1873phae.proj.15828

KG
11366
v.578

Zone Observations & Reductions

C 16

From Jan. 1, 1873 to Feb. 24, 1873

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

1873pnae.proj.1582R

C 16

Jan 1 1873 to Feb. 24 1873

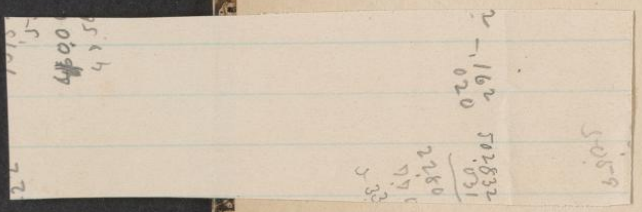
| | | | | |
|---|---|---|---|---|
| Jan 1 | 27m 56s | 60° 25′ | 1st page - C. 16 | |
| " 19 | 3. 28 56 | 52. 15 | | |

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

1877

C 16

Jan 1 1873 To Feb. 24 1873



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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |

Value of the Inclination (i) from Jan. 1873 to Jan. 1874 = −4° 58′ 24″

Value of log 15 tan i = .11571$_n$ when applied to the circle readings; and is = .11571 when applied to the declination.

Constant for Circle Readings

log tan i 8.93962$_n$
log 15 1.17609
log 15 tan i 0.11571$_n$

Constant for Declinations

log tan i 8.93962
log 15 1.17609
log 15 tan i 0.11571

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

1873phae.proj.1582R

Dec 30 1872 203 — Jan 1 1873 204 — n = +.51

Date$_1$ = July 14 1872 n = +.42 — Observer W. A. P. — Recorder J. F. W. — Date$_2$ = July 14 1872 — Observer W. A. P. — Recorder J. F. W.

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 21 | 52 | 52 41 | 8.9 | m s | m s | s | s | s | ° ′ | ° ′ | m s | m s |
| 2 | 23 | K 09 | 52 16 | 8.5 | 23 22.4 | 22 40.9 | 44.3 | 47.7 | 51.0 | 54.2 | | | 22 47.68 |
| | 22 | -0.6 | 52 16.5 | 8.5 | 22.2 | | | | | | | | + 25.05 |
| | | | | | 21.6 | | | | | | | | + 2400 |
| | | | | | 29.4 | | | | | | | | + .65 |
| | | | | | | | | | | | | | + .67 |
| | | | | | | | | | | | | | − .2 |
| | | | | | | | | | | | | | − 2 |
| | | | | | | | | | | | +2568 | | 23 12.27 |
| | | | | | | | | | | | +2465 | | + .50 |
| | | | | | | | | | | | | | − 359 |
| | | | | | | | | | | | | | 23 23868 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_1$ | | | | | | | | | | | | |
| | Jan 1 Dec 30 | | | | | | | | | | | | |
| | K | | 8.8 | 22 59.8 | 22 39.8 | 43.2 | 46.4 | 50.0 | 53.2 | | | | 22 46.52 |
| | | | | 2.2 | | | | | | | | | + 25.05 |
| | | | | 4.0 | | | | | | | | | + .66 |
| | | | | 2.0 | | | | | | | | | − 2 |
| | | | | 23 | | | | | | | +2569 | | 23 12.21 |
| | | | | | | | | | | | | | + .50 |
| | | | | | | | | | | | | | 23 12.71 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_2$ | | | | | | | | | | | | |
| 1 | 38 | 39 | 52 31 | 8.8 | | | | | | | | | 25 10.4 25 10.4 |
| | 23 21 | 22 | 52 16 | 9.1 | | | | | | | | | + 2299 2401 |
| 2 | 24 K | 13.0 | 52 12.0 | 9.0 | 24 36.7 | 24 34.3 | 37.6 | 41.2 | 44.4 | 47.7 | 30 52 | 10.4 | + .54 67 |
| | Dec 23 ((δ) − D) $\frac{\kappa'}{100}$ | | | 8.7 night | 36.7 | | | | | | | | − 2 − 2 |
| | Dec 30 | | | | 38.7 | | | | | | | | 25 2456 25 2569 |
| | $a_1$ | | | | 40.0 | | | | | | | | − 3.758 − 359 |
| | | | | | 38.5 | | | | | | −2351 | | 25 20.77 25 2210 |
| | | | | | | | | | | | +2465 | | |
| | Dec 30 Jan 1 | | 7.7 | | | | | | | | | | |
| | K | | 8.5 | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_2$ | | | | | | | | | | | | |
| 1 | 38 | 56 | 52 17 | 9.8 | | | | | | | | | 27 44.06 27 44.06 |
| 2 | 27 | 56 | 50 25 | 9.1 | 27 20.3 | 27 37.5 | 40.6 | 44.1 | 47.3 | 52.5 | 22 00 | 44.00 | + 25.05 2400 |
| | Jan 1 Dec 30 | | | | 21.1 | | | | | | | | + .62 + .63 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | 23.7 | | | | | | | | − .02 − 2 |
| | | | | | 21.9 | | | | | | | | 28 9.65 28 861 |
| | $a_1$ | | | | | | | | | | | +24.61 | + .46 − 357 |
| | | | | | | | | | | | | | 28 10.11 28 504 |
| | Jan 1 Last | | 7.2 | 27 25.4 | 27 36.3 | 39.8 | 43.2 | 46.4 | 49.6 | | | | 27 43.06 |
| | K | | | 27.8 | | | | | | | | | + 25.05 |
| | | | | 26.6 | | | | | | | | | + 62 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2565 | | − 2 |
| | $a_2$ | | | | | | | | | | | | 28 8.71 |
| | | | | | | | | | | | | | + 46 |
| | | | | | | | | | | | | | 28 9.17 |
| 1 | 40 | 33 | 52 40 | 8.5 | | | | | | | | | 28 36.06 28 36.06 |
| 2 | 28 | 36 | 52 15 | 8.7 | 28 20.0 | 28 29.2 | 32.8 | 36.1 | 39.4 | 42.8 | 18 08 | 36.06 | + 25.05 2401 |
| | 27 K | 47.9 | 52 10.9 | 8.2 | 20.7 | | | | | | | | + .65 + .67 |
| | ((δ) − D) $\frac{\kappa'}{100}$ Dec 30 | | | 8.7 | 20.4 | | | | | | | | − 2 − 2 |
| | $a_1$ | | | | | | | | | | | | 29 1.74 29 072 |
| | | | | | | | | | | | | | + .45 − 340 |
| | | | | | | | | | | | | | 29 2.19 28 732 |
| | | | | | | | | | | | +2568 | | |
| | | | | | | | | | | | +2466 | | |
| | Jan 1 | | 8.5 | 28 48.9 | 28 | | 35.2 | 38.4 | 41.6 | | | | 28 35.07 |
| | K | | 9.0 | 5.4 | | = | 35.2 | 35.1 | 34.9 | | | | + 25.05 |
| | | | | 5.4 | | | | | | | | | + .66 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 50.2 | | | | | | | +2569 | | − 2 |
| | $a_3$ | | | | | | | | | | | | 29 0.76 |
| | | | | | | | | | | | | | + 45 |
| | | | | | | | | | | | | | 29 1.21 |
| 1 | 41 | 40 | 51.62 | 8.6 | | | | | | | | | 30 43.74 30 43.74 |
| 2 | 21 | 03 | 52 26 | 9.3 | 30 16.1 | 30 34.4 | 40.2 | 43.7 | 47.0 | 50.4 | 21 87 | 43.74 | + 25.05 2401 |
| | 29 K | 54.8 | 21.8 | 9.0 | 18.2 | | | | | | | | + .66 68 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | 17.1 | | | | | | | | − 2 − 2 |
| | Dec 30 | | | | | | | | | | | | 31 9.93 31 842 |
| | $a_1$ | | | | | | | | | | | | + 44 − 371 |
| | | | | | | | | | | | | | 31 9.87 31 471 |
| | | | | | | | | | | | −2569 | | |
| | | | | | | | | | | | +2468 | | |
| | Jan 1 | | 8.4 | 30 19.3 | 30 35.8 | 39.2 | 42.5 | 45.9 | 49.2 | | | | 30 42.52 |
| | K | | | 20.5 | | | | | | | | | + 25.05 |
| | | | | 21.8 | | | | | | | | | + .66 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 20.53 | | | | | | | +2569 | | − 2 |
| | $a_2$ | | | | | | | | | | | | 31 8.21 |
| | | | | | | | | | | | | | + 44 |
| | | | | | | | | | | | | | 31 8.65 |

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

1873phae.proj.1582r

1872 ~~Dec. 23~~ ~~2 29.96~~ ~~+.07~~

1872 ~~Dec. 30~~ - 2 31.27 +.07

Runs 1873 Jan. 1 -2' 30.86 +.05

$\varphi = 42^\circ\ 22'\ 48''.3$

3

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | $\delta = \varphi - z$ | | | | | |
| d | +18.2 / -41.8 | 3 42.8 | 25.0 | 33 | 33.90 | 52 19 14.46 | 0.K | | 25 / 0 | 52 16 48.66 | 16 9.80 |
| | 1.62118 | | | 2 | 55.45 | 52 19 5.290 | 16 42.18 | | | − .45 | − .45 |
| ((δ) − D) $\frac{d'}{100}$ | ~~9.78625~~ 9.78658 | | | | | 17 22.04 | − 33.38 | | | + .14 | + .25 |
| | | | | | | | | | | + 10.99 | + 11.09 |
| +12.25 | | | | | | | | | | + .40 | + .40 |
| $\delta_1$ +48.78 | 1.52347 | 23 20.93 | | 16 41.3 | | | | | | − 11.40 | − 27.60 |
| | | | | | | | | | | 16 48.34 | 15 52.49 |
| d | −15.5 / 1.19033 | 1 37.1 / 0.8 | 30.0 / 50.1 | 23 | 55.45 | 198 5290 | | | 25 / 0 | 52 176 9.66 | + 11.47 |
| | 9.78658 | | | | | 52 176 22.04 | | | | − .06 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.09262 | | | | | − 12.38 | | | | + .14 | |
| | | | | | | | | | | + 10.99 | |
| +8.17 | | | | | | | | | | + .40 | |
| $\delta_2$ +32.32 | | 23 20.88 | | 16 42.05 | | | | | | − 11.40 | |
| | | | | | | | | | | 16 9.73 | |
| d | +22.5 / 1.35218 | 2 15.2 / 4 20.2 | 9.8 / 6.9 | 4 / 4 | 24.60 / 13.55 | 52 18 23.75 / 52 18 34.80 | | | 55 / 0 | 52 16 22.81 | 16 10.45 |
| | ~~9.78625~~ 9.78674 | 4 32.0 | 17.2 | | | 16 4.84 | 15 52.48 | | | − .13 | − .13 + .32 |
| ((δ) − D) $\frac{d'}{100}$ | 1.25463 | | | | | + 17.97 | + 17.97 | | | + .29 / + 10.78 | + 11.09 |
| +12.29 | | | | | | | | | | + .40 | + .40 |
| $\delta_1$ +0 48.42 | | 25 34.39 | | 16 43.0 | | | | | | − 26.60 | − 27.60 |
| | | | | | | | | | | 16 7.57 | 15 54.53 |
| | | ~~8 17.4~~ ~~10.2~~ / 4 32.0 | 17.2 | | | | | | 55 / 0 | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | +22.1 | 4.0 / 4 40.0 | 4.9 / 29.1 | 54 | 40.05 | 28 8.80 | | | 10 / 50 | 50 26 1.31 | 25 55.40 |
| d | 1.34439 | | | ~~54~~ | ~~34.55~~ | 50 28 13.80 | 25 37.03 | | | − .13 | − .13 + .33 |
| | 9.80412 | 4 48.6 | 31.5 | | | 25 42.94 | + 18.37 | | | + .23 | + 9.06 |
| ((δ) − D) $\frac{d'}{100}$ | 1.26422 | | | | | + 18.37 | ~~− 1.31~~ | | | + 8.90 | + .30 |
| | | | | | | | ~~25 1.31~~ | | | + .32 | − 26.80 |
| $\delta_1$ | | | | | | | | | | − 10.90 | 25 38.16 |
| | | | | | | | | | | 25 59.75 | |
| | +16.5 | 4.0 / 4 40.0 | 1.8 / 29.1 | 54 | 34.55 | 50 28 13.80 | | | 10 / 50 | 50 25 56.66 | + 9.36 |
| d | 1.21748 | | | | | 25 42.94 | | | | − .07 | |
| | 9.80412 | | | | | + 13.72 | | | | + .23 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.13731 | | | | | | | | | + 8.90 | |
| | | | | | | | | | | + .30 | |
| $\delta_2$ | | | | | | | | | | − 10.90 | |
| | | | | | | | | | | 50 25 55.12 | |
| | | | | | | | | | | ~~15 55.63~~ | |
| | +15.7 | ~~3 38.9~~ / 4 45.0 | ~~27.6~~ / 31.5 | 3 / 54 | 58.95 / 38.25 | 18 13.95 18 23.05 | | | 40 / 50 | 52 ~~25 52.24~~ | 16 43.2 |
| 9.78674 | 1.19690 | | | 4 | 34.40 | 52 28 10.10 | 15 51.78 | | 0 | − .07 | − .07 + .28 |
| | ~~9.80412~~ | 4 40.8 | 28.0 | | | ~~25 39.24~~ 15 | ~~43.09~~ +12.54 | | | + .23 | + 11.17 |
| ((δ) − D) $\frac{d'}{100}$ | ~~1.11573~~ 1.09835 | 4 7.0 | 52.9 | | | + 13.05 | | | | + 10.97 | + .40 |
| | | | | | | + 12.54 | ~~25 52.29~~ | | | + .40 | − 27.10 |
| $\delta_1$ | | | | | | | | | | − 11.40 | 15 49.00 |
| | | | | | | | | | | 15 55.76 | |
| | −15.1 | ~~3 37.0~~ / 4 40.8 | ~~29.9~~ / 28.0 | 4 | 35.40 | 52 18 12.95 | | | 40 / 0 | 52 15 30.13 | + 11.54 |
| d | 1.17898 | | | | | 15 42.09 | | | | − .86 | |
| | 9.78674 | | | | | − 12.06 | | | | + .23 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.08143 | | | | | | | | | + 10.97 | |
| | | | | | | | | | | + .40 | |
| +8.24 | | | | | | | | | | − 11.40 | |
| $\delta_2$ +31.90 | | 29 9.45 | | 16 3.1 | | | | | | 15 ~~30.17~~ 31.19 | |
| | | | | | | | | | | ~~27.16~~ | |
| | +26.6 | 0 21.2 / 4 23.8 | 13.7 / 7.1 | 54 | 15.45 | 28 ~~3 68.5~~ 32.90 | | | 25 / 50 | 52 ~~26 21.41~~ | 26 22.80 |
| d | 1.42488 | | | ~~54~~ | ~~16.45~~ | 52 28 32.70 | 26 1.63 | | | − .19 | − .19 |
| | 9.78510 | 4 | | 54 | 11.50 | 26 ~~2.04~~ | ~~5.99~~ | | | + .21 | + .29 |
| ((δ) − D) $\frac{d'}{100}$ | 1.32569 | | | | | + 21.17 | | | | + 11.17 | + 11.37 |
| | | | | | | ~~26 23.21~~ | | | | + 40 | + .40 |
| +12.41 | | | | | | | | | | − 11.40 | − 27.10 |
| $\delta_1$ +47.52 | | 31 17.12 | | 26 55.1 | | | | | | 26 27.35 | 26 7.57 |
| | +22.0 | 0 16.1 / 4 17.9 | 9.5 / 5.1 | 54 | 11.50 | 52 28 36.85 | | | 25 / 50 | 52 26 23.50 | |
| d | 1.34342 | | | | | 26 5.99 | | | | − .13 | + 11.77 |
| | 9.78510 | | | | | + 17.51 | | | | + .21 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.24323 | | | | | | | | | + 11.19 | |
| | | | | | | | | | | + .40 | |
| +8.28 | | | | | | | | | | − 11.40 | |
| $\delta_2$ +31.68 | | 31 16.93 | | 26 55.6 | | | | | | 26 23.87 | |

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

1873phae.proj.1582R

Date$_1$ = July 11 1872 Observer W. A. R. Recorder J. F. M. Date$_2$ = July 14 1872 Observer W. A. R. Recorder J. F. M. 4 Ru

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 46 | 34 | ~~8.7~~ 8.4 | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | | |
| | | | 8.9 | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | | |
| 16 | 57 | 52 | 52 10 | 8.1 | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | | |
| | | | | 8.0 | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | | |
| July 14 1872 | | | | | | | | | | | | | |
| 16 | 17 | 20 | 67 24 | 9.3 | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | | |
| July 14 1872 | | | | | | | | | | | | | |
| 16 | 28 | 46 | 57 05 | 9.8 | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | | |
| July 14 1872 | | | | | | | | | | | | | |
| 16 | 29 | 23 | 52 14 | 9.3 | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | | |
| κ | | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | | |

See next Page

Reject this page.

Single Observations

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

1873phae.proj.1582r



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 38.0 | 31.2 | | | | | | 35 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | | 0 49.9 | 43.9 | | | | | | 35 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | | 2 53.0 | 45.8 | | | | | | 15 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | | 2 54.2 | 46.1 | | | | | | 15 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | | 3 14.5 | 6.5 | | | | | | 0 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | | 2 64.2 | 46.8 | | | | | | 20 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | | 2 43.2 | 36.4 | | | | | | 5 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |

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

1873phae.proj.1582R

203 2 6

Date$_1$ = Dec. 30 1872 Observer / Recorder

$n = +.52$

Date$_2$ = 2 Observer / Recorder

Ru

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 32 | 25 | 52 08 | 9.1 | 32 | 2.3 | 31 56.4 | 59.8 | 3.3 | 6.6 | 2.8 | 31.59 | 3.18 | 32 3.18 | |
| | 31 | 15.8 | 52 3.7 | 8.9 | | 2.3 | | | | | | | | + 2401 | |
| | κ | | | | | | | | | | | | | + 67 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | − 2 | |
| | | | | | | | | | | | | + 24.66 | | 32 27.84 | |
| | $a_1$ | | | | | | | | | | | | | − 3.75 | +12. |
| | | | | | | | | | | | | | | 32 24.09 | +04 |
| | 33 | 59 | 52 59 | 6.0 | 38 | 11.2 | 31.4 | 35.0 | 38.5 | 41.9 | 45.4 | 19 22 | 38.44 | 33 38.44 | |
| | 32 | 49.1 | 52 54.2 | 6.0 | | 12.8 | | | | | | | | + 2401 | |
| | κ | | | | | 14.2 | | | | | | | | + .69 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | 12.7 | | | | | | | | − 2 | |
| | | | | | | | | | | | | + 24.68 | | 34 3.12 | |
| | $a_2$ | | | | | | | | | | | | | − 3.80 | +12. |
| | | | | | | | | | | | | | | 33 59.32 | +0 |
| | 37 | 06 | 52 41 | 8.4 | 36 | 26.9 | 36 53.6 | 57.1 | 0.3 | 3.6 | 7.1 | 30 17 | 0.34 | 37 0.34 | |
| | ~~35~~ | 56.2 | 52 ~~37.0~~ | 8.0 | | 29.6 | | | | | | | | + 2401 | |
| | κ | | | | | 31.7 | | | | | | | | + .68 | |
| | 36 | 11.5 | 33.4 | | | 29.4 | | | | | | | | − 2 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | 37 25.01 | |
| | | | | | | | | | | | | + 24.67 | | − 3.84 | +12. |
| | $a_1$ | | | | | | | | | | | | | 37 21.17 | +04 |
| | 38 | 39 | 52 25 | 9.8 | 38 | 31.7 | 33.0 | 36.1 | 39.6 | 42.6 | 46.6 | 19 79 | 39.58 | 38 39.58 | |
| | 37 | 49.4 | 52 20.4 | 9.4 | | 31.7 | | | | | | | | + 2401 | |
| | κ | | | | | | | | | | | | | + .68 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | − 2 | |
| | | | | | | | | | | | | + 24.67 | | 39 42.5 | |
| | $a_2$ | | | | | | | | | | | | | − 3.86 | +12. |
| | | | | | | | | | | | | | | 39 0.39 | +04 |
| | 40 | 18 | 52 30 | 8.4 | 39 | 39.5 | 39 50.4 | 53.8 | 57.2 | 0.4 | 4.0 | 28 58 | 57.16 | 39 57.16 | |
| | 39 | 8.0 | 52 25.1 | 8.3 | | 40.7 | | | | | | | | + 2401 | |
| | κ | | | | | 42.5 | | | | | | | | + .68 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | 40.9 | | | | | | | | − 2 | |
| | | | | | | | | | | | | + 24.67 | | 40 21.83 | |
| | $a_1$ | | | | | | | | | | | | | − 3.87 | +12. |
| | | | | | | | | | | | | | | 40 17.96 | +04 |
| | 42 | 37 | 52 44 | 9.0 | 41 | 50.3 | 42 0.6 | 4.2 | 7.8 | 11.1 | 15.4 | 3.81 | 9.62 | 42 7.82 | |
| | 41 | 14.6 | 52 39.3 | 8.7 | | 53.7 | | | | | | | | + 2402 | |
| | κ | | | | | 56.3 | | | | | | | | + .69 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | 58.6 | | | | | | | | − 2 | |
| | | | | | | | | | | | | + 24.69 | | 42 32.51 | |
| | $a_2$ | | | | | | | | | | | | | − 3.91 | +12. |
| | | | | | | | | | | | | | | 42 28.60 | +04 |
| | 43 | 49 | 52 29 | 8.4 | 43 | 8.4 | 20.3 | 23.8 | 27.3 | (30.6) | 33.9 | | | 43 27.18 | |
| | 42 | 37.3 | 52 24.5 | 8.4 | | 9.6 | | | | | | | | + 2402 | |
| | κ | | | 7.0 | | 12.0 | | | | | | | | + .68 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | 10.0 | | | | | | | | − 2 | |
| | | | | | | | | | | | | + 24.68 | | 43 51.86 | |
| | $a_1$ | | | | | | | | | | | | | − 3.92 | +12. |
| | | | | | | | | | | | | | | 43 47.94 | +04 |
| | 45 | 11 | 52 14 | 5.0 | 44 | 25.0 | 44.0 | 47.7 | 50.9 | 54.3 | 57.7 | 25.46 | 50.92 | 44 50.92 | |
| | 43 | 59.9 | 52 9.4 | 4.2 | | 26.6 | | | | | | | | + 2402 | |
| | κ | | | | | 28.4 | | | | | | | | + .67 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | 26.7 | | | | | | | | − 2 | |
| | | | | | | | | | | | | + 24.67 | | 45 15.59 | |
| | $a_2$ | | | | | | | | | | | | | − 3.92 | +12. |
| | | | | | | | | | | | | | | 45 11.67 | +04 |
| | 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

1873phae.proj.1582R

Rev
-2 31.27 +.07

7

Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +0.8 | 1′ 16.9 | 59.8 | 11 | 8.55 | 52 11 | 40.00 | | 10′ | 52 9 9.45 | |
| | 9.93424 | | | | | 52 9 | 8.73 | | | − 0 | +11.57 |
| d | 9.78788 | | | | | + | 0.72 | | | + 8 | |
| | 9.85783 | | | | | | | | | + 11.08 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + .11 | |
| +12.40 | | | | | | | | | | − 26.90 | |
| $\delta_1$ +0 47.31 | | 32 36.49 | | 9 41.4 | | | | | | 8 54.12 | |
| | +25.7 | 1 49.0 | 33.0 | 21 | 41.00 | 52 1 | 7.35 | | 20 | 52 58 56.28 | |
| | 1.40993 | | | | | 52 58 | 36.08 | | | − .17 | +12.46 |
| d | 9.77980 | | | | | + | 20.20 | | | + .12 | |
| | 1.30544 | | | | | | | | | + 12.06 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + .45 | |
| +12.53 | | | | | | | | | | − 26.90 | |
| $\delta_2$ +0 47.04 | | 34 11.85 | | 59 28.9 43 | | | | | | 58 41.84 | |
| | +30.9 | 3 22.1 | 3.1 | 28 | 12.60 | 52 | 35.75 | | 34 | 52 | |
| | 1.48996 | | | | | 52 | 4.48 | | 35? | − .25 | +12.14 |
| d | 9.78 ~~230~~ 379 | | | | | + | 24.38 | | | + .22 | |
| | 1.38 ~~797~~ 886 | | | | | | | | | + 11.74 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + .43 | |
| +12.55 | | | | | | | | | | − 26.70 | |
| $\delta_1$ +0 46.53 | | 37 33.72 | | 38 0.93 | | | | | | ~~42 14.35~~ 37 14.40 | |
| | +7.9 | 0 26.8 | 12.0 | 53 | 19.40 | 52 27 | 28.95 | | 55 | 52 25 3.97 | |
| | 0.89763 | | | | | 52 24 | 57.68 | | | − .02 | +11.82 |
| d | 9.78527 | | | | | + | 6.29 | | | + .2 | |
| | 0.79861 | | | | | | | | | + 11.40 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | 35 | | | | | | + .42 | |
| +12.58 | | | | | | | | | | − 26.50 | |
| $\delta_2$ +0 46.23 | | 39 12.94 | | 25 ~~35.5~~ | | | | | | 24 49.29 | |
| | +16.3 | 0 45.0 | 28.5 | 50 | 36.75 | 52 3 | 11.60 | | 50 | 52 29 53.28 | |
| | 1.21219 | | | | | 52 29 | 40.33 | | | − .07 | +11.90 |
| d | 9.78445 | | | | | + | 12.95 | | | + 4 | |
| | 1.11235 | | | | | | | | | + 11.51 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + .42 | |
| +12.58 | | | | | | | | | | − 26.70 | |
| $\delta_1$ +0 45.99 | | 40 30.54 | | 30 24.5 | | | | | | 29 38.48 | |
| | +14.2 | 2 48.0 | 31.7 | 37 | 39.85 | 52 45 | 8.50 | | 35 | 52 42 48.46 | |
| | 1.15229 | | | | | 52 42 | 37.23 | | | − 5 | +12.31 |
| d | 9.78230 | | | | | + | 11.23 | | | + 19 | |
| | 1.05030 | | | | | | | | | + 11.74 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + .43 | |
| +12.65 | | | | | | | | | | − 26.60 | |
| $\delta_2$ +0 45.63 | | 42 41.25 | | 43 19.8 | | | | | | 42 34.17 | |
| | +17.2 | 2 19.3 | 56.9 | 52 | 9.10 | 52 30 | 39.25 | | 50 | 52 28 21.66 | |
| | 1.23553 | | | | | 52 28 | 7.98 | | | − 8 | +11.96 |
| d | 9.78478 | | | | | + | 13.68 | | | + .15 | |
| | 1.13602 | | | | | | | | | + 11.47 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + .42 | |
| +12.64 | | | | | | | | | | − 26.40 | |
| $\delta_1$ +0 45.42 | | 44 0.58 | | 28 52.6 | | | | | | 28 7.22 | |
| | +24.2 | 1 16.8 | 3.0 | 6 | 9.90 | 52 16 | 38.45 | | 5 | 52 14 26.53 | |
| | 1.38382 | | | | | 52 14 | 7.18 | | | − .15 | +11.52 |
| d | 9.78707 | | | | | + | 19.35 | | | + 8 | |
| | 1.28660 | | | | | | | | | + 11.18 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + .41 | |
| +12.63 | | | | | | | | | | − 26.30 | |
| $\delta_2$ +0 45.15 | | 45 24.30 | | 14 56.9 | | | | | | 14 11.75 | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |

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

1873phae.proj.1582R

205 2 — 206 — 8

Date$_1$ = Jan. 4 1873 — Observer / Recorder — Date$_2$ = Jan 6 — Observer / Recorder — Ru

n = +.38 — n = +.39

| Star. | α | δ | Mag. | $T_s$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3h 34m 46s | 50° 02′ | 9.5 | 34m 8.8s | 34m 24.2s | 27.4 | ~~30.1~~ | 33.7 | 37.1 | 15 25 | 30.50 | 34m 30.50 | |
| | 33 ~~44.8~~ 44.1 | 49 58.2 | 8.8 | 9.7 | | | | | | | | +26.20 | |
| | | | | 10.4 | | | | | | | | + .45 | |
| | | | | ~~10.0~~ | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 9.6 | | | | | | | +2663 | 34 57.23 | 36 |
| | $\alpha_1$ | | | | | | | | | | | + 0.46 | |
| | | | | | | | | | | | | 34 57.69 | +8.1 |
| | | | | | | | | | | | | | +0.3 |
| | | | 9.1 | 34 7.6 | 23.8 | 27.0 | 30.2 | 33.5 | 36.7 | 15 12 | 30.24 | 34 30.24 | |
| | κ | | | 9.1 | | | | | | | | +26.63 | |
| | | | | 11.4 | | | | | | | | + .47 | |
| | | | | 9.4 | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2708 | 34 57.32 | |
| | $\alpha_2$ | | | | | | | | | | | + 0.50 | |
| | | | | | | | | | | | | 34 57.82 | +8.1 |
| | | | | | | | | | | | | | +0.3 |
| 2 | 3h 2m | 50 40 | 8.9 | 34 58.7 | 34 59.9 | 3.0 | 6.3 | 9.6 | 13.0 | 33.18 | 6.36 | 35m 6.36 | |
| | 34 19.9 | 50 35.7 | 8.5 | 1.0 | | | | | | | | +26.20 | |
| | κ | | | 59.8 | | | | | | | | + .45 | |
| | | | | | | | | | | | | − .02 | 48 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2663 | 35 32.99 | |
| | $\alpha_1$ | | | | | | | | | | | + 0.46 | |
| | | | | | | | | | | | | 35 33.45 | +8.1 |
| | | | | | | | | | | | | | +0.3 |
| ~~2~~ | 3 | | 8.9 | 34 57.6 | 59.5 | 2.6 | 5.8 | 9.1 | 12.4 | 32.94 | 5.88 | 35m 5.88 | |
| | κ | | | 1.2 | | | | | | | | +26.63 | |
| | | | | 58.9 | | | | | | | | + .47 | |
| | | | | | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2708 | 35 32.96 | |
| | $\alpha_2$ | | | | | | | | | | | + 0.49 | |
| | | | | | | | | | | | | 35 33.45 | +8.1 |
| | | | | | | | | | | | | | +0.3 |
| 2 | 3h 32m | 51 02 | 8.8 | 35 56.2 | 36 8.1 | 11.6 | 14.7 | 17.6 | 21.0 | 7.30 | 14.60 | 36 14.60 | |
| | 35 26.8 | 50 58.0 | 8.5 | 57.4 | | | | | | | | +26.20 | |
| | κ | | | 59.1 | | | | | | | | + .47 | 54 |
| | | | | 57.7 | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2665 | 36 41.25 | |
| | $\alpha_1$ | | | | | | | | | | | + 0.45 | |
| | | | | | | | | | | | | 36 41.70 | +8.1 |
| | | | | | | | | | | | | | +0.3 |
| | | | 8.9 | 36 1.2 | 7.5 | 10.9 | 14.1 | 17.3 | 20.5 | 7.03 | 14.06 | 36 14.06 | |
| | κ | | | 2.9 | | | | | | | | +26.63 | |
| | | | | 4.4 | | | | | | | | + .48 | |
| | | | | 2.9 | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2709 | 36 41.15 | |
| | $\alpha_2$ | | | | | | | | | | | + 0.48 | |
| | | | | | | | | | | | | 36 41.63 | +8.2 |
| | | | | | | | | | | | | | +0.3 |
| 2 | 3h 39m 06s | 51 01 | 7.8 | 38 29.4 | 38 40.7 | 44.0 | 47.3 | 50.4 | 53.9 | 23.63 | 4.726 | 38 4.726 | |
| | 38 0.0 | 50 56.7 | 7.6 | 30.8 | | | | | | | | +26.20 | |
| | κ | | | 32.9 | | | | | | | | + .47 | 42 |
| | | | | 31.0 | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2665 | 39 13.91 | |
| | $\alpha_1$ | | | | | | | | | | | + 0.43 | |
| | | | | | | | | | | | | 39 14.34 | +8.2 |
| | | | | | | | | | | | | | +0.3 |
| | | | 8.0 | 38 23.0 | 40.3 | 43.6 | 46.8 | 50.1 | 53.4 | 23.42 | 4.684 | 38 4.684 | |
| | κ | 39.27 | | 24.2 | | | | | | | | +26.63 | |
| | | | | 25.7 | | | | | | | | + .48 | |
| | | | | 24.3 | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2709 | 39 13.93 | |
| | $\alpha_2$ | | | | | | | | | | | + 0.46 | |
| | | | | | | | | | | | | 39 14.39 | +8.2 |
| | | | | | | | | | | | | | +0.3 |
| ~~2~~ | 3h 40m 26s | 51 06 | 8.8 | 40 3.7 | 40 2.6 | 5.9 | 9.2 | 12.4 | 15.6 | 4.57 | 9.14 | 40 9.14 | |
| | 39 20.7 | 51 2.1 | 8.9 | 4.6 | | | | | | | | +26.20 | |
| | κ | | | 4.2 | | | | | | | | + .47 | 56 |
| | | | | | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2665 | 40 35.79 | |
| | $\alpha_1$ | | | | | | | | | | | + 0.42 | |
| | | | | | | | | | | | | 40 36.21 | +8.2 |
| | | | | | | | | | | | | | +0.3 |
| | | | 8.5 | 40 4.0 | 2.0 | 5.3 | 8.6 | 11.8 | 15.2 | 4.29 | 8.58 | 40 8.58 | |
| | κ | | | 4.0 | | | | | | | | +26.63 | |
| | | | | | | | | | | | | + .48 | |
| | | | | | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2709 | 40 35.67 | |
| | $\alpha_2$ | | | | | | | | | | | + 0.45 | |
| | | | | | | | | | | | | 40 36.12 | +8.2 |
| | | | | | | | | | | | | | +0.3 |

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

1873phae.proj.15828

Jan. 4 −2′ 31.″68 +.″05
" 6 −2 31.68 +.05

9

Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +21.″0 | 2′ 18.″9 | 9.″5 | 17 | 14.″20 | 50 5 | 34.15 | | 15′ | 50 3 20.07 | |
| | 1.32222 | | | | | 3 | 2.47 | | | − 0.12 | +8.50 |
| d | 9.80762 | | | | | | +17.60 | | | + .12 | |
| 26 | 1.24555 | | | | | | | 3 20.07 | | +8.20 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + .30 | |
| | | | | | | | | | | −11.05 | |
| +8.14 δ₁ | | 35 5.83 | | 3 48.8 | | | | | | 3 17.52 | |
| +0 31.28 | | | | | | | | | | | |
| | +20.8 | 2 20.2 | 9.7 | 17 | 14.″85 | 50 5 | 33.40 | | 15 | 17.15 | |
| | 1.31806 | | | | | 23 | 1.72 | | | − 12 | +8.58 |
| d | 9.80762 | | | | | | +17.43 | | | + .12 | |
| | 1.24139 | | | | | | | 3 19.15 | | +8.28 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + .30 | |
| | | | | | | | | | | −11.20 | |
| +8.14 δ₂ | | 35 5.96 | | 3 47.8 | | | | | | 3 16.63 | |
| +0 31.28 | | | | | | | | | | | |
| | +6.6 | 4 27.7 | 16.8 | 39 | 22.25 | 50 43 | 26.10 | | 35 | 50 40 59.88 | |
| | 0.81954 | | | | | 40 | 54.42 | | | − 2 | +9.42 |
| d | 9.80182 | | | | | | + 5.46 | | | + 22 | |
| 48 | 0.73707 | | | | | | | 40 59.88 | | +8.89 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| | | | | | | | | | | −11.20 | |
| +8.19 δ₁ | | 35 41.64 | | 41 29.3 | | | | | | 40 58.10 | |
| +0 31.20 | | | | | | | | | | | |
| | +7.0 | 4 26.9 | 18.3 | 39 | 22.60 | 50 43 | 25.75 | | 35 | 59.86 | |
| | 0.84510 | | | | | 40 | 54.07 | | | − 2 | +9.53 |
| d | 9.80182 | | | | | | + 5.79 | | | + 22 | |
| | 0.76263 | | | | | | | 40 59.86 | | + 9.00 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| | | | | | | | | | | −11.35 | |
| +8.19 δ₂ | | 35 41.64 | | 41 29.2 | | | | | | 40 58.04 | |
| +0 31.20 | | | | | | | | | | | |
| | +16.9 | 2 48.0 | 38.0 | 17 | 43.00 | 51 5 | 5.35 | | 15 | 51 2 47.54 | |
| | 1.22789 | | | | | 2 | 33.67 | | | − 8 | +9.69 |
| d | 9.78840 | | | | | | +13.87 | | | + 13 | |
| 54 | 1.14200 | | | | | | | 2 47.54 | | + 8.18 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | 9.29 | |
| | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.30 | |
| +8.23 δ₁ | | 36 49.93 | | 3 17.0 | | | | | | 2 45.93 | |
| +0 31.08 | | | | | | | | | | | |
| | +11.2 | 2 42.2 | 32.9 | 17 | 37.55 | 51 5 | 10.80 | | 15 | 48.81 | |
| | 1.04922 | | | | | 2 | 39.12 | | | − 3 | +9.86 |
| d | 9.78840 | | | | | | +9.19 | | | + 13 | |
| | 0.96333 | | | | | | | 2 48.31 | | +9.41 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.45 | |
| +8.23 δ₂ | | 36 49.86 | | 3 17.8 | | | | | | 2 46.72 | |
| +0 31.08 | | | | | | | | | | | |
| | +16.3 | 4 30.8 | 21.1 | 19 | 25.95 | 51 3 | 22.40 | | 15 | 51 1 4.11 | |
| | 1.21219 | | | | | 0 | 50.72 | | | − 7 | +9.75 |
| 42 d | 9.78840 | | | | | | +13.89 | | | + 23 | |
| | 1.12662 | | | | | | | 1 4.11 | | + 8.19 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | 9.24 | |
| | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.30 | |
| +8.26 δ₁ | | 39 22.60 | | 1 33.4 | | | | | | 1 2.56 | |
| +0 30.80 | | | | | | | | | | | |
| | +22.5 | 4 36.1 | 25.9 | 19 | 31.00 | 51 3 | 17.35 | | 15 | 4.15 | |
| | 1.35218 | | | | | 0 | 45.67 | | | − 13 | +9.82 |
| d | 9.79872 | | | | | | +18.48 | | | + 23 | |
| | 1.26661 | | | | | | | 1 4.15 | | +9.37 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.45 | |
| +8.26 δ₂ | | 39 22.65 | | 1 33.3 | | | | | | 1 2.52 | |
| +0 30.80 | | | | | | | | | | | |
| | + 4.9 | 3 39.1 | 30.8 | 13 | 34.95 | 51 9 | 13.40 | | 10 | 51 6 45.74 | |
| | 0.69020 | | | | | 6 | 41.72 | | | − 1 | +9.88 |
| 56 d | 9.79778 | | | | | | +4.02 | | | + 18 | |
| | 0.60369 | | | | | | | 6 45.74 | | + 8.19 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | 9.36 | |
| | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.30 | |
| +8.28 δ₁ | | 40 44.49 | | 7 15.0 | | | | | | 6 44.32 | |
| +0 30.64 | | | | | | | | | | | |
| | + 4.6 | 3 39.8 | 30.3 | 13 | 35.05 | 51 9 | 13.30 | | 10 | 45.39 | |
| | 0.66276 | | | | | 6 | 41.62 | | | − 1 | +10.02 |
| d | 9.79778 | | | | | | + 3.77 | | | + 18 | |
| | 0.57625 | | | | | | | 6 45.39 | | +9.60 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.45 | |
| +8.28 δ₂ | | 40 44.40 | | 7 14.6 | | | | | | 6 43.96 | |
| +0 30.64 | | | | | | | | | | | |

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

1873phae.proj.1582R

205 — 206 — 10

Date$_1$ = Jan 4 1873 — Observer — Recorder — Date$_2$ = Jan 6 — Observer — Recorder — Ru

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h | 41 3.2 | 52° 25′ | 8.9 | 40 51.6 | 41 1.7 | 5.0 | 8.4 | 11.7 | 15.1 | 4.19 | 8.38 | 41 8.38 | |
| | 40 20.4 | 52 20.6 | 8.7 | 53.2 | | | | | | | | +26.20 | |
| | K | | | 54.6 | | | | | | | | + .49 | |
| | | | | 53.1 | | | | | | | | − .02 | 54 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2667 | 41 35.05 | |
| | $\alpha_1$ | | | | | | | | | | | + 0.41 | |
| | | | | | | | | | | | | 41 35.46 | +8.4 |
| | | | | | | | | | | | | | +0 3 |
| | | | 8.9 | 40 58.4 | 41 1.1 | 4.5 | 7.8 | 11.2 | 14.6 | 3.92 | 7.84 | 41 7.84 | |
| | | | | 59.8 | | | | | | | | +26.63 | |
| | K | | | 1.9 | | | | | | | | + .51 | |
| | | | | 41 0.0 | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.12 | 41 34.96 | |
| | $\alpha_2$ | | | | | | | | | | | + 0.45 | |
| | | | | | | | | | | | | 41 35.41 | +8.4 |
| | | | | | | | | | | | | | +0 3 |
| 2 | 44 5.2 | 51 03′ | 9.8 | 44 29.7 | 44 27.8 | 31.7 | 34.4 | 37.8 | 41.3 | 17.30 | 34.60 | 44 34.60 | |
| | 43 46.0 | 51 0.8 | 9.5 | 29.4 | | | | | | | | +26.20 | |
| | K | | | | | | | | | | | + .47 | 54 |
| | | | | | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2665 | 45 1.25 | |
| | $\alpha_1$ | | | | | | | | | | | + 0.38 | |
| | | | | | | | | | | | | 45 1.63 | +8.3 |
| | | | | | | | | | | | | | +0 3 |
| | | | 9.8 | 44 9.1 | 27.7 | 30.8 | 33.8 | 37.4 | 40.5 | 17 02 | 34.04 | 44 34.04 | |
| | | | | 10.9 | | | | | | | | +26.63 | |
| | K | | | 12.6 | | | | | | | | + .48 | |
| | | | | 10.9 | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2709 | 45 1.13 | |
| | $\alpha_2$ | | | | | | | | | | | + 0.42 | |
| | | | | | | | | | | | | 45 1.55 | +8. |
| | | | | | | | | | | | | | +0 |
| 2 | 45 40.5 | 53 00 | 8.8 | 45 31.4 | 45 14.0 | 17.4 | 20.5 | 24.3 | 27.9 | 10 41 | 20.82 | 45 20.82 | |
| | 44 33.4 | 52 55.5 | 8.8 | 32.5 | | | | | | | | +26.20 | |
| | K | | | 33.3 | | | | | | | | + .50 | 40 |
| | | | | 32.5 | | | | | | | | − .03 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2667 | 45 47.49 | |
| | $\alpha_1$ | | | | | | | | | | | + 0.37 | |
| | | | | | | | | | | | | 45 47.86 | +8.4 |
| | | | | | | | | | | | | | +0 3 |
| | | | 8.5 | 44 58.5 | 45 13.5 | 17.0 | 21.4 | 23.9 | 27.3 | 10 21 | 20.42 | 45 20.42 | |
| | | | | 8.2 | | | | | | | | +26.63 | |
| | K | | | 1.7 | | | | | | | | + .52 | |
| | | | | 45 0.1 | | | | | | | | − .03 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.12 | 45 47.54 | |
| | $\alpha_2$ | | | | | | | | | | | + 0.41 | |
| | | | | | | | | | | | | 45 47.95 | +8.4 |
| | | | | | | | | | | | | | +0 |
| 2 | 48 1.3 | 51 57 | 9.2 | 47 6.0 | 47 37.5 | 41.0 | 44.4 | (42.7) | 50.8 | | | 47 44.28 | |
| | 47 6.6 | 51 53.6 | 9.1 | 8.0 | | | | | | | | +26.20 | |
| | K | | | 9.4 | | | | | | | | + .49 | |
| | | | | 9.8 | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2667 | 48 10.95 | |
| | $\alpha_1$ | | | | | | | | | | | + 0.35 | |
| | | | | | | | | | | | | 48 11.30 | |
| | 47 5.1 | 51 54.7 | 8.0 | 47 11.6 | 46.9 | 50.3 | 54.8 | 57.2 | 0.4 | 2732 | 54.64 | 47 54.64 | 47 53.72 |
| | | | 9.0 | 13.0 | 48.9 | 52.2 | 55.3 | 58.6 | 2.2 | | | 47 55.44 | +26.63 |
| | K | | | 14.6 | | | | | | | | +26.63 | + .50 |
| | | | | 13.1 | | | | | | | | + .50 | − .02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 48 38.0 | | | | | | +27.11 | +27.11 | − .02 | 2.83 |
| | 47 6.6 | 51 53.6 | | 41.1 | | | | | | | | 48 22.55 | + 0.89 |
| | $\alpha_2$ | | | 43.0 | | | | | | | | + 0.39 | 48 21.22 |
| | | | | 48 40.7 | | | | | | | | 48 22.44 | 22.44 |
| | 49 4.4 | 52 43 | 9.4 | 49 27.5 | 49 15.4 | 18.7 | 22.4 | 26.0 | 29.6 | 11 21 | 22.42 | 49 22.42 | |
| | 48 32.3 | 52 38.5 | 9.5 | 27.5 | | | | | | | | +26.20 | |
| | K | | | | | | | | | | | + .50 | |
| | | | | | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2668 | 49 49.10 | |
| | $\alpha_1$ | | | | | | | | | | | + 0.34 | |
| | | | | | | | | | | | | 49 49.44 | +8.5 |
| | | | | | | | | | | | | | +0 2 |
| | | | 9.8 | 49 23.1 | 14.8 | 18.2 | 21.6 | 25.1 | 28.6 | 10 80 | 21.60 | 49 21.60 | |
| | | | | 23.1 | | | | | | | | +26.63 | |
| | K | | | | | | | | | | | + .51 | |
| | | | | | | | | | | | | − .02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.12 | 49 48.74 | |
| | $\alpha_2$ | | | | | | | | | | | + 0.38 | |
| | | | | | | | | | | | | 49 49.12 | +8. |
| | | | | | | | | | | | | | +0 |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +15.3 | 0 17.3 | 6.3 | 55 | 11.80 | 52 27 | 36.55 | | 55 | 52 25 17.05 | |
| | 1.18469 | | | | | 25 | 4.87 | | | − 6 | +11.13 |
| d | 9.78527 | | | | | | +12.18 | | | + 1 | |
| 54 | 1.08567 | | | | | | 25 17.05 | | | + 8.19 | |
| ((δ) − D) d′/100 | | | | | | | | | | 10.78 | |
| | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.50 .60 | |
| +8.40 δ1 | | 41 43.86 | | 25 47.1 | | | | | | 25 16.58 | |
| +0 30.52 | | | | | | | | | | | |
| | +7.8 | 0 11.9 | − 0.8 | 55 | 5.55 | 52 27 | 42.80 | | 5.5 | 17.33 | |
| | 0.89209 | | | | | 25 | 11.12 | | | − 2 | +11.31 |
| d | 9.78527 | | | | | | +6.21 | | | + 1 | |
| | 0.79307 | | | | | | 25 17.33 | | | +10.92 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.80 | |
| +8.40 δ2 | | 41 43.81 | | 25 47.4 | | | | | | 25 16.84 | |
| +0 30.52 | | | | | | | | | | | |
| | +4.9 | 0 4.8 | 54.2 | 18 14 | 59.50 | 51 7 | 48.85 | | 15 | 51 54 21.19 | |
| | 0.69020 | | | | | 54 | 17.17 | | | − 1 | +9.69 |
| 54 d | 9.78825 | | | | | | +4.02 | | | 0 | |
| | 0.60416 | | | | | | 54 21.19 | | | + 8.19 9.35 | |
| ((δ) − D) d′/100 | | | | | | | | | | + .35 | |
| | | | | | | | | | | −11.30 | |
| +8.33 δ1 | | 45 9.96 | | 5 49.7 | | | | | | 5 19.58 | |
| +0 30.14 | | | | | | | | | | | |
| | +23.1 | 0 21.1 | 11.1 | 15 | 16.10 | 51 7 | 32.25 | | 15 | 19.51 | |
| | 1.36361 | | | | | 5 | 0.57 | | | − 14 | +9.67 |
| d | 9.78809 | | | | | | +18.94 | | | + 2 | |
| | 1.27741 | | | | | | 5 19.51 | | | +7.44 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.45 | |
| +8.33 δ2 | | 45 9.88 | | 5 47.9 | | | | | | 5 17.73 | |
| +0 30.14 | | | | | | | | | | | |
| | −11.7 | 0 6.7 | 55.8 | 20 | 1.25 | 53 2 | 47.10 | | 20 | 53 0 6.23 | |
| | 1.08819n | | | | | 0 | 15.42 | | | − 4 | +11.80 |
| 40 d | 9.77946 | | | | | | − 9.19 6.23 | | | 0 | |
| | 0.96336n | | | | | | 0 6.23 | | | +11.44 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.75 | |
| +8.49 δ1 | | 45 56.35 | | 0 36.3 0 | | | | | | 0 6.28 | |
| +0 30.04 | | | | | | | | | | | |
| | +20.3 | 1 30.9 | 19.2 | 20 | 25.05 | 53 2 | 23.30 | | 20 | 7.20 | |
| | 1.30750 | | | | | 59 | 51.62 | | | − 10 | +11.90 |
| d | 9.76922 | | | | | | +15.58 | | | + 3 | |
| | 1.19243 | | | | | | 0 7.20 | | | +11.57 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.90 | |
| +8.49 δ2 | | 45 56.44 | | 0 37.2 | | | | | | 0 7.20 | |
| +0 30.04 | | | | | | | | | | | |
| | +36.5 | 3 34.1 | 24.0 | 23 | 29.05 | 51 59 | 19.30 | | 20 | 51 57 16.99 | |
| | 1.56229 | | | | | 56 | 47.62 | | | − 34 | +10.54 |
| d | 9.78983 | | | | | | +29.37 | | | + 18 | |
| | 1.46783 | | | | | | 57 16.99 | | | +10.30 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| | | | | | | | | | | − 11.50 | |
| δ1 | | | | | | | | | | 57 16.03 | |
| | | | | | | | | | | 11.96 | 58 2.88 |
| | +40.6 | 1 42.4 | 32.3 | 21 | 37.35 | 52 1 | 11.00 | | 20 | 59 12.00 | 58 13.35 |
| d | +4.273 | | | | | 58 | 39.32 | | | − 44 | +10.50 − 48 +10.46 |
| 50 | 1.60653 | − 4.53 | | | | | +32.68 | | | + .08 | + .08 |
| 02 | 1.62634 | 1.65610 | | | | | +34.03 | | | + 10.46 | + 1046 |
| ((δ) − D) d′/100 | 9.78983 | 9.78983 | | | | | − 36.44 | | | + .40 | + .40 |
| 0 89 | 1.51427 07 | 1.56764n | | | | | | | | 121 − 11.70 | − 11.70 |
| δ2 | 1.53188 | 48 29.60 | | 59 40.5 | | | | | | # 59 10.80 76 | 59 12.11 2d # |
| | | 48 37.38 | | 58 31.4 | | | | | | 58 1.64 | |
| | − 5.1 | 2 23.0 | 13.1 | 37 | 18.05 | 52 45 | 30.30 | | 35 | 52 42 31.59 | |
| | 0.70757n | | | | | 42 | 58.62 | | | − 1 | +11.64 |
| d | 9.78280 | | | | | | −4.03 | | | + 12 | |
| | 0.60558n | | | | | | 42 54.59 | | | +11.13 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.65 | |
| +8.52 δ1 | | 49 57.96 | | 43 24.2 | | | | | | 42 54.58 | |
| +0 29.58 | | | | | | | | | | | |
| | −1.5 | 2 25.2 | 14.0 | 37 | 19.60 | 52 45 | 28.75 | | 35 | 55.88 | |
| | 0.17609n | | | | | 42 | 57.07 | | | 0 | +11.77 |
| d | 9.78280 | | | | | | −1.19 | | | + 12 | |
| | 0.07410n | | | | | | 42 55.88 | | | +11.25 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.83 | |
| +8.52 δ2 | | 49 57.68 | | 43 25.4 | | | | | | 42 55.78 80 | |
| +0 29.58 | | | | | | | | | | | |

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

1873phae.proj.1582R

205 206 12

Date$_1$ = Jan. 4 Observer / Recorder Date$_2$ = Jan 6 Observer / Recorder Run

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_o$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 51 40 | 51 51 | 5.5 | 50 56.2 | 51 14.4 | 19.6 | 22.8 | 26.3 | 29.6 | 11 47 | 22.94 | 51 | 22.54 51 22.94 |
| | 50 33.7 | 51 47.4 | 8.2 | 57.1 | 17.7 | 20.9 | 24.3 | 27.7 | 30.9 | 12 16 | 24.30 | 51 22.94 51 | 24.30 +24.20 5-2 |
| | κ | | 5.7 | 56.2 | | | | | | | | + 26.20 | +26.20 + .49 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | 57.1 | | | | | | +2667 | +2667 | + 49 | + .49 − .02 5-8 |
| | | | | | | | | | | | | − 02 | − .02 51 49.61 ( |
| | $c_1$ | | | | | | | | | | | 51 49.61 51 | 50.94 51 49.94 +8.4? |
| | | | | | | | | | | | | + .33 | + 0.33 + 0.38 +0 2? |
| | | | | | | | | | | | | 51 49.94 51 | 51.30 49.94 |
| | | | 5.3 | 51 5.3 | 15.7 | 19.1 | 22.4 | 25.7 | 29.2 | 11 21 | 22.42 | 51 | 22.42 51 22.42 |
| | | | 8.5 | 51 5.8 | 17.0 | 20.3 | 23.8 | 27.1 | 30.4 | 11.86 | 23.72 | 51 22.42 51 | 23.72 +26.63 |
| | κ | | | 5.3 | | | | | | | | +2663 | +26.63 + .50 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | 6.8 | | | | | | +27.11 | +27.11 | + 50 | + .50 − .02 |
| | | | | | | | | | | | | − .02 | − .02 49.52 ( |
| | $a_2$ | | | | | | | | | | | 51 49.53 | 50.43 + .36 +8.4 |
| | | | | | | | | | | | | + .36 | + 0.36 51 49.88 +0 ? |
| | | | | | | | | | | | | 51 49.89 51 | 24.99 51.19 |
| 2 | 54 03 | 50 55 | 9.0 | 53 10.5 | 38.5 | 41.7 | 45.0 | 48.5 | 51.7 | 22 54 | 45.08 | 53 | 45.08 |
| | 52 56.5 | 50 57.4 | 8.6 | 11.8 | | | | | | | | | +26.20 |
| | κ | | | 12.9 | | | | | | | | | + .47 . 46 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | 11.7 | | | | | | | | | − .02 |
| | | | | | | | | | | | +2665 | 54 | 11.73 ( |
| | $a_1$ | | | | | | | | | | | | + 0.31 +8.4 |
| | | | | | | | | | | | | 54 | 12.04 +0 2 |
| | | | 9.1 | 58 17.5 | 38.0 | 41.4 | 44.6 | 47.9 | 51.2 | 22 31 | 44.62 | 53 | 44.62 |
| | | | | 11.2 | | | | | | | | | +26.63 |
| | κ | | | 21.0 | | | | | | | | | + .48 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | 19.2 | | | | | | | | | − .02 |
| | | | | | | | | | | | +2209 | 54 | 11.71 ( |
| | $a_2$ | | | | | | | | | | | | + 0.34 +8.4 |
| | | | | | | | | | | | | 54 | 12.05 +0 2 |
| 2 | 55 27 | 50 51 | 8.8 | 54 36.2 | 55 2.7 | 5.9 | 9.1 | 12.6 | 15.7 | 4.60 | 9.20 | 58 | 9.20 |
| | 54 20.0 | 50 47.7 | 8.8 | 37.5 | | | | | | | | | +26.20 |
| | κ | | | 39.2 | | | | | | | | | + .47 62 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | 37.6 | | | | | | | | | − .02 |
| | | | | | | | | | | | +2665 | 55 | 35.85 ( |
| | $a_1$ | | | | | | | | | | | | + 0.30 +8.4 |
| | | | | | | | | | | | | 55 | 36.15 +0 2 |
| | | | 8.9 | 54 58.0 | 55 2.0 | 5.3 | 8.6 | 12.0 | 15.0 | 4.29 | 8.58 | 55 | 8.58 |
| | | | | 59.6 | | | | | | | | | +26.63 |
| | κ | | | 1.6 | | | | | | | | | + .48 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | 57.7 | | | | | | | | | − .02 |
| | | | | | | | | | | | +2709 | 55 | 35.67 ( |
| | $a_2$ | | | | | | | | | | | | + 0.33 +8.4 |
| | | | | | | | | | | | | 55 | 36.00 +0 2 |
| 2 | 57 10 | 50 30 | 9.2 | 56 24.3 | 56 48.8 | 49.6 | 53.3 | 55.6 | 58.3 | 2.26 | 52.52 | 56 | 51.94 56 51.94 |
| | 56 2.5 | 50 26.3 | 9.5 | 26.3 | 48.2 | 51.9 | 54.5 | 56.0 | 58.4 | 2.12 | 54.24 | 56 51.94 56 | 52.24 +26.20 |
| | κ | | 8.8 | 28.3 | 56 48.2 | 48.4 | 51.9 | 53.4 | 56.3 | | | + 2620 | +26.20 + .45 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | 48.4 | 49.6 | 53.2 | 56.7 | 59.3 | | | + .45 | + .45 − .02 |
| | | | | | | | | 5 | | +2663 | +2663 | − 02 | − .02 * .28 ( |
| | $a_1$ | | | | | | | | | | | 57 18.57 57 | 19.57 18.57 +8.4 |
| | | | | | | | | | | | | +.29 | + 0.29 + 29 |
| | | | | | | | | | | | | 57 18.86 57 | 19.86 18.86 +0 2 |
| | | | 9.3 | 56 33.2 | 44.7 | 48.1 | 51.1 | 54.6 | 57.5 | 25.60 | 51.20 | 56 | 51.20 56 51.20 |
| | | | 9.4 | 56 35.4 | 46.0 | 49.5 | 52.4 | 55.5 | 58.8 | 26.22 | 52.44 | 56 51.20 56 | 52.44 +26.63 |
| | κ | | | 34.3 | | | | | | | | + 2663 | +26.63 + .47 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + .47 | + .47 − .02 |
| | | | | | | | | | | +2708 | +2708 | − 02 | − .02 18.28 ( |
| | $a_2$ | | | | | | | | | | | 57 18.28 57 | 19.52 + .31 +8.4 |
| | | | | | | | | | | | | + .31 | + 0.31 18.59 |
| | | | | | | | | | | | | 57 18.59 57 | 19.83 +0 2 |
| 2 | 58 31 | 51 41 | 8.5 | 58 49.3 | 58 5.9 | 9.1 | 12.6 | 15.9 | 19.4 | 6.19 | 12.38 | 58 | 12.38 |
| | 57 23.7 | 51 37.6 | 8.7 | 50.7 | | | | | | | | | +26.20 |
| | κ | | | 52.3 | | | | | | | | | + .48 4 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | 50.8 | | | | | | | | | − .02 |
| | | | | | | | | | | | +2666 | 58 | 39.24 ( |
| | $a_1$ | | | | | | | | | | | | + 0.27 +8.5 |
| | | | | δ rel # 59 338 | | | | | | | | 58 | 39.51 +0 2 |
| | | | | 354 | | | | | | | | | |
| | | | 8.2 | 370 | 58 5.6 | 8.9 | 12.2 | 15.4 | 18.8 | 6.09 | 12.18 | 58 | 12.18 58 30.12 |
| | | | 8.4 | 59 354 | 58 22.3 | 26.5 | 30.2 | 33.5 | 36.8 | | | | +26.63 +23.63 |
| | κ | | | 408 | | | | | | 15 06 | | | + .49 + .49 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | δ 2# 57 | 58 22.3 | 26.8 | 30.2 | 33.5 | 36.8 | | | 10 | − .02 − .02 |
| | | | | | | | | | | | +2709 | | 58 39.28 58 57.22 +8.5 |
| | $a_2$ | | | | | | | | | | | | + 0.31 + .31 |
| | 57 41.2 | 51 38.7 | | | | | | | | | | | 58 39.59 58 57.53 +0 2? |
| | | | | | | | | | | | | | +8.5 |
| | | | | | | | | | | | | | + 2? |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +28.7 | 0 1.0 | 52.9 | 29 | 55,95 | 51 52 | 52.40 | | 30 | 50 42.66 | 50 42.66 |
| 5-2 | | 51 50 42.26 | 51 | 50 42.66 | | 50 | 20.72 | 50 | | - 19 | - 19 +10.39 +10.39 |
| d | +27.2 | +10.39 | | +10.39 | | | +21.54 | | | 0 | 0 |
| | 1.42651 | | | | | | +21.94 | | | +10.19 | +10.19 |
| ((δ) — D) $\frac{d'}{100}$ | 1.43457 | | | | | | | 50 | 42.66 | + 39 | + 39 |
| +8.47 | 9.79095 | | | | | | | | | -11.45 | -11.45 |
| +0 29.34 $\delta_1$ | 1.33317 | 51 58.41 | | 51 10.5 | | | | | | 50 41.20 | 41.60 |
| | 1.34123 | 59.77 | | 10.9 | | 2 | | | | | |
| | +17.1 | 0 54.2 | 43.8 | 30 | 4900 | 51 54 | 59.85 | 49 | 41.47 30 | 41.47 | 42.11 +10.65 +10.64 |
| | | 51 49 41.47 | | 51 49 42.11 | | 50 | 27.67 | | | - 8 | - 9 |
| d | +17.9 | +10.65 | | +10.64 | | | +13.80 | | | + 4 | + 4 |
| | 1.23300 | | | | | | +14.44 | | | +10.30 | +10.30 |
| ((δ) — D) $\frac{d'}{100}$ | 1.25285 | | | | | | | 49 | 42.11 | + 39 | + 39 |
| +8.47 | 9.79111 | | | | | | | | | -11.60 | -11.60 |
| +0 29.34 $\delta_2$ | 1.13982 | 51 58.36 | | 51 9.9 | | | | | | 50 40.52 | 50 41.15 |
| | 1.15967 | 59.66 | | 10.15 | | | | | | | |
| | +33.4 | 0 25.5 | 16.3 | 25 | 2090 | 50 57 | 27.45 | | 25 | 50 55 23.26 | |
| | 1.52375 | | | | | 54 | 55.77 | | | - 29 | +9.27 |
| 46 d | 9.79965 | | | | | | +27.49 | | | + 2 | |
| | 1.43911 | | | | | | | | | +9.19 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | 55 | 23.26 | + 35 | |
| +8.41 | | | | | | | | | | -11.25 | |
| +0 29.06 $\delta_1$ | | 54 20.45 | | 55 50.3 | | | | | | 55 21.28 | |
| | +25.4 | 0 19.3 | 8.9 | 25 | 1410 | 50 57 | 34.25 | | 25 | 23.47 | |
| | 1.40483 | | | | | 55 | 2.57 | | | - 17 | +9.47 |
| d | 9.79965 | | | | | | +20.90 | | | + 2 | |
| | 1.32019 | | | | | | | | | +9.27 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | 55 | 23.47 | + 35 | |
| | | | | | | | | | | -11.40 | |
| +8.41 $\delta_2$ | | | | | | | | | | 55 21.54 | |
| +0 29.06 | | 54 20.46 | | 55 50.6 | | | | | | | |
| | +31.6 | 3 48.5 | 38.6 | 28 | 4355 | 50 54 | 4.80 | | 25 | 50 51 59.15 | |
| | 1.49869 | | | | | 51 | 23.12 | | | - 27 | +9.37 |
| 62 d | 9.80012 | | | | | | +26.03 | | | + 18 | |
| | 1.41552 | | | | | | | | | +9.12 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | 51 | 59.15 | + 34 | |
| | | | | | | | | | | -11.25 | |
| +8.43 $\delta_1$ | | | | | | | | | | 51 57.27 | |
| +0 28.90 | | 55 44.58 | | 52 26.2 | | | | | | | |
| | +8.9 | 3 29.6 | 19.2 | 28 | 2440 | 50 54 | 23.95 | | 25 | 59.60 | |
| | 0.94939 | | | | | 51 | 52.27 | | | - 3 | +9.69 |
| d | 9.80012 | | | | | | +7.33 | | | + 17 | |
| | 0.86522 | | | | | | | | | +9.21 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | 51 | 59.60 | + 34 | |
| | | | | | | | | | | -11.40 | |
| +8.43 $\delta_2$ | | | | | | | | | | 51 57.89 | |
| +0 28.90 | | 55 44.43 | | 52 26.8 | | | | | | | |
| | +27.6 | 0 16.9 | 7.1 | 50 | 1200 | 50 32 | 36.35 | 30 | 27.89 50 | 50 30 27.59 | 26.76 |
| | | 50 30 27.59 | | 50 30 26.76 | | 30 | 4.67 | | | - 21 | - 20 +8.84 +8.85 |
| d | +26.6 | +8.84 | | +8.85 | | | +22.92 | | | + 1 | + 1 |
| | 1.44091 | | | | | | +22.09 | | | +8.72 | +8.72 |
| ((δ) — D) $\frac{d'}{100}$ | 1.42488 | | | | | | | 30 | 26.76 | + 32 | + 32 |
| +8.41 | 9.80351 | | | | | | | | | -11.10 | -11.10 |
| +0 28.66 $\delta_1$ | 1.36013 | 57 27.27 | | 30 54.0 | | | | | | 30 25.33 | 24.51 |
| | 1.34410 | 28.27 | | 53.2 | | | | | | | |
| | +18.0 | 0 10.4 | 0.1 | 30 | 525 | 50 32 | 43.10 | 30 | 26.36 50 | 26.36 | 25.53 |
| | | 26.36 | | 25.53 | | 30 | 11.42 | | | - 09 | - 8 +9.04 +9.05 |
| d | +17.0 | 9.04 | | 9.05 | | | +14.94 | | | + 0 | + 0 |
| | 1.25527 | | | | | | +14.11 | | | +8.81 | +8.81 |
| ((δ) — D) $\frac{d'}{100}$ | 1.23045 | | | | | | | 30 | 25.53 | + 32 | + 32 |
| +8.41 | 9.80351 | | | | | | | | | -11.25 | -11.25 |
| +0 28.66 $\delta_2$ | 1.17449 | 57 28.00 | | 30 52.8 | | | | | | 30 24.15 | 23.33 |
| | 1.14967 | 28.24 | | 52.0 | | | | | | | |
| | −38.2 | 3 20.3 | 11.0 | 38 | 1565 | 51 44 | 32.70 | | 35 | 51 41 30.12 | |
| | 1.58206 m | | | | | 42 | 1.02 | | | - 38 | +10.21 |
| 40 d | 9.79224 | | | | | | −30.90 | | | + 17 | |
| | 1.49001 m | | | | | | | 47 | 30.12 | +10.04 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| +852 | | | | | | | | | | -11.35 | |
| +0 28.50 $\delta_1$ | | 58 48.03 | | 41 57.5 | | | | | | 43 28.98 | ✓ |
| | −83.2 | 2 41.8 | 31.7 | 37 | 36,75 | 51 45 | 11.60 | | 35 | 41 40 5.32 | 32.64 51 43 1980 |
| | 1.92012 | 1.47683 | | | | 42 | 39.92 | | | -184 - 25 | +10.21 850 - 64 +1002 |
| d 208 | 9.79208 | 9.79208 | | | | | +26.40 | | | + 13 | + 13 |
| | 1.82791 m | 1.40472 | | | | | − 67.28 | 43 | 5.32 | +10.15 | + 10.15 |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | + 39.88 | | | + 38 | + 38 |
| +8.52 | +49.3 | | | | | | | | | -11.53 | - 11.55 |
| +0 28.50 $\delta_2$ | 1.69285 | 58 48.116 | | 41 58.4 | | | | | | 41 4.18 | ✓ |
| | 9.79208 | 59 6.06 | | 43 46.8 | | | | | | 41 28.9 | 51 43 18.27 |
| +8.53 | 1.60064 | | | | | | | | | | |
| +28.48 | | | | | | | | | | | |

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

1873phae.proj.1582R

205 206 14

Date$_1$ = Jan. 4 Observer / Recorder Date$_2$ = Jan 6 Observer / Recorder Run

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h | 8m 58.9 | 52° 26′ | 8.6 | 0m 8.5 | 1 34.4 | 37.7 | 41.0 | 44.5 | 47.7 | 20.53 | 41.06 | 0 | 41.06 |
| | 59 47.5 | 52 22.0 | 8.9 | 9.8 | | | | | | | | | +26.21 |
| | κ | | | 11.7 | | | | | | | | | + .49 |
| | | | | 10.0 | | | | | | | | | − .02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2668 | 1 | 7.74 |
| | | | | | | | | | | | | | + 0.25 |
| | $c_1$ | | | | | | | | | | | 1 | 7.99 |
| | | | 8.6 | 0 26.0 | 0 33.8 | 37.2 | 40.6 | 44.0 | 47.4 | 20.30 | 40.60 | 0 | 40.60 |
| | | | | 27.4 | | | | | | | | | +26.63 |
| | κ | | | 29.2 | | | | | | | | | + .51 |
| | | | | 27.5 | | | | | | | | | − .02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2712 | 1 | 7.42 |
| | | | | | | | | | | | | | + 0.29 |
| | $a_2$ | | | | | | | | | | | 1 | 8.01 |
| 3 | 2 41.1 | 52 46 | 8.3 | 2 8.4 | 2 22.4 | 25.7 | 29.3 | 32.7 | 35.8 | 14 59 | 29.18 | 2 | 29.18 |
| | 1 38.4 | 52 41.7 | 8.3 | 9.7 | | | | | | | | | +26.21 |
| | κ | | | 11.0 | | | | | | | | | + .50 |
| | | | | 9.7 | | | | | | | | | − .02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2669 | 2 | 55.87 |
| | | | | | | | | | | | | | + 0.23 |
| | $a_1$ | | | | | | | | | | | 2 | 56.10 |
| | | | 8.4 | 2 8.7 | 2 22.0 | 25.4 | 28.8 | 32.0 | 35.5 | 14 37 | 28.74 | 2 | 28.74 |
| | | | | 7.2 | | | | | | | | | +26.62 |
| | κ | | | 9.0 | | | | | | | | | + .51 |
| | | | | 7.3 | | | | | | | | | − .02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.11 | 2 | 55.85 |
| | | | | | | | | | | | | | + 0.27 |
| | $a_2$ | | | | | | | | | | | 2 | 56.12 |
| 3 | 4 32 | 51 18 | 8.2 | 3 50.4 | 4 +28 | 16.4 | 19.6 | 22.7 | 26.1 | 9.76 | 19.52 | 4 | 19.52 |
| | 3 24.7 | 51 14.6 | 7.8 | 51.8 | 7.9 | 11.3 | 14.6 | 17.7 | 21.1 | | | | +26.21 |
| | κ | | | 54.3 | | | | | | | | | + .47 |
| | no Dm. place | | | 52.2 | | | | | | | | | − .02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2666 | 4 | 41.18 |
| | | | | | | | | | | | | | + 0.23 |
| | $a_1$ | | | | | | | | | | | 4 | 41.41 |
| | | | 7.8 | 3 51.5 | 4 7.6 | 11.0 | 14.2 | 17.4 | 20.8 | 7.10 | 14.20 | 4 | 14.20 |
| | | | | 53.0 | | | | | | | | | +26.62 |
| | κ | | | 54.7 | | | | | | | | | + .48 |
| | | | | 53.1 | | | | | | | | | − .02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2708 | 4 | 41.28 |
| | | | | | | | | | | | | | + 0.26 |
| | $a_2$ | | | | | | | | | | | 4 | 41.54 |
| 3 | 6 37 | 50 29 | 8.2 | 5 33.4 | 54.4 | 57.5 | 0.7 | 4.0 | 7.2 | 30 38 | 0.76 | 6 | 0.76 |
| | 5 29.2 | 24.9 | 6.5 | 35.8 | 10.9 | 14.3 | 17.3 | 20.7 | 24.0 | 8.72 | 17.44 | 6 | 17.44 |
| | κ | | 5.0 | 38.6 | | | | | | | 6 0.76 | | +26.21 |
| | | | 6.7 | 35.9 | | | | | | | + 26.21 | | + .45 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | +2664 | + 2644 | | − .02 |
| 7 | 46 | | | | | | | | | | + .45 | 6 | 27.40 |
| | | | | | | | | | | | − .02 | | + .22 |
| | $a_1$ | | | | | | | | | | 6 27.40 | 6 | 44.08 |
| | | | | | | | | | | | + .22 | | + 0.22 |
| | | | | | | | | | | | 6 27.62 | 6 | 44.30 |
| | | | 8.0 | 5 51.4 | 53.9 | 0.2 | 6.7 | 13.7 | 17.0 | 33.15 | 6.30 | 6 | 0.34 |
| | | | 6.0 | 51.4 | 54.2 | 3.5 | 10.4 | | 20.3 | | 6 0.34 | 6 | 16.48 |
| | κ | | 4.0 | | 53.5 | 57.2 | 0.2 | 3.6 | 6.8 | | + 26.62 | | +26.62 |
| | | | | | 10.4 | 13.7 | 17.0 | 20.3 | 23.5 | | + .47 | | + .47 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | +2707 | + 2707 | | − .02 |
| | | | | | | | | | | | 6 27.41 | 6 | 44.05 |
| | $a_2$ | | | | | | | | | | + .25 | | + 0.25 |
| | | | | | | | | | | | 6 27.66 | 6 | 44.30 |
| 3 | 9 12 | 50 05 | 8.3 | 9 8.0 | 8 45.8 | 49.3 | 52.4 | 55.5 | 58.7 | 26 17 | 52.34 | 8 | 52.34 |
| | 8 4.0 | 1.2 | 8.0 | 10.5 | 46.8 | 50 | 53 | 56 | 59 | | | | +26.21 |
| | κ | | | 8.9 | | | | | | | | | + .45 |
| | | | | 7.5 | | | | | | | | | − .02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2664 | 9 | 18.98 19.98 |
| | | | | | | | | | | | | | + 0.20 |
| | $a_1$ | | | | | | | | | | | 9 | 20.18 |
| | | | 8.3 | 8 27.4 | 46.4 | 49.6 | 52.9 | 56.0 | 59.3 | 26.42 | 52.84 | 8 | 52.84 |
| | | | | 29.2 | | | | | | | | | +26.62 |
| | κ | | | 30.2 | | | | | | | | | + .47 |
| | | | | 28.9 | | | | | | | | | − .02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2707 | 9 | 19.91 |
| | | | | | | | | | | | | | + 0.23 |
| | $a_2$ | | | | | | | | | | | 9 | 20.14 |

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

1873phae.proj.1582f

Should have been +8.556 + 27.75 so this observation refers not to 1419 in Rozencat. but to No 1418 with this zenetting (1875.0 from Bonn 205, 3h 4 49.97 +51° 18 51.10 206, 3h 4 50.10 +51° 18 50.98)

Note by J.A. Dunthorne H.C.O. Jan 28-1909

15

Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +31.1 | 0′ 1.7″ | 5.1 | 54 | 56.40 | 52 27 | 51.95 | | 55 | 52 25 45.03 | |
| | 1.49276 | | | | | 25 | 20.27 | | | − 25 | +10.97 |
| d | 9.78527 | | | | | | +24.76 | | | 0 | +10.97 |
| 46 | 1.39374 | | | | | | | 25 45.03 | | +10.82 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| +862 | | | | | | | | | | −11.50 | |
| δ1 +0 2820 | | 1 16.61 | | 26 12.7 | | | | | | 25 44.50 | |
| | +13.1 | 4 48.9 | 38.0 | 54 | 43.45 | 52 28 | 4.90 | | 50 | 43.68 | |
| | 1.11727 | | | | | 25 | 33.22 | | | − 5 | +11.52 |
| d | 9.78510 | | | | | | +10.43 | | | + 23 | |
| | 1.01808 | | | | | | | 25 43.66 | | +10.94 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| +862 | | | | | | | | | | −11.70 | |
| δ2 +0 2820 | | 1 16.63 | | 26 11.7 | | | | | | 25 43.47 | |
| | +19.5 | 0 16.2 | 6.0 | 35 | 11.10 | 52 47 | 37.25 | | 35 | 52 45 20.98 | |
| | 1.29003 | | | | | 45 | 5.57 | | | − 9 | +11.49 |
| d | 9.78197 | | | | | | +15.41 | | | + 1 | |
| 44 | 1.18771 | | | | | | | 45 20.98 | | +11.17 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| +866 | | | | | | | | | | −11.60 | |
| δ1 +0 27.98 | | 3 4.76 | | 45 48.85 | | | | | | 45 20.87 | |
| | +21.4 | 0 18.1 | 5.9 | 35 | 12.00 | 52 47 | 36.35 | | 35 | 21.58 | |
| | 1.33041 | | | | | 45 | 4.67 | | | − 12 | +11.58 |
| d | 9.78197 | | | | | | +16.91 | | | + 1 | |
| | 1.22809 | | | | | | | 45 21.58 | | +11.29 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| +866 | | | | | | | | | | −11.80 | |
| δ2 +0 27.98 | | 3 4.78 | | 45 49.34 | | | | | | 45 21.36 | |
| | +22.3 | 2 15.1 | 5.3 | 2 | 10.20 | 51 20 | 38.15 | | 0 | 51 18 24.67 | |
| | 1.34830 | | | | | 18 | 6.47 | | | − 13 | +9.93 |
| d | 9.79605 | | | | | | +18.20 | | | + 11 | |
| 32 | 1.26006 | | | | | | | 18 24.67 | | + 9.59 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 36 | |
| +1283 | | | | | | | | | | −11.25 | |
| δ1 +0 41.64 | | 4 54.24 | | 19 5.0 | | | | | | 18 23.35 | |
| | +21.1 | 2 14.3 | 4.2 | 2 | 9.25 | 51 20 | 39.10 | | 0 | 24.64 | |
| | 1.32428 | | | | | 18 | 7.42 | | | − 12 | +10.04 |
| d | 9.79605 | | | | | | +17.22 | | | + 11 | |
| | 1.23604 | | | | | | | 18 24.64 | | +9.69 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 36 | |
| +1283 | | | | | | | | | | −11.45 | |
| δ2 +0 41.64 | | 4 54.37 | | 19 4.9 | | | | | | 18 23.23 | |
| 76 | ex | 3 39.1 | 2.85 | 53 | 33.80 | 50 29 | 14.55 | | 2.50 | | |
| 21 | | 2 24.3 | 14.9 | 52 | 19.60 | 50 30 | 28.75 | | | | |
| 45 | | | | | | 2.6 | 42.87 | | | | |
| d | | | | | | 27 | 57.07 | | | | |
| 02 | | | | | | | | | | | |
| 40 | | | | | | | | | | −11. | |
| ((δ) − D) d′/100 | | | | | | | | | | | |
| 22 | | | | | | | | | | −11.10 | |
| 62 | | | | | | | | | | | |
| δ1 | | | | | | | | | | | |
| 34 | +8.9 | 1 45.1 | 34.5 | 57 | 39.80 | 50 31 | 8.65 | 28 44.26 | 5.0 | 28 44.26 | 57.78 |
| .62 | (+6.9 +8.9) | 51 28 44.26 | | 31 28 57.78 | | 28 | 36.87 | | | − 3 | − 17 +9.17 +9.03 |
| .47 | (+6.6 +24.6) | + 9.17 | | + 9.03 | | | + 7.39 | | | + 8 | + 8 |
| d | 0.94939 | | | | | | +20.91 | | | +8.79 | +8.79 |
| .02 | 1.39094 | | | | | | | 28 57.78 | | + 33 | + 33 |
| 4.41 | 9.80366 | | | | | | | | | −11.25 | −11.25 |
| ((δ) − D) d′/100 | 0.86876 | | | | | | | | | 28 43.18 | 55.56 |
| 25 | 1.32031 | | | | | | | | | | |
| δ2 | | | | | | | | | | | |
| 2.46 | −14.2 | 2 4 50.3 | 41.9 | 154 | 46.10 | 50 X 8 | 2.25 | | 4.5/10 | 50 4 18.68 | |
| | 1.15229n | | | | | 4 | 30.57 | | | 5 − 5 | +8.53 |
| d | 9.80731 | | | | | 5 | −11.89 | | | + 4 | |
| 80 | 1.07531n | | | | | | | 4 18.68 | | +8.24 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 30 | |
| +8.50 | | | | | | | | | | −10.95 | |
| δ1 +0 27.16 | | 9 28.68 | | 5 43.4 | | | | | | 5 4 16.26 | |
| | +23.9 | 0 23.1 | 13.2 | 15 | 18.15 | 50 7 | 30.20 | | 15 | 5 3 18.54 | |
| | 1.37840 | | | | | 4 | 58.52 | | | − 15 | +8.51 |
| d | 9.80731 | | | | | | +20.02 | | | + 2 | |
| | 1.30142 | | | | | | | 4 18.54 | | +8.34 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 30 | |
| +8.50 | | | | | | | | | | −11.15 | |
| δ2 +0 27.16 | | 9 28.64 | | 5 43.1 | | | | | | 15.90 | |
| | | | | | | | | | | 5 | |

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

1873phae.proj.1582R

205

Date$_1$ = Jan 4 — Observer / Recorder

206

Date$_2$ = Jan 6 — Observer / Recorder

16

Ru

| Star. | α | δ | Mag. | $T_i$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | h m s | ° ′ ″ | | m s | s | s | s | s | s | | s | m | s |
| | 10 8 1 | 50 30 | 7.3 | 10 5.3 | 26.0 | 29.3 | 32.3 | 35.6 | 38.8 | 16.20 | 32.40 | 10 | 32 40 |
| | 9 42.4 | 50 27.9 | 7.0 | 7.0 | | | | | | | | | +26.21 |
| | | 263 | | 8.5 | | | | | | | | | + .45 |
| | | | | 6.9 | | | | | | | | | − 02 |
| | κ | | | | | | | | | | | | 44 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2664 | 10 | 59.04 |
| | | | | | | | | | | | | | + 0.19 |
| | $a_1$ | | | | | | | | | | | 10 | 59.23 |
| | | | | | | | | | | | | | +8.5 |
| | | | | | | | | | | | | | +0 2 |
| | | | 7.8 | 10 11.4 | 25.4 | 28.7 | 32.0 | 35.2 | 28.5 | 15 98 | 31.96 | 10 | 31.96 |
| | | | | 12.7 | | | | | | | | | +26.62 |
| | | | | 14.5 | | | | | | | | | + .47 |
| | | | | 12.9 | | | | | | | | | − 02 |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2707 | 10 | 59.03 |
| | | | | | | | | | | | | | + 0.22 |
| | $a_2$ | | | | | | | | | | | 10 | 59.25 |
| | | | | | | | | | | | | | +8.5 |
| | | | | | | | | | | | | | +0 2 |
| 3 | 30 55 | 51 55 | 9.0 | 30 11.0 | 33.3 | 36.7 | 40.0 | 43.3 | 46.7 | 30 00 | 40.00 | 30 | 40.00 |
| | 29 46.4 | 51 51.5 | 9.1 | 12.7 | | | | | | | | | +26.21 |
| | | | | 14.3 | | | | | | | | | + .49 |
| | | | | 12.7 | | | | | | | | | − .02 |
| | κ | | | | | | | | | | | | 50 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2668 | 31 | 6.68 |
| | | | | | | | | | | | | | + 0.02 |
| | $a_1$ | | | | | | | | | | | 31 | 6.70 |
| | | | | | | | | | | | | | +8.8 |
| | | | | | | | | | | | | | +0 2 |
| | | | 9.2 | 30 19.5 | 32.8 | 36.1 | 39.5 | 42.9 | 46.2 | 19 75 | 39.50 | 30 | 39.50 |
| | | | | 21.0 | | | | | | | | | +26.62 |
| | | | | 22.8 | | | | | | | | | + .50 |
| | | | | 21.1 | | | | | | | | | − 02 |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2710 | 31 | 6.60 |
| | | | | | | | | | | | | | + 0.05 |
| | $a_2$ | | | | | | | | | | | 31 | 6.65 |
| | | | | | | | | | | | | | +8.8 |
| | | | | | | | | | | | | | +0 2 |
| 3 | 31 58 | 51 04 | 8.3 | 31 27.5 | 34.4 | 37.6 | 40.5 | 49.0 | 47.4 | 20 34 | 40.72 | 31 | 40.72 |
| | 30 48.3 | 51 2.3 | 8.9 | 29.1 | | | | | | | | | +26.21 |
| | | | | 30.5 | | | | | | | | | + .47 |
| | | | | 29.0 | | | | | | | | | − 02 |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +26.66 | 32 | 7.44 |
| | | | | | | | | | | | | | + 0.02 |
| | $a_1$ | | | | | | | | | | | 32 | 7.46 |
| | | | | | | | | | | | | | +8.1 |
| | | | | | | | | | | | | | +0 2 |
| | | | 8.6 | 31 26.3 | 33.7 | 37.0 | 40.4 | 43.6 | 47.9 | 20 26 | 40.52 | 31 | 40.52 |
| | | | | 27.8 | | | | | | | | | +26.62 |
| | | | | 29.0 | | | | | | | | | + .48 |
| | | | | 27.7 | | | | | | | | | − 02 |
| 39 | 9 κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2708 | 32 | 7.60 |
| | | | | | | | | | | | | | + 0.05 |
| | $a_2$ | | | | | | | | | | | 32 | 7.65 |
| | | | | | | | | | | | | | +8.1 |
| | | | | | | | | | | | | | +0 2 |
| 3 | 42 19 | 51 52 | 8.5 | 42 28.4 | 56.5 | 59.7 | 3.0 | 6.3 | 9.6 | 31.51 | 3.02 | 43 | 3.02 |
| | 42 9.0 | 51 46.9 | 8.2 | 29.7 | | | | | | | | | +26.21 |
| | | | | 31.6 | | | | | | | | | + .49 |
| | | | | 29.9 | | | | | | | | | − 02 |
| | κ | | | | | | | | | | | | 38 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2668 | 43 | 29.70 |
| | | | | | | | | | | | | | − 0.07 |
| | $a_1$ | | | | | | | | | | | 43 | 29.63 |
| | | | | | | | | | | | | | +13. |
| | | | | | | | | | | | | | +0 |
| | | | 8.3 | 43 0.7 | 55.9 | 59.4 | 2.7 | 5.9 | 9.3 | 31 32 | 2.64 | 43 | 2.64 |
| | | | | 1.3 | | | | | | | | | +26.62 |
| | | | | 1.0 | | | | | | | | | + .50 |
| | κ | | | | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2710 | 43 | 29.74 |
| | | | | | | | | | | | | | − 0.04 |
| | $a_2$ | | | | | | | | | | | 43 | 29.70 |
| | | | | | | | | | | | | | +13 |
| | | | | | | | | | | | | | +0 3 |
| 3 | 45 05 | 52 02 | 7.9 | 44 19.9 | 41.3 | 44.7 | 48.0 | 51.3 | 54.7 | 24.00 | 48.00 | 44 | 48.00 |
| | 43 54.0 | 51 59.5 | 7.8 | 21.2 | | | | | | | | | +26.22 |
| | | | | 22.6 | | | | | | | | | + .49 |
| | | | | 21.2 | | | | | | | | | − 02 |
| | κ | | | | | | | | | | | | 40 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2668 | 45 | 14.69 |
| | | | | | | | | | | | | | − 0.08 |
| | $a_1$ | | | | | | | | | | | 45 | 14.61 |
| | | | | | | | | | | | | | +9.0 |
| | | | | | | | | | | | | | +0 2 |
| | | | 8.0 | 44 29.3 | 40.9 | 44.3 | 47.5 | 51.0 | 54.3 | 23.80 | 47.60 | 44 | 47.60 |
| | | | | 31.4 | | | | | | | | | +26.62 |
| | | | | 33.0 | | | | | | | | | + .50 |
| | | | | 31.2 | | | | | | | | | − 02 |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.10 | 45 | 14.70 |
| | | | | | | | | | | | | | − 0.05 |
| | $a_2$ | | | | | | | | | | | 45 | 14.65 |
| | | | | | | | | | | | | | +9.0 |
| | | | | | | | | | | | | | +0 2 |

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

1873phae.proj.15825



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +25.5 | 0′ 24.0 | 14.2 | 50′ | 19.10 | 50 32 | 29.25 | | 50′ | 50 30 18.74 | |
| | 1.40654 | | | | | 29 | 57.57 | | | − 17 | +8.90 |
| d | 9.80851 | | | | | | +21.17 | | | + 2 | |
| 44 | 1.32576 | | | | | | | 30 18.74 | | +8.73 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| | | | | | | | | | | −11.00 | |
| +8.55 $\delta_1$ | | 11 7.78 | | 30 43.6 | | | | | | 30 16.64 | |
| +0 26.94 | | | | | | | | | | | |
| | +19.1 | 0 16.2 | 7.8 | 50 | 13.00 | 50 38 | 35.35 | | 50 | 30 19.53 | |
| | 1.28103 | | | | | 29 | 3.67 | | | − 10 | +9.04 |
| d | 9.80851 | | | | | 36 | +15.86 | | | + 1 | |
| | 1.20025 | | | | | | | 30 19.53 | | +8.81 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| | | | | | | | | | | −11.20 | |
| +8.55 $\delta_2$ | | 11 7.80 | | 30 44.3 | | | | | | 30 17.37 | |
| +0 26.94 | | | | | | | | | | | |
| | +27.3 | 0 40.0 | 27.2 | 25 | 33.60 | 51 57 | 14.75 | | 25 | 51 55 5.05 | |
| | 1.43616 | | | | | 54 | 43.07 | | | − 19 | +10.53 |
| d | 9.79015 | | | | | | +21.98 | | | + 3 | |
| 50 | 1.34202 | | | | | | | 55 5.05 | | +10.29 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.05 | |
| +8.86 $\delta_1$ | | 31 15.56 | | 55 28.8 | | | | | | 55 4.83 | |
| +0 24.26 | | | | | | | | | | | |
| | +18.4 | 0 31.1 | 19.0 | 25 | 25.05 | 51 57 | 23.30 | | 25 | 6.43 | |
| | 1.26482 | | | | | 54 | 51.62 | | | − 9 | +10.71 |
| d | 9.79015 | | | | | | +14.81 | | | + 2 | |
| | 1.17068 | | | | | | | 55 6.43 | | +10.38 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.30 | |
| +8.86 $\delta_2$ | | 31 15.51 | | 55 30.1 | | | | | | 55 5.84 | |
| +0 24.26 | | | | | | | | | | | |
| | +11.8 | 0 7.2 | 56.8 | 15 | 2.00 | 51 7 | 46.35 | | 15 | 51 5 24.35 | |
| | 1.07188 | | | | | 5 | 14.67 | | | − 4 | +9.64 |
| d | 9.79809 | | | | | | + 9.68 | | | 0 | |
| | 0.98568 | | | | | | | 5 24.35 | | +9.33 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −10.90 | |
| +8.79 $\delta_1$ | | 32 16.25 | | 5 47.2 | | | | | | 5 23.09 | |
| +0 24.12 | | | | | | | | | | | |
| | +12.8 | 1 7.9 | 57.9 | 15 | 2.90 | 51 7 | 45.45 | | 15 | 24.27 | |
| | 1.10721 | | | | | 5 | 13.77 | | | − 5 | +9.77 |
| d | 9.79809 | | | | | | +10.50 | | | 0 | |
| | 1.02101 | | | | | | | 5 24.27 | | + 9.47 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.15 | |
| +8.79 $\delta_2$ | | 32 16.44 | | 5 47.0 | | | | | | 5 22.89 | |
| +0 24.12 | | | | | | | | | | | |
| | +~~29.9~~ | 3 30.7 | 20.9 | 28 | ~~25.80~~ | 51 54 | 22.55 | | 25 | 51 52 17.55 | |
| | + 3.1 | | | | | 51 | 50.87 | | | − 29 | +10.51 |
| d | 1.51983 | | | | | | +26.68 | | | + 17 | |
| 38 | 9.79063 | | | | | | | 52 17.55 | | +10.23 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.42617 | | | | | | | | | + 40 | |
| | | | | | | | | | | −10.85 | |
| +13.445 $\delta_1$ | | 43 43.08 | | 52 50.9 | | | | | | 52 17.21 | |
| +0 33.72 | | | | | | | | | | | |
| | +1.6 | 3 7.0 | 55.3 | 28 | 1.15 | 51 54 | 47.20 | | 25 | 16.81 | |
| | 0.20412 | | | | | 52 | 15.52 | | | 0 | +10.88 |
| d | 9.79063 | | | | | | + 1.29 | | | + 15 | |
| | 0.11046 | | | | | | | 52 16.81 | | +10.33 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.15 | |
| +13.45 $\delta_2$ | | 43 43.15 | | 52 50.3 | | | | | | 52 16.54 | |
| +0 33.72 | | | | | | | | | | | |
| | +26.8 | 3 1.8 | 50.5 | 17 | 5.6.15 | 52 4 | 52.20 | | 15 | 52 2 43.06 | |
| | 1.42813 | | | | | 2 | 20.52 | | | − 19 | +10.78 |
| d | 9.78902 | | | | | | +22.54 | | | + 15 | |
| 40 | 1.33296 | | | | | | | 2 43.06 | | +10.42 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −10.85 | |
| +9.00 $\delta_1$ | | 45 23.61 | | 3 5.2 | | | | | | 2 42.99 | |
| +0 22.24 | | | | | | | | | | | |
| | +16.4 | 2 51.3 | 40.9 | 17 | 46.10 | 52 5 | 2.25 | | 15 | 43.73 | |
| | 1.21484 | | | | | 2 | 30.57 | | | − 7 | +11.00 |
| d | 9.78886 | | | | | | +13.16 | | | + 13 | |
| | 1.11941 | | | | | | | 2 43.73 | | +10.54 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.00 | | | | | | | | | | −11.15 | |
| +0 22.24 $\delta_2$ | | 45 23.65 | | 3 5.8 | | | | | | 2 43.58 | |

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

1873phae.proj.1582R



Date$_1$ = Jan 4 Observer
n = Recorder

Date$_2$ = Jan 6 Observer
+.39 Recorder

| Star. | α | δ | Mag. | $T_a$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 46 02 | 51 59 | 9.0 | 46 6.5 | 45 36.7 | 40.2 | 43.7 | 47.0 | 50.3 | 2179 | 43.58 | 45 | 43.58 |
| | 44 49.8 | 56.1 | 8.7 | 8.6 | | | | | | | | | +26.22 |
| | κ | | | 10.0 | | | | | | | | | + .49 |
| | | | | 8.4 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2669 | 46 | 10.27 |
| | | | | | | | | | | | | | − 009 |
| | $a_1$ | | | | | | | | | | | 46 | 10.18 |
| | | | 9.2 | ~~46 39.5~~ 39.1 | ~~36.9~~ | ~~40.2~~ | ~~43.3~~ | ~~46.6~~ | ~~49.7~~ | | | 45 | 43.14 |
| | | | | 39.7 | | | | | | | | | +26.62 |
| | κ | | | | | | | | | | | | + .50 |
| | | | | | | | | | | | +27.10 | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 45 50.1 | 36.4 | 39.7 | 43.2 | 46.6 | 49.8 | 2157 | 43.14 | 46 | 10.24 |
| | | | | 50.1 | | | | | | | | | − 006 |
| | $a_2$ | | | | | | | | | | | 46 | 10.188 |
| 3 | 47 02 | 50 19 | 5.0 | 46 34.3 | 37.4 | 40.7 | 43.4 | 47.2 | 50.5 | 2192 | 43.84 | 46 | 43.84 |
| | 45 51.3 | 50 16.3 | 8.7 | 36.3 | | | | | | | | | +26.22 |
| | κ | | | 38.2 | | | | | | | | | + .45 |
| | | | | 36.3 | | | | | | | | | − .02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2665 | 47 | 10.49 |
| | | | | | | | | | | | | | − 0.07 |
| | $a_1$ | | | | | | | | | | | 47 | 1042 |
| | | | 5.5 | 46 32.5 | 36.9 | 40.2 | 43.3 | 46.6 | 49.7 | 2167 | 43.34 | 46 | 43.34 |
| | | | | 34.1 | | | | | | | | | +26.62 |
| | κ | | | 35.7 | | | | | | | | | + .47 |
| | | | | 34.1 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2707 | 47 | 10.41 |
| | | | | | | | | | | | | | − 0.05 |
| | $a_2$ | | | | | | | | | | | 47 | 10.36 |
| 3 | 48 29 | 51 21 | 8.6 | 47 54.3 | 48 5.3 | 8.8 | 12.1 | 15.4 | 18.7 | 6.03 | 12.06 | 48 | 12.06 |
| | 47 18.2 | 18.3 | 8.0 | 55.7 | | | | | | | | | +26.22 |
| | κ | | | 54.5 | | | | | | | | | + .47 |
| | | | | 56.8 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2667 | 48 | 38.73 |
| | | | | | | | | | | | | | − 0.10 |
| | $a_1$ | | | | | | | | | | | 48 | 38.63 |
| | | | 8.8 | 47 54.4 | 48 4.7 | 8.5 | 11.5 | 14.9 | 18.3 | 579 | 11.58 | 48 | 11.58 |
| | | | | 55.8 | | | | | | | | | +26.62 |
| | κ | | | 59.8 | | | | | | | | | + .48 |
| | | | | 56.7 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2708 | 48 | 38.66 |
| | | | | | | | | | | | | | − 007 |
| | $a_2$ | | | | | | | | | | | 48 | 38.659 |
| 3 | 49 43 | 51 06 | 7.7 | 49 13.2 | 48 4.1 | 50.6 | 53.6 | 57.0 | 0.2 | 2685 | 53.70 | 48 | 53.70 |
| | 48 ~~32.2~~ | 3.4 | 9.5 | 14.5 | | | | | | | | | +26.22 |
| | κ 0.3 | | | 16.1 | | | | | | | | | + .47 |
| | | | | 14.6 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2667 | 49 | 20.37 |
| | | | | | | | | | | | | | − 0.10 |
| | $a_1$ | | | | | | | | | | | 49 | 2027 |
| | | | 8.0 | 48 44.4 | 46.7 | 49.8 | 53.3 | 56.4 | 59.7 | 2659 | 53.18 | 48 | 53.18 |
| | | | | 45.7 | | | | | | | | | + 26.62 |
| | κ | | | 47.4 | | | | | | | | | + .48 |
| | | | | 46.8 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2708 | 49 | 20.26 |
| | | | | | | | | | | | | | − 0.08 |
| | $a_2$ | | | | | | | | | | | 49 | 20.18 |
| 3 | 51 16 | 51 48 | 8.5 | 50 33.3 | 53.2 | 56.7 | 59.9 | 3.3 | 6.7 | 2998 | 59.96 | 50 | 59.96 |
| | 50 4.7 | 44.8 | 8.5 | 35.6 | | | | | | | | | +26.22 |
| | κ | | | 39.2 | | | | | | | | | + .48 |
| | | | | 36.4 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2668 | 51 | 2664 |
| | | | | | | | | | | | | | − 0.12 |
| | $a_1$ | | | | | | | | | | | 51 | 24.52 |
| | | | 8.5 | 50 36.6 | 52.7 | 56.1 | 59.4 | 2.7 | 6.2 | 2971 | 59.42 | 50 | 59.42 |
| | | | | 36.4 | | | | | | | | | +26.62 |
| | κ | | | 38.3 | | | | | | | | | + .50 |
| | | | | 36.4 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.10 | 51 | 26.52 |
| | | | | | | | | | | | | | − 0.10 |
| | $a_2$ | | | | | | | | | | | 51 | 26.42 |

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

1873phae.proj.15825



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ~~+23.2~~ | 3′ 33.8 | 23.3 | 18′ | 28.55 | 52 4 | 19.80 | | ~~15~~ | 52 1 28.20 | |
| | −2.48 | | | | | 1 | 48.12 | | | − 17 | +10.80 |
| 44 d | 1.39445 m | | | | | | −19.92 | | | + 17 | |
| | 9.78902 | | | | | | | 1 28.20 | | +10.40 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.29918 m | | | | | | | | | + 40 | |
| | | | | | | | | | | −10.85 | |
| +9.00 $\delta_1$ | | 46 19.18 | | 1 50.2 | | | | | | 1 28.15 | |
| +0 22.08 | | | | | | | | | | | |
| | −7.0 | 3 48.9 | 36.3 | 18 | 42.60 | 52 4 | 5.85 | | 15 | 1 28.45 | |
| | 0.84510 m | | | | | 1 | 34.07 | | | − 2 | +11.06 |
| d | 9.78902 | | | | | | − 5.62 | | | + 18 | |
| | 0.74983 m | | | | | | | 1 28.45 | | +10.50 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.10 | |
| +9.00 $\delta_2$ | | 46 19.18 | | 1 50.5 | | | | | | 1 28.41 | |
| +0 22.08 | | | | | | | | | | | |
| | +7.5 | 0 56.2 | 46.8 | 0 | 51.50 | 50 21 | 56.85 | | 0 | 50 19 31.42 | |
| | 0.87506 | | | | | 19 | 25.17 | | | − 2 | +8.68 |
| 50 d | 9.80519 | | | | | | + 6.25 | | | + 4 | |
| | 0.79596 | | | | | | | 19 31.42 | | +8.55 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 31 | |
| | | | | | | | | | | −10.50 | |
| +8.84 $\delta_1$ | | 47 19.26 | | 19 51.7 | | | | | | 19 29.80 | |
| +0 21.94 | | | | | | | | | | | |
| | +9.2 | 0 59.0 | 47.3 | 0 | 53.15 | 50 21 | 55.20 | | 0 | 31.19 | |
| | 0.96379 | | | | | 19 | 23.52 | | | − 3 | +8.95 |
| d | 9.80519 | | | | | | + 7.67 | | | + 4 | |
| | 0.88469 | | | | | | | 19 31.19 | | +8.63 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 31 | |
| | | | | | | | | | | −10.75 | |
| +8.84 $\delta_2$ | | 47 19.20 | | 19 51.3 | | | | | | 19 29.39 | |
| +0 21.94 | | | | | | | | | | | |
| | +16.3 | 3 50.0 | 40.8 | 58 | 45.40 | 51 24 | 2.95 | | 55 | 51 21 44.55 | |
| | 1.21219 | | | | | 21 | 31.27 | | | − 7 | +10.16 |
| d | 9.79542 | | | | | | +13.28 | | | + 18 | |
| 48 | 1.12332 | | | | | | | 21 44.55 | | +9.69 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| | | | | | | | | | | −10.70 | |
| +8.96 $\delta_1$ | | 48 47.54 | | 22 5.7 | | | | | | 21 44.01 | |
| +0 21.72 | | | | | | | | | | | |
| | +14.9 | 3 49.9 | 39.0 | 58 | 44.45 | 51 24 | 3.90 | | 55 | 44.36 | |
| | 1.17319 | | | | | 21 | 32.22 | | | − 6 | +10.26 |
| d | 9.79542 | | | | | | +12.14 | | | + 19 | |
| | 1.08432 | | | | | | | 21 44.36 | | +9.77 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| | | | | | | | | | | −11.00 | |
| +8.96 $\delta_2$ | | 48 47.55 | | 22 5.3 | | | | | | 21 43.62 | |
| +0 21.72 | | | | | | | | | | | |
| | ~~+39.7~~ | 2 14.9 | 4.3 | 12 | 9.90 | 51 10 | 38.45 | | 10 | 51 7 49.65 | |
| | −2.09 | | | | | 8 | 6.77 | | | − 12 | +9.77 |
| 52 d | 1.82015 m | | | | | | −17.12 | | | + 11 | |
| | 9.79762 | | | | | | | 7 49.65 | | +9.43 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.23348 m | | | | | | | | | + 35 | |
| | | | | | | | | | | −10.60 | |
| +8.94 $\delta_1$ | | 49 29.21 | | 8 10.4 | | | | | | 7 48.82 | |
| +0 21.56 | | | | | | | | | | | |
| | +7.4 | 2 38.9 | 28.4 | 12 | 33.65 | 51 10 | 14.70 | | 10 | 49.08 | |
| | 0.86923 | | | | | 7 | 43.02 | | | − 2 | +9.98 |
| d | 9.79762 | | | | | | + 6.06 | | | + 13 | |
| | 0.78256 | | | | | | | 7 49.08 | | +9.52 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +8.94 | | | | | | | | | | −10.90 | |
| +0 21.56 $\delta_2$ | | 49 29.12 | | 8 9.7 | | | | | | 7 48.14 | |
| | ~~+24.6~~ | 2 34.8 | 23.0 | 32 | 28.90 | 51 50 | 19.45 | | 30 | 51 48 7.63 | |
| | 1.39094 | | | | | 47 | 47.77 | | | − 16 | +10.52 |
| 54 d | 9.79128 | | | | | | +19.86 | | | + 12 | |
| | 1.29793 | | | | | | | 48 7.63 | | +10.18 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| | | | | | | | | | | −10.70 | |
| +9.02 $\delta_1$ | | 51 35.54 | | 48 28.8 | | | | | | 48 7.45 | |
| +0 21.32 | | | | | | | | | | | |
| | +23.0 | 2 33.8 | 21.3 | 32 | 27.55 | 51 50 | 20.80 | | 30 | 7.69 | |
| | 1.36173 | | | | | 47 | 49.12 | | | − 14 | +10.62 |
| d | 9.79128 | | | | | | +18.57 | | | + 12 | |
| | 1.26872 | | | | | | | 48 7.69 | | +10.26 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| | | | | | | | | | | −11.00 | |
| +9.02 $\delta_2$ | | 51 35.44 | | 48 28.6 | | | | | | 48 7.31 | |
| +0 21.32 | | | | | | | | | | | |

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

1873phae.proj.1582R

205 206. 20

Date$_1$ = Jan 4 Observer / Recorder

Date$_2$ = Jan 6 Observer / Recorder

Run

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5 52 53 | 51 47 | 8.8 | 52 15.7 | 52 30.8 | 34.2 | 37.6 | 40.8 | 44.2 | 18 76 | 37.52 | 52 | 37.52 |
| | 5 1 43.5 | 51 44.0 | 8.9 | 17.2 | | | | | | | | | +26.22 |
| | κ | | | 18.6 | | | | | | | | | + .48 |
| | | | | 19.2 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 2668 | 53 | 4.20 |
| | $a_1$ | | | | | | | | | | | | − 0.13 |
| | | | | | | | | | | | | 53 | 4.07 |
| | | | 9.0 | 52 8.1 | 30.4 | 33.7 | 36.9 | 40.4 | 43.6 | 18.50 | 37.00 | 52 | 37.00 |
| | | | | 9.7 | | | | | | | | | +26.62 |
| | κ | | | 12.1 | | | | | | | | | + .50 |
| | | | | 10.0 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.10 | 53 | 4.10 |
| | $a_2$ | | | | | | | | | | | | − 0.11 |
| | | | | | | | | | | | | 53 | 3.99 |
| | | | | | Single observations | | | | | | | | |
| 2 | 3 7 38 | 50 42 | 9.0 | 8 11.7 | 7 1 | 36.0 | 39.0 | 42.5 | 45.6 | | | 78 | 39.15 |
| Jan 4 | 6 49.9 | 38.6 | 9.2 | 13.3 | | | | | | | | | +26.21 |
| | κ | | | 16.0 | | | | | | | | | + .48 |
| | | | | 18.7 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 2667 | 98 | 5.82 |
| | $a_1$ | | | | | | | | | | | | + 0.20 |
| | | | | | | | | | | | | 98 | 6.02 |
| 3 | 3 33 31 | 51 15 | 8.5 | | | | | | | | | | |
| Jan 4 | 32 20.9 | 51 12.0 | 8.3 | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_2$ | | | | | | | | | | | | |
| 3 | 3 34 41 | 51 23 | 9.0 | | | | | | | | | | |
| Jan 4 | 33 30.7 | 51 20.2 | 8.8 | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_1$ | | | | | | | | | | | | |
| 3 | 3 36 51 | 52 02 | 9.4 | | | | | | | | | | |
| Jan 4 | 35 40.4 | 51 59.3 | 9.2 | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_2$ | | | | | | | | | | | | |
| 3 | 3 38 05 | 51 07 | 7.0 | | | | | | | | | | |
| Jan 4 | 36 54.9 | 51 4.4 | 7.0 | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_1$ | | | | | | | | | | | | |
| 2 | 3 39 27 | 51 00 | 9.3 | 39 19.0 | 1.5 | 4.5 | 7.9 | 11.0 | 14.3 | 3.92 | 7.84 | 39 | 7.84 |
| Jan 6 | 38 21.0 | 50 56.0 | 9.2 | 20.5 | | | | | | | | | +26.62 |
| | κ | | | 22.4 | | | | | | | | | + .48 |
| | | | | 20.6 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.08 | 39 | 34.92 |
| | $a_2$ | | | | | | | | | | | | + 0.45 |
| | | | | | | | | | | | | 39 | 35.37 |
| 2 | 4 2 58 | 51 41 | 8.0 | | | | | | | | | | |
| Jan 6 | 41 52.2 | 51 36.8 | 8.3 | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_1$ | | | | | | | | | | | | |
| 3 | 3 39 09 | 51 34 | 8.2 | 38 30.1 | 45.7 | 49.0 | 52.4 | 55.7 | 58.9 | 26.17 | 52.34 | 38 | 52.34 |
| Jan. 4 | 37 58.8 | 51 30.7 | 8.2 | 31.4 | | | | | | | | | +26.21 |
| | κ | | | 33.2 | | | | | | | | | + .48 |
| | | | | 31.6 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 2667 | 39 | 19.01 |
| | $a_2$ | | | | | | | | | | | | − 0.03 |
| | | | | | | | | | | | | 39 | 18.98 |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +20.3 | 3′ 21.8 | 11.1 | 33′ | 16,45 | 51 49 | 31.90 | | 30′ | 51 47 16.61 | |
| | 1.30750 | | | | | 47 | 0.22 | | | − 11 | +10.61 |
| d | 9.79144 | | | | | | +16.39 | | | + 16 | |
| | 1.21465 | | | | | | | 47 16.61 | | +10,17 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| | | | | | | | | | | −10.65 | |
| +9.03 $\delta_1$ | | 53 13.10 | | 47 37.7 | | | | | | 47 16.57 | |
| +0 21.10 | | | | | | | | | | | |
| | +27.0 | 3 28.0 | 17.2 | 33 | 22,60 | 51 49 | 25.75 | | 30 | 15.87 | |
| | 1.43136 | | | | | 46 | 54.07 | | | − 19 | +10.61 |
| d | 9.79144 | | | | | | +21.80 | | | + 17 | |
| | 1.33851 | | | | | | | 47 15.87 | | +10.24 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| | | | | | | | | | | −10.95 | |
| +9.03 $\delta_2$ | | 53 13.02 | | 47 36.6 | | | | | | 47 15.53 | |
| +0 21.10 | | | | | | | | | | | |
| − 34.5 | +25.5 | 1 46.0 | 36.0 | 36 | 4,100 | 50 46 | 7.35 | | 35 | 50 43 ~~56.74~~ | 7.17 |
| 1.53782 | 1.40654 | | | | | 43 | 35.67 | | | −.31 − ~~17~~ | +9.~~22~~ |
| 9.80d136 | 9.80136 | | | | | | ~~+21.07~~ | | | + 9 | 08 |
| 1.45489n | 1.32361 | | | | | | − 28.50 | 43 56.74 | | + 8.97 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| | | | | | | | | | | −11.05 | |
| +8.55 $\delta_1$ | | 8 14.57 | | 43 32.5 | | | | | | 43 ~~54.91~~ 5.20 | |
| +0 27.34 | | | | | | | | | | | |
| | | 0 16.2 | 6.8 | | | | | | 5 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | | 1 47.8 | 38.1 | | | | | | 55 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | | 3 1.1 | 50.0 | | | | | | 15 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | | 2 46.8 | 36.1 | | | | | | 10 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | − ~~12.8~~ | 4 35.3 | 25.2 | 19 | 30,25 | 51 3 | 18.10 | | 15 | 51 0 38.07 | |
| | 1.10721n | | | | | 0 | 46.42 | | | − 5 | +9.88 |
| d | 9.79872 | | | | | | − 8.35 | | | + 22 | |
| | 0.92164n | | | | | | | 0 38.07 | | +9.~~34~~ 24 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | 35 | |
| | | | | | | | | | | −11.45 | |
| +8.26 $\delta_1$ | | 39 43.63 | | 1 7.3 | | | | | | 0 36.50 | |
| +0 30.76 | | | | | | | | | | | |
| | | 0 0.3 | 50.9 | | | | | | 40 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | +30.7 | 1 41.0 | 38.8 | 46 | 35,90 | 51 36 | 12.45 | | 45 | 51 33 57.57 | |
| | 1.31597 | | | | | 33 | 40.77 | | | − 12 | +10.25 |
| d | 9.79351 | | | | | | +16.80 | | | + 8 | |
| | 1.22519 | | | | | | | 33 57.57 | | +9.91 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + ~~38~~ | |
| | | | | | | | | | | −10.90 | |
| +8.90 $\delta_2$ | | 39 27.88 | | 34 20.0 | | | | | | 33 56.92 | |
| +0 23.08 | | | | | | | | | | | |

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

1873phae.proj.1582R

Date$_1$ = Jan. 7/1873 (207) Observer / Recorder — Date$_2$ = Jan 9 (208) Observer / Recorder — 22 — Ru

| Star. | α | μ = +.39 δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 48 09 | 50° 20 | 9.1 | 47 7.8 | 47 23.7 | 27.0 | 30.4 | 33.4 | 37.0 | 15 15 | 30.30 | 47 | 30.30 |
| | 47 2.41 | 50 16.2 | 8.9 | 9.2 | | | | | | | | | +26.95 |
| | κ 43.8 | 12.0 | | 11.7 | | | | | | | | | + .47 |
| | | | | 5.6 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.40 | 47 | 57.70 |
| | | | | | | | | | | | | | + 0.41 |
| | $c_1$ | | | | | | | | | | | 47 | 58.11 |
| | 47 2.14 | 50 16.2 | 9.2 | 47 28.2 | 47 41.7 | 45.0 | 48.2 | 51.5 | 54.6 | 24 10 | 48.20 | 47 | 48.20 |
| | κ | | | 29.6 | | | | | | | | | +27.42 |
| | | | | 21.3 | | | | | | | | | + .42 |
| | | | | 29.7 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.82 | 48 | 16.02 |
| | | | | | | | | | | | | | + 0.45 |
| | $a_2$ | | | | | | | | | | | 48 | 16.47 |
| 2 | 58 57 | 50 16 | 9.6 | 53 17.6 | 53 24.2 | 27.2 | 30.3 | 34.0 | 36.9 | 15 26 | 30.52 | 53 | 30.52 |
| | 52 44.0 | 50 12.6 | 9.0 | 19.4 | | | | | | | | | +26.95 |
| | κ | | | 17.5 | | | | | | | | | + .47 |
| | | | | 13.6 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 15.4 | | | | | | | +27.40 | 53 | 57.92 |
| | | | | 18.3 | | | | | | | | | + 37 |
| | $a_1$ | | | 15.1 | | | | | | | | 53 | 58.29 |
| | | | 9.4 | 53 11.0 | 23.6 | 27.1 | 30.5 | 33.2 | 36.5 | 1509 | 30.18 | 53 | 30.18 |
| | | | | 12.7 | | | | | | | | | +27.42 |
| | κ | | | 14.0 | | | | | | | | | + .42 |
| | | | | 12.6 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.82 | 53 | 58.00 |
| | | | | | | | | | | | | | + 40 |
| | $a_2$ | | | | | | | | | | | 53 | 58.40 |
| 2 | 55 27 | 50 06 | 9.0 | 54 36.9 | 55 0.7 | 3.8 | 7.1 | 10.4 | 13.4 | 3 54 | 7.08 | 55 | 7.08 |
| | 54 20.6 | 50 47.7 | 9.0 | 38.1 | | | | | | | | | +26.95 |
| | κ | 2.6 | | 37.5 | | | | | | | | | + .47 |
| | | | | | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.40 | 55 | 34.48 |
| | | | | | | | | | | | | | + 35 |
| | $a_1$ | | | | | | | | | | | 55 | 34.83 |
| | | | 9.2 | 54 41.2 | 55 0.5 | 3.6 | 6.8 | 9.9 | 13.0 | 3 38 | 6.76 | 55 | 6.76 |
| | | | | 44.0 | | | | | | | | | +27.42 |
| | κ | | | 45.0 | | | | | | | | | + .42 |
| | | | | 43.4 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.82 | 55 | 34.58 |
| | | | | | | | | | | | | | + 39 |
| | $a_2$ | | | | | | | | | | | 55 | 34.97 |
| 2 | 56 46 | 52 56 | 9.5 | 56 4.2 | 56 17.5 | 21.1 | 24.4 | 27.9 | 31.2 | 1221 | 24.42 | 56 | 24.42 |
| | 55 34.6 | 52 51.2 | 9.2 | 5.8 | | | | | | | | | +26.95 |
| | κ | | | 7.2 | | | | | | | | | + .52 |
| | | | | 5.7 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.45 | 56 | 51.87 |
| | | | | | | | | | | | | | + 33 |
| | $a_1$ | | | | | | | | | | | 56 | 52.20 |
| | | | 9.3 | 56 8.3 | 56 17.0 | 20.5 | 23.8 | 27.3 | 32.9 | 1193 | 23.86 | 56 | 23.86 |
| | | | | 10.3 | | | | | | | | | +27.42 |
| | κ | | | 12.3 | | | | | | | | | + .46 |
| | | | | 10.4 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.86 | 56 | 51.78 |
| | | | | | | | | | | | | | + 38 |
| | $a_2$ | | | | | | | | | | | 56 | 52.16 |
| 3 | 1 28 | 52 23 | 9.0 | 0 51.4 | 0 33.4 | 36.8 | 40.3 | 43.5 | 47.0 | 20 10 | 40.20 | 0 | 40.20 |
| | 0 15.7 | 52 16.7 | 9.3 | 52.9 | | | | | | | | | +26.94 |
| 2 | 59 κ 47.5 | 52 22.9 | | 54.3 | | | | | | | | | + .51 |
| | | | | 52.9 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.43 | 1 | 7.63 |
| | | | | | | | | | | | | | + 30 |
| | $a_1$ | | | | | | | | | | | 1 | 7.93 |
| 3 | 0 15.7 | 52 18.7 | 9.2 | 0 48.5 | 37.0 | 0.1 | 3.5 | 7.0 | 10.6 | 3 182 | 3.64 | 1 | 3.64 |
| | κ | | | 50.6 | | | | | | | | | +27.42 |
| | | | | 52.4 | | | | | | | | | + .45 |
| | | | | 50.6 | | | | | | | | | − 02 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.85 | 1 | 31.49 |
| | | | | | | | | | | | | | + 34 |
| | $a_2$ | | | | | | | | | | | 1 | 31.83 |

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

1873phae.proj.1582R

Jan. 7 −2′ 31.″32 +.″05
" 9 −2 31.61 +.05



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 3′ 46.″0 | 35.″0 | 3′ | 41.″00 | 50 19 | 7.35 | | 0′ | 50 16 53.30 37.76 | ✓ |
| | +20.7 | | | | | 16 | 36.03 | | | − 12 | +9.12 |
| d | 1.31597 | | | | | | +1.73 | | | + 18 | |
| | 9.80650 | | | | | | 17.27 | 16 37.76 | | +8.75 | |
| ((δ) − D) $\frac{d'}{100}$ | 8.23718 | | | | | | | | | + 31 | |
| | | | | | | | | | | −11.35 | |
| +8.30 $\delta_1$ | | 48 6.41 | | 17 20.8 | | | | | | 16 35.53 51.07 | ✓ |
| +0 29.76 | | | | | | | | | | | |
| | +18.5 | 4 35.2 | 24.1 | 59 | 29.65 | 50 23 | 18.70 | | 55 | 21 2.50 | |
| | 1.26717 | | | | | 20 | 47.09 | | | − 10 | +8.94 |
| d | 9.80489 | | | | | | +15.41 | | | + 22 | |
| | 1.18777 | | | | | | | 21 2.50 | | +8.55 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 27 | |
| | | | | | | | | | | −11.50 | |
| +8.31 $\delta_2$ | | 48 24.78 | | 21 29.7 | | | | | | 20 59.94 | ✓ |
| +0 29.76 | | | | | | | | | | | |
| | +15.4 | 3 32.2 | 20.1 | 3 | 2.615 | 50 19 | 22.20 | | 0 | 50 17 3.73 | |
| | 1.18752 | | | | | 16 | 50.88 | | | − 6 | +9.17 |
| 34 d | 9.80650 | | | | | | +12.85 | | | + 17 | |
| | 1.10873 | | | | | | | 17 3.73 | | +8.75 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 31 | |
| | | | | | | | | | | −11.35 | |
| +8.36 $\delta_1$ | | 54 6.65 | | 17 30.6 | | | | | | 17 1.55 | |
| +0 29.08 | | | | | | | | | | | |
| | +17.6 | 3 35.9 | 24.9 | 3 | 30.40 | 50 19 | 17.95 | | 0 | 1.02 | |
| | 1.24551 | | | | | 16 | 46.34 | | | − 9 | +8.70 |
| d | 9.80550 | | | | | | +14.68 | | | + 17 | |
| | 1.16672 | | | | | | | 17 1.02 | | +8.35 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 27 | |
| | | | | | | | | | | −11.50 | |
| +8.36 $\delta_2$ | | 54 6.76 | | 17 27.3 | | | | | | 16 58.22 | |
| +0 29.08 | | | | | | | | | | | |
| | +29.6 | 3 35.0 | 22.0 | 13 | 28.50 | 60 9 | 24.85 | | 10 | 50 7 18.30 | |
| | 1.47129 | | | | | 6 | 53.53 | | | − 24 | +8.81 |
| 32 d | 9.80701 | | | | | | +24.77 | | | + 17 | |
| | 1.39401 | | | | | | | 7 18.30 | | +8.58 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 30 | |
| | | | | | | | | | | −11.30 | |
| +8.36 $\delta_1$ | | 55 43.19 | | 7 39.7 | | | | | | 7 15.81 10 | ✓ |
| +0 28.88 | | | | | | | | | | | |
| | +23.4 | 3 29.6 | 18.8 | 13 | 24.20 | 50 9 | 24.15 | | 10 | 12.13 | |
| | 1.36922 | | | | | 6 | 52.54 | | | − 14 | +8.60 |
| d | 9.80701 | | | | | | +19.59 | | | + 17 | |
| | 1.29194 | | | | | | | 7 12.13 | | +8.31 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 26 | |
| | | | | | | | | | | −11.45 | |
| +8.36 $\delta_2$ | | 55 43.33 | | 7 39.2 | | | | | | 7 9.28 | ✓ |
| +0 28.88 | | | | | | | | | | | |
| | +18.7 | 0 10.6 | 57.5 | 25− | 405− | 52 57 | 44.30 | | 25 | 52 55 27.70 | |
| | 1.27184 | | | | | 55 | 12.98 | | | − 9 | +12.05 |
| d | 9.78030 | | | | | | +14.72 | | | + 0 | |
| 50 | 1.16785 | | | | | | | 55 27.70 | | +11.74 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.95 | |
| +8.61 $\delta_1$ | | 57 0.81 | | 55 56.5 | | | | | | 55 27.80 | |
| +0 28.72 | | | | | | | | | | | |
| | +13.5 | 0 7.2 | 83.0 | 25− | 1.10 | 52 57 | 47.25 | | 26− | 26.27 | |
| | 1.13033 | | | | | 55 | 15.64 | | | − 5 | +11.74 |
| d | 9.78038 | | | | | | +10.63 | | | 0 | |
| | 1.02634 | | | | | | | 55 26.27 | | +11.39 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | 546 | | | | | | + 40 | |
| | | | | 55 44.6 | | | | | | −12.10 | |
| +8.61 $\delta_2$ | | 57 0.77 | | 54 | | | | | | 55 25.91 | |
| +0 28.72 | | | | | | | | | | | |
| | 7.3 −12.7 | 4 27.0 | 14.9 | 42 | 21.95− | 52 28 | 27.40 | | 50 | 52 21 45.95 | |
| | 1.10380 m | | | | | 25 | 56.08 | | | − 5 | +11.67 |
| d | 9.78592 | | | | | | −10.13 | | | + 22 | |
| | 1.00543 m | | | | | | | 26 45.95 | | +11.10 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.80 | |
| +8.61 $\delta_1$ | | 1 16.54 | | 26 14.0 | | | | | | 20 45.82 25 | ✓ |
| +0 28.16 | | | | | | | | | | | |
| | +13.1 | 2 33.5 | 22.9 | (42) 57 | 28.20 | 52 25 | 20.15 | | 50 55.? | 22 58.98 | |
| | 1.11727 | | | | | 22 | 48.54 | | | − 5 | +11.37 |
| d | 9.78560 | | | | | | +10.44 | | | + 12 | |
| | 1.01858 | | | | | | | 22 58.98 | | +10.90 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −12.00 | |
| +8.62 $\delta_2$ | | 1 40.45 | | 23 26.5 | | | | | | 22 58.35 | ✓ |
| +0 28.16 | | | | | | | | | | | |

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

1873phae.proj.1582R

Date$_1$ = Jan 7 (207) — Observer / Recorder — Date$_2$ = Jan 9 (208) — Observer / Recorder — (24)

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | h m s | ° ′ | | m s | m s | s | s | s | s | | s | m | s |
| | 3 22 | 50 57 | 9.0 | | | | | | | | | | |
| | 6 57 | 50 53.1 | 8.9 | | | | | | | | | | |
| | 5 κ 49.3 | | | | Lost | | | | | | | | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_1$ | | | | | | | | | | | | |
| | | | 8.9 | 6 37.0 | 6 31.9 | 35.2 | 38.5 | 41.5 | 43.0 | 19.21 | 38.42 | 6 | 38.42 |
| | | | | 37.0 | | | | | | | | | +27.42 |
| | κ | | | | | | | | | | | | + .43 |
| | | | | | | | | | | | | | − 02 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2783 | 7 | 6.25 |
| | | | | | | | | | | | | | + 30 |
| | $\alpha_2$ | | | | | | | | | | | 7 | 6.55 |
| | 8 | | | | | | | | | | | | |
| 3 | 7 5 | 50 42 | 9.2 | 7 46.8 | 7 32.1 | 35.2 | 38.5 | 41.7 | 45.2 | 19.27 | 38.54 | 7 | 38.54 |
| | 6 49.9 | 50 38.6 | 9.2 | 48.2 | | | | | | | | | +26.94 |
| | κ | | | 49.9 | | | | | | | | | + .47 |
| | | | | 48.3 | | | | | | | | | − 02 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2739 | 8 | 5.93 |
| | | | | | | | | | | | | | + 25 |
| | $\alpha_1$ | | | | | | | | | | | 8 | 6.18 |
| | | | 9.0 | 7 30.6 | 31.2 | 34.7 | 38.0 | 41.1 | 44.4 | 18.94 | 37.88 | 7 | 37.88 |
| | | | | 30.6 | | | | | | | | | +27.42 |
| | κ | | | | | | | | | | | | + .43 |
| | | | | | | | | | | | | | − 02 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2783 | 8 | 5.71 |
| | | | | | | | | | | | | | + 29 |
| | $\alpha_2$ | | | | | | | | | | | 8 | 6.00 |
| 3 | 9 4 0 | 52 20 | 9.3 | 9 3.1 | 12.4 | 16.4 | 19.5 | 22.8 | 26.0 | 9.71 | 19.42 | 9 | 19.42 |
| | 8 27.2 | 52 15.6 | 8.9 | 4.8 | | | | | | | | | +26.94 |
| | κ | | | 6.6 | | | | | | | | | + .50 |
| | | | | 4.8 | | | | | | | | | − 02 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2742 | 9 | 46.84 |
| | | | | | | | | | | | | | + 23 |
| | $\alpha_1$ | | | | | | | | | | | | 47.07 |
| | | | 9.0 | 9 1.6 | 12.4 | 15.6 | 19.2 | 22.4 | 25.8 | 9.54 | 19.08 | 9 | 19.08 |
| | | | | 3.0 | | | | | | | | | +27.42 |
| | κ | | | 5.0 | | | | | | | | | + .45 |
| | | | | 3.2 | | | | | | | | | − 02 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.85 | 9 | 8.693 |
| | | | | | | | | | | | | | + 26 |
| | $\alpha_2$ | | | | | | | | | | | 9 | 47.19 |
| | | | | | | | | | | | | 10 | |
| 3 | 10 3 2 | 52 40 | 9.0 | 10 7.6 | 26.0 | 29.5 | 32.7 | 36.2 | 39.5 | 16.39 | 32.78 | 10 | 32.78 |
| | 9 39.8 | 52 35.3 | 9.0 | 9.8 | | | | | | | | | +26.94 |
| | κ | | | 11.9 | | | | | | | | | + .51 |
| | | | | 9.8 | | | | | | | | | − 02 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2743 | 11 | 0.21 |
| | | | | | | | | | | | | | + 22 |
| | $\alpha_1$ | | | | | | | | | | | 11 | 0.43 |
| | | | 9.1 | 10 14.1 | 25.6 | 28.9 | 32.3 | 35.6 | 39.2 | 16.16 | 32.32 | 10 | 32.32 |
| | | | | 15.4 | | | | | | | | | +27.42 |
| | κ | | | 17.1 | | | | | | | | | + .46 |
| | | | | 15.0 | | | | | | | | | − 02 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2786 | 11 | 0.18 |
| | | | | | | | | | | | | | + 26 |
| | $\alpha_2$ | | | | | | | | | | | 11 | 0.44 |
| | κ | | | | | | | | | | | | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_1$ | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_3$ | | | | | | | | | | | | |

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

1873phaeproj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | S | 3 ′ 20.0 | 8.5 | | | | | | 20′ | | |
| d | | | | | | | | | | 158 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | +1.4 | 3 2.3 | 52.2 | 22 | 57,25 | 50 59 | 57.10 | | 20 | 50 57 20.64 | |
| | 0.14613 | | | | | 57 | 19.49 | | | 0 | +9.72 |
| d | 9.79934 | | | | | | + 1.15 | | | + 15 | |
| | 0.06118 | | | | | | | 57 20.64 | | +9.22 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +8.55 $\delta_2$ | | 7 15.10 | | 57 46.2 | | | | | | −11.65 | |
| +0 27.44 | | | | | | | | | | 57 18.71 | |
| | −+9.8 | 2 7.9 | 55.9 | 37 | 1.90 | 50 45 | 46.45 | | 35 | 50 43 7.03 | |
| | 0.99123 m | | | | | 43 | 15.13 | | | − 3 | +9.64 |
| 56 d | 9.80151 | | | | | | − 8.10 | | | + 10 | |
| | 0.90845 m | | | | | | | 43 7.03 | | +9.24 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| +8.54 $\delta_1$ | | 8 14.72 | | 43 32.6 | | | | | | −11.40 | |
| +0 27.34 | | | | | | | | | | 43 5.27 | |
| | +7.3 | 2 22.7 | 11.3 | 37 | 1700 | 50 45 | 31.35 | | 35 | 5.77 | |
| | 0.86332 | | | | | 42 | 59.74 | | | − 2 | +9.37 |
| d | 9.80151 | | | | | | + 6.03 | | | + 11 | |
| | 0.78054 | | | | | | | 43 5.77 | | +8.96 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| +8.54 $\delta_2$ | | 8 14.54 | | 43 30.9 | | | | | | −11.60 | |
| +0 27.34 | | | | | | | | | | 43 3.54 | |
| | +14.6 | 1 17.1 | 3.6 | 1 | 10,35 | 52 21 | 38.00 | | 0 | 52 19 18.33 | |
| | 1.16435 | | | | | 19 | 6.68 | | | − 6 | +11.46 |
| 34 d | 9.78625 | | | | | | +11.65 | | | + 6 | |
| | 1.06631 | | | | | | | 19 18.33 | | +11.06 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +8.70 $\delta_1$ | | 9 55.87 | | 19 45.4 2 | | | | | | −11.75 | |
| +0 27.12 | | | | | | | | | | 19 18.04 | |
| | +15.9 | 1 17.1 | 5.3 | 1 | 11.20 | 52 21 | 37.15 | | 0 | 18.23 | |
| | 1.20140 | | | | | 19 | 5.54 | | | − 7 | +11.10 |
| d | 9.78625 | | | | | | +12.69 | | | + 6 | |
| | 1.10336 | | | | | | | 19 18.23 | | +10.71 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +8.70 $\delta_2$ | | 9 55.89 | | 19 44.5 | | | | | | −11.95 | |
| +0 27.12 | | | | | | | | | | 19 17.38 | |
| | +23.0 | 1 32.0 | 19.0 | 41 | 25,50 | 52 41 | 22.85 | | 40 | 52 39 9.74 | |
| | 1.36173 | | | | | 38 | 51.53 | | | − 14 | +11.77 |
| 46 d | 9.78296 | | | | | | +18.21 | | | + 7 | |
| | 1.26040 | | | | | | | 39 9.74 | | +11.44 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +8.74 $\delta_1$ | | 11 9.17 | | 39 36.6 | | | | | | −11.80 | |
| +0 26.94 | | | | | | | | | | 39 9.71 | |
| | +16.8 | 1 27.0 | 15.0 | 41 | 2100 | 52 41 | 27.35 | | 40 | 9.04 | |
| | 1.22531 | | | | | 38 | 55.74 | | | − 8 | +11.47 |
| d | 9.78296 | | | | | | +13.30 | | | + 7 | |
| | 1.12398 | | | | | | | 39 9.04 | | +11.08 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +8.74 | | | | | | | | | | −12.00 | |
| +0 26.94 $\delta_2$ | | 11 9.18 | | 39 35.4 | | | | | | 39 8.51 | |
| d | | | | | | | | | | | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |

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

1873phae.proj.1582R

Date$_1$ = Jan. 7 207 Observer / Recorder — Date$_2$ = Jan 9 208 Observer / Recorder — 26

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | h m s | ° ′ ″ | | m s | h m s | | | | | | | | |
| | 12 13 | 51 01 | 8.8 | 11 44.3 | 11 47.6 | 51.1 | 54.2 | 57.2 | 0.6 | 2707 | 54.14 | 11 54.4 | |
| | 11 4.6 | 50 57.5 | 8.5 | 45.7 | | | | | | | | +26.94 | |
| | κ | | | 47.2 | | | | | | | | + .48 | |
| | | | | 46.7 | | | | | | | | − 02 | 40 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.40 | 12 21.54 | |
| 14 | 19 | | | | | | | | | | | + 22 | |
| | $\alpha_1$ | | | | | | | | | | | 12 21.76 | +8.60 |
| 16 | 41 | | | | | | | | | | | | +0 2 |
| 17 | 53 | | 8.8 | 11 38.9 | 47.1 | 50.5 | 53.7 | 57.0 | 0.4 | 2687 | 53.74 | 11 53.74 | |
| 19 | 22 | | | 41.2 | | | | | | | | +27.42 | |
| | κ | | | 43.1 | | | | | | | | + .43 | |
| 20 | 48 | | | 41.1 | | | | | | | | − 02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.83 | 12 21.54 | |
| 21 | 38 | | | | | | | | | | | + 25 | +86 |
| 22 | 56 | | | | | | | | | | | 12 21.82 | +0 |
| | $\alpha_2$ | | | | | | | | | | | | |
| 3 | 26 | 52 30 | 7.5 | 58.0 | 26 23.6 | 26.9 | 30.3 | 33.6 | 37.0 | 1514 | 30.28 | 26 30.28 | |
| | 25 37.1 | 52 26.8 | 7.0 | 0.9 | | | | | | | | +26.94 | |
| | κ | | | 2.7 | | | | | | | | + .51 | |
| | | | | 0.9 | | | | | | | | − 02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.43 | 26 57.71 | |
| | | | | | | | | | | | | + 10 | |
| | $\alpha_1$ | | | | | | | | | | | 26 57.81 | +588 |
| | | | | | | | | | | | | | +0 2 |
| | | | 7.6 | 26 15.9 | 26 23.4 | 26.8 | 29.9 | 32.5 | 36.9 | 1503 | 30.06 | 26 30.06 | |
| | | | | 17.2 | | | | | | | | +27.42 | |
| | κ | | | 18.7 | | | | | | | | + .46 | |
| | | | | 17.3 | | | | | | | | − 02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.86 | 26 57.92 | |
| | | | | | | | | | | | | + 13 | +8.8 |
| | $\alpha_2$ | | | | | | | | | | | 26 58.05 | +0 2 |
| 3 | 28 47 | 52 11 | 9.0 | 28 12.3 | 28 18.1 | 21.0 | 24.4 | 27.6 | 31.2 | 1223 | 24.46 | 28 24.46 | |
| | 27 32.7 | 52 7.3 | 8.5 | 13.9 | | | | | | | | +26.94 | |
| | κ | | | 15.7 | | | | | | | | + .50 | 36 |
| | | | | 14.0 | | | | | | | | − 02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.42 | 28 51.88 | |
| | | | | | | | | | | | | + 08 | |
| | $\alpha_1$ | | | | | | | | | | | 28 51.96 | +8.1 |
| | | | | | | | | | | | | | +0 2 |
| | | | 9.0 | 28 6.2 | 28 17.2 | 20.8 | 24.1 | 27.6 | 30.8 | 1205 | 24.10 | 28 24.10 | |
| | | | | 7.5 | | | | | | | | +27.42 | |
| | κ | | | 9.0 | | | | | | | | + .45 | |
| | | | | 7.6 | | | | | | | | − 02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.85 | 28 51.95 | |
| | | | | | | | | | | | | + 11 | +88 |
| | $\alpha_2$ | | | | | | | | | | | 28 52.06 | +0 2 |
| 3 | 31 01 | 51 21 | 9.3 | 30 38.4 | 30 38.5 | 41.9 | 45.3 | 48.3 | 51.8 | 2258 | 45.16 | 30 45.16 | |
| | 29 57.3 | 51 18.1 | 9.2 | 35.2 | | | | | | | | +26.94 | |
| | κ | | | 34.8 | | | | | | | | + .49 | |
| | | | | 35.1 | | | | | | | | − 02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.41 | 31 12.57 | |
| | | | | | | | | | | | | + 07 | |
| | $\alpha_1$ | | | | | | | | | | | 31 12.64 | +88 |
| | | | | | | | | | | | | | +0 2 |
| | | | 9.6 | 30 27.2 | 30 38.4 | 41.6 | 45.2 | 48.2 | 51.6 | 2250 | 45.00 | 30 45.00 | |
| | | | | 28.7 | | | | | | | | +27.43 | |
| | κ | | | 25.9 | | | | | | | | + .44 | |
| | | | | 28.6 | | | | | | | | − 02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.85 | 31 12.85 | |
| | | | | | | | | | | | | + 10 | |
| | $\alpha_2$ | | | | | | | | | | | 31 12.95 | +88 |
| | | | | | | | | | | | | | +0 2 |
| 3 | 32 00 | 50 24 | 8.6 | 31 10.0 | 31 34.3 | 37.3 | 40.7 | 43.7 | 47.0 | 2028 | 40.56 | 31 40.56 | |
| | 30 50.6 | 50 20.7 | 7.8 | 10.0 | | | | | | | | +26.94 | |
| | κ | | | | | | | | | | | + .47 | 24 |
| | | | | | | | | | | | | − 02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.39 | 32 7.95 | |
| | | | | | | | | | | | | + 07 | |
| | $\alpha_1$ | | | | | | | | | | | 32 8.02 | +8.73 |
| | | | | | | | | | | | | | +0 2 |
| | | | 8.1 | 31 10.4 | 31 33.8 | 37.1 | 40.2 | 43.6 | 46.9 | 2016 | 40.32 | 31 40.32 | |
| | | | | 12.0 | | | | | | | | +27.43 | |
| | κ | | | 13.6 | | | | | | | | + .42 | |
| | | | | 12.8 | | | | | | | | − 02 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.83 | 32 8.15 | |
| | | | | | | | | | | | | + 10 | |
| | $\alpha_2$ | | | | | | | | | | | 32 8.25 | +8.73 |
| | | | | | | | | | | | | | +0 2 |

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

1873phaeproj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +8.4 | 4 13.0 | 6.0 | 19 | 6.50 | 51 3 | 41.85 | | 15 | 51 1 17.43 | |
| | 0.92428 | | | | | 1 | 10.53 | | | − 2 | +10.12 |
| d | 9.79872 | | | | | | +6.90 | | | + 20 | |
| 40 | 0.83871 | | | | | | | 1 17.43 | | +9.59 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.45 | |
| +860 $\delta_1$ | | 12 30.36 | | 1 42.9 | | | | | | 1 16.10 | ✓ |
| +0 26.78 | | | | | | | | | | | |
| | +12.6 | 4 16.2 | 6.0 | 19 | 11.10 | 51 3 | 37.25 | | 15 | 15.99 | |
| | 1.10037 | | | | | 1 | 5.64 | | | − 5 | +8.71 |
| d | 9.79872 | | | | | | +10.36 | | | + 21 | |
| | 1.01480 | | | | | | | 1 15.99 | | +8.20 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +860 | | | | | | | | | | −11.65 | |
| +0 26.78 $\delta_2$ | | 12 30.42 | | 1 39.8 | | | | | | 1 13.05 | ✓ |
| | 30.6 | | | | | | | | | | |
| | +29.3 −~~27.6~~ | 0 26.0 | 13.2 | 50 | 19.60 | 52 32 | 28.75 | | 50 | 52 ~~6~~ ~~39~~ ~~33.11~~ | 20.71 |
| | 1.46687 1.48572 | | | | | 29 | 57.43 | | | 30 − 25 | +11.47 |
| | 9.78445 9.78445 | | | | | | ~~24.32~~ | | | + 2 | |
| 27 | 1.36703 1.38588m | | | | | | +23.28 | 29 33.11 | | +11.30 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | 30 −11.60 | |
| +888 $\delta_1$ | | 27 6.75 | | 30 45.4 | | | | | | ~~29~~ ~~22.98~~ 20.58 | |
| +0 24.82 | | | | | | | | | | | |
| | | | | | | 32 | 39.85 | | | | |
| | +12.8 | 0 14.2 | ~~21.8~~ 2.18 | ~~49~~ 50 | 4800 8.50 | 52 ~~33~~ | ~~0.35~~ | | 60 | 30 ~~38.91~~ | |
| | 1.10721 | | | | | 30 | ~~28.74~~ 8.24 | | | − ~~18.4~~ 5 | +11.26 |
| d | 9.78445 | | | | | | +10.17 | | | + .01 | |
| | 1.00737 | | | | | | | 30 38.91 | | + 10.90 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +888 | | | | | | | | | | −11.85 | |
| +0 24.82 $\delta_2$ | | 27 6.97 | | 30 42.6 | | | | | | 30 17.82 | |
| | | | | | | 13 | | | | | |
| | +10.5 | ~~4~~ 50.6 | 39.0 | ~~10~~ 9 | 4480 | 52 ~~12~~ | 3.55 | | ~~10~~ 5 | 52 ~~9~~ 40.64 | |
| | 1.02119 | 4 | | | | ~~9~~ | 32.23 | | | 10 − 3 | +11.31 |
| 36 d | 9.78772 | | | | | 10 | + 8.41 | | | + 4 | |
| | 0.92462 | | | | | | | 9 40.64 | | +10.90 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.50 | |
| +8.87 $\delta_1$ | | 29 0.83 | | 11 5.1 | 49 X.10 | | | | | ~~9~~ 10 40.45 | ✓ |
| +0 24.62 | | | | | | 8 | | | | | |
| | +16.5 | 0 5.3 | 5 44.3 | 9 | ~~54.80~~ | 52 12 | 53.55 | | 10 | 10 ~~55.05~~ 40 | |
| | 1.21748 | | | | | 10 | 26.84 | | | − 7 | +10.91 |
| d | 9.78772 | | | | | | +13.21 | | | 0 | |
| | 1.12091 | | | | | | | 10 35.05 | | +10.58 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +887 | | | | | | | | | | −11.75 | |
| +0 24.62 $\delta_2$ | | 29 0.93 | | 11 3.8 | | | | | | 10 ~~39.21~~ | ✓ |
| | +10.1 | 3 32.1 | 21.8 | 58 | 2695 | 51 24 | 21.40 | | 55 | 51 21 58.31 | |
| | 1.00432 | | | | | 21 | 50.08 | | | − 3 | +10.60 |
| d | 9.79542 | | | | | | + 8.23 | | | + 17 | |
| | 0.91555 | | | | | | | 21 58.31 | | +10.09 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| | | | | | | | | | | −11.30 | |
| +881 $\delta_1$ | | 31 21.51 | | 22 21.8 | | | | | | 21 57.61 | |
| +0 24.24 | | | | | | | | | | | |
| | +16.4 | 3 37.0 | 26.2 | 58 | 3160 | 51 24 | 16.75 | | 55 | 58.50 | |
| | 1.21484 | | | | | 21 | 45.14 | | | − 7 | +10.16 |
| d | 9.79542 | | | | | | +13.36 | | | + 18 | |
| | 1.12597 | | | | | | | 21 58.50 | | +9.68 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| | | | | | | | | | | −11.55 | |
| +881 $\delta_2$ | | 31 ~~21.76~~ 2 | | 22 21.4 | | | | | | 21 57.11 | |
| +0 24.24 | | | | | | | | | | | |
| | +30.6 | 1 24.0 | 11.6 | 56 | 1780 | 50 26 | 30.55 | | 55 | 60 24 24.69 | |
| | 1.48572 | | | | | 23 | 59.23 | | | − 25 | +9.04 |
| 24 d | 9.80443 | | | | | | + 25.46 | | | + 6 | |
| | 1.40586 | | | | | | | 24 24.69 | | +8.71 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| | | | | | | | | | | −11.10 | |
| +8.73 $\delta_1$ | | 32 16.81 | | 24 46.4 | | | | | | 24 22.63 | |
| +0 24.10 | | | | | | | | | | | |
| | +28.3 | 1 23.4 | 11.9 | 56 | 1765 | 50 26 | 30.70 | | 55 | 22.64 | |
| | 1.45179 | | | | | 23 | 59.09 | | | − 22 | +8.77 |
| d | 9.80443 | | | | | | + 23.55 | | | + 6 | |
| | 1.37193 | | | | | | | 24 22.64 | | +8.63 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 30 | |
| | | | | | | | | | | −11.35 | |
| +8.73 $\delta_2$ | | 32 16.98 | | 24 44.2 | | | | | | 24 20.06 | |
| +0 24.10 | | | | | | | | | | | |

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

1873phae.proj.1582R



Date$_1$ = Jan 7 207 — Observer — Recorder

Date$_2$ = Jan 9 208 — Observer — Recorder

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3 3 4.5 | 50 2.5 | 9.8 | 33 3.5 | 33 20.8 | 23.8 | 27.2 | 30.6 | 33.3 | 135.7 | 27.14 | 33 | 27.74 |
| | 3 2 35.5 | 50 21.7 | 9.0 | 5.7 | | | | | | | | | +26.94 |
| | κ | | | 7.6 | | | | | | | | | + .47 |
| | | | | 5.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.39 | 33 | 54.53 |
| | | | | | | | | | | | | | + 0.06 |
| | $\alpha_1$ | | | | | | | | | | | 33 | 54.59 |
| | | | 9.8 | 33 5.3 | 20.7 | 24.0 | 26.9 | 30.2 | 33.2 | 13.50 | 27.00 | 33 | 27.00 |
| | | | | 7.2 | | | | | | | | | +27.43 |
| | κ | | | 8.7 | | | | | | | | | + .42 |
| | | | | 7.1 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.83 | 33 | 54.83 |
| | | | | | | | | | | | | | + 09 |
| | $\alpha_2$ | | | | | | | | | | | 33 | 54.92 |
| 3 | 3 4 4.8 | 49 55 | 9.6 | 34 30.6 | 34 18.6 | 21.7 | 25.1 | 28.3 | 31.6 | 1257 | 25.12 | 34 | 25.04 |
| | 3 3 38.0 | 49 50.0 | 9.0 | 30.6 | | | | | | | | | +26.94 |
| | κ | | | | | | | | | | | | + .46 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.38 | 34 | 52.40 |
| | | | | | | | | | | | | | + 6 |
| | $\alpha_1$ | | | | | | | | | | | 34 | 52.46 |
| | | | 9.1 | 34 43.8 | 34 | | 24.8 | 27.9 | 31.1 | | | 34 | 24.74 |
| | | | | 45.3 | | | | | | | | | +27.43 |
| | κ | | | 46.8 | | | | | | | | | + .41 |
| | | | | 45.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.82 | 34 | 52.56 |
| | | | | | | | | | | | | | + 8 |
| | $\alpha_2$ | | | | | | | | | | | 34 | 52.64 |
| 3 | 3 5 2.8 | 50 0.3 | 9.8 | 35 35.7 | 35 2.8 | 5.8 | (7.0) | 13.2 | 16.2 | 479 | 9.58 | 35 | 9.58 |
| | 3 4 18.5 | 50 0.2 | 9.5 | 40.2 | | | | | | | | | +26.94 |
| | κ | | | 39.6 | | | | | | | | | + .47 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.39 | 35 | 36.89 |
| | | | | | | | | | | | | | + 5 |
| | $\alpha_1$ | | | | | | | | | | | 35 | 36.94 |
| | | | 9.1 | 35 46.6 | 35 2.2 | 5.3 | 8.9 | 12.0 | 15.2 | 436 | 8.72 | 35 | 8.72 |
| | | | | 48.0 | | | | | | | | | +27.43 |
| | κ | | | 46.0 | | | | | | | | | + .42 |
| | | | | 47.9 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.83 | 35 | 36.55 |
| | | | | | | | | | | | | | + .8 |
| | $\alpha_2$ | | | | | | | | | | | 35 | 36.63 |
| 3 | 3 7 0.8 | 50 48 | 9.7 | 36 31.1 | 36 43.3 | 47.1 | 50.3 | 53.5 | 56.9 | 2511 | 50.22 | 36 | 50.22 |
| | 3 5 58.4 | 50 45.0 | 9.0 | 32.9 | | | | | | | | | +26.94 |
| | κ | | | 33.7 | | | | | | | | | + .48 |
| | | | | 32.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.40 | 37 | 17.62 |
| | | | | | | | | | | | | | + 3 |
| | $\alpha_1$ | | | | | | | | | | | 37 | 17.65 |
| | 3 6 3.6 | 50 41.7 | 9.1 | 36 52.7 | 36 48.8 | 52.2 | 55.6 | 58.5 | 1.8 | 2770 | 55.40 | 36 | 55.40 |
| | | | | 52.7 | | | | | | | | | +27.43 |
| | κ | | | | | | | | | | | | + .43 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.84 | 37 | 23.24 |
| | | | | | | | | | | | | | + 6 |
| | $\alpha_2$ | | | | | | | | | | | 37 | 23.30 |
| 3 | 3 9 0.6 | 50 59 | 6.9 | 38 21.9 | 38 40.2 | 43.6 | 46.6 | 50.1 | 53.2 | 2337 | 46.74 | 38 | 46.74 |
| | 3 7 55.5 | 50 53.8 | 7.0 | 23.3 | | | | | | | | | +26.93 |
| | κ | | | 24.7 | | | | | | | | | + .48 |
| | | | | 23.0 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.39 | 39 | 14.13 |
| 8 | 4 0 1.0 | | | | | | | | | | | | + 2 |
| | $\alpha_1$ | | | | | | | | | | | 39 | 14.15 |
| | | | 7.5 | 38 42.2 | 38 39.7 | 42.9 | 46.1 | 49.5 | 53.0 | 2312 | 46.24 | 38 | 46.24 |
| | | | | 42.2 | | | | | | | | | + 27.43 |
| | κ | | | | | | | | | | | | + .43 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.84 | 39 | 14.08 |
| | | | | | | | | | | | | | + 4 |
| | $\alpha_2$ | | | | | | | | | | | 39 | 14.12 |

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

1873phae.proj.15828



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +21.5 | 0 30.8 | 19.9 | 55 | 25,35 | 50 27 | 23.00 | | 55 | 50 25 9.56 | |
| | 1.33244 | | | | | 24 | 51.68 | | | − 12 | +9.15 |
| d | 9.80428 | | | | | | +17.88 | | | + 2 | |
| .14 | 1.25244 | | | | | | | 25 9.56 | | +8.93 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| +8.75 | | | | | | | | | | −11.05 | |
| +0 23.86 $\delta_1$ | | 34 3.42 | | 25 31.5 | | | | | | 25 7.66 | |
| | +19.9 | 0 32.0 | 21.5 | 55 | 26,75 | 50 27 | 21.60 | | 55 | 6.54 | |
| | 1.29885 | | | | | 24 | 49.99 | | | − 11 | +8.84 |
| d | 9.80428 | | | | | | +16.55 | | | + 2 | |
| | 1.21884 | | | | | | | 25 6.54 | | +8.64 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 29 | |
| +8.75 | | | | | | | | | | −11.30 | |
| +0 23.86 $\delta_2$ | | 34 3.67 | | 25 27.9 | | | | | | 25 4.08 | |
| | − 5.6 | 1 1.3 | 49.4 | 26 | 55,35 | 49 56 | 53.00 | | 25 | 49 54 16.97 | ✓ 50 min |
| | 0.74819 n | | | | | 54 | 21.68 | | | − 1 | +8.67 |
| d | 9.80897 | | | | | | − 4.71 | | | + 4 | |
| 28 | 0.67287 n | | | | | | | 54 16.97 | | +8.34 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 30 | |
| +8.70 | | | | | | | | | | −10.95 | |
| +0 23.70 $\delta_1$ | | 35 1.22 | | 53 38.4 | | | | | | 54 14.69 | |
| | −20.6 | 1 49.1 | 38.2 | 26 | 43,65 | 49 56 | 4.70 | | 25 | 53 15.77 | ✓ 50 min |
| | 1.31387 n | | | | | 53 | 33.09 | | | − 12 | +8.30 |
| d | 9.80897 | | | | | | − 17.82 | | | + 8 | |
| | 1.23855 n | | | | | | | 53 15.77 | | + 8.10 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 24 | |
| +8.70 | | | | | | | | | | −11.20 | |
| +0 23.70 $\delta_2$ | | 35 1.34 | | 53 36.6 | | | | | | 53 12.87 | |
| | −30.1 | 1 19.2 | 7.8 | 16 | 1350 | 50 6 | 34.85 | | 15 | 50 3 38.31 | ✓ |
| | 1.47857 n | | | | | 4 | 3.53 | | | − 24 | +8.65 |
| d | 9.80746 | | | | | | −25.22 | | | + 6 | |
| | 1.40174 n | | | | | | | 3 38.31 | | +8.53 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 30 | |
| +8.73 | | | | | | | | | | −10.95 | |
| +0 23.60 $\delta_1$ | | 35 45.72 | | 3 59.6 | | | | | | 3 36.01 | ✓ |
| | −39.2 | 4 34.8 | 23.9 | 19 | 2935 | 50 3 | 19.00 | Rej | 15 | 0 14.57 | ✓ |
| | 1.59329 n | | | | | 0 | 47.39 | | | − 41 | +8.25 |
| d | 9.80292 | | | | | | − 32.88 | | | + 22 | |
| | 1.56692 n | | | | | | | 0 14.51 | | +8.19 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 25 | |
| | | | | | | | | | | −11.20 | |
| $\delta_2$ | | | | | | | | | | 0 11.56 | ✓ |
| | +17.6 | 2 29.8 | 16.9 | 32 | 2335 | 50 50 | 25.00 | | 30 | 50 48 8.20 | ✓ |
| | 1.24557 | | | | | 47 | 53.68 | | | − 8 | +9.73 |
| d | 9.80074 | | | | | | +14.52 | | | + 12 | |
| | 1.16196 | | | | | | | 48 8.20 | | +9.36 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| +8.81 | | | | | | | | | | −11.10 | |
| +0 23.38 $\delta_1$ | | 37 26.46 | | 48 30.2 | | | | | | 48 6.83 | ✓ |
| | +2.7 | 0 9.1 | 58.2 | 35 | 3,65 | 50 47 | 44.70 | | 35 | 45 18.32 | ✓ |
| | 0.43136 | | | | | 45 | 15.09 | | | 0 | +9.32 |
| d | 9.80120 | | | | | | + 2.23 | | | 0 | |
| | 0.34827 | | | | | | | 45 15.32 | | +9.00 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| +8.81 | | | | | | | | | | −11.40 | |
| +0 23.38 $\delta_2$ | | 37 32.11 | | 45 36.6 | | | | | | 45 13.24 | ✓ |
| + 23.7 | +21.5 | 1 49.7 | 37.7 | 21 | 4380 | 51 1 | 4.55 | | 20 | 50 58 50.57 | 52.71 |
| 1,37475 | 1.33244 | | | | | 58 | 33.23 | | | − 13 | +9.87 |
| 9.79603 | 9.78950 | | | | | | +17.88 | | | + 8 | |
| 50 1.08949 | 1.23765 | | | | | | +19.48 | 58 50.51 | | +9.57 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| +8.84 | | | | | | | | | | −11.15 | |
| +0 23.14 $\delta_1$ | | 39 22.99 | | 59 14.6 | | | | | | 58 49.23 | 51.43 |
| | + 4.0 | 1 32.5 | 21.1 | 21 | 2680 | 51 1 | 21.55 | | 20 | 53.16 | |
| | 0.60206 | | | | | 58 | 49.94 | | | − 1 | +9.55 |
| d | 9.78950 | | | | | | + 3.22 | | | + 7 | |
| | 0.50727 | | | | | | | 58 53.16 | | +9.14 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.40 | |
| +8.84 $\delta_2$ | | 39 22.96 | | 59 14.4 | | | | | | 58 51.31 | |
| +0 23.14 | | | | | | | | | | | |

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

1873phae.proj.1582R



Date$_1$ = Jan. 7 Observer / Recorder — Date$_2$ = Jan 9 Observer / Recorder — Ru

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 1h 40m 5s | 5° 48′ | 9.0 | 39m 35.4 | 39m 46.3 | 49.6 | 53.0 | 56.0 | 59.2 | 2641 | 52.82 | 39 | 52.82 |
| | 38 59.8 | 44.9 | 8.8 | 41.1 | | | | | | | | | +26.93 |
| | κ | | | 42.6 | | | | | | | | | + .48 |
| | | | | 41.0 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.39 | 40 | 20.21 |
| | | | | | | | | | | | | | + 1 |
| | $\alpha_1$ | | | | | | | | | | | 40 | 20.22 |
| | | | 9.0 | 39 28.9 | 43.9 | 48.4 | 52.4 | 53.3 | 58.8 | 26.20 | 52.40 | 39 | 62.40 |
| | | | | 30.4 | | | | | | | | | +27.43 |
| | κ | | | 32.0 | | | | | | | | | + .43 |
| | | | | 30.4 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.84 | 40 | 20.24 |
| | | | | | | | | | | | | | + 4 |
| | $\alpha_2$ | | | | | | | | | | | 40 | 20.28 |
| | | | | | single Observations | | | | | | | | |
| 3 | 14 19 | 50 12 | 8.8 | 13 41.0 | 13 53.9 | 57.0 | 0.2 | 3.4 | 6.6 | 30.11 | 0.22 | 14 | 0.22 |
| 13 | 11.0 | 8.4 | 8.4 | 42.3 | | | | | | | | | +26.94 |
| Jan 7 | κ | | | 43.9 | | | | | | | | | + .47 |
| | | | | 42.4 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.39 | 14 | 27.61 |
| | | | | | | | | | | | | | + 21 |
| | $\alpha_1$ | | | | | | | | | | | 14 | 27.82 |
| 3 | 16 41 | 50 57 | 7.7 | 16 59.7 | 16 15.7 | 19.1 | 22.3 | 25.5 | 28.9 | 11 15 | 22.30 | 16 | 22.30 |
| 15 | 32.7 | 53.6 | 7.4 | 1.3 | | | | | | | | | +26.94 |
| Jan 7 | κ | | | 3.1 | | | | | | | | | + .48 |
| | | | | 16 1.4 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.40 | 16 | 49.70 |
| | | | | | | | | | | | | | + 19 |
| | $\alpha_2$ | | | | | | | | | | | 16 | 49.89 |
| 3 | 17 53 | 50 25 | 9.5 | 17 35.0 | 17 45.5 | 32.8 | 35.9 | 38.0 | 42.4 | 1796 | 35.92 | 17 | 35.92 |
| 16 | 44.6 | 21.8 | 9.0 | 35.0 | | | | | | | | | +26.94 |
| Jan. 7 | κ | | | | | | | | | | | | + .47 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.39 | 18 | 3.31 |
| | | | | | | | | | | | | | + 18 |
| | $\alpha_1$ | | | | | | | | | | | 18 | 3.49 |
| 3 | 19 22 | 50 00 | 9.2 | 18 55.7 | 18 57.7 | 1.0 | 4.2 | 7.5 | 10.6 | 3210 | 4.20 | 19 | 4.20 |
| 18 | 14.1 | 49 56.0 | 8.6 | 58.4 | | | | | | | | | +26.94 |
| Jan 7 | κ | | | 57.0 | | | | | | | | | + .47 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.39 | 19 | 31.59 |
| | | | | | | | | | | | | | + 17 |
| | $\alpha_2$ | | | | | | | | | | | 19 | 31.76 |
| 3 | 20 48 | 50 54 | 9.0 | 20 1.3 | 20 22.8 | 26.0 | 29.3 | 32.5 | 36.0 | 1466 | 29.32 | 20 | 29.32 |
| 19 | 39.0 | 51.0 | 8.9 | 2.4 | | | | | | | | | +26.94 |
| Jan 7 | κ | | | 4.1 | | | | | | | | | + .48 |
| | | | | 2.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.40 | 20 | 56.72 |
| | | | | | | | | | | | | | + 15 |
| | $\alpha_1$ | | | | | | | | | | | 20 | 56.87 |
| 3 | 21 38 | 50 42 | 7.8 | 21 12.5 | 21 22.6 | 25.7 | 29.1 | 32.2 | 35.5 | 1451 | 29.02 | 21 | 29.02 |
| 20 | 39.4 | 49 58.8 | 7.0 | 13.8 | | | | | | | | | +26.94 |
| Jan 7 | κ | | | 13.0 | | | | | | | | | + .47 |
| | | | | 13.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +27.39 | 21 | 56.41 |
| | | | | | | | | | | | | | + 15 |
| | $\alpha_2$ | | | | | | | | | | | 21 | 56.56 |
| 3 | 22 56 | 50 59 | 9.6 | 22 28.2 | 22 31.3 | 35.0 | 38.1 | 41.4 | 44.9 | 1907 | 38.14 | 22 | 38.14 |
| 21 | 47.0 | 55.9 | 9.0 | 29.8 | | | | | | | | | +26.94 |
| Jan 7 | κ | | | 31.8 | | | | | | | + 27.40 | | + .48 |
| | | | | 29.9 | | | | | | | | | − 2 |
| 3 24 47 | ((δ) − D) $\frac{\kappa'}{100}$ | | | 24 10.9 | 22.2 | 25.4 | 28.5 | 31.7 | 35.0 | 1428 | 2856 | 24 | 25.56 |
| Jan 9 | | | | 12.2 | | | | | | | + 27.84 | | +27.43 |
| | $\alpha_1$ | | | 13.4 | | | | | | | | | + .43 |
| 4 2 5 | | | | 2 35.0 | 2 52.7 | 56.0 | 59.3 | 2.8 | 6.1 | 2969 | 59.38 | 2 | 04.38 |
| 3 3 2 2 | | | | 36.5 | | | | | | | | | − 2 |
| 2 9.0 | | 52 23 | 8.2 | 32.3 | | | | | | | | | +27.43 |
| Jan 9 | | 19.0 | 8.3 | 36.4 | | | | | | | | | + .45 |
| | κ | | | | | | | | | | + 27.86 | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | + 32 |
| | $\alpha_2$ | | | | | | | | | | | | 3 27.58 |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +11.8 | 2′ 18.9 | 6.1 | 32 | 12.50 | 50 | 50 35.85 | | 30′ | 50 48 14.27 | |
| | 1.07188 | | | | | | 48 4.53 | | | − 3 | +9.78 |
| d | 9.80074 | | | | | | +9.74 | | | + 11 | |
| | 0.98833 | | | | | | | 48 14.27 | | +9.07 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| | | | | | | | | | | −11.05 | |
| +8.83 $\delta_1$ | | 40 29.05 | | 48 35.9 | | | | | | 48 13.00 | |
| +0 22.94 | | | | | | | | | | | |
| | +22.0 | 2 25.0 | 13.8 | 32 | 19.40 | 50 | 50 28.95 | | 30 | 15.49 | |
| | 1.34242 | | | | | | 47 57.34 | | | − 13 | +9.36 |
| d | 9.80074 | | | | | | +18.15 | | | + 11 | |
| | 1.25887 | | | | | | | 48 16.49 | | +9.06 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| | | | | | | | | | | −11.35 | |
| +8.83 $\delta_2$ | | 40 29.11 | | 48 36.4 | | | | | | 48 13.50 | |
| +0 22.94 | | | | | | | | | | | |
| | +17.8 | 3 4.0 | 53.0 | 7 | 58.50 | 50 | 14 49.85 | | 5 | 50 12 ~~35.40~~ | 33.40 |
| | 1.25042 | | | | | | 12 18.53 | | | − 9 | +9.05 |
| d | 9.80625 | | | | | | +14.87 | | | + 15 | |
| | 1.17238 | | | | | | | 12 35.40 | | +8.69 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 30 | |
| | | | | | | | | | | −11.25 | |
| +8.55 $\delta_1$ | | 14 36.37 | | 12 57.7 | | | | | | 12 ~~35.20~~ 31.20 | |
| +0 26.50 | | | | | | | | | | | |
| | +20.9 | 2 44.9 | 33.2 | 22 | 39.05 | 51 | 0 9.30 | | 20 | 50 57 54.79 | |
| | 1.32015 | | | | | | 57 37.98 | | | − 12 | +9.59 |
| d | 9.78967 | | | | | | +16.81 | | | + 13 | |
| | 1.22553 | | | | | | | 57 54.79 | | +7.53 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.40 | |
| +8.64 $\delta_2$ | | 16 58.53 | | 58 19.5 | | | | | | 57 53.28 | |
| +0 26.18 | | | | | | | | | | | |
| | +0.9 | 4 26.8 | 16.0 | 34 | 21.40 | 50 | 28 26.95 | | 50 | 50 25 56.38 | |
| | 9.95424 | | | | | | 26 55.63 | | | 0 | +9.46 |
| d | 9.80412 | | | | | | + 0.75 | | | + 22 | |
| | 9.87407 | | | | | | | 25 56.38 | | +8.93 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 31 | |
| | | | | | | | | | | −11.25 | |
| +8.61 $\delta_1$ | | 18 12.10 | | 26 20.6 | | | | | | 25 54.69 | |
| +0 26.02 | | | | | | | | | | | |
| | +7.2 | 0 58.9 | 44.1 | 20 | 50.00 | 50 | 1 58.35 | | 20 | 49 59 32.74 | |
| | 0.85733 | | | | | | 59 27.03 | | | − 2 | +8.72 |
| d | 9.79903 | | | | | | + 5.91 | | | + 4 | |
| | 0.77207 | | | | | | | 59 32.94 | | +8.45 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 25 | |
| | | | | | | | | | | −11.15 | |
| +8.58 $\delta_2$ | | 19 40.34 | | 59 56.3 | | | | | | 59 30.51 | |
| +0 25.82 | | | | | | | | | | | |
| | +26.7 | 1 14.1 | 2.8 | 26 | 8.45 | 50 | 56 39.90 | | 25 | 50 54 30.56 | |
| | 1.42651 | | | | | | 54 8.58 | | | − 19 | +9.69 |
| d | 9.79981 | | | | | | +21.98 | | | + 6 | |
| | 1.34203 | | | | | | | 54 30.56 | | +9.47 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.35 | |
| +8.68 $\delta_1$ | | 21 5.55 | | 54 54.5 | | | | | | 54 28.90 | |
| +0 25.64 | | | | | | | | | | | |
| | +15.2 | 2 57.7 | 46.1 | 17 | 51.90 | 50 | 4 56.45 | | 15 | 50 2 37.87 | |
| | 1.18184 | | | | | | 2 25.13 | | | − 6 | +8.93 |
| d | 9.80777 | | | | | | +12.74 | | | + 14 | |
| | 1.10532 | | | | | | | 2 37.87 | | +8.50 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.10 | |
| +8.61 $\delta_2$ | | 22 5.17 | | 3 1.2 | | | | | | 2 36.70 | |
| +0 25.50 | | | | | | | | | | | |
| | +8.2 | 1 15.2 | 3.1 | 21 | 9.15 | 51 | 1 39.20 | 59 14.47 | 20 | 50 59 14.47 | 21.06 |
| | 0.91381 | 50 59 14.47 | | 50 50 21.06 | | | 59 7.88 | | | − 2 | − 7 +9.95 +9.60 |
| d | 9.78950 | +9.95 | | +9.60 | | | + 6.59 | | | + 6 | + 6 |
| | 0.81902 | | | | | | +13.18 | | | +9.56 | +9.26 |
| ((δ) − D) $\frac{d'}{100}$ | +16.4 | 23 14.38 | | | | | | 59 21.06 | | + 35 | + 35 |
| | 1.21484 | | | | | | | | | −11.35 | −11.35 |
| $\delta_1$ | 9.78950 | 1.12005 | | 59 38.4 | | | | | | 59 13.07 | 19.11 |
| | +23.0 | | | | | | | | | | |
| | 1.36173 | 1 44.0 | 32.7 | 56 | 38.35 | 52 | 26 10.00 | | 55 | 52 23 56.71 | |
| | 9.78543 | | | | | | 23 38.39 | | | − 14 | +11.44 |
| d | 1.26287 | | | | | | +18.32 | | | + 8 | |
| | | | | | | | | 23 56.71 | | +10.80 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −12.00 | |
| +8.64 $\delta_2$ | | 3 36.20 | | 24 23.8 | | | | | | 23 55.85 | |
| +0 27.92 | | | | | | | | | | | |

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

1873phae.proj.1582R



Date$_1$ = Jan 9 1873 Observer Recorder

Date$_2$ = Jan. 14 1873 Observer Recorder

$n$ = +.35

| Star. | α | δ | Mag. | $T_s$ | $T_m$ | $T_o$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h | 9m 35 | 50° 48 | 9.0 | 40m 58.4 | 41m 12.1 | 15.4 | 18.7 | 21.9 | 25.0 | 9.31 | 18,62 | m s 41 18.62 | |
| | 40 25.3 | 37.7 | 8.5 | 0.1 | | | | | | | | +27.43 | |
| | κ 26.0 | | | 1.6 | | | | | | | | + ,43 | |
| | | | | 41 0.0 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.84 | 41 46.46 | |
| | | | | | | | | | | | | + 2 | |
| | $a_1$ | | | | | | | | | | | 41 46.48 | +8.8 |
| | | | | | | | | | | | | | +0 2 |
| | | | 9.2 | 40 45.7 | 41 1.9 | 5.3 | 8.6 | 11.7 | 15.0 | 4.25 | 8.50 | 41 8.50 | |
| | | | | 47.4 | | | | | | | | +28.54 | |
| | | | | 48.9 | | | | | | | | + ,43 | |
| | κ | | | 47.7 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.95 | 41 37.45 | |
| | | | | | | | | | | | | + 10 | |
| | $a_2$ | | | | | | | | | | | 41 37.55 | |
| 3 | 42 25 | 50 40 | 7.5 | 42 45.0 | 58.7 | 2.1 | 5.4 | 8.7 | 11.8 | 3267 | 5,34 | 43 5.84 | |
| | 42 14.0 | 36.6 | 7.4 | 46.3 | | | | | | | | +27.43 | |
| | κ | | | 47.8 | | | | | | | | + ,43 | 1,28 |
| | | | | 46.4 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.84 | 43 33.18 | |
| | | | | | | | | | | | | + 1 | |
| | $a_1$ | | | | | | | | | | | 43 33.19 | +88 |
| | | | | | | | | | | | | | +0 2 |
| | | | 8.0 | 42 30.6 | 57.6 | 0.8 | 4.0 | 7.3 | 10.6 | 32.03 | 4,06 | 43 4,06 | |
| | | | | 32.0 | | | | | | | | +28.54 | |
| | | | | 33.8 | | | | | | | | + ,43 | |
| | κ | | | 32.1 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.95 | 43 33.01 | |
| | | | | | | | | | | | | + 9 | |
| | $a_2$ | | | | | | | | | | | 43 33.10 | +88 |
| | | | | | | | | | | | | | +0 2 |
| 3 | 44 4 | 50 02 | 9.0 | 44 8.6 | 44 17.1 | 20.5 | 23.7 | 26.9 | 30.0 | 11 82 | 23,64 | 44 23.64 | |
| | 43 ~~43.7~~ | 49 59.0 | 8.5 | 10.0 | | | | | | | | +27.43 | |
| | κ ~~32.7~~ 32.4 | | | 11.6 | | | | | | | | + ,42 | 1 2 |
| | | | | 10.1 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.83 | 44 51.47 | |
| | | | | | | | | | | | | + 1 | |
| | $a_1$ | | | | | | | | | | | 44 51,28 48 | +8.8 |
| | | | | | | | | | | | | | +0 2 |
| | | | 8.8 | 43 5.8 | 44 16.2 | 19.4 | 22.4 | 25.6 | 29.0 | 11 26 | 22,52 | 44 22.52 | |
| | | | | 56.1 | | | | | | | | +28.54 | |
| | | | | 57.8 | | | | | | | | + ,42 | |
| | κ | | | 58.9 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.94 | 44 51.46 | |
| | | | | | | | | | | | | + 8 | |
| | $a_2$ | | | | | | | | | | | 44 51.54 | +8.8 |
| | | | | | | | | | | | | | +0 2 |
| 3 | 45 35 | 51 50 | 6.0 | 45 23.0 | 45 30.0 | 33.4 | 36.8 | 40.1 | 43.5 | 1838 | 36,76 | 45 36.76 | |
| | 44 44.3 | 47.3 | 6.5 | 24.6 | | | | | | | | +27.43 | |
| | κ | | | 26.5 | | | | | | | | + ,45 | 20 |
| | | | | 24.7 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.86 | 46 4.62 | |
| | | | | | | | | | | | | − 2 | |
| | $a_1$ | | | | | | | | | | | 46 4.60 | +8.9 |
| | | | | | | | | | | | | | +0 2 |
| | | | 7.0 | 44 59.2 | 45 28.9 | 32.2 | 35.4 | 38.9 | 42.4 | 1478 | 35.36 | 45 35.36 | |
| | | | | 45 1.0 | | | | | | | | +28.55 | |
| | | | | 2.7 | | | | | | | | + ,45 | |
| | κ | | | 45 1.8 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.98 | 46 4.54 | |
| | | | | | | | | | | | | + 6 | |
| | $a_2$ | | | | | | | | | | | 46 4.60 | +8.9 |
| | | | | | | | | | | | | | +0 2 |
| 2 | 47 02 | 50 19 | 5.0 | 46 25.8 | 46 36.2 | 39.4 | 42.6 | 45.8 | 49.1 | 2131 | 42,62 | 46 42.62 | |
| | ~~46~~ 45 57.3 | 16.3 | 5.7 | 27.2 | | | | | | | | +27.43 | |
| | κ | | | 28.8 | | | | | | | | + ,42 | 18 |
| | | | | 27.3 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.83 | 47 10.45 | |
| | | | | | | | | | | | | − 1 | |
| | $a_1$ | | | | | | | | | | | 47 10.44 | +8.8 |
| | | | | | | | | | | | | | +0 2 |
| | | | 5.0 | 46 10.1 | 46 35.0 | 38.2 | 41.5 | 44.6 | 47.9 | 2072 | 41,44 | 46 41.44 | |
| | | | | 11.7 | | | | | | | | +28.55 | |
| | | | | 13.2 | | | | | | | | + ,42 | |
| | κ | | | 11.7 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.95 | 47 10.39 | |
| | | | | | | | | | | | | + 6 | |
| | $a_2$ | | | | | | | | | | | 47 10.45 | +8.8 |
| | | | | | | | | | | | | | +0 2 |

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

1873phae.proj.1582R

Jan. 14 −2′ 31.″40 +.″04



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +18.6 | 2′ 11.1 | 6.2 | 34′ | 5.″65 | 50 45 | 42.70 | | 35′ | 50 43 26.46 | ✓ |
| | 1.269351 | | | | | 43 | 11.09 | | | − 10 | +9.29 |
| d | 9.801671 | | | | | | +15.37 | | | + 10 | |
| | 1.118673 | | | | | | | 43 26.46 | | +8.97 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| | | | | | | | | | | −11.30 | |
| +884 $\delta_1$ | | 41 55.32 | | 43 47.2 | | | | | | 43 24.45 | ✓ |
| +0 22.74 | | | | | | | | | | | |
| | +20.8 | 4 17.1 | 7.1 | 39 | 12.″10 | 50 43 | 36.25 | | 35 | 41 22.05 | ✓ |
| | 1.318066 | | | | | 41 | 4.85 | | | − 12 | +9.31 |
| d | 9.801821 | | | | | | +17.20 | | | + 17 | |
| | 1.235559 | | | | | | | 41 22.06 | | +8.93 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| | | | | | | | | | | −11.85 | |
| $\delta_2$ | | | | | | | | | | 41 19.51 | ✓ |
| | +18.9 | 0 35.9 | 24.8 | 40 | 30.″40 | 50 42 | 17.95 | | 40 | 50 40 1.98 | |
| | 1.276466 | | | | | 39 | 46.34 | | | − 10 | +9.17 |
| 1.28 d | 9.801971 | | | | | | +15.64 | | | + 3 | |
| | 1.194144 | | | | | | | 40 1.98 | | +8.92 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| | | | | | | | | | | −11.25 | |
| +885 $\delta_1$ | | 43 42.04 | | 40 22.4 | | | | | | 39 59.90 | |
| +0 22.48 | | | | | | | | | | | |
| | +32.0 | 0 44.2 | 36.9 | 40 | 40.″55 | 50 42 | 7.80 | | 40 | 2.87 | |
| | 1.505155 | | | | | 39 | 36.40 | | | − 27 | +9.00 |
| d | 9.801971 | | | | | | +26.47 | | | + 3 | |
| | 1.422834 | | | | | | | 40 2.87 | | +8.91 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| | | | | | | | | | | −11.80 | |
| +885 $\delta_2$ | | 43 41.95 | | 40 22.6 | | | | | | 40 0.07 | |
| +0 22.48 | | | | | | | | | | | |
| | +13.5 | 2 59.2 | 47.2 | 17 | 5320 | 50 4 | 55.15 | | 15′ | 50 2 34.86 | |
| | 1.130333 | | | | | 2 | 23.54 | | | − 5 | +8.56 |
| 12 d | 9.807771 | | | | | | +11.32 | | | + 14 | |
| | 1.053811 | | | | | | | 2 34.86 | | +8.22 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 25 | |
| | | | | | | | | | | −11.10 | |
| +880 $\delta_1$ | | 45 0.28 | | 2 54.6 | | | | | | 2 32.32 | |
| +0 22.28 | | | | | | | | | | | |
| | +26.6 | 3 8.9 | 0.1 | 18 | 4.″80 | 50 4 | 43.85 | | 15′ | 34.75 | |
| | 1.424886 | | | | | 2 | 12.45 | | | − 19 | +8.46 |
| d | 9.802771 | | | | | | +22.30 | | | + 12 | |
| | 1.348361 | | | | | | | 2 34.75 | | +8.23 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 30 | |
| | | | | | | | | | | −11.65 | |
| +880 $\delta_2$ | | 45 0.34 | | 2 53.8 | | | | | | 2 31.56 | |
| +0 22.28 | | | | | | | | | | | |
| | +12.1 | 4 48.5 | 37.0 | 29 | 42.″75 | 51 53 | 5.60 | | 25′ | 51 50 43.75 | |
| | 1.082799 | | | | | 50 | 33.99 | | | − 4 | +9.71 |
| d | 9.790791 | | | | | | + 9.76 | | | + 24 | |
| 20 | 0.989290 | | | | | | | 50 43.75 | | +9.11 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.45 | |
| +898 $\delta_1$ | | 46 13.58 | | 51 4.1 | | | | | | 60 42.01 | |
| +0 22.10 | | | | | | | | | | | |
| | +34.6 | 0 5.3 | 36.2 | 30 | 0.″90 | 51 52 | 47.65 | | 30 | 44.16 | |
| | 1.539085 | | | | | 50 | 16.25 | | | 19.04 | |
| d | 9.790951 | | | | | | + ~~2.79~~ | | | − 32 | +10.27 |
| | 1.445784 | | | | | | 27.91 | 50 19.04 | | 0 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | +10.19 | |
| | | | | | | | | | | + 40 | |
| +898 $\delta_2$ | | 46 13.58 | | 51 4.5 | | | | | | −12.05 | |
| +0 22.10 | | | | | | | | | | 50 ~~17.26~~ 42.38 | |
| | +15.3 | 1 2.7 | 52.2 | 0 | 57.″45 | 50 21 | 50.90 | | 0 | 50 19 32.04 | |
| | 1.184691 | | | | | 19 | 19.29 | | | − 6 | +8.81 |
| 18 d | 9.805191 | | | | | | +12.75 | | | 5 | |
| | 1.105591 | | | | | | | 19 32.04 | | +8.55 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 27 | |
| | | | | | | | | | | −11.75 | |
| +884 $\delta_1$ | | 47 19.28 | | 19 51.6 | | | | | | 19 29.70 | |
| +0 21.94 | | | | | | | | | | | |
| | +29.7 | 1 13.0 | 4.8 | 1 | 8.″90 | 50 21 | 39.45 | | 0 | 32.80 | |
| | 1.472761 | | | | | 19 | 8.05 | | | − 24 | +8.65 |
| d | 9.805191 | | | | | | +24.75 | | | + 4 | |
| | 1.393661 | | | | | | | 19 32.80 | | +8.54 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 31 | |
| +884 | | | | | | | | | | −11.70 | |
| +0 21.94 $\delta_2$ | | 47 19.29 | | 19 51.7 | | | | | | 19 29.75 | |

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

1873phae.proj.1582R

208

Date$_1$ = Jan. 9 — Observer / Recorder

209

Date$_2$ = Jan. 14 — Observer / Recorder

34

Run

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h | m s | ° ′ | | m s | m s | s | s | s | s | | | m s | |
| | 47 48.13 | 51 45 | 7.8 | 47 41.4 | 47 49.0 | 52.4 | 55.7 | 57.0 | 2.3 | 2784 | 55.68 | 47 55.68 | |
| | 47 2.86 | 420 | 8.0 | 42.8 | | | | | | | | +27.43 | |
| | κ | | | 45.0 | | | | | | | | + .44 | |
| | | | | 41.4 | | | | | | | | − 2 | .12 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.85 | 48 23.53 | ( |
| | $\alpha_1$ | | | | | | | | | | | − 4 | |
| | | | | | | | | | | | | 48 23.49 | +8.9 |
| | | | | | | | | | | | | | +0 2 |
| | | | 8.1 | 47 26.4 | 47 47.8 | 51.1 | 54.5 | 58.1 | 1.3 | 2728 | 54.56 | 47 54.56 | |
| | | | | 28.2 | | | | | | | | +28.55 | |
| | κ | | | 29.5 | | | | | | | | + .44 | |
| | | | | 28.0 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.97 | 48 23.53 | |
| | $\alpha_2$ | | | | | | | | | | | + 4 | |
| | | | | | | | | | | | | 48 23.57 | +8.9 |
| | | | | | | | | | | | | | +0 2 |
| 3 | 49 48 | 51 08.6 | 7.8 | 48 32.5 | 48 45.8 | 48.2 | 52.4 | 55.7 | 58.0 | 2621 | 52.42 | 48 52.42 | |
| | 48 ~~22.2~~ | ~~3.4~~ | 9.5 | 34.3 | | | | | | | | +27.43 | |
| | κ 0.3 | 51 41.7 | | 26.1 | | | | | | | | + .43 | |
| | | | | 34.3 | | | | | | | | − 2 | .18 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.84 | 49 1.02.6 | ( |
| | $\alpha_1$ | | | | | | | | | | | − 4 | |
| | | | | | | | | | | | | 49 20.22 | +8.9 |
| | | | | | | | | | | | | | +0 2 |
| | | | 7.5 | 48 23.1 | 48 44.6 | 47.9 | 51.3 | 54.6 | 57.8 | 2562 | 51.24 | 48 51.24 | |
| | | | | 24.3 | | | | | | | | +28.55 | |
| | κ | | | 25.6 | | | | | | | | + .43 | |
| | | | | 24.3 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.96 | 49 20.20 | ( |
| | $\alpha_2$ | | | | | | | | | | | + 4 | |
| | | | | | | | | | | | | 49 20.24 | +894 |
| | | | | | | | | | | | | | +0 2 |
| 3 | 51 01 | 50 50 | 8.9 | 50 16.2 | 50 35.7 | 39.2 | 42.3 | 45.6 | 48.9 | 2117 | 42.34 | 50 42.34 | |
| | 49 50.~~40~~ | 47.6 | 8.7 | 17.8 | | | | | | | | +27.43 | |
| | κ | | | 19.4 | | | | | | | | + .43 | |
| | | | | 17.8 | | | | | | | | − 2 | 30 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.84 | 51 10.18 | ( |
| | $\alpha_1$ | | | | | | | | | | | − 5 | |
| | | | | | | | | | | | | 51 10.13 | +8.9 |
| | | | | | | | | | | | | | +0 2 |
| | | | 8.4 | 50 25.5 | 50 34.5 | 37.8 | 41.0 | 44.3 | 47.6 | 2052 | 41.04 | 50 41.04 | |
| | | | | 26.5 | | | | | | | | +28.55 | |
| | κ | | | 26.0 | | | | | | | | + .43 | |
| | | | | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.96 | 51 10.00 | ( |
| | $\alpha_2$ | | | | | | | | | | | + 3 | |
| | | | | | | | | | | | | 51 ~~15.83~~ 10.03 | +892 |
| | | | | | | | | | | | | | +0 2 |
| 3 | 52 14 | 50 16 | 8.5 | 51 42.1 | 51 48.5 | 51.8 | 55.1 | 58.3 | 1.5 | 2752 | 55.04 | 51 55.04 | |
| | 51 3.0 | 13.5 | 8.0 | 43.4 | | | | | | | | +27.43 | |
| | κ | | | 45.2 | | | | | | | | + .42 | |
| | | | | 43.6 | | | | | | | | − 2 | 28 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.83 | 52 22.87 | ( |
| | $\alpha_1$ | | | | | | | | | | | − 5 | |
| | | | | | | | | | | | | 52 22.82 | +8.88 |
| | | | | | | | | | | | | | +0 2 |
| | | | 8.3 | 52 23.3 | 51 47.3 | 50.5 | 53.7 | 57.0 | 0.3 | 2688 | 53.76 | 51 53.76 | |
| | | | | 25.0 | | | | | | | | +28.55 | |
| | κ | | | 26.5 | | | | | | | | + .42 | |
| | | | | 24.9 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.95 | 52 22.71 | ( |
| | $\alpha_2$ | | | | | | | | | | | + 2 | |
| | | | | | | | | | | | | 52 22.73 | +8.8 |
| | | | | | | | | | | | | | +0.2 |
| 3 | 53 4~ | 51 42 | 9.1 | 53 2.0 | 53 22.8 | 26.2 | 29.5 | 32.8 | 36.1 | 1474 | 29.48 | 53 29.48 | |
| | 52 ~~33.8~~ | 39.6 | 9.3 | 2.3 | | | | | | | | +27.43 | |
| | κ | | | 1.0 | | | | | | | | + .44 | |
| | | | | 3.4 | | | | | | | | − 2 | 18 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 27.85 | 53 57.33 | ( |
| | $\alpha_1$ | | | | | | | | | | | − 8 | |
| | | | | | | | | | | | | 53 57.25 | +9.0 |
| | | | | | | | | | | | | | +0 2 |
| | | | 9.3 | 53 2.5 | 53 21.6 | 25.0 | 28.2 | 31.8 | 34.9 | 14.15 | 28.30 | 53 28.30 | |
| | | | | 2.5 | | | | | | | | +28.55 | |
| | κ | | | | | | | | | | | + .44 | |
| | | | | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.97 | 53 ~~57.27~~ | ( |
| | $\alpha_2$ | | | | | | | | | | | 000 | |
| | | | | | | | | | | | | 53 57.27 | +9.0 |
| | | | | | | | | | | | | | fo 2 |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean ×.10 | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +12.6 | 0 7.0 | 57.0 | 35 | 2.00 | 51 47 | 46.35 | | 35 | 51 45 24.82 | |
| | 1.10037 | | | | | 45 | 14.74 | | | − 5 | +10.43 |
| d | 9.79176 | | | | | | +10.18 | | | 0 | |
| 12 | 1.00784 | | | | | | | 45 24.82 | | +10.09 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| | | | | | | | | | | −11.45 | |
| +8.99 $\delta_1$ | | 48 32.48 | | 45 45.6 | | | | | | 45 28.80 | |
| +0 21.78 | | | | | | | | | | | |
| | +26.6 | 0 16.1 | 7.2 | 35 | 11.65 | 51 47 | 36.70 | | 35 | 26.80 | |
| | 1.42488 | | | | | 45 | 5.30 | | | − 19 | +10.29 |
| d | 9.79176 | | | | | | +21.50 | | | + 1 | |
| | 1.33235 | | | | | | | 45 26.80 | | +10.08 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| | | | | | | | | | | −12.00 | |
| +8.99 $\delta_2$ | | 48 32.56 | | 45 46.9 | | | | | | 45 25.09 | |
| +0 21.78 | | | | | | | | | | | |
| | +18.1 | 2 47.1 | 36.8 | 12 | 41.95 | 51 10 | 6.40 | | 10 | 51 7 49.62 | |
| | 1.25768 | | | | | 7 | 34.79 | | | − 9 | +9.82 |
| 18 d | 9.79762 | | | | | | +14.83 | | | + 13 | |
| | 1.17101 | | | | | | | 7 49.62 | | +9.43 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.25 | |
| +8.94 $\delta_1$ | | 49 29.16 | | 8 9.8 | | | | | | 7 48.19 | |
| +0 21.56 | | | | | | | | | | | |
| | +26.9 | 2 53.9 | 44.1 | 12 | 49.00 | 51 9 | 59.35 | | 10 | 49.99 | |
| | 1.42975 | | | | | 7 | 27.95 | | | − 19 | +9.68 |
| d | 9.79778 | | | | | | +22.04 | | | + 11 | |
| | 1.34324 | | | | | | | 7 49.99 | | +9.41 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.85 | |
| +8.94 $\delta_2$ | | 49 29.18 | | 8 9.41 | | | | | | 7 47.82 | |
| +0 21.56 | | | | | | | | | | | |
| | +24.5 | 0 ~~40.8~~ 4.8 | 53.8 | ~~29~~ ~~30~~ | 59.30 | 50 (52) | 49.05 | | 30 | 50 ~~50~~ 37.64 | ✓ lv min |
| | 1.38917 | | | | | 50 | 17.44 | | | ~~13~~ 7 −16 | +9.25 |
| 30 d | 9.80043 | | | | | | +20.20 | | | ~~−2.01~~ | |
| | 1.30531 | | | | | | | 50 37.64 | | +9.10 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| | | | | | | | | | | −11.20 | |
| +8.92 $\delta_1$ | | 51 19.05 | | 50 57.0 | | | | | | 50 ~~49~~ 35.69 | |
| +0 21.36 | | | | ~~V5~~ | | | | | | | |
| | +15.0 | 0 54.5 | 46.9 | ~~30~~ | 50.70 | 50 (51) | 57.65 | | 30 | 49 38.62 | ✓ lv min |
| | 1.17609 | | | | | 49 | 26.25 | | | − 6 | +9.39 |
| d | 9.80058 | | | | | | +12.37 | | | + 4 | |
| | 1.09238 | | | | | | | 49 38.62 | | +9.08 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| +8.92 | | | | | | | | | | −11.75 | |
| $\delta_2$ | | 51 18.95 | | 50 57.6 | | | | | | 50 ~~49~~ 36.26 | |
| +0 21.36 | | | | | | | | | | | |
| | +11.4 | 3 49.0 | 37.5 | 3 | 43.25 | 50 19 | 5.10 | | 0 | 50 16 43.00 | |
| | 1.05690 | | | | | 16 | 33.49 | | | − 3 | +8.92 |
| 28 d | 9.80580 | | | | | | + 9.57 | | | + 19 | |
| | 0.97811 | | | | | | | 16 43.00 | | +8.50 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 26 | |
| +8.88 | | | | | | | | | | −11.05 | |
| $\delta_1$ | | 52 31.70 | | 17 2.0 | | | | | | 16 40.87 | |
| +0 21.18 | | | | | | | | | | | |
| | ~~+28.9~~ | 3 11.1 | 2.7 | 3 | 6.90 | 50 19 | 41.45 | | 0 | 44.11 | |
| | − 31.1 | | | | | 17 | 10.05 | | | − 26 | +8.66 |
| d | 1.49276m | | | | | | 25.94 | | | + 12 | |
| | 9.80550 | | | | | | | 16 44.11 | | +8.49 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.41397m | | | | | | | | | + 31 | |
| | | | | | | | | | | −11.65 | |
| +8.88 $\delta_2$ | | 52 31.61 | | 17 2.3 | | | | | | 16 41.12 | |
| +0 21.18 | | | | | | | | | | | |
| | +26.1 | 2 41.5 | 29.9 | 37 | 35.70 | 51 45 | 12.65 | | 35 | 51 43 2.15 | |
| | 1.41664 | | | | | 42 | 41.04 | | | − 18 | +10.34 |
| 18 d | 9.79208 | | | | | | +21.11 | | | + 13 | |
| | 1.32444 | | | | | | | 43 2.15 | | +10.07 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| | | | | | | | | | | −11.35 | |
| +9.03 $\delta_1$ | | 54 6.28 | | 43 22.1 | | | | | | 43 1.14 | |
| +0 20.94 | | | | | | | | | | | |
| | +25.8 | 2 39.9 | 30.8 | 37 | 35.35 | 51 45 | 13.00 | | 35 | 2.46 | |
| | 1.41162 | | | | | 42 | 41.60 | | | − 18 | +10.35 |
| d | 9.79208 | | | | | | +20.86 | | | + 9 | |
| | 1.31941 | | | | | | | 43 2.46 | | +10.06 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| | | | | | | | | | | −11.95 | |
| +9.03 $\delta_2$ | | 54 6.30 | | 43 21.8 | | | | | | 43 0.86 | |
| +0 20.94 | | | | | | | | | | | |

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

1873phae.proj.1582R

209 210 36

Date$_1$ = Jan. 14 1873 Observer Recorder

Date$_2$ = Jan. 19 Observer Recorder

$n$ = +1.36 C = +.0

Run

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 56m 07s | 51° 39' | 8.9 | 53m 11.6 | 55m 42.9 | 46.1 | 49.4 | 52.6 | 56.1 | 24.71 | 49.42 | 55m 49.42 | |
| | 54 55.8 | 36.0 | 9.0 | 13.0 | | | | | | | | +28.55 | |
| | κ | | | 14.1 | | | | | | | | + .44 | 1.60 |
| | | | | 12.9 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +28.97 | 56 18.39 | |
| | $c_1$ | | | | | | | | | | | − 2 | |
| | | | | | | | | | | | | 56 18.37 | +9.0 |
| | | | | | | | | | | | | | +0 20 |
| | | | 8.8 | 55 18.5 | 56 41.2 | 44.5 | 47.8 | 51.2 | 54.4 | 23.91 | 47.82 | 55 47.82 | |
| | | K 16 | 41-46 56 | 20.3 | | | | | | | | + 30.03 | |
| | κ | | | 22.1 | | | | | | | | + .45 | |
| | | | | 20.3 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +30.54 | + .8 | |
| | $a_2$ | | | | | | | | | | | 56 18.36 | |
| | | | | | | | | | | | | + 6 | +9.0 |
| | | | | | | | | | | | | 56 18.42 | +0 2 |
| 2 | 57 28 | 51 17 | 8.8 | 56 40.2 | 57 1.5 | 5.0 | 8.2 | 11.4 | 14.8 | 4 09 | 8.18 | 57 8.18 | |
| | 56 16.7 | 13.9 | 8.6 | 41.7 | | | | | | | | +28.55 | |
| | κ | | | 43.7 | | | | | | | | + .44 | 64 |
| | | | | 41.9 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +28.97 | 57 37.15 | |
| | $a_1$ | | | | | | | | | | | − 3 | |
| | | | | | | | | | | | | 57 37.12 | +9.0 |
| | | | | | | | | | | | | | +0 2 |
| | | | 8.8 | 56 32.0 | 56 57.9 | 8.2 | 6.6 | 5.8 | 13.2 | 3.3 27 | 6.54 | 57 6.54 | |
| | | | | 33.5 | | | | | | | | +30.03 | |
| | κ | | | 35.2 | | | | | | | | + .44 | |
| | | | | 33.6 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +30.53 | + 8 | |
| | $a_2$ | | | | | | | | | | | 57 37.07 | |
| | | | | | | | | | | | | + 5 | +9.0 |
| | | | | | | | | | | | | 57 37.12 | +0 2 |
| 3 | 58 02 | 51 06 | 7.8 | 57 26.1 | 57 34.7 | 38.0 | 41.2 | 44.5 | 47.7 | 2161 | 4122 | 57 41.22 | |
| | 56 50.3 | 3.2 | 7.6 | 36.1 | | | | | | | | +28.55 | |
| | κ | | | | | | | | | | | + .43 | 56 |
| | | | | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.96 | 58 10.18 | |
| | $a_1$ | | | | | | | | | | | − 3 | |
| | | | | | | | | | | | | 58 10.15 | +9.0 |
| | | | | | | | | | | | | | +0 2 |
| | | | 7.3 | 57 29.4 | 57 33.1 | 36.4 | 39.6 | 43.0 | 46.2 | 1983 | 39.66 | 57 39.66 | |
| | | 0 30 | | 30.9 | | | | | | | | +30.03 | |
| | κ | | | 32.4 | | | | | | | | + .44 | |
| | | | | 30.9 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 30.53 | + 8 | |
| | $a_2$ | | | | | | | | | | | 58 10.19 | |
| | | | | | | | | | | | | + 5 | +9.0 |
| | | | | | | | | | | | | 58 10.24 | +0 2 |
| 4 | 58 02 | 51 55 | 9.1 | 2 6.7 | 2 36.5 | 40.2 | 43.3 | 46.5 | 50.1 | 2166 | 43.32 | 2 43.32 | |
| | 01 50.2 | 52.6 | 9.2 | 7.9 | | | | | | | | +28.55 | |
| | κ | | | 9.5 | | | | | | | | + .45 | 70 |
| | | | | 8.0 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.98 | 3 12.30 | |
| | $a_1$ | | | | | | | | | | | − 8 | |
| | | | | | | | | | | | | 3 12.22 | +9.1 |
| | | | | | | | | | | | | | +0 19 |
| | | | 9.2 | 2 4.0 | 2 34.9 | 38.0 | 41.6 | 44.8 | 48.3 | 2076 | 41.52 | 2 41.52 | |
| | | | | 5.6 | | | | | | | | +30.03 | |
| | κ | | | 7.0 | | | | | | | | + .46 | |
| | | | | 6.5 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 30.55 | + 8 | |
| | $a_2$ | | | | | | | | | | | 3 12.07 | |
| | | | | | | | | | | | | 00 | +9.1 |
| | | | | | | | | | | | | 3 12.07 | +0 19 |
| 1 | 4 16 | 51 24 | 8.5 | 3 26.6 | 3 50.7 | 53.9 | 57.3 | 0.5 | 3.7 | 2861 | 57.22 | 3 57.22 | |
| | 3 4.6 | 21.4 | 8.3 | 28.4 | | | | | | | | +28.55 | |
| | κ | | | 28.8 | | | | | | | | + .44 | 54 |
| | | | | 28.8 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.97 | 4 26.19 | |
| | $a_1$ | | | | | | | | | | | − 8 | |
| | | | | | | | | | | | | 4 26.11 | +9.0 |
| | | | | | | | | | | | | | +0 19 |
| | | | 8.5 | 3 27.1 | 3 48.9 | 52.6 | 55.7 | 58.9 | 2.3 | 2784 | 55.68 | 3 55.68 | |
| | | | | 25.5 | | | | | | | | +30.03 | |
| | κ | | | 29.9 | | | | | | | | + .45 | |
| | | | | 28.5 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 3054 | + 8 | |
| | $a_2$ | | | | | | | | | | | 4 26.22 | |
| | | | | | | | | | | | | 00 | +9.08 |
| | | | | | | | | | | | | 4 26.22 | +0 19 |

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

1873phae.proj.15828

Jan. 19 −2′ 30″.74 +.″04



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 9 39.4 | 30.7 | 41 | 35.05 | 51 41 | 13.30 | | 40 | 51 39 11.46 | |
| | +36.5 | | | | | 38 | 41.90 | | | − 36 | +10.06 |
| 1.60 d | 1.56229 | | | | | | + 29.56 | | | + 6 | |
| | 9.79272 | | | | | | | 39 1.46 | | +9.98 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.47072 | | | | | | | | | + 38 | |
| | | | | | | | | | | −11.90 | |
| +9.04 $\delta_1$ | | 56 27.41 | | 39 30.2 | | | | | | 39 10.62 | |
| +0 20.60 | | | | | | | | | | | |
| | +27.5 | 1 33.1 | 21.1 | 41 | 27.10 | 51 41 | 21.25 | | 40 | 12.78 | |
| | 1.43933 | | | | | 38 | 50.51 | | | − 20 | +10.33 |
| d | 9.79272 | | | | | | + 22.27 | | | + 7 | |
| | 1.34776 | | | | | | | 39 12.78 | | +10.08 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| | | | | | | | | | | −12.55 | |
| +9.04 $\delta_2$ | | 56 27.46 | | 39 31.3 | | | | | | 39 10.71 | |
| +0 20.60 | | | | | | | | | | | |
| | +26.3 | 3 40.0 | 30.2 | 3 | 35.10 | 51 19 | 13.25 | | 0 | 51 17 3.32 | |
| | 1.41996 | | | | | 16 | 41.85 | | | − 18 | +9.91 |
| 64 d | 9.79621 | | | | | | + 21.47 | | | + 186 | |
| | 1.33188 | | | | | | | 17 3.32 | | +9.57 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| | | | | | | | | | | −11.80 | |
| +9.02 $\delta_1$ | | 57 46.14 | | 17 21.8 | | | | | | 17 1.43 | |
| +0 20.38 | | | | | | | | | | | |
| | +32.9 | 3 46.1 | 34.2 | 3 | 40.15 | 51 19 | 8.20 | | 0 | 4.32 | |
| | 1.51720 | | | | | 18 | 37.46 | | | − 29 | +9.91 |
| d | 9.79621 | | | | | | + 26.86 | | | + 186 | |
| | 1.42912 | | | | | | | 17 4.32 | | +9.68 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| | | | | | | | | | | −11.30 | |
| +9.02 $\delta_2$ | | 57 46.14 | | 17 23.3 | | | | | | 17 2.93 | |
| +0 20.38 | | | | | | | | | | | |
| | +5.1 | 3 57.4 | 48.4 | 13 | 52.90 | 51 8 | 55.45 | | 10 | 51 46 28.23 3.55 | ✓ |
| | 0.70757 | | | | | 6 | 24.05 | | | − 1 | +9.90 |
| 56 d | 9.79793 | | | | | | +41.80 | | | + 16 | |
| | 0.62121 | | | | | | 4.18 | 7 5.85 | | +9.40 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.70 | |
| +9.00 $\delta_1$ | | 58 19.15 | | 6 46.7 | | | | | | 7 6 405 26.43 | ✓ |
| +0 20.30 | | | | | | | | | | | |
| | +8.8 | 3 2.0 | 50.2 | 13 | 56.10 | 51 | 52.25 | | 10 | 6 28.73 | ✓ |
| | 0.94448 | 4 | | | | 6 | 21.51 | | | − 2 | +9.95 |
| d | 9.79809 | | | | | | + 7.22 | | | + 12 | |
| | 0.85828 | | | | | | | 5 28.73 | | +9.60 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −12.25 | |
| +9.00 $\delta_2$ | | 58 19.24 | | 6 46.7 | | | | | | 6 5 −12.25 26.43 | ✓ |
| +0 20.30 | | | | | | | | | | | |
| | +35.3 | 0 7.1 | 58.9 | 25 | 30.0 | 51 57 | 45.35 | | 25 | 51 55 42.37 | |
| | 1.54777 | | | | | 55 | 13.95 | | | − 32 | +10.38 |
| 70 d | 9.79015 | | | | | | + 28.42 | | | 0 | |
| | 1.45363 | | | | | | | 55 42.37 | | +10.30 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.85 | |
| +9.12 $\delta_1$ | | 3 21.34 | | 56 0.4 | | | | | | 55 40.90 | |
| +0 19.54 | | | | | | | | | | | |
| | +36.0 | 0 10.8 | 57.9 | 25 | 4.35 | 51 57 | 44.00 | | 25 | 42.24 | |
| | 1.55680 | | | | | 55 | 13.26 | | | − 34 | +10.47 |
| d | 9.79015 | | | | | | + 28.98 | | | 0 | |
| | 1.46216 | | | | | | | 55 42.24 | | +10.41 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −11.40 | |
| +9.12 $\delta_2$ | | 3 21.19 | | 55 59.8 | | | | | | −12.40 55 40.31 | |
| +0 19.54 | | | | | | | | | | | |
| | +28.9 | 1 10.0 | 1.9 | 56 | 5.95 | 51 26 | 42.40 | | 55 | 51 24 34.53 | |
| | 1.46090 | | | | | 24 | 11.00 | | | − 22 | +9.93 |
| 54 d | 9.79570 | | | | | | + 23.63 | | | + 5 | |
| | 1.37171 | | | | | | | 24 34.53 | | +9.73 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| | | | | | | | | | | −11.70 | |
| +9.08 $\delta_1$ | | 4 35.19 | ✓ | 24 52.1 | 3.90 | | | | | 24 32.76 | ✓ |
| +0 19.36 | | | | | | | | | | | |
| | +27.2 | 1 9.3 | 57.1 | 56 | 5.320 | 51 26 | 35.15 | | 55 | 46.56 | |
| | 1.43457 | | | | | 24 | 24.41 | | | − 19 | +10.05 |
| d | +9.79510 | | | | | | +22.15 | | | + 4 | |
| | 1.34538 | | | | | | | 24 46.56 | | +9.83 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | 3.20 | | | | | + 37 | |
| | | | | | | | | | | −11.25 | |
| +9.08 $\delta_2$ | | 4 35.30 | | 24 53.4 | | | | | | −12.25 24 34.36 | ✓ |
| +0 19.36 | | | | | | | | | | | |

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

1873phae.proj.1582R

209 — 38

Date$_1$ = Jan. 14 — Observer / Recorder — Date$_2$ = Jan. 19 — 210 — Observer / Recorder — Run

| Star. | α | δ | Mag. | $T_s$ | $T_m$ | $T_o$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | h m s 5 33 4 22.1 κ | 50 ° ' " 32 29.0 | 8.9 8.8 | 4m 46.6 47.9 48.9 48.1 | 5m 7.7 | 11.1 | 14.3 | 17.4 | 20.8 | 713 | 14.26 | m 5 | 14.26 +28.55 + .43 − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2896 | 5 | 43.22 − 9 |
| | $a_1$ | | | | | | | | | | | 5 | 43.13 +9.0 +0.1 |
| | 4 7.5 κ | 50 18.6 | 7.0 | 5 0.7 4.7 2.7 | 5 51.6 | 5 4.8 examine | 58.0 | 1.2 | 4.2 | 2897 | 57.94 | 4 | 57.94 +30.03 + .44 − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3053 | 5 | 28.47 − 1 |
| | $a_2$ | | | | | | | | | | | 5 | 28.46 +8.9 +0.1 |
| 4 | ~~6 33~~ 6 7.6 5 4.2 κ | 50 31 28.2 | 9.3 9.2 | 6 3.9 3.9 | 5 49.6 | 5 2.9 | 56.3 | 59.5 | 2.8 | 2811 | 56.22 | 5 | 56.22 +28.55 + .43 − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2896 | 6 | 25.18 − 9 |
| | $a_1$ | | | | | | | | | | | 6 | 25.09 +9.0 +0.1 |
| | 5 24.9 κ | 50 22.1 | 8.8 | 6 1.1 2.5 3.7 2.4 | 7 8.7 | 11.9 | 15.3 | 18.3 | 21.7 | 759 | 15.18 | 6 | 15.18 +30.03 + .44 − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3053 | | + 8 |
| | $a_2$ | | | | | | | | | | | 6 | 45.71 − 1 |
| | | | | | | | | | | | | 6 | 45.70 +9.0 +0.1 |
| 4 | ~~6 16~~ 7 28 Jan 14 6 κ 16.8 | 50 33 29.9 | 7.0 7.0 | ~~6 2.9~~ 6 58.2 58.2 | ~~5 49.6~~ 7 1.7 | ~~5 2.9~~ 5.0 | ~~56.3~~ 8.2 | ~~59.5~~ 11.4 | ~~2.8~~ 14.7 | 410 | 8.20 | 7 | 8.20 +28.55 + .43 − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2896 | 7 | 37.16 − 10 |
| | $a_1$ | | | | | | | | | | | 7 | 37.06 +9.0 +0.1 |
| | κ | | | | Lost | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_2$ | | | | | | | | | | | | |
| 4 | 8 39 7 26.8 κ | 51 41 39.2 | 8.1 7.3 | 8 0.6 2.0 3.5 2.0 | 8 13.1 | 16.5 | 19.8 | 23.2 | 26.4 | 990 | 19.80 | 8 | 19.80 +28.55 + .44 − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2897 | 8 | 48.77 − 12 |
| | $a_1$ | | | | | | | | | | | 8 | 48.65 +9.1 +0.1 |
| | κ | | | 8 6.3 7.3 8.4 7.3 | 8 11.5 | 14.8 | 18.1 | 21.4 | 24.6 | 907 | 18.14 | 8 | 18.14 +30.03 + .45 − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3054 | | + 8 |
| | $a_2$ | | | | | | | | | | | 8 | 48.68 − 9 24 |
| | | | | | | | | | | | | 8 | 48.64 +9.1 +0.1 |
| 4 | 17 45 16 34.4 κ | 50 56 55.3 | 8.3 8.5 | 17 0.0 1.6 2.6 1.7 | 17 20.8 | 24.1 | 27.3 | 30.5 | 33.9 | 1366 | 27.32 | 17 | 27.32 +28.55 + .43 − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +2896 | 17 | 56.28 − 18 |
| | $a_1$ | | | | | | | | | | | 17 | 56.10 +9.1 +0.1 |
| | κ | | 8.0 | 17 ~~23.5~~ ~~24.4~~ ~~26.3~~ — 19.8 | ~~16~~ 17 ~~27.6~~ 19.2 ~~22.3~~ 2 | ~~44.9~~ 22.3 | ~~44.2~~ 25.6 | ~~47.5~~ 29.0 | ~~50.8~~ 32.2 | | | 17 | 25.65 + 30.04 + .45 − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | N.P. | stat. | | +3055 | 17 | 56.12 − 11 |
| | $a_2$ | | | | | | | | | | | 17 | 56.09 +9.1 +0.1 |

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

1873phae.proj.15828



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +26.2 | 3′ 47.5″ | 37.9 | 48 | 42.70 | 50 | 34 5.65 | | 45″ | 50 31 56.00 | |
| | 1.41830 | | | | | | 31 34.25 | | | − 18 | +9.06 |
| d | 9.80336 | | | | | | + 21.75 | | | + 195 | |
| | 1.33737 | | | | | | | 31 56.00 | | +8.76 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| | | | | | | | | | | −11.50 | |
| +9.00 δ₁ | | 5 52.13 | | 32 12.7 | | | | | | 31 53.56 | ✓ |
| +0 19.16 | | | | | | | | | | | |
| | −4.8 | 3 32.7 | 21.1 | 58 | 26.90 | 50 | 24 21.45 | | 55 | 21 46.71 | |
| | 0.68124n | | | | | | 21 50.71 | | | − 1 | +9.13 |
| d | 9.80473 | | | | | | − 4.00 | | | + 174 | |
| | 0.60168n | | | | | | | 21 46.71 | | +8.67 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| | | | | 29 | | | | | | −12.05 | |
| +8.98 δ₂ | | 5 37.44 | | 22 ~~3.0~~ | | | | | | 21 43.79 | ✓ |
| +0 19.16 | | | | | | | | | | | |
| | 3 | 3 52.2 | 43.5 | 48 | 47.85 | 50 | 34 0.50 | | 45 | 50 31 ~~22.71~~ ~~24.46~~ | |
| | −27.7 | | | | | | 31 29.10 | | | − 2 | +9.22 |
| d | 0.88649n | | | | | | − ~~0.64~~ | | | + 195 | |
| | 9.80336 | | | | | | 6.39 | 31 28.46 | | +8.76 | |
| ((δ) − D) $\frac{d'}{100}$ | 0.80556n | | | | | | | | | + 33 | |
| | | | | | | | | | | −11.45 | |
| +9.00 δ₁ | | 6 34.09 | | 31 39.52 | | | | | | 31 ~~26.23~~ 2048 | ✓ |
| +0 19.04 | | | | | | | | | | | |
| | +12.8 | 0 44.1 | 32.1 | 53 | 38.10 | 50 | 27 10.25 | | 35 | 24 50.16 | |
| | 1.10721 | | | | | | 24 39.51 | | | − 5 | +9.00 |
| d | 9.80428 | | | | | | + 10.65 | | | + 3 | |
| | 1.02720 | | | | | | | 24 50.16 | | +8.69 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| | | | | | | | | | | −12.00 | |
| +9.00 δ₂ | | 6 54.70 | | 25 6.2 | | | | | | 24 47.16 | ✓ |
| +0 19.04 | | | | | | | | | | | |
| | +10.0 | 2 39.4 | 30.3 | 47 | 34.85 | 50 | 35 13.50 | | 45 | 50 32 50.09 | |
| | 1.00000 | | | | | | 32 42.10 | | | − 3 | +9.18 |
| d | 9.80305 | | | | | | + 8.29 | | | + 10 | |
| | 0.91876 | | | | | | | 32 50.39 | | +8.78 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 33 | |
| | | | | | | | | | | −11.45 | |
| +9.01 δ₁ | | 7 46.07 | | 33 7.0 | | | | | | 32 48.12 | |
| +0 18.86 | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ₂ | | | | | | | | | | | |
| | +17.8 | 2 0.0 | 51.4 | 51 | 55.70 | 51 | 44 52.65 | | 35 | 51 42 35.65 | |
| | 1.25042 | | | | | | 42 21.25 | | | − 9 | +10.45 |
| d | 9.79208 | | | | | | +14.40 | | | + 8 | |
| | 1.15821 | | | | | | | 43 35.65 | | +10.08 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| | | | | | | | | | | −11.70 | |
| +9.14 δ₁ | | 8 57.79 | | 42 53.1 | | | | | | 43 34.40 | |
| +0 18.68 | | | | | | | | | | | |
| | +10.8 | 2 59.8 | 45.0 | 37 | 52.45 | 51 | 44 55.90 | | 35 | 42 33.90 | |
| | 1.03342 | | | | | | 42 25.16 | | | − 3 | +10.64 |
| d | 9.79224 | | | | | | + 8.74 | | | + 11 | |
| | 0.94137 | | | | | | | 42 33.90 | | + 10.18 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| | | | | | | | | | | −12.30 | |
| +9.14 δ₂ | | 8 57.78 | | 42 50.9 | | | | | | 42 32.24 | |
| +0 18.68 | | | | | | | | | | | |
| | +25.6 | 2 58.1 | 49.5 | 22 | 53.80 | 50 | 59 54.55 | | 20 | 50 57 44.20 | |
| | 1.40824 | | | | | | 57 23.15 | | | − 18 | +9.54 |
| d | 9.79934 | | | | | | + 21.05 | | | + 11 | |
| | 1.32329 | | | | | | | 57 44.20 | | +9.26 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.40 | |
| +9.12 δ₁ | | 18 5.22 | | 57 59.6 | | | | | | 57 42.34 | |
| +0 17.26 | | | | | | | | | | | |
| | +5.8 | 0 50.8 | 37.0 | 25 | 43.90 | 50 | 57 4.45 | | 25 | 54 38.48 | ✓ |
| | 0.76343 | | | | | | 54 33.71 | | | − 1 | +9.74 |
| d | 9.79934 | | | | | | + 4.77 | | | + 3 | |
| | 0.67848 | | | | | | | | | +9.37 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | − 1220 | |
| +9.12 δ₂ | | 18 5.21 | | | | | | | | 54 36.02 | |
| +0 17.26 | | | | | | | | | | | |

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

1873phae.proj.1582R

209 210 40

Date$_1$ = Jan. 14 Observer / Recorder Date$_2$ = Jan. 19 Observer / Recorder Run

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_a$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | h m s<br>19 43<br>18 30.1 | 50 19<br>16.8 | 8.6<br>8.6 | m s<br>18 3.0<br>4.3<br>6.1<br>13 4<br>4.5 | 19 17.6 | 21.0 | 24.1 | 27.4 | 30.7 | 1208 | 24.16 | | 19 24.16<br>+ 28.55<br>+ .42<br>− 2 |
| κ | | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 28.95 | | 19 53.11<br>− 19 |
| $c_1$ | | | | | | | | | | | | | 19 52.92 |
| | | | 8.0 | ~~19 18~~ 50.6<br>19.8 52.0<br>53.2<br>58<br>51.9 | 19 16.1<br>19.2 | ~~19.4~~<br>~~22.3~~ | ~~22.5~~<br>~~25.6~~ | ~~25.7~~<br>~~29.6~~ | ~~29.0~~<br>~~32.2~~ | | | | 19 22.54<br>+ 30.04<br>+ 43<br>− 2<br>+ 8 |
| κ | | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 30.53 | | 19 53.07<br>+ .12 |
| $a_2$ | | | | | | | | | | | | | 19 52.95 |
| 4 | 4 20 35<br>19 21.9 | 49 56<br>54.0 | 9.3<br>9.0 | 20 32.6<br>34.2<br>35.7<br>12.5<br>34.2 | 20 8.3 | 11.7 | 14.8 | 18.2 | 20.8 | 7.39 | 14.76 | | 20 14.76<br>+ 28.55<br>+ .42<br>− 2 |
| κ | | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 2895 | | 20 43.73<br>− 20 |
| $a_1$ | | | | | | | | | | | | | 20 43.53 |
| | | | 9.0 | ~~20 19 50.7~~ 44.0<br>~~52.0~~ 45.6<br>~~53.2~~ 47.3<br>69<br>45.6 | 20 16.7<br>18.9 | ~~19.4~~<br>10.2 | ~~22.5~~<br>13.2 | ~~25.8~~<br>16.5 | ~~29.0~~<br>19.7 | | | | 20 13.30<br>+ 30.04<br>+ 43<br>− 2 |
| κ | | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 30.53 | | ~~20 43.98~~<br>20 44.03<br>− .13 |
| $a_2$ | | | | | | | | | | | | | 20 43.90 |
| 4 | 4 22 11<br>20 58.7 | 51 55<br>52.9 | 9.0<br>9.3<br>8.5 | 21 24.1<br>35.3<br>34.7 | 21 47.2<br>48.0 | 50.6<br>51.8 | 54.0<br>55.5 | 57.4<br>58.9 | 0.6<br>2.1 | 2698<br>2763 | 53.96<br>55.26 | 21 53.96<br>+ 28.55<br>+ .45<br>− 2<br>22 22.94<br>− .23<br>22 22.71 | 21 53.96<br>+ 28.55<br>+ .45<br>− 2 |
| κ | | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 28.98 | + 28.98 | | 22 24.24<br>− 23 |
| $a_1$ | | | | | | | | | | | | | 22 24.01 |
| | | | 8.8<br>9.1 | 21 24.6<br>26.0<br>27.6<br>~~25.7~~ 26.1 | 21 45.5<br>46.7 | 49.0<br>50.2 | 52.2<br>53.6 | 55.6<br>57.3 | 59.1<br>0.3 | | | | 21 52.24<br>21 53.62<br>+ 30.05<br>+ .46<br>− 2 |
| κ | | | | | | | | | | | | 21. 52.24<br>+ 30.05<br>+ .46<br>− 2<br>+ 8<br>22 22.81<br>22 .16<br>22.65 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | 21 35.2<br>36.6<br>38.7<br>36.8 | | | | | | + 30.57 | + 30.57 | | ~~22 24.18~~<br>22 24.19<br>22 24.03 |
| $a_2$ | | | | | | | | | | | | | |
| 4 | 4 23 53<br>22 40.1 | 50 51<br>48.6 | 9.4<br>9.0 | 23 22.4<br>23.8<br>23.1 | 23 27.7 | 31.0 | 34.4 | 37.8 | 41.0 | 1719 | 34.38 | | 23 34.38<br>+ 28.55<br>+ .45<br>− 2 |
| κ | | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 28.98 | | 24 3.36<br>− 23 |
| $a_1$ | | | | | | | | | | | | | 24 3.13 |
| | | | 9.3 | 23 5.9<br>7.6<br>9.2<br>7.6 | 23 26.2 | 29.6 | 32.) | 35.9 | 39.6 | | | | 23 32.80<br>+ 30.04<br>+ .45<br>− 2 |
| κ | | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 30.55 | | + 8<br>24 3.35<br>− .16 |
| $a_2$ | | | | | | | | | | | | | 24 3.19 |
| 4 | 4 26 19<br>25 0.1 | 52 14<br>11.9 | 8.5<br>8.4 | 25 16.2<br>17.4<br>18.6<br>17.4 | 25 47.9 | 51.1 | 54.5 | 58.1 | 1.3 | 2729 | 54.58 | | 25 54.58<br>+ 28.55<br>+ .45<br>− 2 |
| κ | | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 28.98 | | 26 23.66<br>− 27 |
| $a_1$ | | | | | | | | | | | | | 26 23.29 |
| | | | 8.2 | 25 24.2<br>26.2<br>27.6<br>26.0 | 25 46.2 | 49.6 | 52.8 | 56.2 | 59.7 | | | | 25 52.90<br>+ 30.04<br>+ .46<br>− 2 |
| κ | | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 3056 | | ~~26 23.38~~<br>+ 8<br>26 23.46<br>− .20 |
| $a_2$ | | | | | | | | | | | | | 26 23.26 |

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

1873phae.proj.1582r



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +19.7 | 1 8.9 | 59.9 | 1 | 4,40 | 50 21 | 43.95 | | 0 | 50 19 28.97 | |
| | 1.29447 | | | | | 19 | 12.55 | | | − 11 | +8.79 |
| d | 9.80519 | | | | | | + 16.42 | | | + 5 | |
| | 1.21537 | | | | | | | 19 28.97 | | +8.54 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 31 | |
| +9.07 | | | | | | | | | | −11.20 | |
| +0 16.96 δ₁ | | 20 1.99 | | 19 43.5 | | | | | | 19 26.56 | |
| | +30.6 | 1 19.8 | 7.1 | 1 | 13,45 | 21 | 34.90 | | 0 | 19 29.66 | |
| | 1.48572 | | | | | 19 | 4.16 | | | − .25 | +8.74 |
| d | 9.80579 | | | | | | + 25.50 | | | + 5 | |
| | 1.40662 | | | | | | | | | + 8.63 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 31 | |
| +9.07 | | | | | | | | | | − 11.80 | |
| +0 16.96 δ₂ | | 20 2.02 | | 19 43.6 | | | | | | 19 2660 | |
| | −+19.4 | 3 30.0 | 21.3 | 23 | 2,565 | 49 59 | 22.70 | | 20 | 49 56 35.01 | |
| | 1.28780n | | | | | 56 | 51.30 | | | − 10 | +8.48 |
| d | 9.80852 | | | | | | − 16.29 | | | + 14 | |
| | 1.21203n | | | | | | | 56 35.01 | | +8.14 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 30 | |
| +9.03 | | | | | | | | | | −11.30 | |
| +0 16.82 δ₁ | | 20 52.56 | | 56 49.0 | | | | | | 56 32.19 | |
| | +27.9 | 4 10.9 | 68.9 | 24 | 4.90 | 58 | 43.45 | | 20 | ~~56.76~~ | |
| | 1.44560 | | | | | 56 | 12.71 | | | 56 36.14 | +8.46 |
| d | 9.80852 | | | | | | + 23.43 | | | − .21 | |
| | 1.36983 | | | | | | | | | + .16 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 8.21 | |
| +9.03 | | | | | | | | | | + 30 | |
| 0 43 +0 16.82 δ₂ | | 20 52.93 | | 56 49.5 | | | | | | − 11.90 | |
| | | | | | | | | | | 56 32.70 | |
| | ~~+19.3~~ | 0 13.9 | 4.8 | 25 | 9,35 | 57 57 | 39.00 | | 25 | 57 55 23.14 | |
| | 1.28566 | | | | | 55 | 7.60 | | | − 10 | +10.61 |
| d | 9.79015 | | | | | | + 15.54 | | | + 1 | |
| | 1.19142 | | | | | | | 55 23.14 | | +10.30 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.25 | | | | | | | | | | −11.50 | |
| +0 16.56 δ₁ | | 22 31.96 33.26 | | 55 38.8 | | | | | | 55 22.25 | |
| | +26.1 | 0 20.8 | 8.1 | 25 | 1144.45 | 57 | 33.90 | | 25 | 55 24.17 | 55 16.69 |
| | 1.41664 | | | | | 55 | 3.16 | | | − .18 | + 10.63 − .08 + 10.73 |
| d | 9.79015 | | | | | | + 21.01 | | | + 1 | + 1 |
| | 1.32250 | | | | | | + 13.53 | | | + 10.40 | + 10.40 |
| ((δ) − D) $\frac{d'}{100}$ | +16.8 | | | | | | | | | + .40 | + .40 |
| +9.25 | 1.22531 | | | | | | | | | − 12.10 | − 12.10 |
| +0 16.56 δ₂ | 9.79015 | 22 31.90 33.28 | | 55 39.3 31.9 | | | | | | 55 22.70 | 55 15.32 O.K |
| | 1.13117 | | | | | | | | | | |
| | +11.3 | 4 36.8 | 28.9 | 29 | 32,85 | 50 53 | 15.50 | | 25 | 50 50 53.41 | |
| | 1.05308 | | | | | 50 | 44.10 | | | − 3 | +9.63 |
| d | 9.80027 | | | | | | + 9.31 | | | + ~~24~~ 18 | |
| | 0.96906 | | | | | | | 50 53.41 | | +9.13 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.14 | | | | | | | | | | −11.25 | |
| +0 16.28 δ₁ | | 24 12.27 | | 51 8.1 | | | | | | 50 51.79 | |
| | +25.2 | 4 48.7 | 36.1 | 29 | 42.50 | 53 | 5.85 | | 25 | 50 55.88 | |
| | 1.40140 | | | | | 50 | 35.11 | | | − .17 | +9.58 |
| d | 9.80027 | | | | | | + 20.77 | | | + .18 | |
| | 1.31738 | | | | | | | | | + 9.22 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + .35 | |
| +9.14 | | | | | | | | | | − 11.90 | |
| +0 16.28 δ₂ | | 24 12.33 | | 51 9.8 | 4 | | | | | 50 53.56 | |
| | +38.7 | 1 38.4 | 2a0 | 6 | 2,20 | 52 16 | ~~17.15~~ 24 | | 5 | 52 14 ~~11.37~~ 22 | 17.49 |
| | 1.57054 | | | | | 13 | 47.95 | | | − 36 | +10.75 |
| d | 9.78707 | | | | | | + ~~23.63~~ 29.74 | 14 11.37 | | + 6 | |
| | 1.47332 | | | | | | | | | +10.65 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.31 | | | | | | | | | | −11.50 | |
| +0 15.94 δ₁ | | 26 32.60 | | 14 37.9 | | | | | | 14 10.62 | |
| | | | | | | | | | | ~~17.74~~ 27.4 | |
| | +26.9 | 1 23.3 | 8.5 | 6 | 15.90 | 16 | 32.45 | | 5 | 14 23.22 | |
| | 1.42975 | | | | | 14 | 1.71 | | | − .19 | +11.00 |
| d | 9.78707 | | | | | | + 21.51 | | | + 5 | |
| | 1.33253 | | | | | | | | | + 10.74 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + .40 | |
| +9.31 | | | | | | | | | | − 12.20 | |
| +0 15.94 δ₂ | | 26 32.57 | | 14 38.0 | | | | | | 14 22.02 | |

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

1873phae.proj.1582R

209 — 210 — 42

Date$_1$ = Jan. 14 — Observer — Recorder — Date$_2$ = Jan. 19 — Observer — Recorder — Ru

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | h m s | ° ′ ″ | | m s | m s | | | | | | | | |
| | 1 27 34 | 52 39 | 8.6 | 26 37.0 | 27 3.6 | 7.1 | 10.4 | 13.8 | 17.3 | 5.22 | 18.44 | 27 | 10.54 |
| | 26 15.2 | 36.7 | 8.7 | 38.4 | | | | | | | | | +28.55 |
| | κ | | | 40.0 | | | | | | | | | + .46 |
| | | | | 38.5 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +28.99 | 27 | 39.43 |
| | | | | | | | | | | | | | − 28 |
| | $\alpha_1$ | | | | | | | | | | | 27 | ~~40.15~~ 39.15 |
| | | | 8.4 | 26 40.8 | 27 1.9 | 5.4 | 8.1 | 12.2 | 15.6 | | | 27 | 8.76 |
| | | | | 42.7 | | | | | | | | | + 30.04 |
| | κ | | | 44.2 | | | | | | | | | + 47 |
| | | | | 42.6 | | | | | | | | | + 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +30.57 | 27 | ~~39.25~~ 8 |
| | | | | | | | | | | | | 27 | 39.33 |
| | $\alpha_2$ | | | | | | | | | | | | − .21 |
| | | | | | | | | | | | | 27 | 39.12 |
| 4 | 2 29 49 | 52.49 | 5.0 | 28 52.0 | 29 18.4 | 23.0 | 26.3 | 29.7 | 33.1 | 13.15 | 26.30 | 29 | 26.30 |
| | 28 30.9 | 46.7 | 5.4 | 53.5 | | | | | | | | | +28.55 |
| | κ | | | 55.2 | | | | | | | | | + .46 |
| | | | | 53.6 | | | | | | | | | − 2 |
| Jan 19 | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +28.99 | 29 | 55.02 |
| Jan 19 | | | 4.5 | 29 2.6 | 29 17.9 | 21.2 | 24.7 | 28.2 | 31.6 | | | 29 | ~~54.29~~ + 8 |
| | | | | 4.0 | | | | | | | | | − 31 |
| | | | | 5.2 | | | | | | | | 29 | 55.29 |
| | $\alpha_1$ | | | 3.9 | single observations | | | | | | +30.57 | 29 | 54.98 − 24 |
| | | | | | | | | | | | | 29 | 55.05 |
| 4 | 7 28 | 50 23 | 7.0 | 6 ~~57.6~~ | 7 ~~1.6~~ | 5.0 | 8.2 | 11.4 | 14.7 | | | 7 | ~~8.22~~ |
| | 6 16.8 | 29.4 | 7.0 | 58.2 | | | | | | | | | ~~+ 28.55~~ |
| Jan 14 | κ | | | 58.2 | | | | | | | | | ~~+ .42~~ |
| | | | | | | | | | | | | | ~~− 2~~ |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_2$ | | | | | | | | | | | | |
| 3 | 16 41 | 50 57 | 7.5 | 18 52.9 | 18 12.6 | 15.9 | 19.2 | 22.5 | 25.7 | 9.59 | 19.18 | 18 | 19.18 |
| | 15 32.47 | 53.6 | 7.6 | 54.9 | | | | | | | | | +30.01 |
| Jan 19 | κ | | | 56.5 | | | | | | | | | + .43 |
| | | | | 54.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +30.50 | | + 8 |
| | | | | | | | | | | | | 16 | 49.68 |
| | $\alpha_1$ | | | | | | | | | | | 16 | + 41 |
| | | | | | | | | | | | | 16 | 50.09 |
| 8 | 17 47 | 50 03 | 9.0 | ~~19~~ ~~16.8~~ | ~~18 14.5~~ | ~~17.6~~ | ~~20.9~~ | ~~24.2~~ | ~~27.4~~ | ~~10.46~~ | ~~24.92~~ | Rej | ~~18~~ 28.92 |
| | ~~16 33.7~~ | ~~50 39.5~~ | 8.9 | 16.8 | | | | | | | | | + 30.01 |
| Jan 19 | ~~κ~~ | ~~49~~ | | | | | | | | | | | + 44 |
| | | 49 | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +30.51 | | + 8 |
| | | | | | | | | | | | | 17 | 51.43 |
| | $\alpha_2$ | | | | | | | | | | | 17 | + 40 |
| | | | | | | | | | | | | 17 | 51.83 |
| 3 | 18 43 | 50 29 | 8.3 | 18 13.5 | 18 18.5 | 21.8 | 25.1 | 28.4 | 31.6 | 12.54 | 25.08 | 18 | 25.08 |
| | 17 38.5 | 25.8 | 8.1 | 14.6 | | | | | | | | | + 30.01 |
| Jan 19 | κ | | | 16.2 | | | | | | | | | + .44 |
| | | | | 14.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 30.51 | | + 8 |
| | | | | | | | | | | | | 18 | 55.59 |
| | $\alpha_1$ | | | | | | | | | | | | + 39 |
| | | | | | | | | | | 18 | ~~55.89~~ 98 | | + ~~30~~ 21 |
| 3 | 19 23 | 50 00 | 9.3 | 19 10.9 | 19 ~~6~~ | 57.8 | 1.0 | 4.2 | 7.5 | | | 19 | 1.02 |
| | 18 14.1 | 49 56.0 | 8.6 | 13.6 | | | | | | | | | +30.01 |
| Jan. 19 | κ | | 7.7 | 14.2 | | | | | | | | | + .43 |
| | | | | | | Examine | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 30.50 | | + 8 |
| | | | | | | | | | | | | 19 | 31.52 |
| | $\alpha_2$ | | | | | | | | | | | | + 39 |
| | | | | | | | | | | | | 19 | 31.91 |
| 3 | 24 48 | 50 54 | 9.1 | 20 2.3 | 20 18.7 | 22.9 | 26.2 | 29.4 | 32.6 | 13.08 | 26.16 | 20 | 26.16 |
| | 19 39.0 | 51.0 | 8.9 | 2.8 | | | | | | | | | + 30.01 |
| Jan 19 | κ | | | 5.4 | | | | | | | | | + .44 |
| | | | | 3.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 30.51 | | + 8 |
| | | | | | | | | | | | | 20 | 56.67 |
| | $\alpha_1$ | | | | | | | | | | | | + 37 |
| | | | | | | | | | | | | 20 | 57.04 |
| 3 | 21 38 | 50 02 | 7.3 | 21 1.6 | 21 19.3 | 22.6 | 25.8 | 29.0 | 32.3 | 12.90 | 25.80 | 21 | 25.80 |
| | 20 39.4 | 49 58.8 | 7.0 | 3.5 | | | | | | | | | + 30.01 |
| Jan. 19 | κ | | | 5.6 | | | | | | | | | + .43 |
| | | | | 3.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 30.50 | | + 8 |
| | | | | | | | | | | | | 21 | 56.30 |
| | $\alpha_2$ | | | | | | | | | | | | + 36 |
| | | | | | | | | | | | | 21 | 56.~~72~~ 66 |

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

1873phae.proj.15822



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| d | +31.9 | 1 57.5 | 47.1 | 41 | 52.20 | 52 40 | 56.05 | | 40 | 52 38 49.92 | |
| | 1.50379 | | | | | 38 24.65 | | | | − 27 | +11.31 |
| | 9.78313 | | | | | | +25.27 | | | + 7 | |
| | 1.40263 | | | | | | | 38 49.92 | | +11.11 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.37 | | | | | | | | | | − 11.55 | |
| +0 15.70 $\delta_1$ | | 27 48.52 | | 39 5.4 | | | | | | 38 49.68 | |
| d | +26.2 | 1 54.9 | 40.7 | 41 | 47.80 | 41 0.55 | | | 40 | 38 50.56 | |
| | 1.41830 | | | | | 38 29.81 | | | | − .18 | +11.50 |
| | 9.78313 | | | | | | +20.75 | | | + 7 | |
| | 1.31714 | | | | | | | | | + 11.21 | |
| ((δ) − D) $\frac{d'}{100}$ | | 4 | | | | | | | | + 40 | |
| +9.37 | | | | | | | | | | − 12.20 | |
| +0 15.70 $\delta_2$ | | 27 48.99 | | 39 5.6 | | | | | | 38 49.86 | |
| 24.72 | | | | | | | | | | | 49 25.72 |
| 3034 | | | | | | | | | | | − .12 |
| 47 | | | | | | | | | | | + 4 |
| −02 | | | | | | | | | | | +11.40 |
| 3329 | | | | | | | | | | | + .40 |
| −24 | | | | | | | | | | | − 12.20 |
| 5505 | | | | | | | | | | | 49 25.24 |
| +9.40 | +32.7 | 1 23.1 | 13.0 | 31 | 18.05 | 52 51 | 30.30 | | 30 | 52 49 24.70 | +11.46 +11.72 |
| +0 15.34 d | 1.51455 | | | | | 48 58.90 | | | | − 28 | |
| | 9.78130 | | | | | | +25.80 | | | + 5 | |
| | 1.41156 | | | | | | | 49 24.70 | | +11.29 | |
| ((δ) − D) $\frac{d'}{100}$ | +20.8 | 1 14.7 | 1.9 | 31 39.9 | 8.30 | 51 40.05 | | | 30 | + 40 | |
| +9.40 | 1.31806 | | | | | 49 9.31 | | | | −11.55 | |
| +0 15.34 $\delta_1$ | 9.78130 | 30 4.38 | | 49 ~~40.0~~ 40.6 | | | +16.41 | | | 49 24.61 | |
| | 1.21507 | 4.45 | | | | | | | | | |
| | ~~+10.0~~ | ~~2 39.4~~ | ~~30.3~~ | ~~47~~ | ~~34.85~~ | 35 ~~13.50~~ 6 | | | 45 | | |
| | ~~1.000000~~ | | | | | | ~~+7.89~~ | | | | |
| d | 9.78130 | | | | | | | | | | |
| | 0.89701 | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | +24.4 | 2 47.0 | 35.0 | 22 | 41.00 | 51 00 | 7.35 | | 20 | 50 57 56.23 | |
| d | 1.38739 | | | | | 57 36.61 | | | | − 16 | +9.63 |
| | 9.78967 | | | | | | +19.62 | | | + 11 | |
| | 1.29277 | | | | | | | 57 56.23 | | +9.33 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +8.64 | | | | | | | | | | −12.40 | |
| +0 26.18 $\delta_1$ | | 16 58.73 | | 58 19.6 | | | | | | 57 53.46 | |
| | ~~+4.1~~ | ~~4 22.0~~ | ~~20.5~~ | 19 | 26.25 | ~~57~~ 3 | ~~22.10~~ | | 15 | 51 0 | 54.73 |
| d | 0.61278 | | | | | 0 51.36 | | | | + 1 | +9.91 |
| | 9.79872 | | | | | | ~~+3.37~~ | | | + 18 | |
| | ~~0.52721~~ | | | | | | | 0 54.73 | | + 9.39 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −12.40 | |
| $\delta_2$ | | | | | | | | | | 0 52.24 | |
| | ~~+10.3~~ | 0 48.3 | 26.5 | 50 | 42.40 | 50 32 | 5.95 | | 50 | 50 29 43.76 | |
| d | 1.01284 | | | | | 29 35.21 | | | | − 3 | +9.14 |
| | 9.80351 | | | | | | +8.65 | | | + 3 | |
| | 0.93206 | | | | | | | 29 43.76 | | + 8.82 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 32 | |
| +8.62 | | | | | | | | | | −12.25 | |
| +0 25.90 $\delta_1$ | | 19 4.60 | | 30 6.6 | | | | | | 29 40.65 | |
| | −13.8 | 0 39.0 | 28.8 | 20 | 33.90 | 50 2 | 14.45 | | 20 | 49 59 32.87 | |
| d | 1.12057 m | | | | | 59 43.71 | | | | − 5 | +8.54 |
| | 9.79887 | | | | | | −10.84 | | | + 2 | |
| | 1.03515 m | | | | | | | 57 32.87 | | + 8.27 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 30 | |
| +8.58 | | | | | | | | | | −12.10 | |
| +0 25.82 $\delta_2$ | | 19 40.49 | | 59 55.1 | | | | | | 59 29.31 | |
| | +22.4 | 1 12.7 | 0.2 | 26 | 6.45 | 50 56 | 41.90 | | 25 | 50 54 29.60 | |
| d | 1.35025 | | | | | 54 11.16 | | | | − 13 | +9.53 |
| | 9.79981 | | | | | | +18.44 | | | + 4 | |
| | 1.26577 | | | | | | | 54 29.60 | | + 9.27 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +8.68 | | | | | | | | | | −12.35 | |
| +0 25.64 $\delta_1$ | | 21 5.72 | | 54 52.4 | | | | | | 54 26.78 | |
| | +22.2 | 3 2.8 | 51.1 | 17 | 56.95 | 50 4 | 51.40 | | 15 | 50 2 39.27 | |
| d | 1.34635 | | | | | 2 20.66 | | | | − 13 | +8.65 |
| | 9.80777 | | | | | | +18.61 | | | + 12 | |
| | 1.26983 | | | | | | | 2 39.27 | | + 8.30 | |
| ((δ) − D) $\frac{d'}{100}$ | | 2 | | | | | | | | + 30 | |
| +8.61 | | | | | | | | | | −12.10 | |
| +0 25.50 $\delta_2$ | | 22 5.77 | | 3 1.3 | | | | | | 2 35.76 | |

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

1873phae.proj.1582R

Date$_1$ = ~~Jan. 14~~ Observer / Recorder — Date$_2$ = Jan 19 (210) Observer / Recorder — 44 — Ru

| Star. α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 22 56 | 50 59 | 9.1 | 27 50.3 | 25 11.5 | 14.7 | 18.2 | 21.4 | 24.7 | 9 05 | 18.10 | 22 18.10 | |
| 21 ~~4 10~~ 293 | 50 55.9 | 9.0 | 51.9 | | | | | | | | +30.01 | |
| Jan. 19 K | 61.2 | | 53.3 | | | | | | | | + .44 | |
| | | | 54.8 | | | | | | | | − 2 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +30.51 | + 8 | |
| | | | | | | | | | | | 22 48.61 | |
| $\alpha_1$ | | | | | | | | | | | + 36 | +8.7 |
| | | | | | | | | | | | 22 48.97 | +0 2 |
| 3 24 47 | 50 09 | 9.0 | 27 1.1 | 24 19.1 | 22.2 | 25.5 | 28.6 | 32.0 | 12 74 | 25.48 | 24 25.48 | |
| 23 38.2 | 50 57.2 | 9.0 | 2.3 | | | | | | | | +30.02 | |
| Jan. 19 K | | | 3.6 | | | | | | | | + .43 | |
| | | | 2.3 | | | | | | | | − 2 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +30.51 | + 8 | |
| | | | | | | | | | | | 24 56.99 | |
| $\alpha_2$ | | | | | | | | | | | + 34 | +8.6 |
| | | | | | | | | | | | 24 56.33 | +0 |
| 3 28 21 | 50 17 | 9.0 | 26 54.6 | 24 56.0 | 58.3 | 2.6 | 5.9 | 9.2 | 31 30 | 2.60 | 25 2.60 | |
| 24 15.6 | 50 14.0 | 9.0 | 54.6 | | | | | | | | +30.02 | |
| Jan. 19 K | | | | | | | | | | | + .43 | |
| | | | | | | | | | | | − 2 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +30.51 | + 8 | |
| | | | | | | | | | | | 25 33.11 | |
| $\alpha_1$ | | | | | | | | | | | + 33 | +8.6 |
| | | | | | | | | | | | 25 33.44 | +0 2 |
| ~~3 28 56~~ | 52 15 | 8.6 | 28 40.4 | 28 17.9 | 21.2 | 24.6 | 28.0 | | | | 28 ~~17.4~~ | |
| ~~3 22.7 32.7~~ | ~~7.3~~ | ~~6.5~~ | 42.1 | 1st-w some | | | | | | | +30.02 | |
| Jan. 19 K | | | 44.0 | | | | | | | | + .46 | |
| | | | 42.2 | | | | | | | | − 2 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 8 | |
| | | | | | | | | | | | 28 51.78 | |
| $\alpha_2$ | | | | | | | | | | | + 30 | |
| | | | | | | | | | | | 3 28 ~~52.78~~ 52.08 | |
| 4 0 30 | 51 28 | 9.6 | 29 38.0 | 0 3.9 | 7.2 | 10.5 | 13.9 | 17.2 | 5 27 | 12.54 | ~~4 0~~ 10.54 | |
| 3 59 18.1 | 51 25.5 | 9.5 | 40.1 | | | | | | | | +30.03 | |
| Jan. 19 K | | | 40.8 | | | | | | | | + .45 | |
| | | | 39.6 | | | | | | | | − 2 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +30.54 | + 8 | |
| | | | | | | | | | | | 4 ~~0~~ 41.08 | |
| $\alpha_1$ | | | | | | | | | | | + ~~29~~ | +90 |
| | | | | | | | | | | | − .04 | +0 1 |
| | | | | | | | | | | | 0 41.04 | |
| ~~4 7 28~~ | ~~50 33~~ | ~~7.0~~ | | | | | | | | | | |
| ~~Jan. 14~~ K | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | |
| 4 16 12 | 51 24 | 8.8 | | | | | | | | | | |
| Jan. 15 K | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | |
| 4 18 36 | 50 57 | 8.3 | | | | | | | | | | |
| 17 22.9 | 56.8 | | | | | | | | | | | |
| Jan. 19 K | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | |
| K | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | |
| K | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | |

examine

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +26.3 | 1′ 40.3 | 28.2 | 21′ | 34.25 | 51 1 | 14.10 | | 20′ | 50 59 4.50 | |
| | 1.41996 | | | | | 58 | 43.36 | | | − 18 | +9.56 |
| d | 9.78950 | | | | | | +21.14 | | | + 6 | |
| | 1.32517 | | | | | | | 59 4.50 | | +9.33 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −12.40 | |
| +8.70 $\delta_1$ | | 2257.67 | | 59 27.0 | | | | | | 59 1.66 | |
| +0 25.34 | | | | | | | | | | | |
| | +23.2 | 1 34.9 | 23.8 | 11 | 29.35 | 51 11 | 19.00 | | 10 | 50 9 7.26 | |
| | 1.36549 | | | | | 8 | 48.26 | | | − 14 | +9.81 |
| d | 9.79746 | | | | | | + 19.00 | | | + 6 | |
| | 1.27866 | | | | | | | 9 7.26 | | +9.54 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −12.40 | |
| +8.64 $\delta_2$ | | 25 4.97 | | 9 29.8 | | | | | | 9 4.67 | |
| +0 25.10 | | | | | | | | | | | |
| | +8.0 | 2 33.3 | 22.2 | 2 | 27.75 | 50 20 | 20.60 | | 0 | 50 17 56.53 | |
| | 0.90309 | | | | | 17 | 49.86 | | | − 2 | +8.99 |
| d | 9.80534 | | | | | | + 6.67 | | | + 10 | |
| | 0.82414 | | | | | | | 17 56.53 | | +8.60 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + 31 | |
| | | | | | | | | | | −12.20 | |
| +8.66 $\delta_1$ | | 25 42.10 | | 18 18.3 | | | | | | 17 53.32 | |
| +0 25.02 | | | | | | | | | | | |
| | ~~−24.0~~ | 4 25.2 | 11.4 | 9 | 18.20 | 52 13 | ~~30.05~~ | | 5 | 52 10 42.50 | |
| | 1.32222 n | | | | | 10 | 59.31 | | | − 12 | +11.13 |
| d | 9.78756 | | | | | | − 16.81 | | | + | |
| | ~~1.22549 n~~ | | | | | | | 10 42.50 | | +10.68 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −12.70 | |
| $\delta_2$ | | | | | | | | | | 10 40.93 | |
| | +30.9 | 2 17.1 | 5.4 | 52 | 11.25 | 51 30 | 37.10 | | 50 | 51 28 31.49 | |
| | 1.48996 | | | | | 28 | 6.36 | | | − 26 | +10.12 |
| d | 9.79447 | | | | | | + 25.13 | | | + 9 | |
| | 1.40014 | | | | | | | 28 31.49 | | +9.92 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| | | | | | | | | | | ~~−12.50~~ | |
| +9.06 $\delta_1$ | | 0 50.10 | | 28 49.2 | | | | | | −12.30 | |
| ~~+0~~ 19.92 | | | | | | | | | | 28 29.31 | |
| | | | | | | | | | 45 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | | 3 40.2 | 28.6 | | | | | | 55 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | | 2 43.0 | 30.9 | | | | | | 20 | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |

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

1873phae.proj.1582R

Date$_1$ = Feb. 21 1873 (212) Observer / Recorder — Date$_2$ = Feb. 25 1873 (214) Observer / Recorder (46)

$n$ = +.43 $C$ = +.05 — $n$ = +.32

Add 2.5 to (M+m)

| Star. | α | δ | Mag. | $T_s$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 36m 49s | 50° 55′ | 8.0 | 15m 45.3 | 36m 59.4 | 3.1 | 6.4 | 9.5 | 12.4 | 33.15 | 6.30 | Add 2. to (M+m) for 1882 | 36 6.30 |
| | 35 36.14 | 50 52.8 | 7.8 | 47.6 | | | | | | | | | +30.09 |
| | κ 15.8 | 50 49.4 | | 48.3 | | | | | | | | | + .53 |
| | | | | 47.5 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3268 | | + 8 |
| | | | | | | | | | | | | It has been added to sum of constants and final R.A. | 36 36.98 |
| | $a_1$ | | | | | | | | | | | | − 1 |
| | | | | | | | | | | | | | 36 36.97 38.97 |
| | | | 8.7 | 35 46.5 | 35 58.6 | 36 1.8 | 5.2 | 8.4 | 11.8 | 3258 | 5.16 | | 36 5.16 |
| | | | | 48.7 | | | | | | | | | +33.34 |
| | κ | | | 50.8 | | | | | | | | | + .39 |
| | | | | 48.7 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.71 | | 36 38.87 |
| | | | | | | | | | | | | | + 5 |
| | $a_2$ | | | | | | | | | | | | 36 38.92 |
| 4 | 38 9 | 50 29 | 8.5 | 37 17.4 | 37 29.2 | 42.3 | 45.6 | 48.1 | 52.2 | 2284 | 45.68 | | 37 45.68 |
| | 36 55.9 | 27.3 | 8.2 | 19.0 | | | | | | | | | +30.09 |
| | κ | | | 20.3 | | | | | | | | | + .52 |
| | | | | 18.9 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.67 | | + 8 |
| | | | | | | | | | | | | | 38 16.35 2 |
| | $a_1$ | | | | | | | | | | | | − 2 |
| | | | | | | | | | | | | | 38 16.33 1833 |
| | 36 28.9 | 50 17.5 | 7.9 | 37 45.3 | 37 11.6 | 14.9 | 18.3 | 21.4 | 24.7 | 9.09 | 18.18 | | 37 18.18 |
| | κ | | | 47.3 | | | | | | | | | +33.34 |
| | | | | 48.9 | | | | | | | | | + .39 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 47.2 | | | | | | | | | − 2 |
| | | | | | | | | | | | +33.71 | | 37 51.89 |
| | $a_2$ | | | | | | | | | | | | + 4 |
| | | | | | | | | | | | | | 37 54.93 |
| 4 | 37 56 | 50 11 | 9.0 | 38 58.3 | 38 24.9 | 28.2 | 31.7 | 34.7 | 37.8 | 1573 | 31.46 | | 38 31.46 |
| | 38 41.6 | 50 9.3 | 9.0 | 59.6 | | | | | | | | | +30.09 |
| | κ | | | 59.0 | | | | | | | | | + .51 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.66 | | + 8 |
| 42 13 | | | | | | | | | | | | | 40 2.12 |
| | $a_1$ | | | | | | | | | | | | − 4 |
| | | | | | | | | | | | | | 40 2.08 408 |
| | | | 9.2 | 37 7.6 | 37 23.8 | 27.2 | 30.3 | 33.4 | 36.5 | 1515 | 30.30 | | 38 30.30 |
| | κ | | | 8.0 | | | | | | | | | +33.34 |
| | | | | 10.7 | | | | | | | | | + .38 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 9.1 | | | | | | | | | − 2 |
| | | | | | | | | | | | +33.69 70 | | 40 4.00 |
| | $a_2$ | | | | | | | | | | | | + 2 |
| | | | | | | | | | | | | | 40 4.02 |
| 4 | 44 38 | 51 13 | 8.9 | 43 48.2 | 44 5.1 | 12.3 | 15.7 | 18.8 | 22.2 | 7.81 | 15.62 | | 44 15.62 |
| | 43 24.7 | 10.5 | 9.1 | 48.3 | | | | | | | | | +30.09 |
| | κ | | | 50.3 | | | | | | | | | + .53 |
| | | | | 49.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.68 | | + 8 |
| | | | | | | | | | | | | | 44 46.30 |
| | $a_1$ | | | | | | | | | | | | − 9 |
| | | | | | | | | | | | | | 44 45.71 48.21 |
| | | | 9.3 | 43 27.5 | 44 8.2 | 11.3 | 14.8 | 18.7 | | | | | 44 (48.54) 1465 |
| | κ | | | 34.1 | | | | | | | | | +33.84 |
| | | | | 48.4 | | | | | | | | | + .40 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 39.2 | | | | | | | | | − 2 |
| | | | | | | | | | | | +33.72 | | 44 48.71 |
| | $a_2$ | | | | | | | | | | | | − 3 |
| | | | | | | | | | | | | | 44 48.55 48 34 |
| 4 | 48 56 | 51 44 | 8.9 | 44 51.1 | 47 17.1 | 20.8 | 24.2 | 27.3 | 30.9 | 12.03 | 24.06 | | 47 24.06 |
| | 47 42.5 | 51 41.8 | 8.0 | 53.3 | | | | | | | | | +30.09 |
| | κ | | | 55.0 | | | | | | | | | + .55 |
| | | | | 53.1 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.70 | | + 8 |
| | | | | | | | | | | | | | 47 54.76 |
| | $a_1$ | | | | | | | | | | | | − 12 |
| | | | | | | | | | | | | | 47 54.64 5664 |
| | | | 8.8 | 47 4.8 | 47 16.3 | 19.3 | 22.4 | 26.3 | 29.6 | 11.44 | 22.88 | | 47 22.88 |
| | κ | | | 10.2 | | | | | | | | | +33.34 |
| | | | | 10.1 | | | | | | | | | + .41 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.43 | | − 2 |
| | | | | | | | | | | | | | 47 56.71 |
| | $a_2$ | | | | | | | | | | | | − 6 |
| | | | | | | | | | | | | | 47 56.65 |

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

1873phae.proj.15828

Feb. 2 −2′ 30″.55 +.03
" 5 −2 30.56 +.03

47

Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +18.8 | 4′ 4.8 | 49.2 | 28′ | 57.00 | 50 53 | 51.35 | | 25″ | 50 51 36.29 | |
| | 1.27416 | | | | | 51 | 20.80 | | | − 10 | +9.96 |
| 1.14 d | 9.80027 | | | | | | +15.49 | | | + 12 | |
| | 1.19014 | | | | | | | 51 36.29 | | +9.54 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| | | | | | | | | | | −13.15 | |
| +9.22 δ₁ | | 36 48.19 | | 51 47.3 | | | | | | 51 33.10 | |
| +0 14.18 | | | | | | | | | | | |
| | +16.5 | 3 56.1 | 50.3 | 28 | 54.20 | 50 53 | 54.15 | | 25 | 37.19 | |
| | 1.21748 | | | | | 51 | 23.59 | | | − 7 | +9.57 |
| d | 9.80027 | | | | | | +13.60 | | | + 12 | |
| | 1.13346 | | | | | | | 51 37.19 | | +9.12 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| +9.22 | | | | | | | | | | −13.35 | |
| +0 14.18 δ₂ | | 36 48.14 | | 51 47.6 | | | | | | 51 33.41 | |
| | +26.8 | 1 44.9 | 29.3 | 51 | 37.10 | 50 31 | 11.25 | | 50 | 50 29 2.96 | ✓ |
| | 1.42813 | | | | | 28 | 40.70 | | | − 19 | +9.34 |
| d | 9.80366 | | | | | | +22.26 | | | + 5 | |
| | 1.34750 | | | | | | | 29 2.96 | | +9.11 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 37 | |
| +9.18 | | | | | | | | | | −13.00 | |
| +0 13.96 δ₁ | | 38 27.51 | | 29 13.3 | | | | | | 28 59.30 | |
| | −29.0 | 4 47.6 | 40.1 | 59 | 43.85 | 50 28 | 4.50 | | 585 | 25 0 ~~7.83~~ | |
| | 1.46240 m | | | | | 25 | 33.94 | | | − 23 | +9.01 |
| d | 9.80412 | | | | | 0 | −24.11 | | | + 14 | |
| | 1.38223 m | | | | | | | 25 7.83 | | +8.73 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 37 | |
| +9.18 | | | | | | | | | | −13.20 | |
| +0 13.96 δ₂ | | 38 1.11 | | 20 19.6 | | | | | | 25 ~~34.4~~ | |
| | | | | | | | | | | 0 5.64 | |
| | +32.5 | 4 22.1 | 7.9 | 9 | 16.00 | 50 13 | 33.35 | | 5 | 50 11 29.96 | |
| 1.16 d | 1.51188 | | | | | 11 | 2.80 | | | − 29 | +8.96 |
| | 9.80641 | | | | | | +27.16 | | | + 173 | |
| | 1.43400 | | | | | | | 11 29.96 | | +8.77 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 35 | |
| +9.16 | | | | | | | | | | −12.90 | |
| +0 13.70 δ₁ | | 40 13.24 | | 11 39.7 | | | | | | 11 26.02 | |
| | +21.2 | 4 8.1 | 0.3 | 9 | 4.20 | 50 13 | 44.15 | | 5 | 31.31 | |
| | 1.32634 | | | | | 11 | 13.59 | | | − 12 | +8.76 |
| d | 9.80641 | | | | | | +17.72 | | | + 162 | |
| | 1.24846 | | | | | | | 11 31.31 | | +8.41 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 35 | |
| +9.16 | | | | | | | | | | −13.15 | |
| +0 13.70 δ₂ | | 40 13.18 | | 11 40.6 | | | | | | 11 26.92 | |
| | | | | | | | 16 15 | | | | |
| | +26.3 | 1 0.4 | 45.9 | 86 | 53.15 | 51 ~~17~~ | 55.20 | | 5 | 51 ~~14~~ 46.15 | |
| | 1.41996 | | | | | ~~14~~ | 24.65 | | | 13 − 18 | +10.24 |
| d | 9.79668 ~~77~~ | | | | | 13 | +21.50 | | | + 3 | |
| .73 | 1.33235 | | | | | | | 14 46.15 | | +9.99 | |
| | 51 | | | | | | | | | + 40 | |
| ((δ) − D) d′/100 | | | | 18 56.2 | | | | | | −13.10 | |
| +9.29 | | | | ~~14~~ 0.7 | | | | | | ~~14~~ 43.29 | |
| +0 12.90 δ₁ | | 44 57.50 | | | | | | | | 13 47.83 | |
| | | | | | | 5 | | | | | |
| 1.465 +35.4 | +35.7 (?) | 1 2.9 | 54.9 | 86 | 58.90 | 51 16 | 49.45 | | 5 | 13 ~~48.07~~ | |
| 1.54900 | (1.54267) | | | | | ~~14~~ | 18.89 | | | − 34 | +9.64 |
| 9.79684 | 9.79068 | | | | | 13 | +~~39.18~~ | | | + 3 | |
| 1.46155 | 1.46506 | | | | | | 28.94 ~~14~~ | 48.07 | | +9.55 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| +9.29 | | | | | | | | | | −13.35 | |
| +0 12.90 δ₂ | | 44 57.63 | | 13 57.0 | | | | | | ~~14~~ 44.36 | |
| | | | | | | | | | | 13 12 | |
| | +31.0 | 1 3.0 | 46.4 | 25 | 54.40 | 51 56 | 53.65 | | 25 | 51 54 48.07 | |
| | 1.49136 | | | | | 54 | 23.10 | | | − 25 | +10.93 |
| d | 9.79031 | | | | | | +24.97 | | | + 3 | |
| 1.18 | 1.39738 | | | | | | | 54 48.07 | | +10.75 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| +9.37 | | | | | | | | | | −13.25 | |
| +0 12.18 δ₁ | | 48 6.01 | | 54 57.9 | | | | | | 54 45.75 | |
| 1.64 | | | | | | | | | | | |
| | +13.9 | 0 42.7 | 34.6 | 25 | 38.65 | 51 57 | 9.70 | | 25 | 48.53 | |
| | 1.11059 | | | | | 54 | 38.14 | | | − 5 | +10.65 |
| d | 9.79015 | | | | | | +10.39 | | | + 3 | |
| | 1.01645 | | | | | | | 54 48.53 | | +10.28 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 40 | |
| +9.37 | | | | | | | | | | −13.55 | |
| +0 12.18 δ₂ | | 48 5.92 | | 54 57.8 | | | | | | 54 45.63 | |

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

1873phae.pro1.1582R

Date$_1$ = R&h.2 (212) Observer / Recorder — Date$_2$ = R&h.5 (214) Observer / Recorder — (48)

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5h 50m 46s | 51° 18′ | 8.2 | 47m 47.6 | 50m 16.1 | 19.3 | 22.8 | 25.4 | 29.3 | 11 34 | 22.68 | 50 | 22.68 |
| | 49 32.6 | 51 16.3 | 8.9 | 48.9 | | | | | | | | | +30.09 |
| | κ | | | 50.8 | | | | | | | | | + .53 |
| | | | | 45.1 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.68 | | + 8 |
| | $a_1$ | | | | | | | | | | | 50 | 53.36 |
| | | | | | | | | | | | | | − 15 |
| | | | | | | | | | | | | 50 | 53.13 5521 |
| | | | 8.0 | 47 57.5 | 50 15.0 | 18.4 | 21.5 | 24.8 | 28.1 | 1078 | 21.56 | 50 | 21.56 |
| | | | | 59.5 | | | | | | | | | +33.84 |
| | κ | | | 4.1 | | | | | | | | | + .40 |
| | | | | 54.4 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.72 | | |
| | $a_2$ | | | | | | | | | | | 50 | 55.28 |
| | | | | | | | | | | | | | − 8 |
| | | | | | | | | | | | | 50 | 55.20 |
| 4 | 5 52 11 | 51 30 | 8.5 | 51 14.1 | 51 41.8 | 45.4 | 48.5 | 51.9 | 55.3 | 2429 | 48.58 | 51 | 48.58 +.05 |
| | 50 57.4 | 51 28.1 | 8.6 | 16.1 | | | | | | | | | +30.09 |
| | κ | | | 17.6 | | | | | | | | | + .54 |
| | | | | 15.9 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.69 | | + 8 |
| | $a_1$ | | | | | | | | | | | 52 | 19.27 2132 |
| | | | | | | | | | | | | | − 16 |
| | | | | | | | | | | | | 52 | 19.11 2116 |
| | | | 8.2 | 51 24.8 | 51 40.8 | 44.2 | 47.5 | 50.9 | 54.2 | 23.76 | 47.52 | 51 | 47.52 |
| | | | | 26.8 | | | | | | | | | +33.34 |
| | κ | | | 28.4 | | | | | | | | | + .40 |
| | | | | 26.7 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.72 | | |
| | $a_2$ | | | | | | | | | | | 52 | 21.24 |
| | | | | | | | | | | | | | − 10 |
| | | | | | | | | | | | | 52 | 21.14 |
| 4 | 8 3 12 | 51 31 | 9.5 | 52 31.7 | 52 44.6 | 47.7 | 51.2 | 54.5 | 57.7 | 2557 | 51.14 | 52 | 51.14 |
| | 51 58.8 | 51 29.2 | 9.5 | 33.6 | | | | | | | | | +30.10 |
| | κ | | | 35.6 | | | | | | | | | + .54 |
| | | | | 33.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.70 | | + 8 |
| | $a_1$ | | | | | | | | | | | 53 | 21.84 |
| | | | | | | | | | | | | | − 17 |
| | | | | | | | | | | | | 53 | 21.89 23.67 |
| | | | 9.4 | 52 30.0 | 52 43.3 | 46.9 | 50.0 | 53.2 | 57.0 | 25.04 | 50.08 | 52 | 50.08 |
| | | | | 31.9 | | | | | | | | | +33.34 |
| | κ | | | 33.6 | | | | | | | | | + .40 |
| | | | | 31.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.72 | | |
| | $a_2$ | | | | | | | | | | | 53 | 23.80 |
| | | | | | | | | | | | | | − 11 |
| | | | | | | | | | | | | 53 | 23.69 |
| 4 | 50 26 | 51 45 | 9.3 | 54 26.5 | 54 37.8 | 1.3 | 4.8 | 8.0 | 11.3 | 3234 | 4.68 | 55 | 4.68 |
| | 54 12.2 | 51 43.5 | 9.5 | 28.7 | | | | | | | | | +30.10 |
| | κ | 57 | | 30.9 | | | | | | | | | + .55 |
| | | | | 28.7 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.71 | | + 8 |
| | $a_1$ | | | | | | | | | | | 55 | 35.35 |
| | | | | | | | | | | | | | − 19 |
| | | | | | | | | | | | | 55 | 35.42 37.16 |
| 4 | 53 30.2 | | 8.5 | 54 19.0 | 54 33.1 | 36.4 | 39.7 | 43.2 | 46.4 | 9.88 | 19.76 | 54 | 19.76 |
| | κ | 56 31 | | 26.3 | | | | | | | | | +30.34 |
| | | | | 19.6 | | | | | | | | | + .41 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.73 | | − 2 |
| | $a_2$ | | | | | | | | | | | 54 | 53.49 |
| | | | | | | | | | | | | | − 13 |
| | | | | | | | | | | | | 54 | 53.36 |
| 4 | 57 24 | 49 53 | 8.6 | 56 33.7 | 57 55.1 | 58.4 | 1.7 | 4.7 | 8.2 | 30 81 | 1.62 | 57 | 1.62 |
| | 56 10.4 | 49 51.6 | 8.5 | 37.4 | | | | | | | | | +30.10 |
| | κ | | | 32.4 | | | | | | | | | + .57 |
| | | | | 37.5 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.67 | | + 8 |
| | $a_1$ | | | | | | | | | | | 57 | 32.29 |
| | | | | | | | | | | | | | − 19 |
| | | | | | | | | | | | | 57 | 32.36 34.10 |
| | | | 8.5 | 54 45.0 | 57 54.0 | 57.1 | 0.5 | 3.5 | 6.8 | 30 19 | 0.38 | 57 | 0.38 |
| | κ | 56 | 8.6 | 46.3 | | | | | | | | | +33.34 |
| | | | | 47.9 | | | | | | | | | + .38 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 46.4 | | | | | | | | | − 2 |
| | $a_2$ | | | | | | | | | | +33.70 | 57 | 34.08 |
| | | | | | | | | | | | | | − 14 |
| | | | | | | | | | | | | 57 | 33.94 |

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

1873phae.proj.15822



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +33.6 | 2 37.7 | 2 40 | 2 | 39.95 | 51 20 | 17.40 | | 0 | 51 18 14.27 | |
| | 1.52634 | | | | | 17 | 46.85 | | | − 30 | +10.22 |
| 1.12 d | 9.79605 | | | | | | +27.42 | | | + 8 | |
| | 1.43810 | | | | | | | 18 14.27 | | +10.04 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.33 | | | | | | | | | | −13.05 | |
| +0 11.88 $\delta_1$ | | 51 4.54 | | 18 23.38 | | | | | | 18 11.76 | 44 |
| | +22.2 | 2 25.0 | 18.1 | 2 | 2.55 | 51 20 | 26.80 | | 0 | 14.36 | |
| | 1.34635 | | | | | 17 | 56.24 | | | − 13 | +9.95 |
| d | 9.79605 | | | | | | +18.12 | | | + 7 | |
| | 1.25811 | | | | | | | 18 14.36 | | +9.61 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.33 | | | | | | | | | | −13.35 | |
| +0 11.88 $\delta_2$ | | 51 4.53 | | 18 22.86 | | | | | | 18 10.96 | |
| | +32.7 | x2 0.0 | 44.6 | 501 | 52.20 | 51 31 | 56.05 | | 58 | 51 29 52.08 | 20 min |
| | 1.51455 | | | | | 29 | 25.50 | | | − 28 | +10.41 |
| 06 d | 9.79431 | | | | | | +26.58 | | | + 2 | |
| | 1.42457 | | | | | | | 29 52.08 | | +10.27 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.36 | | | | | | | | | | −13.10 | |
| +0 11.64 $\delta_1$ | | 52 30.52 | | 29 1.0 | | | | | | 28 49.39 | |
| | +20.8 | 1 47.2 | 39.9 | 51 | 48.55 | 51 31 | 4.80 | | 50 | 28 51.15 | 20 min |
| | 1.31806 | | | | | 28 | 34.24 | | | − 11 | +10.18 |
| d | 9.79431 | | | | | | +16.91 | | | + 5 | |
| | 1.22805 | | | | | | | 28 51.15 | | +9.84 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | 28 | | | | | | + 40 | |
| +9.36 | | | | 29 59.6 | | | | | | −13.35 | |
| +0 11.64 $\delta_2$ | | 52 30.50 | | | | | | | | 28 47.98 | |
| | +17.5 | 4 38.4 | 24.2 | 49 | 31.30 | 51 33 | 17.05 | | 45 | 51 31 0.71 | |
| | 1.24304 | | | | | 30 | 46.50 | | | − 8 | +10.76 |
| 06 d | 9.79399 | | | | | | +14.21 | | | + 14 | |
| | 1.15274 | | | | | | | 31 0.71 | | +10.30 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.37 | | | | | | | | | | −13.10 | |
| +0 11.48 $\delta_1$ | | 53 33.04 | | 31 9.8 | | | | | | 30 58.37 | |
| | +18.3 | 4 34.9 | 27.9 | 49 | 31.40 | 51 33 | 16.95 | | 45 | 1.25 | |
| | 1.26245 | | | | | 30 | 46.39 | | | − 9 | |
| d | 9.79397 | | | | | | +14.86 | | | + 14 | +10.30 |
| | 1.17215 | | | | | | | 31 1.25 | | +9.85 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.37 | | | | | | | | | | −13.35 | |
| +0 11.48 $\delta_2$ | | 53 33.06 | | 31 9.7 | | | | | | 30 58.20 | |
| | +35.9 | 0 42.8 | 27.1 | 35 | 34.95 | 51 47 | 13.40 | | 35 | 51 45 11.86 | |
| | 1.55509 | | | | | 44 | 42.85 | | | − 34 | +10.635 |
| d | 9.79176 | | | | | | +29.01 | | | + 2 | |
| | 1.46256 | | | | | | | 45 11.86 | | +10.57 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.40 | | | | | | | | | | −13.10 | |
| +0 11.10 $\delta_1$ | | 55 46.56 | | 45 20.51 | | | | | | 45 9.41 | |
| | +0.2 | 2 7.1 | 58.2 | 39 | 2.65 | 51 45 | 45.70 | | 35 | 15.30 | |
| | 9.30103 | | | | | 43 | 15.14 | | | 43 31.31 | +10.55 |
| d | 9.79 ~~176~~ 208 | | | | | | +16.17 | | | 0 | +10.55 |
| | 9.20884 2 | | | | | | + 0.16 | 43 31.31 | | + 6 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | +10.09 | |
| +9.41 | | | | | | | | | | + 40 | |
| +0 11.10 $\delta_2$ | | 55 2.77 | | 43 23.6 | | | | | | −13.40 | |
| | | | | | | | | | | 43 28.46 | 12.45 |
| | +24.1 | 1 2.9 | 47.7 | 25 | 55.30 | 49 56 | 53.05 | | 25 | 49 54 42.76 | |
| | 1.38202 | | | | | 54 | 22.50 | | | − 15 | +8.69 |
| d | 9.80897 | | | | | | +20.26 | | | + 3 | |
| | 1.30670 | | | | | | | 54 42.76 | | +8.46 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.20 | | | | | | | | | | −12.60 | |
| +0 10.76 $\delta_1$ | | 57 43.30 | | 54 49.6 | | | | | | 54 38.85 | |
| | +14.0 | 4 52.0 | 43.0 | 25 | 47.50 | 49 57 | 0.85 | | 25 | 42.06 | |
| | 1.14613 | | | | | 54 | 30.29 | | | − 5 | +8.42 |
| d | 9.80882 | | | | | | +11.77 | | | + 2 | |
| | 1.07066 | | | | | | | 54 42.06 | | +8.10 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.20 | | | | | | | | | | −12.90 | |
| +0 10.76 $\delta_2$ | | 57 43.14 | | 54 48.3 | | | | | | 54 37.58 | |

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

1873phae.proj.1582R

Date$_1$ = Feb. 2 (212) Observer / Recorder — Date$_2$ = Feb. 5 (214) Observer / Recorder — (50)

| Star. | α | δ | Mag. | | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | 1 30 | 51 53 | 9.5 | | 40.6 | 55.6 | 57.0 | 2.3 | 5.8 | 8.2 | 3119 | 2.38 | | 2.38 |
| | 0 15.9 | 51 52.0 | 9.0 | | 41.6 | | | | | | | | | +30.10 |
| | κ | | | | 41.1 | | | | | | | | | + .55 |
| | | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | +32.71 | | + 8 |
| | $\alpha_1$ | | | | | | | | | | | | | 1 33.09 |
| | | | | | | | | | | | | | | − 25 |
| | | | | | | | | | | | | | | 1 ~~32.84~~ 34.84 |
| | 5 0 15.9 | 51 52.0 | 9.0 | 0 | 41.3 | 1 33.3 | 6.4 | 9.7 | 13.2 | 16.5 | 4.91 | 9.82 | 1 | 9.82 |
| | κ | | | | 42.4 | | | | | | | | | +33.35 |
| | | | | | 43.8 | | | | | | | | | + .41 |
| | | | | | 42.5 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | +33.74 | | 1 43.56 |
| | $\alpha_2$ | | | | | | | | | | | | | − 19 |
| | | | | | | | | | | | | | | 1 43.37 |
| 6 | 3 27 | 51 30 | 8.2 | 2 | 40.6 | 58.5 | 2.4 | 5.4 | 8.5 | 12.2 | 3270 | 5.40 | 3 | 5.40 |
| | 2 13.0 | 51 28.8 | 8.8 | | 42.3 | | | | | | | | | +30.10 |
| | κ | | | | 44.0 | | | | | | | | | + .54 |
| | | | | | 42.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | +32.70 | | + 8 |
| | $\alpha_1$ | | | | | | | | | | | | | 3 36.10 |
| | | | | | | | | | | | | | | − 26 |
| | | | | | | | | | | | | | | 3 ~~36.84~~ 39.84 |
| | | | 8.9 | 2 | 41.7 | 57.7 | 1.0 | 4.3 | 7.6 | 11.0 | 3216 | 4.32 | 3 | 4.32 |
| | κ | | | | 42.8 | | | | | | | | | +33.35 |
| | | | | | 44.1 | | | | | | | | | + .40 |
| | | | | | 42.9 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | +33.73 | | 3 38.05 |
| | $\alpha_2$ | | | | | | | | | | | | | − 20 |
| | | | | | | | | | | | | | | 3 37.85 |
| 5 | 5 48 | 51 01 | 8.8 | 4 | 48.9 | 5 14.2 | 22.7 | 25.4 | 28.2 | 32.4 | 1294 | 25.88 | 5 | 25.88 |
| | 4 33.7 | 50 59.5 | 9.2 | | 50.6 | | | | | | | | | +30.10 |
| | κ | | | | 32.8 | | | | | | | | | + .53 |
| | | | | | 50.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | +32.69 | | + 8 |
| | $\alpha_1$ | | | | | | | | | | | | | 5 54.57 |
| | | | | | | | | | | | | | | − 28 |
| | | | | | | | | | | | | | | 5 ~~56.29~~ 58.29 |
| | | | 9.0 | 5 | 6.3 | 5 18.2 | 21.3 | 24.9 | 28.2 | 31.4 | 1240 | 24.80 | 5 | 24.80 |
| | κ | | | | 7.5 | | | | | | | | | +33.35 |
| | | | | | 8.9 | | | | | | | | | + .40 |
| | | | | | 7.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | +33.73 | | 5 58.53 |
| | $\alpha_2$ | | | | | | | | | | | | | − 22 |
| | | | | | | | | | | | | | | 5 58.31 |
| 5 | 7 19 | 50 27 | 9.2 | 6 | 26.7 | 6 49.8 | 53.2 | ~~55.9~~ | 58.5 | 2.7 | 2811 | 56.22 | 6 | (56.80) |
| | 6 5.3 | 50 25.7 | 9.2 | | 28.6 | | | | | | | | | +30.10 |
| | κ | | | | 30.3 | | | | | | | | | + .52 |
| | | | | | 31.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | 29.3 | | | | | | | +32.68 | | + 8 |
| | $\alpha_1$ | | | | | | | | | | | | | 7 26.98 |
| | | | | | | | | | | | | | | − 29 |
| | | | | | | | | | | | | | | 7 ~~26.69~~ 28.69 |
| | | | 9.2 | 6 | 39.1 | 6 48.5 | 51.7 | 53.0 | 58.2 | 1.3 | 2746 | 54.92 | 6 | 54.92 |
| | κ | | | | 40.6 | | | | | | | | | +33.35 |
| | | | | | 42.7 | | | | | | | | | + .39 |
| | | | | | 40.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | +33.72 | | 7 28.64 |
| | $\alpha_2$ | | | | | | | | | | | | | − 23 |
| | | | | | | | | | | | | | | 7 28.41 |
| 5 | 9 1 | 50 33 | 8.8 | 8 | 1.0 | 8 32.4 | 35.5 | 38.7 | 42.1 | 45.5 | 1942 | 38.84 | 8 | 38.84 |
| | 7 47.1 | 50 31.8 | 8.9 | | 2.6 | | | | | | | | | +30.10 |
| | κ | | | | 5.0 | | | | | | | | | + .52 |
| | | | | | 2.9 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | +32.68 | | + 8 |
| | $\alpha_1$ | | | | | | | | | | | | | 9 9.52 |
| | | | | | | | | | | | | | | − 30 |
| | | | | | | | | | | | | | | 9 ~~9.22~~ 11.22 |
| | | | 8.4 | 8 | 12.3 | 8 31.4 | 34.5 | 37.9 | 41.1 | 44.4 | 1893 | 37.86 | 8 | 37.86 |
| | κ | | | | 15.6 | | | | | | | | | +33.35 |
| | | | | | 17.6 | | | | | | | | | + .39 |
| | | | | | 15.2 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | +33.72 | | 9 11.58 |
| | $\alpha_2$ | | | | | | | | | | | | | − 25 |
| | | | | | | | | | | | | | | 9 11.33 |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| d | +21.3 | 1 3.1 | 47.7 | 46 | 55.40 | 51 41 | 52.95 | | 40 | 51 39 39.65 | |
| | 1.32838 | | | | | 39 22.40 | | | | − .12 | +10.76 |
| | 9.79272 | | | | | + 17.25 | | | | + 3 | |
| | 1.23681 | | | | | | 39 39.65 | | | +10.45 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −13.30 | |
| $\delta_1$ | | | | | | | | | | 39 37.41 | |
| d | +27.3 | 1 16.4 | 47.9 | 26 | 12.15 | 51 56 | 36.20 | | 25 | 54 27.73 | |
| | 1.43616 | | | | | 54 5.64 | | | | − .20 | +10.50 |
| | 9.79031 | | | | | + 22.09 | | | | + 4 | |
| | 1.34218 | | | | | | 54 27.73 | | | +10.26 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + .40 | |
| +9.44 | | | | | | | | | | −13.30 | |
| +0 10.08 $\delta_2$ | | 1 52.81 | | 54 35.0 | | | | | | 54 24.93 | |
| d | +23.1 | 0 26.9 | 11.8 | 50 | 19.35 | 51 32 | 29.00 | | 50 | 51 30 17.22 | |
| 08 | 1.36361 | | | | | 29 58.45 | | | | − .14 | +10.48 |
| | 9.79415 | | | | | + 18.77 | | | | + 1 | |
| | 1.27347 | | | | | | 30 17.22 | | | +10.21 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.40 | | | | | | | | | | −12.90 | |
| 34 +0 9.74 $\delta_1$ | | 3 47.24 | | 30 24.5 | | | | | | 30 14.80 | |
| d | +21.4 | 0 19.9 | 12.1 | 50 | 16.00 | 51 32 | 32.35 | | 50 | 19.18 | |
| | 1.33041 | | | | | 30 1.79 | | | | − 12 | +10.12 |
| | 9.79415 | | | | | + 17.39 | | | | + 1 | |
| | 1.24027 | | | | | | 30 19.18 | | | +9.83 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.40 | | | | 25 | | | | | | −13.25 | |
| +0 9.74 $\delta_2$ | | 3 47.25 | | 30 24.8 | | | | | | 30 16.05 | |
| d | +35.1 | 4 56.0 | 41.1 | 19 | 48.55 | 51 2 | 59.80 | | 15 | 51 0 58.08 | |
| 08 | 1.54631 | | | | | 0 29.25 | | | | − 33 | +9.92 |
| | 9.79887 | | | | | + 28.83 | | | | + 14 | |
| | 1.45789 | | | | | | 0 58.08 | | | +9.71 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.36 | | | | | | | | | | −12.75 | |
| 29 +0 9.32 $\delta_1$ | | 6 7.65 | | 1 4.6 | | | | | | 0 55.25 | |
| d | +17.2 | 4 35.2 | 27.1 | 19 | 31.15 | 51 3 | 17.20 | | 15 | 1 0.76 | |
| | 1.23553 | | | | | 0 46.64 | | | | − 8 | +9.75 |
| | 9.79872 | | | | | + 14.12 | | | | + 14 | |
| | 1.14996 | | | | | | 1 0.76 | | | +9.29 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.36 | | | | | | | | | | −13.05 | |
| +0 9.32 $\delta_2$ | | 6 7.67 | | 1 6.8 | | | | | | 0 57.46 | |
| d | +27.0 (?) | 5 1.5 | 45.2 | 57 | 53.35 | 50 29 | 55.00 | | 50 | 50 27½ 46.89 | ex min |
| | (1.43136) | | | | | 27½ 24.45 | | | | − .20 | +9.32 |
| | 9.80397 | | | | | + 22.44 | | | | + 9 | |
| | 1.35104 | | | | | | 27 46.89 | | | + 9.08 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + .35 | |
| +9.30 | | | | | | | | | | −12.60 | |
| 69 +0 9.10 $\delta_1$ | | 7 37.99 | | 26 52.7 | 42.80 | | | | | 27½ 43.61 | |
| d | +14.1 | 3 ~~44.7~~ 47.7 | 37.98 ~~47.98~~ | 52 | ~~41.30~~ 48.35 | 50 29 | (7.05 ~~5.55~~) | | 50 | 26 46.71 | ex min |
| | 1.14922 | | | | | 26 (36.49) | 34.99 | | | − 5 | +9.10 |
| | 9.80397 | | | | | + 11.72 | | | | + 11 | |
| | 1.06890 | | | | | | ~~26 48.21~~ | | | +8.69 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + .35 | |
| +9.30 | | | | | | | | | | −12.90 | |
| +0 9.10 $\delta_2$ | | 7 37.71 | | 26 52.0 | | | | | | 26 42.91 | |
| d | +35.9 | 2 32.2 | 17.2 | 47 | 24.70 | 50 35 | 23.65 | | 45 | 50 33 22.87 | |
| | 1.55509 | | | | | 32 53.10 | | | | − 35 | +9.29 |
| -02 | 9.80305 | | | | | + 29.77 | | | | + 7 | |
| | 1.47385 | | | | | | 33 22.87 | | | +9.19 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| +9.31 | | | | | | | | | | −12.60 | |
| 22 +0 8.80 $\delta_1$ | | 9 20.53 | | 33 28.4 | | | | | | 33 19.54 | |
| d | +22.7 | 2 15.1 | 6.3 | 47 | 10.70 | 50 35 | 37.65 | | 45 | 25.92 | |
| | 1.35603 | | | | | 33 7.09 | | | | − 14 | +9.10 |
| | 9.80305 | | | | | + 18.83 | | | | + 7 | |
| | 1.27479 | | | | | | 33 25.92 | | | +8.79 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| +9.31 | | | | | | | | | | −12.90 | |
| +0 8.80 $\delta_2$ | | 9 20.64 | | 33 30.9 | | | | | | 33 22.12 | |

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

1873phae.proj.1582R

212

Date$_1$ = / Feb. 2 Observer / Recorder

Date$_2$ = Feb. 5 Observer / Recorder

214

52

single Observations

Run

| Star. α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4h 42m 13s | 50° 56' | 8.8 | 41m 13.0 | 41m 23.9 | 27.2 | 30.5 | 33.7 | 37.1 | 1524 | 30.48 | 41s | 30.48 |
| 40 | 54.4 | 8.7 | 14.4 | | | | | | | | | +30.09 |
| Fsb. 2 κ 40.0 | 50 15.9 | | 14.6 | | | | | | | | | + .53 |
| | | | 14.7 | | | | | | | | | − 2 |
| ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.68 | | + 8 |
| | | | | | | | | | | | 42 | 1.16 |
| $a_1$ | | | | | | | | | | | | − 6 |
| | | | | | | | | | | | 42 | +10 3.10 |
| 4 46 08 | 51 32 | 8.9 | 45 25.8 | 45 23.4 | 26.6 | 29.6 | 33.1 | 36.5 | 1490 | 29.80 | 45 | 29.84 |
| 44 54.6 | 51 30.0 | 8.9 | 25.8 | | | | | | | | | +30.09 |
| Fsb. 2 κ | | | | | | | | | | | | + .52 |
| | | | | | | | | | | | | − 2 |
| ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.67 | | + 8 |
| | | | | | | | | | | | 46 | 0.51 |
| $a_2$ | | | | | | | | | | | | − 10 |
| | | | | | | | | | | | 46 | 0.41 241 |
| 4 56 31 | 51 44 | 9.5 | 53- 37.3 | 53- 51.6 | 54.7 | | 1.5 | 4.7 | | | 55 | 58.12 |
| 55 17.6 | 32.5 | 9.0 | 39.4 | | | | | | | | | +33.34 |
| Fsb. 5 κ 6.4 | | | 38.4 | | | | | | | | | + .54 40 |
| | | | | | | | | | | | | − 2 |
| ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.86 72 | 56 | 31.98 84 |
| | | | | | | | | | | | | − 14 |
| $a_1$ | | | | | | | | | | | 56 | 31.84 70 |
| 4 58 36 | 51 54.? | 8.7 | 57 42.7 | 58 6.4 | 10.2 | 13.7 | 17.0 | 20.2 | 680 | 13.60 | 58 | 13.60 |
| 57 22.0 | 51 40.6? | 9.1 | 51.0 | | | | | | | | | +33.34 |
| Fsb. 5 κ | 48.9 | | 52.3 | | | | | | | | | + .55 41 |
| | | | 31.0 | | | | | | | | | − 2 |
| ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.87 73 | 58 | 47.47 33 |
| | | | | | | | | | | | | − 16 |
| $a_2$ | | | | | | | | | | | 58 | 47.37 17 |
| 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) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $a_2$ | | | | | | | | | | | | |
| 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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +15.8 | 2′ 7.0″ | 52.1″ | 1′ | 5′9.55 | 50 20 | 48.80 | | 0″ | 50 18 31.42 | |
| | 1.19866 | | | | | 18 | 18.25 | | | − 7 | +9.26 |
| d | 9.80534 | | | | | | + 13.17 | | | + 6 | |
| | 1.81971 | | | | | | | 18 31.42 | | +8.91 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| | | | | | | | | | | −12.90 | |
| +9.18 $\delta_1$ | | 42 12.28 | | 18 41.1 | | | | | | 18 27.78 | |
| +0 1330 | | | | | | | | | | | |
| | +4.0 | 0 51.9 | 36.3 | 45″ | 44.10 | 50 37 | 4.25 | | 45″ | 50 35 6.85 | |
| | 0.60206 | | | | | 34 | 33.70 | | | − 1 | +9.6×2 |
| d | 9.80274 | | | | | | + 33.15 | | | + 3 | |
| | 0.52051 | | | | | | | 35 6.85 | | +9.22 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| | | | | | | | | | | −12.95 | |
| $\delta_2$ | | | | | | | | | | 35 3.52 | |
| | +19.7 | 4 28.1 | 18.9 | 34 | 23.50 | 51 48 | 24.85 | | 30 | 51 46 10.20 | |
| | 1.29447 | | | | | 45 | 54.29 | | | − 11 | +10.54 |
| d | 9.79160 | | | | | | + 15.91 | | | + 13 | |
| | 1.20178 | | | | | | | 46 10.20 | | +10.12 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | 3 | | | | | | + 40 | |
| | | | | | | | | | | −13.40 | |
| +9.39 $\delta_1$ | | 56 41.09 | | 46 18.2 | | | | | | 46 7.34 | |
| +0 10.92 | | | | | | | | | | | |
| | +22.6 | 0 42.0 | 34.8 | (38 0) | 38.40 | 51 5 | 9.95 | | 30 | 51 48 57.63 | |
| | 1.35411 | | | | | 2 | | | | | |
| d | 9.79111 | | | | | 48 | 39.39 | | | − 14 | +10.46 |
| | 1.26093 | | | | | | + 18.24 | | | + 2 | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | 48 57.63 | | +10.18 | |
| | | | | | | | | | | + 40 | |
| +9.43 $\delta_2$ | | 58 56.60 | | 50 5.2 | | | | | | −13.40 | |
| +0 10.56 | | | | | | | | | | 48 54.69 | |
| | | | | | | | | | | 9 | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| $((\delta) - D)\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |

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

1873phae.proj.1582R

Date$_1$ = Feb. 2 (212) Observer Jan. 28 (211) Recorder n = +.32 Date$_2$ = Feb. 4 (213) Observer Recorder n = +.37 C = −.44 54 Ru

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 52m 16 | 50° 07 | 9.5 | 52 1.4 s | 51 45.9 s | 42.5 s | | | | | | 51 | 52.3 s |
| | 51 5.1 | 50 4.0 | 9.4 | 3.7 | | | | | | | | | +30.06 |
| | κ | | | 7.4 | | | | | | | | | + .57 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 51 8.0 | | | | | | | +32.63 | | + 8 |
| | | | | 36.1 | | | | | | | | 52 | 23.00 22.98 |
| | $c_1$ | | | 38.3 | | | | | | | | | + 40 |
| | | | | 36.5 | | | | | | | | 52 | 25.52 40 25.38 |
| | | | 9.5 | 52 1.9 | 51 45.3 | 48.5 | 57.6 | 54.9 | 1.84 | 2587 | 51.74 | 51 | 51.74 |
| | | | | 8.7 | | | | | | | +33.00 | | + 32.64 |
| | κ | | | 5.4 | | | 5x² 25106 | Feb 4 | | 5x² 25096 | Jan 28 | | + .44 |
| Jan 28 | | | 9.5 | 3.7 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 51 34.3 | 51 47.0 | 50.5 | 53.7 | 57.1 | 0.6 | 2682 | 53.64 | 51 | 53.68 + 45 52.24.74 |
| | | | | 34.3 | | | | | | | +31.10 | | +30.74 |
| | $\alpha_2$ | | | | | | | | | | | | + .38 |
| | | | | | | | | | | | | | − 2 52 24.78 |
| 3 | 53 51 | 51 46 | 9.4 | 53 10.9 | 53 22.2 | 25.3 | 28.9 | 32.2 | 35.6 | 1442 | 28.84 | 53 | 28.84 + 28 |
| | 52 40.1 | 43.0 | 9.0 | 12.4 | | | | | | | | | +38.07 |
| | κ | | | 13.5 | | | | | | | | | + .55 |
| | | | | 12.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.68 | | + 8 |
| | | | | | | | | | | | | 53 | 59.52 |
| | $\alpha_1$ | | | | | | | | | | | | + 39 |
| | | | | | | | | | | | | 54 | 1.91 |
| | | | 9.8 | 53 0.3 | 53 21.7 | 25.2 | 28.4 | 31.8 | 35.4 | 1425 | 28.50 | 53 | 28.50 |
| | | | | 1.7 | | | | | | | +33.04 | | +32.65 |
| | κ | | | 4.0 | | | 54 1.98 | Feb 4 | | 54 1.68 | Jan 28 | | + .47 |
| Jan 28 | | | 9.2 | 2.0 | | | | | | | | | − 2 54 1.54 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 53 18.4 | 53 ~~26.0~~ 23.5 | 26.9 | 30.5 | 33.5 | 37.0 | | +31.13 | 53 | 30.28 + 44 |
| | | | | 20.4 | | | | | | | | | +30.74 |
| | $\alpha_2$ | | | 22.0 | | | | | | | | | + .41 |
| | | | | 20.3 | | | | | | | | | − 2 54 1.41 |
| 3 | 55 26 | 52 28 | 8.8 | 54 40.7 | 54 50.8 | 54 54.4 | 57.7 | 1.1 | 4.5 | 2885 | 57.70 | 54 | 57.70 + 27 |
| | 54 9.3 | 52 24.8 | 9.1 | 42.4 | | | | | | | | | +38.07 1.68 |
| | κ | | | 43.8 | | | | | | | | | + .56 |
| | | | | 42.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +32.69 | | + 30 8 |
| | | | | | | | | | | | | 55 | 28.39 |
| | $\alpha_1$ | | | | | | | | | | | | + 38 |
| | | | | | | | | | | | | 55 | 30.77 |
| Arb 4 last | | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | | | | 54 36.9 | 54 52.4 | 56.0 | 59.2 | 2.9 | 6.4 | 2969 | 59.38 | 54 | 59.38 |
| Jan 28 | ((δ) − D) $\frac{\kappa'}{100}$ | | 9.2 | 38.4 | | | | | | | +31.14 | | +30.74 |
| | | | | 39.9 | | | | | | | | | + .42 |
| | $\alpha_2$ | | | 38.4 | | | | | | | | | − 2 |
| | | | | | | | | | | | 30.78 | 55 | 30.52 |
| 3 | 57 06 | 52 56 | 8.9 | 56 21.2 | 56 31.8 | 35.2 | 38.4 | 41.9 | 45.2 | 1925 | 38.50 | 56 | 38.50 |
| | 55 49.3 | 52 53.0 | 9.0 | 22.5 | | | | | | | | | +38.07 |
| | κ | | | 23.7 | | | | | | | | | + .57 |
| | | | | 22.5 | | | | | | | +32.70 | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | + 8 |
| | | | | | | | | | | | | 57 | ~~11.20~~ 11.20 |
| | $\alpha_1$ | | | | | | | | | | | | + 36 |
| | | | | | | | | | | | | 57 | ~~12.56~~ 11.56 |
| | | | 8.8 | 56 7.8 | 56 31.3 | 34.5 | 38.2 | (41.6) | 44.7 | 1887 | 37.54 | 56 | ~~37.74~~ 37.06 |
| | | | | 9.3 | | | | | | | | | +32.65 |
| | κ | | | 10.5 | | | | | | | +33.05 | | + .49 |
| Jan 28 | | | 9.1 | 8.4 | | | 57 | 57 | Feb 4 | 57 | 11.62 | Jan 28 | − 2 57 10.79 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 56 17.3 | 56 33.3 | 36.7 | 40.3 | 43.7 | 47.2 | 2012 | 40.24 | 56 | 40.24 + 41 |
| | | | | 19.2 | | | | | | | | | +30.74 |
| | $\alpha_2$ | | | 2CC 19.4 | | | | | | | +31.14 | | + .42 |
| | | | | | | | | | | | | | − 2 57 11.38 |
| 3 | 58 ~~22.9~~ | 50 13 | 9.6 | 57 47.4 | 58 5.0 | 7.8 | 11.5 | 14.5 | 18.0 | 568 | 11.36 | 58 | 11.36 4 24 |
| | 57 ~~7.6~~ | 52 ~~9.6~~ | 9.0 | 48.8 | | | | | | | | | +38.07 |
| | κ 23.6 | | | 48.1 | | | | | | | | | + .51 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | + 8 58 42.00 4 |
| | | | | | | | | | | | +32.64 | | + 41 |
| | $\alpha_1$ | | | | | | | | | | | 58 | 44.41 |
| Arb 4 last | | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| Jan 28 | | | 9.4 | 58 4.5 | 58 6.4 | 9.4 | 12.7 | 16.5 | 19.5 | 645 | 12.90 | 58 | 12.90 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | +30.74 |
| | | | | | | | | | | | +31.11 | | + .39 |
| | $\alpha_2$ | | | | | | | | | | | | − 4 2 |
| | | | | | | | | | | | | 58 | 43.01 |
| | | | | | | | | | | | | | + 23 |
| | | | | | | | | | | | | 58 | 44.24 |

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

1873phae.proj.15828

Feb. 4 -2' 31.48 +.03
Jan. 28 -2 31.76 +.03

55

Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +15.9 | 3′ 24.9 | 10.3 | 13 | 1.60 | 50 9 | 30.75 | | 10 | 50 7 13.51 | |
| | 1.20140 | | | | | 7 | 0.20 | | | − 7 | +9.05 |
| d | 9.80701 | | | | | | +13.31 | | | + 10 | |
| | 1.12412 | | | | | | | 7 13.51 | | +8.67 | |
| 63 | | | | | | | | | 10 | + 35 | |
| 73 ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | −12.95 | |
| 27 | | | | | | | | | | 7 9.61 | |
| +8.86 $\delta_1$ | | 52 34.42 | | 7 30.8 | | | | | | | |
| +0 21.16 | | 7 | | | | | | | | | |
| | +48.0 | 2 5.61 | 48.0 | 12 | | 50 9 | 58.80 | 7 15.28 | 10 | 15.28 | 11.23 |
| | −12.0 | | | | | 7 | 25.32 | | | − 4 | − 10 |
| d | 1.07918 | | | | | | −10.04 | | | + 9 | + 10 |
| | 9.80701 | 1.00190 | | | | | | | | +7.88 | +8.82 |
| +8.86 | +19.4 | 3 26.4 | 16.8 | 13 | 2.60 | 50 9 | 26.75 | 7 11.23 | 10 | + 35 | + 30 |
| +0 21.16 ((δ) − D) $\frac{d'}{100}$ | 1.28780 | 50 7 15.28 | 507 11.23 | | | 6 | 54.99 | | | −12.95 | −12.90 |
| $\delta_2$ | 9.80701 | + 5.28 | + 8.62 | 7 30.8 | | | +16.24 | | | 7 9.61 | 7.15 |
| | 1.21052 | 52 34.08 | 5233.92 | 28.3 | | | | | | 9 | |
| +8.86 | +16.5 | 4 30.8 | 15.1 | 34 | 22.95 | 51 48 | 25.40 | | 30 | 51 46 8.18 | |
| +0 21.16 | 1.21748 | | | | | 45 | 54.85 | | | − 7 | +11.02 |
| 24 d | 9.79160 | | | | | | +13.33 | | | + 13 | |
| 58 | 1.12479 | | | | | | | 46 8.18 | | +10.56 | |
| 79 ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.04 | | | | | | | | | | −1345 | |
| +0 20.94 $\delta_1$ | | 54 10.95 | | 46 26.7 | | | | | | 46 5.75 | |
| | +26.5 | 4 31.0 | 25.7 | 34 | 28.35 | 51 48 | 20.00 | 46 9.93 | 30 | 9.93 | 9.77 |
| +9.04 | 1.42325 | 54 11.02 | | 46 27.2 | | 45 | 48.52 | | | − 18 | − 3 |
| +0 20.94 d | 9.79160 | 10.72 | | 27.0 | | | +21.41 | | | + 13 | + 13 |
| 1.54 | 1.33056 | | | | | | | | | +9.58 | +9.03 |
| 44 ((δ) − D) $\frac{d'}{100}$ | +10.0 | 4 19.9 | 9.9 | 34 | 14.90 | 51 48 | 33.45 | 46 9.77 | 20 | + 40 | + 38 |
| | 1.00000 | 9.93 | | 8.77 | | 46 | 1.69 | | | −13.55 | −13.20 |
| +9.04 $\delta_2$ | 9.79160 | +9.93 | | +9.51 | | | + 8.08 | | | 46 6.31 | 6.08 |
| +0 20.94 | 0.90731 | | | | | | | | | | |
| 1.41 | | | | | | | | | | | |
| 27 | +15.4 | 2 40.8 | 25.1 | 52 | 32.95 | 52 30 | 15.40 | | 50 | 52 27 57.10 | |
| 1.68 | 1.18752 | | | | | 27 | 44.85 | | | − 6 | +11.79 |
| d | 9.78478 | | | | | | +12.25 | | | + 8 | |
| | 1.08801 | | | | | | | 27 57.10 | | +11.37 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.12 | | | | | | | | | | −1365 | |
| +0 20.70 $\delta_1$ | | 55 39.89 | | 28 15.9 | | | | | | 27 55.24 | |
| | | | | | | | | | | 28 55.04 | 0.04 |
| d | | | | | | | | | | − 12 | +11.26 |
| | | | | | | | | | | + 8 | |
| 66 | +21.0 | 2 39.0 | 27.5 | 52 | 31.25 | 52 30 | 18.10 | 27 55.04 | 50 | +10.90 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.32222 | .90 | | | | 27 | 58.34 | | | + 40 | |
| | 9.78478 | | | | | | +16.70 | | | −13.40 | |
| +9.12 $\delta_2$ | 1.22271 | 55 39.64 | | 28 18.6 | | | | | | 27 52.90 | 57.90 |
| +0 20.70 | | | | | | | | | | | |
| | +16.0 | 4 39.7 | 22.9 | 24 | 31.40 | 52 58 | 16.95 | | 20 | 52 58 58.99 | |
| d | 1.20412 | | | | | 55 | 46.40 | | | − 7 | +12.37 |
| | 9.78013 | | | | | | +12.59 | | | + 14 | |
| | 1.09996 | | | | | | | 58 58.99 | | +11.90 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.19 | | | | | | | | | | −1380 | |
| +0 20.46 $\delta_1$ | | 57 20.75 | | 56 18.0 | | | | | | 55 57.56 | |
| | +28.8 (?) | 4 42.7 | 33.5 | 24 | 38.10 | 52 58 | 10.25 | 56 14.32 | 0 | 56 1.43 | 55 59.45 |
| +9.19 | (1.45987) | | | | | 55 | 38.77 | | | − 22 | +11.13 − 12 +11.84 |
| +0 20.46 d | 9.78013 | 57 20.81 | | 56 19.2 | | | +22.66 | | | + 14 | + 14 |
| 2.79 | 1.35523 | 20.71 | | 18.2 | | | | | | +10.81 | +11.42 |
| 41 ((δ) − D) $\frac{d'}{100}$ | +20.8 | 4 39.1 | 27.9 | 24 | 33.50 | 52 58 | 14.85 | 55 59.45 | 20 | + 40 | + 40 |
| | 1.31806 | 52 56.143 | 52 55 59.45 | | | 55 | 43.09 | | 9 | −13.80 | −13.50 |
| +9.19 $\delta_2$ | 9.78013 | +11.13 | +11.84 | | | | +16.36 | | | 55 58.76 | 55 57.79 |
| +0 20.46 | 1.21390 | | | | | | | | | | |
| 11.38 | | | | | | | | | | | |
| 24 | +23.3 | 0 29.9 | 14.0 | 5 | 2.95 | 50 17 | 26.40 | | 5 | 50 15 15.30 | |
| | 1.36736 | | | | | 14 | 55.85 | | | − 14 | +9.05 |
| d | 9.80580 | | | | | | +19.45 | | | + 1 | |
| | 1.28887 | | | | | | | 15 15.30 | | +8.83 | |
| 2.00 ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 85 | |
| 41 | | | | | | | | | | −13.05 | |
| +8.89 $\delta_1$ | | 58 53.30 | | 15 31.6 | | | | | | 15 14.30 | 11.30 |
| +0 20.26 | | | | | | | | | | 3 | |
| | | 0 47.1 | | | | | | | | 14.50 | |
| | | | | | | | | | | − 2 | +8.80 |
| d | | | | | | | | | | 0 | |
| | | | | | 10.10 | | | 15 12.50 | 5 | +8.47 | |
| ((δ) − D) $\frac{d'}{100}$ | +84 | 0 17.1 | 34 | 5 | | 50 17 | 38.25 | | | + 35 | |
| | 0.92428 | | | | | 15 | 18.49 | | | −12.80 | |
| +8.89 $\delta_2$ | 9.80580 | 58 53.13 | | 15 29.8 | | | +7.01 | | | 15 8.50 | 9.55 |
| +0 20.26 | 0.84579 | | | 15 29.8 | | | | | | 9 | |

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

1873phae.proj.1582R

Date$_1$ = Feb. 2 (212, 211 Jan. 28) Observer / Recorder — Date$_2$ = Feb. 4 (213) Observer / Recorder — 56

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 41 | 3 43 / 2 31.8 | 50 07 / 4.8 | 9.0 / 8.7 | 2 50.2, 51.8, 53.4, 51.8 | 3 13.4 | 16.5 | 19.7 ✓ | 23.0 | 26.3 | 989 | 19.78 | +32.64 | 3 19.78, +30.07, +.51, −2, +28, 3 50.42, +29, 3 52.71 |
| | 4 2 22 | | 9.0 | 2 28.6, 30.6, 32.1, 30.4 | 2 42.8 | 46.7 | | | | | | | 3 49.57, +32.65, +.44, −2, 3 22.54 + 34 |
| Jan 28 | κ | | 8.9 | 3 5.3, 0.6, 3.0, 1.0 | 3 14.9 | 18.2 | 21.3 | 24.5 | 27.6 | 1065 | 21.30 | +31.10 | 3 21.30, +30.74, +.38, −2, 3 52.40 |
| | 4 2 31.8 | | | | | | | | | | | | |
| | 4 4 20 / 3 8.1 | 51 30 / 37.0 | 8.7 / 8.5 | 4 4.7, 6.4, 8.4, 6.5 | 3 50.2 | 53.6 | 57.0 ✓ | 0.1 | 3.6 | 2845 | 56.90 | +32.67 | 3 56.90, +38.07, +.58, −2, +28, 4 27.55, +29, 4 29.86 |
| | 6 48 | 6 48 | 9.0 | 4 21.7, 23.2, 23.2, 23.4 | 3 46.4 | 49.4 | 52.9 | 56.1 | 59.4 | 2642 | 52.84 | +33.04 | 3 52.84, +32.65, +.47, −2, 4 25.88 |
| Jan 28 | κ | | 9.1 | 4 3.9, 3.9 | 3 52.0 | 55.3 | 58.2 | 1.8 | 5.2 | 2925 | 58.50 | +31.12 | 3 58.50, +30.74, +.40, −2, 4 29.62 |
| | 4 8 34 / 7 22.2 | 49 59 / 49 56.0 | 4.0 / 4.8 | 7 44.5, 45.8, 47.4, 45.9 | 8 2.9 | 6.1 | 9.1 | 12.4 | 15.3 | 458 | 9.16 | +32.66 | 8 9.16, +30.07, +.51, −2, +28, 8 42.05 |
| | 9 37 / 11 11 / 12 18 | | 5.0 | 7 30.1, 31.3, 33.4, 31.7 | 8 2.4 | 5.6 | 8.8 | 12.1 | 15.1 | 440 | 8.80 | +33.01 | 8 8.80, +32.65, +.44, −2, +26, 8 41.81, +29, 8 42.10 |
| | 4 13 34 / 12 22.3 | 50 29 / 26.2 | 9.2 / 8.8 | 12 54.9, 57.2, 58.5, 56.9 | 13 4.6 | 7.6 ✓ | 11.2 | 14.1 | 17.4 | 549 | 10.98 | +32.65 | 13 10.98, +30.07, +.52, −2, +28, 13 42.63, +20, 13 43.83 |
| | | | 9.4 / 8.9 | ~~12 55.3~~, 13 6.2, ~~58.3~~, 13 6.2 | 4.1 | 7.0 / ~~7.0~~ | 10.4 / ~~10.6~~ | 13.8 | 17.0 | 523 | 10.46 | +33.02 | 13 10.46, +32.65, +.45, −2, +26, 13 43.48, +25, 13 43.73 |
| | 4 14 45 / 13 32.9 | 50 33 / 30.2 | 6.8 / 6.9 | 13 54.4, 56.1, 58.1, 56.4 | 14 15.3 ✓ | 18.5 | 21.8 | 25.0 | 28.3 | 1089 | 21.78 | +32.65 | 14 21.78, +30.07, +.52, −2, +28, 14 54.43, +19, 14 54.62 |
| | | | 7.5 | 13 51.0, 52.2, 53.4, 52.2 | 14 14.9 | 18.1 | 21.3 | 24.6 | 27.8 | 1067 | 21.34 | +33.02 | 14 21.34, +32.65, +.45, −2, +26, 14 54.36, +23, 14 54.59 |

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

1873phae.proj.1582R



Runs

Jan 28

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +28.0 | 3 6.5 | 52.9 | 12 | 59.70 | 50 9 | 48.65 | | 10 | 50 7 41.64 | |
| | 1.44716 | | | | | 7 | 18.10 | | | − 21 | +8.90 |
| d | 9.80701 | | | | | | +23.44 | | | + 9 | |
| | 1.36988 | | | | | | | 7 41.54 | | +8.67 | |
| +8.94 ((δ) − D) d′/100 | | | | | | | | | | + 35 | |
| | | | | | | | | | | −1300 | |
| +0 19.44 δ₁ | | 4 1.65 | | 7 56.9 | | | | | | 7 37.44 ✓ | |
| | +19.2 | 1 39.0 | 31.0 | 16 | 35.80 | 50 6 | 13.35 | 3 57.9615 | | 3 57.96 | 8 ~~50.96~~ 41.18 |
| 52 | 1.28330 | 3 31.86 | | 4 13.4 | | 3 | 41.87 | | | − 10 | − 43 |
| +8.94 | 9.80746 | 4 1.52 | | 7 56.2 | | | +16.09 | | | + 5 | +9.13 + 9 +8.28 |
| 58 +0 19.44 d | 1.20647 | | | | | | | | | + 8.83 | + 8.02 |
| 34 +20.3 | +30.3 | 2 57.6 | 47.2 | 12 | 52.40 | 50 9 | 55.95 | 6 50.9610 | | + 35 | + 30 |
| 1.30750 ((δ) − D) d′/100 | −9.7 | | 3 57.6 | 6 50.96 | | 7 | 24.19 | | | −13.10 | − 12.75 |
| 9.80701 | 1.59879ₙ | | +9.13 | +8.28 | | | ~~33.23~~ +16.99 | | | 3 ~~54.09~~ | 67 46.49 ✓ |
| 40 1.23022 δ₂ | 9.80701 | 1.52151ₙ | | | | | | | | 53.99 | 36.71 |
| 18 | +50.3 | 0 16.1 | 0.9 | 50 | 8.50 | 51 32 | 39.85 | | 50 | 51 30 1.50 | |
| 2.58 | − 9.6 | | | | | 30 | 9.30 | | | − 3 | +10.63 |
| +8.94 | 0.98227ₙ | | | | | | − 7.80 | | | 0 | |
| +0 19.44 d | 9.79415 | | | | | | | 30 1.50 | | +10.26 | |
| ((δ) − D) d′/100 | 0.89213ₙ | | | | | | | | | + 40 | |
| | | | | | | | | | | −1340 | |
| +9.09 | | 4 38.95 | | 30 18.1 | | | | | | 29 58.73 | |
| +0 19.34 δ₁ | | | | | | | | | | Jan 28 Feb 24 | |
| | ~~+29.4~~ | 0 17.9 | 9.9 | 5.5 | 13.90 | 51 27 | 34.45 | 24 38.0655 | | 1.55 | 24 38.06 ✓ |
| | − 30.6 | 4 35 30 | | 30 16.9 | | 25 | 2.97 | | | − 25 | − 1 |
| 60 d | 1.48572ₙ | 38.88 | | 24 54.4 | | | − 24.91 | | | + 1 | 0 |
| 5.88 | 9.79494 | 1.39637ₙ | | | | | | | | +9.31 | + 9.75 |
| 33 +9.09 ((δ) − D) d′/100 | +54.6 | 0 16.0 | 5.3 | 50 | 10.65 | 51 32 | 37.70 | 30 1.5550 | | + 40 | + 38 |
| +0 19.34 | − 5.4 | | 7.65 | 24 38.06 | | 30 | 5.94 | | | −1300 | −1310 |
| δ₂ | 0.73239ₙ | | +9.47 | +10.12 | | | − 4.39 | | | 29 57.52 | 24 35.08 ✓ |
| 9.62 17 | 9.79415 | 0.64225ₙ | | | | | | | | | |
| | +23.3 | 1 56.9 | 48.9 | | | | | | 20 | 49 58 54.46 | = |
| +9.09 +0 19.34 | 1.36786 | 1 49.9 | 35.9 | 21 | 42.90 | 50 1 | 5.45 | | | − 14 | +8.80 |
| 36 d | 9.80822 | | | | | 49 58 | 34.90 | | | + 5 | |
| | 1.29129 | | | | | | +19.56 | | | +8.54 | |
| ((δ) − D) d′/100 | | | | | | | | 58 54.46 | | + 35 | |
| +8.96 | | | | | | | | | | −1300 | |
| +0 18.70 δ₁ | | 8 51.01 | | 59 9.0 | | | | | | 58 50.26 | |
| | +37.1 | ~~1 49.9~~ | ~~35.9~~ | | | | | | 20 | 55.12 | |
| | 1.56237 | 1 56.9 | 48.9 | 21 | 52.90 | 50 0 | 55.45 | | | − 37 | |
| d | 9.80837 | | | | | 49 58 | 23.97 | | | + 5 | +7.78 ~~+7.43~~ |
| | 1.49345 | | | | | | +31.15 | | | +7.75 | |
| ((δ) − D) d′/100 | | | | | | | | 58 55.12 | | + 35 | |
| | | | | | | | | | | −1310 | |
| +8.96 +0 18.70 δ₂ | | 8 51.06 | | 59 8.5 | | | | | | 58 49.80 | |
| | ~~+18.1~~ | ~~1 19.6~~ | ~~11.9~~ | | | | | | 50 | 50 28 3.77 | |
| | 1.14922 | 1 39.5 | 16.0 | 57 | 25.75 | 50 30 | 22.60 | | | − 5 | +9.44 |
| 52 d | 9.80382 | | | | | 27 | 52.05 | | | + 4 | |
| | 1.06875 | | | | | | +11.72 | | | +9.08 | |
| ((δ) − D) d′/100 | | | | | | | | 28 3.77 | | + 37 | |
| +9.04 | | | | | | | | | | −1310 | |
| +0 17.92 δ₁ | | 13 52.87 | | 29 18.0 | | | | | | ~~28~~ 29 0.11 | |
| | ~~+18.3~~ 43 | ~~1 33.5~~ | ~~16.0~~ | | | | | | 50 | ~~28~~ ~~17.32~~ 4.88 | |
| 0 62347 | 1.18184 | 1 19.0 | 11.9 | 51 | 15.45 | 50 30 | 32.90 | | | − 6 | +8.59 |
| 9.80382 | 9.80382 | | | | | ~~28~~ | 1.42 | | | + 4 | |
| 11571 | 1.20137 | | | | | | ~~+15.90~~ | | | +8.24 | |
| ((δ) − D) d′/100 | | | | | | | 3.57 | 28 17.32 | | + 37 | |
| +9.04 0 53300 | | | | | | | | | | −1325 | |
| +0 17.92 δ₂ | | 13 52.77 | | 29 18.2 | | | | | | ~~28~~ ~~17.66~~ 29 0.33 | |
| | +25.4 | 2 50.9 | 35.4 | 47 | 43.15 | 50 35 | 5.20 | | 45 | 50 32 56.72 | |
| | 1.40483 | | | | | 32 | 34.65 | | | − 17 | +9.47 |
| 44 d | 9.80305 | | | | | | +21.07 | | | + 8 | |
| | 1.32359 | | | | | | | 32 55.72 | | +9.18 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 38 | |
| | | | | | | | | | | −1310 | |
| +9.06 δ₁ | | 15 3.68 | | 33 9.8 | | | | | | 32 52.09 | |
| +0 17.74 | | | | | | | | | | | |
| | +29.1 | 2 49.0 | 40.8 | 47 | 44.90 | 50 35 | 3.45 | | 45 | 56.10 | |
| | 1.46389 | | | | | 32 | 31.97 | | | − 23 | +8.56 |
| d | 9.80305 | | | | | | +24.13 | | | + 8 | |
| | 1.38265 | | | | | | | 32 56.10 | | +8.33 | |
| ((δ) − D) d′/100 | | | | | | | | | | + 38 | |
| | | | | | | | | | | −13.24 | |
| +9.06 +0 17.74 δ₂ | | 15 3.65 | | 33 9.2 | | | | | | 32 51.42 | |

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

1873phae.proj.1582R



Date$_1$ = Feb. 2 (212) Observer / Recorder — Date$_2$ = Feb. 4 (213) Observer / Recorder — Run:

Single observations

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_o$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | h 0 m 5.3 | 51 ° 08 | 9.5 | 0 m | 40° | 0 23.2 | 24.5 | 30.2 | 33.4 | 34.6 | 1498 | 29.92 | 0 29.58 |
| 3 | 59 41.2 | 51 5.3 | 8.5 | 0 | 5. | | | | | | | | +30.07 |
| Feb. 2 | κ | | | | | | | | | | | | + .53 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | ✓ | | | | | | + 32.66 | | − .02 |
| | | | | | | | | | | | | | + 2 8 |
| | $a_1$ | | | | | | | | | 1 | 2.96 | 1 | 8.64 |
| | | | | | | | | | | | | | + 0 32 |
| 4 | 6 48 | 52 22 | | 6 | 4.6 | 6 14.7 | 18.0 | 21.7 | 24.8 | 28.4 | 1076 | 21.52 | 6 21.52 |
| 5 | 30.9 | 52 19.4 | 8.8 | | 7.0 | | | | | | | | +30.07 |
| Feb. 2 | κ | | 8.9 | | 8.7 | | ✓ | | | | + 32.67 | | + .54 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | 6.8 | | | 6 | 54.45 | | | | + 2 8 |
| | | | | 6 | 2.3 | 6 14.3 | 17.7 | 21.1 | 24.4 | 27.8 | 1053 | 21.06 | 6 52.19 |
| Feb. 4 | $a_2$ | | 9.0 | | 3.3 | | | | | | + 32.65 | | + 26 |
| | | | | | 4.6 | | ✓ | | | | + 33.04 | | + .48 |
| | | | | | 3.4 | | | | | | | | 6 54.10 |
| 4 | 9 37 | 52 33 | 8.8 | 9 | 1.7 | 9 3.2 | 6.8 | 10.1 | 12.8 | 17.0 | 509 | 10.18 | 9 10.18 |
| 8 | 19.0 | 52 30.9 | 8.4 | | 1.7 | | | | | | | | +30.07 |
| Feb. 2 | κ | | | | | | | | | | | | + .55 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | ✓ | | | | | | − 2 |
| | | | | | | | | | | | + 32.67 | | + 8 |
| | $a_1$ | | | | | | | | | | | | 9 42.86 |
| | | | | | | | | | | | | | + 24 |
| | | | | | | | | | | | | | 9 43.10 |
| 4 | 11 11 | 50 04 | 7.9 | 10 | 14.2 | 10 41.0 | 44.4 | 47.4 | 50.7 | 53.8 | 2373 | 47.46 | 10 47.46 |
| 9 | 59.4 | 50 1.3 | 7.8 | | 16.8 | | | | | | | | +30.07 |
| Feb. 2 | κ | | | | 18.9 | | | | | | | | + .57 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | 16.6 | | ✓ | | | | | | − 2 |
| | | | | | | | | | | | + 32.64 | | + 20 8 |
| | $a_2$ | | | | | | | | | | | | 11 18.10 |
| | | | | | | | | | | | | | + 22 |
| | | | | | | | | | | | | | 11 20.32 |
| 4 | 12 18 | 50 43 | 8.5 | 11 | 31.0 | 11 48.2 | 51.6 | 54.8 | 58.0 | 1.3 | 2739 | 54.78 | 11 54.78 |
| 11 | 5.6 | 50 40.0 | 8.8 | | 32.7 | | | | | | | | +30.08 |
| Feb. 2 | κ | | | | 34.1 | | | | | | | | + .52 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | 32.6 | | | ✓ | | | | | − 2 |
| | | | | | | | | | | | + 32.66 | | + 7 8 |
| | $a_1$ | | | | | | | | | | | | 12 25.44 |
| | | | | | | | | | | | | | + 21 |
| | | | | | | | | | | | | | 12 27.65 |
| 4 | 15 09 | 51 02 | 9.2 | 15 | 22.1 | 15 30.8 | 34.1 | 37.1 | 40.7 | 44.0 | 1867 | 37.34 | 15 37.34 |
| 14 | 47.2 | 50 59.7 | 8.8 | | 24.3 | | | | | | | | +30.08 |
| Feb. 2 | κ | | | | 24.8 | | | | | | | | + .53 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | 24.4 | | | | | ✓ | | | − 2 |
| | | | | | | | | | | | + 32.67 | | + 10 8 |
| | $a_2$ | | | | | | | | | | | | 16 8.01 |
| | | | | | | | | | | | | | + 18 |
| | | | | | | | | | | | | | 16 10.19 |
| 4 | 18 59 | | | | | | | | | | | | |
| Feb. 2 | κ | | | | | | | | | | | | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_1$ | | | | | | | | | | | | |
| 4 | 17 12 | 50 24 | 8.8 | 16 | 28.1 | 16 42.1 | 45.7 | 49.0 | 51.9 | 55.3 | 2440 | 48.80 | 16 48.80 |
| 15 | 59.2 | 50 21.6 | 9.0 | | 25.4 | | | | | | | | +30.08 |
| Feb. 2 | κ | | | | 30.9 | | | | | | | | + .52 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | 29.5 | | | | ✓ | | | | − 2 |
| | | | | | | | | | | | + 32.66 | | + 21 8 |
| | $a_2$ | | | | | | | | | | | | 17 49.46 |
| | | | | | | | | | | | | | + 17 |
| | | | | | | | | | | | | | 17 21.63 |
| 4 | 18 36 | 50 59 | 9.3 | 17 | 45.5 | 18 6.7 | 10.3 | 13.5 | 16.7 | 20.1 | 673 | 13.46 | 18 13.46 |
| 17 | 22.9 | 50 56.8 | 9.0 | | 48.5 | | | | | | | | +30.08 |
| Feb. 2 | κ | | | | 50.9 | | | | | | | | + .53 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | 48.3 | | | | | ✓ | | | − 2 |
| | | | | | | | | | | | + 32.67 | | + 6 8 |
| | $a_1$ | | | | | | | | | | | | 18 44.13 |
| | | | | | | | | | | | | | + 15 |
| | | | | | | | | | | | | | 18 46.28 |
| 4 | 20 24 | 51 20 | 8.7 | 19 | 28.2 | 19 32.0 | 0.2 | 3.3 | 6.8 | 10.2 | 3175 | 3.50 | 20 3.50 |
| 19 | 13.8 | 51 17.3 | 9.0 | | 30.1 | | | | | | | | +30.08 |
| Feb. 2 | κ | | | | 32.3 | | | | | | | | + .54 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | 30.3 | | | | | ✓ | | | − 2 |
| | | | | | | | | | | | + 32.68 | | + 6 8 |
| | $a_2$ | | | | | | | | | | | | 20 34.18 |
| | | | | | | | | | | | | | + 13 |
| | | | | | | | | | | | | | 20 36.31 |

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

1873phaeproj.15828



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| +26.0 | | 2 27.9 | 13.1 | 125 | 20.50 | 51 10 | 27.85 | | 10 | 51 8 1.860 | |
| 1.414997 | +22.0 | | | | | | 18.32 | | | 13 | +10.18 |
| 9.779762 d | 1.342442 | | | | | 7 | 57.30 | | | + 7 | |
| 1.328830 | 9.777762 | | | | | | +18.02 | | | +9.84 | |
| ((δ) — D) $\frac{d'}{100}$ | 1.255775 | | | | | | +21.30 | 8 15.32 | | + 40 | |
| +9.02 | | | | 5. | | | | | | -13.30 | |
| +0 19.88 δ1 | | 1 11.98 | | 8 38.4 | | | | | | 8 12.70 | |
| | | | | | | | | | | 15.48 | |
| | +14.7 | 2 57.5 | 41.4 | 57 | 49.45 | 52 24 | 58.90 | 22 40.07 | 55 | 52 22 40.07 | 40.03 |
| | 1.16732 | | | | | 22 | 28.35 | | | - 5 | - 8 |
| d | 9.78576 | 7 3.65 | | 22 57.1 | | | +11.72 | | | + 8 | + 9 |
| | 1.06879 | 3.60 | | 55.9 | | | | | | +11.27 | +10.23 |
| +9.20 ((δ) — D) $\frac{d'}{100}$ | +17.7 | 2 55.1 | 46.8 | 57 | 50.95 | 52 24 | 57.40 | 22 40.03 | 55 | + 40 | + 40 |
| +0 18.98 | 1.24797 | 52 22 40.07 | | 52 22 40.03 | | 22 | 25.92 | | | -13.65 | -13.75 |
| δ2 | 9.78576 | +11.70 | | + 10.64 | | | +14.11 | | | 22 38.12 | 36.92 |
| +9.20 | 1.14944 | | | | | | | | | | |
| +0 18.98 | + 8.5 | 1 21.0 | 6.1 | 46 | 13.55 | 52 36 | 34.80 | | 45 | 52 34 10.84 | |
| | 0.92942 | | | | | 34 | 4.25 | | | - 2 | +11.90 |
| d | 9.78379 | | | | | | +6.59 | | | + 4 | |
| | 0.81892 | | | | | | | 34 10.84 | | +11.48 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.24 | | | | | | | | | | -13.70 | |
| +0 18.54 δ1 | | 9 52.34 | | 34 27.6 | | | | | | 34 9.04 | |
| | +30.9 | 1 42.0 | 27.1 | 16 | 34.55 | 50 6 | 13.80 | | 15 | 50 4 9.14 | |
| | 1.48996 | | | | | 3 | 43.25 | | | - 26 | +8.77 |
| d | 9.80746 | | | | | | +25.89 | | | + 5 | |
| | 1.41313 | | | | | | | 4 9.14 | | +8.63 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | -13.00 | |
| +8.99 | | | | | | | | | | 4 4.91 | |
| +0 18.28 δ2 | | 11 29.31 | | 4 23.2 | | | | | | | |
| | +22.2 | 2 59.5 | 43.8 | 37 | 57.65 | 50 44 | 56.70 | | 35 | 50 42 44.50 | |
| | 1.34635 | | | | | 42 | 26.15 | | | - 13 | +9.69 |
| d | 9.80166 | | | | | | +18.35 | | | + 9 | |
| | 1.26372 | | | | | | | 42 44.50 | | +9.35 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | 59.1 | | | | | | + 38 | |
| +9.06 | | | | | | | | | | -13.20 | |
| +0 18.12 δ1 | | 12 36.71 | | 42 58.5 | | | | | | 42 40.99 | |
| | +12.9 | 3 5.2 | 50.9 | 17 | 58.05 | 51 4 | 60.30 | | 15 | 51 2 30.34 | |
| | 1.11059 | | | | | 2 | 19.75 | | | - 5 | +9.05 |
| d | 9.79856 | | | | | | +10.59 | | | + 9 | |
| | 1.02486 | | | | | | | 2 30.34 | | +8.61 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.12 | | | | | | | | | | -13.25 | |
| +0 17.54 δ2 | | 16 19.31 | | 2 43.7 | | | | | | 2 26.14 | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ1 | | | | | | | | | | | |
| | +19.3 | 1 16.3 | 0.9 | 56 | 8.60 | 50 26 | 39.75 | | 55 | 50 24 25.26 | |
| | 1.28564 | | | | | 24 | 9.20 | | | - 10 | +9.31 |
| d | 9.80443 | | | | | | +16.06 | | | + 3 | |
| | 1.20576 | | | | | | | 24 25.26 | | +9.01 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| +9.06 | | | | | | | | | | -13.10 | |
| +0 17.34 δ2 | | 17 30.69 | | 24 38.8 | | | | | | 24 21.47 | |
| | | | | | | | | | | 59 | |
| | +25.2 | 1 23.0 | 8.1 | 2.1 | 15.55 | (50) 31 | 32.80 | | 50 | 50 29 23.18 | |
| | 1.40140 | | | | | 29 | 2.25 | | | - .17 | + 9.36 |
| d | 9.80366 | | | | | | +20.93 | | | + .04 | |
| | 1.32077 | | | | | | | 59 29 23.18 | | + 9.12 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | 59 36.5 | | | | | | + .37 | |
| +9.13 | | | | | | | | | | - 13.20 | |
| +0 17.12 δ1 | | 18 55.41 | | 29 36.46 | | | | | | 59 29 19.34 | |
| | +33.2 | 0 1.3 | 46.5 | 59.0 | 59.90 | 51 22 | 54.45 | | 0 | 51 20 50.98 | |
| | 1.52114 | | | | | 20 | 23.90 | | | - 29 | +10.20 |
| d | 9.79573 | | | | | | +27.08 | | | 0 | |
| | 1.43258 | | | | | | | 20 50.98 | | +10.07 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | 20 | | | | | | + 40 | |
| +9.18 | | | | | | | | | | -13.35 | |
| +0 16.82 δ2 | | 20 45.49 | | 21 4.6 | | | | | | 19 20 47.83 | |

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

1873phae.proj.1582R

214

Date$_1$ = F86.8 1873 $n$ = +.32 — Observer / Recorder

215

Date$_2$ = F86.6 1873 $n$ = +.34 — Observer / Recorder

60

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T | Run |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 13 30 | 50° 06 | 8.2 | 12m 44.8 | 13m 0.4 | 3.6 | 6.7 | 9.9 | 13.1 | 837 | 6.74 | 13 | 6.74 | |
| | 12 16.1 | 50 4.9 | 8.2 | 46.0 | | | | | | | | | +33.35 | |
| | κ | | | 47.2 | | | | | | | | | + .38 | |
| | | | | 46.0 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.71 | 13 | 40.45 | |
| | | | | | | | | | | | | | − 28 | |
| | $\alpha_1$ | | | | | | | | | | | 13 | 40.17 | |
| | | | 8.5 | 12 39.3 | 12 53.4 | 2.7 | 5.4 | 8.0 | 12.3 | 3293 | 5.86 | 13 | 5.86 | |
| | κ | | | 40.6 | | | | | | | | | +34.03 | |
| | | | | 42.7 | | | | | | | | | + .41 | |
| | | | | 40.8 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.42 | 13 | 40.28 | |
| | | | | | | | | | | | | | − 26 | |
| | $\alpha_2$ | | | | | | | | | | | 13 | 40.02 | |
| 5 | 15 06 | 50 15 | | 14 13.7 | 14 34.6 | 38.2 | 41.1 | 44.4 | 47.6 | 2039 | 41.18 | 14 | 41.18 | |
| | 13 51.4 | 50 13.7 | 9.2 | 15.1 | | | | | | | | | +33.35 | |
| | κ | | | 16.3 | | | | | | | | | + .38 | |
| | | | | 15.0 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.71 | 15 | 14.89 | |
| | | | | | | | | | | | | | − 30 | |
| | $\alpha_1$ | | | | | | | | | | | 15 | 14.59 | |
| | | | | 14 13.0 | 14 33.8 | 37.2 | 40.4 | 43.6 | 46.9 | 2019 | 4038 | 14 | 40.38 | |
| | κ | | | 14.3 | | | | | | | | | +34.03 | |
| | | | | 15.8 | | | | | | | | | + .41 | |
| | | | | 14.4 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3442 | 15 | 14.80 | |
| | | | | | | | | | | | | | − 28 | |
| | $\alpha_2$ | | | | | | | | | | | 15 | 14.52 | |
| 5 | 16 41 | 50 09 | 9.0 | 15 46.5 | 16 9.2 | 12.5 | 15.6 | 18.7 | 21.9 | 799 | 15.58 | 16 | 15.58 | |
| | 15 26.5 | 50 8.6 | 8.4 | 47.6 | | | | | | | | | +33.35 | |
| | κ | | | 48.9 | | | | | | | | | + .38 | |
| | | | | 47.7 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.71 | 16 | 49.29 | |
| | | | | | | | | | | | | | − 31 | |
| | $\alpha_1$ | | | | | | | | | | | 16 | 48.98 | |
| | | | 9.0 | 15 44.3 | 16 8.3 | 11.5 | 14.7 | 17.9 | 21.2 | 736 | 1472 | 16 | 14.72 | |
| | κ | | | 46.3 | | | | | | | | | +34.03 | |
| | | | | 47.8 | | | | | | | | | + .41 | |
| | | | | 46.1 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3442 | 16 | 49.14 | |
| | | | | | | | | | | | | | − 29 | |
| | $\alpha_2$ | | | | | | | | | | | 16 | 48.85 | |
| 5 | 17 44 | 50 02 | 8.8 | 16 53.2 | 17 15.9 | 19.0 | 22.2 | 25.2 | 28.6 | 1109 | 22.18 | 17 | 22.18 | |
| | 16 29.1 | ~~50~~ 1.3 | 8.9 | 54.9 | | | | | | | | | +33.36 | |
| | κ | | | 56.6 | | | | | | | | | + .38 | |
| | | | | 54.9 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.72 | 17 | 55.90 | |
| | | | | | | | | | | | | | − 32 | |
| | $\alpha_1$ | | | | | | | | | | | 17 | 55.58 | |
| | | | 9.2 | 16 53.3 | 17 15.0 | 18.2 | 21.3 | 24.6 | 27.9 | 1070 | 21.40 | 17 | 21.40 | |
| | κ | | | 56.4 | | | | | | | | | +34.03 | |
| | | | | 57.6 | | | | | | | | | + .41 | |
| | | | | 56.4 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.42 | 17 | 55.82 | |
| | | | | | | | | | | | | | − 30 | |
| | $\alpha_2$ | | | | | | | | | | | 17 | 55.52 | |
| 5 | 20 17 | 52 21 | 9.5 | 19 24.2 | 19 43.2 | 46.6 | 49.9 | 53.5 | 56.7 | 2499 | 49.98 | 19 | 49.98 | |
| | 18 56.8 | 52 19.8 | 9.5 | 25.9 | | | | | | | | | +33.36 | |
| | κ | | | 27.6 | | | | | | | | | + .42 | |
| | | | | 25.9 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.76 | 20 | 23.74 | |
| | | | | | | | | | | | | | − 37 | |
| | $\alpha_1$ | | | | | | | | | | | 20 | 23.77 37 | |
| | | | 10.0 | 19 33.6 | 19 42.6 | 46.1 | 49.3 | 52.6 | 56.4 | 2470 | 49.40 | 19 | 49.40 | |
| | κ | | | 34.9 | | | | | | | | | +34.03 | |
| | | | | 36.7 | | | | | | | | | + .44 | |
| | | | | 35.1 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3445 | 20 | 23.85 | |
| | | | | | | | | | | | | | − 35 | |
| | $\alpha_2$ | | | | | | | | | | | 20 | 23.50 | |

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

1873phae.proj.1582f

Feb. 5 −2′ 30.″56 +.″03
" 6 −2 30.83 +.03

61

Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | ~~5~~ 4 59.8 | 52.9 | 15 4 | 56,35 | 50 | ~~6~~ 7 52.00 | | ~~15~~ 10 | 50 ~~4~~ 5 38.78 | ✓ |
| | +20.7 | | | | | | ~~9~~ 2 21.44 | | | − 12 | +8.53 65 |
| d | 1.31597 | | | | | | 5 +17.34 | | | + ~~15~~ 3 | |
| | 9.80746 | | | | | | | A5 38.78 | | +8.27 | |
| 88 ((δ) − D) $\frac{d'}{100}$ | 1.23914 | | | | | | | | | + 35 | |
| | | | | | | | | | | 5 −1270 | |
| +9.28 $\delta_1$ | | 13 49.45 | | 5 42.8 6 | | | | | | ~~4~~ 5 34.61 73 | |
| +0 8.04 | | | | | | | | | | | |
| | +25.1 | 0 3.3 | 56.9 | 15 | 0.10 | 50 | 7 48.25 | | 15 | 5 38.44 | ✓ |
| | 1.39967 | | | | | | 5 17.42 | | | − 17 | +8.32 |
| d | 9.80731 | | | | | | +21.02 | | | 0 | |
| | 1.32269 | | | | | | | 5 38.44 | | +8.14 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −12.82 | |
| +9.28 $\delta_2$ | | 13 49.30 | | 5 42.0 | | | | | | 5 33.94 | |
| +0 8.04 | | | | | | | | | | | |
| | +26.2 | 0 35.5 | 28.0 | 3 | 31.75 | 50 | 17 16.60 | | 5 | 50 15 7.91 | 6.5 |
| | 1.41830 | | | | | | 14 46.04 | | | − 18 | +8.85 |
| 80 d | 9.80580 | | | | | | +21.87 | | | + 1 | |
| | 1.33981 | | | | | | | 14 67.91 | | +8.46 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| | | | | | | | | | | −1270 | |
| +9.30 $\delta_1$ | | 15 23.89 | | 15 11.6 | | | | | | 15 3.86 | |
| +0 7.76 | | | | | | | | | | | |
| | +26.0 | 0 34.0 | 28.1 | 3 | 31,05 | 50 | 17 17.30 | | 5 | 8.17 | |
| | 1.41497 | | | | | | 14 46.47 | | | − 18 | +8.49 |
| d | 9.80580 | | | | | | +21.70 | | | + 1 | |
| | 1.33648 | | | | | | | 15 8.17 | | +8.30 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| | | | | | | | | | | −12.85 | |
| +9.30 $\delta_2$ | | 15 23.82 | | 15 11.6 | | | | | | 15 3.81 | |
| +0 7.76 | | | | | | 11 | | | | | |
| | +27.9 | ~~0~~ 1 0.5 | 52.9 | 9 10 | 56,70 | 50 | ~~12~~ 10 51.65 | | 10 | 50 ~~10~~ 9 44.42 | |
| | 1.44560 | | | | | | ~~10~~ 9 21.09 | | | − 21 | +8.54 |
| +6 d | 9.80656 | | | | | | 9 +23.33 | | | 0 | |
| | 1.36787 | | | | | | | 10 44.42 | | +8.40 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −1265 | |
| +9.29 $\delta_1$ | | 16 58.27 | | 9 47.8 | | | | | | ~~10~~ 9 40.31 | |
| +0 7.48 | | | | | | 11 | | | | | |
| | +28.6 | ~~0~~ 1 0.2 | 54.2 | 9 10 | 57,20 | 50 | ~~12~~ 10 51.15 | | 10 | 44.23 | |
| | 1.45637 | | | | | | ~~10~~ 9 20.32 | | | − 22 | +8.36 |
| d | 9.80656 | | | | | | 9 +23.91 | | | 0 | |
| | 1.37864 | | | | | | | 10 44.23 | | +8.23 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −1280 | |
| +9.29 $\delta_2$ | | 16 58.14 | | 9 47.3 | | | | | | ~~10~~ 9 39.79 | |
| +0 7.48 | | | | | | | | | | | |
| | +27.3 | 0− 0.2 | ~~54.2~~ | 18 | 0,10 | 50 | 4 48.25 | | 1015 | 50 2 40.58 | |
| | 1.43616 | 3 4.0 | 56.2 | | | | 2 17.69 | | | − 20 | +8.50 |
| 78 d | 9.80777 | | | | | | +22.89 | | | + 9 | |
| | 1.35964 | | | | | | | 2 40.58 | | +8.26 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −1260 | |
| +9.28 $\delta_1$ | | 18 4.86 | | 2 43.8 | | | | | | 2 36.48 | |
| +0 7.30 | | | | | | | | | | | |
| | +25.0 | ~~3~~ 4.0 | ~~56.2~~ | | | | | | 15 | ~~41.63~~ ~~37.32~~ | |
| | 1.39794 | 2 59.9 | 53.8 | 17 | 56,85 | 50 | 4 51.50 | | | − 17 | +8.35 |
| d | 9.80777 | | | | | | 2 20.67 | | | + 9 | |
| | 1.~~82~~2142 | | | | | | +~~16.65~~ | | | +8.08 | |
| ((δ) − D) $\frac{d'}{100}$ | 3 | | | | | | 20.96 | ~~2~~ 37.32 | | + 35 | |
| | | | | | | | | | | −12.70 | |
| +9.28 $\delta_2$ | | 18 4.80 | | 2 44.6 | | | | | | 2 ~~32.97~~ 37.28 | |
| +0 7.30 | | | | | | | | | | | |
| | +24.1 | 4 50.5 | 41.8 | 59 | 46,15 | 52 | 23 2.20 | | 55 | 52 20 50.86 | |
| | 1.38202 | | | | | | 20 31.64 | | | − 15 | +11.16 |
| d | 9.78592 | | | | | | +19.22 | | | + 14 | |
| | 1.28365 | | | | | | | 20 50.86 | | +10.77 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −13.15 | |
| +9.56 $\delta_1$ | | 20 32.93 | | 20 55.8 | | | | | | 20 48.87 | |
| +0 6.88 | | | | | | | | | | | |
| | +14.3 | 4 4a1 | 34.0 | 59 | 34,05 | 52 | 23 11.30 | | 55 | 51.87 | |
| | 1.15534 | | | | | | 20 40.47 | | | − 5 | +11.06 |
| d | 9.78592 | | | | | | +11.40 | | | + 14 | |
| | 1.05697 | | | | | | | 20 51.87 | | +10.55 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 42 | |
| | | | | | | | | | | −1325 | |
| +9.56 $\delta_2$ | | 20 33.06 | | 20 56.6 | | | | | | 20 49.68 | |
| +0 6.88 | | | | | | | | | | | |

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

1873phae.proj.1582R

214

Date$_1$ = Feb. 5 Observer / Recorder

215

Date$_2$ = Feb. 6 Observer / Recorder

62

Run

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 21 28 | 52 ° 13 | 9.3 | 26m 57.3 | 27m 1.40 | 17.2 | 20.6 | 24.1 | 27.4 | 10 33 | 20.66 | 21 | 20.66 |
| | 20 27.7 | 52 11.4 | 9.0 | 57.0 | | | | | | | | | +33.36 |
| | κ | | | 1.1 | | | | | | | | | + .41 |
| | | | | 59.1 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 33.75 | 21 | 54.51 |
| | | | | | | | | | | | | | − 38 |
| | $c_1$ | | | | | | | | | | | 21 | 54.13 |
| | | | 9.2 | 21 0.3 | 21 13.2 | 16.5 | 20.0 | 23.4 | 26.6 | 997 | 19.94 | 21 | 19.94 |
| | | | | 2.3 | | | | | | | | | +34.03 |
| | κ | | | 4.8 | | | | | | | | | + .44 |
| | | | | 2.0 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.45 | 21 | 54.39 |
| | | | | | | | | | | | | | − 36 |
| | $\alpha_2$ | | | | | | | | | | | 21 | 54.03 |
| 5 | 23 14 | 52 34 | 8.3 | 22 26.5 | 22 40.2 | 43.3 | 47.0 | 50.5 | 53.8 | 2348 | 46.96 | 22 | 46.96 |
| | 21 53.9 | 52 32.4 | 7.9 | 27.5 | | | | | | | | | +33.36 |
| | κ | | | 25.7 | | | | | | | | | + .42 |
| | | | | 27.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 33.76 | 23 | 20.72 |
| | | | | | | | | | | | | | − 40 |
| | $\alpha_1$ | | | | | | | | | | | 23 | 20.32 |
| | | | 7.5 | 23 8.5 | | 42.9 | 46.1 | 49.5 | 52.8 | | | 22 | 46.12 |
| | | | | 9.7 | | | | | | | | | +34.04 |
| | κ | | | 11.4 | | | | | | | | | + .44 |
| | | | | 9.9 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.46 | 23 | 20.58 |
| | | | | | | | | | | | | | − 38 |
| | $\alpha_2$ | | | | | | | | | | | 23 | 20.20 |
| 5 | 24 38 | 52 52 | 7.0 | 23 38.4 | 23 58.2 | 1.6 | 5.0 | 8.5 | 12.0 | 8253 | 5.06 | 24 | 6.06 |
| | 23 12.2 | 52 51.2 | 8.1 | 39.6 | 24 | | | | | | | | +33.36 |
| | κ | | | 41.2 | | | | | | | | | + .42 |
| | | | | 39.4 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 33.76 | 24 | 38.82 |
| | | | | | | | | | | | | | − 42 |
| | $\alpha_1$ | | | | | | | | | | | 24 | 38.40 |
| | | | 7.9 | 23 47.7 | 23 57.5 | 1.0 | 4.4 | 7.8 | 11.3 | 3220 | 4.40 | 24 | 4.40 |
| | | | | 48.1 | | | | | | | | | +34.04 |
| | κ | | | 51.1 | | | | | | | | | + .45 |
| | | | | 49.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.47 | 24 | 38.87 |
| | | | | | | | | | | | | | − 40 |
| | $\alpha_2$ | | | | | | | | | | | 24 | 38.47 |
| 5 | 25 28 | 49 56 | 9.1 | 24 51.4 | 24 58.8 | 2.0 | 5.3 | 8.7 | 11.8 | 3266 | 5.32 | 25 | 5.32 |
| | 24 13.1 | 49 53.3 | 9.0 | 53.0 | | | | | | | | | +33.36 |
| | | | | 54.1 | | | | | | | | | + .38 |
| | | | | 52.9 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 33.72 | 25 | 39.04 |
| | | | | | | | | | | | | | − 38 |
| | $\alpha_1$ | | | | | | | | | | | 25 | 38.66 |
| | | | 9.1 | 24 39.7 | 24 58.4 | 1.6 | 4.9 | 7.9 | 11.1 | 3239 | 4.78 | 25 | 4.78 |
| | | | | 41.3 | | | | | | | | | +34.04 |
| | κ | | | 43.3 | | | | | | | | | + .41 |
| | | | | 41.5 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.43 | 25 | 39.21 |
| | | | | | | | | | | | | | − 36 |
| | $\alpha_2$ | | | | | | | | | | | 25 | 38.85 |
| 5 | 28 24 | 50 54 | 9.5 | 27 35.2 | 27 53.7 | 59.0 | 2.4 | 5.5 | 8.8 | 3714 | 2.28 | 28 | 2.28 |
| | 27 ~~8.9~~ | 50 ~~54.9~~ | 8.3 | 34.3 | | | | | | | | | +33.36 |
| | κ 10.7 | 58.1 | | 37.3 | | | | | | | | | + .37 |
| | | | | 36.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 33.73 | 28 | 36.01 |
| | | | | | | | | | | | | | − 42 |
| | $\alpha_1$ | | | | | | | | | | | 28 | 35.59 |
| 5 | 27 89 | 50 53.4 | 9.2 | 27 28.7 | 27 53.3 | 59.0 | 0.3 | 3.6 | 6.8 | 3010 | 0.20 | 28 | 0.20 |
| | | | | 30.6 | | | | | | | | | +34.04 |
| | κ | | | 32.0 | | | | | | | | | + .42 |
| | | | | 30.4 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.44 | 28 | 34.64 |
| | | | | | | | | | | | | | − 40 |
| | $\alpha_2$ | | | | | | | | | | | 28 | 34.24 |

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

1873phae.proj.15823



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +21.6 | 2 5.0 | 55.1 | 4′ | 0,03′ | 52 15 | 48.80 | | 5′ | 52 13 35.01 | |
| | 1.33445 | | | | | 13 | 17.74 | | | − 13 | +11.08 |
| d | 9.78723 | | | | | | +17.27 | | | + 6 | |
| 72 | 1.23739 | | | | | | | 13 35.01 | | +10.75 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −1310 | |
| +9.55 δ₁ | | 22 3.58 | | 13 39.6 | | | 15 | | | 13 32.99 | |
| +0 6.60 | | | | | | | | | | | |
| | +17.4 | X2 0.1 | 53.9 | 5 6 | 5700 | 52 | ~~16~~ 51.35 | | 5 | ~~14~~ 34.43 | |
| | 1.24055 | | | | | | ~~14~~ 20.52 | | | 13 − 8 | +10.80 |
| d | 9.78707 | | | | | | 13 +13.91 | | | + 3 | |
| | 1.14333 | | | | | | | 14 34.43 | | +10.44 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 41 | |
| | | | | | | | | | | −13.20 | |
| +9.55 δ₂ | | 22 3.58 | | 13 38.6 | 20 | | | | | ~~14~~ 32.03 | |
| +0 6.60 | | | | | | | | | | 13 | |
| | +19.4 | 2 11.8 | 2.2 | 47 | 900 | 52 35 | 41.~~35~~ 53 | | 45 | 52 33 26.39 | |
| | 1.28780 | | | | | 33 | 10.99 | | | − 10 | +11.36 |
| 84 d | 9.78395 | | | | | | +15.40 | | | + 6 | |
| | 1.18746 | | | | | | | 33 26.39 | | +11.00 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −1315 | |
| +9.59 δ₁ | | 23 29.91 | | 33 31.0 | | | | | | 33 24.60 | |
| +0 6.36 | | | | | | | | | | | |
| | ~~+36.2~~ | 1 35.0 | 29.0 | 46 | 3250 | 52 36 | 16.35 | | 45 | 26.64 | |
| | − 23.8 | | | | | 33 | 45.52 | | | − 15 | +11.20 |
| d | 1.37658m | | | | | | −18.88 | | | + 5 | |
| | 9.78879 | | | | | | | 33 26.64 | | +10.87 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.27598m | | | | | | | | | + 43 | |
| | | | | | | | | | | −1325 | |
| +9.59 δ₂ | | 23 29.99 | | 33 31.0 | | | | | | 33 24.59 | |
| +0 6.36 | | | | | | | | | | | |
| | +25.7 | 2 53.0 | 42.1 | 27 | 4755 | 52 55 | 0.80 | | 25 | 52 52 50.48 | |
| | 1.40993 | | | | | 52 | 30.24 | | | − 18 | +11.67 |
| 66 d | 9.78063 | | | | | | +20.24 | | | + 8 | |
| | 1.30627 | | | | | | | 52 50.48 | | +11.37 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −1320 | |
| +9.63 δ₁ | | 24 48.03 | | 52 55.1 | | | | | | 52 48.95 | |
| +0 6.14 | | | | | 3835 | | 10.00 | | | J406 | |
| | +15.1 | 2 42.0 | ~~29.7~~ | 27 | ~~3545~~ | 52 55 | ~~12.50~~ | | 25 | ~~53.56~~ | |
| | 1.17898 | | 34 | | | 52 | ~~39.67~~ | | | − 6 | +11.60 |
| d | 9.78063 | | | | | | +11.89 | | | + 8 | |
| | 1.07532 | | | | | | | 52 53.56 | | +11.13 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 45 | |
| | | | | | | | | | | −13.30 | |
| +9.63 δ₂ | | 24 48.10 | | 52 55.5 | | | | | | 52 ~~51.86~~ 45 86 | |
| +0 6.14 | | | | | | | | | | | |
| | +12.4 | 4 34.3 | 26.9 | 24 | 3960 | 49 58 | 17.75 | | 20 | 49 55 57.61 | |
| | 1.09342 | | | | | 55 | 47.19 | | | − 4 | +8.58 |
| 54 d | 9.80867 | | | | | | +10.42 | | | + 14 | |
| | 1.01786 | | | | | | | 55 57.61 | | +8.13 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −1240 | |
| +9.29 δ₁ | | 25 47.95 | | 55 59.8 | | | | | | 55 53.79 | |
| +0 5.96 | | | | | | | | | | | |
| | +23.3 | 4 42.3 | 35.9 | 24 | 3910 | 49 58 | 9.25 | | 20 | 58.00 | |
| | 1.36736 | | | | | 55 | 38.42 | | | − 14 | +8.31 |
| d | 9.80867 | | | | | | +19.58 | | | + 14 | |
| | 1.29174 | | | | | | | 55 58.00 | | +7.96 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | 55 59.7 | | | | | | + 35 | |
| | | | | | | | | | | −1255 | |
| +9.29 δ₂ | | 25 48.14 | | ~~56 1.7~~ | | | | | | 55 53.76 | |
| +0 5.96 | | | | | | | | | | | |
| | +26.0 | 1 43.7 | 35.9 | 21 | 3980 | 51 1 | 8.55 | | 20 | 50 58 58.89 | ✓ |
| | 1.41497 | | | | | 58 | 37.99 | | | − 18 | +9.55 |
| d | 9.78950 | | | | | | +20.90 | | | + 5 | |
| | 1.32018 | | | | | | | 58 58.89 | | +8.28 | |
| ((δ) − D) $\frac{d'}{100}$ | | 4500 | | | | | | | | + 40 | |
| | | | | | | | | | | −1265 | |
| +9.41 δ₁ | | 28 ~~14.98~~ | | 59 1.2 | | | | | | 58 55.79 | |
| +0 5.46 | | | | | | | | | | | |
| | +29.8 | 1 24.5 | 16.4 | 26 | 2045 | 50 56 | 27.90 | | 25 | 54 21.60 | ✓ |
| | 1.47422 | | | | | 53 | 57.07 | | | − 24 | +9.19 |
| d | 9.79981 | | | | | | +24.53 | | | + 4 | |
| | 1.38974 | | | | | | | 54 21.60 | | +8.99 | |
| ((δ) − D) $\frac{d'}{100}$ | | 64 | | | | | | | | + 40 | |
| +9.40 | | | | | | | | | | −12.73 | |
| +0 5.46 δ₂ | | 28 43.74 | | 54 23.5 | | | | | | 54 18.04 | |

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

1873phae.proj.1582R

Date$_1$ = Feb. 5 (214) Observer / Recorder

Date$_2$ = Feb. 6 (215) Observer / Recorder

64

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| h | m s | ° ′ | | m | m | ° | ° | ° | ° | | | m | |
| | 29 39 | 52 0 50 | 8.4 | 28 52.2 | 28 57.3 | 2.9 | 6.2 | 9.9 | 12.8 | 3811 | 6.22 | 29 6.22 | |
| | 28 13.0 | 52 46.7 | 8.4 | 54.0 | | | | | | | | +33.36 | |
| | κ | | | 56.5 | | | | | | | | + .42 | |
| | | | | 54.2 | | | | | | | | − 2 | 64 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.76 | 29 39.98 | ( |
| | | | | | | | | | | | | − 46 | |
| | $\alpha_1$ | | | | | | | | | | | 29 39.52 | +9.64 |
| | | | | | | | | | | | | | +0 5.. |
| | | | 7.8 | 28 46.9 | 28 58.7 | 2.3 | 5.6 | 9.0 | 12.3 | 3279 | 5.58 | 29 5.58 | |
| | | | | 50.9 | | | | | | | | +34.04 | |
| | κ | | | 52.8 | | | | | | | | + .45 | |
| | | | | 50.9 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | 29 40.05 | ( |
| | | | | | | | | | | | +34.47 | − 44 | |
| | $\alpha_2$ | | | | | | | | | | | 29 39.61 | +9.. |
| | | | | | | | | | | | | | +0 5 |
| 5 | 30 59 | 52 20 | 9.2 | 30 9.8 | 30 23.2 | 26.6 | 30.1 | 33.4 | 36.9 | 1502 | 30.04 | 30 30.04 | |
| | 29 38.2 | 52 16.2 | 9.0 | 11.7 | | | | | | | | +33.36 | |
| | κ | | | 13.4 | | | | | | | | + .41 | |
| | | | | 11.8 | | | | | | | | − 2 | 68 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.75 | 31 3.79 | ( |
| | | | | | | | | | | | | − 47 | |
| | $\alpha_1$ | | | | | | | | | | | 31 3.32 | +9.5 |
| | | | | | | | | | | | | | +0 5. |
| | | | 9.4 | 30 11.8 | 30 22.5 | 26.9 | 29.2 | 32.7 | 36.5 | 1468 | 29.36 | 30 29.36 | |
| | | | | 14.0 | | | | | | | | +34.04 | |
| | κ | | | 16.2 | | | | | | | | + .44 | |
| | | | | 14.0 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.46 | 31 3.82 | ( |
| | | | | | | | | | | | | − 45 | |
| | $\alpha_2$ | | | | | | | | | | | 31 3.37 | +9.5 |
| | | | | | | | | | | | | | +0 5 |
| 5 | 32 05 | 52 36 | 8.3 | 31 30.0 | 31 30.8 | 32.8 | 37.2 | 40.7 | 44.1 | 1866 | 37.32 | 31 37.32 | |
| | 30 44.7 | 52 35.0 | 8.4 | 20.0 | | | | | | | | +33.36 | |
| | κ | | | | | | | | | | | + .42 | |
| | | | | | | | | | | | | − 2 | 78 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.76 | 32 11.08 | ( |
| | | | | | | | | | | | | − 48 | |
| | $\alpha_1$ | | | | | | | | | | | 32 10.60 | +9.6 |
| | | | | | | | | | | | | | +0 4 |
| | | | 8.4 | 31 14.1 | 31 29.9 | 32.0 | 36.5 | 40.0 | 43.3 | 1827 | 36.54 | 31 36.54 | |
| | | | | 15.6 | | | | | | | | +34.04 | |
| | κ | | | 19.3 | | | | | | | | + .44 | |
| | | | | 18.7 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.46 | 32 11.00 | ( |
| | | | | | | | | | | | | − 46 | |
| | $\alpha_2$ | | | | | | | | | | | 32 10.54 | +9.6 |
| | | | | | | | | | | | | | +0 4 |
| 5 | 34 02 | 52 39 | 8.7 | 33 10.1 | 33 27.5 | 31.8 | 34.5 | 37.7 | 41.2 | 1722 | 34.44 | 33 34.44 38 | |
| | 32 41.7 | 52 38.4 | 8.0 | 11.8 | | | | | | | | +33.36 | |
| | κ | | | 13.6 | | | | | | | | + .42 | |
| | | | | 11.8 | | | | | | | | − 2 | 80 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.76 | 34 8.20 | ( |
| | | | | | | | | | | | | − 50 | |
| | $\alpha_1$ | | | | | | | | | | | 34 7.70 | +9.6 |
| | | | | | | | | | | | | 64 | +0 4. |
| | | | 8.5 | 33 1.6 | 33 26.7 | 30.0 | 33.5 | 37.0 | 40.5 | 1677 | 33.54 | 33 33.54 | |
| | | | | 3.6 | | | | | | | | +34.04 | |
| | κ | | | 1.7 | | | | | | | | + .44 | |
| | | | | 3.6 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.46 | 34 8.00 | ( |
| | | | | | | | | | | | | − 48 | |
| | $\alpha_2$ | | | | | | | | | | | 34 7.52 | +9.6 |
| | | | | | | | | | | | | | +0 4 |
| 5 | 36 04 | 50 40 | 8.8 | 34 11.2 | 34 31.7 | 35.2 | 38.5 | 41.5 | 44.7 | 1916 | 38.32 | 34 38.82 | |
| | 33 49.0 | 50 39.6 | 8.8 | 12.8 | | | | | | | | +33.36 | |
| | κ | | | 14.8 | | | | | | | | + .39 | |
| | | | | 12.9 | | | | | | | | − 2 | 74 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.73 | 35 12.05 | ( |
| | | | | | | | | | | | | − 47 | |
| | $\alpha_1$ | | | | | | | | | | | 35 11.58 | +9.3 |
| | | | | | | | | | | | | | +0 4. |
| | | | 8.4 | 34 16.2 | 34 31.0 | 34.2 | 37.7 | 40.8 | 44.2 | 7879 | 37.58 | 34 37.58 | |
| | | | | 17.5 | | | | | | | | +34.04 | |
| | κ | | | 18.8 | | | | | | | | + .42 | |
| | | | | 17.5 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3444 | 35 12.02 | ( |
| | | | | | | | | | | | | − 45 | |
| | $\alpha_2$ | | | | | | | | | | | 35 11.57 | +9.3 |
| | | | | | | | | | | | | | +0 4 |

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

1873phaeproj.15822



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +12.0 | 1 1.1 | 51.9 | 56.50 | 56.50 | 52 | 51.85 | | 30 | 52 30.76 | |
| d | 1.07918 | | | 30 | | | 21.29 | | | 49 − 4 | +11.69 |
| 64 | 9.78130 | | | | | | + 9.47 | | | 0 | |
| ((δ) − D) $\frac{d'}{100}$ | 0.97619 | | | | | | | 49 30.76 | | +11.30 | |
| | | | | | | | | | | + 40 | |
| +9.64 $\delta_1$ | | 29 49.16 | | 49 34.7 | | | | | | −13.05 | |
| +0 5.26 | | | | | | | | | | 50 29.40 | |
| | +16.7 | 1 2.1 | 55.0 | 30 | 58.55 | 52 | 49.80 | | 30 | 30.56 | |
| d | 1.16732 | | | | | | 18.97 | | | 49 − 6 | +11.46 |
| | 9.78113 | | | | | | +11.59 | | | 0 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.06416 | | | | | | | 50 30.56 | | +11.08 | |
| | | | | | | | | | | + 44 | |
| +9.64 $\delta_2$ | | 29 49.25 | | 49 34.1 | | | | | | −13.15 | |
| +0 5.26 | | | | | | | | | | 28.87 | |
| | +18.2 | 1 22.0 | 13.6 | 1 | 17,80 | 52 | 21 30.55 | | 0 | 52 19 14.51 | |
| d | 1.26007 | | | | | | 59.99 | | | − 9 | +11.09 |
| | 9.78625 | | | | | | +14.52 | | | + 4 | |
| 68 ((δ) − D) $\frac{d'}{100}$ | 1.16203 | | | | | | | 19 14.51 | | +10.74 | |
| | | | | | | | | | | + 40 | |
| +9.58 $\delta_1$ | | 31 12.90 | | 19 17.7 | | | | | | −12.90 | |
| +0 5.02 | | | | | | | | | | 19 12.70 | |
| | +15.4 | 1 18.0 | 11.1 | 1 | 14,55 | 52 | 21 33.80 | | 0 | 15.26 | |
| d | 1.18752 | | | | | | 19 2.97 | | | − 6 | +10.91 |
| | 9.78625 | | | | | | +12.29 | | | + 4 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.08948 | | | | | | | 19 15.26 | | +10.52 | |
| | | | | | | | | | | + 41 | |
| +9.58 $\delta_2$ | | 31 12.95 | | 19 18.2 | | | | | | −13.00 | |
| +0 5.02 | | | | | | | | | | 19 13.17 | |
| | +7.3 | 4 43.9 | 35.1 | 44 | 39,50 | 52 | 38 8.85 | | 40 | 52 35 44.08 | |
| d | 0.86332 | | | | | | 35 38.29 | | | − 2 | +11.56 |
| | 9.78346 | | | | | | + 5.79 | | | + 14 | |
| 78 ((δ) − D) $\frac{d'}{100}$ | 0.76249 | | | | | | | 35 44.08 | | +11.06 | |
| | | | | 35 | | | | | | + 40 | |
| +9.61 $\delta_1$ | | 32 20.21 | ✓ | 34 47.6 | | | | | | −12.95 | |
| +0 4.84 | | | | | | | | | | 35 42.71 | |
| | +20.8 | 4 53.5 | 56.9 | 44 | 50,20 | 52 | 37 53.15 | | 40 | 28.82 | |
| d | 1.31806 | | 4 | | | | 35 27.32 | | | − 12 | +11.29 |
| | 9.78362 | | | | | | +16.50 | | | + 15 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.21739 | | | | | | | 35 38.82 | | +10.83 | |
| | | | | | | | | | | + 43 | |
| +9.61 $\delta_2$ | | 32 20.15 | | 35 46.9 | | | | | | −13.05 | |
| +0 4.84 | | | | | | | | | | 35 37.06 | ✓ |
| | +22.6 | 2 44.8 | 36.3 | 42 | 40,55 | 52 | 40 7.80 | | 40 | 52 37 55.14 | |
| d | 1.35411 | | | | | | 37 37.24 | | | − 14 | +11.43 |
| | 9.78313 | | | | | | +17.90 | | | + 8 | |
| 50 ((δ) − D) $\frac{d'}{100}$ | 1.25295 | | | | | | | 37 55.14 | | +11.07 | |
| | | | | | | | | | | + 40 | |
| +9.63 $\delta_1$ | | 34 17.27 | | 37 58.2 | | | | | | −12.90 | |
| +0 4.48 | | | | | | | | | | 37 53.67 | |
| | +24.9 | 2 50.0 | 42.8 | 42 | 46,40 | 52 | 40 1.75 | | 40 | 54.81 | |
| d | 1.47567 | | | | | | 37 31.12 | | | − 24 | +11.13 |
| | 9.78313 | | | | | | +23.69 | | | + 8 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.37451 | | | | | | | 37 54.81 | | +10.86 | |
| | | | | | | | | | | + 43 | |
| +9.63 $\delta_2$ | | 34 17.15 | | 37 57.4 | | | | | | −13.00 | |
| +0 4.48 | | | | | | | | | | 37 52.94 | |
| | +25.4 | 0 41.9 | 34.3 | 40 | 38,10 | 50 | 42 10.25 | | 40 | 50 40 0.70 | |
| d | 1.40483 | | | | | | 39 39.69 | | | − 17 | +9.17 |
| | 9.80197 | | | | | | +21.01 | | | + 2 | |
| 74 ((δ) − D) $\frac{d'}{100}$ | 1.32251 | | | | | | | 40 0.70 | | +8.94 | |
| | | | | | | | | | | + 38 | |
| +9.39 $\delta_1$ | | 35 20.94 | | 40 1.8 | | | | | | −12.40 | |
| +0 4.30 | | | | | | | | | | 39 57.47 | |
| | +20.1 | 0 37.7 | 32.2 | 40 | 33,95 | 50 | 42 14.40 | | 40 | 0.20 | |
| d | 1.30320 | | | | | | 39 43.57 | | | − 11 | +9.04 |
| | 9.80197 | | | | | | +16.63 | | | + 2 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.22088 | | | | | | | 40 0.20 | | +8.75 | |
| | | | | | | | | | | + 38 | |
| +9.39 $\delta_2$ | | 35 20.96 | | 40 1.0 | | | | | | −12.50 | |
| +0 4.30 | | | | | | | | | | 39 56.74 | |

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

1873phae.proj.1582R

214 215 66

Date$_1$ = R86.5 Observer Recorder Date$_2$ = R86.6 Observer Recorder Ru

| Star. α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5m 18s | 50° 02′ | 7.0 | 36m 29.1 | 36m 42.6 | 50.6 | 53.9 | 56.9 | 59.4 | 2694 | 53.90 | 36m 53.88 | |
| 36 3.3 | 50 1.5 | 7.1 | 30.3 | | | | | | | | +33.36 | |
| κ | | | 31.5 | | | | | | | | + .38 | |
| | | | 20.3 | | | | | | | | − 2 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 33.72 | 37 27.60 | |
| $\alpha_1$ | | | | | | | | | | | − 48 | |
| | | | | | | | | | | | 37 27.12 | +9.3 |
| | | | | | | | | | | | | +0 3 |
| | | 6.9 | 36 31.9 | 36 46.7 | 50.0 | 53.2 | 56.4 | 59.6 | 2659 | 53.18 | 36 53.18 | |
| κ | | | 32.8 | | | | | | | | +34.04 | |
| | | | 34.4 | | | | | | | | + .41 | |
| | | | 33.0 | | | | | | | | − 66 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.43 | 37 39.84 | |
| $\alpha_2$ | | | | | | | | | | | − 46 | |
| | | | | | | | | | | | 37 38.15 27.15 | +9. |
| | | | | | | | | | | | | +0 3 |
| 5m 38 13 | 50 58 | 9.0 | 37 21.3 | 37 40.7 | 44.3 | 47.7 | 50.6 | | | | 37 47.46 | |
| 36 57.6 | 50 57.8 | 8.5 | 33.1 | | | | | | | | +33.37 | |
| κ | | | 34.7 | | | | | | | | + .39 | |
| | | | 33.0 | | | | | | | | − 2 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 33.74 | 38 21.20 | |
| $\alpha_1$ | | | | | | | | | | | − 51 | |
| | | | | | | | | | | | 38 20.69 | +9.4 |
| | | | | | | | | | | | | +0 3. |
| | | 8.8 | 37 16.7 | 37 40.1 | 43.4 | 46.7 | 50.0 | 53.2 | 2334 | 46.68 | 37 46.68 | |
| κ | | | 18.1 | | | | | | | | +34.04 | |
| | | | 20.0 | | | | | | | | + .42 | |
| | | | 18.3 | | | | | | | | − 2 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.44 | 38 21.12 | |
| $\alpha_2$ | | | | | | | | | | | − 49 | |
| | | | | | | | | | | | 38 20.63 | +9.4 |
| | | | | | | | | | | | | +0 3 |
| 5m 39 42 | 50 24 | 9.1 | | | | | | | | | | |
| 38 26.6 | 50 24.1 | 9.0 | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | |
| | | 9.0 | 38 47.8 | 38 12.6 | 15.8 | 19.0 | 22.4 | 25.6 | 954 | 19.08 | 39 19.08 | |
| κ | | | 49.5 | | | | | | | | +34.04 | |
| | | | 57.3 | | | | | | | | + .41 | |
| | | | 49.5 | | | | | | | | − 2 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.43 | 39 53.51 | |
| $\alpha_2$ | | | | | | | | | | | − 49 | |
| | | | | | | | | | | | 39 53.02 | +9.3 |
| | | | | | | | | | | | | +0 3 |
| 5m 42 10 | 50 23 | 9.2 | | | | | | | | | | |
| 40 55.0 | 50 22.8 | 8.8 | | | | | | | | | | |
| κ | | 9.0 | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | |
| no 2m place | | 9.2 | 41 7.2 | 29.0 | 32.3 | 35.6 | 39.0 | 42.6 | 1785 | 35.70 | 4129 35.70 | +02 |
| κ | | 8.8 | | | | | | | | + 34.43 | +34.04 | |
| | | | | | | 42 | 9.65 | | | 21.21 | + .41 | 42 10.15 |
| | | 41 | 40.6 | | 44.2 | 47.2 | 50.4 | 53.8 | | | 41 47.28 | − 50 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.43 | +34.04 | |
| 40 55.0 | 50 22.8 | | | | | | | | | | + .41 | 9.65 |
| $\alpha_2$ | | | | | | | | | | | − 2 | |
| | | | | | | | | | | | 42 21.71 | +9.34 |
| | | | | | | | | | | | − 50 | +0 3.0 |
| 5m 43 36 | 50 08 | 8.9 | | | | | | | | | | |
| 42 20.9 | 50 7.6 | 9.0 | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | |
| | | 8.7 | 42 42.3 | 43 4.2 | 7.6 | 10.8 | 14.0 | 17.1 | 537 | 10.74 | 43 10.74 | |
| κ | 45 + 22 | | 49.0 | | | | | | | | +34.04 | |
| | | | 50.8 | | | | | | | | + .41 | |
| | | | 49.0 | | | | | | | | − 2 | |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.43 | 43 45.17 | |
| $\alpha_2$ | | | | | | | | | | | − 52 | |
| | | | | | | | | | | | 43 44.65 | +9.34 |
| | | | | | | | | | | | | +0 2.8 |

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

1873phaeproj.15822



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +23.6 | 3′ 33.2 | 25.4 | 18′ | 29.50 | 50 4 | 19.05 | | 15′ -- | 50 2 8.28 | |
| d | 1.37291 | | | | | 1 | 48.49 | | | − 15 | +8.55 |
| | 9.80777 | | | | | | +19.79 | | | + 10 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.29639 | | | | | | | 2 . 8.28 | | +8.25 | |
| +9.32 | | | | | | | | | | + 35 | |
| +0 3.92 $\delta_1$ | | 37 36.44 | | 2 8.6 | | | | | | −1215 | |
| | | | | | | | | | | 2 4.68 | |
| | +20.2 | 3 29.8 | 23.2 | 18 | 26.50 | 50 4 | 21.85 | | 15 | 7.96 | |
| d | 1.30537 | | | | | 1 | 51.02 | | | − 11 | +8.42 |
| | 9.80777 | | | | | | +16.94 | | | + 10 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.22885 | | | | | | | 2 7.96 | | +8.08 | |
| +9.32 | | | | | | | | | | + 35 | |
| +0 3.92 $\delta_2$ | | 37 36.47 | | 2 8.0 | | | | | | −1225 | |
| | | | | | | | | | | 2 4.13 | |
| | +14.5 | 2 29.8 | 20.9 | 22 | 25.35 | 51 0 | 23.00 | | 20 | 50 58 3.10 | |
| d | 1.16137 | | | | | 57 | 52.44 | | | − 6 | +9.67 |
| | 9.78967 | | | | | | +11.66 | | | + 7 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.06675 | | | | | | | 58 3.10 | | +9.26 | |
| +9.43 | | | | | | | | | | + 40 | |
| +0 3.76 $\delta_1$ | | 38 30.12 | | 58 4.1 | | | | | | −1240 | |
| | | | | | | | | | | 58 0.37 | |
| | +28.4 | 2 39.0 | 32.8 | 22 | 3590 | 51 0 | 12.45 | | 20 | 4.46 | |
| d | 1.45332 | | | | | 57 | 41.62 | | | − 21 | +9.34 |
| | 9.78967 | | | | | | +22.84 | | | + 7 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.35870 | | | | | | | 58 4.46 | | +9.08 | |
| +9.43 | | | | | | | | | | + 40 | |
| +0 3.76 $\delta_2$ | | 38 30.06 | | 58 5.1 | | | | | | −12.80 | |
| | | | | | | | | | | 58 1.30 | |
| | | 0 45.3 | 37.9 | 56- | 41.60 | 50 27 | 6.75 | | 55 | | |
| d | | | | | | 24 | 36.19 | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | +29.6 | 0 45.9 | 39.4 | 53- | 42.65 | 50 27 | 5.70 | | 55 | 50 24 59.49 | |
| d | 1.47129 | | | | | 24 | 34.87 | | | − 24 | +8.64 |
| | 9.80428 | | | | | | +24.62 | | | + 2 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.39128 | | | | | | | 24 59.49 | | +8.49 | |
| | | | | | | | | | | + 37 | |
| +9.37 $\delta_2$ | | 40 2.39 | | 24 59.3 | | | | | | −12.35 | |
| +0 3.50 | | | | | | | | | | 24 55.78 | |
| | | 1 23.3 | 14.9 | 56 | 19.10 | 50 26 | 29.25 | | 55 | | |
| d | | | | | | 23 | 58.69 | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | | | | | | | | | | 1618 | 2301 |
| | +28.5? | 1 28.2 | 21.9 | 56 | 25.05 | 50 26 | 23.30 | 24 16.18 | 55 | 50 24 ~~23.01~~ | 24 ~~16.18~~ |
| (2.15 50) | (1.45484) | 50 24 23.01 | 50 24 16.18 | | | 23 | 52.47 | | | − 36 | − 22 |
| d | 9.80443 | + 8.52 | + 8.66 | | | | +23.71 | | | + 4 | + 4 |
| +9.36 | +36.7? | | | | | | +30.64 | | | +8.47 | +8.47 |
| +0 3.06 ((δ) − D) $\frac{d'}{100}$ | (1.56467) | | | | | | | 24 . 23.01 | | + 37 | + 37 |
| | 9.80443 | | | | | | | | | −1225 | − 12.25 |
| +9.36 $\delta_2$ | 1.37498 | 42 19.01 | | 24 15.5 | | | | | | 24 ~~11.28~~ | 24 ~~12.39~~ |
| +0 3.06 | 1.48481 | 30.57 | | 22.5 | | | | | | 12.45 | 19.42 |
| | | 1 58.1 | 50.8 | | | | | | 10 | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | +21.7 | 1 ~~57.0~~ | 51.1 | 11 | 5495 | 50 10 | 54.30 | | 10 | 50 8 41.63 | 8.48 |
| d | 1.33646 | | | | | 8 | 23.47 | | | − 13 | ~~+20.78~~ |
| | 9.80686 | | | | | | +18.16 | | | + 6 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.25903 | | | | | | | 8 41.63 | | +8.50 | |
| +9.34 | | | | | | | | | | + 35 | |
| +0 2.82 $\delta_2$ | | 43 53.99 | | 8 40.6 | | | | | | −12.30 | |
| | | | | | | | | | | 8 37.81 | |

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

1873phae.proj.1582R

214 215 68

Date$_1$ = 1886.5 Observer / Recorder

Date$_2$ = 1886.6 Observer / Recorder

Ru

| Star. α | δ | Mag. | $T_s$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 7 07 | 50 20 | 8.2 | 46 23.4 | 46 36.3 | 39.7 | 43.0 | 46.1 | 49.4 | 2145 | 42.90 | 46 | 42.50 |
| 45 52.5 | 50 19.9 | 8.8 | 23.0 | | | | | | | | | +33.37 |
| κ | | | 27.0 | | | | | | | | | + .39 |
| | | | 25.1 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.74 | 47 | 16.64 |
| $a_1$ | | | | | | | | | | | | − 57 |
| | | | | | | | | | | | 47 | 16.07 |
| | | 8.6 | 46 15.4 | 46 35.7 | 39.0 | 42.1 | 45.3 | 48.8 | 2109 | 42.18 | 46 | 42.18 |
| | | | 16.7 | | | | | | | | | +34.04 |
| κ | | | 18.6 | | | | | | | | | + .41 |
| | | | 16.9 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.43 | 47 | 16.61 |
| $a_2$ | | | | | | | | | | | | − 55 |
| | | | | | | | | | | | 47 | 16.06 |
| 8 48 38 | 52 29 | 8.5 | 47 46.8 | 48 2.5 | 6.0 | 9.4 | 12.6 | 15.9 | 464 | 9.28 | 48 | 9.28 |
| 47 16.9 | 52 28.6 | 8.9 | 48.1 | | | | | | | | | +33.37 |
| κ | | | 49.7 | | | | | | | | | + .42 |
| | | | 48.2 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.77 | 48 | 48.05 |
| $a_1$ | | | | | | | | | | | | − 62 |
| | | | | | | | | | | | 48 | 42.43 |
| | | 8.5 | 48 3.3 | 48 1.7 | 5.0 | 8.4 | 11.7 | 15.2 | 420 | 8.40 | 48 | 8.40 |
| | | | 3.3 | | | | | | | | | +34.05 |
| κ | | | | | | | | | | | | + .44 |
| | | | | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.47 | 48 | 42.87 |
| $a_2$ | | | | | | | | | | | | − 61 |
| | | | | | | | | | | | 48 | 42.26 |
| 8 49 43 | 52 19 | 8.8 | 48 54.8 | 49 8.6 | 11.7 | 15.0 | 18.5 | 22.0 | 958 | 15.76 | 49 | 15.16 |
| 48 21.4 | 52 19.2 | 8.5 | 56.4 | | | | | | | | | +33.37 |
| κ | | | 57.8 | | | | | | | | | + .41 |
| | | | 56.3 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.76 | 49 | 48.92 |
| $a_1$ | | | | | | | | | | | | − 63 |
| | | | | | | | | | | | 49 | 48.29 |
| | | 8.5 | 49 0.3 | 49 9.7 | 11.0 | 14.6 | 17.8 | 21.1 | 722 | 14.44 | 49 | 14.44 |
| | | | 1.7 | | | | | | | | | +34.05 |
| κ | | | 2.3 | | | | | | | | | + .44 |
| | | | 1.8 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.47 | 49 | 48.91 |
| $a_2$ | | | | | | | | | | | | − 61 |
| | | | | | | | | | | | 49 | 48.30 |
| 8 50 2.0 | 49 59 | 9.0 | 49 48.4 | 49 52.3 | 53.8 | 58.6 | 2.3 | 5.8 | 2948 | 58.96 | 49 | 58.96 |
| 49 5.4 | 49 58.3 | 8.0 | 49.7 | | | | | | | +33.73 | | +33.37 |
| κ | | 9.0 | 57.6 | | | | | | | | | + .38 |
| | | | 49.9 | | | | | 50 | 50 | 45 45.94 | | − 2 50 32.69 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | 50 | 23.5 | 6.5 | 9.6 | 12.8 | 16.0 | 19.1 | 640 | 12.80 | 50 | 12.80 − 59 |
| 49 22.6 | 49 57.3 | | 25.4 | | | | | | | +3373 | | +33.37 |
| $a_1$ | | | 26.9 | | | | | | | | | + .38 |
| | | | 25.3 | | | | | | | | | − 2 50 46.63 |
| | | 9.2 | 50 4.2 ? | 49 57.9 | 54.8 | 58.2 | 1.3 | 4.6 | 2908 | 5816 | 49 | 58.16 − 57 |
| | | 7.9 | 4.2 | | | | | | | +34.43 | | +34.05 |
| κ | | | | | | 50 | 32.03 | | 50 | 45.83 | | + .40 50 32.51 |
| | | | | | | | | | | | 50 | 11.98 − 58 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | 50 | 39.7 | | 8.8 | 12.0 | 15.2 | 18.3 | | +3443 | | +34.05 |
| $a_2$ | | | 40.7 | | | | | | | | | + .40 |
| | | | 42.1 | | | | | | | | | − .02 50 46.41 |
| | | | 40.8 | | | | | | | | | − 58 |
| 8 51 36 | 52 49 | 9.8 | 51 14.2 | 51 1.8 | 4.8 | 8.9 | 12.0 | 15.0 | 442 | 8.84 | 51 | 8.84 46 |
| 50 14.3 | 52 48.4 | 9.2 | | | | | | | | | | +33.37 |
| κ | | 9.4 | | | Examine | | | | | | | + .42 |
| | | | | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.77 | 51 | 42.23 |
| 52 49 $a_1$ | | | | | | | | | | | | − 64 |
| | | | | | | | | | | | 51 | 41.59 |
| | | 9.2 | 51 50.0 | 51 1.0 | 4.7 | 7.8 | 11.3 | 14.8 | 393 | 7.86 | 51 | 7.86 |
| | | | 51.6 | 51 | | | | | | | | +34.05 |
| κ | | | 53.4 | | | | | | | | | + .44 |
| | | | 51.7 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.47 | 51 | 42.33 |
| $a_2$ | | | | | | | | | | | | − 63 |
| | | | | | | | | | | | 51 | 41.65 |

another #

reject

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

1873phae.proj.15822



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +17.8 | 0 ′ 37.5 | 29.3 | 0 ′ | 33,40 | 50 22 | 14.95 | | 0 ′ | 50 19 59.22 | |
| | 1.25042 | | | | | 19 | 44.39 | | | − 9 | +8.87 |
| d | 9.80504 | | | | | | +14.83 | | | + 2 | |
| 72 | 1.17117 | | | | | | | 19 59.22 | | +8.58 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| | | | | | | | | | | −12.00 | |
| +9.36 | | | | | | | | | | | |
| $\delta_1$ +0 2.20 | | 47 25.43 | | 19 58.3 | | | | | | 19 56.09 | |
| | +25.3 | 0 42.9 | 35.2 | 0 | 39,05 | 50 22 | 9.30 | | 0 | 59.55 | |
| | 1.40312 | | | | | 19 | 38.47 | | | − 17 | +8.61 |
| d | 9.80504 | | | | | | +21.08 | | | + 2 | |
| | 1.32387 | | | | | | | 19 59.55 | | +8.40 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| | | | | | | | | | | −12.10 | |
| +9.36 | | | | | | | | | | | |
| $\delta_2$ +0 2.20 | | 47 25.42 | | 19 58.3 | | | | | | 19 56.06 | |
| | +21.1 | 2 4.0 | 55.3 | 51 | 59,65 | 52 30 | 48.70 | | 50 | 52 28 34.92 | |
| | 1.32928 | | | | | 28 | 18.14 | | | − 12 | +11.27 |
| d | 9.78478 | | | | | | +16.78 | | | + 6 | |
| 88 | 1.22477 | | | | | | | 28 34.82 | | +10.93 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −12.45 | |
| +9.62 | | | | | | | | | | | |
| $\delta_1$ +0 1.96 | | 48 52.05 | | 28 35.7 | | | | | | 28 33.74 | |
| | +5.1 | 1 58.0 | 43.2 | 51 | 46,60 | 52 31 | 1.75 | | 50 | 34.98 | |
| | 0.70757 | | | | | 28 | 30.92 | | | − 1 | +11.16 |
| d | 9.78478 | | | | | | + 4.06 | | | + 5 | |
| | 0.60806 | | | | | | | 28 34.98 | | +10.70 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 42 | |
| | | | | | | | | | | −12.55 | |
| +9.62 | | | | | | | | | | | |
| $\delta_2$ +0 1.96 | | 48 51.88 | | 28 35.6 | | | | | | 28 33.59 | |
| | +18.9 | 0 54.1 | 44.8 | 0 | 49,45 | 52 21 | 58.90 | | 0 | 52 19 43.42 | |
| | 1.27646 | | | | | 19 | 28.34 | | | − 10 | +11.12 |
| d | 9.78609 | | | | | | +15.08 | | | + 6 | |
| 72 | 1.17826 | | | | | | | 19 43.42 | | +10.76 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −12.40 | |
| +9.60 | | | | | | | | | | | |
| $\delta_1$ +0 1.76 | | 49 57.89 | | 19 43.9 | | | | | | 19 42.14 | |
| | +12.6 | 0 48.2 | 39.8 | 0 | 44,00 | 52 22 | 4.35 | | 0 | 43.57 | |
| | 1.10037 | | | | | 19 | 33.52 | | | − 5 | +10.96 |
| d | 9.78609 | | | | | | +10.05 | | | + 6 | |
| | 1.00217 | | | | | | | 19 43.57 | | +10.54 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 41 | |
| | | | | | | | | | | −12.50 | |
| +9.60 | | | | | | | | | | | |
| $\delta_2$ +0 1.76 | | 49 57.90 | | 19 43.8 | | | | | | 19 42.03 | |
| | +9.1 | 2 7.2 | 59.8 | 22 | 3,50 | 50 0 | 44.85 58 | 22.772 | 0 | 49 58 22.77 | 58 4.01 |
| | 0.95904 | 49 58 22.77 | | 49 58 4.01 | | 58 | 14.29 | | | − 3 | − 4 |
| d | 9.79948 | + 8.56 | | +8.55 | | | + 7.48 | | | + 6 | + 6 |
| 80 | 0.87393 | | | | | | − 10.28 | | | +8.18 | +8.18 |
| +9.33 ((δ) − D) $\frac{d'}{100}$ +0 1.64 | −12.5 | | | | | | | 58 4.01 | | + 35 | + 35 |
| | 1.09691 m | | | | | | | 57 57.29 | | −11.80 | −11.80 |
| $\delta_1$ 82 | 9.79948 | 50 41.43 | | 58 21.2 | | | | | | 58 19.53 | 58 0.76 |
| | 1.01180 m | 55.27 | | 2.4 | | | | | | | |
| +9.33 | −6.0 | 1 53.9 | 46.9 | 21 | 53,40 | 50 0 | 57.95 58 | 22.192 | 0 | 22.19 | 3.45 |
| +0 1.64 | 0.77815 m | 49 58 22.19 | | 49 58 3.45 | | 58 | 27.12 | | | − 1 | − 23 |
| d | 9.79948 | + 8.40 | | +8.18 | | | − 4.93 | | | + 6 | + 6 |
| | −28.8 | | | | | | − 23.67 | | | +8.00 | +8.00 |
| ((δ) − D) $\frac{d'}{100}$ | 1.45982 m | | | | | | | 58 3.45 | | + 35 | + 35 |
| +9.33 | 9.79948 | | | | | | | | | −11.95 | −11.95 |
| $\delta_2$ +0 1.64 | 0.69304 m | 50 41.36 | | 58 20.3 | | | | | | 58 18.64 | 57 59.68 |
| | 1.37428 m | 55.16 | | 1.3 | | | | | | | |
| +9.33 | − 5.47 | 1 42.0 | 32.9 | 31 | 37,45 | 52 51 | 10.90 | | 30 | 52 48 ~~36.08~~ | 35.78 |
| +0 1.64 | 0.73239 m | | | | | 48 | 40.34 | | | − 1 | +11.75 |
| d | 9.78130 | | | | | | − 4.26 | | | + 5 | |
| | 0.62940 m | | | | | | | 48 36.08 | | +11.31 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.67 | | | | | | | | | | −11.90 | |
| $\delta_1$ +0 1.42 | | 51 51.26 | | 48 37.0 | | | | | | 48 35.63 | ✓ |
| ~~43.8~~ | +16.2 | 2 47.8 | 39.8 | 32 | 43,80 | 52 58 | 4.55 | | 30 | | |
| 1.64147 | 1.20952 | | | | | 48 | 33.72 | | | | |
| 9.78 d 130 | 9.78147 | | | | | | +12.79 | | | 52 47 46.51 | ✓ |
| 1.53848 | 1.10670 | | | | | | − 34.55 | 47 46.51 | | − 7 | +11.48 |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 8 | |
| | | | | | | | | | | +11.04 | |
| $\delta_2$ | | | | | | | | | | + 43 | |
| | | | | | | | | | | ~~−12.05~~ | |
| | | | | | | | | | | −12.40 | ✓ |
| | | | | | | | | | | 47 45.59 | |

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

1873phae.proj.1582R

Date$_1$ = R86.5 (214) Observer / Recorder — Date$_2$ = R86.6 (215) Observer / Recorder — 70 — Ru

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | |
| | 5 34 37 | 50 54 | 9.0 | 53 53.4 | 54 8.9 | 12.1 | 15.3 | 18.5 | 22.1 | 769 | 15.38 | 54 | 15.38 |
| | 5 3 22.2 | 50 54.2 | 9.0 | 54.8 | | | | | | | | | +33.37 |
| | κ | | | 55.0 | | | | | | | | | + .39 |
| | | | | 56.7 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.74 | 54 | 49.12 |
| | | | | | | | | | | | | | − 64 |
| | $\alpha_1$ | | | | | | | | | | | 54 | 48.48 |
| | | | | | | | | | | | | | |
| | | | 9.0 | 53 50.5 | 54 8.1 | 11.3 | 14.7 | 18.0 | 21.3 | 734 | 14.68 | 54 | 14.68 |
| | | | | 52.0 | | | | | | | | | +34.05 |
| | κ | | | 53.5 | | | | | | | | | + .42 |
| | | | | 52.0 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.45 | 54 | 49.13 |
| | | | | | | | | | | | | | − 63 |
| | $\alpha_2$ | | | | | | | | | | | 54 | 48.50 |
| | | | | | | | | | | | | | |
| δ | 5 56 40 | 50 04 | 8.7 | 56 17.3 | 56 19.6 | 22.6 | 26.0 | 29.1 | 32.6 | 1299 | 25.98 | 56 | 25.98 |
| | 55 34.7 | 50 4.2 | 8.2 | 17.3 | | | | | | | | | +33.37 |
| | κ | | | | | | | | | | | | + .38 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 33.73 | 56 | 59.71 |
| | | | | | | | | | | | | | − 64 |
| | $\alpha_1$ | | | | | | | | | | | 56 | 59.07 |
| | | | | | | | | | | | | | |
| | | | 8.0 | 53 55.2 | 56 18.8 | 21.9 | 25.2 | 28.4 | 31.7 | 1260 | 25.20 | 56 | 25.20 |
| | | | | 1.0 | | | | | | | | | +34.05 |
| | κ | | | 2.6 | | | | | | | | | + .40 |
| | | | | 56 0.9 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 3443 | 56 | 59.63 |
| | | | | | | | | | | | | | − 63 |
| | $\alpha_2$ | | | | | | | | | | | 56 | 59.00 |
| | | | | | | | | | | | | | |
| δ | 5 57 08 | 50 35 | 8.5 | 57 12.7 | 57 27.4 | 30.6 | 33.9 | 37.2 | 40.5 | 1696 | 33.92 | 57 | 33.92 |
| | 56 43.4 | 50 35.4 | 8.2 | 14.0 | | | | | | | | | +33.37 |
| | κ | | | 15.5 | | | | | | | | | + .39 |
| | | | | 14.1 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 3374 | 58 | 7.66 |
| | | | | | | | | | | | | | − 66 |
| | $\alpha_1$ | | | | | | | | | | | 58 | 7.00 |
| | | | | | | | | | | | | | |
| | | | 8.4 | 57 9.5 | 57 26.6 | 29.9 | 33.2 | 36.4 | 39.7 | 1658 | 33.16 | 57 | 33.16 |
| | | | | 10.7 | | | | | | | | | +34.05 |
| | κ | | | 12.1 | | | | | | | | | + .41 |
| | | | | 10.7 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.44 | 58 | 7.60 |
| | | | | | | | | | | | | | − 65 |
| | $\alpha_2$ | | | | | | | | | | | 58 | 6.95 |
| | | | | | | | | | | | | | |
| δ | 5 58 38 | 50 58 | 9.3 | 58 7.3 | 58 8.5 | 11.6 | 15.1 | 18.4 | 21.5 | 751 | 15.02 | 58 | 15.02 |
| | 57 22.9 | 50 58.1 | 9.2 | 7.3 | | | | | | | | | +33.38 |
| | κ | | | | | | | | | | | | + .39 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 3375 | 58 | 48.77 |
| | | | | | | | | | | | | | − 70 |
| | $\alpha_1$ | | | | | | | | | | | 58 | 48.07 |
| | | | | | | | | | | | | | |
| | | | 9.1 | 58 3.5 | 58 7.6 | 11.0 | 14.3 | 17.7 | 20.8 | 714 | 14.28 | 58 | 14.28 |
| | | | | 4.7 | | | | | | | | | +34.05 |
| | κ | | | 6.1 | | | | | | | | | + .42 |
| | | | | 4.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 34.45 | 58 | 48.73 |
| | | | | | | | | | | | | | − 68 |
| | $\alpha_2$ | | | | | | | | | | | 58 | 48.05 |
| | | | | | | | | | | | | | |
| δ | 5 59 49 | 52 50 | 9.1 | 59 3.5 | 59 15.8 | 19.1 | 22.6 | 26.0 | 29.4 | 11 29 | 22.58 | 59 | 22.58 |
| | 58 27.9 | 52 49.9 | 8.9 | 5.1 | | | | | | | | | +33.38 |
| | κ | | | 7.2 | | | | | | | | | + .42 |
| | | | | 5.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 33.78 | 59 | 56.36 |
| | | | | | | | | | | | | | − 72 |
| | $\alpha_1$ | | | | | | | | | | | 59 | 55.64 |
| | | | | | | | | | | | | | |
| | | | 9.0 | 59 6.6 | 59 14.9 | 18.2 | 21.8 | 25.2 | 28.5 | 10 86 | 21.72 | 59 | 21.72 |
| | | | | 8.5 | | | | | | | | | +34.05 |
| | κ | | | 9.8 | | | | | | | | | + .45 |
| | | | | 8.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | + 3448 | 59 | 56.20 |
| | | | | | | | | | | | | | − 71 |
| | $\alpha_2$ | | | | | | | | | | | 59 | 55.49 |

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

1873phae.proj.15822



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +18.7 | 0′ 42.9 | 34.7 | 25 | 38.80 | 50 57 | 9.55 | | 25′ | 50 54 54.38 | |
| | 1.27184 | | | | | 54 | 38.99 | | | − 10 | +9.53 |
| 70 d | 9.79965 | | | | | | +15.39 | | | + 2 | |
| | 1.18720 | | | | | | | 54 54.38 | | +9.22 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| | | | | | | | | | | −11.90 | |
| +9.43 δ1 | | 54 57.91 | | 54 53.1 | | | | | | 54 52.01 | |
| +0 1.06 | | | | | | | | | | | |
| | +22.7 | 0 44.8 | 37.2 | 25 | 41.00 | 50 57 | 7.35 | | 25 | 55.21 | |
| | 1.35603 | | | | | 54 | 36.52 | | | − 14 | +9.30 |
| d | 9.79965 | | | | | | +18.69 | | | + 2 | |
| | 1.27139 | | | | | | | 54 55.21 | | +9.02 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −12.05 | |
| +9.43 δ2 | | 54 57.93 | | 54 53.5 | | | | | | 54 52.46 | |
| +0 1.06 | | | | | | | | | | | |
| | +8.7 | 2 15.1 | 7.2 | 17 | 11.15 | 50 5 | 37.20 | | 15 | 50 3 13.93 | |
| | 0.93952 | | | | | 3 | 6.64 | | | − 2 | +8.67 |
| 78 d | 9.80762 | | | | | | + 7.29 | | | + 6 | |
| | 0.86285 | | | | | | | 3 13.93 | | +8.28 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.65 | |
| +9.34 δ1 | | 57 8.41 | | 3 11.4 | | | | | | 3 10.95 | |
| +0 0.50 | | | | | | | | | | | |
| | +24.3 | 2 26.0 | 19.8 | 17 | 22.90 | 50 5 | 25.45 | | 15 | 14.99 | |
| | 1.38561 | | | | | 2 | 54.62 | | | − 16 | +8.35 |
| d | 9.80762 | | | | | | +20.37 | | | + 7 | |
| | 1.30894 | | | | | | | 3 14.99 | | +8.09 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −11.75 | |
| +9.34 δ2 | | 57 8.34 | | 3 12.1 | | | | | | 3 11.59 | |
| +0 0.50 | | | | | | | | | | | |
| | +19.8 | 0 52.3 | 44.9 | 45 | 48.60 | 50 36 | 59.75 | | 45 | 50 34 45.61 | |
| | 1.29667 | | | | | 34 | 29.19 | | | − 11 | +9.18 |
| 76 d | 9.80290 | | | | | | +16.42 | | | + 5 | |
| | 1.21528 | | | | | | | 34 35.61 | | +8.86 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| | | | | | | | | | | −11.75 | |
| +9.40 δ1 | | 58 16.40 | | 34 43.3 | | | | | | 34 43.04 | |
| +0 0.30 | | | | | | | | | | | |
| | +22.5 | 0 53.2 | 47.9 | 45 | 50.55 | 50 36 | 57.80 | | 45 | 45.62 | |
| | 1.35218 | | | | | 34 | 26.98 | | | − 13 | +8.92 |
| d | 9.80290 | | | | | | +18.65 | | | + 2 | |
| | 1.27079 | | | | | | | 34 45.62 | | +8.66 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| | | | | | | | | | | −11.85 | |
| +9.40 δ2 | | 58 16.35 | | 34 43.0 | | | | | | 34 42.69 | |
| +0 0.30 | | | | | | | | | | | |
| | +7.7 | 2 17.1 | 8.9 | 22 | 13.50 | 51 0 | 35.35 | | 20 | 51 58 ~~10.98~~ 12.59 | |
| | 0.88649 | | | | | 58 | 4.79 | | | − 2 | +10.82 |
| 74 d | 9.78967 | | | | | | + ~~7.80~~ 6.19 | | | + 7 | |
| | 0.~~79187~~ 7 | | | | | | | 58 12.59 | | +10.37 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −12.05 | |
| +9.44 δ1 | | 58 57.51 | | 58 9.9 | | | | | | 58 ~~1.36~~ 9.79 | |
| +0 0.18 | | | | | | | | | | | |
| | +9.5 | 2 18.8 | 12.0 | 22 | 15.40 | 51 0 | 32.95 | | 20 | 9.76 | |
| | 0.97772 | | | | | 58 | 2.12 | | | − 3 | +10.59 |
| d | 9.78967 | | | | | | + 7.64 | | | + 7 | |
| | 0.88310 | | | | | | | 58 9.76 | | +10.15 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −12.15 | |
| +9.44 δ2 | | 58 57.49 | | 58 8.4 | | | | | | 58 8.20 | |
| +0 0.18 | | | | | | | | | | | |
| | +17.3 | 4 45.4 | 34.9 | 29 | 40.15 | 52 53 | 8.20 | | 25 | 52 50 51.28 | |
| | 1.23805 | | | | | 50 | 37.64 | | | − 8 | +11.82 |
| d | 9.78097 | | | | | | +13.64 | | | + 14 | |
| 88 | 1.13473 | | | | | | | 50 51.28 | | +11.36 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −12.15 | |
| +9.67 δ1 | | 0 5.31 | | 50 50.9 | | | | | | 50 50.95 | |
| −0 0.02 | | | | | | | | | | | |
| | +13.4 | 4 42.1 | 34.2 | 29 | 38.15 | 52 53 | 10.20 | | 25 | 49.91 | |
| | 1.12710 | | | | | 50 | 39.37 | | | − 5 | +11.64 |
| d | 9.78097 | | | | | | +10.54 | | | + 14 | |
| | 1.02378 | | | | | | | 50 49.91 | | +11.10 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 45 | |
| | | | | | | | | | | −12.38 | |
| +9.67 | | | | | | | | | | | |
| −0 0.02 δ2 | | 0 5.16 | | 50 49.2 | | | | | | 50 49.20 | |

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

1873phae.proj.1582R

214 215 72

Date$_1$ = R86.5 Observer / Recorder Date$_2$ = R86.6 Observer / Recorder Ru

| Star. | α | δ | Mag. | | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | h m s | ° ′ ″ | | | m s | m s | m s | m s | m s | m s | | m s | m s | |
| | 1 2 9 | 52 40 | 6.0 | | 44.6 | 53.4 | 57.0 | 0.2 | 3.8 | 7.1 | 3015 | 0.30 | 1 0.30 | |
| | 0 7.8 | 52 40.1 | 6.7 | | 46.2 | | | | | | | | +33.38 | |
| | κ | | | | 48.0 | | | | | | | | + .42 | |
| | | | | | 46.3 | | | | | | | | - 2 | 80 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 33.78 | 1 34.08 | |
| | | | | | | | | | | | | | - 74 | +9.6 |
| | $\alpha_1$ | | | | | | | | | | | | 1 33.34 | -0 0. |
| | | | 6.7 | 0 | 38.1 | 0 52.7 | 56.1 | 59.6 | 2.9 | 6.3 | 2975 | 59.50 | 0 59.50 | |
| | | | | | 39.1 | | | | | | | | +34.05 | |
| | κ | | | | 38.6 | | | | | | | | + .45 | |
| | | | | | | | | | | | | | - 2 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 3448 | 1 33.98 | |
| | | | | | | | | | | | | | - 73 | +9.6 |
| | $\alpha_2$ | | | | | | | | | | | | 1 33.25 | -0 0 |
| 6 | 2 3 0 | 52 45 | 9.2 | 1 | 52.2 | 2 1.8 | 5.2 | 9.0 | 11.9 | 15.6 | 435 | 8.70 | 2 8.70 | |
| | 1 13.8 | 52 45.0 | 9.0 | | 54.0 | | | | | | | | +33.38 | |
| | κ | | | | 53.4 | | | | | | | | + .42 | |
| | | | | | 53.9 | | | | | | | | - 2 | 82 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 33.78 | 2 42.48 | |
| | | | | | | | | | | | | | - 75 | +9.6 |
| | $\alpha_1$ | | | | | | | | | | | | 2 41.73 | -0 0 |
| | | | 9.1 | 1 | 52.0 | 2 0.8 | 4.6 | 8.0 | 11.3 | 14.7 | 394 | 7.88 | 2 7.88 | |
| | | | | | 53.2 | | | | | | | | +34.05 | |
| | κ | | | | 54.9 | | | | | | | | + .45 | |
| | | | | | 53.4 | | | | | | | | - 2 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 3448 | 2 42.36 | |
| | | | | | | | | | | | | | - 74 | +9.6 |
| | $\alpha_2$ | | | | | | | | | | | | 2 41.62 | -0 0 |
| 6 | 8 4 9 | 52 01 | 7.5 | 2 | 53.2 | 3 11.6 | 15.0 | 18.3 | 21.7 | 25.2 | 918 | 18.36 | 3 18.36 | |
| | 2 27.6 | 52 1.8 | 7.7 | | 54.5 | | | | | | | | +33.38 | |
| | κ | | | | 56.3 | | | | | | | | + .41 | |
| | | | | | 54.7 | | | | | | | | - 2 | 70 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 33.77 | 3 52.13 | |
| | | | | | | | | | | | | | - 74 | +9. |
| | $\alpha_1$ | | | | | | | | | | | | 3 51.39 | -0 0 |
| | | | 7.0 | 2 | 54.4 | 3 11.0 | 14.3 | 17.5 | 21.1 | 24.8 | 883 | 17.66 | 3 17.66 | |
| | | | | | 56.0 | | | | | | | | +34.05 | |
| | κ | | | | 37.4 | | | | | | | | + .44 | |
| | | | | | 55.9 | | | | | | | | - 2 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 3447 | 3 52.13 | |
| | | | | | | | | | | | | | - 73 | +9. |
| | $\alpha_2$ | | | | | | | | | | | | 3 51.40 | -0 0 |
| 6 | 8 55 | 52 12 | 6.5 | 5 | 0.3 | 5 16.6 | 19.9 | 23.1 | 26.6 | 30.1 | 1163 | 23.26 | 5 23.26 | |
| | 4 30.8 | 52 12.5 | 7.8 | | 1.6 | | | | | | | | +33.38 | |
| | κ | | | | 2.6 | | | | | | | | + .41 | |
| | | | | | 1.5 | | | | | | | | - 2 | 80 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 33.77 | 5 57.03 | |
| | | | | | | | | | | | | | - 76 | +9.5 |
| | $\alpha_1$ | | | | | | | | | | | | 5 56.27 | -0 1. |
| | | | 7.2 | 4 | 52.2 | 3 13.7 | 19.0 | 22.4 | 25.9 | 29.3 | 1123 | 22.46 | 5 22.46 | |
| | | | | | 53.2 | | | | | | | | +34.05 | |
| | κ | | | | 54.6 | | | | | | | | + .44 | |
| | | | | | 53.3 | | | | | | | | - 2 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 34.47 | 5 56.93 | |
| | | | | | | | | | | | | | - 75 | +9.5 |
| | $\alpha_2$ | | | | | | | | | | | | 5 56.18 | -0 1. |
| 6 | 6 8 9 | 52 34 | 8.6 | 6 | 0.4 | 4 23.9 | 27.0 | 30.7 | 34.0 | 37.4 | 1530 | 30.60 | 6 30.60 | |
| | 5 32.7 | 52 34.6 | 7.9 | | 1.7 | | | | | | | | +33.38 | |
| | κ | | | | 3.1 | | | | | | | | + .42 | |
| | | | | | 1.7 | | | | | | | | - 2 | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | + 33.78 | 7 4.38 | |
| | | | | | | | | | | | | | - 78 | +9.6 |
| | $\alpha_1$ | | | | | | | | | | | | 7 3.60 | -0 1. |
| | | | 8.1 | | | | | | | | | | | |
| | κ | | | | | | | | | | | | | |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| | $\alpha_2$ | | | | | | | | | | | | | |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +12.0 | 0 19.8 | 10.9 | 40 | 15.35 | 52 42 | 33.00 | | 40 | 52 40 13.52 | |
| | 1.14613 | | | | | 40 | 2.44 | | | − 5 | +11.51 |
| d | 9.78280 | | | | | | +11.08 | | | + 1 | |
| 80 | 1.04464 | | | | | | | 40 13.52 | | +11.15 | |
| | | | | | | | | | | + 40 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | −12.10 | |
| +9.65 | | | | | | | | | | 40 ~~13.03~~ | 12.93 |
| $\delta_1$ −0 0.30 | | 1 42.99 | | 40 12.6 | | | | | | | |
| | +20.9 | 0 23.1 | 15.8 | 40 | 19.45 | 52 42 | 28.90 | | 40 | 14.61 | |
| | 1.32015 | | | | | 39 | 58.07 | | | − 12 | +11.22 |
| d | 9.78280 | | | | | | +16.54 | | | + 1 | |
| | 1.21866 | | | | | | | 40 14.61 | | +10.90 | |
| | | | | | | | | | | + 43 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | −12.25 | |
| +9.65 | | | | | | | | | | 40 13.58 | |
| $\delta_2$ −0 0.30 | | 1 42.90 | | 40 13.3 | | | | | | | |
| | +14.8 | 0 8.4 | 58.9 | 35 | 3.65 | 52 47 | 44.70 | | 35 | 52 45 25.83 | |
| | 1.17026 | | | | | 45 | 14.14 | | | − 6 | +11.58 |
| d | 9.78197 | | | | | | +11.69 | | | 0 | |
| 82 | 1.06794 | | | | | | | 45 25.83 | | +11.24 | |
| | | | | | | | | | | + 40 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | −1205 | |
| +9.66 | | | | | | | | | | 45 25.36 | |
| $\delta_1$ −0 0.50 | | 2 51.39 | | 45 24.9 | | | | | | | |
| | +14.5 | 0 6.0 | 58.0 | 35 | 2.80 | 52 47 | 46.35 | | 35 | 26.98 | |
| | 1.16137 | | | | | 45 | 15.62 | | | − 6 | +11.36 |
| d | 9.78197 | | | | | | +11.46 | | | 0 | |
| | 1.05405 | | | | | | | 45 26.98 | | +10.99 | |
| | | | | | | | | | | + ~~35~~ 43 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | −1225 | |
| +9.66 | | | | | | | | | | 45 26.09 | |
| $\delta_2$ −0 0.50 | | 2 51.28 | | 45 25.6 | | | | | | | |
| | +23.7 | 3 8.0 | 59.9 | 18 | 3.95 | 52 4 | 44.40 | | 15 | 52 2 32.87 | |
| | 1.37475 | | | | | 2 | 13.84 | | | − 15 | +10.81 |
| d | 9.78902 | | | | | | +19.03 | | | + 9 | |
| 70 | 1.27948 | | | | | | | 2 32.87 | | +10.47 | |
| | | | | | | | | | | + 40 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | −1185 | |
| +9.57 | | | | | | | | | | 2 31.83 | |
| $\delta_1$ −0 0.70 | | 4 0.96 | | 2 31.1 | | | | | | | |
| | +21.8 | 3 7.2 | 0.0 | 18 | 3.60 | 52 4 | 44.75 | | 15 | 31.43 | |
| | 1.33846 | | | | | 2 | 13.92 | | | − 13 | +10.60 |
| d | 9.78902 | | | | | | +17.51 | | | + 9 | |
| | 1.24319 | | | | | | | 2 31.43 | | +10.24 | |
| | | | | | | | | | | + 40 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | −12.00 | |
| +9.57 | | | | | | | | | | 2 30.03 | |
| $\delta_2$ −0 0.70 | | 4 0.97 | | 2 29.3 | | | | | | | |
| | +21.8 | 2 28.2 | 19.9 | 7 | 24.05 | 52 15 | 24.30 | | 5 | 52 13 11.17 | |
| | 1.33846 | | | | | 12 | 53.74 | | | − 13 | +10.99 |
| d | 9.78723 | | | | | | +17.43 | | | + 7 | |
| 80 | 1.24140 | | | | | | | 13 11.17 | | +10.65 | |
| | | | | 3 | | | | | | + 40 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | −1185 | |
| +9.59 | | | | | | | | | | 13 10.31 | |
| $\delta_1$ −0 1.06 | | 6 5.86 | | 13 9.8 | | | | | | | |
| | +29.2 | 2 33.1 | 25.8 | 7 | 29.45 | 52 15 | 18.90 | | 5 | 11.42 | |
| | 1.46538 | | | | | 12 | 48.07 | | | − 22 | +10.68 |
| d | 9.78723 | | | | | | +23.35 | | | + 7 | |
| | 1.36832 | | | | | | | 13 11.42 | | +10.42 | |
| | | | | | | | | | | + 41 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | −12.00 | |
| +9.59 | | | | | | | | | | 13 10.~~35~~ 10 | |
| $\delta_2$ −0 1.06 | | 6 5.44 | | 13 9.0 | | | | | | 4 | |
| | +28.9 | 0 58.1 | 48.9 | 45 | 53.80 | 52 36 | 54.85 | | 45 | 52 34 37.22 | |
| | 1.46090 | | | | | 34 | 24.29 | | | − 22 | +10.97 |
| d | 9.78379 | | | | | | +22.83 | | | + 3 | |
| | 1.36040 | | | | | | | 34 57.22 | | +10.76 | |
| | | | | | | | | | | + 40 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | −11.90 | |
| +9.64 | | | | | | | | | | 34 ~~56.29~~ 4 | |
| $\delta_1$ −0 1.26 | | 7 13.24 | | 34 45.0 | | | | | | | |
| | | 0 59.0 55.0 ? | 47.9 | | | | | | 35 | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |

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

1873phae.proj.1582R



Date$_1$ = Feb. 5 (214) Observer / Recorder

Date$_2$ = Feb. 6 (215) Observer / Recorder

Ru

| Star. | α | δ | Mag. | $T_s$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 9m 22s | 52 25 | 9.0 | 8m 22.0 | 8m 47.8 | 51.1 | 54.5 | 57.8 | 1.3 | 2725 | 54.50 | 8 | 54.50 |
| | 8 0.6 | 52 25.8 | 9.0 | 23.4 | | | | | | | | | +33.38 |
| | κ | | | 24.7 | | | | | | | | | + .42 |
| | | | | 23.4 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.78 | 9 | 28.28 |
| | | | | | | | | | | | | | − 80. |
| | $\alpha_1$ | | | | | | | | | | | 9 | 27.48 |
| | | | 8.7 | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_2$ | | | | | | | | | | | | |

single observations

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 11 10 | | 50 15 | 8.7 | 10 18.7 | 16 39.2 | 42.6 | 45.7 | 48.8 | 52.3 | 2286 | 45.72 | 10 | 45.72 |
| 9 56.0 | | 50 14.0 | 9.0 | 22.0 | | | | | | | | | +33.35 |
| Feb. 5 | κ | | | 23.8 | | | | | | | | | + .38 |
| | | | | 21.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.71 | 11 | 19.43 |
| | | | | | | | | | | | | | − 26 |
| | $\alpha_1$ | | | | | | | | | | | 11 | 19.17 |
| 5 18 20 | | 50 29 | 9.0 | 17 48.1 | 18 51.2 | 54.8 | 57.8 | 6.4 | 4.4 | 2891 | 57.82 | 17 | 57.82 |
| 17 5.5 | | 50 28.1 | 9.3 | 49.0 | | | | | | | | | +33.35 |
| Feb. 5 | κ | | | 50.4 | | | | | | | | | + .39 |
| | | | | 49.2 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.72 | 18 | 31.54 |
| | | | | | | | | | | | | | − 33 |
| | $\alpha_2$ | | | | | | | | | | | 18 | 31.21 |
| 5 52 49 | | 49 51 | 5.5 | 52 5.0 | 52 17.0 | 20.3 | 23.5 | 26.8 | 29.4 | 11 75 | 23.50 | 52 | 23.50 |
| 51 34.6 | | 49 52.3 | 6.0 | 7.3 | | | | | | | | | +33.37 |
| Feb. 5 | κ | | | 9.1 | | | | | | | | | + .38 |
| | | | | 7.1 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +33.73 | 52 | 57.23 |
| | | | | | | | | | | | | | − 61 |
| | $\alpha_1$ | | | | | | | | | | | 52 | 56.62 |
| 5 45 22 | | 50 01 | 9.1 | 44 37.6 | 44 49.7 | 53.0 | 56.3 | 59.5 | 2.7 | 2812 | 56.24 | 49 | 56.24 |
| 44 6.7 | | 50 0.5 | 9.0 | 39.0 | | | | | | | | | +34.04 |
| Feb. 6 | κ | | | 40.4 | | | | | | | | | + .41 |
| | | | | 39.0 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +34.43 | 45 (50) | 30.67 |
| | | | | | | | | | | | | | − 53 |
| | $\alpha_2$ | | | | | | | | | | | 45 | 30.14 |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_1$ | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_2$ | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_1$ | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_2$ | | | | | | | | | | | | |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +31.8 | 4′ 45.2 | 37.8 | 54′ | 4′50 | 52 28 | 6.85 | | 50′ | 52 26 1.04 | |
| | 1.47276 | | | | | 25 | 36.29 | | | − 25 | +10.98 |
| d | 9.78510 | | | | | | +24.75 | | | + 14 | |
| | 1.39357 | | | | | | | 26 1.04 | | +10.69 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | 25 58.6 | | | | | | −1175 | |
| +9.62 | | 9 37.10 | | 26 7.95 | | | | | | 26 0.27 | |
| −0 1.68 $\delta_1$ | | | | | | | | | | | |
| | | 4 36.8 | 29.5 | | | | | | 50 | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | +23.9 | 0 13.9 | 3.9 | 5 | 8.90 | 50 17 | 39.45 | | 5 | 50 15 28.84 | |
| | 1.37840 | | | | | 15 | 8.89 | | | − 15 | +8.67 |
| d | 9.80580 | | | | | | +19.95 | | | 0 | |
| | 1.29991 | | | | | | | 15 28.84 | | +8.46 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| +9.29 | | | | | | | | | | −1250 | |
| +0 8.42 $\delta_1$ | | 11 28.46 | | 15 33.1 | | | | | | 15 24.71 | |
| | +8.6 | 1 24.8 | 17.9 | 51 | 21,35 | 50 31 | 27.00 | | 50 | 50 29 3.58 | |
| | 0.93450 | | | | | 28 | 56.44 | | | − 2 | +9.12 |
| d | 9.80366 | | | | | | + 7.14 | | | + 4 | |
| | 0.85387 | | | | | | | 29 3.58 | | +8.73 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| +9.33 | | | | | | | | | | −1270 | |
| +0 7.20 $\delta_2$ | | 18 40.54 | | 29 7.2 | | | | | | 29 0.00 | ✓ |
| | +16.4 | 1 29.9 | 20.9 | 26 | 25,40 | 49 56 | 22.95 | | 25 | 49 54 6.18 | |
| | 1.21484 | | | | | 53 | 52.39 | | | − 7 | +8.45 |
| d | 9.80897 | | | | | | +13.79 | | | + 4 | |
| | 1.13952 | | | | | | | 54 6.18 | | +8.11 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| +9.31 | | | | | | | | | | −11.70 | |
| +0 1.20 $\delta_1$ | | 53 5.93 | | 54 4.1 | | | | | | 54 2.93 | |
| | +17.2 | 4 40.9 | 35.0 | 19 | 3795 | 50 3 | 10.40 | | 15 | 50 0 54.00 | |
| | 1.23553 | | | | | 0 | 39.57 | | | − 8 | +8.47 |
| d | 9.80792 | | | | | | +14.43 | | | + 14 | |
| | 1.15916 | | | | | | | 0 54.00 | | +8.06 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.33 $\delta_2$ | | | | | | | | | | −12.10 | |
| +0 2.50 | | 45 39.47 | | 0 52.9 | | | | | | 0 50.37 | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |

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

1873phae.proj.1582R

Date$_1$ = Feb 10 1873 (216) — Observer / Recorder — $\eta$ = +.42

Date$_2$ = Feb 17 (218) — Observer / Recorder — $\eta$ = +.31

76

| Star. | $\alpha$ | $\delta$ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5h 52m 36s | 50° 17′ | 9.3 | 52m 8s | 52m 11.4s | 14.4s | 17.3s | 20.2s | 23.8s | 876 | 17.52 | 52m 17.52 | |
| | 51 +2.10 | 50 +5.6 | 9.0 | 8 | | | | | | | | +35.38 | |
| | κ 30.4 | 50 18.4 | | | | | | | | | | + .50 | |
| | | | | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +35.86 | 52 53.38 | |
| | $c_1$ | | | | | | | | | | | + 1 | |
| | | | | | | | | | | | | 52 53.39 | |
| | 51 12.0 | 50 15.6 | 9.0 | 51 26.1 | 51 49.6 | 52.8 | 56.9 | 59.2 | 2.4 | 2800 | 5600 | J-1 56.00 | |
| | | | 8.8 | 27.1 | | | | | | | +39.06 | +38.71 | |
| | κ | | | 28.0 | | | 52 | 35.24 | | 52 | 53.44 | + .37 | |
| | | | | 27.1 | | | | | | 52 | 35.24 | − 2 52.35.06 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | 52 18.0 | 52 7.9 | 10.9 | 14.2 | 17.4 | 20.6 | 710 | 14.20 | 52 14.20 + 18 | |
| | 61 30.4 | 50 18.4 | | 18.0 | | | | | | | +39.06 | +38.71 | |
| | $\alpha_2$ | | | | | | | | | | | + .37 | |
| | | | | | | | | | | | | − 2 52.53.26 | |
| 4 | 5h 55m 14s | 50 50 | 9.6 | 54 30.0 | 54 41.7 | 45.0 | 48.3 | 51.7 | 54.9 | 2426 | 4852 | 54 48.52 + 18 | |
| | 54 0.4 | 50 48.5 | 9.2 | 30.0 | | | | | | | | +35.38 | |
| | κ | | | | | | | | | | | + .51 | |
| | | | | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3587 | 55 24.19 | |
| | $\alpha_1$ | | | | | | | | | | | # 1 | |
| | | | | | | | | | | | | 55 24.18 | |
| | | | 9.2 | 54 22.9 | 54 38.5 | 41.7 | 45.0 | 48.3 | 51.5 | 2250 | 45.00 | 54 45.00 | |
| | | | | 24.3 | | | | | | | | +38.71 | |
| | κ | | | 26.1 | | | | | | | | + .38 | |
| | | | | 24.4 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.07 | 55 24.07 | |
| | | | | | | | | | | | | + 16 | |
| | $\alpha_2$ | | | | | | | | | | | 55 24.23 | |
| 4 | 5h 56m 01s | 49 53 | 8.3 | 55 19.4 | 55 27.1 | 30.3 | 33.4 | 36.6 | 39.8 | 1672 | 33.44 | 55 33.44 | |
| | 54 46.9 | 49 57.0 | 7.5 | 20.6 | | | | | | | | +35.38 | |
| | κ | | | 22.3 | | | | | | | | + .50 | |
| | | | | 20.8 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3586 | 56 9.30 | |
| | | | | | | | | | | | | − 2 | |
| | $\alpha_1$ | | | | | | | | | | | 56 9.28 | |
| | | | 8.0 | 55 42.7 | 55 (24.1) | 27.1 | 30.0 | 33.2 | 36.3 | | | 55 30.12 | |
| | | 57 27 | | 44.1 | | | | | | | | +38.71 | |
| | κ | | | 46.0 | | | | | | | | + .37 | |
| | | | | 44.3 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.06 | 56 9.18 | |
| | | | | | | | | | | | | + 15 | |
| | $\alpha_2$ | | | | | | | | | | | 56 9.33 | |
| 5 | 0h 04m 03s | 50 45 | 9.0 | 4 4.8 | 4 18.8 | 22.0 | 25.4 | 28.6 | 31.9 | 1267 | 25.34 | 4 25.34 | |
| | 37.3 | 50 44.0 | 9.0 | 4.8 | | | | | | | | +35.38 | |
| | κ | | | | | | | | | | | + .51 | |
| | | | | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +3587 | 5 1.21 | |
| 13 37 | | | | | | | | | | | | − .10 | |
| | $\alpha_1$ | | | | | | | | | | | 5 1.11 | |
| | | | 8.9 | 3 58.5 | 4 15.5 | 18.7 | 22.0 | 25.3 | 28.4 | 1099 | 21.98 | 4 21.98 | |
| | | 6 | 3 | 0.0 | | | | | | | | +38.71 | |
| | κ | 7 | 56 | 1.3 | | | | | | | | + .39 | |
| | | 11 | 18 | 3 57.9 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | 13 | 37 | | | | | | | | +39.08 | 5 1.06 | |
| | | | | | | | | | | | | + 6 | |
| | $\alpha_2$ | | | | | | | | | | | 5 1.02 | |
| 5 | 0h 14m 13s | 50 51 | 8.7 | 14 4.2 | 14 16.4 | 19.9 | 23.0 | 26.3 | 29.5 | 11 51 | 23.02 | 14 23.02 | |
| | 35.3 | 50 50.4 | 8.3 | 5.4 | | | | | | | | +35.38 | |
| | κ | | | 7.1 | | | | | | | | + .52 | |
| | | | | 5.6 | | | | | | | | − 2 | |
| Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 8.9 | | | | | | | | +3588 | 14 58.90 | |
| | | | | | | | | | | | | − .20 | |
| | $\alpha_1$ | | | | | | | | | | | 14 58.70 | |
| | | | 8.6 | 13 58.4 | 14 13.1 | 16.4 | 19.7 | 22.9 | 26.2 | 983 | 19.66 | 14 19.66 | |
| | | | | 59.6 | | | | | | | | +38.72 | |
| | κ | | | 1.2 | | | | | | | | + .37 | |
| | | | | 13 57.7 | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.09 | 14 58.75 | |
| | | | | | | | | | | | | − 4 | |
| | $\alpha_2$ | | | | | | | | | | | 14 58.71 | |

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

1873phae.proj.1582R

Feb. 10 −2′ 27.″95 +.″03
" 17 −2 29.85 +.03

Runs



| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +8.9 | 0′ 22.1 | 6.2″ | 0′ | 14.15″ | 50 | 22 34.20 | | 0′ | 50 20 13.60 | |
| | 0.93952 | | | | | | 20 6.25 | | | − 2 | +9.22 |
| 3.32 d | 9.80504 | | | | | | +7.25 | | | + 1 | |
| | 0.86027 | | | | | | | 20 13.50 | | +8.86 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| | | | | | | | | | | −13.45 | |
| +9.23 $\delta_1$ | | 53 2.62 | | 20 20.9 | | | | | | 20 9.27 | |
| +0 11.60 | | | | | | | | | 14.08 | | |
| | +23.9 | 0 5.5 | 57.0 | 0 | 1.25 | 50 | 22 47.10 | 20 | 41.33 0 | 17 41.83 | 14.4808 |
| | 1.46090 | 3 4.9 | 56.8 | 3 | 0.85 | 50 | 19 47.50 | | 0 | − 23 | + 0 |
| +9.23 d | 9.80504 | | | | | | 20 17.25 | | | + 09 | + 0 |
| +0 11.60 | 1.38165 | 50 17 41.73 | 50 | 20 14.08 | | | 17 17.65 | | | +8.4335 | +8.3540 |
| ((δ) − D) $\frac{d'}{100}$ | −3.8 | +8.52 | | +8.84 | | | +24.08 | 17 | 44.48 | + 37 | + 37 |
| | 0.57978 | | | +8.77 | | | − 3.17 | | 41.73 | −1385 | −1385 |
| +9.23 $\delta_2$ | 9.80550 | 52 44.27 | | 17 48.1 | | | | | | 20 36.82 | 17 9.47 |
| +0 11.60 | 0.50099 | 53 2.67 | | 20 20.6 | | | | | | 17 36.46 | 20 9.00 |
| | +18.3 | 0 26.8 | 13.1 | 30 | 19.95 | 50 | 52 28.40 | | 30 | 50 50 15.54 | |
| | 1.26245 | | | | | | 50 0.45 | | | − 9 | +9.73 |
| 3.2 d | 9.80043 | | | | | | +15.09 | | | + 1 | |
| | 1.17859 | | | | | | | 50 15.54 | | +9.42 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| | | | | | | | | | | −1355 | |
| +9.30 $\delta_1$ | | 55 33.48 | | 50 22.8 | | | | | | 50 11.72 | |
| +0 11.10 | | | | | | | | | | | |
| | +20.6 | 0 23.1 | 13.9 | 30 | 18.50 | 50 | 52 29.85 | | 30 | 16.98 | |
| | 1.31387 | | | | | | 50 0.00 | | | − 12 | +9.21 |
| d | 9.80043 | | | | | | +16.98 | | | + 1 | |
| | 1.23001 | | | | | | | 50 16.98 | | +8.93 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| | | | | | | | | | | −14.00 | |
| +9.30 $\delta_2$ | | 55 33.53 | | 50 23.3 | | | | | | 50 12.19 | |
| +0 11.10 | | | | | | | | | | | |
| | +12.6 | 3 33.8 | 20.8 | 28 | 27.30 | 49 | 54 21.05 | | 25 | 49 52 3.70 | |
| | 1.10087 | | | | | | 51 53.10 | | | − 5 | +8.73 |
| 3.2 d | 9.80927 | | | | | | +10.60 | | | + 10 | |
| | 1.02535 | | | | | | | 52 3.70 | | +8.33 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −1330 | |
| +9.20 $\delta_1$ | | 56 18.48 | | 52 10.1 | | | | | | 51 59.13 | |
| +0 11.00 | | | | | | | | | | | |
| | −14.2 | 3 3.8 | 55.7 | 27 | 59.75 | 49 | 54 48.60 | | 25 | 6.80 | |
| | 1.15229 | | | | | | 52 18.75 | | | − 5 | +8.29 |
| d | 9.80927 | | | | | | −11.95 | | | + 9 | |
| | 1.07721 | | | | | | | 52 6.80 | | +7.90 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −1370 | |
| +9.20 $\delta_2$ | | 56 18.53 | | 52 12.4 | | | | | | 52 1.39 | |
| +0 11.00 | | | | | | | | | | | |
| | +20.5 | 0 30.1 | 20.2 | 35 | 27.65 | 50 | 47 20.70 | | 35 | 50 45 9.68 | |
| | 1.31175 | | | | | | 44 52.75 | | | − 11 | +9.61 |
| 36 d | 9.80120 | | | | | | +16.93 | | | + 1 | |
| | 1.22866 | | | | | | | 45 9.68 | | +9.33 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| | | | | | | | | | | −1350 | |
| +9.32 $\delta_1$ | | 55 10.43 | | 45 15.3 | | | | | | 45 5.79 | |
| +0 9.50 | | | | | | | | | | | |
| | +22.1 | 0 29.2 | 20.0 | 35 | 24.60 | 50 | 47 23.75 | | 35 | 12.15 | |
| | 1.34439 | | | | | | 44 53.90 | | | − 13 | +9.11 |
| d | 9.80120 | | | | | | +18.25 | | | + 1 | |
| | 1.26130 | | | | | | | 45 12.15 | | +8.85 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| | | | | | | | | | | −1395 | |
| +9.32 $\delta_2$ | | 55 10.44 | | 45 16.8 | | | | | | 45 7.31 | |
| +0 9.50 | | | | | | | | | | | |
| | +17.4 | 4 6.2 | 52.9 | 28 | 59.53 | 50 | 53 48.80 | | 25 | 50 51 35.19 | |
| | 1.24055 | | | | | | 51 20.85 | | | − 8 | +9.90 |
| 36 d | 9.80027 | | | | | | +14.34 | | | + 12 | |
| | 1.15653 | | | | | | | 51 35.19 | 25 | +9.46 | |
| ((δ) − D) $\frac{d'}{100}$ | | 4 12.8 | 8.9 | | | | | | | + 40 | |
| | | | | | | | | | | −1335 | |
| +9.37 $\delta_1$ | | 15 8.07 | | 51 39.5 | | | | | | 51 31.79 | |
| +0 7.80 | | | | | | | | | | | |
| | +20.0 | 4 2.9 | 53.5 | 28 | 58.20 | 50 | 53 50.15 | | 25 | 36.78 | |
| | 1.30103 | | | | | | 51 20.30 | | | − 11 | +9.37 |
| d | 9.80027 | | | | | | +16.48 | | | + 12 | |
| | 1.21701 | | | | | | | 51 36.78 | | +8.97 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | 4 39 | |
| | | | | | | | | | | −13.90 | |
| +9.37 $\delta_2$ | | 15 8.08 | | 51 40.2 | | | | | | 51 32.35 | |
| +0 7.80 | | | | | | | | | | | |

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

1873phae.proj.1582R



Date$_1$ = Feb 10 — Observer / Recorder — Feb. 11 — Date$_2$ = Feb 17 — Observer / Recorder — Run

| Star. | $\alpha$ | $\delta$ | Mag. | $T_s$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | h m s | ° ′ | | m s | m s | s | s | s | s | | s | m | s |
| | 16 01 | 50 54 | | | | | | | | | | | |
| | 14 46.5 | 50 53.0 | 9.2 | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| Feb 11 | | | 9.2 | 15 14.7 | 15 28.5 | 32.0 | 35.2 | 38.5 | | | +36.17 | 15 | 20.187 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | 12.9 | | | | | | | | | +35.62 |
| | | | | 19.0 | | | | | | | | | + .57 |
| | $c_1$ | | | 17.9 | | | | | | | | | − 2 |
| | | | | | | | | | | 16 | 11.16 | 16 | 11.35 −19 |
| | | | 9.1 | 15 9.5 | 15 25.6 | 28.8 | 32.1 | 35.3 | 38.6 | 1604 | 32.08 | 15 | 32.08 |
| | | | | 10.7 | | | | | | | | | +38.72 |
| | κ | | | 12.3 | | | | | | | | | + .39 |
| | | | | 10.8 | | | | | | | +39.09 | | − 2 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | 16 | 11.17 |
| | $\alpha_2$ | | | | | | | | | | | | − 5 |
| | | | | | | | | | | | | 16 | 11.12 |
| 5 | 18 05 | 50 22 | 9.3 | 17 17.2 | 17 ~~34.8~~ | ~~38.1~~ | 41.6 | 44.8 | 47.9 | 2072 | 41.44 | 17 | 41.~~44~~53 |
| | 16 49.6 | 50 21.1 | 9.4 | 19.0 | | | 1.6 | 1.5 | 1.4 | | +35.88 | | +35.39 |
| | κ | | | 20.4 | | | | | | | | | + .51 |
| | | | | 22.7 | | | ~~48~~ | ~~47.09~~ | | 18 | ~~77.50~~ | | − 2 18 17.43 |
| Feb 11 | ((δ) — D) $\frac{\kappa'}{100}$ | | 9.7 | 17 28.5 | 17 35.0 | ~~38.0~~ | ~~41.6~~ | ~~45.0~~ | 48.1 | 17 2077 | ~~42.50~~ 41.54 | 17 | 41.~~42~~25 |
| | | | | 28.0 | 15 | 12 | 1.6 | 1.7 | 1.6 | | +36.16 | | +35.62 23 |
| | $\alpha_1$ | | | | | | | | | | | | + .56 18 17.20 |
| | | | | | | | | | | | | | − 2 18 17.70 |
| | | | 9.5 | 17 12.8 | 17 31.9 | 35.2 | 38.4 | 41.6 | 44.9 | 1920 | 38.40 | 17 | 38.40 −20 |
| | | | | 13.8 | | | | | | | | | 18 17.31 |
| | κ | | | 15.4 | | | | | | | | | +38.72 |
| | | | | 14.0 | | | | | | | | | + .39 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | − 2 |
| | | | | | | | | | | | +39.09 | 18 | 17.49 |
| | $\alpha_2$ | | | | | | | | | | | | − 7 |
| | | | | | | | | | | | | 18 | 17.42 |
| 5 | 22 44 | 52 02 | 8.6 | 21 59.3 | 22 6.2 | ~~10.8~~ | ~~12.9~~ | 16.8 | 20.0 | 657 | 1302 | 22 | 13.02~~44~~ |
| | 21 23.1 | 52 0.8 | 8.2 | 0.3 | | 9.2 | | | | | +35.91 | | +35.39 |
| | κ | | | 1.8 | | | | ~~49.07~~ | | | | | + .54 |
| | | | | 22 0.5 | | | 22 | ~~48.45~~ | | 22 | 48.93 | | − 2 22 48.93 |
| Feb 11 | ((δ) — D) $\frac{\kappa'}{100}$ | | 8.5 | 21 54.6 | 22 6.3 | 8.7 | 18.0 | 16.3 | 19.7 | 650 | 13.00 | 22 | 13.00 − 28 |
| | | | | 56.0 | | | | | | | | | +35.62 |
| | $\alpha_1$ | | | 57.7 | | | | | | | +36.19 | | + .59 |
| | | | | 56.1 | | | | | | | | | − 2 22 49.19 |
| | | | 8.4 | 21 50.0 | 22 3.2 | 6.6 | 8.8 | 13.2 | 16.6 | 494 | 9.88 | 22 | 9.88 − 26 |
| | | | | 51.5 | | | | | | | | | +38.74 |
| | κ | | | 53.2 | | | | | | | | | + .41 |
| | | | | 54.6 | | | | | | | | | − 2 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | | 22 | 49.11 |
| | | | | | | | | | | | +39.13 | | − 12 |
| | $\alpha_2$ | | | | | | | | | | | 22 | 48.89 |
| 5 | 24 04 | 52 08 | 8.8 | 23 15.6 | 23 27.0 | 30.1 | 33.3 | 36.7 | 40.0 | 1671 | 33.42 | 23 | 33.42 |
| | 22 43.7 | 52 6.6 | 8.3 | 18.4 | | | | | | | +35.91 | | +35.39 |
| | κ | | | 20.3 | | | | | | | | | + .54 |
| | | | | 17.1 | | | 24 | 9.03 | | 24 | 9.15 | | − 2 24 9.33 |
| Feb 11 | ((δ) — D) $\frac{\kappa'}{100}$ | | 8.9 | 23 13.0 ~~42.7~~ | 23 26.4 | 29.9 | 33.3 | 36.6 | 40.0 | 1662 | 33.24 | 23 | 33.24 − 30 |
| | | | | 14.1 ~~48.9~~ | | | | | | | | | +35.62 |
| | $\alpha_1$ | | | 15.2 ~~50.2~~ | | | | | | | +36.19 | | + .59 |
| | | | | ★ 14.1 | | | | | | | | | − 2 24 9.43 |
| | | | 8.8 | 23 7.5 | 23 23.4 | 26.7 | 30.1 | 33.4 | 36.7 | 1503 | 30.06 | 23 | 30.06 − 28 |
| | | | | ~~50.8~~ | | | | | | | | | +38.74 |
| | κ | | | 10.2 | | | | | | | | | + .41 |
| | | | | 8.8 | | | | | | | | | − 2 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.13 | 24 | 9.19 |
| | | | | | | | | | | | | | − 14 |
| | $\alpha_2$ | | | | | | | | | | | 24 | 9.05 |
| 5 | 25 28 | 49 56 | 8.7 | 24 41.5 | 24 56.8 | 0.0 | 3.2 | 6.4 | 9.6 | 3160 | 3.20 | 25 | 8.20 |
| | 24 13.1 | 49 55.8 | 9.0 | 42.7 | | | | | | | +35.87 | | +35.39 |
| | κ | | | 42.1 | | | | | | | | | + .50 |
| | | | | | | | 25 | 38 .78 | | 25 | 38.66 | | − 2 25 39.07 |
| Feb 11 | ((δ) — D) $\frac{\kappa'}{100}$ | | 9.1 | 24 47.8 | 24 56.3 | 59.4 | 2.6 | 6.2 | 9.3 | 3138 | 2.76 | 25 | 2.76 − 29 |
| | | | | 48.9 | | | | | | | | | +35.62 |
| | $\alpha_1$ | | | 50.2 | | | | | | | +36.15 | | + .55 |
| | | | | 49.0 | | | | | | | | | − 2 25 38.91 |
| | | | 9.1 | 24 34.0 | 24 53.3 | 56.6 | 59.7 | 3.0 | 6.2 | 2988 | 59.76 | 24 | 59.76 − 27 |
| | | | | 35.7 | | | | | | | | | +38.74 |
| | κ | | | 37.6 | | | | | | | | | + .37 |
| | | | | 35.8 | | | | | | | | | − 2 |
| | ((δ) — D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.09 | 25 | 38.85 |
| | | | | | | | | | | | | | − 13 |
| | $\alpha_2$ | | | | | | | | | | | 25 | 38.72 |

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

1873phaeproj.1582R

Feb. 11 −2′ ~~28.83~~ 29.09 +.03″



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | δ | ′ ″ | ″ | ′ | ″ | | | | ′ | | |
| | | | | | | | | | | − 0.26 | |
| | | | | | | | | | | 50 53 56.76 | |
| d | | | | | | | | | | − 8 | +9.46 |
| | +17.3 | | | | | | | | | + 5 | |
| 10 | 1.23805 | 1 43.9 | 30.1 | 26 | 3700 | 50 56 | 11.35 | 53 56.76 | 25 | ~~+9.57~~ | |
| ((δ) − D) $\frac{d'}{100}$ | 9.79981 | | | | | 53 | 42.62 | | | +9.10 | |
| +9.38 | | | | | | | +14.24 | | | + 39 | |
| δ₁ +0 7.60 | 1.15357 | 16 20.54 | | 54 0.1 | | | | | | −1345 | |
| | | | | | | | | | | 53 52.51 | |
| | +21.3 | 1 46.1 | 35.0 | 26 | 4005 | 50 56 | 8.30 | | 25 | 55.98 | |
| d | 1.32838 | | | | | 53 | 38.45 | | | − 12 | +9.32 |
| | 9.79981 | | | | | | +17.53 | | | + 5 | |
| | 1.24390 | | | | | | | 53 55.98 | | +9.00 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| +9.38 | | | | | | | | | | −1370 | |
| δ₂ +0 7.60 | | 16 20.50 | | 53 59.0 | | | | | | 53 51.40 | |
| | | | | | | | | | | | − 0.26 |
| | +21.6 | ~~3~~ 2.9 | 34.9 | 56 | 5690 | 50 ~~28~~ 4 | 51.45 | 23 41.48 | 55 | 50 ~~23~~ 41.48 | 22 41.69 |
| | 1.33445 | 18 ~~26.75~~ 52 | | 5 | | ~~28~~ 2 | 23.50 | | | 2 13 | − 5 |
| 04 d | 9.80458 | ~~26.59~~ 26.63 | | 22 44.6 | | 2 | +17.98 | | | + 9 | + 8 |
| | 1.25474 | | | 44.4 | | | | | | +8.73 | +8.56 |
| +10 ((δ) − D) $\frac{d'}{100}$ | +13.0 | ~~52~~ 55.4 | 41.9 | ~~56~~ 57 | 4865 | 50 ~~25~~ 4 | 59.70 | 23 41.69 | 55 | + 37 | + 37 |
| +9.32 | 1.11394 | 50 23 41.48 | 50 | 23 41.69 | | ~~28~~ 2 | 30.87 | | | −13.20 | −1330 |
| δ₁ +0 7.26 | 9.80443 | +9.06 | | + 8.56 | | 2 | +10.82 | | | ~~28~~ 2 37.34 | 22 37.09 |
| | 1.03408 | | | | | 4 | | | | | |
| | +24.4 | ~~2~~ 1.9 | 53.9 | 58 | 5790 | 50 ~~25~~ 2 | 50.45 | | 55 | 50 ~~28~~ 2 40.92 | |
| +9.32 | 1.38739 | 3 | | 7 | | ~~22~~ | 20.60 | | | − 15 | +8.72 |
| +0 7.26 d | 9.80473 | | | | | 22 | +20.32 | | | + 6 | |
| | 1.30783 | | | | | | | 22 40.92 | | +8.44 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | 2 | | | | | | + 37 | |
| | | | | | | | | | | −13.75 | |
| +9.32 | | | | | | | | | | ~~23~~ 35.89 | |
| δ₂ +0 7.26 | | 18 26.74 | | 22 43.~~5~~ | | | | | | 22 | |
| | +12.5 | 3 47.1 | 32.1 | 18 | 3960 | 52 4 | 8.75 | 1 50.84 | 15 | 52 1 50.84 | 52.19 |
| | 1.09691 | 22 58.60 | | 1 55.0 | | 1 | 40.80 | | | − 4 | − 8 |
| 14 d | 9.78902 | 58.46 | | 55.5 | | | +10.04 | | | + 11 | + 11 |
| | 1.00164 | | | | | | | | | +10.79 | +10.32 |
| +9.53 ((δ) − D) $\frac{d'}{100}$ | +16.9 | 3 47.9 | 33.9 | 18 | 4090 | 52 4 | 7.45 | 1 52.19 | 15 | + 45 | + 45 |
| +0 6.44 | 1.22789 | 52 1 50.84 | 52 | 1 52.19 | | 1 | 38.62 | | | −1355 | −1365 |
| δ₁ | 9.78902 | +11.31 | | + 10.80 | | | +13.57 | | | 1 ~~48.50~~ 60 | 49.08 |
| | 1.13262 | | | | | | | | | | |
| +9.53 | +18.3 | 3 46.6 | 35.9 | 18 | 4125 | 52 4 | 7.10 | | 15 | ~~52~~ 51.95 | |
| +0 6.44 | 1.26245 | | | | | 1 | 37.25 | | | − 9 | +10.69 |
| d | 9.78902 | | | | | | +14.70 | | | + 11 | |
| | 1.56718 | | | | | | | 1 51.95 | | +10.22 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 45 | |
| | | | | | | | | | | −14.20 | |
| +9.53 | | | | | | | | | | 1 48.44 | |
| δ₂ +0 6.44 | | 22 58.42 | | 1 54.9 | | | | | | | |
| | +15.3 | 2 47.9 | 33.9 | 12 | 4090 | 52 10 | 7.45 | 7 51.76 | 10 | 52 ~~10~~ 7 51.76 | 52.57 |
| | 1.18469 | 24 18.57 | | 7 55.8 | | 7 | 39.50 | | | − 6 | − 10 |
| 36 d | 9.78805 | 18.69 | | 55.8 | | | +12.26 | | | + 8 | + 8 |
| | 1.08845 | | | | | | | | | +10.90 | +10.45 |
| − 11 | | | | | | | | | | | |
| +9.54 ((δ) − D) $\frac{d'}{100}$ | +19.1 | 2 49.5 | 35.0 | 12 | 4225 | 52 10 | 6.10 | 7 52.57 | 10 | + 45 | + 45 |
| +0 6.22 | 1.28103 | 52 7 51.76 | 52 | 7 52.57 | | 7 | 37.27 | | | −13.55 | −1365 |
| δ₁ | 9.78805 | +11.37 | | +10.88 | | | +15.30 | | | 7 49.68 | 49.54 |
| | 1.18479 | | | | | | | | | | |
| +9.54 | +21.3 | 2 48.3 | 38.9 | 12 | 4360 | 52 10 | 4.75 | | 10 | 51.97 | |
| +0 6.22 | 1.32838 | | | | | 7 | 34.90 | | | − 12 | +10.63 |
| d | 9.78805 | | | | | | +17.07 | | | + 8 | |
| | 1.23214 | | | | | | | 7 51.97 | | +10.22 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 45 | |
| | | | | | | | | | | −14.20 | |
| +9.54 | | | | | | | | | | 7 48.40 | |
| δ₂ +0 6.22 | | 24 18.59 | | 7 54.6 | | | | | | | |
| | +21.1 | 4 43.9 | 32.1 | 24 | 3800 | 49 | 58 10.35 | 56.00.14 | 20 | 49 56 00.14 | 55 59.56 |
| | 1.32428 | 25 48.07 | | 56 1.9 | | | 55 42.40 | | | − 12 | − 5 |
| 44 d | 9.80867 | 47.~~48.93~~ | | 0.8 | | | +17.74 | | | + 14 | + 14 |
| | 1.24866 | | | | | | | | | +8.40 | +8.06 |
| | | | | | | | | | | | |
| +9.29 ((δ) − D) $\frac{d'}{100}$ | +13.8 | 4 38.0 | 25.1 | 24 | 3155 | 49 | 58 16.80 | 55 59.56 | 20 | + 35 | + 35 |
| +0 5.96 | 1.13988 | 49 56 00.14 | | 55 59.56 | | | 55 47.97 | | | −12.95 | −1300 |
| δ₁ | 9.80867 | + 8.~~57~~ 77 | | +8.50 | | | +11.59 | | | 55 55.96 | 55 54.80 |
| | 1.06426 | | | | | | | | | | |
| +9.29 | +24.0 | 4 ~~38.0~~ | ~~25.1~~ | 24 | 3945 | 49 | 58 8.90 | | 20 | 55 59.21 | |
| +0 5.96 | 1.38021 | 43.9 | 35.0 | | | | 55 39.05 | | | − 15 | +8.31 |
| d | 9.80867 | | | | | | +20.16 | | | + 14 | |
| | 1.30489 | | | | | | | 55 59.21 | | +7.97 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −1350 | |
| +9.29 | | | | | | | | | | 55 54.02 | |
| δ₂ +0 5.96 | | 25 48.01 | | ~~56~~ 0.0 | | | | | | | |

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

1873phae.proj.1582R

Date$_1$ = Feb 10 (216) / Feb 11 (217) — Observer / Recorder

Date$_2$ = Feb 17 (218) — Observer / Recorder

80

| Star. | α | δ | Mag. | $T_s$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T | Run |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 27 19 | 51 0 18 | 8.6 | 26 m 27.3 | 26 47.3 | 50.7 | 53.9 | 57.2 | 0.7 | 2698 | 53.96 | 26 | 53.96 | |
| | 26 4.6 | 51 17.9 | 8.8 | 28.6 | | | | | | | +35.89 | | +35.39 | |
| | κ | | | 29.9 | | | | | | | | | + .52 | 28 |
| | | | | 28.6 | | | | | | | | | − 2 | |
| Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 9.0 | 26 26.1 | 26 47.1 | 50.5 | 53.7 | 57.0 | 0.1 | 2684 | 53.68 | 26 | 53.68 | 42 |
| | | | | 27.4 | | | | | | | +36.17 | | +35.62 | +9.45 |
| | $c_1$ | | | 28.6 | | | | | | | | | + .57 | +0 56 |
| | | | | 27.4 | | | | | | | | | − 2 | |
| | | | 8.8 | 26 22.8 | 26 44.0 | 47.3 | 50.5 | 53.8 | 57.1 | 2527 | 50.54 | 26 | 50.54 | |
| | | | | 24.2 | | | | | | | | | + .39 | +9.45 |
| | κ | | | 25.8 | | | | | | | | | − 2 | +0 56 |
| | | | | 24.8 | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.11 | 27 | 29.65 | |
| | | | | | | | | | | | | | − 16 | |
| | $\alpha_2$ | | | | | | | | | | | 27 | 29.49 | +9.45 |
| 5 | 28 26 | 50 58 | 9.1 | 27 46.1 | 27 53.6 | 57.0 | 0.2 | 3.3 | 6.5 | 3006 | 0.12 | 28 | 0.12 | +0 5 |
| | 27 10.7 | 50 58.1 | 9.0 | 47.3 | | | | | | | +35.88 | | +35.39 | |
| | κ | | | 48.3 | | | | | | | | | + .51 | 36 |
| | | | | 47.2 | | | | | | | | | − 2 | 60 |
| Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 9.2 | 27 40.3 | 27 53.3 | 56.7 | 59.5 | 3.0 | 6.3 | 2988 | 59.76 | 27 | 59.76 | |
| | | | | 41.4 | | | | | | | +36.17 | | +35.62 | +9.41 |
| | $\alpha_1$ | | | 42.1 | | | | | | | | | + .57 | +0 54 |
| | | | | 41.5 | | | | | | | | | − 2 | |
| | | | 9.2 | 27 36.7 | 27 50.0 | 53.2 | 56.6 | 59.8 | 3.0 | 2826 | 56.52 | 27 | 56.52 | |
| | | | | 38.2 | | | | | | | | | +38.74 | +9.41 |
| | κ | | | 40.3 | | | | | | | | | + .38 | +0 54 |
| | | | | 38.4 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | 28 | 36.62 | |
| | | | | | | | | | | | +39.60 | | − 17 | |
| | $\alpha_2$ | | | | | | | | | | | 28 | 35.45 | +9.41 |
| 5 | 29 34 | 52 50 | 8.6 | 28 48.1 | 28 57.1 | 0.6 | 4.2 | 7.4 | 10.9 | 3202 | 4.04 | 29 | 4.04 | +0 5 |
| | 28 13.0 | 52 46.7 | 8.4 | 49.3 | | | | | | | +35.92 | | +35.39 | |
| | κ | | | 52.2 | | | | | | | | | + .55 | 40 |
| | | | | 49.9 | | | | | | | | | − 2 | |
| Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 8.4 | 28 46.3 | 28 56.8 | 0.2 | 3.6 | 7.1 | 10.3 | 3182 | 3.64 | 29 | 8.64 | 48 |
| | | | | 47.6 | | | | | | | +36.21 | | +35.62 | +9.64 |
| | $\alpha_1$ | | | 49.1 | | | | | | | | | + .61 | +0 57 |
| | | | | 47.7 | | | | | | | | | − 2 | |
| | | | 7.9 | 28 44.8 | 28 53.7 | 57.3 | 0.5 | 4.0 | 7.3 | 3028 | 0.56 | 29 | 0.56 | |
| | | | | 46.3 | | | | | | | | | +38.74 | +9.64 |
| | κ | | | 47.8 | | | | | | | | | + .41 | +0 57 |
| | | | | 46.3 | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | 29 | 39.69 | |
| | | | | | | | | | | | +39.13 | | − 26 | |
| | $\alpha_2$ | | | | | | | | | | | 29 | 39.49 | +9.64 |
| 5 | 30 3.9 | 52 20 | 9.0 | 80 8.5 | 30 20.9 | 24.2 | 27.7 | 31.0 | 34.7 | 1385 | 27.70 | 30 | 27.70 | +0 5.7 |
| | 29 38.2 | 52 18.2 | 9.0 | 10.3 | | | | | | | +35.91 | | +35.39 | |
| | κ | | | 9.9 | | | | | | | | | + .54 | 22 |
| | | | | | | | 31 | 3.24 | | 31 | 3.33 | | − 2 | 32 |
| Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 9.3 | 30 13.5 | 30 20.7 | 24.2 | 27.7 | 30.8 | 34.3 | 1374 | 27.48 | 31 | 36.1 | |
| | | | | 15.5 | | | | | | | +36.10 | 30 | 27.48 | −37 |
| | $\alpha_1$ | | | | | | | | | | 2 | | +35.63 | +9.58 |
| | | | | | | | | | | | | | + .59 | +0 50 |
| | | | | | | | | | | | | | − 2 | |
| | | | 9.2 | 29 58.4 | 30 17.7 | 21.0 | 24.4 | 27.7 | 31.1 | 1219 | 24.38 | 31 | 3.68 | |
| | | | | 0.8 | | | | | | | | 30 | 24.38 | −35 |
| | κ | | | 1.6 | | | | | | | | | +38.74 | +9.58 |
| | | | | 30 0.3 | | | | | | | | | + .40 | +0 50 |
| | | | | | | | | | | | | | − 2 | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.12 | 31 | 3.50 | |
| | | | | | | | | | | | | | − 21 | |
| | $\alpha_2$ | | | | | | | | | | | 31 | 3.29 | +9.58 |
| 5 | 32 0.3 | 52 36 | 8.1 | 31 13.8 | 28 28.2 | 31.6 | 35.1 | 38.6 | 42.0 | 1755 | 35.10 | 31 | 35.10 | +0 5.0 |
| | 30 44.7 | 52 35.0 | 8.4 | 15.5 | | | | | | | +35.92 | | +35.39 | |
| | κ | | | 17.9 | | | | | | | | | + .55 | 46 |
| | | | | 16.7 | | | 32 | 10.64 | | 32 | 10.49 | | − 2 | 32 11.02 |
| Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 8.8 | 31 21.3 | 31 27.7 | 31.3 | 34.6 | 38.0 | 41.6 | 1732 | 34.64 | 31 | 34.64 | 46 |
| | | | | 22.6 | | | | | | | +36.21 | | +38.63 | +9.61 |
| | $\alpha_1$ | | | 24.0 | | | | | | | | | + .60 | +0 48 |
| | | | | 22.6 | | | | | | | | | − 2 | |
| | | | 8.1 | 31 5.1 | 31 25.0 | 28.3 | 31.6 | 35.0 | 38.3 | 1582 | 31.64 | 31 | 31.64 | 32 10.81 |
| | | | | 6.8 | | | | | | | +39.12 | | +38.74 | +9.61 |
| | κ | | | 8.6 | | | | | | | | | + .40 | +0 47 |
| | | | | 6.8 | | | 32 | 10.54 | | 33 | 26.72 | | − 2 | |
| Feb 17 | ((δ) − D) $\frac{\kappa'}{100}$ | | | 32 24.1 | 32 41.3 | 44.6 | 47.9 | 51.1 | 54.2 | 2391 | 47.82 | 32 | 47.82 | 32 10.76 |
| | | | | 25.3 | | | | | | | | | +38.74 | +9.61 |
| | $\alpha_2$ | | | 26.8 | | | | | | | +39.12 | | + .40 | +0 48 |
| | | | | 25.4 | | | | | | | | | − 2 | |
| | | | | | | | | | | | | 33 | 26.94 | |
| | | | | | | | | | | | | | − 22 | |

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

1873phaeproj.15828



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +25.4 | 2′ 8.2″ | 5.48 | 2′ | 1.50″ | 51 20 | 46.85 | 18 | 39.630″ | 51 18 39.63 | −0.26 |
| | 1.40483 | 27 38.98 | | 18 42.3 | | 18 | 18.90 | | | − 17 | 41.68 |
| 28 d | 9.79605 | 39.00 | | 43.5 | | | +20.73 | | | + 6 | − 18 |
| | 1.31659 | | | | | | | | | +9.97 | + 6 |
| 85 | +26.3 | 2 6.5 | 52.1 | 1 | 59.30 | 51 20 | 49.05 | 18 | 41.680 | + 41 | +9.57 |
| 32 .42 ((δ) − D) $\frac{d'}{100}$ | 1.41996 | 51 18 39.63 | 51 | 18 41.68 | | 18 | 20.22 | | | −1325 | + 41 |
| +9.45 $\delta_1$ | 9.79605 | +10 27 | | +9.86 | | | +21.46 | | | 18 36.65 | −1340 |
| +0 564 | 1.33172 | | | | | | | | | | 18 37.88 |
| 85 | | | | | | | | | | | |
| 30 | +26.2 | 2 6.5 | 52.1 | | | | | | 0 | 18 41.54 | ✓ |
| +9.45 | 1.41830 | 3.0 | 53.7 | 1 | 56.35 | 51 20 | 50.00 | | | − 18 | +9.72 |
| +0 564 d | 9.79621 | | | | | 18 | 20.15 | | | + 6 | |
| | 1.33022 | | | | | | +21.39 | | | +9.43 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | 17 | 41.54 | + 41 | |
| | | | | | | | | | | −1390 | |
| +9.45 $\delta_2$ | | 27 38.94 | | 18 43.0 | | | | | | 17 37.36 | |
| +0 564 | | | | | | | | | | | |
| | +12.9 | 1 39.1 | 24.2 | 21 | 31.65 | 51 1 | 16.70 | 58 | 59.3520 | 50 58 59.35 | 59 0.21 |
| 36 | 1.11059 | | | | | 50 58 | 48.75 | | | − 5 | − 9 |
| d | 9.79903 | 28 45.08 | | 59 1.6 | | | +10.60 | | | + 5 | + 5 |
| 00 | 1.02533 | 45.03 | | 1.7 | | | | | | +9.59 | +9.20 |
| 33 +9.41 ((δ) − D) $\frac{d'}{100}$ | +18.3 | 1 42.1 | 26.6 | 21 | 34.35 | 51 1 | 14.00 | 59 | 0.2120 | + 40 | + 40 |
| +0 546 $\delta_1$ | 1.26245 | 50 58 59.35 | 50 59 | 0.21 | | 50 58 | 45.17 | | | −1320 | −1330 |
| | 9.79903 | +0999 | | +9.56 | | | +15.04 | | | 58 56.14 | 58 56.21 |
| 93 | 1.17719 | | | | | | | | | | |
| 31 | +18.1 | 1 37.8 | 27.2 | 21 | 32.50 | 51 1 | 15.85 | | 20 | 50 59 0.87 | |
| +9.41 | 1.25768 | | | | | 50 58 | 46.00 | | | − 9 | +9.45 |
| +0 546 d | 9.79903 | | | | | | +14.87 | | | + 5 | |
| | 1.17242 | | | | | | | 59 | 0.87 | +9.09 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| | | | | | | | | | | −1380 | |
| +9.41 $\delta_2$ | | 28 44.86 | | 59 2.0 | | | | | | 58 56.52 | |
| +0 546 | | | | | | | | | | | |
| | +14.1 | 1 8.1 | 52.2 | 31 | 0.15 | 52 51 | 48.20 | 49 | 31.3730 | 52 49 31.37 | 33.66 |
| | 1.14922 | | | | | 49 | 20.25 | | | − 5 | − 7 |
| 40 d | 9.78130 | 29 49.24 | | 49 35.2 | | | +11.12 | | | + 3 | + 3 |
| 96 | 1.04623 | 49.15 | | 36.6 | | | | | | +11.71 | +11.23 |
| 36 48 ((δ) − D) $\frac{d'}{100}$ | +15.9 | 1 5.9 | 50.9 | 30 | 58.40 | 52 51 | 49.95 | 49 | 33.6630 | + 49 | + 49 |
| +9.64 | 1.20140 | 52 49 31.37 | 52 | 49 33.66 | | 49 | 21.12 | | | −1365 | −1375 |
| +0 526 $\delta_1$ | 9.78130 | +12.18 | | +11.68 | | | +12.54 | | | 49 29.90 | 58 31.33 |
| 75 | 1.09841 | | | | | | | | | | 49 |
| 34 | +14.3 | 0 5.9 | 52.9 | 30 | 57.90 | 52 51 | 50.45 | | 30 | 31.88 | |
| +9.64 | 1.15534 | 3.0 | 52.8 | | | 49 | 20.60 | | | − 5 | +11.57 |
| +0 526 d | 9.78130 | | | | | | +11.28 | | | + 3 | |
| | 1.05235 | | | | | | | 49 | 31.88 | +11.10 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 49 | |
| | | 4 | | | | | | | | −14.35 | |
| +9.64 $\delta_2$ | | 29 39.13 | | 49 34.4 | | | | | | 49 29.10 | |
| +0 526 | | | | | | | | | | | |
| | +17.8 | 1 28.9 | 6.9 | 1 | 18.90 | 52 21 | 29.45 | 19 | 15.700 | 52 19 15.70 | 15.58 |
| 22 d | 1.25042 | 31 12.82 | | 19 18.8 | | 19 | 1.50 | | | − 9 | − 4 |
| | 9.78625 | 12.91 | | 17.8 | | | +14.20 | | | + 4 | + 4 |
| 32 | 1.15238 | | | | | | | | | +11.13 | +10.65 |
| 361 37 +9.58 ((δ) − D) $\frac{d'}{100}$ | +12.0 | 1 21.6 | 6.0 | 1 | 13.50 | 52 21 | 34.85 | 19 | 15.580 | + 46 | + 46 |
| +0 502 $\delta_1$ | 1.07918 | 52 19 15.70 | 52 19 | 15.58 | | 19 | 6.02 | | | −1350 | −1360 |
| | 9.78625 | + 11.54 | | + 11.11 | | | + 9.66 | | | 19 13.74 | 19 12.83 |
| 68 | 0.98114 | | | | | | | | | | |
| 35 +9.58 | +24.1 | 1 27.7 | 18.2 | 1 | 23.05 | 52 21 | 25.30 | | 1 | 14.68 | |
| +0 502 | 1.38202 | | | | | 18 | 55.45 | | | − 15 | +10.87 |
| d | 9.78625 | | | | | | +19.23 | | | + 4 | |
| | 1.28398 | | | | | | | 19 | 14.68 | +10.52 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 46 | |
| | | | | | | | | | | −14.15 | |
| +9.58 $\delta_2$ | | 31 12.87 | | 19 16.4 | | | | | | 19 11.40 | |
| +0 507 | | | | | | | | | | | |
| | +19.4 | 0 59.9 | 45.3 | 2 5.4 | 52.60 | 52 34 | 55.75 | 34 | 43.19 45 | 52 34 43.19 | 35 45.09 |
| 46 d | 1.28780 | 32 20.25 | | 35 46.3 | | 34 | 27.80 | | | 5 − .10 | − 4 |
| | 9.78379 | 20.10 | | 47.4 | | 5 | +15.39 | | | + 3 | + 2 |
| 102 | 1.18730 | | | | | | | | | +11.43 | +10.90 |
| 38 46 ((δ) − D) $\frac{d'}{100}$ | +12.0 | 0 5.8 | 37.1 | 4 4 | 43.95 | 52 34 | 4.40 | 34 | 45.09 45 | + 48 | + 48 |
| +9.61 | 1.07918 | 52 34 43.19 | 52 | 34 45.09 | | 34 | 35.57 | | | −13.53 | −13.65 |
| +0 484 $\delta_1$ | 9.78362 | + 11.84 | | + 11.41 | | | + 9.52 | | | 34 41.48 | 34 42.59 |
| 81 | 0.97851 | | | | | | | | | 5 | |
| 36 | +24.8 | 0 58.0 | 46.9 | 4 5 4 | 53.45 | 52 34 | 54.90 | 34 | 27.02 45 | 35 44.73 | |
| +9.61 | 1.39445 | 32 34 27.02 | 52 | 34 42.82 | | 34 | 25.05 | | | 27.02 | 35 42.82 |
| +0 484 d | 9.78379 | + 11.13 | | + 11.15 | | | +19.97 | | | − 17 | − 13 |
| 076 | 0.29395 | | | | | | +17.77 | | | + 3 | + 3 |
| 22 ((δ) − D) $\frac{d'}{100}$ | +22.4 | | | | | | | | 34 42.82 | +10.79 | +10.77 |
| +961 | 1.35025 | | | | | | | | | + 48 | + 48 |
| +0 484 $\delta_2$ | 9.78379 | 32 20.15 | | 35 46.5 | | | | | | −14.22 | −14.22 |
| | 1.24976 | 33 36.33 | | 44.6 | | | | | | 34 23.93 | 34 39.75 |
| | | | | | | | | | | 35 41.64 | 35 |

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

1873phae.proj.1582R



Date$_1$ = 7 Feb 10 (216) (217 Feb. 11) Observer / Recorder

Date$_2$ = 7 Feb 17 (218) Observer / Recorder

Run

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 35m 0.4 | 50° 40′ | 7.3 | 34m 6.7 | 34m 29.7 | 33.0 | 26.1 | 39.3 | 42.8 | 1809 | 36.18 | 34m | 36.18 |
| | 33 49.0 | 39.6 | 8.8 | 8.6 | | | | | | | +35.88 | | +35.39 |
| | κ | | 8.8 | 10.8 | | | | | | | | | + .51 |
| | | | | 8.7 | | | | | | | | | − 2 |
| 7 Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 7.8 | 34 4.8 | 34 29.2 | 32.5 | 35.7 | 39.0 | 42.6 | 1790 | 35.80 | 34 | 35.80 − 38 |
| | | | 8.5 | 6.1 | | | | | | | | | +35.63 |
| | $\alpha_1$ | | | 7.5 | | | | | | | +36.17 | | + .56 |
| | | | | 6.1 | | | | | | | | | − 2 |
| | | | 7.6 | 34 4.3 | 34 26.1 | 29.4 | 32.6 | 35.9 | 39.2 | 1632 | 32.64 | 34 | 32.64 − 35 |
| | | | 8.4 | 6.3 | | | | | | | | | +38.75 |
| | κ | | | 7.7 | | | | | | | | | + .38 |
| | | | | 6.1 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.11 | | 35 11.75 |
| | | | | | | | | | | | | | − 23 |
| | $\alpha_2$ | | | | | | | | | | | | 35 11.62 |
| | | | | | | | | | | | | | 5 |
| 5 | 35 04 | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| 7 Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_1$ | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $\alpha_2$ | | | | | | | | | | | | |
| 5 | 36 45 | 51 24 | 6.8 | 36 19.1 | 36 13.0 | 18.5 | 21.7 | 25.0 | 28.3 | 1085 | 21.70 | 36 | 21.70 |
| | 35 30.37 | 22.4 | 8.6 | 19.1 | | | | | | | +35.90 | | +35.39 |
| | κ 33.0 | 57 26.2 | | | | | | | | | | | + .53 |
| | | | | | | | | | | | | | − 2 |
| 7 Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 6.5 | 36 1.8 | 36 14.9 | 18.2 | 21.5 | 24.8 | 28.0 | 1074 | 21.48 | 36 | 21.48 − 41 |
| | | | | 21.5 | | | | | | | +36.19 | | +35.63 |
| | $\alpha_1$ | | | 22.2 | | | | | | | | | + .58 |
| | | | | | | | | | | | | | − 2 |
| | | | 7.0 | 35 53.4 | 36 11.8 | 15.2 | 18.5 | 21.7 | 25.0 | 922 | 18.44 | 36 | 18.44 − 39 |
| | | | | 54.5 | | | 36 | 57.30 | | | | | +38.75 |
| | κ | | | 56.0 | | | | | | | | | + .39 |
| | | | | 54.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.12 | | 36 57.56 |
| | | | | | | | | | | | | | − 26 |
| | $\alpha_2$ | | | | | | | | | | | | 36 57.30 |
| 5 | 38 15 | 52 30 | 9.0 | 37 20.5 | 37 36.4 | 39.9 | 43.1 | 46.5 | 49.8 | 2159 | 43.14 | 37 | 43.14 |
| | 36 54.0 | 29.6 | 9.2 | 22.2 | | | | | | | +35.92 | | +35.39 |
| | κ | | | 23.7 | | | | | | | | | + .55 |
| | | | | 22.2 | | | 38 | 18.63 | | | | | − 2 |
| 7 Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 9.2 | 37 23.3 | 24.0 | 39.3 | 42.7 | 46.0 | 49.7 | 2138 | 42.76 | 37 | 42.76 − 43 |
| | | | | 24.6 | 36.0 | | | | | | | | +35.63 |
| | $\alpha_1$ | | | 26.3 | | | | | | | +36.21 | | + .60 |
| | | | | 24.7 | | | | | | | | | − 2 |
| | | | 9.1 | 37 13.0 | 37 33.0 | 36.4 | 39.7 | 43.0 | 46.4 | 1985 | 39.70 | 37 | 39.70 − 42 |
| | | | | 16.4 | | | 5 | 18.55 | | | | | +38.75 |
| | κ | | | 18.1 | | | | | | | | | + .40 |
| | | | | 16.0 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.13 | | 38 18.83 |
| | | | | | | | | | | | | | − 28 |
| | $\alpha_2$ | | | | | | | | | | | | 38 18.55 |
| | | | | | | | | | | | | | 7 |
| 6 | 39 05 | 50 03 | 8.8 | 38 20.0 | 38 31.5 | 34.8 | 38.0 | 41.0 | 44.5 | 1899 | 3798 | 38 | 37.98 |
| | 37 49.6 | 2.2 | 8.7 | 21.1 | | | | | | | +3587 | | +35.39 |
| | κ | | | 22.6 | | | | | | | | | + .50 |
| | | | | 21.2 | | | 39 | 13.44 | | | | | − 2 |
| 7 Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 8.5 | 38 18.4 | 21.1 | 34.4 | 37.7 | 41.0 | 44.0 | 1882 | 37.64 | 38 | 37.64 − 41 |
| | | | | 20.8 | | | | | | | | | +35.63 |
| | $\alpha_1$ | | | 23.3 | | | | | | | +36.16 | | + .55 |
| | | | | 20.8 | | | | | | | | | − 2 |
| | | | 8.6 | 38 23.6 | 28.1 | 31.3 | 34.5 | 37.7 | 41.0 | 1726 | 3452 | 38 | 34.52 − 39 |
| | | | | 20.0 | | | | | | | | | +38.75 |
| | κ | | | 26.7 | | | | | | | | | + .37 |
| | | | | 25.1 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.10 | | 39 13.62 |
| | | | | | | | | | | | | | − 27 |
| | $\alpha_2$ | | | | | | | | | | | | 39 13.35 |

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

1873phaeproj.15928

Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +27.5 | 2 20.1 | 6.0 | 402 | 1305 | 50 40 | 35.30 | 38 | 30.1240 | 50 38 30.12 | 39 59.50 |
| | 1.443933 | 0 50.9 | 36.4 | 40 | 43.65 | 50 42 | 4.70 | | | − 20 | − 20 |
| 38 d | 9.80 ~~7355~~ | 1.35732 | 35 21.07 | 40 | 0.37 | 1) ~~38~~ | ~~7.35~~ | | | + 7 | + 2 |
| 54 | 9.80166 | 1.35701 | 21.01 | | 1.6 | 2) | 39 36.75 | | | +9.22 | +9.24 |
| 2.06 38 ((δ) — D) $\frac{d'}{100}$ | +29.7 | 2 13.1 | 37.5 | 42 | 6.34 | 50 40 | 42.05 | 39 | 59.5040 | + 38 | + 38 |
| +9.39 | 1.472776 | 0 49.1 | 36.0 | | 42.55 | 60 42 | 5.80 | | | −129.5 | ~~−1305~~ 1295 |
| +0 4.30 $\delta_1$ | 9.80 ~~7355~~ | 1.39075 | 50 38 30.12 | 44 50 39 | 59.50 | 3) ~~38~~ | ~~13.22~~ | | | 38 26.64 | 39 55.~~7~~ 99 |
| 1.97 35 | 9.80166 | 1.39044 | + 9.47 | | + 9.44 | 4) | 39 36.97 | | | | |
| | +26.5 | 2 22.9 | 14.3 | 42 | 18.70 | 50 40 | ~~29.65~~ | 38 | 37.8140 | 37.81 | 40 1.54 |
| +9.39 | 1.423225 | 0 43.1 | 33.3 | 40 | 38.20 | 5) | ~~42 10.15~~ | | | − 24 | − 24 |
| +0 4.30 d | 9.80 ~~7355~~ | | | | | 1) | ~~39 40.30~~ | | | + 6 | + 2 |
| | 1.341 24 | 50 38 37.81 | 50 | 20 1.54 | | 2) | + 22.75 | | | ~~+8.75~~ | +8.86 |
| ((δ) — D) $\frac{d'}{100}$ | | + 9.04 | | + 9.01 0 | | 3) | ~~+ 24.69~~ | 40 | 1.54 | + 8.86 | + 38 |
| | | | | 40 1.8 | | 4) | + 24.57 | | | + 38 | − 1305 |
| +9.39 $\delta_2$ | | 35 20.91 | | 35 18.8 | | 5) | ~~+ 21.79~~ | | | −1305 | 39 57.~~51~~ |
| +0 4.30 | | | | | | 6) | + 21.92 | | | 38 33.~~85~~54 | .25 |
| | | | | | | | | 38 | 21.74 | 21.74 | 40 2.22 |
| | | | | | | | | | | − 19 | +9.02 19 |
| d | | | | | | | | | | + 7 | + 2 |
| | | | | | | | | | | +8.74 | + 8.74 |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | 40 | 2.22 | + 38 | + 38 |
| | | | | | | | | | | −1365 | 13.65 |
| $\delta_1$ | | | | | | | | | | 38 17.09 | 39 ~~57~~.52 |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | +2.6 | 2 25.8 | 12.3 | 52 | 19.05 | 51 30 | 29.30 | 28 | 3.4650 | 51 28 3.46 | 4.96 |
| 32 | 0.41497 | | | | | 28 | 1.35 | | | 0 | − 10 |
| d | ~~9~~.79447 | | | | | | + 2.11 | | | + 7 | + 7 |
| 26 | 0.32515 | | | | | | | | | +10.15 | +9.73 |
| 7.60 41 +9.48 ((δ) — D) $\frac{d'}{100}$ | +19.3 | 2 37.0 | 23.5 | 52 | 30.25 | 51 30 | 18.10 | 28 | 4.9650 | + 42 | + 42 |
| +0 4.00 | 1.285 66 | 51 28 3.46 | 51 28 4.96 | | | 27 | 49.27 | | | −1315 | −1325 |
| $\delta_1$ | 9.79447 | +10.64 | +10.12 | | | | + 15.69 | | | 28 0.95 | 28 1.57 |
| +9.48 | 1.19574 | 37 6.67 | 28 5.0 | | | | | | | | |
| 1.67 39 +0 4.00 | | 37 6.76 | 5.6 | | | | | | | | |
| | +23.8 | 2 38.8 | 29.4 | 52 | 34.10 | 51 30 | 14.25 | | 50 | 3.75 | |
| | 1.376 58 | | | | | 27 | 44.40 | | | − 15 | +9.96 |
| d | 9.79447 | | | | | | + 19.35 | | | + 8 | |
| | 1.28676 | | | | | | | 28 | 3.75 | +9.61 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 42 | |
| +9.48 | | | | | | | | | | −1385 | |
| +0 4.00 $\delta_2$ | | 37 6.78 | | 28 3.9 | 3.9 | | | | | 27 59.86 | |
| | +20.9 | 1 23 | 49.2 | 50 | 55.95 | 52 31 | 52.60 | 29 | 41.2650 | 52 29 47.65 | 44.40 |
| 38 d | 1.320 16 | | | | | 29 | 24.65 | | | − 12 | − 9 |
| | 9.78461 | | | | | | + 16.61 | | | + 3 | + 2 |
| 44 | 1.22047 | | | | | | | | | +11.34 | +10.85 |
| 2.06 43 +9.61 ((δ) — D) $\frac{d'}{100}$ | +18.1 | 0 56.8 | 42.2 | 50 | 49.50 | 52 31 | 58.85 | 29 | 44.4050 | + 47 | + 47 |
| +0 3.76 | 1.257 68 | 52 29 41.65 | 52 29 44.40 | | | 29 | 30.02 | | | −13.40 | −13.52 |
| $\delta_1$ | 9.78445 | +11.72 | +11.25 | | | | + 14.38 | | | 29 39.97 | 29 41.89 |
| 1.97 42 +9.61 | 1.157 84 | 38 28.74 | 29 43.7 | | | | | | | | |
| | | 28.16 | 45.6 | | | | | | | | |
| +0 3.76 | +23.2 | 1 | 47.9 | 50 | 47.95 | 52 31 | ~~50 60~~ 0.60 | | 50 | 4 | |
| d | 1.365 49 | | | | | 29 | 30.75 | | | 48.19 | |
| | 9.78445 | | | | | | + 18.44 | | | − 14 | +11.09 |
| | 1.26565 | | | | | | | 29 | 49.19 | + 2 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | +10.74 | |
| | | | | | | | | | | + 47 | |
| +9.61 | | | | | | | | | | −1410 | |
| +0 3.76 $\delta_2$ | | 38 28.16 | | 29 44.9 | | | | | | 29 48.18 | |
| | +18.8 | 2 18.9 | 5.0 | 17 4 | 11.95 | 50 5 | 36.40 | 3 | 22.6315 | 50 3 22.53 | ~~26.75~~ 25.25 |
| 34 | 1.225 31 | 39 22.78 | | 3 22.3 | | 3 | 8.45 | | | − 8 | − 8 |
| d | 9.80762 | 22.75 | | 24.3 | | | + 14.08 | | | + 7 | + 6 |
| 36 | 1.148 64 | | 1.8 | | 8.35 | | 40.00 | | | +8.55 | +8.20 |
| 3.85 41 | +16.8 | 2 14.9 | 5.8 | | | 50 5 | 41.50 | 3 | 26.7515 | + 35 | + 35 |
| +9.34 | 1.225 81 | 50 3 22.53 | 50 3 26.75 | | | 3 | ~~12.67~~ 11.17 | | | −12.70 | −12.85 |
| +0 3.62 $\delta_1$ | 9.80762 | + 8.89 | + 8.53 | | | | + 14.08 | | | 3 18.72 | 3 ~~22.17~~ |
| 1.148 64 | | | | | | | | | | | 2067 |
| 3.80 39 +9.34 | +9.4 | 2 7.5 | 58.5 | 17 | 3.00 | 50 5 | 45.35 | | 15 | 23.38 | |
| +0 3.62 | 0.97313 | | | | | 3 | 15.50 | | | − 3 | +8.46 |
| d | 9.80762 | | | | | | + 7.88 | | | + 6 | |
| | 0.89646 | | | | | | | 3 | 23.38 | +8.08 | |
| ((δ) — D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| | | | | | | | | | | −1340 | |
| +9.34 | | | | | | | | | | | |
| +0 3.62 $\delta_2$ | | 39 22.69 | | 3 22.1 | | | | | | 3 18.44 | |

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

1873phae.proj.1582R

Date$_1$ = Feb 10 (216, 217, Feb 11) Observer / Recorder — Date$_2$ = Feb 17 (218) Observer / Recorder — 84 — Run

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 41 17 | 50 36 | 9.0 | 40m 27.1 | 40m 43.1 | 48.3 | 51.7 | 54.6 | 57.1 | 2578 | 51.16 | 40m | (51.56) |
| | 40 2.0 | 35.3 | 9.4 | 28.9 | | | | | | | +35.88 | | +38.39 |
| | κ | | | 20.4 | | | | | | | | | + ,51 |
| | | | | 28.8 | | | 41 | 27.00 | | 41 | 27.09 | | − 2 41 27.41 |
| Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 9.5 | 40 32.0 | 44.9 | 48.1 | 51.4 | 54.6 | 57.7 | 2567 | 51.34 | 40 | 51.34 − 44 |
| | | | | 33.4 | | | | | | | +36.17 | | +35.63 |
| | $c_1$ | | | 34.6 | | | | | | | | | + ,56 |
| | | | | 33.3 | | | | | | | | | − 2 41 27.51 |
| | | | 9.4 | 40 27.9 | 40 41.7 | 44.8 | 48.1 | 51.3 | 54.7 | 2406 | 48.12 | 40 | 48.12 − 42 |
| | | | | 29.2 | | | | | | | | | +38.75 |
| | κ | | | 30.8 | | | | | | | | | + ,38 |
| | | | | 29.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.11 | 41 | 27.23 |
| | | | | | | | | | | | | | − 29 |
| | $c_2$ | | | | | | | | | | | 41 | 26.94 |
| 5 | 42 26 | 50 44 | 8.3 | 41 38.8 | 41 51.6 | 55.1 | 58.0 | 1.2 | 4.6 | 2905 | 58.10 | 41 | 58.10 |
| | 41 10.8 | 43.5 | 8.5 | 42.2 | | | | | | | +35.88 | | +35.39 |
| | κ | | | 43.5 | | | | | | | | | + ,51 |
| | | | | 41.5 | | | 42 | 33.53 | | 42 | 33.62 | | − 2 42 33.98 |
| Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 8.0 | 41 37.0 | 41 51.4 | 54.8 | 57.8 | 1.1 | 4.3 | 2894 | 57.88 | 41 | 57.88 − 45 |
| | | | | 39.0 | | | | | | | +36.17 | | +35.63 |
| | $a_1$ | | | 40.7 | | | | | | | | | + ,56 |
| | | | | 38.9 | | | | | | | | | − 2 42 34.05 |
| | | | 8.3 | 41 27.6 | 41 48.2 | 51.5 | 54.7 | 58.0 | 1.3 | 2737 | 54.74 | 41 | 54.74 − 43 |
| | | | | 29.0 | | | 42 | 33.85 | | 42 | 33.88 | | +38.75 |
| | κ | | | 30.6 | | | | | | | | | + ,38 |
| | | | | 29.1 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | 42 | 33.85 |
| | | | | | | | | | | | +39.11 | | − 30 |
| | $a_2$ | | | | | | | | | | | 42 | 33.55 |
| 6 | 43 47 | 50 42 | 8.2 | 41 46.7 | 43 12.3 | 15.8 | 19.1 | 22.2 | 25.5 | 949 | 18.98 | 43 | 18.98 |
| | 42 31.6 | 41.9 | 8.3 | 47.9 | | | | | | | +35.88 | | +35.39 |
| | κ | | | 49.5 | | | | | | | | | + ,51 |
| | | | | 48.0 | | | 43 | 54.40 | | 43 | 54.47 | | − 2 43 54.86 |
| Feb 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | 8.5 | 42 57.3 | 43 12.3 | 15.5 | 18.7 | 22.0 | 25.2 | 937 | 18.74 | 43 | 18.74 − 46 |
| | | | | 53.0 | | | | | | | +36.17 | | +35.63 |
| | $a_1$ | | | 54.4 | | | | | | | | | + ,56 43 |
| | | | | 52.9 | | | | | | | | | − 2 54.91 |
| | | | 8.0 | 42 47.3 | 43 9.2 | 12.5 | 16.6 | 18.9 | 22.1 | 783 | 15.66 | 43 | 15.66 − 44 |
| | | | | 48.6 | | | | | | | | | +38.76 |
| | κ | | | 50.1 | | | | | | | | | + ,38 |
| | | | | 48.7 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.12 | 43 | 54.78 |
| | | | | | | | | | | | | | − 32 |
| | $a_2$ | | | | | | | | | | | 43 | 54.46 |

Single Observations.

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 52 44 | | | | | | | | | | | | |
| Feb 17 | 51 38.4 | 18.4 | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_1$ | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_2$ | | | | | | | | | | | | |
| 4 | 57 27 | 50 07 | 8.0 | 57 9.0 | 56 | | 53.4 | 58.5 | 1.8 | | | 56 | 55.36 |
| Feb 17 | 56 12.9 | 56 12.3 | 7.5 | 16.3 | | | | | | | | | +38.71 |
| | κ | 5.3 | | 11.6 | | | | | | | | | + ,37 |
| | | | | 10.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.06 | 57 | 34.42 |
| | | | | | | | | | | | | | + 14 |
| | $a_1$ | | | | | | | | | | | 57 | 34.32 56 |
| | κ | | | | | | | | | | | | |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_2$ | | | | | | | | | | | | |

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

1873phae.proj.15828



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | (+22.8) (1.85793) | 0 5.9 | 52.1 | 44 | 59.00 | 50 37 | 49.35 35 | 40.30 | 45 | 50 35 | 40.30 34 42.99 |
| +9.39 d | 9.80274 | | | | | 35 | 21.40 | | | | − 0.26 |
| +0.32 | 1.27638 | | | | | | +18.90 | | | | 5 − 9 |
| | | | | | | | | | | | 0 |
| 7.41 44 ((δ) − D) $\frac{d'}{100}$ | +18.0 | 0 58.1 | 44.8 | 43 | 57.45 | 50 38 | 56.90 34 | 42.99 | 45 | + 0 | +8.79 |
| z² | 1.25527 | 50 35 40.30 | 50 34 42.99 | | | 34 | 28.07 | | | +9.17 | + 38 |
| +9.39 $\delta_1$ | 9.80290 | +9.41 | +9.08 | | | 5 | +14.92 | | | + 38 | −1290 |
| 27.51 42 +0.32 | 1.17388 | 41 36.39 | 35 40.1 | | | | | | | −1280 | 35 38.91 |
| | | 36.47 | 42.1 | | | | | | | 35 36.91 | |
| | +18.8 | 4 56.1 | 47.8 | 44 | 57.95 | 50 37 | 56.40 | | 40 | 42.13 | |
| | 1.27416 | | | | | 35 | 26.55 | | | − 10 | +9.10 |
| d | 9.80259 | | | | | | +15.58 | | | + 13 | |
| | 1.19246 | | | | | | | 35 | 42.18 | +8.69 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| +9.39 | | | | | | | | | | −1350 | |
| +0.32 $\delta_2$ | | 41 36.33 | | 35 41.0 | | | | | | 35 37.73 | |
| | +16.6 | 1 17.8 | 3.1 | 36 | 10.45 | 50 46 | 37.90 44 | 23.66 | 35 | 50 44 | 23.66 25.67 |
| 32 | 1.22011 | | | | | 44 | 9.95 | | | − 8 | − 10 |
| d | 9.80136 | | | | | | +13.71 | | | + 3 | + 3 |
| 38 | 1.13718 | | | | | | | | | +9.32 | +8.93 |
| 3.98 45 ((δ) − D) $\frac{d'}{100}$ | +19.0 | 1 16.0 | 3.1 | 36 | 9.55 | 50 46 | 38.80 44 | 25.67 | 35 | + 38 | + 38 |
| +9.41 | 1.27875 | 50 44 23.66 | 50 44 25.67 | | | 44 | 9.97 | | | −1280 | −1290 |
| +0.30 $\delta_1$ | 9.80136 | ± 9.65 | + 9.24 | | | | +15.70 | | | 44 20.51 | 44 21.75 |
| 4.05 43 | 1.19582 | 42 42.94 | 44 23.5 | | | | | | | | |
| | | 43.03 | 44 24.8 | | | | | | | | |
| | +26.6 | 1 19.1 | 9.9 | 36 | 14.50 | 50 46 | 33.85 | | 35 | 50 25.15 | |
| +9.41 | 1.40824 | | | | | 44 | 4.00 | | | − 18 | +9.07 |
| +0.30 d | 9.80136 | | | | | | +21.15 | | | + 4 | |
| | 1.32531 | | | | | | | 44 | 25.15 | +8.83 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| +9.41 | | | | | | | | | | −1350 | |
| +0.30 $\delta_2$ | | 42 42.96 | | 44 23.7 | | | | | | 44 20.72 | |
| 31.00 | | | | | | | | | | 42.720 | |
| | −29.0 | 3 45.9 | 31.8 | 38 | 38.85 | 50 44 | 9.50 | 41 17.57 | 35 | 50 42 17.57 | 42 9.70 |
| | 1.46240m | 44 3.80 | | 42 6.8 | | 41 | 41.55 | | | − 23 | − 18 |
| 24 d | 9.80166 | 3.87 | | 42 8.6 | | | −23.78 | | | + 14 | + 14 |
| | 1.37977m | | | | | | +32.66 | | | +9.24 | +8.90 |
| 3.86 46 ((δ) − D) $\frac{d'}{100}$ | +25.8 | 3 37.8 | 24.6 | 38 | 31.15 | 50 44 | 17.20 | 42 9.70 | 35 | + 38 | + 38 |
| +9.40 | 1.41162 | 50 41 17.57 | 50 42 9.70 | | | 41 | 48.37 | | | −1275 | −1290 |
| +0.278 $\delta_1$ | 9.80166 | +9.55 | +9.24 | | | | +21.33 | | | 42 4400 | 42 5.78 |
| 4.91 44 | 1.32899 | | | | | | | | | 400 | |
| | +27.0 | 3 36.2 | 26.3 | 38 | 31.25 | 50 44 | 17.10 | | 35 | 42 9.57 | |
| | 1.43136 | | | | | 41 | 47.25 | | | − 19 | +9.12 |
| d | 9.80166 | | | | | | +22.32 | | | + 14 | |
| | 1.34873 | | | | | | | 42 | 9.57 | +8.79 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| +9.40 | | | | | | | | | | −1350 | |
| +0.278 $\delta_2$ | | 44 3.86 | | 42 8.0 | | | | | | 42 5.19 | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | +44.8 | 2 16.3 | 7.2 | 12 | 11.75 | 50 10 | 36.60 | | 10 | 50 7 | 54.03 |
| | −15.2 | | | | | 8 | 8.65 | | | − 6 | +8.54 |
| d | 1.18184m | | | | | | 6.75 | | | + 7 | |
| | 9.80686 | | | | | | −12.72 | 7 | 54.03 | +8.18 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.10441m | | | | | | | | | + 35 | |
| 46 | | | | | | | | | | −1375 | |
| +9.23 | | | | | | | | | | 7 48.82 | |
| +10.74 $\delta_1$ | | 5743.79 | | 759.6 | | | | | | | |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |

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

1873phae.proj.1582R

Date$_1$ = Feb 10 / Feb 11 — Observer / Recorder — Date$_2$ = — Observer / Recorder — 86

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 6m 03s.51 | 58° 27′ 25.7 | 9.2 9.2 | 5m 18s.7 19.7 21.2 19.9 | 5m 32s.1 | 35s.4 | 38s.6 | 44s.8 | 46s.1 | 1930 | 38s.60 | 5m | 38s.60 +38.72 + .38 − 2 |
| | 4 | | | | | | | | | | +39.08 | 6 | 17.68 + 05 |
| | | | | | | | | | | | | 6 | 17.73 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_1$ | | | | | | | | | | | | |
| 5 | 7 56 | 52 14 | 9.2 | 6 49.6 | 7 14.7 | 18.0 | 21.3 | 24.7 | 28.1 | 1068 | 21.36 | 7 | 21.36 |
| | 6 35.6 | 12.9 | 8.9 | 51.2 | | | | | | | | | +38.72 |
| Feb 10 | κ | | | 53.0 | | | | | | | | | + .40 |
| | | | | 51.3 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | +39.10 | 8 | 0.46 + 3 |
| | $a_2$ | | | | | | | | | | | 8 | 0.49 |
| 5 | 9 45 | | | | | | | | | | | | |
| Feb 11 | κ | | | | | | | | | | | | |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_1$ | | | | | | | | | | | | |
| 5 | 11 18 | 50 22 | 8.5 | 11 23.1 | 11 42.1 | 45.3 | 48.4 | 51.7 | 54.9 | 2424 | 48.48 | 11 | 48.48 |
| | 11 3.7 | 20.8 | 8.9 | | | | | | | | | | +38.72 |
| Feb | κ 17 | | | | | | | | | | | | + .37 |
| | | | | | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | +39.07 | 12 | 27.55 − 1 |
| | $a_2$ | | | | | | | | | | | 12 | 27.64 |
| 5 | 11 18 | 50 22 | 9.0 | 11 32.0 | 11 42.1 | 48.3 | 51.5 | 54.9 | 58.0 | 2578 | 51.56 | 11 | 51.56 |
| | 11 3.7 | 20.8 | 8.9 | 33.5 | | | | | | | | | +38.72 |
| Feb 11 | κ | | | 34.9 | | | | | | | | | + .55 |
| | | | | 33.5 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | +39.15 | 12 | 27.71 − 14 |
| | $a_1$ | | | | | | | | | | | 12 | 27.57 |
| 5 | 13 37 | 50 31 | 8.8 | 11 47.6 | 12 1.5 | 4.2 | 8.2 | 11.4 | 14.7 | 407 | 8.14 | 13 | 8.14 |
| | 12 21.8 | 30.2 | 8.8 | 48.1 | 13 2.0 | 5.2 | 8.7 | 11.8 | 15.2 | | | | +38.38 |
| Feb 10 | κ 5 | | | 50.0 | | | | | | | | | + .51 |
| | | | | 48.8 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | 12 47.7 | | | | | | | +38.87 | 13 | 44.00 44.44 − 17 |
| | $a_2$ | | | | | | | | | | | 13 | 43.84 44.24 |
| 5 | 13 37 | | 9.2 | 12 39.5 | 12 38.7 | 1.9 | 5.2 | 8.4 | 11.5 | 3257 | 5.14 | 13 | 5.14 |
| | 12 21.85 | 50 30.2 | 8.8 | 40.7 | | | | | | | | | + 38.72 |
| Feb 17 | κ | | | 42.7 | | | | | | | | | + .38 |
| | | | | 41.0 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | +39.08 | 13 | 44.22 − 02 |
| | $a_1$ | | | | | | | | | | | 13 | 44.20 |
| 5 | 14 46.5 | 50 54 | 9.2 | | | | | | | | | | |
| Feb 11 | κ | 53.0 | 9.2 | | | | | | | | | | |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_2$ | | | | | | | | | | | | |
| 5 | 16 01 | 50 54 | 9.1 | | | | | | | | | | |
| | 14 46.5 | 53.0 | 9.2 | | | | | | | | | | |
| Feb 17 | κ | | | | | | | | | | | | |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_1$ | | | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_2$ | | | | | | | | | | | | |

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

1973phae.proj.15022



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +18.7 | 3 ~~533~~ | ~~399~~ | 53 | ~~4660~~ | 50 | 29 ~~8.65~~ | | 50 | 50 26 ~~54.34~~ | |
| | 1.27184 | 435 | 351 | | 38.70 | | 26 ~~1.75~~ 3+~~1.90~~3880 | | | ~~47.44~~ | |
| d | 9.80397 | | | | | | +15.54 | | | − 10 | +8.90 |
| | 1.19152 | | | | | | | 26 47.44 | | + 11 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | +8.52 | |
| | | | | | | | | | | + 37 | |
| +9.29 | | | | | | | | | | −13.85 | |
| +0 9.28 $\delta_1$ | | 627.02 | | 26 58.7 | 46.35 | | 2.00 | | | 26 ~~42.49~~ 49.39 | |
| | +30.1 | 0 ~~199~~ | ~~34.1~~ | 5 | ~~4200~~ | 52 | 17 ~~6.35~~ | | 5 | 52 ~~15~~ ~~0.55~~ | 56.20 |
| | 1.47857 | 512 | 415 | | | | 14 ~~36.50~~32.15 | | | 14 − 24 | +10.64 |
| d | 9.78691 | | | | | | +24.05 | | | + 2 | |
| | 1.38119 | | | | | | | 15 0.55 | | +10.45 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 41 | |
| +9.51 | | | | | | | | | | −14.35 | |
| +0 9.00 $\delta_2$ | | 8 10.00 | | 15 1.5 | | | | | | 14 ~~56.84~~ | 52.49 |
| | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| | +25.4 | 3 33.0 | 24.1 | 58 | 28.55 | 50 | 24 19.80 | | 55 | 50 22 11.10 | |
| | 1.40483 | | | | | | 21 49.95 | | | − 17 | + 9.29 |
| d | 9.80473 | | | | | | + 21.15 | | | + .10 | |
| | 1.32527 | | | | | | | | | + 8.99 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| +9.30 | | | | | | | | | | − 13.80 | |
| +08.22 $\delta_2$ | | 12 36.84 | | 22 14.8 | | | | | | 22 6.59 | |
| | | | | | | | | | | − 0.26 | |
| | +18.1 | 3 29.9 | 17.0 | 58 | 23.45 | {50} | 24 24.90 | | 55 | 50 22 11.14 | |
| | 1.25768 | | | | | | 21 56.07 | | | − 9 | +8.91 |
| d | 9.80473 | | | | | | +15.07 | | | + 10 | |
| | 1.17812 | | | | | | | 22 11.14 | | + 8.43 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | 573 | |
| | | | | | | | | | | + 37 | |
| +9.30 | | | | | | | | | | −13.80 | |
| +08.22 $\delta_1$ | | 12 36.67 | | 22 14.7 | | | | | | 35 | |
| | | | | | | | | | | 22 6.44 | |
| + 20.8 | ~~+19.3~~ | 4 5.1 | 51.5 | 48 | 58.20 | 50 | 33 50.05 | | 45 | 50 31 ~~38.12~~ | 39.36 |
| 1.31806 | 1.28556 | | | | | | 31 22.10 | | | − 10 | +10.68 |
| 9.80336 d | 9.80336 | | | | | | ~~+16.02~~ | | | + 13 | |
| 1.23713 | 1.20463 | | | | | | +17.26 | 31 38.12 | | +10.08 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| 24 +9.33 | | | | | | | | | | −13.30 | |
| +0 8.00 $\delta_2$ | | 4 13 53.57 | | 31 44.5 | | | | | | 31 ~~36.30~~ 36.54 | |
| | +24.1 | 1 2.5 | 47.4 | 478 | 54.95 | 50 | 33 34 53.40 | | 45 | 50 32 ~~43.55~~ | |
| | 1.38202 | | | | | | 32 23.55 | | | − .15 | +8.98 |
| d | 9.80320 | | | | | | 1 + 20.00 | | | + 12 | |
| | 1.30093 | | | | | | | 32 43.55 | | +8.63 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| +9.33 | | | | | | | | | | −13.85 | |
| +0 8.00 $\delta_1$ | | 13 53.53 | | 31 46.7 | | | | | | 31 38.68 | |
| | | 1 43.9 | 39.1 | | | | | | 25 | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |
| | | 1 45.1 | 35.0 | | | | | | 25 | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_1$ | | | | | | | | | | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| $\delta_2$ | | | | | | | | | | | |

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

1873phae.proj.1582R

Date$_1$ = Feb 11 1873 (217) — Observer / Recorder — $n$ = +.46

Date$_2$ = Feb 17 (218) — Observer / Recorder — $n$ = +.31

88

| Star. | $\alpha$ | $\delta$ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 43m 57s | 50° 32 | 9.2 | 45m 50.8 | 45m 25.0 | 28.4 | 31.5 | 34.8 | 38.3 | 1580 | 31.60 | 45m | 31.60 |
| | 44 42.5 | 31.6 | 9.0 | 52.6 | | | | | | | | | +35.63 |
| | κ | | | 54.4 | | | | | | | | | + .56 |
| | | | | 45 11.6 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | 45 10.0 | | | | | | | +36.17 | 46 | 7.77 |
| | | | | 11.1 | | | | | | | | | 46 |
| | $\alpha_1$ | | | 13.8 | | | | | | | | 46 | 7.31 |
| | | | 9.1 | 45 50.8 | 45 22.1 | 25.4 | 28.6 | 31.8 | 35.0 | 1429 | 28.58 | 45 | 28.58 |
| | | | 9.1 | 52.6 | | | | | | | | | +38.76 |
| | κ | | | 54.4 | | | | | | | +39.12 | | + .38 |
| | | | | 55.6 | | | | | | | | | − 2 |
| Feb 17 | $((\delta) - D)\frac{\kappa'}{100}$ | | | 44 58.0 | 45 25.1 | 38.0 | 41.2 | 44.5 | 47.7 | 46 | 2.02 | 46 | 7.67 |
| | | | | 58.0 | | | | | | | | | 33 |
| | $\alpha_2$ | | | | | | | | | | +39.12 | 45 | 41.23 |
| | | | | | | | | | | | | | +38.76 |
| | | | | | | | | | | | | | + .38 |
| | | | | | | | | | | | | | − 2 |
| 5 | 49 23 | 49 55 | 6.5 | 48 27.1 | 48 47.9 | 51.1 | 54.3 | 57.6 | 0.8 | 2717 | 54.34 | 48 | 54.34 |
| | 48 7.7 | 54.3 | 6.0 | 28.4 | | | | | | | | | +35.63 |
| | κ | | | 29.4 | | | | | | | | | + .55 |
| | | | | 28.3 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | +36.16 | 49 | 30.50 |
| | | | | | | | | | | | | | − 48 |
| | $\alpha_1$ | | | | | | | | | | | 49 | 30.02 |
| | | | 6.0 | 48 19.6 | 48 44.8 | 48.0 | 51.2 | 54.4 | 57.7 | 2561 | 57.22 | 48 | 57.22 |
| | | | | 21.2 | | | | | | | | | +38.76 |
| | κ | | | 22.4 | | | | | | | | | + .37 |
| | | | | 21.1 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | +39.11 | 49 | 30.33 |
| | | | | | | | | | | | | | − 36 |
| | $\alpha_2$ | | | | | | | | | | | 49 | 29.97 |
| 5 | 50 20 | 49 59 | 9.0 | 49 41.0 | 50.0 | 53.1 | 56.5 | 59.4 | 2.1 | 2821 | 56.42 | 49 | 56.42 |
| | 49 5.4 | 58.3 | 8.4 | 42.4 | | | | | | | | | +35.63 |
| | κ | | 9.0 | 44.3 | | | | | | | +36.16 | | + .55 |
| | | | | 42.6 | | | | 50 | | 50 | 45.82 | | − 2 50 32.58 |
| Feb 11 | $((\delta) - D)\frac{\kappa'}{100}$ | | | 50 18.0 | 50 4.0 | 6.8 | 10.0 | 13.3 | 16.5 | 507 | 10.14 | 50 | 10.14 − 48 |
| | 49 22.6 | 49 57.3 | | 19.0 | | | | | | | | | +35.63 |
| | $\alpha_1$ | | | 20.6 | | | | | | | +36.16 | | + .55 |
| | | | | 19.2 | | | | | | | | | − 2 50 46 30 |
| | | | 9.0 | 49 27.2 | 49 47.0 | 50.0 | 53.3 | 56.4 | 59.6 | 2663 | 53.26 | 49 | 53.26 − 48 |
| | | | 8.2 | 28.5 | | | | | | | | | +38.77 |
| | κ | | | 29.7 | | | | | | | +39.12 | | + .37 |
| | | | | 28.8 | | | | 50 | 32.01 | 50 | 46.86 | | − 2 50 32.38 |
| Feb 17 | $((\delta) - D)\frac{\kappa'}{100}$ | | | 50 4.6 | 50 0.7 | 4.0 | 7.1 | 10.3 | 13.4 | 355 | 7.10 | 50 | 7.10 − 37 |
| | | | | 4.6 | | | | | | | | | +38.77 |
| | $\alpha_2$ | | | | | | | | | | +39.13 | | + .38 |
| | | | | | | | | | | | | | − 2 50 46 23 |
| 5 | 52 49 | 49 52 | 6.3 | 51 52.8 | 52 14.6 | 17.8 | 20.9 | 24.1 | 27.3 | 1047 | 20.94 | 52 | 20.44 − 37 |
| | 51 34.6 | 52.3 | 6.0 | 54.3 | | | | | | | | | +35.63 |
| | κ | | | 55.4 | | | | | | | | | + .55 |
| | | | | 54.2 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | +36.16 | 52 | 57.10 |
| | | | | | | | | | | | | | − 51 |
| | $\alpha_1$ | | | | | | | | | | | 52 | 56.59 |
| | | | 6.1 | 51 45.8 | 52 11.6 | 14.7 | 17.9 | 21.1 | 24.3 | 896 | 17.92 | 52 | 17.92 |
| | | | | 47.1 | | | | | | | | | +38.77 |
| | κ | | | 48.5 | | | | | | | | | + .37 |
| | | | | 47.1 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | +39.12 | 52 | 57.04 |
| | | | | | | | | | | | | | − 39 |
| | $\alpha_2$ | | | | | | | | | | | 52 | 56.65 |
| 5 | 54 43 | 50 45 | 9.2 | 53 53.8 | 54 11.9 | 15.5 | 18.6 | 21.8 | 25.2 | 930 | 18.60 | 54 | 18.60 |
| | 53 28.1 | 44.5 | 9.0 | 53.0 | | | | | | | | | +35.63 |
| | κ | | | 56.6 | | | | | | | | | + .56 |
| | | | | 54.9 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | 53.8 | | | | | | | +36.17 | 54 | 54.77 |
| | | | | | | | | | | | | | − 54 |
| | $\alpha_1$ | | | | | | | | | | | 54 | 54.23 |
| | | | 9.1 | 53 44.7 | 54 2.0 | 12.3 | 15.6 | 18.8 | 22.0 | 777 | 15.54 | 54 | 15.54 |
| | | | | 43.9 | | | | | | | | | +38.77 |
| | κ | | | 47.2 | | | | | | | | | + .38 |
| | | | | 45.9 | | | | | | | | | − 2 |
| | $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | +39.13 | 54 | 54.67 |
| | | | | | | | | | | | | | − 42 |
| | $\alpha_2$ | | | | | | | | | | | 54 | 54.25 |

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

1873phae.proj.15822



Runs

| $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|
| ° | 3 53.0 | 38.9 | 48 | 45.95 | 50 34 | 2.40 | | 45 | 50 31 50.16 | |
| +20.0 | | | | | 31 | 33.57 | | | − 0.26 | |
| 1.30103 | | | | | | +16.59 | | | − 11 | +9.09 |
| 9.80320 | | | | | | | 31 50.16 | | + 11 | |
| 1.21994 | | | | | | | | | +8.71 | |
| 3.02 d | | | | | | | | | + 38 | |
| ((δ) − D) d′/100 | | | | | | | | | −12.75 | |
| +9.39 | | | | | | | | | | |
| +0 2.40 δ1 | 46 16.70 | | 31 48.6 | | 4 | | | | 31 46.24 | |
| −24.0? | 3 13.2 | 3.9 | 48 | 8.53 | 50 38 | 39.80 | | 45 | 31 50 ~~45.81~~ | 30 ~~50.03~~ 32 45.81 |
| (1.38021) | | | | | 38 | 9.95 | | | − 15 | − 50 |
| 9.80336 | 46 16.76 | | 31 48.0 | | | +19.92 | | | + 9 | + 9 |
| 1.29928 | | | | | | | 30 50.03 | | +8.62 | +8.62 |
| +9.39 | | | | | | | | | + 38 | + 38 |
| +0 2.40 d | | | | | | | | | −13.40 | −13.40 |
| ((δ) − D) d′/100 | | | | | | | | | 31 45.57 ~~41.86~~ | ~~30 45.22~~ 32 41.03 |
| +433 ? | | | 48 | 8.55 | 50 38 | 39.80 | | | ± 0.26 | |
| (1.63548) | 45.81 | 30 | 50.03 | | 38 | 9.95 | | | | |
| 9.80336 | + 8.94 | | + 8.59 | | | +35.86 | 31 45.81 | | | |
| 1.55455 δ2 | | | | | | | | | | |
| +26.0 | 1 15.9 | 2.9 | 26 | 9.40 | 49 56 | 38.95 | | 25 | 49 54 31.98 | |
| 1.41497 | | | | | 54 | 10.12 | | | − 18 | +8.43 |
| 9.80897 | | | | | | +21.86 | | | + 3 | |
| 1.33965 | | | | | | | 54 31.98 | | +8.23 | |
| 12 d | | | | | | | | | + 35 | |
| ((δ) − D) d′/100 | | | | | | | | | −12.55 | |
| +9.32 | | | | | | | | | | |
| +0 1.80 δ1 | 49 39.34 | | 54 29.4 | | | | | | 54 27.60 | |
| +30.1 | 1 16.1 | 7.2 | 26 | 11.65 | 49 56 | 36.70 | | 25 | 32.16 | |
| 1.47857 | | | | | 54 | 6.85 | | | − 24 | +8.10 |
| 9.80897 | | | | | | +25.31 | | | + 4 | |
| 1.40325 | | | | | | | 54 32.16 | | +7.95 | |
| d | | | | | | | | | + 35 | |
| ((δ) − D) d′/100 | | | | | | | | | −13.15 | |
| +9.32 | | | | | | | | | | |
| +0 1.80 δ2 | 49 39.29 | | 54 28.9 | | | | | | 54 27.11 | |
| | | | | | | | | | − 0.26 | |
| +13.8 | 2 13.2 | 0.2 | 22 | 6.70 | 50 0 | 41.65 | 58 24.41 | 20 | 49 58 24.41 | 58 5.18 |
| 1.13988 | 49 58 24.41 | 49 | 58 5.18 | | 49 58 | 12.82 | | | − 5 | − 3 |
| 9.80837 | + 8.46 | | +8.48 | | | +11.59 | | | + 6 | + 6 |
| 1.06396 | | | | | | − 7.64 | | | +8.10 | +8.10 |
| +9.33 | | | | | | | 58 5.18 | | + 35 | + 35 |
| +0 1.64 ((δ) − D) d′/100 | | | | | | | | | −12.55 | −12.55 |
| +9.1 | | | | | | | | | | |
| 0.95904 | | | | | | | | | 58 20.06 | 58 ~~+++~~085 |
| 04 δ1 | 50 41.43 | | 58 21.7 | | | | | | | |
| 9.80837 | 55.15 | | 2.5 | | | | | | | |
| 0.88312 | | | | | | | | | | |
| +24.8 | 2 20.5 | 11.1 | 22 | 10.80 | 50 0 | 32.55 | 58 23.52 | 20 | 58 23.52 | 58 4.80 |
| 1.39445 | 49 58 23.52 | 49 | 58 4.80 | | 49 58 | 2.70 | | | − 16 | − 0 |
| 9.80837 | + 8.26 | | +8.42 | | | + 20.82 | | | + 7 | + 7 |
| 1.31853 | | | | | | + 2.10 | | | +8.00 | +8.00 |
| +2.5 | | | | | | | 58 4.80 | | + 35 | + 35 |
| 0.39794 | | | | | | | | | −1315 | −1315 |
| +9.33 ((δ) − D) d′/100 | | | | | | | | | 58 18.63 | 58 0.07 |
| +0 1.64 δ2 | 50 41.34 | | 58 20.8 3 | | | | | | | |
| 9.80837 | 55.19 | | 1.7 | | | | | | | |
| 0.32202 | | | | | | | | | − 0.26 | |
| +26.7 | 1 41.0 | 27.3 | 26 | 34.15 | 49 56 | 14.20 | | 25 | 49 54 7.82 | |
| 1.42651 | | | | | 53 | 45.37 | | | − 19 | +8.23 |
| 9.80897 | | | | | | +22.45 | | | + 5 | |
| 10.35119 | | | | | | | 54 7.82 | | +8.03 | |
| 02 d | | | | | | | | | + 34 | |
| ((δ) − D) d′/100 | | | | | | | | | −12.45 | |
| +9.31 | | | | | | | | | | |
| +0 1.20 δ1 | 53 5.90 | | 54 4.5 | | | | | | 54 ~~2.71~~ 3.34 | |
| | | | | | | | | | 54 ~~2.80~~ ~~2.07~~ | |
| +30.8 | 1 41.2 | 32.9 | 26 | 37.05 | 49 56 | 11.30 | | 26 | − 25 | +8.07 |
| 1.48805 | | | | | 53 | 41.45 | | | + 5 | |
| 9.80897 | | | | | | +20.57 | | | +7.93 | |
| 1.41323 | | | | | | 25.85 54 | ~~2.02~~ | | + 34 | |
| d | | | | | | | | | −1310 | |
| ((δ) − D) d′/100 | | | | | | | | | 55 ~~56.99~~ | |
| +9.31 | | | | | | | | | 54 − 2.27 | |
| +0 1.20 δ2 | 53 5.96 | | 54 3.5 | | 6 | | | | − 0.26 | |
| +22.8 | 1 0.1 | 45.0 | 34.5 | 52.55 | 50 47 | 55.80 | | 35 | 50 45 45.80 | |
| 1.35793 | | | | | 45 | 26.97 | | | 4 − 14 | +9.22 |
| 9.80120 | | | | | 4 | +18.83 | | | 0 | |
| 1.27484 | | | | | | | 45 45.80 | | +8.98 | |
| .06 d | | | | | | | | | + 38 | |
| ((δ) − D) d′/100 | | | | | | | | | −1265 | |
| +9.42 | | | | | | | | | 45 42.11 | |
| +0 0.88 δ1 | 55 3.65 | | 44 43.0 | | | | | | 4 | |
| +29.6 | 1 2.9 | 52.9 | 35 | 57.90 | 50 46 | 50.45 | | 35 | 45.05 | |
| 1.47129 | | | | | 44 | 20.60 | | | − .24 | +9.04 |
| 9.80136 | | | | | | +24.45 | | | + 3 | |
| 1.38836 | | | | | | | 44 45.05 | | +8.87 | |
| d | | | | | | | | | + 38 | |
| ((δ) − D) d′/100 | | | | | | | | | −13.30 | |
| +9.42 | | | | | | | | | | |
| +0 0.88 δ2 | 55 3.67 | | 44 41.7 | | | | | | 44 40.79 | |

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

1873phae.proj.1582R

Date$_1$ = Feb. 11 (217) — Observer / Recorder — Date$_2$ = Feb. 17 (218) — Observer / Recorder — 90 — Ru

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 3m 36s 44s | 49° 52′ | 9.0 | 53m 53.5s | 56m 11.1 | 14.1 | 17.3 | 20.6 | 23.8 | 869 | 17.38 | 56m | 17.38 |
| | 55 28.7 | 52.3 | 8.5 | 53.5 | | | | | | | | | +35.64 |
| | κ | | | | | | | | | | | | + .55 |
| | | | | | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +36.17 | 56 | 53.55 |
| | | | | | | | | | | | | | − 54 |
| | $a_1$ | | | | | | | | | | | 56 | 53.01 |
| | | | 9.0 | 55 46.6 | 56 8.0 | 11.2 | 14.2 | 17.4 | 20.6 | 714 | 14.28 | 56 | 14.28 |
| | | | | 48.8 | | | | | | | | | +38.77 |
| | κ | | | 50.3 | | | | | | | | | + .37 |
| | | | | 48.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.12 | 56 | 53.40 |
| | | | | | | | | | | | | | − 43 |
| | $a_2$ | | | | | | | | | | | 56 | 52.97 |
| 5 | 3 8 32 | 49 57 | 8.8 | 57 38.1 | 57 59.0 | 2.2 | 5.4 | 8.7 | 12.0 | 3273 | 5.46 | 58 | 5.46 |
| | 57 17.0 | 57.2 | 8.7 | 38.4 | | | | | | | | | +35.64 |
| | κ | | | 40.8 | | | | | | | | | + .55 |
| | | | | 39.4 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +36.17 | 58 | 41.63 |
| | | | | | | | | | | | | | − 56 |
| | $a_1$ | | | | | | | | | | | 58 | 41.07 |
| | | | 8.6 | 57 37.5 | 57 56.1 | 58.2 | 2.4 | 5.6 | 8.8 | 3121 | 2.42 | 58 | 2.42 |
| | | | | 39.0 | | | | | | | | | +38.77 |
| | κ | | | 40.5 | | | | | | | | | + .37 |
| | | | | 39.0 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.12 | 58 | 41.54 |
| | | | | | | | | | | | | | − 44 |
| | $a_2$ | | | | | | | | | | | 58 | 41.10 |
| 5 | 3 9 3.6 | 50 10 | 8.6 | 58.9 3.0 | 22.0 | 25.3 | 28.5 | 31.7 | 35.1 | 1426 | 2852 | 57 | 28.52 |
| | 58 41.4 | 10.5 | 8.5 | 6.3 | | | | | | | | | +35.64 |
| | κ | | | 7.3 | | | | | | | | | + .55 |
| | | | | 6.2 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +36.17 | 00 | 4.69 |
| | | | | | | | | | | | | | − 58 |
| | $a_1$ | | | | | | | | | | | 00 | 4.11 |
| | | | 8.8 | 58 58.6 | 59 19.1 | 22.3 | 25.4 | 28.7 | 32.0 | 1275 | 25.50 | 59 | 25.50 |
| | | | | 57.2 | | | | | | | | | +38.77 |
| | κ | | | 58.7 | | | | | | | | | + .37 |
| | | | | 57.2 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.12 | 00 | 4.62 |
| | | | | | | | | | | | | | − 46 |
| | $a_2$ | | | | | | | | | | | 00 | 4.16 |
| 6 | 2 21 | 49 58 | 8.6 | 1 23.7 | 1 47.6 | 51.0 | 54.3 | 57.4 | 0.6 | 2709 | 54.18 | 1 | 54.18 |
| | 1 5.6 | 58.3 | 8.3 | 25.1 | | | | | | | | | +35.64 |
| | κ | | | 27.2 | | | | | | | | | + .55 |
| | | | | 25.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +36.17 | 2 | 30.35 |
| | | | | | | | | | | | | | − 59 |
| | $a_1$ | | | | | | | | | | | 2 | 29.76 |
| | | | 8.8 | 1 22.0 | 1 44.6 | 47.8 | 51.0 | 54.2 | 57.5 | 2557 | 51.02 | 1 | 51.02 |
| | | | | 23.3 | | | | | | | | | +38.78 |
| | κ | | | 24.7 | | | | | | | | | + .37 |
| | | | | 23.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +39.13 | 2 | 30.15 |
| | | | | | | | | | | | | | − 48 |
| | $a_2$ | | | | | | | | | | | 2 | 29.67 |
| 6 | 2 24 | 52 01 | 9.0 | 2 20.0 | 46.9 | 50.2 | 53.4 | 57.0 | 0.9 | 2684 | 53.68 | 2 | 53.68 |
| | 2 2.8 | 1.3 | 7.9 | 21.5 | | | | | | | +36.21 | | +35.64 |
| | κ | | 9.2 | 33.1 | | | | | | | | | + .57 |
| | | | | 31.0 | | | | | | | 51.29 | | − 2 |
| Feb. 11 | ((δ) − D) $\frac{\kappa'}{100}$ | | | 3 30.8 | 3 8.9 | 12.4 | 15.7 | 19.1 | 22.5 | 786 | 15.72 | 3 | 29.89 |
| | 2 27.0 | 52 1.8 | | 32.9 | | | | | | | +36.21 | | +35.64 |
| | $a_1$ | | | 34.8 | | | | | | | | | + .59 |
| | | | | 32.8 | | | | | | | | | − 2 |
| 6 | 8 24 | | 9.1 | 2 29.2 | 2 43.8 | 47.2 | 50.7 | 53.8 | 57.2 | 2529 | 50.54 | 2 | 50.54 |
| | 2 2.8 | | 7.0 | 20.3 | | | | | | | +39.16 | | +35.64 |
| | κ | | | 34.9 | | | | | | | 51.32 | | + .40 |
| | | | | 30.5 | | | | | | | | | − 2 |
| Feb. 17 | ((δ) − D) $\frac{\kappa'}{100}$ | | | 3 43.8 | 3 6.0 | 23 | 26 | 29.1 | 32.4 | 634 | 12.68 | 3 | 12.68 |
| | 6 2 27.0 | | | 45.1 | | | | | | | +39.16 | | +38.78 |
| | $a_2$ | | | 46.9 | | | | | | | | | + .40 |
| | | | | 45.1 | | | | | | | | | − 2 |
| | | | | | | | | | | | | 3 | 51.84 |
| | | | | | | | | | | | | | − 52 |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ' |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | δ | 1 31.4 | 18.0 | 26 | 24.95 | 49 56 | 23.40 | | 25 | 49 54 15.13 | |
| | +23.9 | | | | | 53 | 54.57 | | | − 0.26 | |
| d | 1.37840 | | | | | | +20.56 | | | − 15 | +8.26 |
| | 9.80897 | | | | | | | | | + 4 | |
| 10 | | | | | | | | 54 15.13 | | +8.03 | |
| ((δ) − D) $\frac{d'}{100}$ | 1.31308 | | | | | | | | | + 34 | |
| +9.32 | | | | | | | | | | −12.35 | |
| +0 0.52 $\delta_1$ | | 57 2.33 | | 54 11.3 | | | | | | 54 10.78 | |
| | +25.7 | 1 29.1 | 20.1 | 26 | 24.60 | 49 56 | 23.75 | | 25 | 15.51 | |
| | 1.40993 | | | | | 53 | 53.90 | | | − 18 | +8.13 |
| d | 9.80897 | | | | | | + 21.61 | | | + 4 | |
| | 1.33461 | | | | | | | 54 15.51 | | +7.98 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 34 | |
| +9.32 | | | | | | | | | | −13.00 | |
| +0 0.52 $\delta_2$ | | 57 2.29 | | 54 11.2 | | | | | | 54 10.64 | |
| | +26.1 | 3 27.3 | 13.9 | 23 | 15.60 | 49 59 | 32.75 | | 20 | 49 57 25.84 | |
| | 1.41664 | | | | | 57 | 58.92 | | | − 18 | +8.35 |
| d | 9.80852 | | | | | | +21.92 | | | + 10 | |
| 4 | 1.34087 | | | | | | | 57 25.84 | | +8.08 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.33 | | | | | | | | | | −12.35 | |
| +0 0.20 $\delta_1$ | | 58 50.40 | | 57 16.8 | | | | | | 67 21.88 | ✓ |
| | +23.4 | 3 20.9 | 12.6 | 23 | 16.75 | 49 59 | 31.60 | | 20 | 21.40 | |
| | 1.36922 | | | | | 57 | 1.75 | | | − 14 | +8.30 |
| d | 9.80852 | | | | | | +19.65 | | | + 10 | |
| | 1.29345 | | | | | | | 57 21.40 | | +7.99 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.33 | | | | | | | | | | −13.00 | |
| +0 0.20 $\delta_2$ | | 58 50.43 | | 57 18.9 | | | | | | 57 16.70 | ✓ |
| | +22.3 | 0 5.0 | 52.0 | 9 | 58.50 | 50 12 | 49.85 | | 10 | 50 10 39.67 | |
| | 1.34830 | | | | | 10 | 21.02 | | | − .13 | +8.56 |
| d | 9.80656 | | | | | | +18.65 | | | 0 | |
| 2 | 1.27057 | | | | | | | 10 39.67 | | +8.34 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.35 | | | | | | | | | | −12.35 | |
| −0 0.04 $\delta_1$ | | 10 13.46 | | 10 35.6 | | | | | | 10 35.62 | |
| | +28.3 | 0 7.5 | 58.1 | 10 | 2.80 | 50 12 | 45.55 | | 10 | 39.36 | |
| | 1.45179 | | | | | 10 | 15.70 | | | − 22 | +8.37 |
| d | 9.80656 | | | | | | +23.66 | | | 0 | |
| | 1.37406 | | | | | | | 10 39.36 | | +8.24 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.35 | | | | | | | | | | −13.05 | |
| −0.04 $\delta_2$ | | 0 13.51 | | 10 34.6 | | | | | | 10 34.57 | ✓ |
| | +28.9 | 2 33.8 | 19.9 | 22 | 26.85 | 50 0 | 21.50 | | 20 | 49 58 16.93 | |
| | 1.46090 | | | | | 49 57 | 52.67 | | | − 23 | +8.28 |
| 16 d | 9.80837 | | | | | | +24.26 | | | + 7 | |
| | 1.38498 | | | | | | | 58 16.93 | | +8.09 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.33 | | | | | | | | | | −12.20 | |
| −0 0.46 $\delta_1$ | | 2 39.09 | | 58 12.3 | | | | | | 58 12.76 | |
| | +27.7 | 2 30.1 | 20.8 | 22 | 25.45 | 50 0 | 22.90 | | 20 | 16.31 | |
| | 1.44248 | | | | | 49 57 | 53.05 | | | − 21 | +8.23 |
| d | 9.80837 | | | | | | +23.26 | | | + 7 | |
| | 1.36656 | | | | | | | 58 16.31 | | +8.02 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.33 | | | | | | | | | | −12.90 | |
| −0 0.46 $\delta_2$ | | 2 39.00 | | 58 11.2 | | | | | | 58 11.37 | ✓ |
| | +21.2 | 4 31.5 | 17.2 | 19 | 24.35 | 52 3 | 24.00 | 0 13.20 | 15 | 52 18 13.20 | 2 34.04 |
| | 1.32634 | 2 28.6 | 24.9 | 7 | 31.75 | 52 5 | 16.60 | | | − 12 | − .8 |
| 14 +9.57 d | 9.78886 | 52 0 13.20 | 52 2 | 34.04 | | 0 | 56.17 | | | + 13 | + .8 |
| 3.89 64 +17.12 | 1.23123 | +10.76 | | +10.76 | | 2 | 47.77 | 2 34.04 | | +10.30 | +10.30 |
| −0 0.64 ((δ) − D) $\frac{d'}{100}$ | −1.17.1 | | | | | | +17.03 | 6 8.87 | | + 45 | + 45 |
| +17.12 +9.57 | 1.23800 | | | | | | − 13.73 | | | −12.70 | −12.70 |
| −0.64 $\delta_1$ | 9.78886 | 3 38.82 | | 1 10.4 | | | | | | 18 11.00 | 2 31.83 |
| 5.143 64 | 1.13757 | 4 0.86 | | 2 31.2 | | | | | | | |
| 4 | +20.0 | 4 28.0 | 17.9 | 19 | 22.95 | 52 3 | 25.40 | 3 11.60 | 15 | 18 11.60 | 2 33.49 |
| | 1.30103 | 2 23.1 | 13.7 | 7 | 18.40 | 52 5 | 29.95 | | | − 11 | − 28 |
| 9.780 8.56 d | 9.78886 | 52 3 11.60 | 52 2 | 33.49 | | 0 | 55.55 | | | + 13 | + 7 |
| +9.57 | 1.20560 | +10.71 | | +10.47 | | 3 | 0.10 | | | +10.24 | +10.23 |
| 52 −0 0.64 ((δ) − D) $\frac{d'}{100}$ | +27.8 | | | | | | + 16.05 | 2 33.49 | | + 45 | + 45 |
| | −32.4 | | | | | | − 26.61 | | | −13.45 | −13.45 |
| $\delta_2$ | 1.51055 | 3 38.75 | | 1 8.2 | | | | | | 18 8.86 | 2 34.51 |
| +9.57 | 9.78886 | 4 0.89 | | 2 29.9 | | | | | | | |
| −0 0.64 | 1.42512 | | | | | | | | | | |

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

1873phae.proj.1582R

219

Date$_1$ = 7h b22 1873 Observer
n = +.42 Recorder

220

Date$_2$ = 7h b24 Observer
n = +.46 Recorder

92

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | |
| h | 32m 44s | 52° 09′ | 9.2 | 31m 40.1 | 32m 1.9 | 5.2 | 8.5 | 12.0 | 15.4 | 4 20 | 8.40 | 32m | 8.60 |
| | 31 23.2 | 8.9 | 9.0 | 41.6 | | | | | | | | | +40.65 |
| | κ | | | 42.0 | | | | | | | | | + .54 |
| | | | | 41.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.17 | 32 | 49.77 |
| | | | | | | | | | | | | | − 10 |
| | $\alpha_1$ | | | | | | | | | | | 32 | 49.67 |
| | | | 9.3 | 31 48.0 | 32 2.7 | 5.5 | 9.0 | 12.3 | 15.5 | | | 32 | 8.90 |
| | | | | 49.2 | | | | | | | | | +40.41 |
| | κ | | | 57.5 | | | | | | | | | + .59 |
| | | | | 49.2 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.98 | 32 | 49.88 |
| | | | | | | | | | | | | | − 5 |
| | $\alpha_2$ | | | | | | | | | | | 32 | 49.83 |
| δ | 34 02 | 52 39 | 8.6 | 33 2.9 | 33 1.7 | 23.1 | 26.6 | 29.7 | 33.1 | 13 22 | 26.44 | 33 | 26.44 |
| | 32 41.7 | 38.4 | 8.0 | 4.4 | | | | | | | | | +40.65 |
| | κ | | | 6.0 | | | | | | | | | + .55 |
| | | | | 4.4 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.18 | 34 | 7.62 |
| | | | | | | | | | | | | | − 12 |
| | $\alpha_1$ | | | | | | | | | | | 34 | 7.50 |
| | | | 8.7 | 33 4.6 | 33 1.9 | 23.2 | 26.8 | 29.7 | 33.4 | 13 30 | 26.60 | 33 | 26.60 |
| | | | | 6.5 | | | | | | | | | +40.41 |
| | κ | | | 7.8 | | | | | | | | | + .60 |
| | | | | 6.3 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.99 | 34 | 7.59 |
| | | | | | | | | | | | | | − 6 |
| | $\alpha_2$ | | | | | | | | | | | 34 | 7.53 |
| δ | 35 44 | 50 35 | 8.5 | 34 40.3 | 35 3.2 | 8.5 | 11.8 | 15.0 | 18.1 | 5 86 | 11.72 | 35 | 11.72 |
| | 34 29.0 | 340 | 8.4 | 41.5 | | | | | | | | | +40.65 |
| | κ | | | 43.1 | | | | | | | | | + .57 |
| | | | | 41.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.14 | 35 | 52.86 |
| | | | | | | | | | | | | | − 12 |
| | $\alpha_1$ | | | | | | | | | | | 35 | 52.74 |
| | | | 8.9 | 34 40 | 35 3.0 | 8.7 | 11.8 | 15.1 | 18.3 | 589 | 11.78 | 35 | 11.78 |
| | | | | 33.6 | | | | | | | | | +40.41 |
| | κ | | | 37.2 | | | | | | | | | + .56 |
| | | | | 38.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +4095 | 35 | 52.73 |
| | | | | | | | | | | | | | − 7 |
| | $\alpha_2$ | | | | | | | | | | | 35 | 52.66 |
| δ | 36 48 | 51 27 | 6.8 | 35 57.4 | 36 2.6 | 13.1 | 16.2 | 19.6 | 22.9 | 814 | 16.28 | 36 | 16.28 |
| | 35 33.0 | 26.2 | 6.4 | 32.1 | | | | | | | | | +40.65 |
| | κ | | | 37.7 | | | | | | | | | + .53 |
| | | | | 33.1 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.16 | 36 | 57.44 |
| | | | | | | | | | | | | | − 14 |
| | $\alpha_1$ | | | | | | | | | | | 36 | 57.30 |
| | | | 7.0 | 36 0.4 | 36 2.9 | 13.4 | 16.7 | 19.7 | 23.0 | 8 27 | 16.54 | 36 | 16.14 |
| | | | | 1.9 | | | | | | | | | +40.41 |
| | κ | | | 3.8 | | | | | | | | | + .58 |
| | | | | 1.9 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.97 | 36 | 57.51 |
| | | | | | | | | | | | | | − 8 |
| | $\alpha_2$ | | | | | | | | | | | 36 | 57.43 |
| δ | 38 20 | 52 31 | 8.9 | 37 5.0 | 37 31.0 | 34.3 | 37.5 | 41.0 | 44.6 | 1884 | 37.68 | 37 | 37.68 |
| | 36 ~~59.1~~ | ~~30.6~~ | 8.0 | 6.4 | | | | | | | | | +40.65 |
| | κ 54.0 | 29.6 | | 8.1 | | | | | | | | | + .55 |
| | | | | 6.5 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.18 | 38 | 18.86 |
| | | | | | | | | | | | | | − 16 |
| | $\alpha_1$ | | | | | | | | | | | 38 | 18.70 |
| | | | 9.0 | 37 19.8 | 37 31.0 | 34.3 | 37.8 | 41.0 | 44.5 | 1886 | 37.72 | 37 | 37.72 |
| | | | | 21.3 | | | | | | | | | +40.41 |
| | κ | | | 23.7 | | | | | | | | | + .60 |
| | | | | 21.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.99 | 38 | 18.71 |
| | | | | | | | | | | | | | − 11 |
| | $\alpha_2$ | | | | | | | | | | | 38 | 18.60 |

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

1873phae.proj.1582R

Feb. 22 −2′ 28″.56 +″.03
Runs " 24 −2 29.48 +.03

93

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +27.0 | 1′ 5.7 | 40.1 | 11 | 45.90 | 52 11 | 2.45 | | 10″ | 52 8 55.52 | |
| | 1.43136 | | | | | 8 | 33.89 | | | − .19 | +10.89 |
| 30 d | 9.78788 | | | | | | +21.63 | | | + 5 | |
| | 1.33495 | | | | | | | 8 55.52 | | +10.58 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 45 | |
| +9.56 | | | | | | | | | | −1445 | |
| + 4.72 δ₁ | | 32 59.23 | | 8 56.7 | | | | | | 8 51.96 | |
| | +19.7 | 1 47.1 | 32.0 | 11 | 39.55 | 52 11 | 8.80 | | 10 | 55.10 | |
| | 1.29447 | | | | | 8 | 39.32 | | | − 11 | +11.17 |
| d | 9.78788 | | | | | | +15.78 | | | + 5 | |
| | 1.19806 | | | | | | | 8 55.10 | | +10.73 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.56 | | | | | | | | | | −1460 | |
| + 4.72 δ₂ | | 32 59.39 | | 8 56.4 | | | | | | 8 51.67 | |
| | +22.0 | 2 46.9 | 34.3 | 42 | 40.60 | 52 40 | 7.75 | | 40 | 52 37 56.62 | |
| | 1.34242 | | | | | 37 | 39.19 | | | − 13 | +11.54 |
| 16 d | 9.78313 | | | | | | +17.43 | | | + 8 | |
| | 1.24123 | | | | | | | 37 56.62 | | +11.11 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 48 | |
| +9.63 | | | | | | | | | | −1460 | |
| + 4.48 δ₁ | | 34 17.13 | | 37 58.0 | | | | | | 37 53.86 | |
| | +20.3 | 2 46.1 | 30.6 | 42 | 38.35 | 52 40 | 10.00 | | 40 | 56.60 | |
| | 1.30750 | | | | | 37 | 40.52 | | | − 11 | +11.78 |
| d | 9.78313 | | | | | | +16.08 | | | + 8 | |
| | 1.20634 | | | | | | | 37 56.60 | | +11.28 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 53 | |
| +9.63 | | | | | | | | | | −14.65 | |
| + 4.48 δ₂ | | 34 17.16 | | 37 58.2 | | | | | | 37 53.73 | |
| | +30.1 | 0 17.7 | 6.9 | 45 | 12.30 | 50 37 | 36.05 | | 45 | 50 35 32.44 | |
| | 1.47857 | | | | | 35 | 7.49 | | | − 24 | +9.01 |
| 06 d | 9.80274 | | | | | | +24.95 | | | 0 | |
| | 1.39702 | | | | | | | 35 32.44 | | +8.87 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| +9.38 | | | | | | | | | | −14.00 | |
| + 4.20 δ₁ | | 36 2.12 | | 35 31.6 | | | | | | 35 27.45 | |
| | +16.2 | 0 6.1 | 52.3 | 44 | 59.30 | 50 37 | 49.05 | | 45 | 35 33.00 | |
| | 1.20952 | | | | | 35 | 19.57 | | | − 7 | +9.31 |
| d | 9.80290 | | | | | | +13.43 | | | 0 | |
| | 1.12813 | | | | | | | 35 33.00 | | +9.00 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 38 | |
| +9.38 | | | | | | | | | | −14.10 | |
| + 4.20 δ₂ | | 36 2.04 | | 35 32.4 | | | | | | 35 28.21 | |
| | +23.2 | 2 39.9 | 28.2 | 52 | 34.05 | 51 30 | 14.30 | | 50 | 51 28 4.61 | |
| | 1.36649 | | | | | 27 | 45.74 | | | − 14 | +10.18 |
| 26 d | 9.79447 | | | | | | +18.87 | | | + 8 | |
| | 1.27567 | | | | | | | 28 4.61 | | +9.82 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 42 | |
| +9.48 | | | | | | | | | | −1425 | |
| + 4.00 δ₁ | | 37 6.78 | | 28 4.58 | | | | | | 28 0.54 | |
| | +14.6 | 2 32.9 | 18.1 | 52 | 25.50 | 51 30 | 22.85 | | 50 | 28 4.24 | |
| | 1.16435 | | | | | 27 | 52.37 | | | − 6 | +10.39 |
| d | 9.79447 | | | | | | +11.87 | | | + 7 | |
| | 1.07453 | | | | | | | 28 4.24 | | +9.96 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 42 | |
| +9.48 | | | | | | | | | | −1435 | |
| + 4.00 Σδ₂ | | 37 6.91 | | 28 4.3 | | | | | | 28 0.28 | |
| | +31.2 | 1 5.8 | 52.9 | 50 | 59.35 | 52 31 | 49.00 | | 50 | 52 29 45.24 | |
| | 1.49415 | | | | | 29 | 20.44 | | | − 25 | +11.22 |
| .04 d | 9.78461 | | | | | | +24.80 | | | +10.3 | |
| | 1.39447 | | | | | | | 29 45.24 | | +10.97 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 47 | |
| +9.62 | | | | | | | | | | −1455 | |
| +0 3.74 δ₁ | | 38 28.32 | | 29 45.6 | | | | | | 29 41.91 | |
| | +16.1 | 0 53.9 | 32.0 | 50 | 46.45 | 52 32 | 1.90 | | 50 | 45.21 | |
| | 1.20683 | | | | | 29 | 32.42 | | | − 7 | +11.56 |
| d | 9.78445 | | | | | | +12.79 | | | + 2 | |
| | 1.10699 | | | | | | | 29 45.21 | | +11.38 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.62 | | | | | | | | | | −1463 | |
| + 3.74 δ₂ | | 38 28.22 | | 29 45.9 | | | | | | 29 42.12 | |

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

1873phae.proj.1582R

219 220 934

Date$_1$ = Feb 22 Observer / Recorder Date$_2$ = Feb 24 Observer / Recorder

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| κ | 40 42 | 51 29 | 6.0 | 39 40.8 | 40 3.3 | 6.7 | 10.0 | 13.3 | 16.6 | 499 | 9.98 | 40 9.98 | |
| | 39 27.0 | 28.2 | 6.3 | 42.0 | | | | | | | | +40.66 | |
| | | | | 42.5 | | | | | | | | + .53 | 16 |
| | | | | 42.1 | | | | | | | | − 2 | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | + 41.17 | 40 51.145 | |
| $\alpha_1$ | | | | | | | | | | | | − 18 | +9.4 |
| | | | | | | | | | | | | 40 50.97 | +3.3 |
| κ | | | 6.3 | 39 45.7 | 40 3.6 | 6.8 | 10.2 | 13.4 | 16.7 | 507 | 10.14 | 40 10.14 | |
| | | | | 48.6 | | | | | | | | +40.42 | |
| | | | | 50.9 | | | | | | | | + .58 | |
| | | | | 48.4 | | | | | | | | − 2 | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | + 40.98 | 40 51.12 | |
| $\alpha_2$ | | | | | | | | | | | | − 13 | +9.4 |
| | | | | | | | | | | | | 40 50.99 | + 3.3 |
| κ | 42 38 | 52 46 | 8.5 | 41 30.3 | 41 54.8 | 58.2 | 1.6 | 4.9 | 8.3 | 3078 | 1.56 | 42 1.56 | |
| | 41 17.2 | 45.3 | 8.5 | 32.7 | | | | | | | | +40.66 | |
| | | | | 33.8 | | | | | | | | + .55 | 22 |
| | | | | 31.9 | | | | | | | | − 2 | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | + 41.19 | 42 42.75 | |
| $\alpha_1$ | | | | | | | | | | | | − 21 | +9.6 |
| | | | | | | | | | | | | 42 42.54 | + 3.1 |
| κ | | | 8.7 | 41 37.9 | 41 53.0 | 58.4 | 1.9 | 5.2 | 8.7 | 3089 | 1.78 | 42 1.78 | |
| | | | | 39.4 | | | | | | | | +40.42 | |
| | | | | 40.4 | | | | | | | | + .60 | |
| | | | | 39.2 | | | | | | | | − 2 | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | + 41.80 | 42 42.78 | |
| $\alpha_2$ | | | | | | | | | | | | − 16 | +9.6 |
| | | | | | | | | | | | | 42 42.62 | + 3.1 |
| κ | 48 03 | 50 16 | 8.5 | Lost. | | | | | | | | | |
| | 41 47.8 | 15.4 | 8.3 | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | | |
| κ | | | 8.5 | 42 38.5 | ~~23.4~~ | 25.4 | 28.7 | 31.9 | 35.0 | | | 42 28.64 | |
| | | | | 27.8 | | | | | | | | +40.42 | |
| | | | | 23.6 | | | | | | | | + .55 | |
| | | | | | | | | | | | | − 2 | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | 42 48.0 | | | | | | | + 40.95 | 43 9.59 | |
| $\alpha_2$ | | | | | | | | | | | | − 14 | +9.3 |
| | | | | | | | | | | | | 43 9.45 | + 2.5 |
| κ | 45 22 | 50 01 | 9.0 | 44 23.0 | 44 42.9 | 46.0 | 49.3 | 52.5 | 55.7 | 2464 | 49.28 | 44 49.28 | |
| | 44 6.7 | 0.5 | 9.0 | 24.1 | | | | | | | | +40.66 | |
| | | | | 25.8 | | | | | | | | + .50 | |
| | | | | 24.0 | | | | | | | | − 2 | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | 44 22.0 | | | | | | | + 41.14 | 45 30.52 | |
| $\alpha_1$ | | | | 24.1 | | | | | | | | − 21 | +9.3 |
| | | | | 25.8 | | | | | | | | 45 30.21 | + 2.5 |
| κ | | | 9.3 | 44 33.0 | 44 42.8 | 46.0 | 49.3 | 52.3 | 55.8 | 2462 | 49.24 | 44 49.24 | |
| | | | | 34.4 | | | | | | | | +40.42 | |
| | | | | 38.9 | | | | | | | | + .55 | |
| | | | | 34.4 | | | | | | | | − 2 | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | + 40.95 | 45 30.19 | |
| $\alpha_2$ | | | | | | | | | | | | − 16 | +9.3 |
| | | | | | | | | | | | | 45 30.03 | + 2.1 |
| κ | 50 01 | 52 21 | 8.5 | 48 47.0 | 49 0.7 | 4.1 | 7.5 | 10.9 | 14.2 | 373 | 7.46 | 49 7.48 | |
| | 48 ~~39.2~~ 21.4 | ~~21.0~~ 19.2 | 8.8 | 48.3 | | | | | | | | +40.66 | |
| | | | | 49.5 | | | | | | | | + .54 | |
| | | | | 48.3 | | | | | | | | − 2 | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | + 41.18 | 49 48.66 | |
| $\alpha_1$ | | | | | | | | | | | | − 28 | +9 |
| | | | | | | | | | | | | 49 48.38 | + 1.1 |
| κ | | | 8.8 | 48 ~~59.3~~ 49 0.7 | | 4.5 | ~~8.3~~ | — | — | | | ~~49 8.05~~ 7.68 | |
| | | | | 0.6 | | | | | | | | +40.42 | |
| | | | | 54.9 | | | | | | | | + .60 | |
| | | | | | | | | | | | | − 2 | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | 49 49.05 | |
| $\alpha_2$ | | | | | | | | | | | | − 21 | |
| | | | | | | | | | | | | 49 ~~48.85~~ 47 | |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +27.9 | 2 22.8 | 10.0 | 52 | 16.40 | 51 30 | 31.95 | | 50 | 51 28 26.08 | |
| | 1.44560 | | | | | 28 | 3.39 | | | − 21 | +10.15 |
| 16 d | 9.79447 | | | | | | +22.69 | | | + 7 | |
| | 1.35577 | | | | | | | 28 26.08 | | +9.82 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 47 | |
| | | | | | | | | | | −14.20 | |
| +9.49 δ₁ | | 41 0.46 | | 28 25.4 | | | | | | 28 22.03 | |
| | +21.7 | 2 18.5 | 4.1 | 52 | 1130 | 51 30 | 37.05 | | 50 | 25.22 | |
| | 1.33646 | | | | | 28 | 7.57 | | | − 13 | +10.32 |
| d | 9.79447 | | | | | | +17.65 | | | + 7 | |
| | 1.24664 | | | | | | | 28 25.22 | | +9.96 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 42 | |
| +9.49 | | | | | | | | | | −14.25 | |
| + 3.32 δ₂ | | 41 0.48 | | 28 24.6 | | | | | | 28 21.29 | |
| | +29.7 | 1 24.0 | 11.1 | 36 | 19.55 | 52 46 | 30.80 | | 35 | 52 44 25.71 | |
| | 1.47276 | | | | | 44 | 2.24 | | | − 24 | +11.50 |
| 22 d | 9.78213 | | | | | | +23.47 | | | + 4 | |
| | 1.37060 | | | | | | | 44 25.71 | | +11.22 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 48 | |
| +9.65 | | | | | | | | | | −14.55 | |
| + 3.00 δ₁ | | 42 52.19 | | 44 25.7 | | | | | | 44 22.66 | |
| | +22.6 | 1 18.8 | 3.2 | 36 | 1100 | 52 46 | 37.35 | | 35 | 25.73 | |
| | 1.35411 | | | | | 44 | 7.87 | | | − 13 | +11.80 |
| d | 9.78213 | | | | | | +17.86 | | | + 4 | |
| | 1.25195 | | | | | | | 44 25.73 | | +11.39 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.65 | | | | | | | | | | −14.70 | |
| + 3.00 δ₂ | | 42 52.27 | | 44 25.8 | | | | | | 44 22.83 | |
| | | 4 38.6 | −27.6 | 4 | 33.10 | 50 18 | 15.25 | | 0 | | |
| d | | | | | | | | | | | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| δ₁ | | | | | | | | | | 38.33 | |
| − 19.4 | +5.0 | 4 31.7 | 17.8 | 4 | 24.35 | 50 18 | 24.00 | | 0 | 50 15 ~~58.69~~ | |
| 1.28780 | 0.69897 | | | | | 15 | 54.52 | | | − 1 | +9.11 |
| 9.80 d 565 | 9.80265 | | | | | | + 4.17 | | | + 13 | |
| 1.20 9162 | 0.62033 | | | | | | −16.19 | 15 58.69 | | +8.63 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| +9.35 | | | | | | | | | | −13.95 | |
| + 2.92 δ₂ | | 43 18.80 | | 15 36.4 | | | | | | 15 ~~53.85~~ | 33.49 |
| | +25.3 | 4 49.0 | 37.1 | 19 | 43.05 | 50 3 | 5.30 | | 15 | 50 0 57.96 | |
| | 1.40312 | | | | | 0 | 36.74 | | | − 17 | +8.54 |
| d | 9.80792 | | | | | | +21.22 | | | + 14 | |
| | 1.32675 | | | | | | | 0 57.96 | | +8.22 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.33 | | | | | | | | | | −13.70 | |
| + 2.50 δ₁ | | 45 39.54 | | 0 55.3 | | | | | | 0 52.80 | |
| | +14.8 | 4 40.9 | 26.9 | 19 | 33.90 | 50 3 | 14.45 | | 15 | 57.38 | |
| | 1.17026 | | | | | 0 | 44.97 | | | − 6 | +8.77 |
| d | 9.80792 | | | | | | +12.41 | | | + 13 | |
| | 1.09389 | | | | | | | 0 57.38 | | +8.35 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.33 | | | | | | | | | | −13.85 | |
| + 2.50 δ₂ | | 45 39.36 | | 0 54.8 | | | | | | 0 52.30 | |
| | +19.2 | 0 55.2 | 43.0 | 0 | 49.10 | 52 21 | 59.25 | | 0 | 52 19 46.00 | ✓ |
| | 1.28330 | | | | | 19 | 30.69 | | | − 10 | +11.15 |
| d | 9.78609 | | | | | | +15.31 | | | + 2 | |
| | 1.18510 | | | | | | | 19 46.00 | | +10.78 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 45 | |
| +9.61 | | | | | | | | | | −14.30 | |
| + 1.70 δ₁ | | 49 57.99 | | 19 44.6 | | | | | | 19 42.85 | ✓ |
| | ~~+8.1~~ | ~~3 2.9~~ | 47.7 | 57 | 55.30 | 52 24 | 53.05 | | 55 | 22 30.02 | ✓ |
| | 0.90849 | | | | | 22 | 23.57 | | | − 2 | +11.56 |
| d | 9.78560 | | | | | | + 6.45 | | | + 9 | |
| | 0.80980 | | | | | | | 22 30.02 | | +10.79 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| | | | | | | | | | | −14.50 | |
| δ₂ | | | | | | | | | | 22 ~~27.08~~ | ✓ |

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

1873phae.proj.1582R

219 220 956

Date$_1$ = Feb 22 Observer / Recorder Date$_2$ = Feb 24 Observer / Recorder

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5 1 08 | 49 58 | 9.0 | 49 45.7 | 49 44.4 | 47.8 | 51.0 | 54.2 | 57.6 | 2550 | 51.00 | 49 | 51.00 |
| | 49 53.0 | 58.3 | 8.0 | 45.7 | | | | | | | +41.14 | | +40.66 |
| | κ 5.4 | | 8.8 | | | | | | | | | | + ,50 |
| | | | | | | | 50 | | | | 45.82 | | − 2 49 32.14 |
| | (δ) − D) $\frac{\kappa'}{100}$ | | | 50 18.2 | 49 58.6 | 1.6 | 5.0 | 8.2 | 11.3 | 3247 | 4.94 | 50 | 4.94 − 25 |
| | 49 22.6 | 49 57.3 | | 20.5 | | | | | | | +41.14 | | +40.66 |
| | $a_1$ | | | 22.1 | | | | | | | | | + ,50 |
| | | | | 20.3 | | | | | | | | | − 2 50 46.08 |
| | 49 53.0 | 49 58.3 | 8.8 | 49 16.9 | 50 29.7 | 32.7 | 36.0 | 39.2 | 42.3 | 1799 | 35.98 | 50 | 35.98 − 26 |
| | κ | | | 17.9 | | | | | | | | | +40.42 |
| | | | | 19.8 | | | | | | | | | + ,55 |
| | | | | 50 23.8 | | | | | | | | | − 2 |
| | (δ) − D) $\frac{\kappa'}{100}$ | | | 26.1 | | | | | | | +40.95 | 51 | 16.93 |
| | | | | 28.3 | | | | | | | | | − 22 |
| | $a_2$ | | | 26.1 | | | | | | | | 51 | 16.81 |
| | 5 2 27 | 51 10 | 9.0 | 51 26.4 | 51 51.4 | 54.8 | 57.8 | 1.1 | 4.7 | 2898 | 57.96 | 51 | 57.96 |
| | 51 12.4 | 9.5 | 9.0 | 28.8 | | | | | | | | | +40.66 |
| | κ | | | 29.2 | | | | | | | | | + ,52 |
| | | | | 26.8 | | | | | | | | | − 2 |
| | (δ) − D) $\frac{\kappa'}{100}$ | | | 25.4 | | | | | | | +41.16 | 52 | 39.12 |
| | | | | 26.8 | | | | | | | | | − 29 |
| | $a_1$ | | | 28.2 | | | | | | | | 52 | 38.83 |
| | | | 9.0 | 51 41.5 | 51 51.5 | 54.9 | 58.6 | 1.6 | 4.6 | 29 12 | 58.24 | 51 | 58.24 |
| | | | | 43.0 | | | | | | | | | +40.42 |
| | κ | | | 45.3 | | | | | | | | | + ,57 |
| | | | | 43.3 | | | | | | | | | − 2 |
| | (δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.97 | 52 | 39.21 |
| | | | | | | | | | | | | | − 24 |
| | $a_2$ | | | | | | | | | | | 52 | 38.97 |
| | 5 4 44 | 49 51 | 8.7 | 53 57.1 | 54 8.3 | 11.6 | 14.6 | 17.8 | 21.2 | 735 | 14.70 | 54 | 14.70 |
| | 5 3 29.5 | 50.9 | 8.8 | 52.5 | | | | | | | | | +40.67 |
| | κ | | | 54.2 | | | | | | | | | + ,50 |
| | | | | 52.6 | | | | | | | | | − 2 |
| | (δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.15 | 54 | 55.85 |
| | | | | | | | | | | | | | − 30 |
| | $a_1$ | | | | | | | | | | | 54 | 55.55 |
| | | | 9.0 | 53 51.5 | 54 8.6 | 11.8 | 14.8 | 18.0 | 21.4 | 746 | 14.92 | 54 | 14.92 |
| | κ | | | 53.5 | | | | | | | | | +40.42 |
| | | | | 54.8 | | | | | | | | | + ,55 |
| | | | | 53.3 | | | | | | | | | − 2 |
| | (δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.95 | 54 | 55.87 |
| | | | | | | | | | | | | | − 25 |
| | $a_2$ | | | | | | | | | | | 54 | 55.62 |
| | 5 7 08 | 49 58 | 8.5 | 56 10.0 | 56 30.2 | 33.4 | 36.8 | 39.8 | 43.0 | 1832 | 36.64 | 56 | 36.64 |
| | 5 5 52.6 | 57.6 | 8.3 | 11.5 | | | | | | | | | +40.67 |
| | κ | | | 12.7 | | | | | | | | | + ,50 |
| | | | | 11.4 | | | | | | | | | − 2 |
| | (δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.15 | 57 | 17.79 |
| | | | | | | | | | | | | | − 32 |
| | $a_1$ | | | | | | | | | | | 57 | 17.47 |
| | | | 8.8 | | | | | | | | | | |
| | κ | | | | | | | | | | | | |
| | (δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| | $a_2$ | | | | | | | | | | | | |
| Feb 22 | 5 8 .18 | 50 45 | 8.7 | 57 22.9 | 57 37.7 | 41.2 | 44.0 | 47.5 | 50.8 | 2212 | 44.24 | 57 | 44.24 |
| | 5 7 3.4 | 45.0 | 9.0 | 24.0 | | | | | | | +41.16 | | +40.67 |
| | κ | | | 23.3 | | | | | | | | | + ,51 |
| | | | | 24.1 | | | | | | | | | − 2 58 25.40 |
| Feb 24 | (δ) − D) $\frac{\kappa'}{100}$ | | 8.8 | 57 26.2 | 57 38.0 | 41.4 | 44.6 | 47.7 | 50.9 | 2226 | 44.52 | 57 | 44.52 − 34 |
| | | | | 27.4 | | | | | | | +40.96 | | +40.42 |
| | $a_1$ | | | 29.2 | | | | | | | | | + ,56 |
| | | | | 27.6 | | | | | | | | | − 2 58 25.48 |
| Feb 22 | 5 5 9 07 | 52 47 | 8.4 | 58 12.0 | 58 24.5 | 28.1 | 31.4 | 34.9 | 38.3 | 1572 | 31.44 | 58 | 31.44 − 29 |
| | 5 7 κ 45.3 | 46.5 | 8.4 | 13.4 | | | | | | | +41.20 | | +40.67 |
| | | | | 15.0 | | | | | | | | | + ,55 |
| | | | | 13.5 | | | | | | | | | − 2 59 12.64 |
| Feb 24 | (δ) − D) $\frac{\kappa'}{100}$ | | 8.9 | 58 7.0 | 58 24.9 | 28.3 | 31.6 | 34.9 | 38.3 | 1580 | 31.60 | 58 | 31.60 − 38 |
| | | | | 8.5 | | | | | | | +41.00 | | +40.42 |
| | $a_2$ | | | 10.2 | | | | | | | | | + ,60 |
| | | | | 8.6 | | | | | | | | | − 2 59 12.60 |

33

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

1873phae.proj.1582R



Runs

| | | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | (+ 8.3) | 2 ′ 7.0′ | 55.0 | 22 | 1,00 | 50 0 | 47.35 58 23.24 | | 20′ | 49 58 23.24 | 5.86 |
| | | 0.72428 | 49 58 23.24 | | 49 59 5.86 | | 49 58 | 18.79 | | | − 1 | − 6 |
| +9.33 | d | 9.80837 | + 8.59 | | + 8.54 | | | + 4.45 | | | + 6 | + 6 |
| 3.2,14 | | 0.64836 | | | | | | − 12.93 | | | +8.19 | +8.19 |
| 25 + | ((δ) − D) $\frac{d'}{100}$ | −15.4 | | | | | | | 58 5.86 | | + 35 | + 35 |
| | | 1.18752 m | | | | | | | | | −1365 ✓ | −13.60 |
| | | 9.80837 | 50 41.22 | | 58 19.7 | | | | | | 58 18.18 | 58 0.80 ✓ |
| +9.33 | $\delta_1$ | 1.11161 m | 55.15 | | 2.3 | | | | | | | |
| +1.48 | | | | | | | | | | | | |
| 46.08 | | +8.9 | 1 46.2 | 31.1 | 21 | 38,65 | 50 1 | 10.70 | | 20 | 49.53 | |
| 26 | | 0.99564 | | | | | 49 58 | 41.22 | | | − 3 | +6.68 |
| | d | 9.80822 | | | | | | + 8.31 | | | + 5 | |
| | | 0.91957 | | | | | | | 58 49.53 | | +8.31 | |
| | ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.33 | | | | | | | | | | | −13.75 | |
| + 1.48 | $\delta_2$ | | 51 26.04 | | 58 45.9 | | | | | | 58 44.46 ✓ | |
| | | +31.2 | 1 7.9 | 54.9 | 11 | 1,40 | 51 11 | 46.95 | | 10 | 51 9 43.94 | |
| | | 1.49415 | | | | | 9 | 18.39 | | | − 26 | +9.68 |
| 28 | d | 9.79746 | | | | | | + 25.56 | | | + 3 | |
| | | 1.40732 | | | | | | | 9 43.84 | | +9.51 | |
| | ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.46 | | | | | | | | | | | −1390 | |
| +1.26 | $\delta_1$ | | 52 48.29 | | 9 41.0 | | | | | | 9 39.72 ✓ | |
| | | +14.9 | 0 ×4.0 | 40.2 | 10 | 42,10 | 51 12 | 8.25 | | 10 | 48.97 | |
| | | 1.17819 | | | | | 9 | 36.77 | | | − 6 | +8.88 |
| | d | 9.79731 | | | | | | + 12.20 | | | + 2 | |
| | | 1.08621 | | | | | | | 9 48.97 | | +8.52 | |
| | ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +9.46 | | | | | | | | | | | −14.10 | |
| +1.26 | $\delta_2$ | | 52 48.43 | | 9 40.0 | | | | | | 9 42.75 ✓ | |
| | | +22.1 | 4 21.3 | 9.8 | 29 | 15,55 | 49 53 | 32.80 | | 25 | 49 51 22.06 | |
| | | 1.34439 | | | | | 51 | 4.24 | | | − 13 | +8.41 |
| 22 | d | 9.79079 | | | | | | + 17.82 | | | + 13 | |
| | | 1.25089 | | | | | | | 51 22.06 | | +8.06 | |
| | ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.31 | | | | | | | | | | | −1350 | |
| + 0.88 | $\delta_1$ | | 55 4.86 | | 51 17.8 | | | | | | 51 16.97 | |
| | | +21.6 | 4 21.2 | 7.7 | 29 | 15,45 | 49 53 | 33.90 | | 25 | 49 0 20.84 | |
| | | 1.33445 | | | | | 51 | 3.42 | | | − 13 | +8.51 |
| | d | 9.79079 | | | | | | + 17.42 | | | + 13 | |
| | | 1.24095 | | | | | | | 51 20.84 | | +8.16 | |
| | ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.31 | | | | | | | | | | | −1370 | |
| + 0.88 | $\delta_2$ | | 55 4.93 | | 51 16.5 | | | | | | 51 15.65 | |
| | | +25.2 | 3 47.5 | 36.2 | 23 | 41,35 | 49 59 | 7.00 | | 20 | 49 56 59.61 | |
| | | 1.40140 | | | | | 56 | 38.44 | | | − 17 | +8.47 |
| | d | 9.80852 | | | | | | + 21.17 | | | + 11 | |
| | | 1.32563 | | | | | | | 56 59.61 | | +8.18 | |
| | ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 35 | |
| +9.33 | | | | | | | | | | | −1345 | |
| +0.44 | $\delta_1$ | | 57 26.80 | | 56 55.1 | | | | | | 56 54.63 | |
| | | | 3 31.0 | 16.8 | 2 | 28,90 | (50) 20 | 24.45 | | 20 | | |
| | | | | | | | 17 | 54.97 | | | | |
| | d | | | | | | | | | | | |
| | ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | | |
| | $\delta_2$ | | | | | | | | | | | |
| | | +20.1 | 4 18.1 | 6.8 | 34 | 1245 | 50 48 | 35.90 | 46 23.93 | 30 | 50 46 23.93 | 24.82 |
| | | 1.30320 | 58 34.48 | | 46 19.9 | | 46 | 7.34 | | | − 11 | − 8 |
| 5.40 | d | 9.80105 | 34.61 | | 20.8 | | | + 16.59 | | | + 13 | + 12 |
| 34 | ((δ) − D) $\frac{d'}{100}$ | +9.42 | | | | | | | | | +9.08 | +9.18 |
| | | +16.9 | 4 15.1 | 0.4 | 34 | 8,00 | 50 48 | 40.35 | 46 24.82 | 30 | + 38 | + 38 |
| +0.24 | | 1.22789 | 50 46 23.93 | 50 | 46 24.82 | | 46 | 10.87 | | | −1375 | −1390 |
| | $\delta_1$ | 9.80105 | + 9.48 | | + 9.60 | | | + 13.95 | | | 46 19.66 | 46 20.52 |
| 25.48 | | 1.14465 | | | | | | | | | | |
| +9.42 | | | | | | | | | | | | |
| 29 | +0.24 | +17.9 | 3 50.1 | 37.0 | 33 | 43,55 | 52 49 | 4.80 | 46 50.37 | 30 | 52 46 50.37 | 50.43 |
| | | 1.25285 | 59 21.92 | | 46 45.8 | | 46 | 36.24 | | | − 9 | − 14 |
| 16 | d | 9.78163 | 21.93 | | 45.6 | | | + 14.13 | | | + 11 | + 11 |
| 12.64 | | 1.15019 | | | | | | | | | +9.07 | +9.19 |
| 38 | +9.66 ((δ) − D) $\frac{d'}{100}$ | +23.0 | 3 54.1 | 39.1 | 33 | 46,60 | 52 49 | 1.75 | 46 50.43 | 30 | + 38 | + 38 |
| 40.2 | | 1.36173 | 52 46 50.37 | 52 | 46 50.43 | | 46 | 32.27 | | | −1430 | −1445 |
| | $\delta_2$ | 9.78163 | + 9.49 | | + 9.54 | | | + 18.16 | | | 46 45.56 | 46 45.82 |
| 1260 | +9.66 | 1.25907 | | | | | | | | | | |
| 33 | +0.12 | | | | | | | | | | | |

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

1873phae.proj.1582R

219 220 978

Date$_1$ = Feb 22 Observer / Recorder Date$_2$ = Feb 24 Observer / Recorder

| Star. | α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| k | 1m 29s | 52° 40′ | 7.0 | 0m 33.4 | 0m 45.7 | 49.2 | 52.4 | 56.0 | 59.2 | 26 25 | 52,50 | m 0 | 52.50 |
| | 0 7.8 | 40.1 | 6.7 | 34.5 | | | | | | | | | +40.67 |
| | κ | | | 35.6 | | | | | | | | | + ,55 |
| | | | | 34.5 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41,20 | 1 | 33.70 |
| | | | | | | | | | | | | | − 40 |
| | $c_1$ | | | | | | | | | | | 1 | 33.30 |
| | | | 6.5 | 0 28.8 | 0 45.6 | 49,2 | 52,5 | 56.0 | 59.4 | 26 27 | 52,54 | 0 | 52.54 |
| | | | | 30.9 | | | | | | | | | +40,42 |
| | κ | | | 32,5 | | | | | | | | | + ,60 |
| | | | | 30.7 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41,00 | 1 | 33.54 |
| | | | | | | | | | | | | | − 35 |
| | $a_2$ | | | | | | | | | | | 1 | 33.19 |
| 2 | 5m 8s | 52 56 | 8.7 | 1 57.5 | 2 15.4 | ~~2 15.4~~ | 19.0 | 22.3 | ~~25.7~~ 25.7 | ~~29~~ | | 2 | 22.30 |
| 1 | 36.3 | 56.2 | 8.8 | 59.1 | | 19.0 | 22.3 | 25.7 | 29.1 | 11 15 | 22,30 | | +40.67 |
| | κ | | | 0.4 | | | | | | | | | + ,56 |
| | | | | 59.0 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41,21 | 3 | 3.51 |
| | | | | | | | | | | | | | − 42 |
| | $a_1$ | | | | | | | | | | | 3 | 3.09 |
| | b | | 9.1 | 2 3.3 | 2 15.9 | 19.1 | 22,5 | 25.8 | 29.4 | 11 27 | 22,54 | 2 | 22.54 |
| | | | | 4.8 | | | | | | | | | +40.42 |
| | κ | | | 0.9 | | | | | | | | | + ,61 |
| | | | | 5.0 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.01 | 3 | 3.55 |
| | | | | | | | | | | | | | − 37 |
| | $a_2$ | | | | | | | | | | | 3 | 3.18 |
| | 6 57 | 52 21 | 8.4 | 6 9.7 | 6 15.6 | 19.0 | 22.3 | ~~25.7~~ | 29.1 | 11 17 | 22,34 | 6 | 22.34 |
| | 5 35.3 | 21.9 | 8.3 | 11.4 | | | | | | | | | +40.67 |
| | κ | | | 13.8 | | | | | | | | | + ,54 |
| | | | | 11.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.19 | 7 | 3.53 |
| | | | | | | | | | | | | | − 45 |
| | $a_1$ | | | | | | | | | | | 7 | 3.08 |
| | | | 9.5 | 5 54.8 | 6 12.4 | 15,6 | 19.2 | 22,3 | 25.8 | 9 53 | 19,06 | 6 | 19.06 |
| | | | | 58.8 | | | | | | | | | +40.42 |
| | κ | | | 1.0 | | | | | | | | | + ,59 |
| | | | | 58.2 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.99 | 7 | 0.05 |
| | | | | | | | | | | | | | − 40 |
| | $a_2$ | | | | | | | | | | | 6 | 59.65 |
| | 9h 41 | 51 01 | 9.0 | 8 47.8 | 9 2.3 | 5.8 | ~~8.7~~ 8.0 | 12,2 | 15.4 | 4 44 | 8.88 | 9 | ~~8.88~~ 8.92 |
| | 8 26.4 | 1.6 | 9.0 | 49.7 | | | | | | | | | +40.68 |
| | κ | | | 51.2 | | | | | | | | | + ,52 |
| | | | | 49.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.18 | 9 | 50.06 |
| | | | | | | | | | | | | | − 46 |
| | $a_1$ | | | | | | | | | | | 9 | 49.64 |
| | | | 9.0 | 8 45.4 | 9 2.6 | 6.0 | 9.0 | 12.6 | 15.9 | 4 62 | 9,24 | 9 | 9,24 |
| | | | | 46.6 | | | | | | | | | +40.42 |
| | κ | | | 48.4 | | | | | | | | | + .57 |
| | | | | 46.8 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.97 | 9 | 50.21 |
| | | | | | | | | | | | | | − 41 |
| | $a_2$ | | | | | | | | | | | 9 | 49.80 |
| | 10 37 | 52 12 | 7.5 | 9 35.3 | 9 54.7 | 58.0 | 1.2 | 4.6 | 8.0 | 3065 | 1,30 | 10 | 1.30 |
| | 9 15.7 | 12.5 | 7.7 | 36.7 | | | | | | | | | +40.68 |
| | κ | | | 38.0 | | | | | | | | | + ,54 |
| | | | | 36.7 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.20 | 10 | 42.50 |
| | | | | | | | | | | | | | − 48 |
| | $a_1$ | | | | | | | | | | | 10 | 42.02 |
| | | | 8.8 | 9 40.2 | 9 54.7 | 58.1 | 1.4 | 4.9 | 8.3 | 3074 | 1,48 | 10 | 1.48 |
| | | | | 41.7 | | | | | | | | | +40.42 |
| | κ | | | 43.0 | | | | | | | | | + ,59 |
| | | | | 41.6 | | | | | | | | | − 2 |
| | ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.99 | 10 | 42.47 |
| | | | | | | | | | | | | | − 44 |
| | $a_2$ | | | | | | | | | | | 10 | 42,03 |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +18.0 | 0 24.9 | 12.7 | 40 | 18,80 | 52 42 | 29.55 | | 40 | 52 40 15.24 | |
| | 1.255527 | | | | | 40 | 0.99 | | | − 9 | +11.57 |
| d | 9.78280 | | | | | | +14.25 | | | + 1 | |
| | 1.15378 | | | | | | | 40 15.24 | | +11.17 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 48 | |
| +9.65 | | | | | | | | | | −14 20 | |
| −0.30 $\delta_1$ | | 1 42.95 | | 40 12.3 | | | | | | 40 12.61 | |
| | +21.8 | 0 28.5 | 13.2 | 40 | 20,85 | 52 42 | 27.50 | | 40 | 15.28 | |
| | 1.33846 | | | | | 39 | 58.02 | | | − 13 | +11.70 |
| d | 9.78280 | | | | | | +17.26 | | | + 1 | |
| | 1.23697 | | | | | | | 40 15.28 | | +11.32 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.65 | | | | | | | | | | −14.40 | |
| −0.30 $\delta_2$ | | 1 42.84 | | 40 12.3 | | | | | | 40 12.68 | |
| | +23.3 | 4 31.1 | 17.9 | 24 | 24,50 | 52 58 | 23.85 | | 20 | 52 56 13.62 | |
| | 1.36736 | | | | | 55 | 55.29 | | | − 14 | +11.97 |
| 24 d | 9.78013 | | | | | | +18.33 | | | + 13 | |
| | 1.26320 | | | | | | | 56 13.62 | | +11.48 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.68 | | | | | | | | | | −14.20 | |
| −0.56 $\delta_1$ | | 3 12.77 | | 56 10.8 | | | | | | 56 11.39 | |
| | +17.5 | 4 26.2 | 11.1 | 24 | 1865 | 52 58 | 29.70 | | 20 | 13.99 | |
| | 1.24304 | | | | | 56 | 0.22 | | | − 8 | +12.18 |
| d | 9.78013 | | | | | | +13.77 | | | + 13 | |
| | 1.13888 | | | | | | | 56 13.99 | | +11.63 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.68 | | | | | | | | | | −14.40 | |
| −.056 $\delta_2$ | | 3 12.86 | | 56 11.2 | | | | | | 56 11.77 | |
| | +10.7 | 3 4.8 | 51.0 | 57 | 57,90 | 52 24 | 50.45 | | 55 | 52 22 30.42 | ✓ |
| | 1.02938 | | | | | 22 | 21.89 | | | − 3 | +11.38 |
| d | 9.78576 | | | | | | + 8.53 | | | + 9 | |
| | 0.93085 | | | | | | | 22 30.42 | | +10.85 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 47 | |
| +9.61 | | | | | | | | | | −14.00 | |
| −1.26 $\delta_1$ | | 7 12.69 | | 22 26.5 | | | | | | 22 27.80 | ✓ |
| | +20.9 | 2 2.9 | 48.4 | 56 | 55,65 | 52 25 | 52.70 | | 55 | 23 38.87 | ✓ |
| | 1.32015 | | | | | 23 | 22.22 | | | − 12 | +11.46 |
| d | 9.78560 | | | | | | +16.65 | | | + 6 | |
| | 1.22146 | | | | | | | 23 38.87 | | +11.02 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| | | | | | | | | | | −14.20 | |
| $\delta_2$ | | | | | | | | | | 23 36.13 | ✓ |
| | +19.3 | 3 33.6 | 21.5 | 18 | 27,55 | 51 4 | 20.80 | | 15 | 51 2 8.08 | |
| | 1.28556 | | | | | 1 | 52.24 | | | − 10 | +9.77 |
| d | 9.79856 | | | | | | +15.84 | | | + 10 | |
| | 1.19983 | | | | | | | 2 8.08 | | +9.37 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +5.44 | | | | | | | | | | −13.50 | |
| −1.74 $\delta_1$ | | 9 59.08 | | 2 2.6 6.1 | | | | | | 2 4.35 | |
| | +22.4 | 3 36.0 | 22.0 | 18 | 29,00 | 51 4 | 19.35 | | 15 | 8.26 | |
| | 1.35025 | | | | | 1 | 49.87 | | | − 13 | +9.86 |
| d | 9.79856 | | | | | | +18.39 | | | + 10 | |
| | 1.26452 | | | | | | | 2 8.26 | | +9.49 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 40 | |
| +5.44 | | | | | | | | | | −13.75 | |
| −1.74 $\delta_2$ | | 9 59.24 | | 2 2.6 6.1 | | | | | | 2 4.37 | |
| | +24.6 | 3 51.6 | 39.8 | 8 | 45,70 | 52 14 | 2.65 | | 5 | 52 11 53.77 | |
| | 1.39094 | | | | | 11 | 34.09 | | | − 16 | +11.07 |
| ,k d | 9.78739 | | | | | | +19.68 | | | + 11 | |
| | 1.29404 | | | | | | | 11 53.77 | | +10.66 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 46 | |
| +9.59 | | | | | | | | | | −13.80 .90 | |
| −1.90 $\delta_1$ | | 10 51.61 | | 11 49.0 12.8 | | | | | | 11 50.94 | |
| | +19.9 | 3 48.0 | 32.9 | 8 | 40,95 | 52 14 | 7.40 | | 5 | 53.84 | |
| | 1.29885 | | | | | 11 | 37.92 | | | − 11 | +11.29 |
| d | 9.78739 | | | | | | +15.52 | | | + 11 | |
| | 1.20195 | | | | | | | 11 53.84 | | +10.79 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.59 | | | | | | | | | | −14.10 | |
| −1.90 $\delta_2$ | | 10 51.62 | | 11 49.1 | | | | | | 11 51.03 | |

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

1873phae.proj.1582R

219

Date$_1$ = Feb 22 — Observer / Recorder

220

Date$_2$ = Feb 24 — Observer / Recorder

99
100

Ru

| Star. α | δ | Mag. | $T_s$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 17 | 50 52 | 9.6 | 14m 34.2 | 14m 40.3 | 43.8 | 46.6 | 49.7 | 53.0 | 2334 | 46.68 | 14 | 46.68 |
| 14 2.12 | 52.2 | 9.5 | 36.0 | | | | | | | | | +40.68 |
| κ | | | 37.3 | | | | | | | | | + .52 |
| | | | 35.8 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.18 | 15 | 27.86 |
| | | | | | | | | | | | | − 51 |
| $a_1$ | | | | | | | | | | | 15 | 27.35 |
| | | 9.7 | 14 25.7 | 1440.3 | 43.6 | 47.0 | 50.1 | 53.3 | 2343 | 46.86 | 14 | 46.86 |
| | | | 27.0 | | | | | | | | | +40.42 |
| κ | | | 28.0 | | | | | | | | | + .57 |
| | | | 26.9 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.97 | 15 | 27.83 |
| | | | | | | | | | | | | − 46 |
| $a_2$ | | | | | | | | | | | 15 | 27.37 |
| 17 05 | 52 37 | 8.5 | 16 11.6 | 16 22.3 | 25.6 | 29.1 | 32.4 | 35.8 | 1452 | 29.04 | 16 | 29.04 |
| 15 43.6 | 38.0 | 8.6 | 12.8 | | | | | | | | | +40.68 |
| κ | | | 14.6 | | | | | | | | | + .55 |
| | | | 13.0 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.21 | 17 | 10.25 |
| | | | | | | | | | | | | − 55 |
| $a_1$ | | | | | | | | | | | 17 | 9.70 |
| | | 8.8 | 16 12.1 | 16 22.4 | 25.8 | 29.2 | 32.5 | 36.0 | 1459 | 29.18 | 16 | 29.18 |
| | | | 14.3 | | | | | | | | | +40.42 |
| κ | | | 15.5 | | | | | | | | | + .60 |
| | | | 14.0 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.00 | 17 | 10.18 |
| | | | | | | | | | | | | − 51 |
| $a_2$ | | | | | | | | | | | 17 | 9.64 |
| 18 17 | 50 20 | 9.1 | 17 31.1 | 1739.9 | 42.9 | 46.2 | 49.4 | 52.8 | 2310 | 46.20 | 17 | 46.20 |
| 17 2.4 | 20.7 | 9.0 | 32.3 | | | | | | | | | +40.68 |
| κ | | | 34.0 | | | | | | | | | + .51 |
| | | | 32.5 | | | | | | | | | − .2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.17 | 18 | 27.37 |
| | | | | | | | | | | | | − 53 |
| $a_1$ | | | | | | | | | | | 18 | 26.92 |
| | | 9.1 | 17 25.8 | 17 40.1 | 43.4 | 46.5 | 49.8 | 53.0 | 2328 | 46.56 | 17 | 46.56 |
| | | | 27.5 | | | | | | | | | +40.42 |
| κ | | | 26.1 | | | | | | | | | + .56 |
| | | | 27.5 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.96 | 18 | 27.52 |
| | | | | | | | | | | | | − 48 |
| $a_2$ | | | | | | | | | | | 18 | 27.04 |
| 20 5.4 | 52 52 | 8.5 | 19 55.7 | 20 12.5 | 16.7 | 19.3 | 22.9 | 26.3 | 967 | 19.34 | 20 | 19.34 |
| 19 32.8 | 53.3 | 8.6 | 58.1 | | | | | | | +40.23 | | +40.69 |
| κ | | 8.1 | 59.6 | | | 20 | 59.97 | | | | | + .56 |
| | | | 57.8 | | | | | | | | | − 2 21 057 |
| Feb 22 ((δ) − D) $\frac{\kappa'}{100}$ | | | 21 2.4 | 20 26.9 | 30.4 | 33.9 | 37.1 | — | 21 | 14.40 | 20 | 33.77 − 60 |
| 19 44.7 | 52 52.3 | | 0.5 | | | | | | | | | +40.69 |
| $a_1$ | | | 3.3 | | | | | | | +41.23 | | + .56 |
| | | | 10.8 | | | | | | | | | − 2 21 500 |
| | | | 9.8 | | | | | | | | | |
| | | 8.4 | 19 50.7 | 20 12.6 | 16.2 | 19.3 | 22.8 | 26.5 | 974 | 19.48 | 20 | 19.48 − 60 |
| | | 8.5 | 53.0 | | | | | | | +41.02 | | +40.43 |
| κ | | | 54.4 | | | | | | | | | + .61 |
| Feb 24 | | | 52.7 | | | 20 | 59.95 | | | | | − 2 21 050 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | 20 59.6 | 20 27.0 | 30.5 | 33.8 | 37.2 | 40.6 | 1691 | 33.82 | 20 | 33.82 − 55 |
| | | | 1.4 | | | | | | | | | +40.43 |
| $a_2$ | | | 2.7 | | | | | | | +41.02 | | + .61 |
| | | | 21 1.2 | | | | | | | | | − 2 21 1484 |
| 23 43 | 52 32 | 9.0 | 22 50.6 | 23 0.5 | 3.8 | 7.1 | 10.6 | 18.9 | 359 | 7.18 | 23 | 7.18 − 55 |
| 22 21.1 | 33.5 | 8.3 | | | | | | | | | | +40.69 |
| κ | | 7.0 | | | | | | | | | | + .55 |
| | | | 58.7 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | 54.7 | | | | | | | +41.22 | 23 | 48.40 |
| | | | 53.8 | | | | | | | | | − 62 |
| $a_1$ | | | 54.7 | | | | | | | | 23 | 47.78 |
| | | 8.9 | 22 34.0 | 23 0.6 | 3.8 | 7.3 | 10.6 | 14.2 | 365 | 7.30 | 23 | 7.30 |
| | | 8.0 | 22 39.0 | | | | | | | | | +40.43 |
| κ | | | | | | | | | | | | + .60 |
| | | | | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.01 | 23 | 48.31 |
| | | | | | | | | | | | | − 57 |
| $a_2$ | | | | | | | | | | | 23 | 47.74 |

Please R.A. to next book page

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 d | +10.9 | 3′ 39.0 | 26.2 | 28′ | 32.60 | 50 54 | 15.75 | | 25′ | 50 51 56.17 | 9. |
| | 1.03743 | | | | | 51 | 47.19 | | | − 3 | +11.65 |
| | 9.80012 | | | | | | + 8.98 | | | + 11 | |
| | 0.95326 | | | | | | 51 56.17 | | | +9.18 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| +9.42 $\delta_1$ | | 15 36.77 | | 51 49.8 | | | | | | −1385 | |
| −2.72 | | | | | | | | | | 51 52.47 | |
| | +20.0 | 3 45.3 | 31.1 | 28 | 38.20 | 50 54 | 10.15 | | 25 | 547.15 | |
| d | 1.30103 | | | | | 51 | 40.67 | | | − 11 | +9.69 |
| | 9.80012 | | | | | | +16.48 | | | + 11 | |
| | 1.21686 | | | | | | 51 47.15 | | | +9.80 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| +9.42 $\delta_2$ | | 15 36.79 | | 51 50.5 | | | | | | −13.60 | |
| −2.72 | | | | | | | | | | 51 543.24 | |
| | +16.0 | 3 23.9 | 10.9 | 43 | 17.40 | 52 39 | 30.95 | | 40 | 52 37 15.07 | |
| 14 d | 1.20412 | | | | | 37 | 2.39 | | | − 7 | +11.64 |
| | 9.78829 | | | | | | +12.68 | | | + 10 | |
| | 1.10312 | | | | | | 37 15.07 | | | +11.13 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 48 | |
| +9.64 $\delta_1$ | | 17 19.34 | | 37 9.9 | | | | | | −1380 | |
| −3.04 | | | | | | | | | | 37 12.91 | |
| | +15.2 | 3 22.9 | 7.0 | 43 | 1495 | 52 39 | 33.40 | | 40 | XX 15.94 | |
| d | 1.18184 | | | | | 37 | 3.92 | | | − 6 | +11.81 |
| | 9.78329 | | | | | | +12.02 | | | + 10 | |
| | 1.07984 | | | | | | 37 15.94 | | | +11.27 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.64 $\delta_2$ | | 17 19.31 | | 37 10.7 | | | | | | −1405 | |
| −3.04 | | | | | | | | | | 37 13.70 | |
| | +13.7 | 4 42.1 | 30.9 | 59 | 36.50 | 50 23 | 11.85 | | 55 | 50 20 54.70 | |
| 36 d | 1.13672 | | | | | 20 | 43.29 | | | − 5 | +9.07 |
| | 9.80489 | | | | | | +11.41 | | | + 14 | |
| | 1.05732 | | | | | | 20 54.70 | | | +8.62 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| +9.36 $\delta_1$ | | 18 36.28 | | 20 47.4 | | | | | | −1315 | |
| −3.24 | | | | | | | | | | 20 50.62 | |
| | +19.1 | 4 46.9 | 34.1 | 59 | 40.50 | 50 23 | 7.85 | | 55 | 54.28 | |
| d | 1.28103 | | | | | 20 | 38.37 | | | − 10 | +9.13 |
| | 9.80489 | | | | | | +15.91 | | | + 14 | |
| | 1.20163 | | | | | | 20 54.28 | | | +8.73 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 36 | |
| +9.36 $\delta_2$ | | 18 36.40 | | 20 46.8 | | | | | | −1335 | |
| −3.24 | | | | | | | | | | 20 50.06 | |
| 14 d | +21.5 | 3 0.2 | 46.0 | 27 | 53.10 | 52 54 | 55.25 | 52 43.83 | 25 | 52 52 43.83 | 51 58.40 |
| | 1.33244 | 52 52 43.83 | | 52 51 58.40 | | 52 | 26.69 | | | − 12 | − 33 |
| | 9.78576 | + 11.88 | | + 11.67 | | | +17.14 | | | + 9 | + 9 |
| | 1.23391 | | | | | | −28.29 | | | +11.42 | +11.42 |
| 057 +9.66 | −35.5 | 3M | | | | | | 51 58.40 | | + 49 | + 49 |
| 60 −3.70 ((δ) − D) $\frac{d'}{100}$ | 1.55023m | | | | | | | | | − 1380 | − 1380 |
| +9.66 $\delta_1$ | 9.78576 | 21 9.63 | | 52 38.2 | | | | | | 52 41.91 | 51 56.27 |
| 1500 −3.70 | 1.45170m | 24.06 | | 51 52.6 | | | | | | | 51 59.23 |
| 60 | | | | | | | | | | | 52 46.51 |
| 05 | +26.8 | 3 5.1 | 51.0 | 27 | 58.05 | 52 54 | 50.30 | 52 41.94 | 25 | 52 41.94 | − 28 |
| d | 1.42813 | | 52 52 41.94 | 52 51 59.23 | | 52 | 20.82 | | | − 19 | + 9 |
| | 9.78080 | | +11.94 | +11.88 | | | +21.12 | | | + 9 | +11.57 |
| | 1.32464 | | | | | | +25.69 | | | +11.57 | + 50 |
| 050 +9.66 | +32.6 | −27.48 | | | | | − 21.59 | 52 46.51 | | + 50 | −1400 |
| 55 −3.70 ((δ) − D) $\frac{d'}{100}$ | 1.51022 | 1.43775m | | | | | | | | −14.00 | 51 57.11 |
| +9.66 δ | 9.78080 | 9.78080 | | 21 9.61 52 36.2 | | | | | | 52 39.91 | |
| 484 −3.70 | 1.40973 | 1.33426m | | 23.95 51 53.4 | | | | | | | |
| 55 | | | | | | | | | | | |
| +166 | +12.5 | 2 22.1 | 10.9 | 47 | 16.50 | 52 35 | 31.85 | | 45 | 52 33 1649 | 33 13.21 |
| 1.22011 | 1.09691 | | | | | 33 | 3.29 | | | − 7 | +11.55 − 4 +11.58 |
| 9.78395 | 9.78395 | | | | | | +9.92 | | | + 7 | + 7 |
| 1.11977 | 0.99657 | | | | | | +13.20 | 33 13.21 | | +11.07 | + 11.07 |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | +9.92 | | | + 48 | + 48 |
| +9.62 $\delta_1$ | | 23 57.40 | | 33 10.2 | | | | | | −1365 | − 1365 |
| −4.18 | | 23 57.40 | | 7.0 | | | | | | 33 14.39 | 33 11.14 |
| +33.3 | +28.3 | 2 34.5 | 19.5 | 47 | 2701 | 52 35 | 21.35 | 33 18.30 | 45 | 33 1830 | 33 1423 |
| 1.52244 | 1.45179 | 16.30 | 1 | 13.62 | | 32 | 5.87 | | | − 30 | − 21 +11.55 |
| 9.78395 | 9.78395 | +11.46 | | +11.56 | | | +26.43 | | | + 7 | + 7 |
| 1.42210 | 1.35145 | | | | | | +22.56 | | | +11.19 | +11.19 |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | 33 13.62 | | + 50 | + 50 |
| +9.62 | | | | | | | | | | −13.85 | − 1385 |
| −4.18 | 1.35 | 23 57.36 | | 33 11.7 | | | | | | 33 1591 | 33 11.93 |
| | | | | 6.8 | | | | | | | |

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

1873phae.proj.1582R

Date$_1$ = Feb 22 219 Observer Recorder

Date$_2$ = Feb 24 220 Observer Recorder

102

| Star. α | δ | Mag. | $T_\delta$ | $T_m$ | $T_o$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 26m 53s | 52° 38′ | 8.9 | 25m 58.1 | 26m 12.3 | 15.6 | 18.9 | 22.3 | 25.8 | 949 | 18.98 | 26 | 18.98 |
| 25 31.7 | 39.0 | 8.8 | 55.6 | | | | | | | | | +40.69 |
| κ | | | 1.3 | | | | | | | | | + .55 |
| | | | 59.7 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.22 | 27 | 0.20 |
| | | | | | | | | | | | | − 65 |
| $c_1$ | | | | | | | | | | | 26 | 59.55 |
| | | 9.0 | 26 1.3 | 26 12.5 | 15.8 | 19.1 | 22.7 | 26.0 | 961 | 19.22 | 26 | 19.22 |
| | | | 2.8 | | | | | | | | | +40.43 |
| κ | | | 4.5 | | | | | | | | | + .60 |
| | | | 2.9 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.01 | 27 | 0.23 |
| | | | | | | | | | | | | − 61 |
| $a_2$ | | | | | | | | | | | 26 | 59.62 |
| 27 37 | 50 53 | 9.4 | 26 57.3 | 27 13.1 | 16.8 | 20.1 | 23.3 | 26.7 | 1001 | 20.02 | 27 | 20.02 |
| 26 35.7 | 52.9 | 9.5 | 0.8 | | | | | | | | | +40.69 |
| κ | | | 2.4 | | | | | | | | | + .52 |
| | | 27 | 0.8 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.19 | 28 | 1.21 |
| | | | | | | | | | | | | − 62 |
| $a_1$ | | | | | | | | | | | 28 | 0.59 |
| | | 9.2 | 26 57.2 | 27 14.0 | 17.0 | 20.5 | 23.6 | 26.9 | 1020 | 20.40 | 27 | 20.40 |
| | | | 59.2 | | | | | | | | | +40.43 |
| κ | | | 1.3 | | | | | | | | | + .56 |
| | | | 54.2 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.98 | 28 | 1.37 |
| | | | | | | | | | | | | − 58 |
| $a_2$ | | | | | | | | | | | 28 | 0.80 |
| 29 4 9 | 52 05 | 8.5 | 28 50.6 | 29 7.9 | 11.2 | 14.6 | 18.0 | 21.1 | 728 | 14.56 | 29 | 14.56 |
| 28 27.5 | 60 | 8.5 | 52.0 | | | | | | | | | +40.69 |
| κ | | | 53.4 | | | | | | | | | + .54 |
| | | | 52.0 | | | | | | | | | − .2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.21 | 29 | 55.77 |
| | | | | | | | | | | | | − 67 |
| $a_1$ | | | | | | | | | | | 29 | 55.10 |
| | | 8.8 | 28 58.3 | 29 8.1 | 11.5 | 14.8 | 18.0 | 21.5 | 739 | 14.78 | 29 | 14.78 |
| | | | 0.2 | | | | | | | | | +40.43 |
| κ | | | 1.7 | | | | | | | | | + .59 |
| | | 29 | 0.1 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.00 | 29 | 55.78 |
| | | | | | | | | | | | | − 62 |
| $a_2$ | | | | | | | | | | | 29 | 55.16 |
| 30 3 8 | 52 06 | 8.0 | 28 42.7 | 29 56.7 | 0.0 | 3.3 | 6.6 | 10.0 | 3166 | 3.32 | 30 | 3.32 |
| 29 18.7 | 6.4 | 7.4 | 44.1 | | | | | | | | | +40.69 |
| κ | | | 45.3 | | | | | | | | | + .54 |
| | | | 44.0 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.21 | 30 | 44.53 |
| | | | | | | | | | | | | − 68 |
| $a_1$ | | | | | | | | | | | 30 | 43.85 |
| | | 8.0 | 29 53.5 | 29 56.9 | 0.2 | 3.6 | 6.9 | 10.3 | 3179 | 3.58 | 30 | 3.58 |
| | | | 55.1 | | | | | | | | | +40.43 |
| κ | | | 54.3 | | | | | | | | | + .59 |
| | | | 53.3 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.00 | 30 | 44.58 |
| | | | | | | | | | | | | − 63 |
| $a_2$ | | | | | | | | | | | 30 | 43.95 |
| 82 05 | 50 27 | 8.3 | 31 14.0 | 31 27.4 | 30.6 | 33.8 | 37.1 | 40.3 | 1694 | 33.88 | 31 | 83.88 |
| 30 58.6 | 26.7 | 8.6 | 13.4 | | | | | | | | | +40.69 |
| κ | | | 12.0 | | | | | | | | | + .51 |
| | | | 10.5 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +41.18 | 32 | 14.96 |
| | | | | | | | | | | | | − 65 |
| $a_1$ | | | | | | | | | | | 32 | 14.31 |
| | | 8.6 | 31 7.9 | 31 27.9 | 30.9 | 34.2 | 37.4 | 40.7 | 1711 | 34.22 | 31 | 34.22 |
| | | | 9.4 | | | | | | | | | +40.43 |
| κ | | | 12.5 | | | | | | | | | + .56 |
| | | | 10.0 | | | | | | | | | − 2 |
| ((δ) − D) $\frac{\kappa'}{100}$ | | | | | | | | | | +40.97 | 32 | 15.19 |
| | | | | | | | | | | | | − 61 |
| $a_2$ | | | | | | | | | | | 32 | 14.58 |

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

1873phae.proj.1582R



Runs

| | $T_m - T$ | A | C | Sum | Mean | Red. to m. wire | Red. to h. wire | Red. runs | Stroke | z | δ′ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | +19.3 | 3′ 9.8 | 55.8 | 43′ | 2′80 | 52 39 | 45.55 | | 40′ | 52 37 32.29 | |
| | 1.285556 | | | | | 37 | 16.99 | | | − 10 | +11.62 |
| 24 d | 9.78329 | | | | | | +15.30 | | | + 9 | |
| | 1.18456 | | | | | | | 37 32.29 | | +11.15 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 48 | |
| +9.62 | | | | | | | | | | −13.53 | |
| $\delta_1$ −4.74 | | 27 9.17 | | 37 25.6 | | | | | | 37 30.36 | |
| | +16.3 | 3 6.8 | 51.4 | 42 | 5910 | 52 39 | 49.25 | | 40 | 32.69 | |
| | 1.21219 | | | | | 37 | 19.77 | | | − 7 | +11.81 |
| d | 9.78329 | | | | | | +12.92 | | | + 9 | |
| | 1.11119 | | | | | | | 37 32.69 | | +11.29 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.62 | | | | | | | | | | −13.80 | |
| $\delta_2$ −4.74 | | 27 9.24 | | 37 28.0 | | | | | | 37 30.70 | |
| | +19.2 | 2 27.7 | 14.5 | 27 | 21.10 | 50 55 | 27.25 | | 25 | 50 53 14.50 | |
| | 1.28330 | | | | | 52 | 58.69 | | | − 10 | +9.57 |
| 38 d | 9.79996 | | | | | | +15.81 | | | + 7 | |
| | 1.19877 | | | | | | | 53 14.50 | | +9.21 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| +9.41 | | | | 6.1 | | | | | | −1305 | |
| $\delta_1$ −4.92 | | 28 10.04 | | 53 4.9 | | | | | | 53 11.0 X2 | |
| | +21.2 | 2 28.3 | 12.5 | 27 | 20.40 | 50 55 | 27.95 | | 25 | 12.34 | |
| | 1.326834 | | | | | 52 | 58.47 | | | − 12 | +9.66 |
| d | 9.79996 | | | | | | +13.87 | | | + 7 | |
| | 1.14201 | | | | | | | 53 12.34 | | +9.32 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 39 | |
| +9.41 | | | | | | | | | | −1330 | |
| $\delta_2$ −4.92 | | 28 10.21 | | 53 3.8 | | | | | | 53 8.70 | |
| | +22.6 | 0 22.0 | 8.9 | 15 | 15,45 | 52 7 | 32.90 | | 15 | 52 5 22.47 | |
| | 1.354111 | | | | | 5 | 4.34 | | | − 14 | +10.87 |
| 12 d | 9.78853 | | | | | | +18.13 | | | + 1 | |
| | 1.25835 | | | | | | | 5 22.47 | | +10.53 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 45 | |
| +9.55 | | | | | | | | | | −1330 | |
| $\delta_1$ −5.14 | | 30 4.65 | | 5 14.9 | | | | | | 5 20.04 | |
| | +14.7 | 0 16.9 | ~~X 9.3~~ | 15 | ~~1495~~ 9,40 | 52 7 | 37.45 5.85 | | 15 | ~~2,426~~ ~~15.76~~ | |
| | 1.16732 | | | | | 5 | 5.97 | | | − 6 | +11.11 |
| d | 9.78853 | | | | | | +11.79 | | | 0 | |
| | 1.07156 | | | | | | | 5 19.76 | | +10.67 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.55 | | | | | | | | | | −13.55 | |
| $\delta_2$ −5.14 | | 30 4.71 | | 5 13.7 | | | | | | 5 ~~16.75~~ 18.82 | |
| | +19.3 | 4 44.8 | 30.8 | 14 | 37,80 | 52 8 | 10.55 | | 10 | 52 5 57.47 | |
| | 1.285886 | | | | | 5 | 41.99 | | | − 10 | +11.06 |
| 26 d | 9.78837 | | | | | | +15.48 | | | + 14 | |
| | 1.18964 | | | | | | | 5 57.47 | | +10.57 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 45 | |
| +9.55 | | | | | | | | | | −1330 | |
| $\delta_1$ −5.38 | | 30 53.40 | | 5 49.8 | | | | | | 5 55.23 | |
| | +8.3 | 4 35.8 | 20.1 | 14 | 27,95 | 52 8 | 20.40 | | 10 | 57.58 | |
| | 0.911908 | | | | | 5 | 50.92 | | | − 2 | +11.29 |
| d | 9.78837 | | | | | | + 6.66 | | | + 13 | |
| | 0.82316 | | | | | | | 5 57.58 | | +10.68 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 50 | |
| +9.55 | | | | | | | | | | −13.58 | |
| $\delta_2$ −5.38 | | 30 53.50 | | 5 49.9 | | | | | | 5 55.32 | |
| | +18.4 | 4 59.0 | 46.2 | 54 | 52,60 | 50 27 | 55.75 | | 50 | 50 25 42.49 | |
| | 1.264822 | | | | | 25 | 27.19 | | | − 9 | +9.16 |
| 34 d | 9.80428 | | | | | | +15.30 | | | + 15 | |
| | 0.18481 | | | | | | | 25 42.49 | | +8.73 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| +9.35 | | | | | | | | | | −1280 | |
| $\delta_1$ −5.64 | | 32 23.86 | | 25 33.2 | | | | | | 25 38.85 | |
| | +24.2 | 0 3.0 | 49.1 | 54 | 56,05 | 50 27 | 52.30 | | 35 | 42.95 | |
| | 1.383822 | | | | | 25 | 22.82 | | | − 16 | +9.03 |
| d | 9.80428 | | | | | | +20.13 | | | + 0 | |
| | 1.30381 | | | | | | | 25 42.95 | | +8.82 | |
| ((δ) − D) $\frac{d'}{100}$ | | | | | | | | | | + 37 | |
| +9.35 | | | | | | | | | | −1305 | |
| $\delta_2$ −5.64 | | 32 23.93 | | 25 33.3 | | | | | | 25 38.93 | |

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

1873phae.proj.1582R

Date$_1$ = Observer / Recorder

Date$_2$ = Observer / Recorder

| Star. α | δ | Mag. | $T_\delta$ | $T_m$ | $T_e$ | $T_f$ | $T_g$ | $T_h$ | Sum | Mean | Red. to $T_m$ | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| κ | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_1$ | | | | | | | | | | | | |
| κ | | | | | | | | | | | | |
| $((\delta) - D)\frac{\kappa'}{100}$ | | | | | | | | | | | | |
| $\alpha_2$ | | | | | | | | | | | | |

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

1873phae.proj.1582R

4135
285
128

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

1873phae.proj..1582R

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

1873phae.proj.15822

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

1873phae.proj.1582R



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