.5	2.9	6.2	29 77	59.54	37	59.54
					25.0						−15.16			−14.36
	κ				26.5									−~~80~~78
	((δ) − D) $\frac{\kappa'}{100}$				25.0									−2
		α_2											37	44.36
														−1.64
														42.74
17	39	20	8.2	39	7.5	30.0	33.3	36.7	40.1	43.5	18 36	36.72	39	36.72
	38	57.0	7.9		11.1						−16.98			−16.16
	κ	52 7.3			13.2									−64
	((δ) − D) $\frac{\kappa'}{100}$				11.2									−16
		α_1												−2
													39	19.74
														−1.86
													39	17.88
			7.8	39	5.5	~~27.9~~	~~34.6~~	34.7	38.0	41.3	17 32	34.64	39	34.64
					7.1		31.3				−15.17			−14.36
	κ				8.2									−79
	((δ) − D) $\frac{\kappa'}{100}$				6.9									−2
		α_2											39	19.47
														−1.66
													39	17.81
17	41	19	8.2	41	4.3	30.6	34.0	37.4	40.8	44.1	18 69	37.38	41	37.38
	40	56.3	7.8		5.8						−16.99			−16.16
	κ	51 50.7			7.4									−63
	((δ) − D) $\frac{\kappa'}{100}$				6.8									−16
		α_1												−2
													41	20.41
														−1.87
													41	18.54
			8.2	41	6.9	28.5	32.0	35.3	38.6	42.0	17 64	35.28	41	35.28
					9.0						−15.18			−14.36
	κ				11.0									−~~80~~78
	((δ) − D) $\frac{\kappa'}{100}$				8.9									−2
		α_2											41	20.10
														−1.67
													41	18.43

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

1 Aug. 5 +0′ 46.″56 +.27
13 +0 44.76 +.26

45

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+28.8	4′ 24.″9	24.5	49	24.″5	33	23.65		45	52 33 49.22	
	1.41162					52 34	10.21			− 18	+11.27
d	9.78379						− 20.99			+ 119	
	1.32210n									+ 9.83	
((δ) − D) $\frac{d'}{100}$										+ 43	
										−13.95	
+5.35 δ_1		33 21.63		33 37.2						33 46.54	
−0 9.32											
2.02	+21.4	4 27.2	28.0	49	27.60	33	20.75		45	33 48.91	
	1.30963					52 34	8.51			− 11	+11.67
d	9.78379						− 16.60			+ 117	
	1.22011n									+10.13	
((δ) − D) $\frac{d'}{100}$										+ 48	
										−15.30	
+5.35 δ_2		33 21.61		33 36.0						33 45.28	
−0 9.32											
	+28.8	2 24.3	24.9	42	24.60	40	23.75		40	52 40 46.94	
	1.45939					52 41	10.31			− 22	+10.85
d	9.78263						− 23.37			+ 65	
	1.36871n									+9.98	
((δ) − D) $\frac{d'}{100}$		2								+ 44	
										−13.75	
+5.31 δ_1		35 45.49		40 35.3						40 43.84	
−0 8.56											
1.88	+31.1	2 20.3	20.0	42	20.15	40	28.20		40	40 47.72	
	1.49276					52 41	12.96			− 26	+11.10
d	9.78263						− 25.24			+ 60	
	1.40208n									+10.28	
((δ) − D) $\frac{d'}{100}$										+ 48	
										−15.30	
+5.31 δ_2		35 25.52		40 35.0						40 43.52	
−0 8.56											
	+22.4	2 10.2	10.0	42	10.10	40	38.25		40	51 41 6.22	
	1.35025					51 41	24.81			− 13	+9.85
d	9.79240						− 18.59			+ 57	
	1.26934n									+9.00	
((δ) − D) $\frac{d'}{100}$										+ 37	
										−13.80	
+5.55 δ_1		37 48.42		40 54.5						41 2.27	
−0 7.76											
2.12	+34.5	1 58.6	58.0	41	58.30	40	50.05		40	41 6.18	
	1.53782					51 41	34.81			− 32	+9.89
d	9.79240						− 28.63			+ 52	
	1.45681n									+9.87	
((δ) − D) $\frac{d'}{100}$										+ 42	
										−15.20	
+5.55 δ_2		37 48.29		40 53.1						41 0.87	
−0 7.76											
	+25.5	1 20.2	19.5	16	19.85	6	28.50		15	52 6 54.10	
	1.40654					52 7	15.06			− 17	+9.98
d	9.78821						− 20.96			+ 35	
	1.32144n									+9.39	
((δ) − D) $\frac{d'}{100}$										+ 41	
+5.44										−13.80	
−0 7.20 δ_1		39 23.32		6 43.1						6 50.28	
2.08	+27.7	1 14.9	13.7	16	14.30	6	34.05		15	6 56.04	
	1.44248					52 7	18.81			− 20	+10.24
d	9.78821						− 22.77			+ 31	
	1.35738n									+9.68	
((δ) − D) $\frac{d'}{100}$										+ 45	
										−15.20	
+5.44 δ_2		39 23.35		6 43.9						6 51.08	
−0 7.20											
	+31.6	2 33.0	33.1	32	33.05	50	15.30		30	51 50 35.73	
	1.49969					57 51	1.86			− 26	+9.96
d	9.79079						− 26.13			+ 69	
	1.41717n									+9.14	
((δ) − D) $\frac{d'}{100}$										+ 39	
										−13.70	
+5.51 δ_1		41 24.05		50 25.5						50 31.99	
−0 6.48											
2.10	+26.4	2 33.1	34.2	33.2	33.65	50	14.70		30	50 37.63	
	1.42160					51 50	59.46			− 18	+10.34
d	9.79079						− 21.83			+ 66	
	1.33908n									+9.43	
((δ) − D) $\frac{d'}{100}$										+ 43	
										−15.15	
+5.51 δ_2		41 23.96		50 26.3						50 32.82	
−0 6.48											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj_1575R

Date$_1$ = Aug. 5, '71 (103) Observer W. A. R Recorder H. G. Date$_2$ = 13 (107) Observer W. A. R Recorder A. M (46)

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17 h	4 2 m 15 s	51 58	8.8	42 m 11.1 s	25.9 s	29.2 s	32.5 s	35.8 s	39.2 s	16 26	32.52 s	m 42 s	32.52
	41 51.6	52 0.3	8.3	12.7						-16.98			-16.16
	κ			14.2									- 64
	((δ) − D) $\frac{\kappa'}{100}$			12.6									- 16
													- 2
	a_1											42	15.54
													- 1.88
												42	13.66
			8.5	42 9.2	23.7	27.0	30.4	33.7	37.0	15 18	30.36	42	30.36
				10.8						-15.17			-14.36
	κ			12.8									- 79
	((δ) − D) $\frac{\kappa'}{100}$			10.9									- 2
												42	15.19
	a_2												- 1.68
												42	13.51
17	4 3 18	52 30	8.4	43 13.0	28.2	31.5	35.1	38.3	41.6	17 47	34.94	43	34.94
	42 54.9	52 32.3	7.5	14.7						-16.99			-16.16
	κ			17.0									- 65
	((δ) − D) $\frac{\kappa'}{100}$			14.9									- 16
													- 2
	a_1											43	17.95
													- 1.89
												43	16.06
			7.8	43 4.4	26.1	29.6	33.0	36.3	39.8	16 48	32.96	43	32.96
				6.7						-15.19			-14.36
	κ			8.8									- 81
	((δ) − D) $\frac{\kappa'}{100}$			6.6									- 2
												43	17.77
	a_2												- 1.69
												43	16.08
17	4 5 13	51 36	9.4	44 56.6	45 24.9	28.2	31.4	34.9	38.1	15 75	31.50	45	31.50
	44 58.1	51 38.1	9.1	58.3						-16.97			-16.16
	κ			60.2									- 63
	((δ) − D) $\frac{\kappa'}{100}$			58.3									- 16
													- 2
	a_1											45	14.53
													- 1.89
												45	12.64
			9.2	45 1.0	22.8	26.2	29.5	32.7	36.1	14 73	29.46	45	29.46
				2.8						-16.16			-14.36
	κ			4.8									- 80 78
	((δ) − D) $\frac{\kappa'}{100}$			2.8									- 2
												45	14.28
	a_2												- 1.69
												45	12.61
17	4 7 37	51 15	7.4	47 22.6	48.6	51.9	55.2	58.5	1.8	27 60	55.20	47	55.20
	47 12.6	51 17.0	7.5	24.0						-16.96			-16.16
	κ			25.3									- 62
	((δ) − D) $\frac{\kappa'}{100}$			23.9									- 16
													- 2
	a_1											47	38.24
													- 1.70
												47	36.34
			7.0	47 25.8	46.6	49.9	53.1	56.4	59.8	26 58	53.16	47	53.16
				26.3						-15.15			-14.36
	κ			31.5									- 77
	((δ) − D) $\frac{\kappa'}{100}$			28.5									- 2
												47	38.01
	a_2												- 1.71
												47	36.30
17	4 8 33	51 02	9.6	48 40.2	46.0	49.6	52.7	56.1	59.2	26 36	52.72	48	52.72
	48 10.7	51 4.4	9.2	43.6						-16.96			-16.16
	κ			41.9									- 62
	((δ) − D) $\frac{\kappa'}{100}$												- 16
													- 2
	a_1											48	35.76
													- 1.90
												48	33.86
			9.2	48 41.8	44.1	47.3	50.7	54.2	57.3	25 36	50.72	48	50.72
				44.7						-15.15			-14.36
	κ			43.2									- 77
	((δ) − D) $\frac{\kappa'}{100}$												- 2
												48	35.57
	a_2												- 1.71
												48	33.86

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+19.9	3′ 17.0	18.0	23	17.50	59	30.85		20′	52 0 1.01	
	1.29885					52 0	17.41			− 11	+10.47
d	9.78934						− 16.40			+ 89	
	1.21488n									+9.29	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−13.70	
+5.46 δ_1		42 19.12		59 51.6						59 51.78	
−0 6.20											
2.16	+19.5	3 15.7	16.2	23	15.95	59	32.40		20	0 1.09	
	1.29003					52 0	17.16			− 10	+10.77
d	9.78934						− 16.07			+ 84	
	1.20606n									+9.58	
((δ) − D) $\frac{d'}{100}$										+ 45	
										−15.15	
+5.46 δ_2		42 18.97		59 50.5						59 56.71	
−0 6.20											
	+20.0	1 34.0	34.9	51	34.45	31	13.90		50	52 31 44.17	
	1.30103					52 32	0.46			− 11	+10.52
d	9.78412						− 16.29			+ 43	
	1.21184n									+9.80	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−13.70	
+5.33 δ_1		43 21.39		31 35.2						31 40.99	
−0 5.84											
1.98	+26.4	12.73	28.1	57	27.70	31	20.65		50	31 43.91	
	1.42160					52 32	5.41			− 18	+10.78
d	9.78412						− 21.50			+ 38	
	1.33241n									+10.10	
((δ) − D) $\frac{d'}{100}$										+ 48	
										−15.15	
+5.33 δ_2		43 21.41		31 33.7						31 39.54	
−0 5.84											
	+33.2	0 13.2	12.3	45	12.75	37	35.60		45	51 37 54.57	
	1.52114					51 38	22.16			− 29	+9.07
d	9.79288						− 27.59			+ 3	
	1.44071n									+8.93	
((δ) − D) $\frac{d'}{100}$										+ 38	
										−13.60	
+5.55 δ_1		45 18.19		37 44.9						37 50.04	
−0 5.12											
2.04	+26.7	0 16.8	15.3	45	16.05	37	32.30		45	37 54.87	
	1.42651					51 38	17.06			− 19	+9.49
d	9.79288						− 22.19			+ 8	
	1.34608n									+9.19	
((δ) − D) $\frac{d'}{100}$										+ 41	
										−15.05	
+5.55 δ_2		45 18.16		37 44.2						37 49.31	
−0 5.12											
	+31.3	1 33.4	34.7	6	34.05	16	14.30		5	51 16 34.65	
	1.49554					51 17	0.86			− 26	+9.14
d	9.79621						− 26.21			+ 43	
	1.41844n									+8.61	
((δ) − D) $\frac{d'}{100}$										+ 36	
										−13.50	
+5.63 δ_1		47 41.97		16 26.0						16 30.29	
−0 4.32											
2.04	+24.7	1 36.2	37.8	6	37.00	16	11.35		5	16 35.43	
	1.39240					51 16	5.61			− 16	+9.51
d	9.79621						− 20.68			+ 42	
	1.31560n									+8.87	
((δ) − D) $\frac{d'}{100}$										+ 38	
										−15.00	
+5.63 δ_2		47 41.93		16 25.6						16 29.94	
−0 4.32											
	+10.8	4 9.1	8.8	19	8.95	3	34.40		15	51 4 16.87	
	1.03342					51 4	25.96			− 3	+9.81
d	9.79825						− 9.09			+ 111	
	0.95836n									+8.88	
((δ) − D) $\frac{d'}{100}$										+ 33	
										−13.50	
+5.68 δ_1		48 39.54		4 9.2						4 13.18	
−0 3.96											
2.00	+7.5	4 9.4	10.0	19	9.70	3	38.65		15	4 17.10	
	0.87506					51 4	23.41			− 2	+10.05
d	9.79825						− 6.31			+ 107	
	0.80000n									+8.64	
((δ) − D) $\frac{d'}{100}$										+ 36	
										−14.90	
+5.68 δ_2		48 39.54		4 8.2						4 12.20	
−0 3.96											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj,1575R

103

Date$_1$ = Aug. 5. '71 Observer W.A.R Recorder H.G Date$_2$ = 10 Observer W.A.R Recorder A.M 48

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17h	50m 37s	52° 23′	8.7	50m 28.0	46.8	50.2	53.7	57.0	60.4	268	53.62	50m	5 36.2
	50 13.9	52 24.5	8.0	29.5						−1699			−16.16
	κ			31.3									− 65
	((δ) − D) $\frac{\kappa'}{100}$			29.6									− 16
													− 2
	a_1											50	36.63
													− 1.94
												50	34.69
			8.0	50 22.8	50 44.7	48.1	51.7	55.1	58.5	2581	51.62	50	51.62
				24.7						−15.19			−14.36
	κ			26.6									− 81
	((δ) − D) $\frac{\kappa'}{100}$			24.7									− 2
												50	36.43
	a_2												− 1.74
												50	34.69
17	52 07	51 27	9.0	51 57.6	52 18.8	22.1	25.5	28.7	31.9	1270	25.40	52	25.40
	51 44.0	51 28.7	9.0	62.1						−16.97			−16.16
	κ												− 63
	((δ) − D) $\frac{\kappa'}{100}$			59.8									− 16
													− 2
	a_1											52	8.43
													− 1.73
												52	6.70
			8.9	51 54.8	52 16.7	20.0	23.5	26.8	30.6	1176	23.52	52	23.52
				58.8						−15.16			−14.36
	κ			58.7									− 78
	((δ) − D) $\frac{\kappa'}{100}$			56.7									− 2
												52	8.36
	a_2												− 1.74
												52	6.62
17	53 52	52 24	9.2	53 37.0	54 2.6	6.9	9.2	12.7	16.1	465	9.30	54	9.30
	53 28.8	52 25.5	8.7	(42.5)						−1699			−16.16
	κ												− 65
	((δ) − D) $\frac{\kappa'}{100}$			39.7									− 16
													− 2
	a_1											53	52.31
													− 1.96
												53	50.35
			8.5	53 37.7	54 0.4	3.9	7.2	10.5	13.8	3571	7.14	54	7.14
	κ	54	49	39.2						−15.19			−14.36
				41.6									− 81
	((δ) − D) $\frac{\kappa'}{100}$			39.5									− 2
												53	51.95
	a_2										✓		− 1.76
												53	50.19
17	56 21	52 00	9.0	56 11.8	33.9	37.3	40.7	44.4	47.3	2036	40.72	56	40.72
	55 57.8	52 19	8.8	15.8						−1698			−16.16
	κ												− 64
	((δ) − D) $\frac{\kappa'}{100}$			13.8									− 16
													− 2
	a_1											56	23.74
													− 1.96
												56	21.78
			9.1	56 8.7	31.9	35.0	38.4	41.8	45.4	1925	38.50	56	38.50
	κ			11.0						−15.17			−14.36
				13.6									− 79
	((δ) − D) $\frac{\kappa'}{100}$			11.1									− 2
												56	23.33
	a_2												− 1.77
												56	21.56
17	57 33	52 49	7.9	57 15.3	41.8	45.3	48.8	52.8	56.6	2435	48.70	57	48.70
	57 10.2	52 51.4	7.2	19.8						−17.00			−16.16
	κ			21.8									− 65
	((δ) − D) $\frac{\kappa'}{100}$			19.9									− 17
													− 2
	a_1											57	31.70
													− 1.99
												57	29.71
			9.0	57 20.6	39.8	43.1	46.4	49.9	53.4	2326	46.52	57	46.52
			8.5							−15.19			−14.36
	κ												− 81
	((δ) − D) $\frac{\kappa'}{100}$												− 2
												57	31.33
	a_2												− 1.79
												57	29.54

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+24.8.0	3′ 35.0	35.5	58′	35.25″	24	13,10		55″	52 24 40.06	
	1.38021					52 24	59.66			− 15	+10.91
d	9.78527						− 19.60			+ 97	
	1.29217n									+ 9.69	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−13.50	
+535											
−0 3.28 δ_1		50 40.04		24 34.2						24 37.47	
2.00	+26.9	3 29.2	28.7	58	28.95	24	19.40		55	24 42.20	
	1.42975					52 25	4.16			− 19	+11.15
d	9.78527						− 21.96			+ 91	
	1.34171n									+ 9.98	
((δ) − D) $\frac{d'}{100}$										+ 45	
										−15.05	
+535											
−0 3.28 δ_2		50 40.04		24 35.0						24 38.30	
	+25.6	4 9.7	10.4	54	10.05	28	38.30		50	51 29 3.52	
	1.40824					51 29	24.86			− 18	+10.13
d	9.79431						− 21.34			+113	
	1.32924n									+881	
((δ) − D) $\frac{d'}{100}$										+ 37	
										−13.45	
+558											
−0 2.76 δ_1		52 12.08		28 57.4						29 0.20	
	+26.8	4 4.8	5.5	54	5.15	28	43.20		50	29 5.62	
	1.42813					51 29	27.96			− 19	+10.35
d	9.79431						− 22.34			+107	
	1.34913n									+907	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−14.95	
+558											
−0 2.76 δ_2		52 12.20		28 58.3						29 1.02	
	+29.6	2 46.4	45.7	57	46.05	25	2.30		55	52 25 24.69	
	1.47129					52 25	48.86			− 23	+10.64
d	9.78527						− 24.17			+ 76	
	1.38325n									+ 9.71	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−13.40	
+534											
−0 2.12 δ_1		53 55.69		25 19.8						25 21.93	
2.16	+27.6	2 45.5	44.9	57	45.20	25	3.15		55	25 25.37	
	1.44091					52 25	47.91			− 20	+10.98
d	9.78527						− 22.54			+ 71	
	1.35287n									+10.00	
((δ) − D) $\frac{d'}{100}$										+ 47	
										−15.00	
+534											
−0 2.12 δ_2		53 55.57		25 19.2						25 21.35	
	~~+26.4~~	1 22.7	21.8	21	22.25	1	26.10		20	52 1 ~~44.77~~	
	+26.9					52 2	12.66			50.59	+9.91
d	1.42975						− ~~27.89~~			− 19	
	9.78902						22.16			~~+~~ 38	
((δ) − D) $\frac{d'}{100}$	1.34546n									+ 9.32	
										+ 40	
+544										−13.35	
−0 1.24 δ_1		56 27.18		1 45.8						1 47.06	
2.22	+27.4	1 20.8	18.7	21	19.75	1	28.60		20	1 50.79	
	1.43775					52 2	13.36			− 20	+10.19
d	9.78902						− 23.57			+ 34	
	1.35346n									+9.60	
((δ) − D) $\frac{d'}{100}$										+ 45	
										−14.90	
+544											
−0 1.24 δ_2		56 27.00		1 44.8						1 46.08	
	+28.8	1 48.3	49.5	31	48.90	50	59.45		30	52 51 22.73	
	1.45939					52 51	46.01			− 22	+10.85
d	9.78097						− 23.28			+ 49	
	1.36705n									+10.14	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−13.35	
+523											
−0 0.84 δ_1		57 34.88		51 19.4						51 20.19	
2.18	+25.9	1 48.8	49.0	3.1	48.90	50	59.45		30	51 23.27	
	1.41330	1 48.8	49.0			52 51	44.21			− 18	+11.19
d	9.78097						− 20.94			+ 47	
	1.32096n									+10.41	
((δ) − D) $\frac{d'}{100}$										+ 49	
										−14.95	
+523											
−0 0.84 δ_2		57 34.79		51 18.7						51 19.51	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 5, 71 (103) Observer W. A. R Recorder R. G

Date$_2$ = 13 (107) Observer W. A. R Recorder A. M (50)

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17 N	5 9 23	51 58	9.0	59 17.1	36.5	39.7	43.2	46.5	49.7	2156	43.12	59	43.12
	59 0.8	52 0.2	8.4	18.7						−16.98			−16.16
	κ			21.1									− 64
	((δ) − D) $\frac{\kappa'}{100}$			18.9									− 16
													− 2
	a_1											59	26.14
													− 1.98 +5.44
												59	24.16 − 0 0.
			8.8	59 13.7	34.4	37.7	41.0	44.4	47.8	2053	41.06	59	41.06 2.6
				15.9						−15.17			−14.36
	κ			16.8									− 79
	((δ) − D) $\frac{\kappa'}{100}$			15.4									− 2
												59	25.89
	a_2												− 1.79
												59	24.10 +5.4
													− 0 0.
18 17	0 22	52 48	8.7	0 14.4	32.2	35.7	39.1	42.6	46.0	1956	39.12	0	39.12
	59 57.1	52 51.0	7.9	16.1						−17.00			−16.16
	κ			18.2									− 65
	((δ) − D) $\frac{\kappa'}{100}$			16.2									− 17
													− 2
	a_1											0	22.12
				29.0									− 2.00 +5.2
			8.2	0 31.3	30.0	33.7	37.0	40.6	43.9	1852	37.04	0	37.04 2.68
		2 44		30.1						−15.19			−14.36
	κ												− 81
	((δ) − D) $\frac{\kappa'}{100}$												− 2
												0	21.85
	a_2												− 1.81
												0	20.04 +5.2
													+0 0
18	4 59	52 53	9.0	4 44.3	5 6.5	12.0	15.4	18.9	22.3	2781	15.42	5	15.42
	4 36.2	52 53.0	8.7	46.2						17.01			−16.16
	κ			48.7									− 66
	((δ) − D) $\frac{\kappa'}{100}$			46.4									− 17
													− 2
	a_1											4	58.41
													− 2.03 +5.2
												4	56.38 +0 1.
			8.7	4 42.2	5 6.6 10.0	13.2	16.7	20.2	6 6.7	667	13.34	5	13.34 2.0
				44.4						−15.20			−14.36
	κ			46.2									− 82
	((δ) − D) $\frac{\kappa'}{100}$			44.2									− 2
												4	58.14
	a_2												− 1.84
												4	56.30 +5.2
													+0 1.
18	5 57	51 8	8.8	5 48.0	6 6.5	9.9	13.1	16.6	19.8	659	13.18	6	13.18
	5 34.0	51 10.2	8.6	49.4						−16.96			−16.16
	κ			51.3									− 62
	((δ) − D) $\frac{\kappa'}{100}$			49.5									− 16
													− 2
	a_1											5	56.22
													− 2.01 +5.2
												5	54.21 +0 2.
			8.9	5 48.6	6 4.5 7	7.8	11.2	14.3	17.8	552	11.04	6	11.04 14 2.12
				50.7						−15.15			−14.36
	κ			52.3									− 77
	((δ) − D) $\frac{\kappa'}{100}$			50.5									− 2
												5	55.89
	a_2												− 1.83
												5	54.06 +5.2
													+0 2.
18	7 18	51 53	8.1	7 4.4	7 29.3	32.7	36.0	39.4	42.8	1402	36.04	7	3604
	6 55.9	51 52.4	7.5	5.9						−16.98			− 16.16
	κ			7.6									− 64
	((δ) − D) $\frac{\kappa'}{100}$			5.9									− 16
													− 2
	a_1											7	19.06
													− 2.03 +5.4
												7	17.03 +0 2.
			7.8	7 8.2	27.4	30.7	34.0	37.5	40.8	1704	34.08	7	34.08 4.88
				9.9						−15.17			−14.36
	κ			11.6									− 79
	((δ) − D) $\frac{\kappa'}{100}$			9.9									− 2
												7	18.91
	a_2												− 1.84
												7	17.07 +5.4
													+0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1676R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+24.2	3 3.7	1.8	23	2.75	59	46.60		20	52 0 12.22	
	1.38382					52 0	32.16			− 16	+10.35
d	9.78934						− 19.94			+ 81	
	1.29985n									+ 9.30	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 13.30	
+5.44 δ_1		59 29.60		0 9.1						0 9.27	
−0 0.20											
2.06	+25.7	2 57.9	57.8	23	57.85	59	50.50		20	0 14.08	
	1.40993					52 10	35.26			− 18	+10.62
d	9.78934						− 21.18			+ 77	
	1.32596n									+ 9.58	
((δ) − D) $\frac{d'}{100}$										+ 45	
										− 14.85	
+5.44 δ_2		59 29.54		0 9.6						0 9.85	
−0 0.20											
	+22.9	1 58.0	57.3	31	57.65	50	50.70		30	52 51 18.75	
	1.35984					52 51	37.26			− 14	+10.93
d	9.78097						− 18.57			+ 53	
	1.26750n									+10.14	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 13.30	
+5.23 δ_1		0 25.35		51 16.5						51 16.38	
+0 0.12											
2.08	+ 6.9	2 6.8	6.1	32	6.45	50	41.90		30	51 21.08	
	0.83885					52 51	26.66			− 1	+11.48
d	9.78097						− 5.58			+ 55	
	0.74651n									+10.45	
((δ) − D) $\frac{d'}{100}$										+ 49	
										− 14.90	
+5.23 δ_2		0 25.27		51 17.8						51 17.66	
+0 0.12											
	+29.0	4 43.0	4.30	29	43.80	53	5.35		25	52 53 28.48	
	1.46240					52 53	51.91			− 22	+11.63
d	9.78063						− 23.43			+ 127	
	1.36972n									+1018	
((δ) − D) $\frac{d'}{100}$										+ 40	
										− 1320	
+5.22 δ_1		5 1.60		53 28.7						53 26.91	
+0 1.76											
2.08	+29.1	4 39.8	40.2	29	40.00	53	8.35		25	53 29.60	
	1.46389					52 53	53.11			− 22	+11.99
d	9.78063						− 23.51			+ 122	
	1.37121n									+10.50	
((δ) − D) $\frac{d'}{100}$										+ 49	
										− 14.80	
+5.22 δ_2		5 1.52		53 28.6						53 26.79	
+0 1.76											
	+23.7	2 22.0	22.8	12	22.40	10	25.95		10	57 10 52.62	
	1.37475					51 11	12.51			− 15	+9.35
d	9.79715						− 19.89			+ 64	
	1.29859n									+8.50	
((δ) − D) $\frac{d'}{100}$										+ 36	
										− 1305	
+5.64 δ_1		5 59.85		10 51.0						10 48.92	
+0 2.12											
2.12	+20.5	2 21.8	22.0	12	21.90	10	26.45		10	10 54.01	
	1.31175					51 11	11.21			− 11	+9.63
d	9.79715						− 17.20			+ 61	
	1.23559n									+8.76	
((δ) − D) $\frac{d'}{100}$										+ 36	
										− 14.70	
+5.64 δ_2		5 59.80		10 51.1						10 48.94	
+0 2.12											
	+30.1	0 45.8	46.1	30	45.95	52	2.40		30	51 52 24.08	
	1.47857					51 52	48.96			− 24	+9.53
d	9.79063						− 24.88			+ 20	
	1.39589n									+9.18	
((δ) − D) $\frac{d'}{100}$										+ 39	
										− 1305	
+5.48 δ_1		7 22.51		52 23.1						52 20.56	
+0 2.56											
1.88	+24.2	0 48.4	48.0	30	48.20	52	0.15		30	52 24.91	
	1.38382					51 52	44.91			− 16	+9.95
d	9.79063						− 20.00			+ 21	
	1.30144n									+9.46	
((δ) − D) $\frac{d'}{100}$										+ 44	
										− 14.70	
+5.48 δ_2		7 22.55		52 22.7						52 20.16	
+0 2.56											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 5, 71 (103) Observer W. A. R. Recorder A. G. Date$_2$ = 13 (107) Observer W. A. R. Recorder A. M. 52

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18	8h 8m 45s	51° 31′	9.3	8m 37.2	59s.0	2s.4	5s.7	9s.0	12s.3	32846	5s.68	9m	5s.68
	8 22.9	51 30.9	9.1	39.0						−1694			−16.16
	κ			41.5									− 63
	((δ) − D) $\frac{\kappa'}{100}$			39.2									− 16
													− 2
	a_1											8	48.71
													− 2.03
												8	46.68
			8.8	8 36.0	56.9	✱0.2	3.5	7.0	10.2	3178	63.56	9	3.56
				37.5						−15.16			−14.36
	κ			39.6									− 78
	((δ) − D) $\frac{\kappa'}{100}$			37.7									− 2
												8	48.40
	a_2												− 1.85
												8	46.55
18	10 25	52 23	9.5	10 8.0	36.6	39.9	43.2	46.6	50.0	2163	43.26	10	43.26
	10 2.4	52 22.5	8.9	10.1						−16.99			−16.16
	κ			13.7									− 65
	((δ) − D) $\frac{\kappa'}{100}$			10.6									− 16
													− 2
	a_1											10	26.27 ~~0.25~~
													− 2.05
												10	24.22
			9.2	10 10.0	34.4	37.9	41.2	44.6	48.0	2061	41.22	10	41.22
				15.7						−15.19			−14.36
	κ			17.8									− 81
	((δ) − D) $\frac{\kappa'}{100}$			20.8									− 2
				16.0								10	26.03
	a_2												− 1.87
												10	24.16
18	11 50	52 31	7.8	11 34.4	59.3	2.7	6.1	9.6	13.0	3307	66.14	12	6.14
	11 27.4	52 30.3	7.8	35.8						−16.99			−16.16
	κ			37.9									− 65
	((δ) − D) $\frac{\kappa'}{100}$			39.2									− 16
													− 2
	a_1			36.8								11	49.15
													− 2.06
												11	47.09
			7.5	11 39.4	57.3	0.9	4.2	7.5	10.9	3208	64.16	12	4.16
				40.8						−15.19			−14.36
	κ			42.6									− 81
	((δ) − D) $\frac{\kappa'}{100}$			40.9									− 2
												11	48.97
	a_2												− 1.88
												11	47.09
18	12 48	52 49	9.3	12 31.2	46.5	49.9	53.8	56.8	0.2	2667	53.34	12	53.34 ~~0.10~~
	12 12.5	52 48.5	9.0							−16.99			−16.16
	κ												− 65
	((δ) − D) $\frac{\kappa'}{100}$												− 16
													− 2
	a_1			43.5								12	36.35
													− 2.07
												12	34.28
			9.1	12 45.7	44.4	47.8	51.1	54.4	58.0	2558	51.16	12	51.16 ~~0.20~~
										−15.19			−14.36
	κ			44.6									− 81
	((δ) − D) $\frac{\kappa'}{100}$												− 2
												12	35.97
	a_2												− 1.89
												12	34.08 12.
18	14 03	52 01	8.5	13 51.6	14 14.9	18.3	21.7	25.2	28.6	10874	21.74	14	21.74
	13 40.4	52 1.2	8.3	53.8						−16.98			−16.16
	κ			56.0									− 64
	((δ) − D) $\frac{\kappa'}{100}$			53.8									− 16
													− 2
	a_1											14	4.76
													− 2.07
												14	2.69
			8.8	13 53.6	14 13.0	16.4	19.8	23.1	26.5	9848	19.76	14	19.76
				53.4						−15.17			−14.36
	κ			57.3									− 79
	((δ) − D) $\frac{\kappa'}{100}$			55.4									− 2
												14	4.59
	a_2												− 1.89
												14	2.70

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+26.5	2 11.2	1.0	52	1.10	30	47.25		50′	51 31 11.73	
	1.42325					51 31	33.81			− 18	+9.58
d	9.79399						− 22.08			+ 57	
	1.34393n									+8.84	
$((\delta) - D)\frac{d'}{100}$										+ 38	
										−13.00	
+556 δ_1		8 52.24		31 11.4						31 8.31	
+0 3.08											
2.12	+25.9	1 58.2	58.3	57	58.25	30	50.10		50	31 13.28	
	1.41330					51 31	34.86			− 18	+9.82
d	9.79399						− 21.58			+ 57	
	1.33398n									+9.09	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−14.65	
+556 δ_2		8 52.11		31 11.5						31 8.45	
+0 3.08											
	+32.7	0 15.4	14.5	0.	14.95	22	33.40		0	52 22 53.24	
	1.51455					52 23	19.96			− 28	+9.85
d	9.78560						− 26.72			+ 5	
	1.42684n									+9.68	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−13.00	
+536 δ_1		10 29.58		22 53.8						22 50.09	
+0 3.68											
2.04	+25.2	0 19.5	19.2	0	19.35	22	29.00		0	22 53.17	
	1.40140					52 23	13.76			− 17	+10.33
d	9.78560						− 20.59			+ 8	
	1.31369n									+9.95	
$((\delta) - D)\frac{d'}{100}$										+ 47	
										−14.65	
+536 δ_2		10 29.52		22 52.5						22 48.85	
+0 3.68											
	+29.3	2 8.5	7.4	52	7.95	30	40.40		50	52 31 3.09	
	1.46687					52 31	26.96			− 23	+10.55
d	9.78428						− 23.87			+ 57	
	1.37784n									+9.81	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−12.95	
+532 δ_1		11 52.41		31 4.8 9						31 0.69	
+0 4.16											
1.58	+23.3	2 8.8	11.4	52	10.10	30	38.25		50	~~30 59.11~~ 31 4.03	
	1.36736					52 31	23.01			− 14	+11.01
d	9.78428						− ~~23.90~~ 18.98			+ 57	
	1.27833n									+10.16	
$((\delta) - D)\frac{d'}{100}$										+ 48	
										−14.65	
+532 δ_2		11 52.41		31 4.6						31 0.39	
+0 4.16											
	+22.1	4 34.3	35.8	34	35.05	48	13.30		30	52 48 41.98	
	1.34439					52 48	59.86			− 13	+11.61
d	9.78130						− 17.88			+ 124	
	1.25238n									+10.10	
$((\delta) - D)\frac{d'}{100}$ +525										+ 40	
										−12.95	
+0 4.40 δ_1		12 39.49		48 45.0 6			2.			48 40.64	
2.18	+ 6.6	4 44.9	45.8	34	45.35	48	3.00.		30	48 42.42	
	0.81954					52 48	47.76			− 1	+12.11
d	9.78130						− 5.34			+ 123	
	0.72753n									+10.40	
$((\delta) - D)\frac{d'}{100}$										+ 49	
+525										−14.65	
+0 4.40 δ_2		12 39.37		48 43.3						48 ~~37.88~~ 37.88	
	+27.9	1 3.2	2.1	21	2.65	1	45.70		20	52 2 9.28	
	1.44560					52 2	32.26			− 21	+9.82
d	9.78902						− 22.98			+ 27	
	1.36131n									+9.36	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−12.85	
+545 δ_1		14 8.14		2 11.2						2 6.25	
+0 4.92											
1.58	+24.4	1 2.9	2.8	21	2.85	1.	45.50		20	2 10.16	
	1.38739					52 2	30.26			− 16	+10.17
d	9.78902						− 20.10			+ 26	
	1.30310n									+9.62	
$((\delta) - D)\frac{d'}{100}$										+ 45	
+5.45										−14.60	
+0 4.92 δ_2		14 8.15		2 10.6						2 5.73	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 5 '71 (103) Observer W. A. R Recorder H. G

Date$_2$ = 13 (107) Observer W. A. R Recorder A. M 54

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18h	15 23s	52 11	8.9	15m 14.4	32.5	35.8	39.3	42.7	46.1	1964	39.28	15m	39.28
	15 0.2	52 10.2	8.8	16.5						-1698			-16.16
	κ			18.7									- 64
													- 16
	((δ) — D) $\frac{\kappa'}{100}$			16.5									- 2
												15	22.30
	α_1												- 2.08
												15	20.22
			8.6	15 11.1	30.4	33.8	37.2	40.6	43.9	1859	37.18	15	37.18
				13.0						-1514			-14.36
	κ			15.0									- 79
													- 2
	((δ) — D) $\frac{\kappa'}{100}$			13.0								15	22.01
													- 1.90
	α_2											15	20.11
18	16 29	52 36	6.8	16 17.3	39.2	42.7	46.0	49.4	52.9	2302	46.04	16	46.04
	16 6.2	52 35.8	7.5	17.5						-1700			-16.16
	κ			21.7									- 65
													- 17
	((δ) — D) $\frac{\kappa'}{100}$			19.5									- 2
												16	29.04
	α_1												- 2.09
												16	26.95
			6.8	16 20.3	37.2	40.5	44.0	47.5	50.9	2201	44.02	16	44.02
				22.0						-1519			-14.36
	κ			24.5									- 81
													- 2
	((δ) — D) $\frac{\kappa'}{100}$			22.2								16	28.83
													- 1.91
	α_2											16	26.92
18	17 27	52 37	9.4	17 22.3	37.4	40.8	44.3	47.7	50.9	2211	44.22	17	44.22
	17 4.3	52 36.8	8.9	24.4						-1700			-16.16
	κ			26.2									- 65
				27.9									- 17
	((δ) — D) $\frac{\kappa'}{100}$			25.2									- 2
												17	27.22
	α_1												- 2.10
												17	25.12
			8.9	17 15.6	38.4	38.6	42.1	45.5	48.9	2105	42.10	17	42.10
				16.8						-1519			-14.36
	κ												- 81
				16.2									- 2
	((δ) — D) $\frac{\kappa'}{100}$											17	26.91
													- 1.92
	α_2											17	24.99
18	18 28	52 08	9.3	~~17 15.3~~	~~17 15.3~~	43.7	47.1	51.3	57.8	2401	48.02	18	48.02
	18 5.7	52 7.2	8.9	18 25.9	18 40.2					-1698			-16.16
	κ			~~26.2~~									- 64
				~~27.5~~									- 16
	((δ) — D) $\frac{\kappa'}{100}$												- 2
												18	31.04
	α_1												- 2.10
												18	28.94
			8.9	18 28.3	38.3	41.6	45.1	48.4	51.8	2252	45.04	18	45.04
				30.1						-1517			-14.36
	κ			31.5									- 79
													- 2
	((δ) — D) $\frac{\kappa'}{100}$			29.9								18	29.87
													- 1.92
	α_2											18	27.95
18	19 15	52 09	8.7	19 15.3	26.9	30.1	33.3	36.7	40.1	1671	33.42	19	33.42
	18 52.6	52 8.5	8.6							-1698			-16.16
	κ												- 64
21 19		~~23 15~~											- 16
	((δ) — D) $\frac{\kappa'}{100}$												- 2
27 2												19	16.44
	α_1												- 2.10
												19	14.34
			8.5	19 9.7	24.7	28.1	31.3	34.7	38.2	1570	31.40	19	31.40
				11.4						-1517			-14.36
	κ	23	15	13.1									- 79
		25	50										- 2
	((δ) — D) $\frac{\kappa'}{100}$			11.5								19	16.23
													- 1.93
	α_2											19	14.30

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+22.8	2 52.3	53.1	12	52.70	9	55.65		10	52 10 23.49	
	1.35793					52 10	42.21			− 14	+10.55
d	9.78772						− 18.72			+ 79	
	1.27234									+9.50	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−12.85	
+5.42 δ_1		15 25.64		10 26.6						10 21.19	
+0 5.40											
2.10	+24.2	2 49.2	49.2	12	49.20	9	59.15		10	10 24.04	
	1.38382					52 10	43.91			− 16	+10.79
d	9.78772						− 19.87			+ 73	
	1.29823									+9.76	
$((\delta) - D)\frac{d'}{100}$										+ 46	
										−14.55	
+5.42 δ_2		15 25.53		10 25.7						10 20.28	
+0 5.40											
	+26.5	2 24.5	24.5	47	24.50 DC	35	23.85		45	52 35 48.86	
	1.42325					52 36	10.41			− 19	+10.76
d	9.78346						− 21.55			+ 65	
	1.33340									+9.90	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−12.85	
+5.31 δ_1		16 32.26		35 52.5 3						35 46.77 57	
+0 5.76											
2.02	+21.8	2 26.4	26.1	47	26.25	35	22.10		45	35 49.13	
	1.33846					52 36	6.86			− 13	+11.16
d	9.78346						− 17.73			+ 64	
	1.24861									+10.17	
$((\delta) - D)\frac{d'}{100}$										+ 48	
										−14.55	
+5.31 δ_2		16 32.23		35 51.5						35 48.74	
+0 5.76											
	+19.0	1 16.0	16.0	46	16.00	36	32.35		45	52 37 3.47	
	1.27875					52 37	18.91			− 10	=+10.56
d	9.78329						− 15.44			+ 35	
	1.18873									+9.91	
$((\delta) - D)\frac{d'}{100}$										+ 40	
+5.31										−12.80	
+0 6.12 δ_1		17 30.43		37 7.4						37 1.23	
2.12	+25.9	1 8.6	7.1	46	7.85	36	40.50		45	37 4.21	
	1.41330					52 37	25.26			− 18	+10.77
d	9.78329						− 21.05			+ 29	
	1.32328									+10.18	
$((\delta) - D)\frac{d'}{100}$										+ 48	
										−14.55	
+5.31 δ_2		17 30.30		37 6.6						37 0.43	
+0 6.12											
	+22.6	0 29.7	28.7	15	29.20	7	19.15		15	52 7 47.22	
	1.35411					52 8	5.71			− 13	+10.65 +9.84
d	9.78805						− 18.49			+1.48	
	1.26685									+9.43	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−12.75	
+5.44 δ_1		18 34.38		7 50.8						7 44.31	
+0 6.48											
1.88	+15.1	0 32.1	32.2	15	32.15	7	16.20		15	7 48.55	
	1.17898					52 8	0.96			− 6	+10.24
d	9.78805						− 12.41			+ 14	
	1.09372									+9.70	
$((\delta) - D)\frac{d'}{100}$										+ 46	
										−14.50	
+5.44 δ_2		18 33.39		7 50.8						7 44.29	
+0 6.48											
	+18.1	3 48.0	48.2	13	48.10	9	0.25		10	52 9 31.94	
	1.25768					52 9	46.81			− 9	+10.80
d	9.78788						− 14.87			+ 103	
	1.17225									+9.46	
$((\delta) - D)\frac{d'}{100}$										+ 40	
+5.43										−12.70	
+0 6.76 δ_1		19 19.77		9 36.8						9 35.04	
2.02	+19.9	3 44.2	43.8	13	44.00	9	4.35		10	9 32.76	
	1.29885					52 9	49.11			− 11	+11.05
d	9.78788						− 16.35			+ 97	
	1.21342									+9.73	
$((\delta) - D)\frac{d'}{100}$										+ 46	
										−14.45	
+5.43										9 29.36	
+0 6.76 δ_2		19 19.73		9 36.1							

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 5 '71 (103) Observer W.A.R Recorder K.G

Date$_2$ = 13 (107) Observer W.A.R Recorder A.M (56)

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18*	29 58	52 18	7.0	29	47.1	30 6.1	9.6	13.0	16.5	19.8	6 51	13.00	30	13.00
	29 32.4	52 17.8	7.8		48.6						-16.98			-16.16
	κ				50.5									- 64
	((δ) — D) $\frac{\kappa'}{100}$				48.7									- 16
														- 2
													29	56.02
	α_1													- 2.15
						(1)			14	17			29	53.87
			8.2	29	44.0	30 3.3	6.8	10.0	13.3	16.7	3 01	10.02	30	10.02
					45.5						-15.18			-14.36
	κ				47.6									- 80
	((δ) — D) $\frac{\kappa'}{100}$				45.7									- 2
													29	54.84
	α_2													- 1.99
													29	53.85
18	31 00	52 15	8.8	30	44.8	31 10.9	14.4	17.7	20.9	24.3	8 82	17.64	31	17.64
	30 37.0	52 14.6	5.5		47.0						-16.98			-16.16
	κ		8.6											- 64
	30 40.2	52 14.6												- 16
	((δ) — D) $\frac{\kappa'}{100}$				47.0	31 13.6	17.0	20.3	23.6	27.0	10 15	20.30		2 31 0.66
											-16.98		31	20.30 - 2.17
	α_1				+1.6									-16.16 30 58.49
														- 64
			9.2	30	50.1	31 7.7	11.3	14.6	18.0	21.4	7 30	14.60		- 16
			5.0								-15.18			- 5 2 31 3.32
	κ				+1.5								31	14.60 - 2.17
				30	51.4	31 10.6	14.0	17.4	20.7	23.9	8 66	17.32		-14.36 31 1.15
	((δ) — D) $\frac{\kappa'}{100}$										-15.18			- 80
														- 2 30 59.42
	α_2												31	17.32 - 2.00 58.42
														-14.36
														- 80
														- 2
													31	3.14
														- 2.00 14
18	32 17	52 49	9.2	32	12.8	28.0	31.4	34.8	38.2	41.7	17 41	34.82	32	34.82
	31 54.9	52 48.7	8.9		14.7						-17.00			-16.16
	κ				17.8									- 65
	((δ) — D) $\frac{\kappa'}{100}$				15.0									- 17
														- 2
													32	17.82
	α_1													- 2.18
													32	15.64
			9.1	32	5.4	26.1	29.5	32.9	36.3	39.7	16 45	32.90	32	32.90
					7.1						-15.19			-14.36
	κ				8.3									- 81
	((δ) — D) $\frac{\kappa'}{100}$				7.6									- 2
													32	17.71
	α_2													- 2.02
													32	15.69
18	33 57	52 50	8.7	33	47.6	34 7.4	10.8	14.2	17.6	21.0	7 10	14.20	34	14.20
	33 34.7	52 49.6	8.8		49.2						-17.00			-16.16
	κ				51.1									- 65
	((δ) — D) $\frac{\kappa'}{100}$				49.3									- 17
														- 2
													33	57.20
	α_1													- 2.19
													33	55.01
			8.9	33	46.5	34 5.5	8.9	12.3	15.6	19.0	6 13	12.26	34	12.26
					48.1						-15.19			-14.36
	κ				50.6									- 81
	((δ) — D) $\frac{\kappa'}{100}$				48.4									- 2
													33	57.07
	α_2													- 2.03
													33	55.04
18	35 51	52 36	8.8	35	39.7	36 2.4	5.6	9.1	12.6	15.9	4 56	9.12	36	9.12
	35 28.3	52 35.3	9.0		40.5						-17.00			-16.16
	κ													- 65
	((δ) — D) $\frac{\kappa'}{100}$				40.1									- 17
														- 2
													35	52.12
	α_1													- 2.20
						0.3							35	49.92
			9.0	35	39.1	36 3.7	7.1	10.6	13.7		3 54	7.08	36	7.08
					40.7						-15.19			-14.36
	κ				42.4									- 81
	((δ) — D) $\frac{\kappa'}{100}$				40.7									- 2
													35	51.89
	α_2													- 2.04
													35	49.85

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+24.3	0′ 25.6	25.4	5	25.50	17	22.85		5′	52 17 49.52	
	1.38561					52 18	9.41			− 16	+9.95
d	9.78642						− 19.89			+ 11	
	1.29872									+9.60	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−1240	
+5.42 δ_1		29 59.29		17 57.5						17 47.07	
+0 10.44											
	+24.3	0 23.2	22.5	5	22.85	17	25.50		5	17 50.37	
	1.38561					52 18	10.26			− 16	+10.29
d	9.78642						− 19.89			+ 10	
	1.29872									+9.88	
((δ) − D) $\frac{d'}{100}$										+ 47	
										−1425	
+5.42 δ_2		29 59.27		17 56.8						17 46.41	
+0 10.44											
	+22.9	2 58.1	57.8	7	57.95	14	6040		5	52 15 10.00	15 9.67
	1.51720	2 58.1	57.8			52 15	36.96		5	− 29	+10.48 − 30 +10.47
d	9.78691			7	57.95		− 24.96			+ 80	+ 80
	1.43080						− 27.29			+9.57	+9.57
((δ) − D) $\frac{d'}{100}$	+33.3									+ 40	+ 40
	1.52244									−12.35	−1235
+5.45 δ_1	9.78691	31 3.94		15 19.0						15 8.13	15 7.79
+0 10.84	1.43604	6.60		18.6							
	+24.5	3 1.5	1.7	8	1.60	14	46.75		5	15 11.43	15 10.28
	1.38917	3 1.5	1.7	8	1.60	52 15	31.51		5	− 16	+10.92 − 18 +10.90
d	9.78691						− 20.08			+ 78	+ 78
	1.30277						− 21.23			+9.84	+984
((δ) − D) $\frac{d'}{100}$	~~14~~ +25.9									+ 46	+ 46
	1.41330									−1425	−1425
+5.45 δ_2	9.78691	31 3.87		15 18.94						15 8.10	15 693
+0 10.84	1.32690	6.59		17.8							
	+19.8	3 38.0	38.0	33	38.00	49	10.85		30	52 49 41.00	
	1.29667					52 49	57.01			− 10	+11.42
d	9.78113						− 16.01			+ 97	
	1.20449									+10.15	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−1235	
+5.30 δ_1		32 20.94		49 57.4						49 40.07	
+0 11.28											
1.82	+25.3	3 28.9	29.7	33	29.30	49	19.05		30	49 43.35	
	1.40312					52 50	3.81			− 17	+11.65
d	9.78113						− 20.46			+ 91	
	1.31094									+10.42	
((δ) − D) $\frac{d'}{100}$										+ 49	
										−14.20	
+5.30 δ_2		32 20.99		49 52.1						49 40.80	
+0 11.28											
	+24.9	2 26.7	26.8	32	26.75	50	21.60		30	52 50 48.03	
	1.39620					52 51	8.16			− 16	+11.05
d	9.78097						− 20.13			+ 65	
	1.30386									+10.16	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−1234	
+5.31 δ_1		34 0.32		50 58.6						50 46.78	
+0 11.84											
1.84	+23.9	2 25.0	26.2	32	25.60	50	22.75		30	50 48.19	
	1.37840					52 51	7.51			− 15	+11.39
d	9.78097						− 19.32			+ 62	
	1.28606									+10.43	
((δ) − D) $\frac{d'}{100}$										+ 49	
										−1420	
+5.31 δ_2		34 0.35		50 57.2						50 45.38	
+0 11.84											
2	+29.0	1 39.0	38.5	46	38.75	36	9.60		45	52 36 32.59	
	1.46240					52 36	56.16			− 22	+10.52
d	9.78329						− 23.57			+ 48	
	1.37238									+9.91	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−1220	
+5.38 δ_1		35 55.30		36 43.4						36 30.91	
+0 12.48											
2.04	+26.4	1 38.0	37.3	46	37.65	36	10.70		4~~4~~5	36 34.00	
	1.42160					52 36	55.46			− 18	+10.93
d	9.78329						− 21.46			+ 42	
	1.33158									+10.21	
((δ) − D) $\frac{d'}{100}$										+ 48	
										−1415	
+5.38 δ_2		35 55.23		36 43.3						36 30.78	
+0 12.48											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 5 '71 | Observer W. A. R | Recorder K. G | Date$_2$ = 13 | Observer W. A. R | Recorder K. M | 58 | Ru

Star.	α	δ	Mag.	T_s	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	36 56	52 04	5.0	36 39.8	37 7.4	10.8	14.1	17.4	20.8	7 05	14.10	37	14.10
	36 33.9	52 3.8	5.7	42.1						-16.98			-16.16
	κ			44.1									- 64
	((δ) — D) $\frac{\kappa'}{100}$			42.0									- 16
													- 2
	a_1											36	57.12
													- 2.19
												36	54.93
			6.0	36 55.8	37 5.6	9.0	12.1	15.5	18.9	6 11	12.22	37	12.22
										-15.17			-14.36
	κ												- 79
	((δ) — D) $\frac{\kappa'}{100}$												- 2
												36	57.05
	a_2												- 2.03
												36	55.02
18	38 36	52 28	9.0	38 28.4	47.8	51.2	54.7	58.1	1.4	27 32	54.64	38	54.64
	38 13.2	52 27.3	8.8	29.7						-16.99			-16.16
	κ			31.6									- 65
	((δ) — D) $\frac{\kappa'}{100}$			29.9									- 16
													- 2
	a_1											38	37.65
													- 2.21
												38	35.44
			9.1	38 34.1	45.9	49.4	52.6	56.2	59.3	26 34	52.68	38	52.68
				36.3						-15.19			-14.36
	κ			38.5									- 81
	((δ) — D) $\frac{\kappa'}{100}$			36.3									- 2
												38	37.49
	a_2												- 2.05
												38	35.44
18	40 29	51 30	9.3	40 16.4	43.6	47.0	50.3	53.9	56.9	25 15	50.30	40	50.30
	40 6.5	51 29.3	9.0	17.4						-16.97			-16.16
	κ			18.6									- 63
	((δ) — D) $\frac{\kappa'}{100}$			17.4									- 16
													- 2
	a_1											40	33.33
													- 2.20
												40	31.13
			9.4	40 23.0	41.7	45.3	48.4	51.6	55.0	24 20	48.40	40	48.40
				24.8						-15.16			-14.36
	κ			26.8									- 78
	((δ) — D) $\frac{\kappa'}{100}$			27.8									- 2
												40	33.24
	a_2			25.6									- 2.04
												40	31.20
18	41 26	51 25	8.8	41 21.7	40.0	43.3	46.7	50.0	53.2	23 32	46.64	41	46.64
	41 3.9	51 24.9	8.9	23.3						-16.97			-16.86
	κ			25.5									- 63
	((δ) — D) $\frac{\kappa'}{100}$			23.5									- 16
													- 2
	a_1											41	29.67
													- 2.20
												41	27.47
			8.9	41 37.0	38.2	41.4	44.6	48.0	51.3	22 35	44.70	41	44.70
				35.2						-15.16			-14.36
	κ												- 78
	((δ) — D) $\frac{\kappa'}{100}$												- 2
												41	29.54
	a_2												- 2.05
												41	27.49
18	43 31	51 33	8.8	43 18.1	42.8	46.3	49.5	52.8	56.1	24 75	49.50	43	49.50
	43 8.3	51 32.5	8.8	20.0						-16.97			-16.16
	κ			22.3									- 63
	((δ) — D) $\frac{\kappa'}{100}$			20.1									- 16
													- 2
	a_1											43	32.53
													- 2.21
												43	30.32
			9.0	43 22.4	41.1	44.1	47.2	50.8	54.1	23 73	47.46	43	47.46
				24.1						-15.16			-14.36
	κ			25.8									- 78
	((δ) — D) $\frac{\kappa'}{100}$			24.1									- 2
												43	32.30
	a_2												- 2.05
												43	30.25

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+32.0	3 33.5	34.9	18	34.20	4	14.15		15	52 4 34.38	
	1.505515					52 5	0.71			− 27	+10.49
d	9.788853						− 26.33			+ 97	
	1.420377									+ 9.39	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 12.15	
+551 δ_1		37 0.44		4 45.6						4 32.72	
+0 12.88											
1.44	+16.4	3 45.5	45.3	18	45.40	4	2.95		15	4 34.22	
	1.214484					52 4	47.71			− 7	+11.02
d	9.788853						− 13.49			+ 97	
	1.130066									+9.67	
$((\delta) - D)\frac{d'}{100}$										+ 45	
										− 14.10	
+551 δ_2		37 0.53		4 44.0						4 31.14	
+0 12.88											
	+24.7	0 − 0.7	0.0	54	59.65	27	48.70		55	52 28 15.11	
	1.392270					52 28	35.26			− 16	+11.38
d	9.784478						− 20.15			+ 135	
	1.304174									+ 9.79	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 12.15	
+542 δ_1		38 40.86		28 27.8						28 14.34	
+0 13.48											
1.56	+16.4	0 3.8	3.7	55	3.75	27	44.60		55	28 15.98	
	1.214484					52 28	29.36			− 7	+10.49
d	9.784478						− 13.38			+ 1	
	1.126312									+10.08	
$((\delta) - D)\frac{d'}{100}$										+ 47	
										− 14.05	
+5.42 δ_2		38 40.86		28 25.9						28 12.42	
+0 13.48											
	+32.9	2 46.8	46.2	52	46.25	30	2.10		50	51 30 21.24	
	1.517200					51 30	48.66			− 29	+9.68
d	9.794155						− 27.42			+ 76	
	1.438044									+8.83	
$((\delta) - D)\frac{d'}{100}$										+ 38	
										− 12.00	
+5.67 δ_1		40.36.80		30 33.0						30 18.92	
+0 14.12											
1.80	+22.8	2 51.4	52.2	52	5.180	29	56.55		50	30 22.31	
	1.357933					51 30	41.31			− 14	+10.09
d	9.794155						− 19.00			+ 74	
	1.278774									+909	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										−13.90	
+5.67 δ_2		40 36.87		30 32.6						30 18.50	
+0 14.12											
	+23.1	3 17.0	17.5	58	17.25	24	31.10		55	51 24 58.37	
	1.363614					51 25	17.66			− 14	+9.85
d	9.794944						− 19.29			+ 89	
	1.285244									+8.73	
$((\delta) - D)\frac{d'}{100}$										+ 37	
										− 11.95	
+5.69 δ_1		41 39.16		25 10.7						24 56.27	
+0 14.44											
1.84	+7.7	3 27.6	28.9	58	28.25	24	20.10		55	24 58.43	
	0.886449					51 25	4.86			− 2	+10.26
d	9.794944						− 6.43			+ 90	
	0.808025									+899	
$((\delta) - D)\frac{d'}{100}$										+ 39	
										− 13.90	
+5.69 δ_2		41 33.18		25 9.2						24 54.79	
+0 14.44											
	+29.4	4 51.5	52.3	49	51.90	32	56.45		45	51 33 18.54	
	1.468355					51 33	43.01			− 23	+10.34
d	9.793677						− 24.47			+ 131	
	1.388714									+ 888	
$((\delta) - D)\frac{d'}{100}$										+ 38	
										− 11.90	
+5.67 δ_1		43 35.99		33 32.1						33 16.98	
+0 15.16											
2.04	+23.4	4 52.3	52.1	49	5.221	32	56.15		45	33 21.43	
	1.369222					51 33	40.91			− 14	+10.68
d	9.793677						− 19.48			+ 127	
	1.289581									+ 915	
$((\delta) - D)\frac{d'}{100}$										+ 40	
										− 13.85	
+5.67 δ_2		43 35.92		33 33.4						33 18.26	
+0 15.16											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 5 (103) Observer W.A.R. Recorder H.G. Date$_2$ = Aug. 13 (107) Observer W.A.R. Recorder H.G. 60

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18	45 15	51 32	8.8	45 6.5	28.8	32.1	35.3	38.8	42.1	1771	35.42	45	35.42
	44 52.9	51 31.5	8.5	8.4						−1697			−16.16
	κ			10.6									− 63
	((δ) — D) $\frac{\kappa'}{100}$			8.5									− 16
													− 2
	α_1											45	18.45
													− 2.22
												45	16.23
			8.3	45 9.2	26.8	30.1	33.4	36.6	40.1	1670	33.40	45	33.40
				11.4						−15.16			−14.36
	κ			13.6									− 78
	((δ) — D) $\frac{\kappa'}{100}$			11.4									− 2
												45	18.24
	α_2												− 2.07
												45	16.17
18	47 16	51 11	9.0	47 8.4	30.6	33.8	37.1	40.3	43.6	1854	37.08	47	37.08
	46 52.1	51 10.0	8.7	10.4						−16.96			−16.16
	κ			12.4									− 62
	((δ) — D) $\frac{\kappa'}{100}$			10.4									− 16
													− 2
	α_1											47	20.12
													− 2.22
												47	17.90
			8.7	47 7.4	28.5	31.8	35.1	38.2	41.5	1751	35.02	47	35.02
				8.2						−15.15			−14.36
	κ			10.1									− 77
	((δ) — D) $\frac{\kappa'}{100}$			12.1									− 2
				9.2								47	19.87
	α_2												− 2.08
												47	17.79
18	48 14	52 09	9.1	48 10.9	26.1	29.5	32.9	36.3	39.7	1645	32.90	48	32.90
	47 51.6	52 8.8	8.9	12.5						−16.98			−16.16
	κ			14.6									− 64
	((δ) — D) $\frac{\kappa'}{100}$			12.6									− 16
													− 2
	α_1											48	15.92
													− 2.25
												48	13.67
			9.0	48 10.9	24.2	27.5	31.0	34.3	37.6	1546	30.92	48	30.92
				13.1						−15.17			−14.36
	κ			15.2									− 79
	((δ) — D) $\frac{\kappa'}{100}$			13.0									− 2
												48	15.75
	α_2												− 2.10
												48	13.65
18	49 51	52 06	9.0	49 32.8	55.1	58.4	1.7	5.2	8.5	3089	61.78	50	1.78
	49 18.7	52 5.5	9.0	34.0						−16.98			−16.16
	κ			36.2									− 64
	((δ) — D) $\frac{\kappa'}{100}$			34.3									− 16
													− 2
	α_1											49	44.80
													− 2.26
												49	42.54
			9.0	49 31.4	53.0	56.4	59.7	3.2	6.5	2988	59.76	49	59.76
				33.4						−15.17			−14.36
	κ			35.1									− 79
	((δ) — D) $\frac{\kappa'}{100}$			33.3									− 2
												49	44.59
	α_2												− 2.11
												49	42.48
18	51 33	52 31	7.3	51 17.8	45.2	48.7	52.1	55.5	58.8	2603	52.06	51	52.06
	51 10.6	52 30.3	7.6	19.2						−16.99			−16.16
	κ			20.9									− 65
	((δ) — D) $\frac{\kappa'}{100}$			19.3									− 16
													− 2
	α_1											51	35.07
													− 2.27
												51	32.80
			7.8	51 17.3	43.3	46.7	50.2	53.7	57.1	2510	50.20	51	50.20
				18.5						−15.19			−14.36
	κ			20.6									− 81
	((δ) — D) $\frac{\kappa'}{100}$			18.8									− 2
												51	35.01
	α_2												− 2.12
												51	32.89

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+26.9	0′ 51.0	51.9	50′	51′45	31	56.90		50′	51 32 21.06	
	1.429799					51 32	43.46			− 19	+9.32
d	9.793883						− 22.40			+ 25	
	1.350312									+888	
((δ) − D) $\frac{d'}{100}$										+ 38	
										−11.85	
+5.68 δ₁		45 21.91		32 34.3						32 18.53	
+0 15.76											
2.02	+22.0	0 52.6	52.9	50	52,75	31	55.60		50	32 22.04	
	1.342422					51 32	40.36			− 13	+9.64
d	9.793883						− 18.32			+ 23	
	1.262944									+9.14	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−1380	
+5.68 δ₂		45 21.85		32 33.6						32 17.88	
+0 15.76											
	+26.7	1 52.0	51.6	11	51,80	10	56.55		10	51 11 20.70	
	1.426511					51 11	43.11			− 19	+9.24
d	9.797715						− 22.41			+ 53	
	1.350035									+854	
((δ) − D) $\frac{d'}{100}$										+ 36	
										−1175	
+5.78 δ₁		47 23.68		11 34.6						11 18.19	
+0 16.44											
2.06	+25.8	1 51.3	50.3	11	50,80	10	57.55		10	11 20.66	
	1.411162					51 11	42.31			− 18	+9.44
d	9.797715						− 21.65			+ 47	
	1.335546									+879	
((δ) − D) $\frac{d'}{100}$										+ 36	
										−13.35	
+5.78 δ₂		47 23.57		11 32.8						11 16.35	
+0 16.44											
	+20.3	4 14.0	14.3	14	14,15	8	34.20		10	52 9 4.09	
	1.307750					52 9	20.76			− 11	+10.89
d	9.787888						− 16.67			+ 113	
	1.222072									+ ~~849~~ 947	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−1175	
+555 δ₁		48 19.22		9 20.0						9 3.23	
+0 16.80											
1.58	+17.9	4 13.8	13.6	14	1340	8	34.95		10	9 5.01	
	1.252855					52 9	19.71			− 9	+11.21
d	9.787888						− 14.70			+109	
	1.116742									+975	
((δ) − D) $\frac{d'}{100}$										+ 46	
										−13.75	
+555 δ₂		48 19.20		9 19.3						9 2.47	
+0 16.80											
	+27.5	1 48.4	48.5	16	48,45	5	59.90		15	52 6 23.85	
	1.439333					52 6	46.46			− 20	+10.11
d	9.788837						− 22.61			+ 49	
	1.354397									+942	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−11.70	
+558 δ₁		49 48.12		6 39.5						6 22.26	
+0 17.28											
2.02	+26.5	1 47.2	46.9	16	47,05	6	1.30		15	6 24.27	
	1.422325					52 6	46.06			− 18	+10.45
d	9.788837						− 21.79			+ 47	
	1.338312									+970	
((δ) − D) $\frac{d'}{100}$										+ 46	
										−13.75	
+558 δ₂		49 48.06		6 38.2						6 20.97	
+0 17.28											
	+32.8	0 55.9	56.7	50	56,30	31	52.05		50	52 32 11.90	
	1.515874					52 32	38.61			− 28	+10.20
d	9.784112						− 26.71			+ 24	
	1.426684									+9.84	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−1165	
+5.49 δ₁		51 38.29		32 28.4						32 10.45	
+0 17.92											
1.46	+31.4	0 54.9	55.2	50	55,05	31	53.30		50	32 12.48	
	1.496933					52 32	38.06			− 26	+10.59
d	9.784112						− 25.57			+ 23	
	1.407744									+10.14	
((δ) − D) $\frac{d'}{100}$										+ 48	
										−1370	
+5.49 δ₂		51 38.38		32 27.3						32 9.38	
+0 17.92											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 5 '71 (183) Observer W.A.R Recorder R.G Date$_2$ = 13 (187) Observer W.A.R Recorder A.M 62

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17h	52m 50s	52° 29′	9.5	52m 43.6	53m 1.4	4.8	8.2	11.5	14.9	4 08	8.16	53m	8.16
	52 27.1	52 28.9	9.0	45.3						-16.99			-16.16
	K			41.7									- 65
	((δ) — D) $\frac{\kappa'}{100}$			46.5									- 16
													- 2
	α_1											52	51.17
													- 2.28
												52	48.89
			9.5	52									
	K												
	((δ) — D) $\frac{\kappa'}{100}$												
	α_2												
Aug 5													
17	27 34	52 22	4.0	17 27 22.3	27 43.1	46.5	49.9	53.3	56.7	2495	49.90	27	49.90
	27 10.8	52 23.5	3.0	24.0						-16.99			-16.16
	K			25.3									- 65
	((δ) — D) $\frac{\kappa'}{100}$			23.8									- 16
													- 2
	α_1											27	32.91
													- 1.79
Aug 5												27	31.12
17	29 24	52 40	8.8	29 9.5	33.6	37.1	40.5	43.9	47.2	20 23	40.46	29	40.46
	29 0.7	52 42.2	8.1	11.8						-17.00			-16.16
	K			14.2									- 65
	((δ) — D) $\frac{\kappa'}{100}$			11.8									- 17
													- 2
	α_2											29	23.47
													- 1.81
Aug 5					Fiss Aurie gone							29	21.65
17	32 07	52 03	8.8	31 53.4	32 21.4	24.8	28.0	31.5				32	24.74
	31 43.8	52 5.4	9.1							-16.98			-16.16
	K												- 64
	((δ) — D) $\frac{\kappa'}{100}$	J											- 16
													- 2
	α_1											32	7.76
													- 1.81
Aug 5												32	5.95
18	21 19	52 59	8.6	21 5.8	30.3	33.7	37.1	40.6	44.0	18 57	37.14	21	37.14
	20 56.9	52 58.6	8.6	7.5						-17.01			-16.16
	K			9.7									- 66
	((δ) — D) $\frac{\kappa'}{100}$			7.6									- 17
													- 2
	α_2											21	20.13
													- 2.13
Aug 5												21	18.00
18	27 02	52 32	9.4	27 0.8	13.7	17.0	20.6	23.8	27.3	10 24	20.48	27	20.48
	26 39.4	52 31.5	9.4	1.2						-16.99			-16.16
	K			2.1									- 65
	((δ) — D) $\frac{\kappa'}{100}$			1.3									- 16
													- 2
	α_1											27	3.49
													- 2.15
Aug. 13												27	1.34
17	54 49	52 20	9.2	54 40.7	57.5	1.0	4.4	7.7	11.1	32 17	64.34	55	4.34
	54 25.5	52 29.6	9.1	42.4						-15.19			-14.36
	K			43.8									- 81
	((δ) — D) $\frac{\kappa'}{100}$			42.3									- 2
	α_2											54	49.15
													- 1.77
Aug 13												54	47.38
18	2 44	52 00	8.2	2 30.5	52.0	55.3	58.7	2.1	5.4	29 35	58.70	2	58.70
	2 21.1	52 0.2	8.5	31.8						-15.17			-14.36
	K			33.7									- 79
	((δ) — D) $\frac{\kappa'}{100}$			34.8									- 2
				32.7								2	43.53
	α_1												- 1.81
Aug 13												2	41.72
18	23 15	52 11	8.8										
	22 52.8	52 10.3	8.7										
	K												
	((δ) — D) $\frac{\kappa'}{100}$												
	α_2												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+22.7	8′ 3.0	4.2	53	3′60	29	44.75		50′	52 30 12.81	
	1.35603					52 30	31.31			− 14	+10.91
d	9.78445						− 18.50			+ 84	
	1.26717 m									+9.81	
										+ 40	
((δ) − D) $\frac{d'}{100}$										−11.60	
+550 δ_1		52 54.39		30 30.4						30 12.12	
+0 18.32											
		3 8.4	7.9	53	8,15	29	40.20		50		
						30	24.96				
d											
((δ) − D) $\frac{d'}{100}$											
δ_2											
	+36.1	4 18.4	18.2	59	18,30	23	30.05		55	52 23 55.29	
	1.41664					52 24	16.61			− 18	+11.06
d	9.78543						− 21.32			+ 116	
	1.32876 m									+ 977 68	
										+ 40	
((δ) − D) $\frac{d'}{100}$										−14.47 70	
+542 δ_1		17 36.54		23 41.0						23 52 25	
−0 11.28						40			4	41 62	✓
	+28.7	2 2.7	3.3	~~37~~ 42	3p0	~~58~~	45.35		~~50~~	52 ~~51~~ 8.71	
	1.45788					52 ~~51~~	31.91			− 22	+10.88
d	9.78097 263					41	− 23.20	9		+ 57	
	1.36554 m									+1013	
	720 m									+ 40	
((δ) − D) $\frac{d'}{100}$										−1405	
+534 δ_2		29 26.99		40 54.8						~~51~~ 6.54 45	
−0 10.64										41	
	+31.3	3 23.5	24.4	18	23,95	4	24.40		15	52 4 45.21	
	1.49554					52 5	10.96			− 26	+10.42
d	9.78853						− 25.75			+ 92	
	1.41076 m									+9.47 36	
				320						+ 40	
((δ) − D) $\frac{d'}{100}$										−13.95	
+548 δ_1		32 11.43		4 ~~31.5~~						4 41.68	
−0 9.72											
	+29.5	4 28.3	30.0	24	29.15	58	19.20		20	52 58 41.99	
	1.46982					52 59	5.76			− 23	+11.68
d	9.77763						− 23.77			+ 122	
	1.37614 m									+10.29	
										+ 40	
((δ) − D) $\frac{d'}{100}$										−12.20	
+522 δ_2		21 23.22		58 48.4						58 40.97	
+0 7.48											
	+19.2	1 10.7	10.9	51	16,80	31	37.55		50	52 32 8.47	
	1.28330					52 32	24.11			− 10	+10.46
d	9.78412						− 15.64			+ 32	
	1.19411 m									+9.89	
										+ 40	
((δ) − D) $\frac{d'}{100}$										−12.50	
+536 δ_1		27 6.70		32 15.9						32 4.43	
+0 9.44											
	+22.0	1 43.1	42.6	1	42,85	21	5.50		0	52 21 32.28	
	1.34242					52 21	50.26			− 13	+10.72
d	9.78576						− 17.98			+ 44	
	1.25487 m									+994	
										+ 47	
((δ) − D) $\frac{d'}{100}$										−15.00	
+536 δ_2		54 52.74		21 26.2						21 28.80	
−0 1.80											
	+26.0	3 15.0	15.4	23	15.20	59	33.15		20	51 59 56.48	
	1.41497					52 0	17.91			− 18	+10.72
d	9.78934						− 21.43			+ 85	
	1.33100 m									+960	
										+ 45	
((δ) − D) $\frac{d'}{100}$										−1480	
+544 δ_1		2 47.16		59 59.4						59 52.40	
+0 1.00											
		4 32.3	34.3	24	33,30	58	15.05		20		✓
						58	59.81				
d										+	
										+ 46	
((δ) − D) $\frac{d'}{100}$											
δ_2											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 13'71 Observer W. A. R Recorder A. M. Date$_2$ = 13 Observer W. A. R Recorder A. M. 64 Run

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
8	25	50	−37 33										
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
		3 31.8	47.2						15		
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 18 '71 (109) $n = -.52$ Observer A. M. Recorder H. G

Date$_2$ = Aug 19 '71 (110) $n = -.49$ Observer H. G Recorder A. M.

66

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18h	m s	° ′		m s	s	s	s	s	s		s	m	
	3 10	53 55	9.0	6.0	14.0	18.1	21.5	25.1	28.5	10 76	21.56	3	21.56
	2 ~~77.7~~	53 ~~55.1~~	9.0	8.2						−1645			−15.~~70~~70
	κ 43.4	57.5		9.8									− 7.2
	((δ) − D) $\frac{\kappa'}{100}$			8.0									− 3
												3	5.11
	α_1												− 1.71
												3	3.40
													+4.9
													+0 1
			9.0	6.4	14.7	18.3	21.8	25.1	28.7	10 84	21.68	3	21.68
				10.2						−1667			−15.~~96~~97
	κ												− 67
	((δ) − D) $\frac{\kappa'}{100}$			8.3									− 3
												3	5.02
	α_2												− 1.68
												3	3.33
													+4.9
													+0 1
18	4 21	53 41	9.1	18.7	28.6	32.0	35.5	39.0	42.6	17 77	35.54	4	35.54
	3 ~~58.4~~	53 ~~40.7~~	9.0	20.6						−1643			−15.70
	κ			22.0									− 70
	((δ) − D) $\frac{\kappa'}{100}$			20.4									− 3
												4	19.11
	α_1												− 1.71
												4	17.40
													+5.0
													+0 1
			8.8	4 (17.5) (19.3) 25.8 (20.)	29.2	32.5	35.6	39.5	42.4	1792 −1666	35.84	4	35.84
													−15.~~96~~97
	κ												− 66
	((δ) − D) $\frac{\kappa'}{100}$												− 3
												4	19.19
	α_2												− 1.68
												4	17.50
													+5.0
													+0 1
18	6 20	53 12	9.0	10.0	29.6	33.0	36.4	39.7	43.3	18 20	36.40	6	36.40
	5 57.6	53 12.2	9.0	11.4						−1642			−15.70
	κ			13.0									− 69
	((δ) − D) $\frac{\kappa'}{100}$			11.4									− 3
												6	19.98
	α_1												− 1.72
												6	18.26
													+5.14
													+0 2
			8.8	16.6	29.7	33.1	36.5	40.0	43.6	18 29	36.58	6	36.58
				20.3						−1665			−15.~~96~~97
	κ			25.9									− 65
	((δ) − D) $\frac{\kappa'}{100}$			20.9									− 3
												6	19.94
	α_2												− 1.69
												6	18.24
													+5.1
													+0 2
18	8 01	53 15	8.8	53.1	8 11.0	14.4	17.8	21.2	24.9	8 93	17.86	8	17.86
	7 38.2	53 ~~15.3~~	8.8	54.3						−1642			−15.70
	κ			56.3									− 69
	((δ) − D) $\frac{\kappa'}{100}$			54.5									− 3
												8	1.44
	α_1												− 1.74
												7	59.70
													+5.1
													+0 2.
			8.5	51.1	8 10.9	14.~~4~~	17.9	21.~~3~~	24.~~7~~	8 92	17.84	8	17.84
				53.1						−1665			−15.9~~6~~7
	κ												− 65
	((δ) − D) $\frac{\kappa'}{100}$			52.1									− 3
												8	4.20
	α_2												− 1.71
												7	59.48
													+5.1
													+0 2
18	8 52	53 27	8.8	49.1	9.0.9	4.~~3~~	7.~~6~~	11.3	14.9	3 90	7.84	8	7.84
	8 29.7	53 ~~26.8~~	9.0	51.0						−1643			−15.70
	κ			52.9									− 70
	((δ) − D) $\frac{\kappa'}{100}$			51.0									− 3
												8	51.41
	α_1												− 1.74
												8	49.67
													+5.0
													+0 3
			9.0	50.8	9 ~~47.2~~ 4!	~~5.9~~	7.7	11.1	14.6			9	7.~~3~~4 7.70
				53.6	?					−1666			? +
	κ			57.3									−15.9~~6~~7
	((δ) − D) $\frac{\kappa'}{100}$			53.9									− 66
													− 3
	α_2											8	50.~~07~~ 51.11
													+5.08
												8	− 1.72
													+0 3.1
												8	49.~~23~~
													72

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1071phae.proj.1575R

Aug. 18 +0′ 45.23 +.25
" 19 +0 46.02 +.25

67

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+13.6	1 49.8	52.4	26	51.10	55	57.25		25	53 56 31.74	
	1.13354					56	4.201			− 5	+12.38
d	9.76991					53 56	42.48			+ 46	
	1.03014m						− 10.74			+11.47	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−15.80	
+4.95 δ₁		3 8.35		56 29.4	−1″					56 28.32	
+0 1.12					51.50						
12	+13.4	1 [503]	52.7	26	49.0	55	57.85		25	56 34.81 2.31	
′	1.12710					53 56	4 5.37			− 5	+12.54
d	9.76991						− 10.56			+ 45	
	1.02370m									+11.64	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−16.00	
+4.95 δ₂		3 8.28		56 31.0						56 31.35 29.85 28.85	
+0 1.12											
	+13.1	2 13.3	17.1	42	15.20	40	33.15		40	53 41 6.41	
	1.17898					53 41	1.791			− 6	+12.22
d	9.77250						1838			+ 56	
	1.07817m						− 11.97			+1822	
				3						+ 50	
((δ) − D) $\frac{d'}{100}$										−1580	
+5.02 δ₁		4 22.42		41 4.4						41 1.85 2.83	
+0 1.52											
30	+15.1	2 14.2	16.9	42	15.53	40	32.80		40	41 6.85	
′	1.17898					53 41	18.82			− 6	+12.38
d	9.77250						− 11.97			+ 56	
	1.07817m									+1138	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−1595	
+5.02 δ₂		4 22.52		41 4.8						41 3.28	
+0 1.52											
	+25.0	1 38.6	36.9	11	36.75	11	11.60		10	53 11 36.92	
	1.39794					53 11	56.56			− 16	+11.45
d	9.77444						53			+ 40	
	1.29907m						− 19.91			+1071	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−15.70	
+5.14 δ₁		6 23.40		11 34.9						11 32.67	
+0 2.24											
18	+15.7	1 45.6	46.7	11	46.15	11	2.20		10	11 35.72	
	1.19590					53 11	48.22			− 7	+11.75
d	9.77444						− 12.50			+ 45	
	1.09703m									+1087	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−15.70	
+5.14 δ₂		6 23.38		11 33.8						11 31.57	
+0 2.24											
	+23.4	2 31.5	32.5	7	32.00	15	16.35		5	53 15 42.84	
	1.36922					53 16	1.58			− 14	+11.75
d	9.77677						− 18.74			+ 63	
	1.27268m									+1076	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−15.70	
+5.13 δ₁		8 4.83		15 41.7						15 38.89	
+0 2.80											
-2	+25.7	2 29.7	31.0	7	30.35	15	18.00		5	15 43.44	
	1.40993					53 16	4.02			− 17	+11.88
d	9.77677						− 20.58			+ 63	
	1.31339m									+1092	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−15.90	
+5.13 δ₂		8 4.61		15 42.2						15 39.42	
+0 2.80											
	+16.8	1 6.3	7.8	56	7.05	26	41.30		55	53 27 13.14	
	1.22531					53 27	26.53			− 8	+11.66
d	9.77490						− 13.39			+ 28	
	1.12690m									+1096	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−1570	
+5.08 δ₁		8 54.75		27 12.22						27 9.10	
+0 3.12											
	+13.7	1 11.8	13.3	56	12.53	26	35.80		55	27 10.90	
	1.13672					53 27	21.82			− 5	+11.88
d	9.77490						− 10.92			+ 30	
	1.03831m									+11.13	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−15.90	
+5.08 δ₂		8 54.80		27 10.00						27 6.88	
+0 3.12											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 18'71 (189) Observer A.M. Recorder H.G

Date$_2$ = Aug. 19'71 (190) Observer H.G Recorder A.M

(68)

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18h	18m 04s	53 32	8.5	9m 55.3	10m 11.4s	14.7	18.5	21.6	25.1	9 13	18.26	10m	18.26
	9 41.4	53 31.6	8.3	56.3						-1643			15.70
	κ			57.7									70
													3
	((δ) — D) $\frac{\kappa'}{100}$			56.4								10	1.83
													1.75
	c_1											10	0.08
			8.0	9 53.3	10 11.4	14.9	18.3	21.8	25.4	9 18	18.36	10	18.36
				59.0						-1666			15.98
	κ												66
				56.1									3
	((δ) — D) $\frac{\kappa'}{100}$											10	1.71
													1.72
	α_2											9	59.98
18	11 05	53 29	9.1	10 58.5	11 15.7	19.1	22.5	26.1	29.7	11 31	22.62	11	22.62
	10 42.9	53 28.7	9.0	0.1						-1643			15.70
	κ			1.9									70
													3
	((δ) — D) $\frac{\kappa'}{100}$			0.1								11	6.19
													1.76
	α_1											11	4.43
			9.2	11 1.0	16.2	19.6	23.2	26.2	29.8	11 50	23.00	11	23.00
				4.8						-1666			15.98
	κ												66
				2.9									3
	((δ) — D) $\frac{\kappa'}{100}$											11	6.45
													1.73
	α_2											11	4.61
18	12 04	53 37	8.8	11 58.3	12 11.7	15.0	18.6	22.2	25.6	9 31	18.62	12	18.62
	11 46.6	53 36.6	8.8	59.7						-1643			15.70
	κ			0.8									70
													3
	((δ) — D) $\frac{\kappa'}{100}$			59.6								12	2.19
													1.77
	α_1											12	0.42
			8.5	11 51.2	12 11.7	15.5	18.8	22.4	25.8	9 42	18.84	12	18.84
				53.4						-1666			15.98
	κ												66
				52.3									3
	((δ) — D) $\frac{\kappa'}{100}$											12	2.19
													1.74
	α_2											12	0.44
18	13 19	53 14	7.5	13 7.0	26.9	30.1	33.7	37.2	40.7	16 86	33.72	13	33.72
	12 56.2	53 13.8	7.3	8.0						-1642			15.70
	κ			10.0									69
													3
	((δ) — D) $\frac{\kappa'}{100}$			8.3								13	1.30
													1.77
	α_1											13	15.53
			7.8	13 9.8	27.1	30.6	33.8	37.3	40.8	16 96	33.92	13	33.92
				13.1						-1665			15.96
	κ			15.0									65
													3
	((δ) — D) $\frac{\kappa'}{100}$			12.6								13	17.28
													1.75
	α_2											13	15.52
18	14 59	53 42	8.7	14 47.1	15 7.8	11.4	15.0	18.4	21.7	7 43	14.86	15	14.86
	14 36.4	53 41.6	8.0	48.2						-1643			15.70
	κ			49.7									70
													3
	((δ) — D) $\frac{\kappa'}{100}$			48.3								14	58.43
													1.79
	α_1											14	56.64
			8.2	14 54.2	15 7.9	11.8	14.9	18.5	22.2	7 53	15.06	15	15.06
				56.2						-1666			15.98
	κ												66
				55.2									3
	((δ) — D) $\frac{\kappa'}{100}$											14	58.41
													1.76
	α_2											14	56.64

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+21.9	1 5.11	5.3.0	51	52.05	30	5630		50	53 31 24.10	
	1.340444					53 31	41.53			− 13	+11.87
d	9.77422						− 17.43			+ 48	
	1.24135m									+1102	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.70	
+506 δ_1		10 5.14		31 23.8						31 20.27	
+0 3.56											
10											
	+22.3	1 54.2	55.5	57	54.85	30	53.50		50	31 21.77	
	1.34830					53 31	39.52			− 13	+12.03
d	9.77422						− 17.75			+ 48	
	1.24921m									+1118	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.90	
+506 δ_2		10 5.04		31 21.5						31 17.90	
+0 3.56											
	+22.5	3 20.9	22.9	53	21.90	29	2645		50	53 27 53.76	
	1.35218					53 30	11.68			− 13	+12.22
d	9.77439						−~~2257~~			+ 84	
	1.25326m						1792			+1101	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.70	
+507 δ_1		11 9.50		29 54.2						29 50.28	
+0 3.92											
	+20.1	3 21.3	23.8	53	22.55	29	2580		50	29 55.81	
	1.30320					53 30	11.82			− 10	+12.41
d	9.77439						− 16.01			+ 84	
	1.20428m									+11.17	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.90	
+5.07 δ_2		11 9.68		29 56.2						29 52.32	
+0 3.92											
	+19.0	1 23.4	25.3	46	24.35	36	24.00		45	53 36 54.14	
	1.278475					53 37	9.23			− 9	+11.88
d	9.77319						− 15.09			+ 35	
	1.17863m									+11.12	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.65	
+504 δ_1		12 5.46		36 54.6						36 50.37	
+0 4.20											
22											
	+26.5	1 20.1	21.2	46	20.65	36	27.70		45	36 52.67	
	1.42325					53 37	13.72			− 18	+11.95
d	9.77319						− 21.05			+ 34	
	1.32313m									+1129	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.85	
+5.04 δ_2		12 5.48		36 53.0						36 48.77	
+0 4.20											
	+25.4	3 11.2	12.2	8	11.70	14	36.65		5	53 15 1.53	
	1.40483					53 15	21.88			− 17	+11.89
d	9.77694						− 20.35			+ 80	
	1.30846m									+10.76	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.66	
+5.14 δ_1		13 20.67		15 2.4						14 57.77	
+0 4.68											
20											
	+21.3	3 11.2	12.2	8	11.70	14	30.65		5	14 59.61	
	1.32838					53 15	16.67			− 12	+~~11.63~~
d	9.77694						− 17.06			+ 83	+12.13
	1.23201m									+1092	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.80	
+5.14 δ_2		13 20.66		15 0.6						14 55.94	
+0 4.68											
	+26.6	1 33.5	35.1	41	34.30	41	14.05		40	53 41 38.20	
	1.42488					53 41	59.28			− 19	+11.93
d	9.77233						− 21.08			+ 40	
	1.32390m									+1122	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.65	
+502 δ_1		15 1.66		41 39.7						41 34.48	
+0 5.20											
20											
	+19.9	1 39.8	41.7	41	40.75	41	760		40	41 37.85	
	1.29885					53 41	53.62			− 10	+12.20
d	9.77233						− 15.77			+ 41	
	1.19787m									+1139	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										− 15.80	
+502 δ_2		15 1.66		41 39.4						41 34.25	
+0 5.20											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj:1575R

109 110 70

Date$_1$ = Aug 18 71 Observer A. M Recorder H. G.

Date$_2$ = Aug 19. 71 Observer H. G Recorder A. M

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	m s	° ′		m s	m s	s	s	s	s			m s	s
	16 09	54 32	8.0	15 57.0	16 17.4	21.0	24.6	28.1	31.7	11 78	23.56	16	(23.56)
	15 46.9	54 32.4	8.3	58.7						-1646			24.56
	κ			0.3									− 15.70
	((δ) − D) $\frac{\kappa'}{100}$			58.6									− 73
													− 3
												16	8.10
	α_1												− 1.81
												16	6.29
			8.0	16 41.6	17.6	21.1	24.7	28.3	31.7	1234	24.68	16	24.68
				42.2						-16.69			− 15.97
	κ			5.4									− 69
	((δ) − D) $\frac{\kappa'}{100}$												− 3
												16	7.99
	α_2												− 1.78
												16	6.21
18	16 58	54 30	8.4	17 20.2	35.8	39.4	42.9	46.3	50.0	21 44	42.88	17	42.88
	~~16 35.0~~	~~54 22.9~~	8.5	22.0						-1646			− 15.70
	κ 17 5.1	29.8		23.5									− 73
	((δ) − D) $\frac{\kappa'}{100}$			21.9									− 3
												17	26.42
18	17 α_1												− 1.82
												17	24.60
	16 35.0	54 33.9	8.5	16 ~~57.3~~ 53.9	17 51.2	8.4	12.3	15.7	19.4	610	12.20	17	12.20
	κ			~~52.6~~ 53.9						-1669			− 15.97
	((δ) − D) $\frac{\kappa'}{100}$												− 69
													− 3
												16	55.51
	α_2												− 1.79
												16	53.72
18	18 43	53 57	8.0	189 17.5	18 52.0	55.3	58.8	2.0	5.8	3939	56.78	18	58.78
	18 20.1	53 56.7	8.2	18.8						-1644			− 15.69
	κ			20.2									− 72
	((δ) − D) $\frac{\kappa'}{100}$			18.8									− 3
												18	42.34
	α_1												− 1.82
												18	40.52
			8.2	19 3.6	—	18 55.6	58.9	2.2	5.8			18	58.87
				7.1						-1667			− 15.97
	κ			5.3									− 67
	((δ) − D) $\frac{\kappa'}{100}$												− 3
												18	42.20
	α_2												− 1.79
												18	40.41
18	20 40	53 43	8.9	20 28.3	53.9	57.5	0.7	4.6	7.9	3048	60.96	21	0.96
	20 17.8	53 42.7	9.2	29.4						-1642			− 15.69
	κ			31.1									− 70
	((δ) − D) $\frac{\kappa'}{100}$			29.6									− 3
												20	44.54
	α_1												− 1.83
							1.0					20	42.71
			8.9	20 30.0	54.0	57.9	0.7	4.4	7.8	3050	61.00	21	1.00
	κ			32.7						-1666			− 15.97
	((δ) − D) $\frac{\kappa'}{100}$			35.5									− 66
				32.7									− 3
												20	44.34
	α_2												− 1.80
												20	42.54
18	22 24	54 47	9.5	22 18.3	31.4	35.0	38.5	42.0	45.4	1923	38.46	22	38.46
	22 1.0	54 47.4	9.2	19.2						-1645			− 15.69
	κ			20.5									− 73
	((δ) − D) $\frac{\kappa'}{100}$			18.7									− 3
												22	22.01
	α_1												− 1.86
												22	20.15
			9.1	22 13.0	31.6	35.1	38.6	42.2	45.4	1926	38.52	22	38.52
	κ			16.0						-1669			− 15.97
	((δ) − D) $\frac{\kappa'}{100}$			14.5									− 69
													− 3
												22	21.83
	α_2												− 1.83
												22	20.06

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1576R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+28.0	1 27.2	29.1	50	28.15	32	20.20		50	54 32 45.24	
	1.41497					54 33	5.43			− .18	+12.56
d	9.76342						− 20.19			+ 12	
	1.30508 n									+12.07	
((δ) − D) $\frac{d'}{100}$										+ 55	
										− 15.65	
+4.80 δ_1		16 11.09		32 47.8						32 42.15	
+0 5.64											
-2.72	+19.3	0 32.0	36.7	50	34.35	32	14.00		50	32 45.04	
	1.28556					54 33	0.02			− 9	+12.86
d	9.76342						− 14.98			+ 15	
	1.17567 n									+12.25	
((δ) − D) $\frac{d'}{100}$										+ 55	
										− 15.85	
+4.80 δ_2		16 11.01		32 47.7						32 42.05	
+0 5.64											
	+21.0	2 41.7	43.7	~~47~~ 52	42.40	~~35~~ 30	5.65		~~50~~ 45	54 ~~35~~ 34.54	✓
	1.32222					54 39	50.88			30 − 11	+13.27
d	9.76 ~~2267~~						− 16.29			+ 68	
	1.21180 n						32			+12.14	different # ?
((δ) − D) $\frac{d'}{100}$	269									+ 56	
										− 15.65	
+4.81 δ_1		1729.41		30 38.1						30 ~~32.24~~ 32.18	
+0 5.92											
+ 183	+19.6	4 6.8	7.9	49	8.35	33	40.00		45	34 ~~10.84~~	✓ 11.82
1.26245	1.29226					54 34	26.02			− 10	+13.80
9.76324	9.76324						− ~~15.21~~			+ 103	
1.75238 n	1.18219 n						− 1420			+12.31	
((δ) − D) $\frac{d'}{100}$										+ 56	
										− 15.80	
+4.81 δ_2		16 58.53		34 15.7						34 ~~8.81~~ 7.82	
+0 5.92											
	~~+40.0~~ −20.0	1 12.7	14.0	26	13.35	56	35.00		25	53 57 35.98	
	1.30103 n					53 57	20.23			− 10	+12.18
d	9.76957						+ 15.75			+ 30	
	1.19729									+11.48	
((δ) − D) $\frac{d'}{100}$										+ 50	
										− 15.55	
+4.96 δ_1		18 45.48		57 39.2						57 32.61	
+0 6.56											
9	~~+55.6~~ −6.4	1 1.3	4.0	26	26.5	56	45.70		25	57 36.76	
	0.80618 n					53 57	31.72			− 1	+12.40
d	9.76957						+ ~~50~~			+ 25	
	0.70244						+ 5.04			+11.66	
((δ) − D) $\frac{d'}{100}$										+ 50	
										− 16.75	
+4.96 δ_2		1845.37		57 40.0						57 33.41	
+0 6.56											
	− ~~28.6~~ +31.4	0 46.4	47.7	40	46.55	42	1.80		40	53 42 22.14	
	1.49693					53 42	47.03			− 26	+11.68
d	9.77233						− 24.89			+ 20	
	1.39595 n									+11.24	
((δ) − D) $\frac{d'}{100}$										+ 50	
										− 15.50	
+5.03 δ_1		20 47.74		42 25.6						42 18.32	
+0 7.24											
4	− ~~34.7~~ +28.3	0 49.5	52.7	40	51.10	41	57.25		40	42 20.84	
	1.45178					53 42	43.27			− 21	+11.89
d	9.77233						− 22.43			+ 21	
	1.35081 n									+11.39	
((δ) − D) $\frac{d'}{100}$										+ 50	
										− 15.70	
+5.03 δ_2		20 47.63		42 24.3						42 17.03	
+0 7.24											
	+19.8	0 37.2	39.0	35	38.10	47	10.25		35	54 47 40.20	
	1.29667					54 47	55.48			− .10	+12.97
d	9.76075						− 15.28			+ 15	
	1.18411 n									+12.34	
((δ) − D) $\frac{d'}{100}$										+ 58	
										− 15.55	
+4.74 δ_1		22 24.89		47 45.5						47 37.62	
+0 7.84											
6	+24.0	0 32.8	37.8	35	35.20	47	13.05		35	47 40.55	
	1.38021					54 47	59.07			− 15	+13.13
d	9.76075						− 18.52			+ 15	
	1.26765 n									+12.53	
((δ) − D) $\frac{d'}{100}$										+ 58	
										− 15.70	
+4.74 δ_2		22 24.80		47 45.8						47 37.98	
+0 7.84											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Observer / Recorder — Date$_2$ = Observer / Recorder — Ru

Star. α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_1												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_2												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_1												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_2												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_1												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_2												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_1												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_2												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_1												
κ												
$((\delta) - D)\frac{\kappa'}{100}$												
α_2												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1576R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_1											
d											
$((\delta) - D)\frac{d'}{100}$											
δ_2											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.prot.1575R

109

Date$_1$ = Aug 18 '71 Observer A. M. Recorder H. G

110

Date$_2$ = Aug 19 71 Observer H. G. Recorder A. M

74

Star.	α	δ	Mag.	T_a	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18h	m s 23 25	° ′ 53 24	8.5	m s 23 12.4	s 21.8	s 25.3	s 28.8	s 32.2	s 35.7	1438	s 28.76	m 23	s 28.76
	23 3.1	53 24.1	8.9	14.6						−1642			−15.69
	κ			15.9									− 70
	22 48.6	22.6											− 3
	((δ) − D) $\frac{\kappa'}{100}$			14.3								23	12.34
													− 1.84
	α_1											23	10.50
			8.8	23 10.3	21.8	25.7	28.6	32.1	36.0	1443	28.84	23	28.84
				12.9						−1666			−15.97
	κ			11.6									− 66
													− 3
	((δ) − D) $\frac{\kappa'}{100}$											23	12.18
													− 1.82
	α_2											23	10.36
18	25 01	53 51	7.2	24 54.5	25 9.9	13.6	16.9	20.4	23.8	846	16.92	25	16.92
	24 38.4	53 51.0	7.0	53.9						−1643			−15.69
	κ			57.7									− 71
													− 3
	((δ) − D) $\frac{\kappa'}{100}$			56.0								25	0.49
													− 1.86
	α_1											24	58.63
			7.5	24 55.4	25 10.3	13.7	17.1	20.9	24.1	859	17.18	25	17.18
				56.3	13.7					−1664			−15.97
	κ	26	21	0.6	17.4								− 67
					20.6								− 3
	((δ) − D) $\frac{\kappa'}{100}$			58.1								25	0.51
													− 1.84
	α_2											24	58.67
18	29 05	54 42	8.7	28 57.0	29 13.0	16.7	20.1	23.8	27.3	1009	20.18	29	20.18
	28 42.3	54 41.4	9.0	0.2						−1645			−15.69
	κ												− 73
				59.6									− 3
	((δ) − D) $\frac{\kappa'}{100}$											29	3.73
													− 1.71
	α_1											29	1.82
			8.3	28 57.0	13.1	16.9	20.1	24.0	27.4	1015	20.30	29	20.30
				56.4						−1669			−15.97
	κ												− 69
				55.2									− 3
	((δ) − D) $\frac{\kappa'}{100}$											29	3.61
													− 4.88
	α_2											29	1.73
18	30 32	54 53	8.8	30 18.7	39.1	42.7	46.0	49.5	53.2	2385	46.10	30	46.10
	30 9.8	54 52.6	8.3	17.9						−1646			−15.69
	κ												− 74
				17.3									− 3
	((δ) − D) $\frac{\kappa'}{100}$											30	29.64
													− 1.92
	α_1											30	27.72
			8.3	30 21.8	38.9	43.0	46.3	50.0	53.3	2315	46.30	30	46.30
				25.4						−1670			−15.97
	κ												− 70
				24.1									− 3
	((δ) − D) $\frac{\kappa'}{100}$											30	29.60
													− 1.89
	α_2											30	27.71
18	32 22	54 6	8.0	31 16.1	39.7	34.3	37.7	41.1	44.7	1685	37.70	32	37.70
	31 54.5	54 5.8	7.8	17.8						−1644			−15.69
	κ												− 72
				16.9									− 23
	((δ) − D) $\frac{\kappa'}{100}$											32	41.26
													− 1.92
	α_1											32	19.34
			8.5	32 21.2	30.7	34.5	37.9	41.2	45.0	1893	37.86	32	37.86
				24.2						−1667			−15.97
	κ												− 67
				22.7									− 3
	((δ) − D) $\frac{\kappa'}{100}$											32	21.18
													− 1.89
	α_2											32	19.30

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+14.5	0 21.3	22.9	0′	22,50	22	26.25		0	53 22 59.90	
	1.161337					53 23	11.48			− 5	+11.47
d	9.775588						− 11.58			+ 10	
	1.063644									+10.92	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.45	
+5.12 δ₁		23 15.62		23 4.1						22 55.92	
+0 8.20											
4	+17.2	0 20.0	22.1	0	2,105	22	27.30		0	22 59.59	
	1.235553					53 23	13.32			− 8	+11.59
d	9.776558						− 13.73			+ 9	
	1.137806									+11.08	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.65	
+5.12 δ₂		23 15.48		23 3.7						22 55.53	
+0 8.20											
	+20.9	1 5.3	7.2	31	6,25	51	42.10		30	53 52 16.83	
	1.320155					53 52	27.33			− 11	+12.09
d	9.770615						− 16.50			+ 28	
	1.217455									+11.42	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.45	
+5.01 δ₁		25 3.64		52 16.2						52 7.47	
+0 8.72											
26	+19.1	1 7.8	10.3	31	9,05	51	39.30		30	52 10.24	
	1.281035					53 52	25.32			− 9	+12.28
d	9.770615						− 15.08			+ 28	
	1.178335									+11.59	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.65	
+5.01 δ₂		25 3.68		52 15.6						52 6.87	
+0 8.72											
	+20.6	1 23.6	27.4	41	25,50	41	22.85		40	54 41 52.14	
	1.313877					54 42	8.08			− 10	+13.07
d	9.761812						− 15.94			+ 35	
	1.202388									+12.25	
((δ) — D) $\frac{d'}{100}$										+ 57	
										−16.40	
+4.80											
+0 10.12 δ₁		29 6.62		41 59.9						41 49.81	
12	+25.1	1 20.1	24.9	41	22,50	41	25.85		40	41 52.45	
	1.399677					54 42	11.87			− 16	+13.21
d	9.761812						− 19.42			+ 35	
	1.288188									+12.45	
((δ) — D) $\frac{d'}{100}$										+ 57	
										−17 18.60	
+4.80 δ₂		29 6.53		42 0.2						41 50.06	
+0 10.12											
	+28.8	0 37.7	39.9	30	38,80	52	9.55		30	54 52 32.59	
	1.459939					54 52	54.78			− 21	+12.95
d	9.760013						− 22.19			+ 13	
	1.346113									+12.42	
((δ) — D) $\frac{d'}{100}$										+ 57	
										−15.40	
+4.75 δ₁		30 32.47		52 40.8						52 30.14	
+0 10.64											
20	+22.2	0 41.9	46.1	30	44,00	52	4.35		30	52 33.27	
	1.346355					54 52	50.37			− 13	+13.28
d	9.760013						− 17.10			+ 18	
	1.233078									+12.64	
((δ) — D) $\frac{d'}{100}$										+ 59	
										−15.60	
+4.75 δ₂		30 32.46		52 41.6						52 30.75	
+0 10.64											
	+20.8	2 6.5	8.5	17	7,50	5	40.85		15	54 6 9.75	
	1.318066					54 6	26.08			− 11	+12.55
d	9.768177						− 16.33			+ 53	
	1.212928									+11.62	
((δ) — D) $\frac{d'}{100}$										+ 57	
										−15.30	
+4.97 δ₁		32 24.31		6 18.28						6 7.00	
+0 11.28											
− 46	+15.2	2 11.0	13.7	17	12,35	5	36.00		15	6 10.09	
	1.181844					54 6	22.02			− 6	+12.82
d	9.768177						− 11.93			+ 55	
	1.076708									+11.82	
((δ) — D) $\frac{d'}{100}$										+ 57	
										−15.50	
+4.97 δ₂		32 24.27		6 18.69						6 7.41	
+0 11.28											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

109 110 76

Date$_1$ = Aug. 18 Observer A.M. Recorder Hels. Date$_2$ = Aug. 19 Observer Hels. Recorder A.M.

Star.	α	δ	Mag.	T_b	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18	h m s 33 27 32 58.5	° ′ ″ 54 44 54 43.7	8.8 8.7	m s 33 12.6 13.8 16.3	s 29.1	s 32.6	s 36.3	s 39.7	s 43.5	16 12 −1645	s 36.24	m 33 36.24 −15.69 −.73 −.3	
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			14.2								33 19.79 −1.93	
	α_1											33 17.86	+4.8 +0 11
			8.8	33 18.7 21.4	29.3	33.0	36.3	39.7	43.3	16 16 −1669	36.32	33 36.32 −15.987	
	κ											.69 −.3	
	$((\delta) - D)\frac{\kappa'}{100}$			20.0								33 19.62 −1.91	
	α_2											33 17.72	+4.8 +0 11
18	34 40 34 17.8	53 04 53 3.4	8.6 8.2	34 34.0 36.2	49.9	53.3	56.6	0.2	3.6	28 36 −1641	56.72	34 56.72 −15.69 −.69 −.3	
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			35.1								34 40.31 −1.92	
	α_1											34 38.39	+5.2 +0 12
			8.5	34 35.4 38.0 40.6	49.5	53.4	56.7	0.3	3.7	28 36 −1665	56.72	34 56.72 −15.987 −.65 −.3	
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			38.0								34 40.06 −1.89	
	α_2											34 38.18	+5.2 +0 12
18	35 38 35 15.0	53 46 53 45.0	8.0 8.5	35 33.2 34.4 36.1	46.6	50.0	53.8	(56.9)	1.0	26 83 −1643	53.66	35 53.66 −15.69 −.70 −.3	
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			34.5								35 37.24 −1.93	
	α_1											35 35.31	+5.0 +0 12
			8.0	35 32.0 34.3 37.1	46.7	50.3	53.7	57.2	0.7	26 86 −1666	53.72	35 53.72 −15.987 −.66 −.3	
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			34.4								35 37.05 −1.91	
	α_2											35 35.15	+5.0 +0 12
18	37 08 36 45.9	53 11 53 10.9	8.2 8.3	37 0.8 1.8	18.5	22.0	25.4	28.6	32.3	12 68 −1641	25.36	37 25.36 −15.69 −.69 −.3	
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			1.3								37 8.95 −1.94	
	α_1											37 7.01	+5.2 +0 12
			8.0	37 2.4 4.3	18.7	22.0	25.6	28.9	32.7	12 74 −1665	25.48	37 25.48 −15.987 −.65 −.3	
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			3.3								37 8.82 −1.91	
	α_2											37 6.92	+5.24 +0 12
18	38 09 37 ~~46.8~~ 26.9	53 53 53 ~~52.4~~ 54.1	8.4 9.1	37 53.5 56.6	59.3	2.8	6.1	9.8	13.2	33 12 −1644	66.22	38 6.22 −15.69 −.72 −.3	
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			55.0								37 49.78 −1.95	
	α_1											37 47.83	+5 +0 13
			8.8	38 8.3 11.7	37 59.3	3.0	5.9	9.7	13.3	33 12 −1667	66.22	38 6.22 −15.987 −.67 −.3	
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			10.0								37 49.54 −1.93	
	α_2											37 47.64	+5.05 +0 13

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	~~4 S 19.1~~	~~22.5~~ ″	″	′	″				35	54 43 55.77	
	+ 23.0	4 19.1	2 2.5	39	20,80	43	27.55			- 13	+13.80
d	1.34242					54 44	12.78			+ 108	
	9.76146						− 17.01			+12.28	
((δ) — D) $\frac{d'}{100}$	1.23057m									+ 57	
										−15.30	
+4.80 δ_1		3322.66		44 5.9						43 54.27	
+0 11.64			27.1		25,00						
	+ 16.3	4 22.9	37.1	39	30,00	43	18,35	23.35	35	43 ~~51.77~~	
	1.21219					54 44	4.37	9.37		~~56.77~~	+14.11
d	9.76146						− 12.60	-12.60		− 7	
	1.10034m									+ 113	
((δ) — D) $\frac{d'}{100}$										+12.48	
										+ 57	
										−15.50	
+4.80 δ_2		33 22.52		44 7.0						43 55.38	
+0 11.64											
	+21.6	3 46.0	48.8	18	47,40	4	0.95		15	53 4 28.80	
	1.33445					53 4	46,18			− 12	+11.95
d	9.77879						− 17.38			+ 95	
	1.23993m									+10.62	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.25	
+5.25 δ_1		34 43.64		4 37.6						4 25.50	
+0 12.08											
	+18.7	3 48.2	51.9	18	50,05	3	58.30		15	4 29.28	
	1.27184					53 4	44,32			− 9	+12.14
d	9.77829						− 15.04			+ 95	
	1.17722m									+10.78	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.40	
+5.25 δ_2		34 43.43		4 38.1						4 26.02	
+0 12.08											
	+19.2	2 9.3	11.0	37	10,15	45	38,20		35	53 46 8.24	
	1.28330					53 46	23,43			− 9	+12.29
d	9.77164						− 15,19			+ 55	
	1.18163m									+11.33	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.25	
+5.08 δ_1		35 40.39		46 17.7						46 5.28	
+0 12.44											
	+19.3	2 9.0	11.7	37	10,35	45	38 00		35	46 8.75	
	1.28556					53 46	24,02			− 9	+12.46
d	9.77164						− 15.27			+ 55	
	1.18389m									+11.50	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.45	
+5.08 δ_2		35 40.23		46 18.2						46 5.76	
+0 12.44											
	+24.1	0 52.9	54.0	10	53,45	17	54,90		10	53 12 20.80	✓
	1.38202					53 12	40,13			− 15	+11,31
d	9.77744						− 19,33			+ 22	
	1.28615m									+10.74	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.20	
+5.24 δ_1		37 12,25		12 29.9						12 16.91	
+0 12.96											
	+22.2	0 54.2	56.0	10	55,10	11	58,25		10	12 ~~28.47~~	✓
	1.34635					53 12	~~44~~ 27			− 13	+11.47
d	9.77744						− 17,80			+ 20	
	1.25048m									+10.90	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.35	
+5.24 δ_2		37 12.16		12 30.6						12 ~~22.59~~	17.59
+0 12.96											
	+11.2	3 ~~11.7~~	20.1	28	18,90	54	29,45		25	53 55 5.85	
	1.04922	11.7				53 55	14.68			− 3	+12.75
d	9.77009						− 8.83			+ ~~57~~ 83	
	0.94600m									+11.45	
((δ) — D) $\frac{d'}{100}$										+ 50	
										−15.20	
+5.05 δ_1		37 52.86		55 16.6						55 3.40	
+0 13.20											
	− 3.8	3 27.8	32.5	28	30,15	54	18.20		25	55 7.22	
	0.54978m					53 55	4.22			− 0	+13.01
d	9.77009						+ 3,00			+ 88	
	0.47656									+11.63	
((δ) — D) $\frac{d'}{100}$										+ 50	
+5.05										−15.40	
+0 13.20 δ_2		37 52.69		55 18.0						55 ~~4.15~~ 3.83	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 18 — Observer A.M. / Recorder H.G. — Date$_2$ = Aug. 19 — Observer H.G. / Recorder A.M. — 78

Star.	α	δ	Mag.	T_δ	T_m	T_a	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18	h m s 18 39 32 / 38 49.6	° ′ ″ 53 0 11 / 53 16.4	8.8 / 9.2	m s 39 14.3 / 15.7 / 17.6	s 21.5	s 25.1	s 28.7	s 31.6	s 35.0	14 19 −1644	s 28.38	m s 39 28.38	s
	κ											−15.69	
												− 69	
												− 3	
	((δ) − D) $\frac{\kappa'}{100}$			15.8								39 11.97	
	a_1											− 1.95	
												39 10.02	+5.2 +0.13
	κ		8.8	39 12.4 / 15.2 / 13.8	21.8	24.9	28.4	32.0	35.4	14 25 −1665	28.50	39 28.50	
												−15.98 7	
												− 65	
												− 3	
	((δ) − D) $\frac{\kappa'}{100}$											39 11.84	
	a_2											− 1.93	
												39 9.92	+5.2 +0.13
18	40 32 / 40 9.3	53 18 / 53 17.0	8.0 / 8.3	40 21.1 / 22.6 / 24.2 / 22.6	41.5	45.0	48.2	51.7	55.1	24 15 −1641	48.30	40 48.30	
	κ											−15.69	
												− 69	
												− 3	
	((δ) − D) $\frac{\kappa'}{100}$											40 31.89	
	a_1											− 1.96	
												40 29.93	+5. +0.14
	κ		8.3	40 26.8 / 29.3 / 31.3	41.6	45.0	48.4	51.8	55.3	24 21 −1665	48.42	40 48.42	
												−15.98 7	
												− 65	
												− 3	
	((δ) − D) $\frac{\kappa'}{100}$			29.1								40 31.76	
	a_2											− 1.94	
												40 29.83	+5.2 +0.14
18	44 02 / 43 39.7	53 32 / 53 30.6	9.2 / 9.0	43 57.2 / 58.8 / 60.6	44 13.0	16.4	19.8	23.3	26.7	99 2 −1642	19.84	44 19.84	
	κ											−15.69	
												− 70	
												− 3	
	((δ) − D) $\frac{\kappa'}{100}$			58.8								44 3.42	
	a_1											− 1.99	
												44 1.43	+5.1 +0.1
	κ		9.0	43 53.4 / 56.0 / 44 (3.8)	13.0	16.6	20.0	23.5	26.6	99 7 −1666	19.94	44 19.94	
												−15.98 7	
												− 66	
												− 3	
	((δ) − D) $\frac{\kappa'}{100}$			57.7								44 3.27	
	a_2											− 1.96	
												44 1.32	+5.1 +0.15
18	45 12 / 44 39.2	53 52 / 53 50.7	9.0 / 9.3	45 1.4 / 2.8 / 4.8	12.0	15.3	18.7	22.2	25.8	9 40 −1644	18.80	45 18.80	
	κ											−15.69	
												− 72	
												− 3	
	((δ) − D) $\frac{\kappa'}{100}$			3.0								45 2.36	
	a_1											− 2.00	
												45 0.36	+5.1 +0.1
	κ		9.1	44 55.8 / 57.9 / 56.8	45 12.2	15.6	18.7	22.0	25.7	9 48 −1667	18.96	45 18.96	
												−15.98 7	
												− 67	
												− 3	
	((δ) − D) $\frac{\kappa'}{100}$											45 2.28	
	a_2											− 1.97	
												45 0.32	+5.1 +0.15
18	46 56 / 46 53.7	53 18 / 53 17.4	9.2 / 9.1	46 52.1 / 55.3 / 58.4	47 6.5	10.0	13.6	17.1	20.5	6 77 −1641	13.54	47 13.54	
	κ											−15.69	
												− 69	
												− 3	
	((δ) − D) $\frac{\kappa'}{100}$			55.2								46 57.13	
	a_1											− 2.00	
												46 55.13	+5.7 +0.
	κ		9.0	47 13.5 / 16.3 / 20.2	27.1	30.7	34.0	37.3	40.6	16 97 −1665	33.44	47 33.94	
												−15.98 7	
												− 65	
												− 3	
	((δ) − D) $\frac{\kappa'}{100}$			16.6								47 17.27	
	a_2											− 1.98	
												47 15.31	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+12.6	2′ 3.3	5.0	4	415	15	44.20		5	53 16 19.34	
	1.100 34					53 16	29.43			− 5	+11.80
d	9.776 77						− 10.09			+ 52	
	1.003 83 m									+10.83	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.75	
+5.22 δ_1		39 15.24		16 29.7						16 15.99	
+0 13.68											
12	+14.7	2 1.9	3.8	7	2,85	15	45.50		5	16 19.75	+11.94
	1.167 32					53 16	31.52			− 6	+12.04
d	9.776 77						− 11.77			+ 50	
	1.070 78 m									+1100	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.35	
+5.22 δ_2		39 15.14		16 30.0						16 16.34	
+0 13.68											
	+25.7	4 31.5	33.5	4	32,50	18	15.85		0	53 18 40.53	
	1.409 93					53 19	1.08			− 17	+12.29
d	9.776 26						− 20.55			+ 113	
	1.312 88 m									+1083	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.10	
+5.22 δ_1		40 35.15		18 51.8						18 37.72	
+0 14.12											
12	+19.3	4 34.3	33.2	4	37,75	18	16.60		0	18 41.18	
	1.285 56					53 18	56.62			− 9	+12.56
d	9.776 26						− 15.44			+ 115	
	1.188 51 m									+1100	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.30	
+5.22 δ_2		40 35.05		18 52.6						18 38.44	
+0 14.12											
	+21.0	1 35.5	37.7	51	36,60	31	11.75		50	53 31 40.27	
	1.322 22					53 31	56.98			− 12	+11.82
d	9.774 05						− 16.71			+ 40	
	1.222 96 m									+11.04	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.00	
+5.19 δ_1		44 6.62		31 52.4						31 37.09	
+0 15.32											
10	+22.2	1 33.0	37.4	51	35,20	31	13.15		50	31 41.51	
	1.346 35					53 31	59.17			− 13	+12.00
d	9.774 05						− 17.66			+ 40	
	1.247 09 m									+1123	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.25	
+5.19 δ_2		44 6.51		31 53.6						31 38.26	
+0 15.32											
	+18.8	1 32.2	35.7	31	33,95	51	1440		30	53 51 47.16	
	1.198 66					53 51	59.63			− 7	+12.22
d	9.770 61						− 12.47			+ 38	
	1.095 96 m									+11.41	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.00	
+5.10 δ_1		45 5.46		52 0.0						51 44.38	
+0 15.64											
16	+22.3	1 29.3	32.8	31	31,05	51	1730		30	51 45.79	
	1.346 35					53 52	3.32			− 13	+12.33
d	9.770 61						− 17.53			+ 38	
	1.243 65 m									+1158	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.25	
+5.10 δ_2		45 5.42		51 58.5						51 42.87	
+0 15.64				−10							
	+18.3	4 59.0	1.8	15	0.98	17	32.68		10	53 18 17.78	+18.02
	1.262 45			+4	57.88	53 18	33.92			− 8	+11.08
d	9.772 12						− 14.70			+ 0	
	1.167 26 m									+8.66	
$((\delta) - D)\frac{d'}{100}$										+10.50	
										−14.95	
+5.26 δ_1		47 0.39		18 31.5						18 14.11	+15.18
+0 16.32											
40	+17.3	4 57.0	54.0	14	52,50	7	55.85		10	8 27.98	
	1.238 05					53 18	41.87			− 8	+12.50
d	9.778 12						− 13.89			+ 123	
	1.142 86 m									+1085	
$((\delta) - D)\frac{d'}{100}$										+ 50	
										−15.15	
δ_2										8 25.38	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 18 (189) Observer A.M. Recorder H.G. Date$_2$ = Aug. 19 (111) Observer H.G. Recorder A.M. (80) Run

Star.	α	δ	Mag.	T_s	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18h	48 56	53 55	8.9	48 20.0	35.1	39.4	42.9	46.5	50.0	21 454	42.90	48	42.90
	48 3.1	53 54.1	9.3	22.0						-1644			-15.69
	κ												- 72
				21.0									- 3
	((δ) — D) $\frac{\kappa'}{100}$											48	26.46
													- 2.02
	α_1											48	24.44
			9.0	49 2.4	48 36.0	39.6	42.6	46.7	49.8	21 474	42.94	48	42.94
				8.8						-1667			-15.997
	κ												- 67
				5.6									- 3
	((δ) — D) $\frac{\kappa'}{100}$											48	26.25
													- 2.00
	α_2											48	24.24
18	50 42	53 25	9.0	50 35.5	52.7	56.3	59.8	63.1	66.5	29 84	59.68	50	59.68
	50 19.3	53 24.4	8.9	37.7						-1642			-15.69
	κ												- 70
				39.4									- 3
	((δ) — D) $\frac{\kappa'}{100}$			37.5								50	43.26
													- 2.03
	α_1											50	41.23
			9.2	30 24.1	52.7	56.0	59.4	63.4	66.7	29 82	59.64	50	59.64
				27.6						-16.66			-15.997
	κ												- 66
				30.5									- 3
	((δ) — D) $\frac{\kappa'}{100}$			27.4								50	42.96
													- 2.00
	α_2											50	40.98
18	51 56	54 55	8.7	51 47.1	52 47	8.4	12.0	15.7	19.1	599	11.98	52	11.88
	51 33.8	54 54.1	8.8	48.0						-1646			-15.69
	κ												- 784
				47.8									- 3
	((δ) — D) $\frac{\kappa'}{100}$											51	55.56
													- 2.07
	α_1											51	53.45
			8.7	51 45.0	52 53	8.8	12.5	15.6	19.2	614	12.28	52	12.28
				47.8						-1670			-15.997
	κ												- 70
				46.4									- 3
	((δ) — D) $\frac{\kappa'}{100}$											51	55.56
													- 2.04
	α_2											51	53.54
18	52 48	54 30	8.8	52 46.6	53 0	2.8	6.0	9.5	13.0	330 3	66.06	53	6.06
	52 25.8	54 29.7	9.2	47.8						-1645			-15.69
	κ												- 73
				50.1									- 3
	((δ) — D) $\frac{\kappa'}{100}$			48.1								52	49.61
													- 2.06
	α_1											52	47.55
			9.0	52 46.0	53 9.1	2.9	6.5	10.0	13.5	33 20	66.40	53	6.40
				47.8						-1669			-15.997
	κ												- 69
				46.9									- 3
	((δ) — D) $\frac{\kappa'}{100}$											52	49.69
													- 2.04
	α_2											52	47.67
18	53 47	53 52	9.0	53 47.5	#58.6	2.1	5.9	9.3	12.7	32 86	65.72	53	5.72
	53 24.2	53 50.3	9.5	49.6						-1644			-15.69
	κ												- 72
				51.1									- 3
	((δ) — D) $\frac{\kappa'}{100}$			49.4								53	49.28
55 30													- 2.06
	α_1											53	47.22
			9.2	53 44.0	58.8	2.5	6.0	9.4	12.9	329 6	65.92	54	5.92
				45.1						-1667			-15.997
	κ												- 67
				50.8									- 3
	((δ) — D) $\frac{\kappa'}{100}$			48.6								53	49.23
													- 2.03
	α_2											53	47.22

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+21.9	2 25.9	28.0	27	26.95	55	2140		25	53 55 49.37	✓
	1.34044					53 56	6.63			− .13	+12.44
d	9.76997						− 17.26			+ 60	
	1.23704									+11.47	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.95	
+5.11 δ₁		48 29.55		56 13.7						55 46.86	
+0 1684							4540				
4	+27.3	3 12	3.7	28	54.5	55	4220		25	56 ~~46.86~~ +1.04	~~4930~~ ✓
	−22.9				2.95	53 56	~~6.47~~ 3.142			5 = 14	+12.56
d	1.35603						+ 17.88			+ 53	
	9.76974									+1167	
((δ) − D) $\frac{d'}{100}$	1.25246									+ 50	
										−15.15	
+5.11 δ₂		48 29.38		56 3.6						55 46.71	
+0 16.84											
	+22.2	1 28.9	29.1	56	29.00	26	19.35		55	53 26 46.88	
	1.34635					53 27	4.58			− 13	+11.74
d	9.77490						− 17.70			+ 38	
	1.24794									+10.99	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.85	
+5.26 δ₁		50 46.49		27 1.4						26 43.77	
+0 1760											
− 4	+32.2	1 18.4	20.9	56	19.65	26	28.70		55	26 49.05	
	1.50786					53 27	14.72			− 27	+11.73
d	9.77490						− 25.67			+ 33	
	1.40945									+1117	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−15.10	
+5.26 δ₂		50 46.24		27 3.3						26 45.68	
+0 1760											
	+24.2	2 28.3	30.0	27	29.15	55	19.20		25	54 55 45.82	
	1.38382					54 56	4.43			− 15	+13.56
d	9.75931						− 18.61			+ 63	
	1.26982									+12.49	
((δ) − D) $\frac{d'}{100}$										+ 59	
										−14.90	
+4.87 δ₁		51 58.32		56 2.5						55 44.48	
+0 1800											
.30	+25.9	2 27	31.3	27	29.50	55	18.85		25	55 44.95	
	1.41330					54 56	4.87			− 17	+13.75
d	9.75931						− 19.92			+ 63	
	1.29930									+1270	
((δ) − D) $\frac{d'}{100}$										+ 59	
										−15.10	
+4.87 δ₂		51 58.41		56 1.6						55 43.60	
+0 1800											
	+18.0	3 38.2	41.2	53	39.70	29	8.65		50	54 29 39.89	
	1.25527					54 29	53.88			− 8	+13.43
d	9.76395						− 13.99			+ 90	
	1.14591									+12.06	
((δ) − D) $\frac{d'}{100}$										+ 53	
										−14.85	
+4.98 δ₁		52 52.53		29 56.8						29 38.47	
+0 18.32											
34	+19.5	3 37.1	40.1	53	38.60	29	9.75		50	29 40.61	
	1.29003					54 29	55.77			− 9	+13.63
d	9.76395						− 15.16			+ 90	
	1.18067									+1227	
((δ) − D) $\frac{d'}{100}$										+ 53	
										−1510	
+4.98 δ₂		52 52.65		29 57.5						29 39.14	
+0 18.32											
	+16.3	4 39.0	40.7	29	39.85	53	8.50		25	53 53 40.87	
	1.21219					53 53	53.73			− 7	+13.04
d	9.77026						− 12.86			+ 116	
	1.10914									+11.45	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.80	
+5.16 δ₁		53 52.38		53 57.8						53 39.11	
+0 18.68											
.20	+20.3	4 36.4	39.2	29	37.80	53	10.55		25	53 40.56	
	1.30750					53 53	56.57			− 10	+13.20
d	9.77026						− 16.01			+ 115	
	1.20445									+1165	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−15.05	
+5.16 δ₂		53 52.38		53 57.4						53 38.71	
+0 18.68											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 18 (169) Observer A.M. Recorder Hel. Date$_2$ = Aug 19 (170) Observer Hel. Recorder A.M. 82

Star.	α	δ	Mag.	$T_δ$	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T	Runs
17	55 30	53 20	9.2	56 50.5	55.3	58.9	2.5	6.0		2942	58.84	56	58.84	
	50 42	54 39	8.0	51.5						-1645			-15.69	
	56 κ 19.5	54 35.7	8.2										-.73	
													-.3	
	((δ) — D) $\frac{\kappa'}{100}$											56	42.39	((δ)
													-2.09	
	a_1											56	40.30	+4.99
														+0 19.6
			8.0	56 41.0	57.8	5 5.4	58.9	62.6	65.9	2946	58.92	56	57.92	
										-1670			-15.98	
	κ												-.69	
													-.3	
	((δ) — D) $\frac{\kappa'}{100}$											56	42.21	((δ)
													-2.07	
	a_2											56	40.15	+4.99
														+0 19.6
18	57 58	53 33	8.6	57 52.7	58 8.2	11.5	15.1	18.4	21.9	2 51	15.02	58	15.02	
	57 35.7	53 32.3	8.5	54.3						-1642			-15.69	
	κ			55.8									-.70	
													-.3	
	((δ) — D) $\frac{\kappa'}{100}$			54.2								57	59.60	((δ)
													-2.08	
	a_1											57	56.52	+5.2
														+0 20.1
			8.8	57 52.7	58 8.2	11.7	15.0	18.6	22.0	2 55	15.10	58	15.10	
				55.8						-1667			-15.98	
	κ												-.66	
				54.1									-.3	
	((δ) — D) $\frac{\kappa'}{100}$											57	58.42	((δ)
													-2.05	
	a_2											57	56.38	+5.28
														+0 20.1
19	1 16	53 35	8.7	0 1.4	25.3	29.0	32.4	35.8	39.3	16 18	32.36	0	32.36	
18	59 52.9	53 33.3	8.6	3.1						-1642			-15.69	
	κ			5.0									-.70	
				3.2									-.3	
	((δ) — D) $\frac{\kappa'}{100}$											0	15.94	((δ)
													-2.09	
	a_1											0	13.85	+5.2
														+0 20.1
			8.4	0 0.1	25.1	29.4	32.3	36.0	39.5	16 29	32.58	0	32.58	
				3.0						-1667			-15.98	
	κ			5.3									-.66	
				2.8									-.3	
	((δ) — D) $\frac{\kappa'}{100}$											0	15.90	((δ)
													-2.07	
	a_2											0	13.84	+5.25
														+0 20.1
19	2 02	53 08	8.9	1 54.8	2 12.0	15.1	18.5	22.3	25.4	9 33	18.66	2	18.66	
	1 ~~21.3~~	53 6.5	9.1	56.2						-1641			-15.69	
	κ 46.7			57.9									-.69	
													-.3	
	((δ) — D) $\frac{\kappa'}{100}$			56.2								2	2.25	((δ)
													-2.10	+5.4
	a_1											2	0.15	+0 20.1
			8.9	1 53.5	2 12.3	15.7	19.1	22.0	25.5	9 46	18.92	2	18.92	
				52.0						-1666			-15.98	
	κ												-.65	
				55.2									-.3	
	((δ) — D) $\frac{\kappa'}{100}$											2	2.25	((δ)
													-2.07	+5.4
	a_2											2	0.19	+0 21.1
19	3 05	53 16	9.0	3 4.5	17.8	21.1	24.5	28.0	31.4	12 26	24.56	3	24.56	
	2 41.7	53 5.0	8.8	6.0						-1641			-15.69	
	κ												-.69	
				5.2									-.3	
	((δ) — D) $\frac{\kappa'}{100}$											3	8.15	((δ)
													-2.10	+5.4
	a_1											3	6.05	+0 21.1
			8.8	3 4.1	17.8	21.3	24.8	28.1	31.5	12 35	24.70	3	24.70	
				6.1						-1666			~~-16.00~~ -15.98	
	κ			7.7									-.65	
				5.9									-.3	
	((δ) — D) $\frac{\kappa'}{100}$											3	8.02	((δ)
													-2.08	+5.4
	a_2											3	5.96	+0 21.1

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.15758

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+8.3	4 1.6	4.2	44	2.90	38	45.45		40	54 39 24.25	Seeming δ
	0.91908					54 39	30.68			− 2	+13.77
d	9.76236						− 6.43			+ 100	
	0.80813									+12.23	
((δ) − D) $\frac{d'}{100}$										+ 56	
										−14.80	
+4.97 δ_1		56 45.27		39 42.9						39 23.22	
+0 19.64	179	3									
8	+~~1.2~~	54.2	58.1	43	56.15	37	52.20		40	38 22.78	
	1.29952					54 38	38.22			8 − 7	+14.14
d	9.76253	25285					− ~~19.44~~			+ 124	
	1.18874	76236					1389			+ ~~13.93~~ 12.41	
((δ) − D) $\frac{d'}{100}$		12669								+ 56	
		4190								−16.00	
+4.97 δ_2		56 45.12		39 ~~41.6~~	43.1					38 21.92	
+0 19.64											
	+20.8	4 11.0	13.2	49	12.10	33	36.25		45	53 34 4.94	
	1.31806					53 34	21.48			− 11	+12.58
d	9.77370						− 16.54			+105	
	1.21845									+1114	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.70	
+5.28 δ_1		58 1.80		34 22.9						34 2.82	
+0 20.08											
8	+21.0	4 11.9	14.9	49	13.40	33	34.95		45	34 4.27	
	1.32222					53 34	20.97			− 12	+12.74
d	9.77370						− 14.70			+105	
	1.22261									+1131	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.90	
+5.28 δ_2		58 1.66		34 22.2						34 2.11	
+0 20.08											
	+29.2	2 25.8	28.9	47	27.35	35	21.00		45	53 35 43.03	
	1.46538					53 36	6.23			− 23	+12.05
d	9.77336						− 23.20			+ 64	
	1.36543									+11.14	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.65	
+5.29 δ_1		0 19.14		36 1.3						35 40.43	
+0 20.88											
22	+29.8	2 26.0	29.7	47	27.85	35	20.50		45	35 42.85	
	1.47422					53 36	6.52			− 24	+12.21
d	9.77336						− 23.67			+ 63	
	1.37427									+1132	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.85	
+5.29 δ_2		0 19.13		36 1.1						35 40.21	
+0 20.88											
	+22.5	3 47.3	49.2	13	48.25	9	0.10		10	53 9 27.27	
	1.35218					53 9	45.83			− 13	+12.01
d	9.77795						− 18.06			+ 95	
	1.25682									+1069	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.60	
+5.42 δ_1		2 5.57		9 46.1						9 24.68	
+0 21.44											
26	+23.7	3 45.8	46.7	13	47.25	9	1.10		10	9 28.09	
	1.37475					53 9	47.12			− 15	+12.17
d	9.77795						− 19.03			+ 95	
	1.27939									+1087	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.82	
+5.42 δ_2		2 5.61		9 46.9						9 25.46	
+0 21.44											
	+19.4	0 32.0	34.3	15	33.15	7/8	15.28		15	53 7 44.85	
	1.28780					53 7/8	0.43			− 9	+11.20
d	9.77812						− 15.58			+ 13	
	1.19261									+1066	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.55	
+5.43 δ_1		3 11.48		8 3.3						7 41.50	
+0 21.84											
14	+18.8	0 32.0	33.0	15	32.50	7/8	15.85		15	7 46.77	
	1.27416					53 7/8	1.87			− 9	+11.37
d	9.77812						− 15.10			+ 13	
	1.17897									+1083	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.75	
+5.43 δ_2		3 11.39		8 5.2						7 43.39	
+0 21.84											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 18 | Observer A.M. | Recorder Holg. | Date$_2$ = Aug 19 | Observer Holg. | Recorder A.M. | 84

Star.	α	δ	Mag.	T_s	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
19	4 21	53 39	8.6	4 8.2	30.1	33.4	37.0	40.4	43.9	18 48	36.96	4	36.96
	3 57.2	53 37.2	9.0	9.4						−1642			−15.69
	κ			12.1									− 70
													− 3
	((δ) − D) $\frac{\kappa'}{100}$			9.9								4	20.54
													− 2.12
	α_1											4	18.42
			8.7	4 14.4	29.9	33.7	37.2	40.8	44.0	18 56	37.12	4	37.12
				17.2						−1667			−16.00 15.98
	κ												− 66
				15.8									− 3
	((δ) − D) $\frac{\kappa'}{100}$											4	20.43
													− 2.09
	α_2												18.36
19	5 27	53 53	8.8	5 17.6	36.4	40.0	43.4	47.0	50.4	21 72	43.44	5	43.44
	5 37	53 51.8	8.5	18.8						−1644			−15.69
	κ												− 72
				18.2									− 3
	((δ) − D) $\frac{\kappa'}{100}$											5	27.00
													− 2.13
	α_1											5	24.87
			8.5	5 26.0	36.6	40.2	43.8	47.1	50.7	21 84	43.68	5	43.68
				29.6						−1668			−16.00 15.98
	κ												− 67
				27.8									− 3
	((δ) − D) $\frac{\kappa'}{100}$											5	26.98
													− 2.11
	α_2											5	24.89
19	6 33	53 37	8.7	6 27.8	41.2	44.7	48.2	51.6	55.1	24 08	48.16	6	48.16
	6 43	53 35.3	9.2							−1642			−15.69
	κ												− 70
													− 3
	((δ) − D) $\frac{\kappa'}{100}$											6	31.74
													− 2.13
	α_1											6	29.61
			8.7										
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	α_2												
19	7 53	53 33	9.2	7 48.7	8 4.3	7.6	11.1	14.4	18.1	5 55	11.10	8	11.10
	7 29.6	53 31.8	9.4	49.8						−1642			−15.69
	κ			51.2									− 70
													− 3
	((δ) − D) $\frac{\kappa'}{100}$			49.9								7	54.68
													− 2.14
	α_1											7	52.54
			9.0	7 42.8	—	8 7.7	11.2	14.5	17.8			8	11.63 10
				40.2						−1667			−16.00 15.98
	κ			50.0									− 66
				46.3									− 3
	((δ) − D) $\frac{\kappa'}{100}$											7	54.34
													− 2.12
	α_2											7	52.22 31
19	9 33	53 44	9.0	9 24.4	41.8	45.4	48.9	52.3	55.8	24 42	48.84	9	48.84
	9 9.9	53 42.8	9.0	26.0						−1642			−15.69
	κ			27.5									− 70
													− 3
	((δ) − D) $\frac{\kappa'}{100}$			25.9								9	32.42
													− 2.15
	α_1											9	30.27
			8.9	9 25.4	42.2	45.4	49.4	52.5	55.9	24 54	49.08	9	49.08
				28.9						−1667			−16.00 15.98
	κ												− 66
				27.1									− 3
	((δ) − D) $\frac{\kappa'}{100}$											9	32.39
													− 2.13
	α_2											9	30.28

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+27.1	4 30.7	34.5	44	32.60	38	15.75		40	53 38 39.48	
	1.43297					53 39	0.98			− 19	+12.65
d	9.77285						− 21.50			+ 114	
	1.33251n									+1180	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.55	
+5.30 δ_1		4 23.72		38 59.8						38 37.58	
+0 22.24											
16	+21.3	4 37.1	38.8	44	38.45	38	9.90		40	38 39.02	
	1.32838					53 38	55.92			− 12	+12.91
d	9.77285						− 16.90			+ 115	
	1.22792n									+1138	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.75	
+5.30 δ_2		4 23.66		38 59.4						38 37.18	
+0 22.24											
	+25.2	4 56.1	58.4	29	57.25	52	51.10		25	53 53 16.45	
	1.40140					53 53	36.33			− 17	+13.03
d	9.77043						− 19.88			+ 124	
	1.29852n									+1146	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.50	
+5.25 δ_1		5 30.12		53 37.6						53 14.98	
+0 22.60											
24	+15.9	0 2.2	4.9	30	35.5	52	44.80		30	53 18.27	
	1.20140					53 53	30.82			− 7	+12.09
d	9.77043						− 12.55			+ 1	
	1.09852n									+11.65	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.75	
+5.25 δ_2		5 30.14		53 38.2						53 15.61	
+0 22.60											
	+20.4	1 52.7	55.5	46	54.10	35	54.25		45	53 36 23.27	
	1.30963					53 36	39.48			− 10	+12.03
d	9.77336						− 16.21			+ 48	
	1.20968n									+11.15	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.45	
+5.33 δ_1		6 34.94		36 43.8						36 28.85	
+0 22.96											
		1 58.7	61.5	46	60.10	35	48.25		45		
						36	34.27				
d											
((δ) − D) $\frac{d'}{100}$											
δ_2											
	+21.2	4 48.5	50.6	49	49.55	32	58.80		45	53 33 27.17	
	1.32634					53 33	44.03			− 12	+12.68
d	9.77387						− 16.86			+ 120	
	1.22690n									+11.10	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.45	
+5.36 δ_1		7 57.90		33 48.8						33 25.40	
+0 23.44											
3	+24.7	4 45.1	47.0	49.	46.05	33	2.30		45	33 28.67	
	1.39270					53 33	48.32			− 16	+12.81
d	9.77387						− 19.65			+ 120	
	1.29326n									+1127	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.36										−14.70	
+0 23.44 δ_2		7 57.67		33 50.2						33 26.78	
	+22.9	4 26.0	29.0	39	27.50	43	26.85		35	53 43 47.94	
	1.35984					53 44	6.08			− 14	+12.77
d	9.77199						− 18.14			+1~~40~~42	
	1.25852n									+11.29	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.40	
+5.33 δ_1		9 35.60		114 10.3						43 46.31	
+0 23.96											
24	+22.0	4 26.4	29.9	39	28.15	43	20.20		35	43 48.80	
	1.34242					53 44	6.22			− 13	+12.95
d	9.77199						− 17.42			+ 1~~25~~12	
	1.24110n									+1146	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.65	
+ 5.33 δ_2		9 35.61		44 11.1						43 47.10	
+0 23.96											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug 18 Observer A. M. Recorder Holy,

Date$_2$ = Aug. 19 Observer Holy Recorder A. M.

Star.	α	δ	Mag.	T'_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
19 h	10 m 52 s	53 45	9.5	10 m 43.8 s	5 s 7.2	3.4	5.0	9.3	13.0	32 09	66.18	m 11	6.18
	10 8.2	53 43.4	9.4	45.4									-15.69
	κ			48.0							-16.42		- 70
	$((\delta) - D)\frac{\kappa'}{100}$			45.7									- 3
11 19	α_1											10	49.76
													- 2.16
												10	47.60
			9.0	10 308	39.4	48.0	46.6	49.7	53.4	23 21	46.42	10	46.42
				33.7									-16.00 15.98
	κ			37.6							16.67		- 66
	$((\delta) - D)\frac{\kappa'}{100}$			34.0									- 3
	α_2											10	29.73
													- 2.14
												10	27.61
19	13 28	53 20	9.0	73 18.4	38.0	41.5	45.0	48.4	51.9	22 48	44.96	13	44.96
	13 4.3	53 18.7	9.0	20.4									-15.69
	κ			22.1									- 70
	$((\delta) - D)\frac{\kappa'}{100}$			20.3							16.42		- 3
	α_1											13	28.54
													- 2.14
												13	26.37
			9.1	13 16.6	38.4	41.8	45.5	48.7	52.0	22 64	45.28	13	45.28
				19.3									-16.00 15.98
	κ												- 66
	$((\delta) - D)\frac{\kappa'}{100}$			17.9							16.67		- 3
	α_2											13	28.59
													- 2.15
												13	26.46
19	14 47	53 54	8.0	14 37.6	56.4	0.0	3.4	6.8	10.5	31 71	63.42	15	3.42
	14 23.6	53 52.4	8.6	39.5									-15.69
	κ			42.0									- 71
	$((\delta) - D)\frac{\kappa'}{100}$			39.7							16.43		- 3
	α_1											14	46.99
													- 2.19
												14	44.80
			8.5	14 44.3	56.7	0.0	3.7	7.2	10.8	31 85	63.70	15	3.70
				46.6									-16.00 15.98
	κ												- 67
	$((\delta) - D)\frac{\kappa'}{100}$			45.4							16.68		- 3
	α_2											14	47.00
													- 2.17
												14	44.85
19	15 44	53 44	8.0	15 37.1	54.1	57.5	1.0	4.6	7.9	30 51	61.02	16	1.02
	15 20.7	53 42.2	7.8	36.4									-15.69
	κ			40.1									- 70
	$((\delta) - D)\frac{\kappa'}{100}$			38.5							16.42		- 3
	α_1											15	44.60
													- 2.19
												15	42.41
			7.8	16 49.0	—	57.5	1.2	4.5	8.0			16	1.06
				51.3									-16.00 15.98
	κ												- 66
	$((\delta) - D)\frac{\kappa'}{100}$			50.1							16.67		- 3
	α_2											15	44.37
													- 2.17
												15	42.22
18 9	16 58	53 07	8.2	16 52.5	17 8.3	11.8	15.0	18.5	22.0	7 54	15.08	17	15.08
	16 34.2	53 5.4	8.1	55.3									-15.69
	κ			57.4							-16.41		- 69
	$((\delta) - D)\frac{\kappa'}{100}$			55.0									- 3
	α_1											16	58.64
													- 2.18
												16	56.49
			8.0	16 51.6	8.7	11.8	15.3	18.4	22.1	7 63	15.26	17	15.26
				47.1									-16.00 15.98
	κ												- 65
	$((\delta) - D)\frac{\kappa'}{100}$			52.8							16.66		- 3
	α_2											16	58.58
													- 2.16
												16	56.44

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+28.5	2 14.5	16.4	37	15.45	45	32.90		35	53 46 2.28	✓
	1.31175					53 46	18.13			− 14	+12.28
d	9.76164						− 15.85			+ 56	Different #
	1.20008									+11.33	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14.35	
δ_1										46 1.21	0.21
24	+12.4	3 58.9	61.2	38	60.05	43	48.30		35	44 24.50	✓
	1.09342					53 44	34.32			− 4	+12.94
d	9.77199						− 9.82			+160	
	0.99210									+1148	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.34										−14.60	
δ_2		10 32.95		44 47.1						44 22.84	
+0 24.28											
	+24.7	1 41.2	43.4	1	42.30	21	6.05		0	53 21 31.54	
	1.39270					53 21	51.28			− 16	+11.66
d	9.77592						− 19.74			+ 43	
	1.29531									+10.89	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.47										−14.30	
δ_1		13 31.84		21 54.2						21 28.90	
+0 25.28											
32	+27.4	1 38.4	40.9	1	39.65	21	8.70		0	21 32.82	
	1.43775					53 21	54.72			− 19	+11.79
d	9.77592						− 21.90			+ 40	
	1.34036									+1108	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.47										−14.50	
δ_2		13 31.93		21 55.4						21 30.11	
+0 25.28											
	+23.7	3 17.5	21.1	28	19.30	54	29.05		25	53 54 55.59	
	1.37475					53 55	14.28			− 15	+12.64
d	9.77009						− 18.69			+ 83	
	1.27153									+11.46	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.34										−14.25	
δ_1		14 50.14		55 19.4						54 53.98	
+0 25.72											
28	+18.3	3 22.9	25.8	28	24.35	54	24.00		25	54 55.59	
	1.26245					53 55	10.02			− 8	+12.93
d	9.77009						− 14.43			+ 85	
	1.15923									+1166	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.34										−14.45	
δ_2		14 50.19		55 19.8						54 54.07	
+0 25.72											
	+22.5	4 22.0	26.5	39	24.25	43	24.10		35	53 43 51.51	
	1.35218					53 44	9.33			− 13	+12.77
d	9.77199						− 17.82			+110	
	1.25086									+1130	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.39										−14.25	
δ_1		15 47.80		44 16.1						43 50.03	
+0 26.04											
4	+11.0	4 32.8	36.0	39	34.40	43	13.95		35	43 51.26	
	1.04139					53 43	59.97			− 3	+13.09
d	9.77199						− 8.71			+115	
	0.94007									+1147	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.39										−14.45	
δ_2		15 47.61		44 15.9						43 49.90	
+0 26.04											
	+20.1	0 56.5	57.5	15	57.50	6	51.35		15	53 7 20.43	
	1.30320					53 7	36.58			− 10	+11.30
d	9.77829						− 16.15			+ 24	
	1.20818									+1066	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.56										−14.15	
δ_1		17 2.05		7 44.0						7 17.58	
+0 26.44											
18	+22.5	0 55.2	57.7	15	56.45	6	51.90		15	7 19.84	
	1.35218					53 7	37.92			− 13	+11.45
d	9.77829						− 18.08			+ 24	
	1.25716									+1084	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.56										−14.40	
δ_2		17 2.00		7 43.3						7 16.89	
+0 26.44											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.prot.1575R

Date$_1$ = Aug. 18 — Observer A. M. / Recorder Helg. — Date$_2$ = Aug 19 — Observer Helg. / Recorder A. M.

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
19	19m 01	53° 38'	8.9	18m 55.3	19m 10.0	13.5	17.1	20.5	23.8	8 49	16.98	1642	19 16.98
	18 37.2	53 36.6	8.8	56.7									−15.69
	κ			57.6									− 70
													− 3
	((δ) — D) $\frac{\kappa'}{100}$			56.5									19 0.56
													− 2.21
	α_1												18 58.35
			8.7	18 53.3	19 10.0	13.8	17.1	20.8	24.2	8 59	17.18	1667	19 17.18
	κ			57.3									− 16.00 15.98
				0.2									− 66
													− 3
	((δ) — D) $\frac{\kappa'}{100}$			56.9									19 0.49
													− 2.19
	α_2												18 58.32
19	19 57	53 31	9.1	19 57.5	20 7.6	11.0	14.8	18.3	21.4	7 31	14.62	1642	20 14.62
	19 33.7	53 29.7	9.2	59.9									−15.69
	κ			01.1									− 70
													− 3
	((δ) — D) $\frac{\kappa'}{100}$			59.5									19 58.20
													− 2.21
	α_1												19 55.99
			9.2	20 4.4	8.2	11.2	14.9	18.6	21.8			1667	20 10.00
	κ												− 16.01 15.98
													− 66
													− 3
	((δ) — D) $\frac{\kappa'}{100}$												19 58.30
													− 2.19
	α_2												19 56.14
19	21 06	53 31	9.0	20 59.3	21 11.0	20.5	23.7	27.2	30.7	11 91	23.82	1642	21 23.82
	20 42.6	53 29.7	9.0	0.8									−15.69
	κ			2.4									− 70
													− 3
	((δ) — D) $\frac{\kappa'}{100}$			0.8									21 7.40
													− 2.22
	α_1												21 5.18
			8.9	21 ~~7.9~~	17.0	20.6	24.0	27.5	31.0	12 01	24.02	1667	21 24.02
	κ			13.9									− 16.01 15.98
				~~11.9~~									− 66
													− 3
	((δ) — D) $\frac{\kappa'}{100}$												21 7.32
													− 2.20
	α_2												21 5.15
19	22 17	53 31	8.5	22 9.3	26.6	29.9	33.4	36.9	40.4	16 72	33.44	1642	22 33.44
	21 ~~57.4~~ 53.9	53 29.2	8.5	11.3									−15.69
	κ			13.6									− 70
													− 3
	((δ) — D) $\frac{\kappa'}{100}$			11.4									22 17.02
													− 2.22
	α_1												22 14.80
			8.3	22 8.1	22 26.7	30.1	33.7	37.3	40.4	16 82	33.64	1667	22 33.64
	κ			10.5									− 16.01 15.98
				9.3									− 66
													− 3
	((δ) — D) $\frac{\kappa'}{100}$												22 16.94
													− 2.20
	α_2												22 14.77
19	23 17	54 37	7.9	23 7.4	26.4	30.10	33.5	37.0	40.6	16 75	33.50	1645	23 33.50
	22 53.6	54 35.6	7.3	9.0									−15.69
	κ			10.4									− 73
													− 3
	((δ) — D) $\frac{\kappa'}{100}$			8.9									23 17.05
													− 2.26
	α_1												23 14.79
			8.0	23 12.6	26.5	30.2	33.7	37.2	40.7	16 83	33.66	1670	23 33.66
	κ			14.6									− 16.01 15.98
				16.8									− 69
													− 3
	((δ) — D) $\frac{\kappa'}{100}$			14.6									23 16.93
													− 2.24
	α_2												23 14.72

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+20.5	4′ 50.0	52.8	44	57,40	37	56.96		40″	53 38 25.91	
	1.311175					53 38	42.18			− 10	+12.81
d	9.77302						− 16.27			+ 121	
	1.21146									+1120	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14,10	
+5.45 δ_1		19 3.80		38 51.4						38 24.62	
+0 27.12											
20	+20.3	4 49.7	53.2	44	57,45	37	56.90		40	38 26.81	
	1.30450					53 38	42.92			− 10	+12.99
d	9.77302						− 16.11			+ 121	
	1.20721									+1138	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14,35	
+5.45 δ_2		19 3.77		38 52.6						38 25.45	
+0 27.12											
	+15.1	2 24.1	22.5	52	21,80	30	26.55		50	53 30 59.76	
	1.17898					53 31	11.78			− 6	+12.08
d	9.77422						− 12.02			+ 57	
	1.07989									+11.05	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14,10	
+5.49 δ_1		20 1.48		31 25.2						30 57.74	
+0 27.44											
38	+10.6	2 27.8	30.1	52	28,95	30	19.40		50	30 56.98	
	1.02531					53 31	5.42			− 3	+12.32
d	9.77422						− 8,44			+ 62	
	0.92622									+1123	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14,30	
+5.49 δ_2		20 1.63		31 22.47						30 55.00	
+0 27.44											
	+23.0	1 21.9	24.0	57	22,95	31	25.40		50	53 31 52.32	
	1.36173					53 32	10.63			− 14	+11.80
d	9.77422						− 18,31			+ 35	
	1.26264									+11.09	
((δ) − D) $\frac{d'}{100}$										+ 50	
+5.50										−14,05	
+0 27.80 δ_1		21 10.68		32 17.9						31 50.07	
20	+12.1	1 32.3	35.0	57	33,65	31	14.70		50	31 51.09	
	1.08276					53 32	0.72			− 4	+12.09
d	9.77405						− 9,63			+ 37	
	0.98343									+1126	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14,30	
+5.50 δ_2		21 10.65		32 16.7						31 48.85	
+0 27.80											
	+22.0	2 29.0	32.9	52	30,95	30	17.40		50	53 30 45.12	
	1.34242					53 31	2,63			− 13	+12.04
d	9.77422						− 17.51			+ 62	
	1.24333									+11.05	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14,00	
+5.52 δ_1		22 20.32		31 11.4						30 43.16	
+0 28.20											
20	+24.3	2 29.3	33.0	52	31,15	30	17.20		50	30 43.88	
	1.38561					53 31	3,22			− 15	+12.20
d	9.77422						− 19,34			+ 62	
	1.28652									+11.23	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−14,25	
+5.52 δ_2		22 20.29		31 10.0						30 41.83	
+0 28.20											
	+24.6	0 32.5	39.0	44	38,25	37	10.10		45	54 37 36.26	
	1.39094					54 37	55.33			− 16	+12.77
d	9.76271						− 19.07			+ 15	
	1.28034									+12.22	
((δ) − D) $\frac{d'}{100}$										+ 56	
										−14.00	
+5.25 δ_1		23 20.04		38 3.6						37 35.03	
+0 28.52											
16	+19.1	0 41.8	45.7	45	43,75	37	4.60		45	37 ~~32.22~~ 35.80	
	1.28103					54 37	50.62			− 9	+13.06
d	9.76265						− 18.40			+ 18	
	1.17037						14.82			+1241	
((δ) − D) $\frac{d'}{100}$										+ 56	
										−14.25	
+5.25 δ_2		23 19.97		38 3.1						37 ~~31.05~~ 34.61	
+0 28.52											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 18 (109) Observer A. M. Recorder H. G. Date$_2$ = Aug. 19 (110) Observer H. G. Recorder A. M. (90) ✓ Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_{m_2}	T
19h	24m 03s	53° 01′	8.8	24m 45.6	24m 55.6	47.9	18.8	22.5	26.0			24m 8s	18.80
	23 39.9	54 58.3	8.9	47.9		55.5						− 1646	−15.69
	κ			50.2									− 74
	((δ) − D) $\frac{\kappa'}{100}$			47.9									− 3
	a_1											24	2.44
												24	− 2.27
												24	0.17 +5.1
													0 +0 2
			9.0	24 5.0 8.8 8.9	11.1	15.3	19.0	22.5	25.9	938	18.76	24	18.76
												1671	−15.98
	κ												− 70
	((δ) − D) $\frac{\kappa'}{100}$												− 3
	a_2											24	2.02
												23	− 2.25
													59.80 +5.1
													+0 2
19	25 21	54 30	7.6	25 13.7	30.9	34.5	38.2	41.5	45.1	1902	38.04	25	38.04
	24 57.8	54 28.9	7.3	15.9								1645	−15.69
	κ												− 73
	((δ) − D) $\frac{\kappa'}{100}$			14.8									− 3
	a_1											25	21.59
												25	− 2.27
													19.32 +5.3
													+0 2
			8.0	25 16.4	31.2	34.8	38.6	41.7	45.4	1917	38.34	25	38.34
				19.2								1670	−16.0+15.98
	κ			21.5									− 69
	((δ) − D) $\frac{\kappa'}{100}$			19.1									− 3
	a_2											25	21.61
												25	− 2.25
													19.39 +5.3
Aug. 18													+0 2
18	18 07	53 26	9.0	12.5	17 52.0	55.3	58.8	62.0	65.8	2939	58.78	17	58.78
	17 44.3	53 25.1	8.9	18.8								1642	−15.69
	κ			20.2									− 70
	((δ) − D) $\frac{\kappa'}{100}$			[14 18.8									− 3
	a_1											17	42.36
												17	− 1.80
													40.56
Aug. 18													
18	55 30	53 20	9.2	55 28.5	40.2	43.7	47.2	50.7	54.1	2339	47.18	55	47.18
	53 7.3	53 18.9	9.3	29.6								1642	−15.69
	κ			30.5									− 70
	((δ) − D) $\frac{\kappa'}{100}$			29.5									− 3
	a_2											55	30.76
												55	− 2.06
													28.70 +5.3
Aug 18	observed at 19h 11												+0 19.
19 11	19	53 54	—	10 43.8	59.2							11(?)	2.69
18	55.8	53 52.5	8.7	45.3								1644	−15.69
1	κ			48.0									− 72
	((δ) − D) $\frac{\kappa'}{100}$			45.7									− 3
	a_2												46.25
Aug 19													− 2.17
												10s	44.08
18	26 21	53 56	9.1	26 23.0	29.8	33.3	36.7	40.1	43.8	1837	36.74	26	36.74
	25 58.1	53 45.8	9.1	26.0								1664	−15.69
	κ												− 72
	((δ) − D) $\frac{\kappa'}{100}$			24.5									− 3
	a_2			26.0								26	20.27
												26	− 1.85
													18.22 +4.9
													+0 9.
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	a_1												
	κ												
	((δ) − D) $\frac{\kappa'}{100}$												
	a_2												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	−29.0	2 ′ ″ 22.4	25.7	22	24,05	0	2430		20 ′	55 1 31.78	
	1.146240					55 1	9.53			− 22	+13,61
d	9.758233						+ 22,25			+ 60	
	1.34732									+12,63	
										+ 60	
((δ) − D) $\frac{d'}{100}$										−14,00	
+5.15 δ₁		24 5.22		2 0.2						1 31.39	
+0 28.76											
	+ 11.9	1 52.1	54.8	21	~~53,45~~	0	54,90		20	1 31.79	
	1.075555				52,03	55 1	40,92			− 4	+12,87
d	9.758233						− 9,13			+ 48	
	0.960472									+1183	
										+ 60	
((δ) − D) $\frac{d'}{100}$										−14,25	
+5.15											
+0 28.76 δ₂		24 ~~4~~ 1.95		2 0.6						1 ~~3041~~ 31,34	
	+23.2	2 22.4	25.5	52	23,95	30	2440		50	54 30 51.60	
	1.226549					54 31	9,63			− 14	+13,11
d	9.763178						− 18,03			+ 60	
	1.255962									+12,10	
										+ 55	
((δ) − D) $\frac{d'}{100}$										−13,95	
+5.30 δ₁		25 24.62		31 20.0						30 50.76	
+0 29.20											
	+19.2	2 27.2	31.1	52	29,15	30	19,20		50	30 50.30	
	1.283390					54 31	5,22			− 9	+13,38
d	9.763178						− 14,92			+ 63	
	1.173772									+12,29	
										+ 55	
((δ) − D) $\frac{d'}{100}$										−14,20	
+5.30 δ₂		25 24.69		31 18.7						30 49.48	
+0 29.20											
	~~+10.8~~	2 9.8	11.5	57	10,65	25	37,70		55	53 26 38.88	
−20.0	(−19.2)					53 26	21,93			− 10	+11,92
d	1.301039						+ 15,95			+ 55	
	9.774902									+1097	
	1.202622									+ 50	
((δ) − D) $\frac{d'}{100}$										−15,35 50	
δ₁										26 35,30	
	+17.7	2 84.1	86.2	2	35,15	20	13,20		0	53 20 44.29	
	1.247994					53 20	58,43			− 8	+11,96
d	9.775912						− 14,14			+ 65	
	1.150582									+1089	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−14,75	
+5,32 δ₂		55 34,02		21 0.7						20 41,50	
+0 19,24											
	+17.0	38.8	11.8	28	10,25	54	38,30		25	53 55 10.13	
	1.230455					53 55	23,53			− 7	+12,71
d	9.770092						− 13,40			+ 80	
	1.127232									+1148	
										+ 50	
((δ) − D) $\frac{d'}{100}$										−1430	
δ₁										55 8.54	
										~~42,28~~	
+ 10.7	+12.2	3 42.3	45.0	28	43,65	54	4,70		25	53 54 ~~41.10~~	
1.029382	1.085136					53 54	50,72			− 4	+13,05
9.770092	9.770092						− ~~9,62~~			+ 93	
0.926164	0.983136						8,44			+11,66	
((δ) − D) $\frac{d'}{100}$										+ 50	
+4.99 δ₂		26 23.21		54 48.9						−15,60	
+0 9.20										54 ~~38,55~~	
										39,73	
d											
((δ) − D) $\frac{d'}{100}$											
δ₁											
d											
((δ) − D) $\frac{d'}{100}$											
δ₂											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 22 $n = -.49$ Observer A. M. Recorder H. G

Date$_2$ = Aug. 28 $n = -.55$ $c = +.06$ Observer H. G. Recorder A. M.

92

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	h m s	° ′		h m s	s	s	s	s	s		s		m s
	1 1 28	54 42	9.0	18 1 24.8	35.4	39.2	42.7	46.5	50.1	2139	42.78	17.29	1 42.78
	1 1 1.5	54 42.0		27.2									−16.56.7
	1 κ 5.1	54 42.3	8.9	26.0									− 69
													− 3
	((δ) − D) $\frac{\kappa'}{100}$												1 25.50
													− 1.58
	α_1												1 23.91
			9.0	1 23.6	37.0	40.5	44.1	47.5	51.2	2203	44.06	18.66	1 44.06
				25.7									−17.96
	κ			24.6									− 77
													+ 10
	((δ) − D) $\frac{\kappa'}{100}$												− 3
													1 25.40
	α_2												− 1.39
													1 24.01
18	2 27	54. 5	8.8	2 49.4	36.4	40.0	42.5	47.0	50.3	2162	43.24	17.27	2 43.24
	2 4.0	54 5.1	8.6	21.1									−16.56.7
	κ			22.4									− 67
													− 3
	((δ) − D) $\frac{\kappa'}{100}$			20.9									2 25.98
													− 1.58
	α_1												2 24.39
			8.7	2 17.8	37.6	41.2	44.5	47.9	51.4	2226	44.52	18.65	2 44.52
				19.3									−17.96
	κ			18.5									− 76
													+ 10
	((δ) − D) $\frac{\kappa'}{100}$												− 3
													2 25.87
	α_2												− 1.39
													2 24.48
18	4 35	54 28	9.2	4 27.9	44.7	48.2	51.6	55.1	58.7	2583	51.66	17.29	4 57.66
	4 12.4	54 28.6	9.3	29.1									−16.56.7
	κ			30.5									− 69
													− 3
	((δ) − D) $\frac{\kappa'}{100}$			29.2									4 34.38
													− 1.60
	α_1												4 32.77
			9.0	4 27.0?	45.4	49.5	52.9	56.4	60.2	2644	52.88	18.66	4 52.88
													−17.96
	κ												− 77
													+ 10
	((δ) − D) $\frac{\kappa'}{100}$												− 3
													4 34.22
	α_2												− 1.41
													4 32.81
18	5 22	54.9	8.7	5 20.7	31.2	35.0	38.3	41.7	45.6	1918	38.36	17.27	5 38.36
	4 59.8	54 9.0	9.0	22.5									−16.56.7
	κ			24.0									− 67
													− 3
	((δ) − D) $\frac{\kappa'}{100}$			22.4									5 21.10
													− 1.63
	α_1												5 19.46
			8.7	5 27.1	32.1	36.0	39.6	42.9	46.5	1971	39.42	18.65	5 39.42
				30.0									−17.96
	κ												− 76
				28.5									+ 10
	((δ) − D) $\frac{\kappa'}{100}$												− 3
													5 20.77
	α_2												− 1.44
													5 19.33
18	7 56	54 14	6.5	7 43.9	8 4.9	8.3	11.8	15.3	18.9	5902	11.84	17.27	8 11.84
	7 33.9	54 14.6	6.0	44.8									−16.56.7
	κ			46.6									− 67
				48.7									− 3
	((δ) − D) $\frac{\kappa'}{100}$			46.0									7 54.58
													− 1.63
	α_1												7 52.94
			7.2	7 ~~48.8~~	~~8 7.1~~	~~10.0~~	~~12.7~~	~~15.2~~	~~18.1~~				
				~~50.3~~	8 6.1	9.5	13.1	16.4	20.0	6512	13.02	18.65	8 13.02
				~~51.9~~									−17.96
	κ			~~54.2~~									− 76
				~~57.5~~									+ 10
	((δ) − D) $\frac{\kappa'}{100}$			~~60.6~~									− 3
													7 54.37
	α_2			57.4									− 1.44
													7 52.93

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Aug. 22 +0′ 48.″49 +.″25
" 28 +0 47.31 +.22

Runs	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+16.8	1 12.0	8.6	41	10.90	41	37.45		+0	54 42 12.94	
	1.22531					54 42	25.94			− 7	+13.34
d	9.76182						− 13.00			+ 30	
	1.11382n									+12.54	
1.28 ((δ) − D) d′/100										+ 57	
										−16.56	
+4.74 δ₁		1 28.65		42 40.3						42 9.78	
+0 0.52											
	+19.5	1 11.0	8.1	41	9.53	41	38.80		40	42 11.03	
	1.29003					54 42	26.11			− 9	+13.07
d	9.76182						− 15.08			+ 25	
	1.17854n									+12.34	
((δ) − D) d′/100										+ 57	
										−17.30	
+4.74 δ₂		1 28.75		42 7.3						42 6.80	
+0 0.52											
	+22.3	3 24.5	23.0	18	23.75	4	24.60		15	54 4 55.58	
	1.34830					54 5	13.09			− 13	+13.14
d	9.76835						− 17.51			+ 85	
	1.24334n									+11.91	
1.28 ((δ) − D) d′/100										+ 57	
										−16.45	
+4.90 δ₁		2 29.29		4 53.2						4 52.27	
+0 0.88											
	+26.0	3 19.9	16.1	18	18.50	4	30.35		15	4 57.24	
	1.41497					54 5	17.66			− 18	+12.78.6
d	9.76836						− 20.42			+ 73	
	1.31001n									+1170	
((δ) − D) d′/100										+ 57	
										−17.30	
+4.90 δ₂		2 29.38		4 53.6						4 52.70	
+0.0.88											
	+22.5	4 28.3	27.5	54	27.90	28	20.45		50	54 28 51.44	
	1.35218					54 29	8.94			− 13	+13.85
d	9.76413						− 17.50			+ 111	
	1.24300n									+1232	
1.22 ((δ) − D) d′/100										+ 55	
										−16.45	
+4.80 δ₁		4 37.57		28 50.4						28 48.84	
+0 1.60											
	+25.9	4 23.8	20.2	54	22.50	28	26.35		50	28 53.52	
	1.41330					54 29	13.66			− 17	+13.46
d	9.76413						− 20.14			+ 96	
	1.30412n									+1212	
((δ) − D) d′/100										+ 55	
										−17.25 30	
+4.80 δ₂		4 37.61		28 51.3						28 49.68	
+0 1.60											
	+16.0	4 30.3	28.6	14	29.45	8	18.90		10	54 8 54.84	
	1.20412					54 9	7.39			− 7	+13.52
d	9.76765						− 12.55			+ 112	
	1.09846n									+1196	
1.06 ((δ) − D) d′/100										+ 57	
										−16.45	
+4.89 δ₁		5 24.35		8 53.8						8 51.91	
+0 1.88											
	+10.9	4 35.1	31.0	14	33.05	8	15.30		10	8 54.06	
	1.03743					54 9	2.61			− 3	+13.25
d	9.76765						− 8.53			+ 100	
	0.93177n									+1177	
((δ) − D) d′/100										+ 57	
										−17.30 25	
+4.89 δ₂		5 24.22		8 51.9						8 50.06	
+0 1.88											
	+25.8	3 18.4	17.6	8	18.00	14	30.35		5	54 14 58.67	
1.38	1.41162					54 15	18.84			− 17	+13.25
d	9.76660						− 20.17			+ 83	
	1.30481n									+1207	
((δ) − D) d′/100										+ 52	
										−1640	
+4.86 δ₁		7 57.80		14 58.3						14 55.52	
+0 2.80											
	+15.6	3 25.7	23.3	8	24.50	14	23.85		5	14 58.96	
	1.19312					54 15	11.16			− 7	+13.07
d	9.76660						− 12.20			+ 75	
	1.08641n									+1187	
((δ) − D) d′/100										+ 52	
										−17.30	
+4.86											
+0 2.80 δ₂		7 57.79		14 57.5						14 54.73	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Aug. 22 (11) Observer A.M. Recorder H.G. Date$_2$ = Aug. 28 (12) Observer H.G. Recorder A.M. 94 Ru

Star.	α	δ	Mag.	T_o	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18	h m s	° ′ ″		m s	s	s	s	s	s		s		m s
	9 17 53.29	8 54.2 53 28.7	9.0 8.8	9 9.3 10.6 12.5	28.5	32.0	35.4	38.8	42.8	17 70	35.40	−17.26	9 35.86 −16.56 .67 −.66 −.3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			10.8									9 18.15 −1.63
	a_1												9 16.51 +5.0 +0 3.
			9.3	9 ~~14.3~~ 20.1 ~~18.2~~ 20.2	27.3	33.X	36.3	40.8	43.2	18 19	36.38	18.63	9 36.~~28~~42 −17.96 −.74 +.10 −.3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												9 17.75 −1.~~87~~45
	a_2												9 16.3~~1~~4 +50 +0'3.
18	10 12	54 44	8.6 9.1	10 13.1 15.1	20.2	23.7	27.1	30.5	33.9	13 54	27.08	17.29	10 27.08 −16.58.67 −.69 −.3
	9 48.4	54 43.9											
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			14.1									10 9.80 −1.65
	a_1												10 8.14 +4.7 +0 3
			8.7	10 10.0? ~~11.0?~~ 19.0 22.4	21.0	25.0	28.1	31.3	35.7	14 11	28.22	18.66	10 28.22 −17.96 −.77 +.10 −.3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			20.7									10 9.56 −1.46
	a_2												10 8.10 +4. +0 3.
18	11.7	53 38	8.7	11 9.8 11.2	17.0	20.4	24.2	27.4	31.0	12 00	24.00	17.26	11 24.00 −16.56.67 −.66 −.3
	10 44.2	53 38.1	8.3										
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			10.5									11 6.75 −1.65
	a_1												11 5.09 +5.0 +0 3.
			8.5	10 0.4 ~~3.2~~ ~~1.3~~ ~~0.8~~ 1.8	17.9	21.6	25.1	28.6	32.0	12 52	25.04	18.63	11 25.04 −17.96 −.74 +.10 −.3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												11 6.41 −1.46
	a_2												11 4.95 +5 +0 3
18	12 42.3	54 6.1	7.0 6.6	12 26.3 27.8 29.4	30.0	33.7	36.9	40.4	44.0	28 50	57.00	17.27	12 ~~27~~.00 −16.56.67 −.67 −.3
	12 19.3	54 6.1											
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			27.8									12 39.74 −1.66
	a_1												12 38.07 +4.9 +0 4
			8.0	12 34.7 37.6 39.9	51.2	54.8	58.0	61.7	65.0	29 07	58.14	18.65	12 58.14 −17.96 −.76 +.10 −.3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			37.4									12 39.49 −1.48
	a_2												12 38.01 +4. +0 4
18	14 31	54 42	8.9 8.8	14 20.0 21.2 23.4	40.5	43.9	47.4	50.8	54.5	23 91	47.42	17.29	14 47.42 −16.56.67 −.69 −.3
	14 8.9	54 42.3											
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			21.5									14 30.14 −1.68
	a_1												14 28.45 +4.7 +0 5
			8.7	14 23.0 26.8	41.3	45.3	48.4	52.3	55.3	24 26	48.52	18.66	14 48.52 −17.96 −.77 +.10 −.3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			24.9									14 29.86 −1.49
	a_2												14 28.37 +4.7 +0 5

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+24.6	3 35.5	34.2	53	34.85	29	13.50	14.00	50	53 29 42.90	
	1.39094					53 30	2.49			− 16	+12.53
d	9.77439						− 19.59			+ 90	
	1.29202 m									+1129	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−16.35	
+5.07 δ₁		9 21.64		29 42.4						29 39.08	
+0 3.28											
+163	+18.2	3 43.3	38.2	53	40.75	29	7.60		50	29 40.42	41.93
1.21219	1.26007					53 29	54.91			− 8	+12.29
9.77439	9.77439						−14.49			+ 82	
1.11327	1.16115 m						− 12.98			+1110	
((δ) − D) $\frac{d'}{100}$										+ 45	
										−17.20	
+5.07 δ₂		9 21.41		29 40.3						29 35.57	37.02
+0 3.28											
	+13.0	4 27.0	26.3	39	26.65	43	21.70		35	54 44 0.14	
	1.11394					54 44	10.19			− 5	+14.21
d	9.76146						− 10.05			+ 111	
1.14	1.00209 m									+1258	
((δ) − D) $\frac{d'}{100}$										+ 57	
										−1645	
+4.73 δ₁		10 12.87		44 1.5						43 57.90	
+0 3.56											
	+7.5	4 30.0	27.4	39	28.70	43	19.65		35	44 1.16	
	0.87506					54 44	6.96			− 2	+13.91
d	9.76146						− 5.80			+ 99	
	0.76321 m									+1237	
((δ) − D) $\frac{d'}{100}$										+ 57	
										−17.30	
+4.73 δ₂		10 12.83		44 1.3						43 57.77	
+0 3.56											
	+13.5	4 33.0	30.6	44	31.80	38	16.55		40	53 38 54.33	
	1.13033					53 39	5.04			− 5	+13.02
d	9.77285						− 10.71			+ 113	
1.114	1.02987 m									+1144	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−16.35	
+5.04 δ₁		11 10.13		38 54.9						38 51.00	
+0 3.92											
+23.2	+24.2	4 27.7	23.9	44	25.80	38	22.55		40	38 50.66	51.45
1.36549	1.38382					53 39	9.86			− 15	+12.55
9.77285	9.77185						−19.20			+ 97	
1.26503	1.28336 m						−18.41			+1127	
((δ) − D) $\frac{d'}{100}$										+ 46	
										−17.20	
+5.04 δ₂		11 9.99		38 50.7						38 46.81	
+0 3.92										80	
	+29.2	2 10.7	8.2	19	9.45	5	38.90		15	54 6 4.47	
	1.46538					54 6	27.39			− 22	+12.73
d	9.76817						− 22.92			+ 53	
114	1.36024 m									+1191	
((δ) − D) $\frac{d'}{100}$										+ 57	
										−1635	
+4.91 δ₁		12 42.98		6 5.3						6 0.85	
+0 4.44											
	+20.7	2 16.8	12.1	17	14.45	5	33.90		15	6 4.96	
	1.31597					54 6	21.21			− 11	+12.60
d	9.76817						− 16.25			+ 48	
	1.21083 m									+1172	
((δ) − D) $\frac{d'}{100}$										+ 51	
										−1725	
+4.91 δ₂		12 42.92		6 4.8						6 0.31	
+0 4.44											
	+25.9	0 41.5	40.0	40	40.75	42	7.60		40	54 42 36.06	
	1.41330					54 42	26.09			− 17	+13.12
d	9.76164						− 20.03			+ 18	
	1.30163 m									+1254	
((δ) − D) $\frac{d'}{100}$										+ 57	
										−1640	
+4.75 δ₁		14 33.20		42 37.9						42 32.78	
+0 5.08											
1.30	+23.6	0 42.7	39.2	40	40.95	42	7.40		40	42 36.46	
	1.37291					54 42	34.71			− 15	+12.91
d	9.76164						− 18.25			+ 15	
	1.26124 m									+1234	
((δ) − D) $\frac{d'}{100}$										+ 57	
										−1730	
+4.75 δ₂		14 33.12		42 37.2						42 32.07	
+0 5.08											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.prof.1575R

Date$_1$ = Aug. 22 111 Observer A.M. Recorder H.L. Date$_2$ = Aug. 28 112 Observer H.L. Recorder A.M. 96 Ru

Star.	α	δ	Mag.	T_δ'	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
8h	m s / 15 0.6	° ′ / 54 14.3	8.8 / 9.0	m 15 / s 21.7 23.2 24.6	s 32.1	s 35.5 b	s 39.1	s 42.8 b	s 46.0	19 52	s 39.04	17.27	m 15 39.04 −16.58 −.67 −.03
	κ												15 21.78 −1.68
	((δ) — D) $\frac{\kappa'}{100}$			23.1									15 20.13
	a_1												+4.8 +0.5
			9.0	15 29.1 31.9 30.5	32.8	36.5 b	40.4	44.0	46.9	20 02	40.04	18.65	15 40.04 −17.96 −.76 +.10 −.03
	κ												15 21.39 −1.50
	((δ) — D) $\frac{\kappa'}{100}$												15 19.89
	a_2												+4.8 +0.5
18	17 28 / 17 5.1	54 30 / 54 27.8	8.8 / 8.2	17 17.0 18.5 21.8	36.7	40.3	43.5	47.2	50.6	21 83	43.66	17.29	17 43.66 −16.58 −.69 −.03
	κ												17 26.38 −1.70
	((δ) — D) $\frac{\kappa'}{100}$			19.1									17 24.67
	a_1												+4.8 +0.6
			8.0	17 24.4 27.6 26.0	37.8	41.2	44.7	48.2	52.0	22 39	44.38	18.66	17 44.38 −17.96 −.77 +.10 −.03
	κ												17 26.12 −1.51
	((δ) — D) $\frac{\kappa'}{100}$												17 24.61
	a_2												+4.1 +0.6
18	19 12 / 18 49.7	54 57 / 54 54.8	8.7 / 8.5	18 56.5 57.8 57.1	19 21.4	24.9	28.4	32.0	35.4	14 21	28.42	17.30	19 28.42 −16.58 −.70 −.03
	κ												19 11.13 −1.72
	((δ) — D) $\frac{\kappa'}{100}$												19 9.40
	a_1												+4.6 +0.6
			8.8	19 10.0 13.6 11.8	22.3	26.0	29.4	33.0	36.9	14 76	29.52	18.68	19 29.52 −17.96 −.79 +.10 −.03
	κ												19 10.84 −1.54
	((δ) — D) $\frac{\kappa'}{100}$												19 9.30
	a_2												+4.6 +0.6
18	20 30 / 20 7.2	54 1.3 / 54 1.3	8.3 / 8.1	20 14.1 15.5 17.2 15.6	39.4	42.9	46.2	49.9	53.2	23 16	46.32	17.27	20 46.32 −16.58 −.67 −.03
	κ												20 29.06 −1.72
	((δ) — D) $\frac{\kappa'}{100}$												20 27.33
	a_1												+4.9 +0.7
			8.1	20 ~~25.0~~ 31.0 ~~29.5~~ 31.0	~~40.0~~ 1	43.5 b	~~47.2~~ 3	~~50.9~~	~~54.1~~	23 57	47.14	18.65	20 ~~47.44~~ 47.35 −17.96 −.76 +.10 −.03 .70
	κ												20 28.49 −1.54
	((δ) — D) $\frac{\kappa'}{100}$												20 ~~25.85~~ 27.16
	a_2												+4.9 +0.7
18	21 23 / 21 0.4	54 39 / 54 39.4	9.2 / 9.3	21 24.9 25.8 25.3	30.2	34.7	38.1	41.9	45.2	19 01	38.02	17.29	21 38.02 −16.55 −.69 −.03
	κ												21 20.75 −1.73
	((δ) — D) $\frac{\kappa'}{100}$												21 19.00
	a_1												+4.7 +0.7
			9.1	21 31.0 37.0 34.0	32.2	35.6	39.1	42.3	46.3	19 55	39.10	18.66	21 39.10 −17.96 −.77 +.10 −.03
	κ												21 20.44 −1.55
	((δ) — D) $\frac{\kappa'}{100}$												21 18.89
	a_2												+4.7 +0.7

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+18.9	3 ′ ″ 60.0	57.8	8′	58.90	13	49.45	5′	54 14 25.50		
	1.201140					54 14	37.94		− 7	+13.52	
d	9.776677						− 12.44		+ 100		
	1.094817								+1207		
$((\delta) - D)\frac{d'}{100}$									+ 52		
									−1630		
+4.88 δ_1		15 25.01		14 28.1					14 22.72		
+0 5.40											
1.101	+9.5	4 2.0	1.4	9	1.70	13	46.65	5	14 26.53		
	0.977722					54 14	33.96		− 3	+13.23	
d	9.776677						− 7.43		+ 88		
	0.871187								+1186		
$((\delta) - D)\frac{d'}{100}$									+ 52		
									−1725		
+4.88 δ_2		15 24.81		14 27.9					14 22.51		
+0 5.40											
	+24.6	2 43.0	42.2	52	42.60	30	5.75	50	54 30 35.12		
	1.390944					54 30	54.24		− 16	+13.40	
d	9.776378						− 19.12		+ 68		
	1.281411								+1233		
$((\delta) - D)\frac{d'}{100}$									+ 53		
									−1635		
+4.81 δ_1		17 29.48		30 38.3					30 32.17		
+0 6.12											
1.12	+18.8	2 47.0	42.7	52	44.85	30	3.50	50	30 36.20		
	1.274116					54 30	50.81		− 9	+13.17	
d	9.776378						− 14.61		+ 57		
	1.164631								+1212		
$((\delta) - D)\frac{d'}{100}$									+ 55		
									−1725		
+4.81 δ_2		17 29.42		30 38.2					30 32.12		
+0 6.12											
	+31.3	1 4.6	1.7	26	3.15	56	45.20	25	54 57 9.63		
	1.495541					54 57	33.69		− 25	+13.41	
d	9.775913						− 24.06		+ 35		
	1.381361								+1287		
1.10 $((\delta) - D)\frac{d'}{100}$									+ 60		
									−1635		
+4.69 δ_1		19 14.09		57 13.4					57 6.69		
+0 6.72											
	+17.7	1 14.0	9.2	26	11.60	56	36.75	25	57 10.45		
	1.247997					54 57	24.06		− 8	+13.37	
d	9.775913						− 13.61		+ 26		
	1.133791								+1260		
$((\delta) - D)\frac{d'}{100}$									+ 57		
									−1726		
+4.69 δ_2		19 13.99		57 13.3					57 6.57		
+0 6.72											
	+30.7	1 13.1	11.9	21	12.50	1	35.85	20	54 2 0.20		
	1.487114					54 2	24.34		− 24	+12.40	
d	9.776887						− 24.14		+ 30		
	1.382701								+1184		
$((\delta) - D)\frac{d'}{100}$									+ 50		
									−1625		
+4.95 δ_1		20 32.28		2 3.5					1 56.35		
+0 7.16									2 ~~0.88~~		
5											
+16.4	+17.6	1 23.8	20.0	21	21.90	1	26.45	20	~~59.92~~		
1.214484	1.244551					54 2	13.76		− 8	+12.36	
9.768887	9.776887						− ~~13.84~~		+ 30		
1.711040	1.141717						− 12.88		+1164		
$((\delta) - D)\frac{d'}{100}$									+ 50		
									−1720		
+4.95 δ_2		20 32.11		2 3.2					1 ~~55.08~~		
27.16 +0 7.16									56.04		
	+12.7	3 32.0	30.6	43	31.30	39	17.05	40	54 39 55.71		
	1.103801					54 40	5.54		− 5	+13.87	
d	9.762187						− 9.83		+ 88		
1.08	0.992677								+1248		
$((\delta) - D)\frac{d'}{100}$									+ 56		
									−1630		
+4.78 δ_1		21 23.78		40 0.8					39 53.28		
+0 7.48											
	+5.1	3 39.3	35.7	43	37.50	39	10.85	40	39 54.21		
	0.970757					54 39	58.16		− 1	+13.63	
d	9.762187						− 3.95		+ 79		
	0.596444								+1229		
$((\delta) - D)\frac{d'}{100}$									+ 56		
									−1720		
+4.78 δ_2		21 23.67		39 58.1					39 50.64		
+0 7.48											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.prof.1575R

Date$_1$ = Aug. 22 111 Observer A M Recorder Hels. Date$_2$ = Aug 28 12 Observer Hels Recorder A M. Ru

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
18	22 22 84	54 54 37	9.5	22 27.8	32.0	35.5	39.1	42.8	46.4	19 5 8	39.16		22 39.16
	22 51.1	54 46.7	8.8	29.7								-17.29	-16.55.7
	κ 1.0	47.4		31.0									- 69
													- 3
	((δ) — D) $\frac{\kappa'}{100}$			29.4									22 21.89
23	42												- 1.74
	c_1												22 20.13
	22 31.1	54 36.7	8.2	22 54.1	23 4.0	7.5	10.9	14.7	18.1	5 52	11.04		23 11.04
				56.5								18.66	-17.96
	κ												- 77
				55.3									+ 10
	((δ) — D) $\frac{\kappa'}{100}$												- 3
													22 52.38
	α_2												- 1.56
													22 50.82
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	α_1												
													44 80
18	24 24 24	54 48 54 41.8	7.3 7.2	24 9.3 10.3	38.0	44.6	44.9	48.5	52.0	22 50 45.00			24 45.00
	24 κ 6.9			13.8								-17.29	-16.55.7
													- 69
				11.1									- 3
	((δ) — D) $\frac{\kappa'}{100}$												24 27.61
													- 1.76
	α_2												24 25.85
			9.5	24 37.0	39.0	42.8	46.2	48.6	53.4	23 0 0	46.00		24 46.00
				40.7								18.66	-17.96
	κ												- 77
				38.8									+ 10
	((δ) — D) $\frac{\kappa'}{100}$												- 3
													24 27.34
	α_1												- 1.57
													24 25.77
18	25 25 32	54 57 54 57.2	8.8 9.2	24.3 25.7	41.7	45.2	48.6	52.3	55.8	24 36	48.72		25 48.72
	25 κ 7.7											17.30	-16.55.7
				25.0									- 70
	((δ) — D) $\frac{\kappa'}{100}$												- 3
													25 31.44
	α_2												- 1.77
													25 29.65
			9.1	25 24.4	42.5	46.0	50.0	53.5	57.2	24 92	49.84		25 49.84
				41.2								18.68	-17.96
	κ			41.2									- 79
				27.0									+ 10
	((δ) — D) $\frac{\kappa'}{100}$												- 3
													25 31.20
	α_1												- 1.58
													25 29.58
18	27 27 40	54 37 54 36.4	9.2 9.4	27 27.5	50.6	54.2	57.3	60.9	64.7	28 77	57.54		27 57.54
	27 κ 17.7			28.8								17.29	-16.55.7
				30.4									- 69
	((δ) — D) $\frac{\kappa'}{100}$												- 3
				28.9									27 40.27
	α_2												- 1.78
													27 38.49
			9.3	27 42.1	51.0	55.1	58.8	61.9	65.5	29 21	58.42		27 58.42
				45.0								18.66	-17.96
	κ												- 77
				43.5									+ 10
	((δ) — D) $\frac{\kappa'}{100}$												- 3
													27 39.76
	α_1												- 1.60
													27 38.16
													20
	κ												
	((δ) — D) $\frac{\kappa'}{100}$												
	α_2												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+9.8	0 ′ 49.3	48.3	~~45~~ 35	47.80	36	59.55		~~45~~ 35	54 37 40.45	
	0.991223					54 37	48.04 47			47 − 3	+13.18
d	9.76~~2~~53	093				4	− 7.58			+ 20	
	0.880450									+12.45	
	87885									+ 56	
										−16.30	
((δ) − D) $\frac{d'}{100}$											
+4.79 δ_1		22 24.92		47 45.4						~~37~~ 47 37.38	
+0 8.00											
	+16.7	1 19.8	15.7	46	17.75	36	30.60		45	37 5.74	
	1.195900					54 37	17.91		Same	− 7	+13.04
d	9.76271						− 12.17			+ 29	
	1.085301									+12.26	
										+ 56	
										−17.20	
((δ) − D) $\frac{d'}{100}$											
+4.80 δ_2		22 55.62		37 9.6						37 1.58	
+0 8.00											
d											
((δ) − D) $\frac{d'}{100}$											
δ_1											
	+33.8	+33.9	0 − 3.0	− 3.9	34	56.55	47	51.80		35	54 48 14.80	
	1.529592	1.530220					54 48	40.29			− 30	+12.80
1.00	9.76057	9.760775						− 26.46			− 1	
	1.476119	1.417164						07			+12.63	
((δ) − D) $\frac{d'}{100}$											+ 58	
											−16.25	
+4.75 δ_2		24 30.60		48 19.4							48 10.78	
+0 8.56											87	
	+7.2	0 18.2	14.6	35	16.40	47	31.95		35	48 13.70	
	0.857333					54 48	19.26			− 2	+13.07
d	9.760755						− 5.56			+ 7	
	0.744477									+12.84	
										+ 58	
										−17.20	
((δ) − D) $\frac{d'}{100}$											
+4.75 δ_1		24 30.52		48 18.1		43.70 ✓					
+0 8.56							465			48 9.57	
	+23.7	0 ~~44~~0	43.4	25	~~45.20~~	57	~~3.15~~		25	54 57 ~~33.43~~	
	1.374475					54 587	~~51.64~~ 53.14			− 15	+13.44
1.12 d	9.758985						− 18.21			+ 19	
	1.260391									+12.80	
										+ 60	
										−16.25	
((δ) − D) $\frac{d'}{100}$											
+4.71 δ_2		25 34.36		57 41.5						57 ~~30.68~~ 32.67	
+0 8.92											
+ 8.6	+12.2	0 53.5	51.8	25	52.65	56	55.70		25	57 ~~33.43~~	26.40
0.934500	1.086036					54 57	43.01			− 4	+13.37
9.~~76~~8995	9.755795						− ~~9.38~~			+ 20	
0.820149	0.917200						6.61			+12.61	
										+ 60	
										−17.20	
((δ) − D) $\frac{d'}{100}$											
+4.71 δ_1		25 34.29		57 41.5						57 ~~29.80~~ 32.57	
+0 8.92											
	+28.6	0 33.9	31.0	45	32.45	37	15.90		45	54 37 42.23	
	1.456347					54 38	4.39			− 21	+12.93
7.08 d	9.762553						− 22.16			+ 13	
	1.345591									+12.45	
										+ 56	
										−16.20	
((δ) − D) $\frac{d'}{100}$											
+4.81 δ_2		27 43.28		37 48.6						37 38.96	
+0 9.68											
	+14.9	0 43.9	40.0	45	41.95	37	6.40		45	37 42.16	
	1.173119					54 37	53.71			− 6	+12.92
d	9.762553						− 11.55			+ 15	
	1.062411									+12.27	
										+ 56	
										−17.13	
((δ) − D) $\frac{d'}{100}$											
+4.81 δ_1		27 43.01		37 47.6						37 37.93	
+0 9.68											
d											
((δ) − D) $\frac{d'}{100}$											
δ_2											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.prot.1575R

Date$_1$ = Aug. 22 (111) Observer A.M. Recorder H.G. Date$_2$ = Aug. 28 (112) Observer H.G. Recorder A.M. (100) Ru

Star.	α	δ	Mag.	T_δ	T_m	T_o	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	m s	° ′ ″		m s	s	s	s	s	s	s	s	m	m s
	32 25	51 46	8.9	32 18.3	38.2	41.6	44.8	48.0	51.4	224044.80		32	44.80
	32 2.8	51 5.8	8.5	19.4								-17.20	-16.57
	κ			21.2									- 61
													- 2
	((δ) — D) $\frac{\kappa'}{100}$			19.6								32	27.62
													- 1.78
	α_1											32	25.82
			8.2	32 28.0	39.2	42.7	46.0	49.2	52.5	229645.92		32	45.92
				30.8								18.57	-17.96
	κ												- 68
				29.4									+ 9
	((δ) — D) $\frac{\kappa'}{100}$												- 2
												32	27.35
	α_2												- 1.61
												32	25.74
18	33 47	54 50	8.0	33 34.2	55.0	58.7	62.1	65.6	69.2	3106621.12		34	2.12
	33 24.3	54 49.5	8.5	35.6								17.30	-16.57
	κ			37.8									- 70
													- 3
	((δ) — D) $\frac{\kappa'}{100}$			35.8								33	44.84
													- 1.83
	α_1											33	42.99
			8.1	33 41.0	56.2	59.6	3.0	6.7	10.4	3159 63.16		34	3.18
				43.6								18.68	-17.96
	κ												- 79
				42.3									+ 10
	((δ) — D) $\frac{\kappa'}{100}$												- 3
												33	44.50
	α_2												- 1.65
												33	42.85
18	35 56	52 13	8.0	35 41.9	36 7.2	10.6	13.9	17.3	20.7	6971 3.94		36	13.94
	35 33.7	52 12.3	8.0	44.8								17.22	-16.57
	κ		6.8										- 63
				43.3									- 2
	((δ) — D) $\frac{\kappa'}{100}$											35	56.74
													- 1.81
	α_1											35	54.91
			8.0	35 55.1	36 8.2	11.7	15.0	18.2	21.7	74 14.96		36	14.96
			8.0	59.4								18.58	-17.96
	κ			60.9									- 70
													+ 10
	((δ) — D) $\frac{\kappa'}{100}$			58.4									- 2
												35	56.38
	α_2												- 1.64
												35	54.74
18	36 40	52 49	~~8.0~~	36 40.9	51.0	54.7	58.0	61.4	64.8	28995 7.96		36	57.48
	36 17.5	52 48.6	~~8.0~~	42.2								17.23	-16.57
	κ		7.8	45.3									- 64
			7.8										- 2
	((δ) — D) $\frac{\kappa'}{100}$			42.8								36	40.77
													- 1.82
	α_1											36	38.93
			8.0	36 54.8	57.4	56.0	59.0	62.4	65.0	29485 8.96		36	58.96
				57.1								18.60	-17.96
	κ			57.9									- 72
													+ 10
	((δ) — D) $\frac{\kappa'}{100}$			56.6									- 2
												36	40.16
	α_2												- 1.64
												36	38.72
18	38 0	54 12	8.5	37 ~~47.3~~	38 ~~8.3~~	11.6	15.5	19.0	22.3	7671 5.34		38	16.34
	37 37.5	54 11.0	9.2	49.2								17.28	-16.57
	κ			~~49.2~~									- 68
40 6	((δ) — D) $\frac{\kappa'}{100}$			48.2									- 3
												37	58.08
	α_1												- 1.85
												37	56.21
			8.7	37 ~~56.9~~	38 9.0	12.6	16.2	19.7	23.2	6071 6.14		38	16.14
				59.9								18.65	-17.96
	κ			~~58.4~~									- 76
				~~54.9~~									+ 10
	((δ) — D) $\frac{\kappa'}{100}$												- 3
												37	57.49
	α_2												- 1.67
												37	55.82

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+28.2	1 32.0	28.8	16	30,40	6	17.95		15	51 6 45.26	
	1.401140					51 7	6.44			− 17	+9.37
d	9.797778						− 21.18			+ 38	
112	1.325870									+ 8.86	
((δ) − D) $\frac{d'}{100}$										+ 36	
										−15.90	
+5.72 δ1		32 31.54		6 50.1						6 38.73	
+0 11.36											
	+16.5	1 37.9	34.0	16	35,95	6	12.40		15	6 45.84	
	1.217488					51 6	59.71			− 7	+9.32
d	9.797778						− 13.87			+ 35	
	1.141950									+ 868	
((δ) − D) $\frac{d'}{100}$										+ 36	
										−16.95	
+5.72 δ2		32 31.46		6 49.6						6 38.21	
+0 11.36											
	−33.7	3 21.7	19.4	33	24,55	49	27.80		30	54 49 56.01	
	+26.3					54 50	16.29			− 18	+13.91
1.06 d	1.419966						− 20.28			+ 83	
	9.760390									+12.68	
((δ) − D) $\frac{d'}{100}$	1.307040									+ 58	
										−16.10	
+4.78 δ1		33 47.77		50 5.6						49 53.82	
+0 11.76											
	+29.1	3 25.8	22.0	33	23,90	49	24.45		30	49 55.64	
	+20.9					54 50	11.76			− 11	+13.71
d	1.320150						− 16.12			+ 75	
	9.760390									+12.49	
((δ) − D) $\frac{d'}{100}$	1.207230									+ 58	
										−17.15	
+4.78 δ2		33 47.63		50 4.0						49 52.20	
+0 11.76											
	+30.6	4 26.7	25.0	9	26,85	13	21.50		5	52 13 44.90	
1.02 d	1.485720					52 14	9.99			− 25	+11.29
	9.787070						− 25.09			+ 111	
	1.399480									+ 9.77	
((δ) − D) $\frac{d'}{100}$										+ 46	
										−15.90	
+5.47 δ1		36 0.38		13 52.8						13 40.29	
+0 12.56											
	+16.6	4 37.2	34.0	9	35,60	13	12.75		5	13 46.45	
	1.220110					52 14	0.06			− 8	+11.14
d	9.787070						− 13.61			+ 101	
	1.133870									+ 9.81	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−16.95	
+5.47 δ2		36 0.21		13 53.2						13 40.64	
+0 12.56											
	+15.2	3 57.6	54.0	33	55,80	48	52.55		30	52 49 28.74	
	1.781840					52 49	41.04			− 6	+11.98
.58 d	9.781300						− 12.30			+ 98	
	1.089830									+10.57	
((δ) − D) $\frac{d'}{100}$										+ 49	
										−13.95	
+5.33 δ1		36 44.26		49 37.6						49 24.77	
+0 12.80											
	+ 2.4	4 6.3	1.7	34	4,00	48	44.35		30	49 29.72	
	0.380210					52 49	31.66			− 6	+11.74
d	9.781300						− 19.9			+ 90	
	0.288200						− 1.94			+10.44	
((δ) − D) $\frac{d'}{100}$										+ 40	
										−17.00	
+5.33 δ2		36 44.05		49 37.3						49 24.46	
+0 12.80											
	+27.1	2 38.5	36.7	12	34,60	10	10.75		10	54 10 38.01	
	1.432970					54 10	59.24			− 19	+12.98
d	9.767730						− 21.23			+ 65	
	1.326960									+1.200	
((δ) − D) $\frac{d'}{100}$										+ 52	
										− 16.00	
+4.98 δ1		38 1.19		10 48.2						10 34.99	
+0 13.24											
	+17.7	2 45.8	41.2	12	43,50	10	4.85		10	10 38.29	
	1.247940					54 10	52.16			− 8	+12.86
d	9.767730						− 13.87			+ 59	
	1.141960									+1183	
((δ) − D) $\frac{d'}{100}$										+ 52	
										− 1705	
+4.98 δ2		38 0.80		10 47.3						10 34.10	
+0 13.24											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

111

Date$_1$ = Aug 22 Observer A.M. Recorder Hels.

Date$_2$ = Aug. 28 Observer Hels. Recorder A.M.

102

Star.	α	δ	Mag.	T_δ	T_m	T_a	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
17	m s	° ′		m s	s	s	s	s	s		s		m s
	41 17.54.0	53 7.7.8	8.7 8.8	41 18.9 20.2 22.6	26.7	30.0	33.4	36.7	40.4	16 72	33.44	17.35	41 33.44 −16.55.57 − 65 − 3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			20.5									41 16.21 − 1.86
	a_1												41 14.33
			8.5	41 20.3 25.1	27.5	31.3	34.8	38.0	41.4	17 30	34.60	18.63	41 34.60 −17.96 − 73 + 10 − 3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			22.7									41 15.98 − 1.69
	a_2												41 14.29
18	42 22 41 57.2	54 45 54 44.2	6.0 6.0	42 13.8 15.3 17.7	31.4	34.8	38.5	42.1	45.4	19 22	38.44	17.39	42 38.44 −16.55.57 − 69 − 3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			15.6									42 21.17 − 1.89
	a_1												42 19.26
			7.5	42 27.8 30.2	32.4	36.0	39.3	43.0	46.7	19 74	39.48	18.66	42 39.48 −17.96 − 77 + 10 − 3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			29.0									42 20.82 − 1.71
	a_2												42 19.11
18	43 48 43 25.6	54 9 54 8.2	9.2 9.3	43 37.0 38.5	58.2	1.6	4.9	8.4	11.9	32 50	65.00	17.27	44 5.00 −16.55.57 − 67 − 3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			37.7									43 47.75 − 1.89
44 48	a_1	53 18											43 45.84
54 17		54 17											
46 17		54 52	9.2	lost									
46 56		56 4											
47 41	κ	57 24											
48 51		59 48											
50 17	$((\delta) - D)\frac{\kappa'}{100}$	19 1 12											
50 27		19 2 17											
57 57	a_2	4 22											
19	10 14 9 50.6	54 57 54 55.6	8.8 8.6	9 58.1 59.4 61.7	10 22.9	26.4	30.0	33.6	37.9	14 99	29.98	17.30	10 29.98 −16.55.57 − 70 − 3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			59.7									10 12.71 − 2.09
	a_1												10 10.59
			8.5	10 16.4 19.0	24.0	27.6	30.8	34.5	38.3	15 52	31.04	18.68	10 31.04 −17.96 − 79 + 10 − 3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			17.7									10 12.36 − 1.93
	a_2												10 10.43
19	11.4 10 40.3	54 49 54 47.7	9.2 9.2	11 8.5 10.1 12.0	13.2	17.1	20.2	24.1	27.5	16 21	20.42	17.29	11 20.42 −16.55.57 − 69 − 3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			10.2									11 3.16 − 2.09
	a_1												11 1.04
			9.0	11 8.3 11.1 13.6	~~13.0~~	17.9	21.2	25.0	28.6 ~~28.0~~			18.66	11 21.40 −17.96 − 77 + 10 − 3
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$			11.0									11 2.74 − 1.94
	a_2												11 0.80

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Runs

	$T_m - T$	A	C	Sum	Mean	Red. to m. wire	Red. to h. wire	Red. runs	Stroke	z	δ′
	+12.9	4 46.3	44.0	14	45.75	8	3.20		10	53 8 41.33	
	1.11059					53 8	51.69			− 5	+12.56
d	9.77795						− 10.36			+ 119	
	1.01523 m									+1085 92	
((δ) − D) $\frac{d'}{100}$										+ 50	
										−15.90	
+5.27 δ_1		41 19.60		8 52.4						8 37.99	
+0 14.40											
	+11.9	4 46.6	43.8	14	45.70	8	3.15		10	8 40.91	
	1.07555					53 8	50.46			− 4	+12.17
d	9.77795						− 9.55			+ 104	
	0.98019 m									+1076	
((δ) − D) $\frac{d'}{100}$										+ 41	
										−17.00	
+5.27 δ_2		41 19.56		8 50.5						8 36.08	
+0 14.40											
	+22.8	2 38.3	36.9	37	37.60	45	10.75		35	54 45 41.63	
	1.35793					54 45	59.24			− 14	+13.68
d	9.76111						− 17.61			+ 65	
	1.24573 m									+12.57 66	
((δ) − D) $\frac{d'}{100}$										+ 57	
										−15.95	
+4.85 δ_1		42 24.11		45 54.1						45 39.36	
+0 14.76											
	+10.5	2 46.8	43.8	37	42.30	45	6.05		35	45 45.25	
	1.02119					54 45	53.36			− 3	+13.51
d	9.76111						− 8.11			+ 57	
	0.90899 m									+12.38	
((δ) − D) $\frac{d'}{100}$										+ 57	
										−12.05	
+4.85 δ_2		42 23.96		45 56.5						45 41.71	
+0 14.76											
	+27.3	0 4.7	1.3	15	3.00	7	45.35		15	54 8 12.43	
	1.43616					54 8	33.84			− 19	+12.29
d	9.76782						− 21.41			+ 1	
	1.33067 m									+11.76	
((δ) − D) $\frac{d'}{100}$										+ 51	
										−15.96	
+5.02 δ_1		43 50.86		8 24.1						8 8.72	82
+0 15.24											
		0 4.4	2.2	15	3.30	7	45.05		15		
						5 ~~8~~	~~32.36~~				
d											
((δ) − D) $\frac{d'}{100}$											
δ_2											
	+30.3	0 51.3	48.2	25	49.25	56	59.10		25	54 57 24.29	
	1.48144					54 57	47.59			− 24	+13.36
d	9.75913						− 23.30			+ 20	
	1.36726 m									+12.75 80	
((δ) − D) $\frac{d'}{100}$										+ 60	
										−15.60	
+5.02 δ_1		10 15.61		57 46.2						57 22.05	
+0 24.20											
	+13.3	~~0 51.3~~	~~48.2~~	26	1.40	56	46.95		25	57 24.04	
	1.12385	1 2.6	0.2			54 57	34.26			− 5	+13.38
d	9.75913						− 10.22			+ 22	
	1.00967 m									+1261	
((δ) − D) $\frac{d'}{100}$										+ 60	
										−16.60	
+5.02 δ_2		10 15.45		57 45.0						57 20.82	
+0 24.20											
	+10.2	~~2.6~~	~~0.2~~	34	8.85	48	39.50		~~25~~	54 48 ~~20.42~~	
	1.00860	4 9.8	7.9			54 49	27.99		30	− 3	+14.27
d	9.76057						− 7.87			+ 103	
	0.89586 m									+1267	
((δ) − D) $\frac{d'}{100}$										+ 58	
										−15.55	
+5.06 δ_1		11 6.10		49 43.3						49 18.84	
+0 24.44											
	+10.4	4 6.2	4.1	34	5.15	48	43.20		30	49 22.49	
	1.01703					54 49	30.51			− 3	+13.93
d	9.76057						− 8.02			+ 90	
	0.90429 m									+1248	
((δ) − D) $\frac{d'}{100}$										+ 58	
										−1660	
+5.06 δ_2		11 5.86		49 44.3						49 19.82	
+0 24.44											

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

Date$_1$ = Observer / Recorder — Date$_2$ = Observer / Recorder

Star.	α	δ	Mag.	T_δ	T_m	T_e	T_f	T_g	T_h	Sum	Mean	Red. to T_m	T
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_1												
	κ												
	$((\delta) - D)\frac{\kappa'}{100}$												
	α_2												

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae..proj..1576R

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.1575R

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1871phae.proj.15751

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1874phae.proj.1575R



John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System