

KG
11365
892

HENRY DRAPER MEMORIAL.

Constants
Southern Draper Catalogue.

KG11365, 89A

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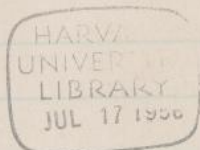


Plate ¹⁷⁴⁸~~1478~~

No.	Age.	Rd.	Dec.	V	H	$\frac{V}{H}$	Hx2	Dec. $\mp \frac{V}{H}$	Rd. $\pm (H \times 2)$
3588	3	¹⁹⁰⁰ 13.9	¹⁹⁰⁰ -22 52	5.8	18.6	2.9	37.2	25.8	51.1 + 0.5 = 51.6
3897	3	29.4	-21 58	7.6	11.6	3.8	23.2	25.8	52.6 - 0.5 = 52.1
3426	3	6.4	-13 38	24.0	22.7	12.0	45.4	25.6	51.8 + 0.5 = 52.3
4074	3	^{3.73} 3.7	-14 41	22.0	7.7	11.0	15.4	25.7	52.7 - 0.5 = 52.2
3958	3	^{3.17} 3.1	-17 48	15.7	10.4	7.8	20.8	25.6	52.5 + 0.5 = 52.0
3591	3	^{14.1} 14.1	-18 55	13.5	18.7	6.8	37.4	25.7	51.5 + 0.5 = 52.0
								<u>25.7</u>	<u>52.0</u>

Constant $\left. \begin{array}{l} V = 25.7 \\ H = 52.0 \end{array} \right\} 3^h$

When the plates are measured "wrong side up" $\frac{V}{H}$ is added to the Dec; $(H \times 2)$ is subtracted from the R.D.; and the correction for convergence of the meridians is applied with the opposite sign. The values ~~of the constants~~ in these plates will be added to $\frac{V}{H}$, and $(H \times 2)$ instead the values of the constant, instead of being subtracted from them as in the other cases.

Plate 3561

No.	Age	Rd.	Dec.	r	H	$\frac{r}{H}$	Hx2	Dec. $\pm \frac{r}{2}$	Rd. $\pm (H \times 2)$
20416	14	^{19.00} 57.5	^{19.00} -17 14	6.0	22.7	3.0	45.4	14.2	12.1 $\pm 0.8 = 12.9$
19744	14	29.2	-20 0	11.4	7.9	5.7	15.8	14.3	13.4 $\pm 0.9 = 12.5$
20471	14	59.9	-25 24	22.0	22.1	11.0	44.2	14.4	15.7 $\pm 1.5 = 14.2$
19653	14	25.2	-24 52	21.2	6.4	10.6	12.8	14.3	12.4 $\pm 1.6 = 14.0$
		14.6		14.5	22.6	7.3	45.2		-0.8
		23.0		17.4	6.8	8.7	13.6		+0.9

Plate 3561. *

No.	Age	Rd.	Dec.	r	H	$\frac{r}{H}$	Hx2	Dec. $\pm \frac{r}{2}$	Rd. $\pm (H \times 2)$
20416	14	57.5	-17 14	6.0	21.7	3.0	43.4	14.2	14.1 - 0.4 = 13.7
19744	14	29.2	-20 0	11.4	7.9	5.7	15.8	14.3	13.4 + 0.9 = 14.3
20471	14	59.9	-25 24	22.0	22.1	11.0	44.2	14.4	15.7 - 1.5 = 14.2
19653	14	25.2	-24 52	21.2	6.4	10.6	12.8	14.3	12.4 + 1.6 = 14.0
20492	15	^{20.23} 66	^{21.5} -21 39	14.5	22.6	7.2	45.2	14.5	15.4 - 1.0 = 14.4
19682	14	^{26.4} 26.4	^{23.0} -23 0	17.4	6.8	8.7	13.6	14.3	12.8 + 1.2 = 14.0
								14.0	14.1
								3	

Constant -

$$\left. \begin{array}{l} U = +14.0 \\ H = +14.1 \end{array} \right\} 14 \text{ h}$$

* Plate measured wrong side up. See p. 4.

Plate 1750.

No.	Alt.	Rd.	Dec.	r	H'	$\frac{r}{H'}$	$H' \times 2$	Dec.	$\frac{r}{H'}$	Rd. + ($H' \times 2$)
6733	5 ^h 40.4 ¹⁹⁰⁰	- 22° 28'	6.4	69	3.2	13.8	25.7	54.2 - 1.2 = 53.0		
6141	5 16.2	- 21 20	8.6	18.1	4.3	36.2	25.6	52.4 + 0.5 = 52.9		
5984	5 8.4	- 16 19	18.3	22.1	9.2	44.2	25.8	52.6 + 0.4 = 53.0		
6778	5 42.4	- 14 51	21.5	58	10.8	11.6	25.6	54.0 - 0.5 = 53.5		
6116	5 ^h 14.9 ^{15.91}	- 18.37 ^{18.7}	13.9	18.8	6.8	37.6	~~25.4~~ ~~25.5~~	~~52.5~~ + 0.4 = 52.9 ~~53.5~~ - 0.4 = 53.1		
6695	5 ^h 39.0 ^{37.3}	- 18.36 ^{18.5}	14.1	7.5	7.0	15.0	~~25.6~~ ~~25.5~~ <u>25.5</u>	54.0 - 0.8 = 53.2 ~~52.3~~ + 0.8 = 53.1 <u>53.1</u>		

Constant - $\left. \begin{array}{l} V = 25.5 \\ H = 53.1 \end{array} \right\} 5^h$

Plate 2962

No.	a.g.c.	RA.	Dec.	V	H	$\frac{V}{H}$	Hx2	Dec. $\frac{V}{H}$	RA. + (Hx2)
1	6733	5 40.4	-22 28	6.0	23.8	3.0	47.6	25.5	88.0 + 1.2 = 89.2
2	7626	6 14.7	-20 53	9.3	7.9	4.6	15.8	25.5	90.5 - ~~0.9~~ = 89.6
3	6778	5 42.4	-14 51	20.9	23.3	10.4	46.6	25.3	89.0 + 0.5 = 89.5
4	7534	6 11.1	-13 41	23.5	9.5	11.8	19.0	25.5	90.1 - 0.5 = 89.6
	6884	5 47.4	-20 54	9.0	20.7	4.5	41.4	25.4	88.1 + 0.7 = 88.8
	7588	6 13.2	-16 46	17.3	8.5	8.6	17.0	25.4	90.2 - 0.6 = 89.6
								25.4	89.4

Constant $\left. \begin{array}{l} V = 25.4 \\ H = 89.4 \end{array} \right\} 596 h.$

Plate 2336.

	^{N.} abc.	¹⁹⁰⁰ Ra.	¹⁹⁰⁰ Dec.	r	H	$\frac{r}{2}$	$H \times 2$	$\text{Dec.} \pm \frac{r}{2}$	$\text{Ra.} + (H \times 2)$
1	9632	^{25.6} 7	²² 49	6.0	224	3.0	44.8	25.8	70.4 + 1.1 = 71.5
2	10450	^{52.6} 7	²² 37	6.5	10.1	3.2	20.2	25.8	72.8 - 0.8 = 72.0
3	10523	^{55.4} 7	¹⁸ 7	15.2	8.7	7.6	17.4	25.8	72.8 - 0.7 = 72.1
4	9608	^{24.8} 7	¹⁴ 47	21.8	23.2	10.9	46.4	25.7	71.2 + 0.6 = 71.8
	10690	^{60.0} 8	¹⁹ 47	12.7	6.4	6.4	12.8	25.8	73.0 - 1.0 = 72.0
	9553	^{22.7} 7	¹⁷ 40	16.1	24.1	8.0	48.2	<u>25.7</u> 25.8	70.9 - 0.9 = 71.8 <u>71.9</u>

Constant $\left. \begin{array}{l} V = 25.8 \\ H = 71.9 \end{array} \right\} 7h.$

Plate 3405.

^{W.} Abc.	RA.	Dec.	r	H	$\frac{r}{2}$	$H \times 2$	$Dec. + \frac{r}{2}$	RA. $-(H \times 2)$
1 21534	15 48.1	16° 27'	4.5	9.3	2.2	18.6	14.2	29.5 $+ 0.6 = 30.1$
2 22219	16 18.3	19° 49'	11.0	23.5	5.5	47.0	14.3	31.3 $+ 1.0 = 30.3$
3 22146	16 14.6	23° 56'	19.1	21.7	9.5	43.4	14.4	31.2 $+ 1.0 = 30.1$
4 21469	15 45.0	25° 27'	22.3	8.3	11.1	16.6	14.6	28.4 $+ 1.3 = 29.7$
22158	16 13.8	25° 11'	22.0	21.9	11.0	43.8	14.4	31.3 $+ 1.4 = 29.9$
	15 48.4	20° 0'						29.1 $+ 0.8 = 29.9$
21520	15 47.5	19° 52'	11.1	9.2	5.6	18.4	14.3	
							14.4	

30.0

Constant $\left. \begin{array}{l} U = +14.4 \\ H = +29.2 \end{array} \right\} 15.8 \text{ } 16 \text{ h.}$

* Plate measured wrong side up. Sign of correction therefore reversed. See P. 4

Plate 5611.

N_{α}	$\Delta\ell$	$R.d.$	$Dec.$	r	H	$\frac{r}{2}$	$H \times 2$	$Dec + \frac{r}{2}$	$H - (H \times 2)$
1	88	0 6.2	-16° 1' 44"	18.1	2.2	36.2	13.9	30.0 - 0.5 = 29.5	
2	32204	23 46.2	-19 28	11.2	8.7	5.6	17.4	13.9	28.8 + 0.8 = 29.6
3	247	0 15.8	-24 11	20.5	22.6	10.2	45.2	14.0	30.6 - 1.5 = 29.5
4	32180	23 44.6	-25 54	24.1	8.5	12.0	17.0	13.9	27.6 + 1.1 = 28.7
	32105	23 40.5	-19 3	10.9	6.1	5.4	12.2	13.8	28.6 + 1.0 = 29.6
	27	0 2.7	-23 4	18.2	16.5	9.1	33.0	14.0	30.3 - 0.2 = 30.1
								13.9	29.5

Constant - $V = +13.9$
 $H = +29.5$ } 0.923 h.

Plate measured wrong side up.

Plate 5606.

	N°	$A.C.$	$R.A.$	$Dec.$	V	H	$\frac{V}{H}$	$H \times 2$	$Dec. - \frac{V}{H}$	$RA (H \times 2)$
1	607	0	35.5	-17° 4'	6.1	129	3.0	25.8	14.4	9.7 + 0.2 = 9.9
2	881	0	52.7	-19 33	10.9	210	5.4	42.0	14.2	10.7 - 0.7 = 10.0
3	419	0	25.4	-24 21	20.4	85	10.2	17.0	14.1	8.4 + 1.2 = 9.6
4	~~867~~	0	~~51.7~~	~~-23 54~~	~~2~~	~~36~~	~~20.5~~	~~11.8~~	~~4.1~~	~~10.9 - 1.1 = 9.8~~
	~~799~~	0	~~48.3~~	~~-25 19~~	~~3.6~~	~~20.5~~	~~11.8~~	~~4.1~~		
	657	0	37.5	18. 6	8.8	14.4	4.4	28.8	14.1	9.7 + 0.1 = 9.8
			38.5	18 32						
			43.0	22. 3						
	731	0	43.0	22 16	16.2	165	8.1	33.0	14.2	10.0 - 0.2 = 9.8
									14.2	9.8

Constant $\left. \begin{array}{l} V = +14.2 \\ H = +9.8 \end{array} \right\} 0 \text{ hr.}$

Plate measured wrong side up.

Plate 5261.

No.	Age.	R.A.	Dec.	r	H	$\frac{r}{2}$	$H+2$	$Dec + \frac{r}{2}$	$H = (H+2)$
1	16284	11 50.9	-16 35	6.0	9.5	2.5	19.0	14.1	31.0 + 0.3 = 31.3
2	16744	12 10.7	-16 59	5.7	19.0	2.8	38.0	14.1	32.7 - 0.3 = 32.4
3	16252	11 49.7	-25 9	21.9	9.3	10.9	18.6	14.3	31.1 + 1.1 = 32.2
4	16925	12 20.0	-25 26	22.6	23.1	11.3	46.2	14.1	33.8 - 1.6 = 32.2
	16406	12 55.4	19.0	9.9	11.9	4.9	23.8	14.2	32.0 + 0.4 = 32.4
	16634	12 55.9	23 2	17.6	16.6	8.8	33.2	14.2	32.7 - 0.2 = 32.5
								14.2	32.82

Constant - $V = +14.2$
 $H_0 = +32.2$ } 11 & 12 h.

Plate measured wrong side up.

Plate 3570.

	No.	Alt.	R.A.	Dec.	r	H	$\frac{H}{2}$	$H+2$	Dec $\frac{r}{2}$	R.A. ($H+2$)
	1	22358	16	25.4 -16° 23'	4.8	8.5	2.4	17.0	14.0	8.4 + 0.6 = 9.0
	2	22925	16	50.2 -16 39	5.2	20.4	2.6	40.8	14.1	9.4 - 0.5 = 8.9
	3	23009	16	54.0 -24 50	21.3	22.0	10.6	44.0	14.2	10.0 - 1.5 = 8.5
	4	22314	16	23.2 -26 13	24.1	8.2	12.0	16.4	14.2	6.8 + 1.2 = 8.0
Flare bright?	22280	16	^{20.8} 21.2	^{18.3} 18 14	8.4	6.6	4.2	13.2	14.1	^{8.0} ~~7.6~~ + 1.0 = ^{9.0} 8.6
	22935	16	^{50.1} 50.8	^{22.9} 22 59	17.5	20.5	8.8	41.0	<u>14.1</u> 141	9.8 - 0.5 = 9.3 8.8

Constant -
$$\left. \begin{array}{l} U = +14.1 \\ H = +8.8 \end{array} \right\} 16 h$$

Plate measured wrong side up.

Plate 5275

	A.G.C. No.	Rd.	Dec.	V	H	$\frac{V}{H}$	H x 2	Dec	$\frac{V}{H}$	RA (H x 2)
1	25182	18 ^h 22.1 ^m	-17° 51'	7.8	22.7	3.9	45.4	14.0		36.7 - 0.5 = 36.1
2	24337	17 50.1	-18 47	9.5	7.5	4.8	15.0	14.0		35.1 + 0.5 = 35.6
3	24312	17 48.7	-24 52	21.5	7.3	10.8	14.6	14.1		34.1 + 1.2 = 35.3
4	25171	18 21.8	-25 28	22.8	22.2	11.4	44.4	14.1		37.4 - 1.2 = 36.2
	24660	18 21	17.10	6.2	13.2	3.1	26.4	14.1		35.7 + 0.4 = 36.1
	25022	18 16.0	22 59	17.7	19.6	8.8	39.2	14.2		36.2 - 0.6 = 35.6
								14.1		35.8

$V = +14.1$
 Constant $H = +35.8$ } 17418 h

Plate 3683

No.	RA.	Dec.	V	H	$\frac{V}{H}$	$H \times 2$	Dec $\frac{V}{H}$	RA. ($H \times 2$)
1	26989	19 36.8 -16 22	4.3	22.2	2.2	44.4	14.2	^{52.4} 7.6 - 0.5 = 51.9
2	26187	19 2.4 -19 27	10.5	6.0	5.2	12.0	14.3	^{50.4} 7.6 + 1.0 = 51.4
3	26843	19 30.6 -25 6	21.5	19.1	10.8	38.2	14.3	^{52.4} 7.6 - 0.6 = 51.8
4	26371	19 9.4 -25 26	22.2	9.6	11.1	19.2	14.3	^{50.2} 7.8 + 1.0 = 51.2
	26225	^{4.0} 19 5.8 - ^{21.1} 21 11	⁷ 13.9	^{6.7} 12.3	^{6.8} 7.0	^{13.4} 24.6	14.3	50.4 + 1.0 = 51.4
	26827	^{19 29.6} 19 29.9 - ^{24.9} 24 56	21.1	18.8	10.6	37.6	14.3	52.3 - 0.4 = 51.9
							14.3	51.6

Constant $\left. \begin{array}{l} V = +14.3 \\ H = +51.6 \end{array} \right\} 19h.$

Plate 2947.

	No.	Rd	Dec.	v	H	$\frac{v}{2}$	$H \times 2$	Dec.	$\frac{v}{2}$	Rd	$(H \times 2)$
1	28462	20 40.4 ^{h. m.}	-21° 53'	7.2	14.8	3.6	29.6	25.5		70.0 - 0.1 = 69.9	
2	28036	20 21.6	-18 32	13.5	23.7	6.8	47.4	25.2		69.0 + 1.0 = 70.0	
3	28921	21 0.3	-17 38	15.4	5.3	7.7	10.6	25.3		70.9 - 1.0 = 69.9	
4	28298	20 33.7	-15 18	20.0	18.0	10.0	36.0	25.3		69.7 + 0.5 = 70.2	
	28879	20 58.7 ^{20 38.3}	20 15 ^{20.1}	10.3	6.2	5.2	12.4	25.5		71.1 - 1.2 = 69.9	
	28183	20 28.6 ^{20 27.4}	-14.4 ^{14.1}	22.5	20.6	11.2	41.2	25.3		69.8 + 0.6 = 70.4	
								25.3		70.0	

Constant - $\left. \begin{array}{l} V = 25.2 \\ H = 70.1 \end{array} \right\} 20 h$

Plate 4654.

No.	Alt.	R.A.	Dec.	V	H	$\frac{V}{H}$	$H \times 2$	Dec	$\frac{V}{H}$	R.A.	$(H \times 2)$
1	1965	1 55.3	-21° 34'	4.6	21.3	2.3	42.6	19.3		12.7 - 0.4 =	12.3
2	1421	1 24.8	-22 9	6.0	7.3	3.0	14.6	19.1		10.2 + 1.2 =	11.4
3	2065	2 0.0	-29 47	20.9	23.1	10.4	46.2	19.4		13.8 - 2.0 =	11.8
4	1461	1 27.1	-30 48	23.0	9.0	11.5	18.0	19.3		9.1 + 2.0 =	11.1
	1895	1 52.0	-23.1	7.4	19.8	3.7	39.6	19.3		12.4 - 0.6 =	11.8
	1546	1 31.6	-30.3	22.1	10.8	11.0	21.6	19.4		10.0 + 1.6 =	11.6
	1547	1 31.6	-30.25					19.3			11.7

$V = +19.3$
 Constant $H = +11.7$ } 142 h.

Plate 3638

	No.	Age.	R.A.	Dec.	γ	H	$\frac{V}{H}$	$H \times 2$	Dec.	$\frac{V}{H}$	Alt (H x 2)
1	26163	19	1.1	-16° 23'	4.5	22.4	2.2	44.8	14.2	16.3 - 0.7 = 15.6	
2	25285	18	25.6	-18 28	8.5	5.5	4.2	11.0	14.3	14.6 + 1.0 = 15.6	
3	26225	19	3.8	-21 11	13.7	23.5	6.8	47.0	14.4	16.8 - 0.9 = 15.9	
4	25435	18	32.4	-23 36	18.5	9.0	9.2	18.0	14.4	14.4 + 0.9 = 15.3	
5	25455	18	^{32.9} 32.9	- ²¹ 21 8	13.6	9.1	6.8	18.2	14.3	14.7 + 0.9 = 15.6	
6	25874	18	^{46.7} 49.1	- ^{26.3} 26 26	23.9	16.5	12.0	33.0	<u>14.4</u> 14.3	<u>16.1 - 0.1 = 16.0</u> 15.7	

Constant - $V = 14.3$
 $H = 15.7$ } 18 & 19 h.

Plate 4619

	^{No.} abc.	^h p.d.	^m Dec.	¹ r	² H	³ V	⁴ H _{x2}	⁵ Dec.	⁶ V	⁷ ra	⁸ (H _{x2})
1	2234	2	8.4 - 21° 28'	4.9	8.4	2.4	16.8	19.1		51.6 + 0.9 = 52.5	
2	2779	2	33.2 - 23 25	8.6	19.9	4.3	39.8	19.1		53.4 - 0.7 = 52.7	
3	2797	2	34.0 - 30 37	22.7	21.1	11.4	40.2	19.2		53.8 - 2.0 = 51.8	
4	2237	2	8.5 - 31 12	24.0	9.3	12.0	18.6	19.2		49.9 + 2.2 = 52.1	
5	2848	2	^{36.5} 36.6 - ^{25.0} 24 56	11.5	7.1	5.8	14.2	19.1		50.8 + 1.5 = 52.3	
6	2259	2	^{9.7} 9.8 - ^{28.6} 28 22	18.7	22.2	9.4	44.4	<u>19.0</u> 19.1		54.2 - 1.5 = 52.7	<u>52.4</u>

Constant $V = 19.1$
 $H = 52.4$ } 2h.

Plate 5610

No.	Alg.	R.A.	Dec.	r	H	$\frac{r}{H}$	$H \times 2$	Dec	$\frac{r}{H}$	R.A. ($H \times 2$)
1	3034	2	46.5 -21° 25'	5.3	8.2	2.6	16.4	18.8		30.1 + 0.9 = 31.0
2	3641	3	17.0 -23 59	10.2	22.3	5.1	44.6	18.9		32.4 - 1.0 = 31.4
3	3022	2	45.6 -28 22	18.9	8.3	9.4	16.6	19.0		29.0 + 1.5 = 31.5
4	3462	3	7.9 -29 23	20.6	18.1	10.3	36.2	19.1		31.7 - 0.5 = 31.2
5	3284	2	58.0 -24 1	10.1	13.7	5.0	27.4	19.0		30.6 + 0.4 = 31.0
6	3549	3	11.9 -29 0	20.3	20.7	10.2	41.4	19.0		32.4 - 1.5 = 30.9
			13.8 -29 9					19.0		31.2

Constant - $\left. \begin{array}{l} V = +19.0 \\ H = +31.2 \end{array} \right\} 2+3h$

Plate 4530.

No.	Alg.	l	Rd.	Dec.	v	H	$\frac{v}{H}$	$H \times 2$	Dec.	$\frac{v}{H}$	Rd.	$(H \times 2)$
1	8671	6	51.6	-22° 49'	7.1	11.3	3.6	22.6	19.2		29.0	+ 0.7 = 29.7
2	9311	7	14.5	-24° ~~23'~~	10.1	21.8	5.0	43.6	19.4		30.9	- 1.1 = 29.8
3	9476	7	20.2	-29° 7'	19.5	24.1	9.8	48.2	19.3		32.0	- 2.5 = 29.5
4	8351	6	40.7	-30° 58'	13.4	7.1	6.7	14.2	19.3		26.5	+ 2.3 = 28.8
5	8873	6	58.6	-23° 41'	8.6	14.7	4.3	29.4	19.4		29.2	+ 0.1 = 29.3
6	9198	7	10.7	-26° 35'	14.4	20.0	7.2	40.0	19.3		29.3	- 1.0 = 28.3
										19.3		29.2

Constant - $\left. \begin{array}{l} V = 19.3 \\ H = 29.2 \end{array} \right\} 687 \text{ h.}$

Plate 5262.

No.	Age	Rd.	Dec.	r	H	$\frac{r}{H}$	Hx2.	Dec.	$\frac{r}{H}$	Rd.	(Hx2)
1	16615	12	5.0 -22° 3'	5.8	7.2	2.9	14.4	19.2		50.6 + 1.2 =	51.8
2	17129	12	29.1 -22 50	7.1	18.4	3.6	36.8	19.2		52.3 - 0.4 =	51.9
3	16731	12	9.9 -28 40	18.8	9.9	9.4	19.8	19.3		50.1 + 1.5 =	51.6
4	17216	12	33.7 -29 52	21.1	20.2	10.6	40.4	19.3		53.3 - 1.2 =	52.1
5	~~16516~~ 17319	12	~~33.7 - 24 10~~ 37.9 - 24 26	9.9	6.5	5.0	13.0	19.4 ²		50.3 + 1.5 =	51.8
6	~~16511~~ 17185	12	~~31.9 - 26 36~~ 32.4 - 26 35	14.6	19.7	7.3	39.4	19.3 19.2		53.0 - 0.7 =	52.3 51.9

Constant - $V = 19.2$
 $H = 51.9$ } 12 h.

Plate 5180.

	^{no.} age	RA	Dec.	r	H	$\frac{r}{2}$	$H+2$	Dec	$\frac{r}{2}$	RA	($H+2$)
18	1	18121	13 13.5 -22 39	7.0	21.1	3.5	42.2	19.2		31.3	-07 = 30.6
9	2	17427	12 42.6 -24 18	10.3	7.1	5.2	14.2	19.1		28.4	+1.6 = 30.0
1.6	3	17373	12 39.9 -28 13	18.1	6.2	9.0	12.4	19.2		27.5	+1.5 = 29.0
2.1	4	18060	13 11.3 -30 59	23.4	19.9	11.7	39.8	19.3		31.5	-2.0 = 29.5
8	5	18011	13 ^{2.6} 9.1 - ^{23 21} 23 45	9.1	19.1	4.6	38.2	19.2		30.9	-0.7 = 30.2
3	6	17426	12 ^{4.3 2} 42.5 - ^{27 0} 27 1	15.7	7.5	7.8	16.0	<u>19.2</u>		27.5	+1.5 = <u>29.0</u>
9								19.2			29.7

Constant $\left. \begin{array}{l} V = 19.2 \\ H = 29.7 \end{array} \right\}$

Plate 5201

No.	age	Qd.	Dec.	r	H	$\frac{r}{H}$	$H \times 2$	Dec.	$\frac{r}{H}$	Qd.	$(H \times 2)$
1	18361	13	24.3	-22° 46'	7.2	6.7	3.6	13.4	19.2	10.9	+1.3 = 12.2
2	19128	14	0.7	-26 12	13.9	23.3	7.0	46.6	19.2	14.1	-1.8 = 12.3
3	18423	13	27.0	-28 11	17.8	8.4	8.9	16.8	19.3	10.2	+1.8 = 12.0
4	18855	13	47.4	-31 27	24.2	17.3	12.1	34.6	19.4	12.8	-0.5 = 12.3
5	18981	13	52.9	-24 29	10.5	19.8	5.2	39.6	19.3	13.3	-0.7 = 12.6
6	18512	13	31.3	-25 59	13.4	10.1	6.7	20.2	<u>19.3</u> 19.3	11.3	+0.9 = <u>12.2</u> 12.3

Constant

$$\left. \begin{array}{l} V = 19.3 \\ H = 12.3 \end{array} \right\}$$

Plate 5181.

No.	all.	Rd.	Dec.	V	H	$\frac{V}{H}$	$H \times 2$	Dec.	$\frac{V}{H}$	Rd. ($H \times 2$)
1	20002	14	40.3 - 22° 43'	7.3	23.5	3.6	47.0	19.1		53.3 - 1.2 = 52.1
2	19250	14	6.7 - 23 53	9.4	8.0	4.7	16.0	19.2		50.7 + 1.2 = 51.9
3	19299	14	9.2 - 28 49	19.0	9.4	9.5	18.8	19.3		50.4 + 1.5 = 51.9
4	19894	14	35.9 - 30 30	22.5	20.9	11.2	41.8	19.3		54.1 - 1.7 = 52.4
5	19997	14	^{39.9} 40.2 - ^{25.8} 25 1	11.7	23.2	5.8	46.4	19.2		53.8 - 1.5 = 52.3
6	19128	14	^{1.8} 0.7 - ^{26.2} 26 12	13.9	5.4	7.0	10.8	<u>19.2</u> 19.2		51.0 + 1.0 = 52.0 52.1

Constant $\left. \begin{array}{l} V = 19.2 \\ H = 52.1 \end{array} \right\} 14 h.$

Plate 5182

	No.	Age.	RA	Dec.	r	H	$\frac{r}{H}$	Hx2	Dec.	$\frac{r}{H}$	RA.	(Hx2)
1	20700	15	10.5	-22° 2'	5.7	19.1	2.8	38.2	19.2		32.3	-0.7 = 31.6
2	20184	14	48.5	-24 14	10.0	9.1	5.0	18.2	19.2		30.3	+1.0 = 31.3
3	20100	14	44.5	-27 32	16.6	7.4	8.3	14.8	19.2		29.7	+1.6 = 31.3
4	20721	15	11.7	-29 47	20.8	19.4	10.4	38.8	19.4		32.9	-1.1 = 31.8
5	20431	14	58.3	-24 53	11.2	13.5	5.6	27.0	19.3		31.3	+0.4 = 31.7
6	20651	15	8.5	-31 9	23.5	18.4	11.8	35.8	19.2		32.1	-0.9 = 31.2
									19.3			31.5

Constant

$$\left. \begin{array}{l} v = 19.3 \\ H = 31.5 \end{array} \right\}$$

Plate 5203.

^{N.} age	RA. _{h m.}	Dec.	V	H	Σ	Hx2	Dec.	Σ	RA. (Hx2)
1	21685	15 54.4 -22° 20'	6.4	20.8	3.2	41.6	19.1		28 - 0.6 = 12.2
2	21062	15 27.3 -24 9	10.1	8.3	5.0	16.6	19.2		10.7 + 1.2 = 11.9
3	21725	15 56.4 -28 51	19.4	21.4	9	42.8	19.1		13.6 - 1.5 = 12.1
4	21186	15 32.5 -29 27	20.4	11.0	10.2	22.0	19.2		10.5 + 1.0 = 11.5
5	21176	15 32.0 -22 49	7.4	10.4	3.7	20.8	19.1		11.2 + 0.7 = 11.9
6	21392	15 50.7 -28 55	19.3	18.9	9.6	37.8	19.3		12.9 - 0.9 = 12.0
							19.2		11.9

constant $V = 19.2$
 $H = 11.9$ } 15 h.

Plate 5183

No.	Age	RA	Dec.	γ	H	$\frac{V}{H}$	H_{xz}	Dec.	$\frac{V}{H}$	RA	(H_{xz})
1	22374	16	26.2	-21° 15'	41.	17.3	2.0	346	19.3	51.6	-0.4 = 51.2
2	21871	16	28	-23 25	8.6	6.5	4.3	13.0	19.1	49.8	+1.5 = 51.3
3	22634	16	38.8	-28 19	18.2	22.7	9.1	45.4	19.2	53.4	-1.9 = 51.5
4	21913	16	49	-29 9	19.7	7.9	9.8	15.8	19.4	49.1	+2.0 = 51.1
5	22576	16	^{35.2} 35.5 - ^{24.2} 24	16	10.1	21.5	5.0	43.0	19.3	52.5	-1.0 = 51.5
6	22078	16	^{12.4} 121 - ^{28.2} 28	22	18.0	11.1	9.0	22.2	<u>19.4</u> 19.3	49.9	+1.0 = <u>50.9</u> 51.3

Plate 513

No.	Age	Rd.	Dec.	r	H	$\frac{r}{2}$	$H \times 2$	Dec. $\frac{r}{2}$	Rd. ($H \times 2$)	
1	24030	17	37.4	-21° 38'	4.8	12.8	2.4	25.6	19.2	71.8 + 0.4 = 72.2
2	24438	17	53.7	-23 48	9.0	20.3	4.5	40.6	19.3	73.1 - 0.9 = 72.2
3	23629	17	21.0	-29 47	21.1	6.0	10.6	12.0	19.2	69.0 + 2.4 = 71.4
4	24596	17	59.4	-30 25	22.1	22.6	11.0	45.2	19.4	74.2 - 2.0 = 72.2
5	23739	17	25.3	-23 53	9.3	7.3	4.6	14.6	19.3	70.7 + 1.2 = 71.9
6	24649	18	1.8	-28 28	18.2	23.7	4.1	47.4	19.4	72.3 - 2.1 = 70.2
								19.3		72.0

Plate 5676

No.	Plate 5676							
A.G.C.	RA.	Dec.	V.	H	$\frac{V}{H}$	$H \times 2$	Dec. $\frac{V}{H}$	RA. ($H \times 2$)
1 30392	^h 22 ^m 9.3	-16° 19'	4.3	18.9	2.2	37.8	14.1	31.5 - 0.6 = 30.9
2 29869	^h 21 ^m 44.7	-17° 19'	6.5	7.2	3.2	14.4	14.1	30.3 + 0.4 = 30.7
3 30610	22 20.7	-24 11	19.9	24.1	10.0	48.2	14.2	32.5 - 1.6 = 30.9
4 29893	21 45.7	-23 44	19.0	8.2	9.5	16.4	14.2	29.3 + 1.3 = 30.6
5 29903	^h 21 ^m 46.2	-19° 5'	9.9	8.0	5.0	16.0	14.1	30.2 + 0.5 = 30.7
6 30513	^h 22 ^m 16.1	-22° 5'	15.6	22.1	7.8	44.2	14.3	32.0 - 0.9 = 31.1

Plate 5677

No.	A.G.C.	ℓ	R.A.	Dec.	V.	H	$\frac{V}{H}$	H x 2	Dec $\frac{V}{H}$	R.A. (H x 2)
1	31163	22	49.3	-16 21	4.5	19.1	2.2	38.2	14.1	71.7 - 0.7 = 70.4
2	30808	22	30.7	-16 54	5.9	10.3	3.0	20.6	13.9	70.1 + 0.7 = 70.8
3	31290	22	56.0	-23 20	18.3	22.3	9.2	44.6	14.1	71.4 - 1.0 = 70.4
4	30610	22	20.7	-24 11	20.4	6.2	10.2	12.4	14.0	68.3 + 1.6 = 69.9
5	30617	22	21.2	-17 15	6.7	5.7	3.4	11.4	13.9	69.8 + 1.0 = 70.8
6	31046	22	42.5	-26 26	24.5	16.2	12.2	32.4	14.2	70.1 - 0.1 = 70.0

Plate 5714

No.	A.G.B.	RA.	Dec.	V.	H.	$\frac{V}{H}$	$H \times 2$	Dec $\frac{V}{2}$	RA (H $\times 2$)
1	31572	23 12.2	-16° 43'	5.5	10.1	2.8	20.2	13.9	52.0 + 0.7 = 52.7
2	32076	23 39.0	-18 50	9.5	22.9	4.8	45.8	14.0	53.2 - 0.5 = 52.7
3	31442	23 45	-23 0	17.9	6.9	9.0	13.8	14.0	50.7 + 1.5 = 52.2
4	32013	23 35.9	-24 43	21.2	21.3	10.6	42.6	14.1	53.3 - 0.6 = 52.7
5	32023	23 36.6	-18 23	8.5	21.7	4.2	43.4	14.2	53.2 - 0.5 = 52.7
6	31385	23 1.3	-24 17	20.5	5.6	10.2	11.2	<u>14.1</u> 14.0	50.1 + 1.9 = 52.0 52.5

Plate 5843

No.		A.G.B.										RA. Dec.		V. H		$\frac{V}{H}$		H x 2		Dec $\frac{V}{H}$		RA. (H x 2)	
1	669	0	39.8	-22° 34'	7.3	24.0	3.6	48.0				19.0		51.8	-1.0	=	50.8						
2	27	0	2.7	-23 4	8.3	6.9	4.2	13.8				19.2		48.9	+1.5	=	50.4						
3	56	0	4.3	-28 33	19.0	8.1	9.5	16.2				19.1		48.1	+19	=	50.0						
4	476	0	28.7	-30 7	22.0	18.7	11.0	37.4				19.1		51.3	-10	=	50.3						
5	568	0	33.5	-20 51	4.0	21.2	2.0	42.4				18.9		51.1	-6.6	=	50.5						
6	32414	23	59.2	-29 50	21.8	6.0	10.9	12.0				19.0		47.2	+2.5	=	49.7						
												19.0					50.3						

Plate-5670

A.G.b	RA	Dec.	V.	H	$\frac{V}{H}$	Hx2	Dec $\frac{V}{H}$	RA.(Hx2)
1 3897	3	29.4-21°58'	6.1	8.9	3.0	17.8	19.0	71.6+0.9=72.5
2 4447	3	55.7-24 18	10.6	21.0-5.3	42.0		19.0	73.7-1.0=72.7
3 3743	3	22.2-27 40	17.5	6.1	8.8	12.2	18.9	70.0+2.0=72.0
4 4468	3	56.7-30 47	23.4	21.2	11.7	42.4	19.1	74.3-1.6=72.7
5 3815	3	^{25.3} 25.4- ^{23 0} 22 51	8.0	7.2	4.0	^{14.4} 16.2	18.9	71.0+1.5=72.5
6 4580	4	^{1.0} 1.5- ^{21 7} 27 56	17.8	23.4	8.9	^{46.8} 35.6	<u>19.0</u> 19.0	-1.8

Plate 5174

No. A.G.b RA. Dec. V $H = \frac{V}{2}$ $H \times 2$										Dec $\frac{V}{2}$	RA. ($H \times 2$)
1	24755	18	5.6	-23° 43'	9.0	8.2	4.5	16.4		19.2	49.2 + 1.0 = 50.2
2	25435	18	32.4	-23 36	8.7	20.5	4.4	41.0		19.2	51.4 - 0.8 = 50.6
3	25614	18	39.4	-27 6	15.6	23.4	7.8	46.8		19.3	52.6 - 1.8 = 50.8
4	24596	17	59.4	-30 25	22.3	6.0	11.2	12.0		19.2	47.4 + 2.6 = 50.0
5	24812	18	7.8	-21 5	3.9	9.1	2.0	18.2		19.1	49.6 + 0.8 = 50.4
6	25157	18	21.4	-29 52	21.0	15.4	10.5	30.8		19.4	50.6 - 0.1 = 50.5
										19.2	50.4

Plate 5285

	A.G.B	RA.	Dec.	V.	H	$\frac{V}{H}$	Hx2	Dec $\frac{V}{H}$	RA. (Hx2)
1	25927	18 51.8	-21° 14'	4.2	10.9	2.1	21.8	19.1	30.0 + 0.7 = 30.7
2	26474	19 14.6	-22 35	6.9	21.5	3.4	43.0	19.2	31.6 - 0.7 = 30.9
3	25614	18 39.4	-27 6	15.8	5.6	7.9	11.2	19.2	28.2 + 2.0 = 30.2
4	26618	19 20.6	-29 56	21.5	23.7	10.8	47.4	19.1	33.2 - 2.1 = 31.1
5	25904	18 50.5	-23 16	8.2	10.2	4.1	20.4	19.2	30.1 + 0.7 = 30.8
6	26570	19 18.3	-28 3	17.7	22.8	8.8	45.6	19.2	32.7 - 1.6 = 31.1
								19.2	30.8

$\gamma =$
Dec.
90°

When plate is measured wrong side up
Reverse sign of correction

Less than 30 = +
More than 30 = -

80°

40°

$H =$
R.A.

50 45 40 35 30

60°

10 9 8 7 6 5 4 3 2 1 0 60°

M

50°

50°

40°

40°

30°

30°

20°

20°

10°

$H =$
R.A.

10 15 20 25 30

50 45 40 35

0°

Dec.

J. T. R.

Plate 5197

^{no.}	A.G.B.	Ra.	Dec.	V.	H	$\frac{V}{H}$	H x 2	Dec $\frac{V}{2}$	Ra. (H x 2)
1	27794	20 12.2	-22° 8'	5.7	10.4	2.8	20.8	19.3	51.4 + 0.7 = 52.1
2	28462	20 40.4	-21 53	5.5	23.5	2.8	47.0	19.1	53.4 - 1.0 = 52.4
3	27567	20 3.0	-26 31	14.3	6.4	7.2	12.8	19.3	50.2 + 1.8 = 52.0
4	28438	20 39.2	-30 51	23.1	22.2	11.6	44.4	19.3	54.8 - 2.0 = 52.8
5	27826	20 13.6	-21 15	4.0	11.1	2.0	22.2	19.3	51.4 + 0.7 = 52.1
6	28178	20 28.6	-30 49	22.8	17.7	11.4	35.4	19.4	53.2 - 0.8 = 52.4
								19.3	52.3

1885pms.proj. 893F