

KG
11366
v.868

Equatorial Zones.

1877.

R 21

(134) Sophwogyne

stars about Saturnus
turning point.

and ?

Antiope.

Zone 1

Sept 18th 1877. Stars included in beams are two near each other to observe separately at first. Take the underlined number first

No.	Name	Mg.	Dec.	RA	
1	X Aquar.	6	23 $\frac{1}{2}$	26.1	30.3
Double { <u>2</u> 3}		12	28 $\frac{1}{2}$	~~34.3~~	34.7 + 0.1
		12	31.4	34.3	
		12.5	32.5	55.2	55.0
4		12	23.5	6.5	
{ <u>5</u> 6 7}		9	35.2	11.8	13.1
		11	31.3		
		12	31.0	50.9	51.7
{ <u>9</u> 10}		10.5	31.3		
		10	34.8	11.4	12.4
11		10	29.7	35.3	38.1
12		11	27.6	68.0	10.2?
13		12	26.2		24.0?
14		11.5	31.8		
{ <u>15</u> 16}		10	26.2	73.0	8.8
		12	23.0		
17		12.5	26.4		
18		11.5	23.2		
19		9	29.5		
{ <u>20</u> 21}		11.5	22.2		
		9.5	25.8		
22		11.5	31.0	36.8	
{ <u>23</u> 24}		12	23.7		
		10	30.6		
25		11.5	27.9		
26		11	29.2		
{ <u>27</u> 28}		12	32.1		
		9.5	28.4		

21. Name Kings, Del. R. H. ...
29 10.5 21.5
30 10. 25.5

No.	Name	Mag.	Decl.	R.A.
29		10.5	31.5	
30		10	25.5	

0.0

15

10

26

24

1877. Sept. 24.

Zone I.

S. Tr.

 δ $2^{\circ} 10' 5.6$ to $2^{\circ} 30' 5.$ α $22^h 56^m$ to $23^h 16^m.$

* B.A.C. 8152

 $6\frac{1}{2} m.$ $23^h 17^m 14^s$ $- 0^{\circ} 23'$

* 11 Picium

 $6\frac{1}{2} m.$ $23^h 28^m 9^s$ $- 2^{\circ} 27'$

No	Name	Mag	Scale	chum.
1		9	- 5.5	41.0
2		10	+ 0.6	6.0
3		9	+ 0.3	26.5
4		~~8.5~~	- 5.4	34.0
4		8.5	- 5.2	56
5		10	- 2.2	15.0
6		9	- 5.0	15.0
7		8	- 5.1	27.0
8		8	+ 7.0	28.5

Began to set for zones - found 11 Pic. without trouble and went 35^m p.m. After some trials I think a preliminary zone from Wain might be prepared, and it will make matters much easier for me observed to chart instead of trying to take transits etc. Memo. prepare cross section paper etc.

31.2 - 5.0

$$\begin{array}{r}
 1877 \quad 52 \\
 1825 \quad 305 \\
 \hline
 52 \quad 610 \\
 1525 \\
 \hline
 15860 \\
 - 2^m 40^s
 \end{array}$$

$$\begin{array}{r}
 20'' \\
 52 \\
 \hline
 1040'' \\
 - 17' 20''
 \end{array}
 \quad \therefore \text{Zone in Read Min} =$$

22^h 53^m to 23^h 13^m
 and δ 2° 27' S. to 2° 47' S.

Side of small square = 65".1 in any positive
Eyepiece on plate ruled by Trumvelot.

$$\begin{aligned} 1.77815 &= \log 60 \\ 1.48615 &= \log 30.63 \\ \hline 9.00877 &= \text{a.c. } \log 9.8 \\ 2.27307 & \end{aligned}$$

$187.53 =$ value in N.A.B. screw
of 1' face in the focus
of the 23 ft Equatorial.

187.53

$$\begin{array}{r} 2.27307 \\ 3.38021 \\ \hline 2.89286 \end{array} = 0^{\text{in}}.07814 \quad 0^{\text{in}}.0781 = \text{value of focus.}$$

$$0^{\text{in}}.3905$$

$$\text{Fused plate} = 1.88 = 0^{\text{in}}.940 \therefore \text{is } 0^{\text{in}}.470$$

$\therefore$ this plate has infinity relation to 1' face.

$$\text{Fused plate} = 0.94 \times \frac{156}{2} = 0.73 = 0.470 \times 0.365$$

i. l a d n

$$\text{Trumvelot plate} = \frac{252}{2} = 1.26 = 0.430$$

$\therefore$ 1 side Trumvelot square = 65".1

Zune Staats für Meines Bessel.

$\left\{ \begin{array}{l} 22^k 53^m \text{ to } 23 \quad 13^m \quad 19 \\ - 2 \quad 27 \text{ to } 2 \quad 47. \end{array} \right.$
 $\left\{ \begin{array}{l} 2 \quad \text{to} \quad 3. \\ \text{Since there are so few stars} \\ \text{near } 2^\circ \quad 30' \end{array} \right.$

α	δ	μ	m	α	δ	μ	m
1193	9	55	3	-2	0	55	*
1192	9	55	17	-2	50	38	1
1195	9.10	55	8	-2	5	32	
1202	9	55	18	-2	50	35	

28^h				
44	9	2	12	- 2 12 52
54	9	2	42	- 2 5 3
63	9	3	13	- 2 59 44
129	8	5	55	- 2 0 26
165	9	7	43	- 2 46 56
187	7	8	35	- 2 28 20
208	8.9	9	17	- 2 49 29
215	8.9	9	27	- 2 50 56
221	9	9	39	- 2 52 50
242	9	10	45	- 2 31 52
246	8.9	11	4	- 2 33 40
256	9	11	26	- 2 12 20
292	8	13	5	- 2 46 54
300	8	13	41	- 2 6 39
303	8.9	13	45	- 2 25 38

20

$$185061877 + 1^m \alpha \quad 23^s \quad \delta + 8' 14''$$

$$7^m \quad 23^h \quad 0^m \quad 4.3^s$$

A. Piscium $5\frac{1}{2}$ mag.

$$1850.0 \quad \alpha = 23^h 1^m 0^s \quad \delta = +1^m 18^m 47^s$$

$$348 \quad 30$$

$$11 \quad 30$$

$$14 \quad 33$$

$$348 \quad 30$$

$$+3^{\circ} 3'$$

R.A. $\odot$ is nothing,

$$\odot \quad 345 \quad 27$$

6

1877. Oct. 7. Search for Sophrosyne (134)
Mag 10.6 at opposition Sept. 13

L. M.

Oct. 3^d α 23^h 5^m 14.5 $\delta = 2^\circ 16' 52''$

$$\begin{array}{r} \text{Oct } 8^{\text{d}} \quad 49.52 \\ \quad \quad \quad 55 \\ \hline \quad \quad \quad 227.60 \\ \quad \quad \quad 6.0 \\ \hline \quad \quad \quad 2217.625 \\ \quad \quad \quad 6.0 \end{array}$$

$$\begin{array}{r} 3 \quad 41.6 \\ \hline 23^{\text{h}} \quad 2^{\text{m}} \quad 33^{\text{s}} \end{array}$$

Oct 3 ^d	49.5	3 ^d	23	5	14.5
4	48.3	4	23	4	36.2
5	47.1	5 ^d	23	3	49.1
6	45.9	6 ^d	23	3	3.2
7	44.7	7 ^d	23	2	18.5
8	43.5	8 ^d	23	1	35.0
9	42.3				

$\therefore 9^{\text{th}} 23^{\text{h}} 0^{\text{m}} 52.7$

Corr. from Circular - 1 21

$$\begin{array}{r} \text{Oct } 9^{\text{d}} \quad \alpha = 22^{\text{h}} 59^{\text{m}} 32^{\text{s}} \\ \quad \quad \quad + \quad 23.7 \\ \quad \quad \quad - \quad 1^{\text{m}} 23.5 \end{array}$$

$$\begin{array}{r} 3.08 \\ 27 \\ \hline 2156 \\ 616 \\ \hline 8316 \end{array}$$

$$\begin{array}{r} \text{ind } 1850 = 22^{\text{h}} 58^{\text{m}} 9^{\text{s}} \\ \quad \quad \quad 40. \\ \quad \quad \quad 22 \quad 57 \quad 29 \end{array}$$

$$\begin{array}{r} \text{Oct } 10^{\text{d}} \quad 22^{\text{h}} 58^{\text{m}} 52^{\text{s}} \end{array}$$

$$\begin{array}{r} \delta \\ -15.4 \quad 3^{\text{d}} - 2^\circ 16' 52'' \\ 10.0 \quad 4 - 2 \quad 17 \quad 7 \\ 7.0 \quad 5 - 2 \quad 17 \quad 14 \\ 3.0 \quad 6 - 2 \quad 17 \quad 17 \\ + 2 \quad 7 - 2 \quad 17 \quad 15 \\ + 6 \quad 8 - 2 \quad 17 \quad 9 \\ + 10 \quad 9 - 2 \quad 16 \quad 59 \\ \therefore 9^{\text{th}} - 2 \quad 16 \quad 59 \\ - 14' 12 \end{array}$$

$$\begin{array}{r} \delta = -2^\circ 31' 11'' \\ \quad \quad \quad + 8^{\text{th}} \quad 14'' \\ \quad \quad \quad - \quad 44 \end{array}$$

$$\begin{array}{r} 19.4 \\ 27 \\ \hline 1858 \\ 388 \\ \hline 60 \quad 89 \quad 3.8 \\ \quad \quad 8^{\text{h}} 43.8 \end{array}$$

$$\begin{array}{r} \delta 1850 = -2^\circ 39' 25'' \\ \quad \quad \quad 2 \quad 29 \\ \quad \quad \quad 2 \quad 49 \end{array}$$

$$\begin{array}{r} 3-6 \quad 2^\circ \quad 31' \quad 0'' \\ \quad \quad \quad 3^\circ \quad 31' \\ \quad \quad \quad 359^\circ \quad 28' \end{array}$$

22

α 25 20
 22 58 52
 2^h 21' 7^s

359° 28'

2d Set of Transits between 22°-26' and 22°-25'

Side 6. ^{1^h 4^m}
~~256~~

1^h 20^m

1 ^h 43 ^m	14.8	30'	8	30'	15.8	30'	8
	17.3	22			18.2	22	
	25.1	20			26.8	20	
	39.8	25	11 ^m		41.3	25	
	49.6	24	11		50.3	24	10 ^m
44	6.2	25.5			6.6		
	9.7	23.5			10.4		
	15.2	22	fair		17.2		
	21.9	27			22.9		
	32.7	20			34.0		
	33.4	23			34.8		
45	1.6	18	12 ^m		2.3		
	12.7	29			13.3		
	21.8	24			22.8		
	27.1	20			28.3		
	37.3	29.5			46.9		
	46.5	20	9 ^m		57.8		
46	56.5	24			13.8		
	8.9	29.5					
	12.4	18					
	18.7	24	fair				
	31.1	22			32.0		
	34.8	20			32.6		
					35.2		
					37.3		
47	11.0				11.9		
	36.5				37.3		
	46.5				47.4		

24

Oct. 27.
W.L.Zone $22^{\circ} 15'$ - $22^{\circ} 20'$ 1st Set of Transits.

Sid. T. $22^{\circ} 36'$			$22^{\circ} 43'$			$23^{\circ} 4'$		
1 ^h 43 ^m	3.1	15'	4.0	15'		4.3	15'	
	9.3	19	9.7	19		9.3	19	
	15.6	15*	15.5*	15		15.3*	15	
	17.4	16.5	17.5	16.5		17.7	16.5	
	28.0	14 DM 273	28.4	14 DM		28.5	14 DM	
	57.7	15	58.0	15		58.2	15	
44	4.0	17	4.1	16.5 faint		4.3	17	
	6.4	14				7.6	13.5	
						9.8	15	
	16.2	17.5	15.6	16.5 faint		16.4	17	
	27.9	14				29.4	14	
	35.8	16	36.1	16 faint		36.2	16	
	44.5	15 11 ^m	45.1	15 14 ^m		45.1	15.5	
	59.2	20	59.3	21		59.6	20	
45	4.1	16				4.7	16	
	10.4	14	9.8	15		10.8	14.5	
	24.7	21	24.9	20.5 9.5 mag		25.3	20.5	
	30.0	14.5	30.0	13		30.2	15	
						37.3	16	
						41.0	20	
	43.9	20.5	44.1	19.5		44.2	21	
	50.5	12.5	51.7	14.5 12 ^m		51.6	13	
46	9.9	20	10.4	—		10.6	19.5	
	17.1	14.5	17.0	14.5		17.1	15	
	28.8	11 1	28.9	16		29.4	16	
	29.3	14	30.0	19.5		30.3	19	
	33.5	11 [16]	34.0	17		34.1	17	
	34.0	12 [17]	43.1	17		43.0	17	
	42.4	12 [17]	3.6	15		3.7	15	
	43.6	12 [17]	8.2	18 very faint		8.4	18	
47	3.8	14.5				18.5	16	
	7.9	13				34.1	19.5	
	33.7	19.5	34.2	19.5		37.0	17.5	
	lost	13						

Same Zone.
2d Set of Transits.

Lib t. 1-09^m

Lib t. 0 51^m

1^h 25^m

4.9 15.5

9.6 19.5

Asteroid? 10.5* 15

18.2 17

1^h 48^m 28.3 14' 2m 2^h 3
 58.0 15

28.2 14' 2m
 45.0 15
 57.9 15

28.7 14 2m
 58.2

44 4.4 17 very faint

4.5 17.5

4.6

7.7 13.5

7.3 14

8.0

8 17.2 17. " "

17.1

28.1 14

28.2 14.5

29.7

36.4 16.5

36.4 17

36.6

41.2 13.5

41.2 14

41.5

45.3 15.5 11^m

44.9 16

45.6

59.7 20

59.3 20

0.0

45 8.0 15.5

8.7 13

4.9

10.8 14.5

9.2 11.5

9.5

25.0 22

11.9 14.5

11.4

30.3 14.5 15.5 lat

28.3 22

25.4

30.3 14.5

30.7 15

44.2 21 10^m

44.2 21 9^m

44.4

52.0 13

51.7 13.5

52.1

46 10.8 20

10.4 20

10.6

17.5 15

17.7

29.3 16

29.2

29.8 19.5

29.7

34.3 17

30.2

43.3 17

32.8

47 4.0 15 very faint

34.6

8.0 17

42.7

34.5 19.5

2.3

37.8 18

8.8

continued on p. 27

26

Oct. 27.

Will.

Junc 22° 25' - 22 30'

1st set

Sid. t. 23^h 15^m

8.6	8.6	32'	10 ^m
9.0	18.0	30	9.5 sm 272

18.5 24.5

26.0 32.0

29.8 35.8

34.6 40.6

43.5 49.5

4.7 29.5

6.3 28.5

16.4 28.

22.0 26.5

33.0 27.5

51.5 32.5

12.7 29.

21.1 30

37.7 29

40.6 31

45.6 19 9^m

57.3 24

9.0 29

13.7 29 227

20.1 29.5 lat 26

42.2 30.5

11.1 28.5 10^m

30.0 27

37.0 26

45.0 31

48.6 25 28.5 22

2d set

Sid. t. 19^h 14^m

8.5 32'

14.7 30 sm 227 faint

23.7 26

30.8 30.5

38.3 32

40.4 25

50.3 30.5

58.3 31

4.6 29.5

5.7 28.5

9.5 23.5

15.9 28 13^m21.6 27 13^m

32.5 27.5 faint

51.0 33

12.0 29.5

20.2 30

37.4 29.5

46.0 20 10^m

56.4 24

9.2 30

19.1 30

41.9 31

10.9 26

Continuation of Zone 22° 15' - 22° 20'
from p. 25

1^h 47^m 34.6^s 19.5

37.7 18

38.1 16.5

48 8.4 16

8.9 15

32.0 17

38.1 16.5

45.6 14

49 5.1 16.5

10.0 16

17.5 20

19.6 15

23.5 18

50 — 27⁺ 8^m 8m 287

3.9 19

6.1 13

17.0 18

493	2h. m.	III 0.43.40	17° 24.1
4	9.5	50.00	23.7
5	9.5	1m 51.7	42.0
6	9.5	6.0	8.6
7	9.5	6.6	37.5?
	9.3	11.7	58.0
	9.0	18.0	49.6
	9.1	2 12.8	17.0

Solar Catalogue.

80°

	<i>h</i>	<i>m</i>	<i>Sec</i>		
36.	1	6	80° 8'	6.7	
58	"	40	11	6.8	
64	"	52	36	6.1	
~~658~~	22	53	68	6.7	
~~908~~		57	52	6.5	
125	3	46	18	4.9	
127	"	54	7	6.8	
133	4	2	28	5.7	
155		33	56	5.5	
238	7	32	37	6.5	
249		36	14	6.5	
389	12	33	1	6.7	
447	14	38	17	6.3	
458		43	23	7.0	
480					
~~480~~	15	38	56	7.0	
~~480~~					
486		48	26	6.7	
518	16	41	5	7.0	
544	17	31	15	6.2	
555		54	19	7.0	
604	19	7	13	7.0	
659	20	21	4	6.8	
~~659~~		37	56	5.8	
660		38	35	6.1	
672		54	0	5.3	
678	21	10	36	7.0	
682		13	25	7.0	
687		18	11	6.5	
689		19	47	6.3	
730	22	39	36	6.7	

81°

113	0	29	42	6.5
60	1	38	14	6.8
242	6	58	30	6.3
252	7	8	11	7.0
282	8	49	24	6.7
302	9	16	58	4.3
343	10	21	14	6.2
348	10	29	11	6.2
373	11	21	55	6.2
388		53	40	6.2
400	12	30	3	6.8
402		41	25	6.3
412		58	39	7.0
416	13	11	14	6.3
452		53	29	6.8
482	14	35	27	6.7
495		57	20	6.8
576	15	39	15	6.8
717	20	53	59	6.0
775	22	24	12	7.0

657 624

4.93

6.46

82°

119	0	42	82° 55'	6.5	
51	1	55	52	7.0	
113	3	59	59	5.0	
177	6	14	13	6.7	
201	7	0	40	5.5	
235		56	52	6.5	
253	8	20	44	7.0	
325	10	58	31	7.0	
356	12	4	31	6.7	
498	17	1	16	4.0	
572	19	9	9	6.0	
647	20	38	41	7.0	
703	22	48		5.0	
	~~23~~	~~49~~		6.0	
		~~55~~		7.0	
743	23	49	23	6.0	
748	"	55	10	7.0	

5.84 4.78

6.38

3.727 4.16

6.27

5.93

5.03 4.12 4.48

6.49

6.41

83°

20	0 ^h	48 ^m	49 ^s	7.0	29.2
104	3	55	26	5.0	
232	8	32	15	7.0	
233		35	17	7.0	
286	10	5	32	6.8	
296		13	17	5.2	
396	13	47	29	6.5	
430	15	0	6	6.0	
536	18	43	3	6.2	
547	19	10	42	6.5	
552		33	10	6.0	
588	20	48	7	6.2	
630	22	22	46	7.0	
648		55	34	5.0	

84°

59	2	59	23	6.0	
169	7	42	28	6.0	
196	8	44	45	6.0	
225	9	45	37	6.5	
234	10	8	59	5.0	
286	12	37	26	7.0	
299		48	12	6.5	
290		48	12	5.5	
323	14	29	29	var	
451	20	20	14	7.0	
462		30	5	7.0	
516	22	54	26	6.5	

6.96 5.74

5.00
~~4.90~~

5.81 4.97

5.82

5.78

5.66

6.95

4.64 4.90 3.84?
4.54?

5.80

6.17

6.78 5.54 5.25

85

19	0	50	29	5.0
41	1	51	2	7.7
63	3	52	10	6.5
74	4	41	45	6.0
78		55	31	7.0
80	5	16	6	6.0
81		20	14	8.0
128	8	13	33	7.5
150	9	25	9	8.0
161	~~10~~	13	8	7.5
183	11	20	30	7.5
222	13	20	31	7.0
234	"	55	14	7.0
242	14	45	54	8.0
249	15	17	41	8.0
263		50	18	7.2
269	16	7	43	7.5
294	18	18	40	7.5
340	20	22	20	7.5
347		36	48	8.0
354		56	7	8.0
383	22	24	23	5.0
384		25	29	6.5
399	23	24	37	7.5
400		26	13	8.0
401		27	45	8.0
403		30	23	7.8
409		51	54	8.0

~~4.55~~

4.55 3.55

6.65

6.04

6.94

6.12

5.98

7.10 6.55

7.08

7.55

6.78

5.02 4.91 4.81 4.91

6.38

6.09 7.08

7.49 6.88

6.74 6.96

6.56 7.08

5.86 6.44

86°

16	0	53	22	7.5
37	3	19	11	6.0
66	4	30	4	8.0
79	5	48	46	7.0
113	7	37	6	7.3
126	8	34	7	8.0
161	10	56	26	7.2
	~~7~~	~~57~~		
170	11	24	25	7.0
176		57	23	5.7
182	12	35	32	6.5
187	13	2	39	7.0
193		36	1	7.5
201	14	5	27	7.5
226		58	33	6.8
269	18	19	36	4.5
272		24	59	6.0
282	19	2	31	7.0
308	21	26	57	8.0
307		28	26	7.0
335	22	46	32	8.0
344	23	28	30	6.0

598 548

598 548

539

556 518

570

744

674

667

548 542 498

87.

12	1	7	48	8.0
41	5	22	18	7.9
51	6	31	15	8.0
78	9	1	29	8.0
83		30	16	7.7
101	11	51	48	8.0
106	12	13	14	6.5
143	15	26	47	7.0
146		43	32	7.9
180	19	31	4	8.0
181		36	38	8.0
186	20	41	29	8.0
205	22	31	21	7.5

6.75

4.67 5.12 4.69 4.95 3.70

6.45

7.20

6.87

7.25

7.03

7.26

88°

	2	0	11	38	8.8
	4		46	15	7.5
- α	8	1	7	32	<u>2.0</u>
	9		51	29	8.0
-	10		58	53	9.0
	11		59	3	8.8
	12	2	13	12	9.0
	13		17	22	8.5
	38	5	1	42	8.8
-	41	5	12	24	8.8
	45		41	20	9.0
	49	6	47	1	8.5
	60	10	0	36	<u>8.5</u> 9.0
-	64		53	25	7.5
-	71	12	14	30	6.5
	75		51	46	9.0
	76	13	12	26	8.0
	77		37	18	8.5
	80	14	5	1	8.6
-	86		53	4	~~8.5~~
	90	15	31	33	8.9
	94	16	37	27	9.0
	100	17	35	13	8.8
	101	18	13	41	9.0
-	102		20	35	9.0
	104		24	14	<u>8.0</u> 8.0
	105		34	43	8.5

1.89 223 1.46-1.40

7.71

6.53

7.02

88° continued

109	19	24	3	9.0
110		26	34	8.8
111		37	4	8.8
112	20	8	52	6.5
114		17	33	8.0
115		24	26	8.8
117		35	41	var
118		52	5	9.0
122	21	15	22	9.0
130	22	11	10	8.6
131		31	44	8.7
139	23	44	2	9.0

866
~~866~~

89°

No.	h	m	s	
3	1	50	29	8.8
13	7	3	2	7.0
~~14~~	10	26	32	9.0
17	11	8	44	8.9
21	12	59	28	8.8
22	13	4	9	8.7
25	15	15	41	9.0
28	17	22	18	8.7
38	23	21	1	9.0

	2.0	4.0	4.3	4.5	4.9	5.0	5.2	5.3	5.5	5.7	5.8	5.9
80					1			1	2	1	1	1
81			1									
82		1				2			1			
83						2	1					
84						1			1			
85						2						
86				1						1		
87						1						
88	1											
89												
	1	1	1	1	1	8	1	1	4	2	1	1

	70	71	72	73	74	75	76	77	78	79	80
80											
81											
82											
83											
84											
85			1			7		1	1		9
86			2			2			1		4
87						1		1		2	6
88						2					4
89											
			3			13		2	2	2	23

	6.0	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.8	6.9	7.0	
80		2	1	2		3		5	3		7	
81	1		4	3		1		2	5		3	
82	2					2		2			5	
83	2		2			2			1		4	
84	3					3					3	
85	2					2					3	
86	3					1			1		5	
87						1					1	
88						2						
89											1	

13 2 7 5 17 9 10 32

total

80	81	82	83	84	85	86	87	88	89	90	
80											30
81											20
82											15
83											14
84											11
85											28
86											21
87											13
88						6	2	1	8	1	38
89							2	2	1	3	9
						6	2	3	10	2	199

Stars following a Layer 5' north.

Ch.	Chr.						
0.	00	0.0	0	0		0.0	
7	7.5	7.5	2.5	2	2	1.8	9.2
	13.0	13.3		3	2.5	2.7	13.8
	20.9	20.7		2	3.5	3	15.4
21	21.5	21.5	0.5	1	3.5	3.5	17.9
28.5	29.8	29.2	8.5	2	2	1.7	8.7
33	38.9	39.4	5.5	3	2.5	2.7	13.8
	40.4	40.6		2	3	2.5	12.8
47	47.0	47.1	2	3	2	2.7	13.8
4	48.9	48.4		2	2.5	2.2	11.2
49.5		50.1	4.5		0		
	5	52.9			5	5	25.6
5.6	55.9	55.9	5.0	5	5	5	25.6
~~5.6~~			~~5.0~~				
2	2.0	2.5	1	2	2	1.8	9.2
6.5			-2				
19.5	18.5	19.1	2	2.5	2.5	2.3	11.7
19.5	20.5	20.6	1.5	2	2	1.8	9.2
27	27.6	27.6	3	3	3	3	15.4
	29.1	~~34.1~~		4		4	20.5
	34.2	~~34.1~~		2.5	2.5	2.5	12.8
34	35.7	~~41.7~~	3.5	3.5	3.5	3.5	17.9
43.7		43.7	2			2	10.2
43.7	43.8	43.9	3	2.5	2.5	2.8	14.3
43.7	44.1	44.3	4.5	3.5	3	3.5	17.9
		45.0				5	25.6
		49.3				3.5	3.5
50.8		50.0	1.5		4.5	4.5	23.0
			3.			4	15.4

Aug. Dec.	RA						Dec.
0.0 0.0	0.0	a	0.0	0.0			0.0
-1.7 16.7	16.2	16.5	-1	0.0	1	7.5 B	1.8 9.2
-7 26.9	25.8	~~26.3~~	-2	-1	1	13.1 C	2.6 13.7
+5.4 36.2	32.6		-7			20.8 D	2.3 14.7
18.0 (30.0)	30.1	39.4		-4		21.5 E	3
20.8 38.2	39.7	40.1	+3	+4	1	29.5 F	2.0
25.4 53.0		53.1		0		39.2 G	2.7
2 53.3						40.5 H	2.5
0.8						47.0 I	2.7
59.4 58.0	58.1		-3	-3	0	48.2 J	1.9
						50.1 K	
20.5						54.9 L	5.
21.5						55.9 M	5
11.4 8.7	8.7		-5	-5	0	2.2 N	1.3
30.5 28.9	29.1		-3	-3	0	18.8 O	2.0
29.7 28.6	28.8		-2	-3	1	20.5 P	1.6
43.0 42.5	42.5		-1	-1	0	27.6 Q	2.9
49.5	48.6			-2		29.1 R	3.8
46.9 44.5	43.7		-5	-6	1	34.1 S	2.0
53.5 52.6	51.7		-2	-4	2	35.6 T	3.2
53.9 55.6	54.8		+3	+2	1	43.7 U	2.2
59.1 0.0	0.0		+2	+2	0	43.8 V	3.0
2.1 2.1	2.8		0	+1	1	44.2 W	3.5
10.6						45.0 X	5.
7.2	58			-3		49.3 Y	3.2
13.0						50.6 Z	4.5

9/13

.076

Scans foll. of Lyrae 5' limit.

0	0.0	0.0		5	5	5.0
1	1.7	1.8	4.5	4	4	4.0
5	4.5	4.9	.5	1	1	1.
	13.7	14.7		2	2	2
	14.7	15.4		4	4	4
	31.1	31.1		1	1	1
32	31.7	31.4	1.5	4	4	4
	34.2	34.3		2	2	2
42	41.5	41.7	4.5	4	4	4
	43.1			2		2
49	47.6		5	1		1
49	48.8	48.3	5	5	5	5
	52.1	51.8		2	1	5
	53.6			0		1
	57.3	57.8		2.5	2.5	0
1	58.9	59.5	3	3	3	2.4
4	3.3	3.6	2	2	2	3
	6.4	6.4		4	4	2
	7.1	7.1		4	4	4
7.5	7.6	8.0	4	4.5	4.5	4
20.5	18.6	19.3	2	2.5	2.5	4
	27.2			2.5	2.5	2
	29.4	29.7		3		3
31	31.1	31.4	2	2.5	2.5	2
	33.4			3	3	3
	33.7	34.5		1	1	1
36	35.3		5	1	1	1
43	41.6	41.8	1	5	0	0
	50.8	51.4		1	2	1
53	53.9		5	5	4.5	5
58	57.2	57.3	5	1.5		1

					RA	
~~00~~	00	00			00	5.0
- 3.4	-1.7	-1.4	+3	+4	1.7	4.3
-16.7	-17.6	-17.7	-2	-2	4.7	
- 1.1					14.2	
+ 9.9					15.0	
10.7					31.1	
26.4	? 26.2		0		31.5	
18.9		200		+2	34.2	
36.5	37.6	36.3			41.6	
27.8	? 27.9	27.6			42.1	
27.2	?				47.6	
48.5	? 49.0	47.4			48.5	
31.5					51.9	
28.0	?				53.6	
42.2		46.4			57.5	
49.2	?				59.2	
48.1	? 48.1	48.3			3.4	
1.3	1.9	2.0	+1	+1	6.4	
~~1.0~~						
~~2.0~~		2.5		+1	7.1	
5.2						
2.7		5.4		2.0	7.8	
6.1						
~~3.6~~	6.3	6.0	0	2.0	18.9	
17.0					27.2	
14.2	15.8				27.5	
21.0	21.0				31.2	
12.0					33.4	
13.7					34.1	
9.7					35.3	
21.3	25.4				41.7	
51.8	51.2		0		51.1	
32.5					53.9	
31.6					57.2	

Stars following α Aquilae.
Zone 5' S

RA		Dec.
0.0	0.0	5 5
15.8	15.4	5 4.5
18.3	16.6	4 5
22.0	23.5	3.5 4
53.1	53.3	1.5 1.5
1 10.3	09.3	3.5 3.5
14.9	15.8	2.5 2.5
16	16	3 3
18	18	1.5 1.5
24	23	.5 .5
35.8	35	1.5 1.5
43.4	43	4.0 4.0
48.4	48	2.0 2.5
~~2~~ ~~53.0~~	53	~~0~~ 0
2 18.0	17.6	4.5 4.5

R.A.		Zam 5'h. Dec.	
0.0	0.0	5.	5
4.2	3.3	8.5	8.5
6.9	6.8	5.5	6.0
17.7	17.3	10	10.
20.2	20	9	9
28.2	28.0	8.5	9
	31	5.	5
36.7	36.8	10	10
41	40.0	9	9
43	48	8	8
1 1.2	1.0	8.5	9
16.9	17	9.5	9.5
25.7	25.7	8.5	8.5
48.7	48.5	9.5	9.5
50.5		10.	
2 0.0	0.2		9
	3.2		7
	9		6
9.8	10.	8.5	8.5
16.1	16.3		7
18.2	18	4.5	4.5

1877phae.proj.1872.