

KG

11365
516

KG 11365.516

$$\text{Log } A_{\text{AV}} = 0.9469^{\circ}$$

$$\begin{array}{r} \text{" } A_{\text{V}} = 0.9330^{\circ} \\ \hline 0.0139^{\circ} \end{array}$$

$$\text{Log } (\rho \pi \sin \varphi') = +0.773K^{\circ} \quad \pi = A_{\text{AV}}$$

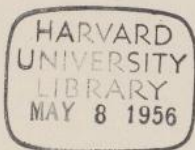
$$\text{" } \frac{(\rho \pi \cos \varphi')}{15} = +9.6400^{\circ} \quad \pi = A_{\text{AV}}$$

$$\text{" } \tan \varphi' = +9.9575^{\circ}$$

KG 11365.516

$$\frac{y}{x} = 0.57 = 0.9330$$

$$11 \cdot 0.57 = 0.$$



Comet Halley.Sept. 9. 1891.

$$H.A. = -\sqrt{h} \ 14''$$

$$\delta = +22^\circ 28'$$

<u>0.450</u>	<u>4.23</u>
9.6532	0.6239
<u>0.0139</u>	<u>0.0139</u>
9.6671	0.6972

Sept. 10. 1891.

$$H.A. = -\sqrt{h} \ 51''$$

$$\delta = +22^\circ 16'$$

<u>0.436</u>	<u>4.61</u>
9.6395	0.6637
<u>0.0139</u>	<u>0.0139</u>
9.6534	0.6776

Sept. 12. 1891.

$$H.A. = -\sqrt{h} \ 14''$$

$$\delta = +21^\circ 39'$$

<u>0.446</u>	<u>4.22</u>
9.6493	0.6224
<u>0.0139</u>	<u>0.0139</u>
9.6632	0.7023

Comet Halley.Sept. 14. 1891.

$$H. A. = -5^h 17^m$$

$$\delta = +20^\circ 56'$$

<u>0.445</u>	<u>4.96</u>
9.6444	0.6955
0.0139	0.0139
<u>9.6623</u>	<u>0.7094</u>

Sept. 16. 1891.

$$H. A. = -5^h 1^m$$

$$\delta = +20^\circ 22'$$

<u>0.443</u>	<u>4.23</u>
9.6464	0.6239
0.0139	0.0139
<u>9.6603</u>	<u>0.6972</u>

Sept. 26. 1891.

$$H. A. = -4^h 17^m$$

$$\delta = +16^\circ 3'$$

<u>0.396</u>	<u>4.77</u>
9.5977	0.6725
0.0139	0.0139
<u>9.6116</u>	<u>0.6924</u>

Comet d 1891 = Bernard Sept. 27.
Oct. 9. 1891.

$$\begin{array}{rcl} 21 & 3K.3 & = J. \\ 20 & \sqrt{3.A} & = R.A. \quad +0^{\circ} 36' = d \\ +0 & 40.5 & = K.A. \end{array}$$

$$\begin{array}{r} 0.07K \\ \hline A.A692 \\ 0.0139 \\ \hline +0.4431 \end{array} \quad \begin{array}{r} \sqrt{.6A} \\ \hline 0.75K3 \\ 0.0139 \\ \hline +0.7642 \end{array}$$

Same as

Oct. 1. 1891.

$$\begin{array}{rcl} 22 & 15.0 & = J. \\ 20 & \sqrt{3.K} & = R.A. \quad +0^{\circ} 24' = d \\ +1 & 21.6 & = K.A. \end{array}$$

$$\begin{array}{r} 0.1KA \\ \hline 9.1703 \\ 0.0139 \\ \hline +9.1442 \end{array} \quad \begin{array}{r} \sqrt{.71} \\ \hline 0.7566 \\ 0.0139 \\ \hline +0.7705 \end{array}$$

Oct. 2K. 1891.

$$\begin{array}{rcl} 23 & 19.A & \\ 21 & 9.K & \\ +2 & 10.K & +4^{\circ} 24' \end{array}$$

$$\begin{array}{r} 0.22A \\ \hline 9.3579 \\ 0.0139 \\ \hline +9.3718 \end{array} \quad \begin{array}{r} \sqrt{.33} \\ \hline 0.7267 \\ 0.0139 \\ \hline +0.7406 \end{array}$$

Comet d 1491, Barnard Sept. 27.Oct. 24. 1491.

$$T = 23 \quad 3.2^{\circ}$$

$$J = +5^{\circ} 40'$$

$$R.A. = 21 \quad 16.9^{\circ}$$

$$H.A. = +1 \quad 46.3^{\circ}$$

$$\begin{array}{r}
 0.5190^{\circ} \\
 9.2744^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +9.2927
 \end{array}$$

$$\begin{array}{r}
 5.16^{\circ} \\
 0.7126^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +0.7265
 \end{array}$$

Nov. 2. 1491.

$$T = 24 \quad 54.6^{\circ}$$

$$J = +7^{\circ} 29'$$

$$R.A. = 21 \quad 24.9$$

$$H.A. = +3 \quad 25.7^{\circ}$$

$$\begin{array}{r}
 0.334^{\circ} \\
 9.5237^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +9.5376
 \end{array}$$

$$\begin{array}{r}
 5.19^{\circ} \\
 0.7152^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +0.7291
 \end{array}$$

Nov. 3. 1491.

$$T = 23 \quad 6.7^{\circ}$$

$$J = +7^{\circ} 51' -$$

$$R.A. = 21 \quad 31.4^{\circ}$$

$$H.A. = +1 \quad 35.3^{\circ}$$

$$\begin{array}{r}
 0.172^{\circ} \\
 9.2355^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +9.2494
 \end{array}$$

$$\begin{array}{r}
 5.92^{\circ} \\
 0.6920^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +0.7059
 \end{array}$$

Comet 1491, Barnard Sept. 27,Nov. 4, 1891.

$$T = 23 \ 26.9^{\circ}$$

$$J = +4^{\circ} \ 15'$$

$$R.A. = 21 \ 34.2^{\circ}$$

$$H.A. = +1 \ 52.7^{\circ}$$

$$\begin{array}{r}
 0.202^{\circ} \\
 9.3054^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +9.3193
 \end{array}$$

$$\begin{array}{r}
 4.90^{\circ} \\
 0.6902^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +0.7041
 \end{array}$$

Nov. 6, 1891.

$$T = 23 \ 50.7^{\circ}$$

$$J = +9^{\circ} \ 41^{\circ}$$

$$R.A. = 21 \ 40.2^{\circ}$$

$$H.A. = +2 \ 10.5^{\circ}$$

$$\begin{array}{r}
 0.230^{\circ} \\
 9.3617^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +9.3756
 \end{array}$$

$$\begin{array}{r}
 4.25^{\circ} \\
 0.6257^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +0.6996
 \end{array}$$

Comet 1491.Nov. 24, 1891.

$$T = 3 \ 4.0^{\circ}$$

$$J = -11^{\circ} \ 50'$$

$$R.A. = 4 \ 24.9^{\circ}$$

$$H.A. = -1 \ 20.9^{\circ}$$

$$\begin{array}{r}
 0.150^{\circ} \\
 9.1761^{\circ} \\
 0.0139^{\circ} \\
 \hline
 \approx 9.1900
 \end{array}$$

$$\begin{array}{r}
 4.40^{\circ} \\
 0.6535^{\circ} \\
 0.0139^{\circ} \\
 \hline
 +0.6574
 \end{array}$$

Comet d 1891. Barnard Sept. 27.For. 27. 1891.

$$\gamma = 0 \ 512^{\vee}$$

$$\delta = +19^{\circ} 32' ^{\vee}$$

$$R.A. = 23 \ 16.3^{\vee}$$

$$H.A. = +1 \ 3K.9^{\vee}$$

$$\begin{array}{r}
 0.121^{\vee} \\
 9.2577 \\
 0.0139 \\
 \hline
 +9.2716
 \end{array}$$

$$\begin{array}{r}
 3.42^{\vee} \\
 0.5416^{\vee} \\
 0.0139 \\
 \hline
 +0.5555^{\vee}
 \end{array}$$

Comet Galf.Dec. 2. 1891.

$$\gamma = 3 \ 4K.2^{\vee}$$

$$\delta = -1K \ 22$$

$$R.A. = 4 \ 19.9^{\vee}$$

$$H.A. = -0 \ 31.7^{\vee}$$

$$\begin{array}{r}
 0.061^{\vee} \\
 2.7253 \\
 0.0139 \\
 \hline
 +2.7392
 \end{array}$$

$$\begin{array}{r}
 4.02^{\vee} \\
 0.6042 \\
 0.0139 \\
 \hline
 +0.6181
 \end{array}$$

Comet Galf.Dec. 24. 1891.

$$\gamma = 4 \ 9.5^{\vee}$$

$$\delta = -1K^{\circ} 30' ^{\vee}$$

$$R.A. = K \ 1K.4^{\vee}$$

$$H.A. = -0 \ 4.9^{\vee}$$

$$\begin{array}{r}
 0.009^{\vee} \\
 7.9542^{\vee} \\
 0.0139 \\
 \hline
 +7.9681
 \end{array}$$

$$\begin{array}{r}
 3.94^{\vee} \\
 0.5999^{\vee} \\
 0.0139 \\
 \hline
 +0.6138
 \end{array}$$

Comet Galf.Jan. 20. 1892.

$$T. = 6 \quad 49.5^{\circ}$$

$$R.A. = 4 \quad 21.1^{\circ}$$

$$H.A. = +2 \quad 20.8^{\circ}$$

$$\delta = -11^{\circ} 41'$$

$$\begin{array}{r}
 0.260^{\circ} \\
 9.4150^{\circ} \\
 0.0139 \\
 +9.4289
 \end{array}$$

$$\begin{array}{r}
 6.66^{\circ} \\
 0.2235^{\circ} \\
 0.0139 \\
 +0.2374
 \end{array}$$

Comet c 1892 (Dunning)Mar. 19. 1892.

$$T. = 9 \quad 4.2^{\circ}$$

$$R.A. = 22 \quad 47.7^{\circ}$$

$$H.A. = +10 \quad 17.1^{\circ}$$

$$\delta = +59^{\circ} 19'$$

$$\log \tan p' = +9.957^{\circ}$$

$$\log \cos t = -9.9547$$

$$y^2 = -K \sin^2 t = -0.0022$$

$$\delta = +59.3$$

$$-104.5 = (y - \delta)$$

$$\log \frac{p \cos p'}{r} = +9.6200^{\circ}$$

$$\log \sin t' = +9.6375^{\circ}$$

$$\log \sin t = +9.2775^{\circ}$$

$$\log \cos \delta = +9.7020^{\circ}$$

$$\log p \Delta = +9.5695^{\circ}$$

$$\log p \sin p' = +0.7734^{\circ}$$

$$\log \sin (y - \delta) = -9.9659^{\circ}$$

$$\log \sin y = -0.7593^{\circ}$$

$$\log p \Delta = +0.9023^{\circ}$$

Comet a 1892. (Swift).Mar. 20. 1892.

$$T. = 16 \quad 51.5^{\circ}$$

$$R.A. = 20 \quad 2.9^{\circ}$$

$$H.A. = -3 \quad 11.8^{\circ}$$

$$\delta = -12^{\circ} 46'$$

$$\begin{array}{r}
 0.331^{\circ} \\
 9.5192 \\
 0.0139 \\
 +9.5331
 \end{array}$$

$$\begin{array}{r}
 6.67^{\circ} \\
 0.2370^{\circ} \\
 0.0139 \\
 +0.2509
 \end{array}$$

Comet a 1892.

$$\begin{array}{r} -44.3 \\ +59.7 \\ \hline -10.8 = \gamma - \delta \end{array}$$

Mar. 21. 1892.

$$\gamma = 9 \quad 33.4''$$

$$R.A. = 23 \quad 0.0''$$

$$H.A. = +10 \quad 33.4''$$

$$\delta = +59^\circ 41' \quad \checkmark$$

$$\text{Log tan } \phi' = +9.9475 \quad \checkmark$$

$$\text{" cos } t' = -9.9622 \quad \checkmark$$

$$\gamma = -44.3 = -9.9493 \quad \checkmark$$

$$\text{Log } \rho \pi \cos \phi' = +9.6400 \quad \checkmark$$

$$\text{" sin } t = +9.5670 \quad \checkmark$$

$$+9.2070 \quad \checkmark$$

$$\text{" cos } \delta = +9.7029 \quad \checkmark$$

$$\text{" } \rho \Delta = +9.5041 \quad \checkmark$$

$$\text{Log } \rho \pi \sin \phi' = +0.7734 \quad \checkmark$$

$$\text{" sin } (\gamma - \delta) = -9.9469 \quad \checkmark$$

$$-0.7603 \quad \checkmark$$

$$\text{" sin } \gamma = -9.4441 \quad \checkmark$$

$$\text{" } \rho \Delta = +0.9162 \quad \checkmark$$

Comet a 1892 (Swift)Mar. 29.

$$\gamma = 17^\circ 23.6'$$

$$R.A. = 20 \quad 40.4''$$

$$H.A. = -3 \quad 16.4''$$

$$\delta = -9^\circ 24' \quad \checkmark$$

$$0.324 \quad \checkmark$$

$$9.5105 \quad \checkmark$$

$$0.0139 \quad \checkmark$$

$$+9.5244 \quad \checkmark$$

$$6.35 \quad \checkmark$$

$$0.8022 \quad \checkmark$$

$$0.0139 \quad \checkmark$$

$$0.8167 \quad \checkmark$$

Comet a 1892.May 18. 1892.

$$\begin{array}{r}
 \gamma = 17 \quad 42.4^{\circ} \checkmark \\
 R.A. = 23 \quad 22.0^{\circ} \checkmark \\
 H.A. = 18 \quad 26.2^{\circ} \checkmark \\
 \hline
 \quad \quad \quad \checkmark \quad 33.2^{\circ} \checkmark
 \end{array}$$

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

$$\begin{array}{r}
 0.493 \\
 9.6928 \\
 0.0139 \\
 \hline
 \approx 9.7067
 \end{array}$$

$$\begin{array}{r}
 4.51 \\
 0.6542 \\
 0.0139 \\
 \hline
 +0.6681
 \end{array}$$

Comet a 1892.May 28. 1892.

$$\begin{array}{r}
 \gamma = 18 \quad 17.6^{\circ} \checkmark \\
 R.A. = 23 \quad 37.0^{\circ} \checkmark \\
 H.A. = 18 \quad 40.6^{\circ} \checkmark \\
 \hline
 \quad \quad \quad \checkmark \quad 19.4^{\circ} \checkmark
 \end{array}$$

$$\delta = +35^{\circ} 20'$$

$$\begin{array}{r}
 0.505 \\
 9.7033 \\
 0.0139 \\
 \hline
 \approx 9.7172
 \end{array}$$

$$\begin{array}{r}
 4.12 \\
 0.6149 \\
 0.0139 \\
 \hline
 +0.6288
 \end{array}$$

Comet a 1892.June 15. 1892.

$$\begin{array}{r}
 \gamma = 18 \quad 0.9^{\circ} \checkmark \\
 R.A. = 0 \quad 22.7^{\circ} \checkmark \\
 H.A. = 17 \quad 34.2^{\circ} \checkmark \\
 \hline
 \quad \quad \quad \checkmark \quad 21.2^{\circ} \checkmark
 \end{array}$$

$$\delta = +42^{\circ} 33'$$

$$\begin{array}{r}
 0.572 \\
 9.7574 \\
 0.0139 \\
 \hline
 \approx 9.7713
 \end{array}$$

$$\begin{array}{r}
 4.66 \\
 0.6624 \\
 0.0139 \\
 \hline
 +0.6763
 \end{array}$$

(Comet a 1892) July 20. 1892.

$$T = 18 \ 50.2 \checkmark$$

$$d = +50^\circ 23'$$

$$R.A. = 1 \ 21 \checkmark$$

$$H.A. = 17 \ 46.1 \checkmark$$

$$\underline{\quad\quad\quad}$$
$$6. \ 11.9$$

$$\begin{array}{r} 0.664 \\ 9.222 \\ 0.0139 \\ \hline \approx 9.2361 \end{array}$$

$$\begin{array}{r} 3.92 \\ 0.5933 \\ 0.0139 \\ \hline +0.6072 \end{array}$$

(Comet a 1892) July 23. 1892.

$$T = 19 \ 24.2 \checkmark$$

$$d = +50^\circ 50'$$

$$R.A. = 1 \ 32 \checkmark$$

$$H.A. = 18 \ 25.0 \checkmark$$

$$\underline{\quad\quad\quad}$$
$$5 \ 35.0$$

$$\begin{array}{r} 0.665 \\ 9.222 \\ 0.0139 \\ \hline \approx 9.2367 \end{array}$$

$$\begin{array}{r} 3.07 \\ 0.4271 \\ 0.0139 \\ \hline +0.5010 \end{array}$$

(Comet a 1892) Sept. 2. 1892.

$$T = 21 \ 22.7 \checkmark$$

$$d = +52^\circ 33' \checkmark$$

$$R.A. = 0 \ 39.9 \checkmark$$

$$H.A. = 20 \ 42.2 \checkmark$$

$$\underline{\quad\quad\quad}$$
$$3 \ 17.2$$

$$\begin{array}{r} 0.522 \\ 9.7226 \\ 0.0139 \\ \hline \approx 9.7365 \end{array}$$

$$\begin{array}{r} 0.22 \\ 9.3424 \\ 0.0139 \\ \hline +9.3563 \end{array}$$

Comet c. 1892.
Sept. 2. 1892.

$$\begin{aligned} \gamma &= 1 \ 49.2^\circ \\ R.A. &= 6 \ 11.7^\circ \\ H.A. &= -4 \ 21.9^\circ \end{aligned}$$

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

$$\begin{array}{r} 0.452 \\ 9.6551 \\ 0.0139 \\ \hline = 9.6690 \end{array}$$

$$\begin{array}{r} 3.53 \\ 0.5472 \\ 0.0139 \\ \hline + 0.5617 \end{array}$$

Comet c. 1892.
Sept. 4. 1892.

$$\begin{aligned} \gamma &= 23 \ 52.6^\circ \\ R.A. &= 6 \ 9.0^\circ \\ H.A. &= -6 \ 16.8^\circ \end{aligned}$$

$$\delta = +31^\circ 36'$$

$$\begin{array}{r} 0.496 \\ 9.6955 \\ 0.0139 \\ \hline = 9.7094 \end{array}$$

$$\begin{array}{r} 5.13 \\ 0.7101 \\ 0.0139 \\ \hline + 0.7240 \end{array}$$

Comet a. 1892.
Sept. 27. 1892.

$$\begin{aligned} \gamma &= 20 \ 44.2^\circ \\ R.A. &= 0 \ 2.0^\circ \\ H.A. &= -3 \ 23.2^\circ \end{aligned}$$

$$+42^\circ 22' = \text{Dec.}$$

$$\begin{array}{r} 0.495 \\ 9.6946 \\ 0.0139 \\ \hline = 9.7085 \end{array}$$

$$\begin{array}{r} 0.76 \\ 9.2202 \\ 0.0139 \\ \hline + 9.2347 \end{array}$$

Comet Holmes.
Nov. 23, 1892.

$$\begin{array}{rcl} 0^h & 7.7 & = J \\ 0 & 42.1 & = R.A. \\ - 0^h & 3 K.K & = H.A. \end{array} \quad +38.2^\circ$$

$$\begin{array}{r} 0.074 \\ \hline 9.921 \checkmark \\ 0.0139 \checkmark \\ \hline 9.9349 \checkmark \end{array}$$

$$\begin{array}{r} 0.45 \\ \hline 9.929 K \checkmark \\ 0.0139 \checkmark \\ \hline +9.9433 \checkmark \end{array}$$

Nov. 23, 1892.

$$\begin{array}{rcl} 2^h & 54.0 & = J \\ 0 & 42.1 & = R.A. \\ +2 & 11.9 & = H.A. \end{array} \quad +36.6^\circ$$

$$\begin{array}{r} 0.244 \\ \hline 9.459 K \checkmark \\ 0.0139 \checkmark \\ \hline +9.4733 \checkmark \end{array}$$

$$\begin{array}{r} 1.42 \\ \hline 0.1523 \checkmark \\ 0.0139 \checkmark \\ \hline +0.1662 \checkmark \end{array}$$

Nov. 14.

$$\begin{array}{rcl} 23 & 24.5 & = J \\ 0 & 43.6 & = R.A. \\ -1 & 15.1 & = H.A. \end{array} \quad +37.2^\circ$$

$$\begin{array}{r} 0.172 \\ \hline 9.235 \checkmark \\ 0.0139 \checkmark \\ \hline 9.249 K \checkmark \end{array}$$

$$\begin{array}{r} 0.46 \\ \hline 9.934 \checkmark \\ 0.0139 \checkmark \\ \hline +9.948 K \checkmark \end{array}$$

Nov. 16.

$$\begin{array}{rcl} 6 & 39.7 & = J \\ 0 & 42.9 & = R.A. \\ +5 & 56.6 & = H.A. \end{array} \quad +37.6^\circ$$

$$\begin{array}{r} 0.534 \\ \hline 9.727 \checkmark \\ 0.0139 \checkmark \\ \hline +9.741 K \checkmark \end{array}$$

$$\begin{array}{r} 4.1 \\ \hline 0.6542 \checkmark \\ 0.0139 \checkmark \\ \hline +0.6681 \checkmark \end{array}$$

Comet Holmes.

13

Nov. 17. 1892.

$$\begin{array}{rcl}
 23 & 49.7 & = J. & +37.5 \\
 0 & 42.2 & = R.A. & \\
 \hline
 -0 & 53.1 & = H.A. &
 \end{array}$$

$$\begin{array}{r}
 0.122 \\
 9.0264 \\
 0.0139 \\
 \hline
 =9.1003
 \end{array}$$

$$\begin{array}{r}
 0.20 \\
 9.9031 \\
 0.0139 \\
 \hline
 +9.9170
 \end{array}$$

Nov. 19.

$$\begin{array}{rcl}
 2 & 41.9 & = J. & \\
 0 & 42.4 & = R.A. & +37.2 \\
 \hline
 +1 & 59.5 & = H.A. &
 \end{array}$$

$$\begin{array}{r}
 0.265 \\
 9.4232 \\
 0.0139 \\
 \hline
 +9.4371
 \end{array}$$

$$\begin{array}{r}
 1.26 \\
 0.1004 \\
 0.0139 \\
 \hline
 +0.1143
 \end{array}$$

Nov. 20.

$$\begin{array}{rcl}
 \sqrt{ } & 50.5 & = J. & +37.1 \\
 0 & 42.2 & = R.A. & \\
 \hline
 +\sqrt{ } & 16.3 & = H.A. &
 \end{array}$$

$$\begin{array}{r}
 0.520 \\
 9.7160 \\
 0.0139 \\
 \hline
 +9.7299
 \end{array}$$

$$\begin{array}{r}
 3.27 \\
 0.5277 \\
 0.0139 \\
 \hline
 +0.6016
 \end{array}$$

Nov. 22.

$$\begin{array}{rcl}
 0 & 21.3 & = J. & \\
 0 & 42.0 & = R.A. & +37.0 \\
 \hline
 -0 & 20.7 & = H.A. &
 \end{array}$$

$$\begin{array}{r}
 0.042 \\
 2.6212 \\
 0.0139 \\
 \hline
 =2.6951
 \end{array}$$

$$\begin{array}{r}
 0.75 \\
 9.8921 \\
 0.0139 \\
 \hline
 +9.9060
 \end{array}$$

Comet Holmes. = f 1692.
Nov. 23. 1892.
 (1st obs.)

$$0 \quad 10.6 = J.$$

$$0 \quad 42.0 = R.A.$$

$$+36.9$$

$$-0 \quad 31.4 = H.A.$$

$$\begin{array}{r} 0.071 \\ \hline 2.2513 \\ 0.0139 \\ \hline 2.2652 \end{array}$$

$$\begin{array}{r} 0.23 \\ \hline 9.9191 \\ 0.0139 \\ \hline +9.9330 \end{array}$$

Nov. 23. (2nd obs.)

$$2 \quad 56.9 = J.$$

$$0 \quad 42.0 = R.A.$$

$$+36.2$$

$$+2 \quad 14.9 = H.A.$$

$$\begin{array}{r} 0.222 \\ \hline 9.4594 \\ 0.0139 \\ \hline +9.4733 \end{array}$$

$$\begin{array}{r} 1.44 \\ \hline 0.1524 \\ 0.0139 \\ \hline +0.1663 \end{array}$$

Comet g 1892 (Brooks. Nov. 19)
Nov. 21.

$$2 \quad 51.9 = J.$$

$$12 \quad 59.3 = R.A.$$

$$+13.2$$

$$-4 \quad 7.4$$

no ref.

$$\begin{array}{r} 0.324 \\ \hline 9.5243 \\ 0.0139 \\ \hline 9.5382 \end{array}$$

$$\begin{array}{r} 4.27 \\ \hline 0.6275 \\ 0.0139 \\ \hline +0.7014 \end{array}$$

Nov. 22.

$$2 \quad 34.0 = J.$$

$$13 \quad 0.6 = R.A.$$

$$-4 \quad 26.6 = H.A.$$

$$+14.3$$

Alt. 26.7

$$\begin{array}{r} 0.402 \\ \hline 9.6042 \\ 0.0139 \\ \hline 9.6181 \end{array}$$

$$\begin{array}{r} 5.06 \\ \hline 0.7042 \\ 0.0139 \\ \hline +0.7181 \end{array}$$

Comet 1292 (Brooks)
 Nov. 24.

$$\begin{array}{rcl}
 2^h & 34.2^m & = J \\
 13 & 3.5 & = R.A. \\
 - 4 & 28.7 & \\
 \hline
 & 0.400 & \\
 & 9.6021 & \\
 & 0.0139 & \\
 \hline
 & 9.6160 & \\
 \end{array}
 \qquad
 \begin{array}{rcl}
 & +15.2 & \\
 \hline
 & 4.29 & \\
 & 0.6493 & \\
 & 0.0139 & \\
 \hline
 & +0.7032 & \\
 \end{array}
 \qquad
 \text{Alt. } 27.6^\circ$$

Comet Holmes = f 1492.
 Dec. 7.

$$\begin{array}{rcl}
 1^h & 31.9^m & \checkmark = J \\
 0 & 45.1^s & \checkmark = R.A. \\
 +0 & 46.2^s & \checkmark = H.A. \\
 \hline
 \end{array}
 \qquad
 +35^\circ 29' \checkmark$$

$$\begin{array}{rcl}
 & 0.106 & \\
 & 9.0253 & \\
 & 0.0139 & \\
 \hline
 & +9.0392 \checkmark & \\
 \end{array}$$

$$\begin{array}{rcl}
 & 1.02 & \\
 & 0.0334 & \\
 & 0.0139 & \\
 \hline
 & +0.0473 \checkmark & \\
 \end{array}$$

Comet Holmes.
 Dec. 9.

$$\begin{array}{rcl}
 1^h & 44.1^m & \checkmark = J \\
 0 & 46.0^s & \checkmark = R.A. \\
 +1 & 21 & = H.A. \\
 \hline
 \end{array}
 \qquad
 +35^\circ 14'$$

$$\begin{array}{rcl}
 & 0.132 & \\
 & 9.1399 & \\
 & 0.0139 & \\
 \hline
 & +9.1538 & \\
 \end{array}$$

$$\begin{array}{rcl}
 & 1.16 & \\
 & 0.0645 & \\
 & 0.0139 & \\
 \hline
 & +0.0784 & \\
 \end{array}$$

Comet 1892.
Oct. 19. 1892.

$$\begin{array}{rcl} 22 & 22.2^{\circ} & = T. \\ 19 & 47.0^{\circ} & = R.A. \\ +2 & 35.2^{\circ} & = H.A. \end{array} \quad +10^{\circ} 10' = \text{Dec.}$$

$$\begin{array}{r} 0.269 \\ 9.4290 \\ 0.0139 \\ \hline +9.4437^{\circ} \end{array} \quad \begin{array}{r} 4.77 \\ 0.6725 \\ 0.0139 \\ \hline +0.6924^{\circ} \end{array}$$

Comet Holmes. 1892.

Dec. 16. 1892.

$$\begin{array}{rcl} 1 & 50.2 & = T. \\ 0 & 50.2 & = R.A. \\ +0 & 54.2 & = H.A. \end{array} \quad +34^{\circ} 46' = \text{Dec.}$$

$$\begin{array}{r} 0.129 \\ 9.1166 \\ 0.0139 \\ \hline +9.1245 \end{array} \quad \begin{array}{r} 1.22 \\ 0.0264 \\ 0.0139 \\ \hline +0.1003 \end{array}$$

Comet Holmes 1892.
Dec. 22. 1892.

$$\begin{array}{rcl} 2 & 52.0 & = T. \\ 0 & 54.2 & = R.A. \\ +1 & 57.2 & = H.A. \end{array} \quad +34.8$$

$$\begin{array}{r} 0.250 \\ 9.3979^{\circ} \\ 0.0139^{\circ} \\ \hline +9.4112^{\circ} \end{array} \quad \begin{array}{r} 1.62 \\ 0.2095^{\circ} \\ 0.0139^{\circ} \\ \hline +0.2234^{\circ} \end{array}$$

Comet Holmes.
Jan. 16. 1893.

$$\begin{array}{r} 7^h \quad 2.2 = T. \\ 1 \quad 22.1 = R.A. \\ \hline +5 \quad 10.7 = H.A. \end{array}$$

$$+33^\circ 39' = Dec.$$

$$\begin{array}{r} 0.506 \\ 9.7042 \\ 0.0139 \\ \hline +9.7121 \end{array}$$

$$\begin{array}{r} 4.49 \\ 0.6522 \\ 0.0139 \\ \hline 0.6661 \end{array}$$

Comet Holmes.
Jan. 17. 1893.

$$\begin{array}{r} 4 \quad 52.0 = T. \\ 1 \quad 23.3 = R.A. \\ \hline +3 \quad 34.7 = H.A. \end{array}$$

$$+33^\circ 39' = Dec.$$

$$\begin{array}{r} 0.409 \\ 9.6117 \\ 0.0139 \\ \hline +9.6256 \end{array}$$

$$\begin{array}{r} 2.71 \\ 0.4330 \\ 0.0139 \\ \hline 0.4469 \end{array}$$

Comet Holmes.
Jan. 19. 1893.

$$\begin{array}{r} 5 \quad 40.6 = T. \\ 1 \quad 26.0 = R.A. \\ \hline +4 \quad 14.6 = H.A. \end{array}$$

$$+33^\circ 39' = Dec.$$

$$\begin{array}{r} 0.455 \\ 9.6520 \\ 0.0139 \\ \hline +9.6719 \end{array}$$

$$\begin{array}{r} 3.24 \\ 0.5105 \\ 0.0139 \\ \hline 0.5244 \end{array}$$

Comet Holmes.
Jan. 20. 1893.

$$\begin{array}{r} 7 \quad 10.9 = J. \\ 1 \quad 27.8 = R.A. \\ +5 \quad 43.5 = H.A. \end{array}$$

$$+33^{\circ} 39' = Dec.$$

$$\begin{array}{r} 0.507 \\ 9.7050 \\ 0.0139 \\ +9.7189 \end{array}$$

$$\begin{array}{r} 4.54 \\ 0.6571 \\ 0.0139 \\ 0.6710 \end{array}$$

Comet Holmes.
Jan. 21. 1893.

$$\begin{array}{r} 6 \quad 31.1 = J. \\ 1 \quad 24.7 = R.A. \\ +5 \quad 28 = H.A. \end{array}$$

$$+33^{\circ} 39' = Dec.$$

$$\begin{array}{r} 0.502 \\ 9.7007 \\ 0.0139 \\ +9.7146 \end{array}$$

$$\begin{array}{r} 3.91 \\ 0.5922 \\ 0.0139 \\ 0.6061 \end{array}$$

Comet Rordane.Obs. of July 10. 1893.1st obs.

$$T = 16^{\circ} 37.1$$

$$R.A. = 2 \quad 32.3$$

$$H.A. = +2 \quad 4.2$$

$$Dec. = +K6.9$$

$$\begin{array}{r}
 0.531 \\
 \hline
 9.7251 \\
 0.0139 \\
 \hline
 +9.7390
 \end{array}
 \qquad
 \begin{array}{r}
 6.33 \\
 \hline
 0.2014 \\
 0.0139 \\
 \hline
 +0.2153
 \end{array}$$

2nd obs.Comet Rordane.Obs. of July 10. 1893.

$$T = 12 \quad 1K.2$$

$$R.A. = 8 \quad 3K.6$$

$$H.A. = +9 \quad 40.2$$

$$\begin{array}{l}
 \text{Ly } \cos \phi' = +9.9575 \\
 \text{" } \cos(K-\theta) = -9.9160 \\
 +K6.2 = Dec. \quad -47.7 \quad -0.0415
 \end{array}$$

$$\text{Ly } \pi p \cos \phi' = +9.6400$$

$$\text{" } \sin(\phi-\theta) = +9.7531$$

$$+9.3931$$

$$\text{" } \cos \delta = +9.2354$$

$$\text{u.p. } \delta = +9.5577$$

$$\text{Ly } \pi p \sin \phi' = +0.7735$$

$$(-94.5) \text{ " } \sin(\phi-\theta) = -9.9927$$

$$-0.7721$$

$$\text{Ly } \sin \gamma = -9.4690$$

$$\text{Ly } p. \delta = +0.9031$$

0th Rordane.1st obs. of July 11. 1893.

$$T = 16 \quad 3K.6$$

$$R.A. = 9 \quad 4.6$$

$$H.A. = +7 \quad 30.0$$

$$+K5.1 = Dec.$$

$$\begin{array}{r}
 0.554 \\
 \hline
 9.7435 \\
 0.0139 \\
 \hline
 +9.7574
 \end{array}
 \qquad
 \begin{array}{r}
 5.72 \\
 \hline
 0.7619 \\
 0.0139 \\
 \hline
 +0.7758
 \end{array}$$

Comet Rordanne,
2nd obs. of July 11. 1893.

$$\begin{array}{r} I = 17 \quad 4.3 \\ R.A. = 9 \quad 5.2 \\ H.A. = +7 \quad 59.1 \end{array} \quad Dec. = +K5.1$$

$$\begin{array}{r} 0.514 \\ 9.7183 \\ 0.0139 \\ \hline +9.7222 \end{array}$$

$$\begin{array}{r} 6.29 \\ 0.7947 \\ 0.0139 \\ \hline +0.2126 \end{array}$$

Comet Rordanne,
3rd obs. of July 11. 1893.

$$\begin{array}{r} I = 12 \quad 12.5 \\ R.A. = 9 \quad 6.7 \\ H.A. = +9 \quad 5.2 \end{array} \quad Dec. = +K5.0$$

$$\begin{array}{l} \log \pi \rho \cos \varphi' = +9.6400 \\ \log \pi \rho \sin(\varphi - \delta) = +9.2342 \\ \log \cos \delta = +9.4722 \\ \log \rho \cdot \delta = +9.6247 \end{array}$$

$$\begin{array}{l} \log \pi \rho \sin \varphi' = +0.7734 \\ \log \pi \rho \sin(\varphi - \delta) = -9.9973 \\ \log \sin \varphi = -0.7707 \\ \log \rho \cdot \delta = +0.6772 \end{array}$$

$$\begin{array}{l} \log \pi \rho \cos \varphi' = +9.9475 \\ \log \pi \rho \sin(\varphi - \delta) = -9.2604 \\ \log \cos \delta = -0.0971 \\ \log \rho \cdot \delta = -9.64 = \varphi - \delta \end{array}$$

Comet Rordanne,
1st obs. of July 13. 1893.

$$\begin{array}{r} I = 16 \quad 39.0 \\ R.A. = 9 \quad 56.1 \\ H.A. = +6 \quad 42.9 \end{array} \quad +K0.6 = Dec.$$

$$\begin{array}{r} 0.542 \\ 9.7344 \\ 0.0139 \\ \hline +9.7527 \end{array}$$

$$\begin{array}{r} 5.14 \\ 0.7110 \\ 0.0139 \\ \hline +0.7249 \end{array}$$

Comet Rordane
2nd obs. of July 13, 1893.

Comet Rordane,
1st obs. of July 13, 1893.

$$\begin{aligned} \gamma &= 16 \quad 46.0 \\ R.A. &= 10 \quad 15.2 \\ H. cl. &= +6 \quad 30.2 \end{aligned} \quad +30.2 = \text{Dec.}$$

$$\begin{array}{r} 0.534 \\ 9.7275 \\ 0.0139 \\ \hline +9.7414 \end{array}$$

$$\begin{array}{r} 5.03 \\ 0.7066 \\ 0.0139 \\ \hline +0.7205 \end{array}$$

Comet Rordane,
2nd obs. of July 13, 1893.

$$\begin{aligned} \gamma &= 12 \quad 17.2 \\ R.A. &= 10 \quad 16.9 \\ H. cl. &= +2 \quad 0.3 \end{aligned} \quad \text{Dec.} = +30.1$$

$$\begin{array}{r} 0.466 \\ 9.6684 \\ 0.0139 \\ \hline +9.6823 \end{array}$$

$$\begin{array}{r} 6.49 \\ 0.6122 \\ 0.0139 \\ \hline +0.6261 \end{array}$$

Comet Rordanne,
Obs. of July 19. 1893.

$$\begin{array}{r} T = 17 \quad 23.7 \\ R.A. = 11 \quad 15.0 \\ H.A. = +6 \quad 4.7 \end{array}$$

$$\text{Dec.} = +24.1^\circ$$

$$\begin{array}{r} 0.479 \\ 9.6203 \\ 0.0139 \\ \hline +9.6942 \end{array}$$

$$\begin{array}{r} 5.15 \\ 0.7112 \\ 0.0139 \\ \hline +0.7257 \end{array}$$

Comet Rordanne,
Obs. of July 20. 1893.

$$\begin{array}{r} T = 16 \quad 37.4 \\ R.A. = 11 \quad 21.7 \\ H.A. = +5 \quad 15.7 \end{array}$$

$$\text{Dec.} = +26.9^\circ$$

$$\begin{array}{r} 0.465 \\ 9.6675 \\ 0.0139 \\ \hline +9.6814 \end{array}$$

$$\begin{array}{r} 4.60 \\ 0.6622 \\ 0.0139 \\ \hline +0.6767 \end{array}$$

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