1855phae.proj. .2128

KG
113365
222

K. 12

Ll. No 12

Zones

Feb. 12th to April 16

1855

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1855 Zone 91 30' to 40' ~~92~~

Observed Feb. 23 by J. P. B.

89 90

h	m	s	s	h	m	s	s
4	28	—	19.1	4	28	14.9	18.9
	28	21.3	25.3		28	21.0	24.9
	28	27.2	31.2		28	26.9	30.9
	29	13.3	17.3		29	13.0	17.0
	29	18.3	22.4		29	18.1	22.0
	29	—	25.0		29	20.9	24.8
		B				D	
	31	32.2	36.2		31	31.8	35.9
	32	13.2	17.1		32	12.8	16.8
	32	27.1	31.2		32	26.7	30.7
	32	52.0	56.0		32	51.7	55.9
	33	5.9	9.7		33	5.4	9.4
	33	21.1	—		33	20.8	24.6
	33	27.8	31.8		33	27.3	31.3
	33	59.5	3.5		33	59.2	3.2
	34	6.1	10.1		34	5.6	9.8
		B D				B	
	34	35.7	39.8		34	35.3	39.3
	34	48.1	52.0		34	47.7	51.7
	35	18.0	22.0		35	17.7	21.8
	35	42.7	46.7		35	42.1	46.2
	35	54.6	58.6		35	54.2	58.2
		B B				D	
	36	9.4	13.3		36	09.0	13.0
	37	43.4	47.4		37	43.0	47.0
	37	52.4	56.3		37	52.0	56.1

37 8.8 12.8

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1855 Feb

Feb 19 ~~Zone 9+~~ 30' to 40'

Pos. 178..09

Clouded up after setting the telescope

Feb. 23 Zone ~~9+~~ 8 9

G.P.B observes and C.W.J. records

Clear and strong wind from the west

Beg. Th 15°.5

End 12.0

11	5..33	comp. 13 may 15" s.f. – 1st wire lost	
11	9..38	" 14 " 12 n.f. – ns	
11	9..07		
9.10	6..17		
12	8..06	ns	
12	10..06	1st wire lost	
	B		
12	10..01		
11	9..03		
12	1..07	Growing cold – very bad vision	
12	0..10		
12	2..49		
12	10..35	2 wire lost	
x 9	10..44	ns	
x 9	2..21		
10.11	7..42		
	B D		
11	6..25		
12	4..16		
10	7..17		
12	4..22		
12	4..55		
	B B		
12	0..14		
12	9..33		
12	8..06		
~~12~~	~~4~~		

Feb. 24, 1855

Zone ~~9~~ 2 9 0

20..3 2, 3

6..2

13. 9

G.P.B observes

11	5..35	comp. 13 may 17" s.f.	
11	9..40	ns " " 12 n.f.	
11	9..08		
~~8~~ 10	6..19		
12	8..09	ns	
12	10..08	ns	
	D		
12	10..01		
11	9..03		
12	1..08		
12	0..12	ns	
12	2..50	p cent	
12	10..36		
9	10..45	comp 11 may 7" n.f. double – accidental mark	
9	2..22		
11	7..43		
	B		
11	6..25		
12	4..17		
10	7..19		
12	4..24		
12	4..55		
	D		
12	0..17	(12.13) 9..41	
12.13	9..34	cent	
12	9..07		

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1855phae.proj..2228

9169

4	38	22.6 26.5
	38	47.5 51.5
	38	54.8 58.8
		D
	39	51.8 56.1
	40	33.2 37.2
	40	36.3 40.2
	41	00.7 4.9
	41	this wire out on the sheet 9.3
	41	11.8 15.8
		BDB
	42	31.8 35.8
	43	5.0 9.0
	43	55.7 59.6
	44	10.5 14.5
	44	27.7 31.8
	44	43.1 47.0
	44	56.7 0.6
		BB
	47	1.8 5.7
	47	34.9 38.9
	47	35.3 39.3
	48	30.6 34.6
	49	38.7 42.7
	50	39.3 43.3
	51	14.5 18.4
	51	56.8 0.7
	53	33.4 37.5
	53	40.2 44.3
		D.B.D.
	54	22.6 26.4
	54	59.3 3.3
	55	22.9 27.0
	55	38.4 42.3
	56	9.8 13.6
4	56	30.3 34.3

9290

4	38	22.1 26.1
	38	47.2 51.1
	38	54.4 58.3
		BB
	39	51.5 55.5
	40	32.8 36.8
	40	35.9 39.8
	41	00.3 4.3
	41	4.9 8.9
	41	11.3 15.3
		B
	42	31.5 35.5
	43	4.6 8.5
	43	55.1 59.2
	44	10.0 14.0
	44	27.3 31.3
	44	42.8 46.8
	44	56.3 0.3
		BB
	47	1.3 5.4
	47	34.9 38.6
	47	not measured 38.9
	48	30.1 34.2
	49	38.3 42.2
	50	38.9 42.9
	51	13.9 18.0
	51	56.3 0.3
	53	33.0 37.0
	53	40.0 43.9
		B
	54	22.0 26.0
	54	58.8 3.0
	55	22.4 26.4
	55	37.9 41.9
	56	9.3 13.2
	56	30.0 34.0

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1855phae.proj...222B

Zone 469 30 to 40' 9D

12	1..22		12	1..23
10	10..45		10	10..44
10	6..37 ns		10	6..38 ns
	D			BS
12	8..18		12	8..19
12	7..39		12	7..41
11.12	7..28		12	7..28 ns
10	1..32		10	1..33
x 8.9	3..20 ns		8.9	3..21 Amethyst
10	— 0..03		10	— 0..28 cent
	BDS			BS
12	8..32		12	8..33
Many small stars in the field				
x 9	6..46		9	6..46
11	0..50		11	0..52
12	6..03		12	6..05
11	9..18		11	9..18
10	0..16		10	0..18
11.12	10..25		11.12	10..26
	BS			BS
10	6..52		10	6..55
12	4..47		12	4..49 1 star bad
10	3..24		11	3..27 1 star bad
9.10	2..28		9.10	2..31
Group of 12.13 mag. stars				
12	3..21		12	3..23
+ 8.9	8..23		8.9	8..23
12	0..30		12	0..31
12	7..46		12	7..47
10.11	7..51 comp. 13 mag. 15" n.p		11	7..51 comp. 13 mag. 17" n.p
x 9	4..45 ns yellowish		9	4..46 yellowish
	DBD			BS
7	0..27 reddish	Many small stars	7	0..30
12	5..16	in the field	12	5..17
12	6..03		12	6..04
12	— 0..25		12	— 0..25
12	7..32		12	7..33
12	8..04		12	8..04

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1855phae.proj..222B

9+69

h	m	s	s
4	56	49.8	53.8
		B	
	57	46.5	50.5
	57	55.0	59.1
		- - -	- -
	59	50.0	54.0
	59	51.3	55.3
4	59	59.5	3.5
5	0	54.2	58.1
	1	10.7	14.8
		B D	
	1	43.7	47.7
	2	15.3	19.2
		- - -	
	2	57.0	1.1
	3	10.0	14.1
	3	19.3	23.4
	4	26.7	30.7
	4	29.4	33.3
	4	52.5	56.5
	5	8.7	12.7
		B	
	6	08.0	12.1
	6	23.1	27.1
	6	40.7	44.9
	7	18.3	22.3
	7	20.9	24.8
		D B D	
	8	34.8	39.0
	8	47.7	51.8
	9	23.3	27.4
	10	33.1	37.2
	11	40.2	44.2
	12	24.1	28.0
	12	40.9	44.8
	12	58.7	2.6
	13	5.6	9.8
	13	29.5	33.7
		B	

9+92

h	m	s	s
4	56	49.4	53.3
		D	
	57	46.0	50.2
	57	54.7	58.7
	59	49.5	53.5
	59	—	54.7
4	59	59.0	3.0
5	0	53.7	57.7
	1	10.0	14.2
		B	
	1	43.1	47.3
	2	14.9	18.8
	2	56.6	0.6
	3	9.5	13.5
	3	18.9	23.0
	4	26.2	30.2
	4	29.0	33.1
	4	52.0	56.0
	5	8.3	12.2
		B B	
	6	7.6	11.6
	6	22.6	26.6
	6	40.1	44.4
	7	17.9	21.9
	7	20.3	24.3
		D B	
	8	34.2	38.2
	8	47.3	51.3
	9	23.0	27.0
	10	32.8	36.9
	11	39.9	43.8
	12	23.7	27.7
	12	40.3	44.3
	12	58.2	2.2
	13	5.2	9.2
	13	29.1	33.1

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1855phae.proj...222B

Zone ~~9 to 8~~ 30 to 40 9:22

12	9..02		12	9..03	
	B			D	
11.12	4..54		11.12	4..56	
12	8..04		12	8..05	
Bad vision and bright moonlight interfers with estimation of magnitudes					
11	9. 41		11	9.. 42	
10.11	1..27		10	1.. 28	Zone last
9.10	10..37		✱10	10.. 37	
✱ 9	4..23		9	4.. 24	
10	4..09		11	4.. 11	
	B D			B	
12	1..05		12	1.. 07	
12	1..30		12	1.. 32	
Great number of small stars					
10	9..28		10,11	9.. 29	
9	6..12		9	6.. 13	
12	10..00		12	10.. 01	
11	5..59		11.12	6.. 01	
12	4..29 ns		12	4.. 31 ns	
11.12	2..56		11.12	2.. 58	
12	6..56		12	6.. 57	
	B			B B	
11	7..43 comp. 14 mag. 12″ n.p.		11	7.. 46 comp. 13 mag 15″ n/p	
12	2..33		12	2.. 34	
12	4..00		12	4.. 02	
10	0..32 dcent Great numbers of small stars		10	0.. 34	
10	2.. 50 ns		10	2.. 49 ns	
	D B D			D B	
12	7.. 37		12	7.. 38	
12	7.. 21		12	7.. 22	
12	4..13 { Apparently triple the atmosphere		12	4.. 15 Triple $^{m}13$ 6″ s./p $^{m}13$ 17″ n.p.	
12	4..57 { too much disturbed to see		12	4.. 58	
9	9..12 distinctly		12	9.. 12 mag. cent M	
11.12	2..32		✱12	2.. 03 cent	
10.11	10.. 48		10.11	10.. 49	
12	3..40		12	3.. 41	
12	−0.. 21		12	−0.. 21	
12	8..40		11.12	8.. 42	
	B				

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1855phae.proj..222

9+69

5	13.. 51.5	55.2
	13.. 52.0	56.0
	14.. 14.6	18.6
	15.. 00.7	4.7
	15.. 17.8	21.9
	15.. 34.8	38.4
	16.. 1.3	5.4
	BB	
	16.. 38.6	42.5
	17.. 16.1	20.0
	17.. 22.3	26.2
	18.. 16.7	20.8
	18.. 22.9	26.9
	18.. 36.8	40.8
	18.. 36.8	40.8
	18.. 52.1	56.0
	18 54.5	58.4
	19.. 11.7	15.8
	19.. 27.5	31.4
	19.. 39.9	43.9
	B	
	20.. 8.0	12.1
	20.. 19.9	23.9
	20.. 42.2	46.1
	21.. 6.3	10.2
	22.. 37.4	41.5
	23.. 1.7	5.5
	23.. 7.9	11.6
	23.. 37.0	41.0
	23.. 42.3	46.5
	24.. 3.7	—
	24.. 8.9	12.9
	D B D	
	25.. 58.5	2.6
	26.. 26.3	30.3
	26.. 54.2	—
	27.. 4.0	8.0
	27.. 9.9	13.8

90

5	13.. 51.1	55.1
	13.. 51.7	55.5
	14.. 14.0	18.0
	15.. 00.2	4.2
	15.. 17.4	21.4
	15.. 34.5	38.3
	16.. 0.9	4.9
	B	
	16.. 38.0	42.0
	17.. 15.5	19.6
	17.. 21.8	25.8
	18.. 16.2	20.2
	18.. 22.3	26.3
	18.. 36.3	40.4
	18.. 36.3	40.4
	18.. 51.6	55.6
	18.. 54.0	58.4
	19.. 11.3	15.2
	19.. 27.0	31.0
	19.. 39.5	43.4
	BB	
	20.. 7.5	11.6
	20.. 19.3	23.4
	20 41.7	45.7
	21.. 5.8	9.8
	22.. 37.0	41.0
	23.. 1.0	5.1
	23.. 7.3	11.2
	23.. 36.7	40.6
	23.. 41.9	46.0
	24.. 3.3	7.3
	24.. 8.4	12.4
	B D	
	25.. 58.2	2.1
	26.. 26.0	30.0
	26.. 53.8	57.9
	27.. 3.7	7.6
	27.. 9.3	13.4

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1855phae.proj...222B

Zone 9+69 30 to 40 9m

12 8..11
12 5..13 ns
11 0..55
12 3..21
9 —0..19
12 —0..09
9 1..22
BB
12 3..16
10 4..33
9 7..51 ns
11 5..24
11 9..57 ns
9.10 5.47 } same B
10 3..07 }
11 10..12
9.10 10..10
11.12 7..20 comp. ~~2~~ mag 10" fol
x 9. 0..57 " 3" ?
10-11 10..00
B
10 4..31 yellowish
11 —0..09
9 9..50
10 8..38
10 4..21
10 10..06
9.10 1..58 another 10 mag. — something
9 10 4..40
11,12 0..30
12 0..35 2 min last
12 5..32 ns
D B D
x 9 0..57
12 9..56
11 4..50 2 min last
11 10..01
11 8..59 ns

12 8..12
12 5..15 ns
11 0..56
12 3..22
9 —0..19
12 —0..09 2 min last
9 1..24
B
12 3..07 east
10 4..33
9 7..55 ns
11 5..25
11 9..58
9 10 3..48
10 3..11
11 10..13
9.10 10..09 ns
11.12 7..21 double
9 0..57 double 4" fol
11 10.00
BB
9 4..33 comp 13 mag. 15" south
11 —0..08
9 9..51
10 8..39
10 4..22
10 10..06
9.10 1..59 ns amethyst
9.10 4..42
11.12 0..31 ns
12 0..36
12 5..32 ns
B D
9 0..58
12 9..56
11 4..50
11 10..01
11 8..59 ns

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1855phae.proj..222

91 65

5.. 27.. 23.4 27.6
28. 12.1 —
28.. 16.1 20.2
B
29.. 15.2 19.2
29.. 47.7 51.6
30.. 36.1 40.1
31.. 2.1 6.1
31.. 3.3 7.2
31.. 26.9 30.9
D
32.. 17.3 21.4
32.. 22.2 26.1
32.. 27.4 31.5

33.. 45.6 49.7
36.. 38.6 42.6
36.. 7.8 11.9
36.. 27.0 31.0
36.. 36.5 40.5
36.. 47.6 51.7
B B B
37.. 27.3 31.2
39. 3.0 7.0
39.. 7.9 11.6
39.. 37.9 41.9
41.. 15.6 19.5
41.. 18.3 22.2
B
43.. 23.9 27.9
43.. 39.4 43.4
43.. 40.3 44.2
44.. 1.6 5.5
44.. 31.6 35.7
45.. 1.5 5.5
D B
46.. 26.0 29.9
47.. 30.0 33.9

90

4.. 27.. 23.0 27.0
28.. 11.7 —
28.. 15.9 19.7
B 2 B
29.. 14.8 18.9
29.. 47.1 51.1
30.. 35.7 39.7
31.. 1.7 5.8
31.. 3.0 7.0
31.. 26.4 30.6
B
32.. 16.8 20.8
32.. 21.8 25.8
32.. 27.0 31.0

33.. 45.1 49.1
35.. 38.0 42.0
36.. 7.3 11.3
36.. 26.6 30.7
36.. 36.2 40.2
36.. 47.1 51.1
D B
37.. 26.9 30.7
39.. 2.6 6.5
39.. 7.2 11.2
39.. 37.5 41.4
41.. 15.0 19.0
41.. 17.9 21.8
D
43.. 23.3 27.3
43.. 39.1 43.2
43.. 39.9 43.9
44.. 0.0 5.0
44.. 31.2 35.2
45.. 0.9 5.0
B
46.. 25.3 29.3
47.. 29.4 33.3

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Zone 9/85 30 to 40 90

10.11 3..10
12 8..02 2 min last
9 8..12
B

12 2..56
11.12 5..38
12 4..18 ns
11 1..46 ns
11.12 7..46 ns
12 7..24
D

10 0..05
11 6..37 ns
11 7..39 ns
Great number of small stars
11 5..15
11.12 8..45 comp. 15 mag 12" n.f.
11 1..01
12 4..26
11 10..12
11 8..41
BBB

× 9 −0..05 yellowish
12 9..33
11 3..18 ns
10.11 4..53
10 6..58
× 7.8 10..28 white
B

10 3..12
12 4..26 ns
12 6..06 ns
12 5..31
11 −0..15
11 1..57
DB

10.11 6..14
× 9 2..56

10 3..11
12 8..04 2 min last
9.10 8..12
BDB

12 2..58
11.12 5..39
12 4..19
11.12 1..47
11.12 7..47 ns
12 7..25
B

10 0..06
11 6..37 ns
11 7..41 ns

11 5..16
11.12 8..47 comp. 15 mag 15" n.f.
11 1..02
12 4..27
11 10..13
11 8..41
DB

9 −0..04
12 9..32
11 3..21 ns
11 4..55
10 6..58
7.8 10..28 ns
D

10 3..12
12 4..26
12 6..07 ns
12 5..32
11 −0..13
11 1..57
B

10.8 6..15
9 2..57 Amethyst

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1855phae.proj..222

9469

5.. 48.. 46.7 50.7
50.. 29.0 This was not on the sheet
51.. 3.5 7.4
51.. 22.4 26.4
51.. 57.1 1.1
51.. 57.5 1.4
B B
52.. 30.8 34.9
53.. 7.9 11.8
53.. 25.0 28.9
53.. 53.2 57.1
53.. 54.3 58.2
54.. 29.1 33.0
55.. 47.7 51.6
56.. 0.2 4.2
B
56.. 32.5 36.5
56.. 47.1 51.0
56.. 48.2 52.0
57.. 36.8 40.8
57.. 55.2 59.3
58.. 26.2 30.2
58.. 29.2 33.3
B B B
59.. 12.8 16.9
59.. 15.0 19.1
59.. 46.1 50.1
59.. 47.1 51.3
5.. 59.. — 55.3
6.. 1.. 07.3 11.2
1.. 44.8 48.9
2.. 3.6 7.7
B
2.. 45.4 49.4
3.. 11.8 15.6
3.. 20.8 24.8
5.. 34.0 38.0
5.. 47.0 51.0

9290

5.. 48.. 46.4 50.2
50.. 28.5 32.5
51.. 3.0 7.1
51.. 22.0 26.0
51.. 56.8 0.7
51.. 57.1 1.0
D
52.. 30.2 34.3
53.. 7.4 11.5
53.. 24.4 28.3
53.. 53.8 56.7
53.. 53.8 57.8
54.. 28.7 32.7
55.. 47.1 51.0
56.. 59.9 3.9
B B
56.. 32.0 36.0
56.. 46.7 50.6
56.. 47.8 51.6
57.. 36.2 40.2
57.. 54.8 58.8
58.. 26.0 29.9
58.. 28.8 32.7
B D
59.. 12.5 16.4
59.. 14.6 18.7
59.. 45.8 49.8
59.. 46.9 51.0
5.. 59 — 55.0
6.. 1.. 06.9 10.9
1.. 44.3 48.4
2.. 3.2 7.1
D
2.. 44.9 49.0
3.. 11.3 15.4
3.. 20.3 24.3
5.. 46.7 50.6

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1855phae.proj...222B

Zone 9+69 30 to 40' 9D

12 7h.40 comp. 13 mag. 12" s.f.
10.11 3..10
12 6..39
6 2..13
12 0..19
12 −0..19 ms
BB
12 4..52
12 5..26
11 1..53
12 4..58
12 4..33
11.12 3..03
11 0..08
11 −0..14
B
11.12 6..10
9 7..01
12 4..36
11 9..17
× 8 7..14
12 6..29
11 0..01 ms
BBB
12 0..30
12 0..52 ms
10.11 −0..37
10.11 −0..13 ms ? 1 twin lost
10 2..08 1 twin lost
12 5..00
11 0..28
12 4..46
B
12 0..11
12 7..07 Great numbers of small stars
11 6..54
11 10..49
9 7..28

12 7h.41 comp. 13 mag. 12" s.f.
10 3..11
12 6..40
6 2..12 comp. 13 mag 19" n.f.
12 0..21
12 −0..19 ms
D
12 4..55
12 5..26
11 1..55
12 4..58
12 4..34 ms
11.12 3..03
11 0..40 R suspected for a planet — examined and found to be a star 8 1..40
11 −0..14
BB
11.12 6..22
9 7..02
12 4..37
11 9..18
8 7..16 Orange
12 6..30
11 0..03 ms
BD C
12 0..33
12 0..54 ms
10.11 −0..39
10.11 −0..12
10 2..08 1 twin lost
12 5..01
11 0..29
12 4..47
D
12 0..15
12 7..08
11 6..55
11 ~~10..~~ B and 8 lost
9 7..29

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1855phae.proj..22mB

~~91 65~~

6.. 5.. 52.7 56.7
6 9.2 13.3
7.. 3.8 7.8
7.. 4.4 8.4
7.. 20.1 24.0
7.. 31.4 35.5
7.. 45.3 49.2

B
8.. 37.0 41.0
9.. 1.0 5.2
9.. 18.8 22.9
9.. 25.9 30.0
D
9.. 49.0 53.1
9.. 58.5 2.4
10.. 3.5 7.3
10.. 15.9 20.0
10.. 40.1 44.2

11.. 20.6 24.4
11.. 42.5 46.4
D B D
12.. 25.6 29.6
12.. 41.4 45.3
12.. 47.6 51.5
13.. 24.1 28.1
13.. 26.9 30.9
15.. 11.7 15.5
B
16.. 29.7 33.7
16.. 29.7 33.7
16.. 55.0 58.8
18.. 14.0 17.8
19.. 16.6 20.6
19.. 18.9 22.8
B B
6.. 19.. 49.8 53.9

~~92 90~~

6.. 5.. 52.2 56.2
6.. 8.8 12.8
7.. 3.3 7.1
7.. 4.0 7.8
7.. 19.6 23.6
7.. 30.9 34.9
7.. 44.8 48.8

B B
8.. 36.3 40.5
9.. 0.7 4.6
9.. 18.3 22.2
9.. 25.5 29.4
B
9.. 48.7 52.5
9.. 57.9 1.9
10.. 2.8 6.9
10.. 16.5 19.3
10.. 39.7 43.7

11.. 20.0 24.0
11.. 42.0 46.1
D B
12.. 26.1 29.1
12.. 40.9 44.9
12.. 47.1 51.1
13.. 23.6 27.5
13.. 26.2 30.2
15.. 11.1 16.1
D
16.. 27.1 31.1
16.. 27.1 31.1
16.. 54.3 58.5
18.. 13.2 17.2
19.. 16.1 20.0
19.. 18.3 22.2
B
6.. 19.. 49.3 53.2

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1855phae.proj...222B

Zone 89 30° to 60° 92 90

12 7h.52 ns
12 1h.57
10.11 10h.35
10.11 7h.36 ns
12 7h.21
12 5h.33
12 9h.25
Great many 12 mag. stars pass unobserved
B
12 7h.19
11 7h.18
11.12 1h.33
11.12 0h.18
D
10 1h.12 ns
10 7h.57
10 −0h.23 ns
11 5h.59
9 2h.17
Several 10.11 mag. stars pass unobserved
12 0h.09
11.12 8h.56
DBD
11 6h.18 comp. 13 mag. 12" south
10.11 6h.35
10.11 9h.09 ns
12 2h.10
11.12 4h.16 ns
12 2h.26
B
12 8h.07 } same R
11.12 4h.19 }
#12.13 4h.06 A cluster of small stars
12 7h.46
8 2h.03
8.9 1h.14 ns
BB
12 8h.55

12 7h.53
12 1h.59
10.11 10h.38 ~~comp opt~~
10.11 7h.36
12 7h.21
12 5h.34
12 9h.27
BB
12 7h.19
11 7h.20 1st clear night
11.12 1h.35
11.12 0h.19 ns
B
10 1h.14
10 7h.57
10 −0h.28 ns
10.11 5h.59
9 2h.18
Many bright stars pass unobs
12 0h.10
11.12 6h.57
DB
11 8h.18 comp 13 mag 15" south
10.11 8h.36
10.11 9h.11 ns
12 2h.11 comp. 15 mag 11" n.p
11.12 4h.28 est
12 2h.27
D
12 8h.14 } same R
11.12 4h.09 } ~~est~~
12.13 4h.20 Triple comps 14 & 15 mag
12 7h.46 11" s.p
8 2h.14 est
8.9 1h.15 ns
B
12 8h.56

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1855phae.proj..22fB

~~91 69~~

6.. 20.. 30.5	—	
20.. 50.3	54.2	
21.. 1.5	5.5	
21.. 45.8	49.8	
22.. 43.0	47.0	
22.. 51.2	55.1	
23.. 54.9	58.9	
24.. 11.2	15.2	
B		
24.. 46.2	50.0	
24.. 54.9	58.9	
25.. 17.1	21.4	
25.. 44.2	48.3	
26. 6.0	9.8	
B		
27. 01.0	4.8	
27.. 4.8	8.5	
27.. 29.1	33.1	
27.. 31.3	35.2	
28.. 3.6	7.5	
28.. 50.0	54.0	
28.. 58.0	2.0	
28.. 59.7	3.6	
29.. 14.1	17.9	
D		
30.. 5.3	9.3	
30.. 23.7	27.8	
31.. 36.3	40.3	
31.. 43.8	47.8	
32.. 03.9	7.9	
32.. 39.0	42.9	
32.. 54.9	58.8	
33.. 1.1		
B		
33.. 34.9	39.0	
6.. 33.. 38.3	42.5	

~~92 90~~

6.. 20.. 26.1	30.1	
20.. 26.4	30.4	
20. 49.9	53.9	
21. 0.0	5.0	
21.. 45.2	49.2	
22.. 42.5	46.4	
22. 50.8	54.8	
23.. 54.3	58.3	
24.. 10.7	14.5	24.. 36.7 40.5
24..		
24.. 54.5	58.4	
25.. 16.9	20.9	
25 43.9	48.0	
26 6.3	9.3	
B		
27.00.3	4.4	
27 —	8.0	
27.. 28.8	32.8	
27.. 31.0	34.9	
28.. 3.0	7.0	
28.. 49.5	53.5	
28.. 57.6	1.6	
28. 59.0	3.2	
29.. 13.3	17.4	
B B		
30.. 5.0	9.0	
30.. 23.1	27.2	
30.. 24.3	28.4	
31.. 35.9	39.9	
31.. 43.4	47.3	
32.. 3.3	7.3	
32.. 38.5	42.5	
32.. 54.4	58.5	
D		
33.. 34.5	38.5	
33.. 38.1	42.0	

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1855phae.proj...222B

From 9h 85 30 to 40 92 90

10.11	3..24	2 wins last	10	3..25	} semi R
11	8..42		11	8..43	
12	4..24		12	4..22	
11	8..46		11	8..46	
	Vision Detestable!				
11	9..19		11	9..20	
10	9..34		10	9..35	
11	3..08		11	3..09	
10.11	10..17	comp. 14 mag. 10" s. p	10.11	10..17	comp 13 mag 11" s. p
11	9..18		11	10..16	cent 11 9..47
	B			D	
12	4..29		12	4..29	
	4..46		11.12	4..46	
x 9	2..04	2 wins doubt ?	9	2..05	
11.12	9..16		11.12	9..16	
12	0..07		12	0..09	
	B D			B	
10.11	6..04	} 1st win of 2 = 2nd of pair	10.11	6..04	
11	1..28 ns		11	1..31 ns	1st win last
10.11	8..23		10, 11	8..24	
x 9	6..56		9	6..57 ns	
x 9.10	7..11		9.	7..12	
10	2..43		10	2..46	
11	6..19 ns		11	6..20	
11	6..21 ns		11	6..24 ns	
9.10	9..29		9.10	9..30	
	D			B B	
11	2..26		11	2..27	comp small - s. p 10"
8.9	8..56		+ 8.9	8..56	
11	2..19 ns		11.12	2..20	
11	0..11	An immense number	11	0..14	
9	1..42 ns	of small stars	9	1..42 ns	
10	9..29		10	9..31	
10	6..41		10	6..42	
11	3..32		11	3..33	
	B			D	
10	9..29		10	9..31	
6.7	7..42 ns		6.7	7..43 ns	

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1855phae.proj..222B

~~4165~~

6	34 28.5	32.3
	34 58.7	59.5
	35 13.7	17.7
	35 36.6	40.5
	B D B	
	36 13.4	17.4
	36 36.0	40.0
	36 46.1	~~49.0~~
	37 00.4	—

~~92~~ 90

6	34 28.0	32.0
	34 55.2	59.1
	35 13.2	17.2
	35 36.2	40.1
	B	
	36 13.0	16.9
	36 35.7	39.7
	36 —	46.6
	37 00.0	4.0

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1855phae.proj...222B

Zone 9+69 30 to 40 92 90

12	1.. 28		12	1.. 29	
12	7.. 47		12	7.. 49	
10	8.. 26		10	8.. 27	
11	10.. 38		11	10.. 38	
	OB DOB			OB	
11.12	6.. 18		#12	6.. 18	
11	2.. 35		11	2.. 37	false mark
11	6.. 41		11	6.. 40	
#12	3.. 25		12	3.. 26	

In this zone the Bright stars were so numerous that the greater part of the 12th & 11/12 magnitude stars could not be observed although very numerous many stars of the 11th & some of the tenth escaped.

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1855phae.proj..222B

9391

9492

Feb. 27

4..	51.. 41.0	45.0
	51.. 42.4	46.3
	52.. 58.3	2.5
	53.. 1.9	6.9
	D B	
	53. 49.6	53.5
	54.. 22.9	26.8
	54.. 56.1	0.0
	55.. 38.7	42.7
	56.. 27.4	31.3
	56.. 32.1	36.1
	B	
	57.. 20.0	23.9
	59 2.5	6.4
	59.. 9.3	13.3
4.	59.. 21.3	25.3

Feb. 28

4..	51.. 41.2	45.1
	51.. 42.7	46.6
	52.. 58.5	2.6
	53.. 2.0	5.9
	B	
	53.. 50.0	53.8
	54.. 23.2	27.1
	54.. 56.4	0.2
	55.. 39.0	43.0
	56.. 27.8	31.7
	56.. 32.4	36.3
	BB	
	57.. 20.3	24.2
	59.. 2.8	6.7
	59.. 9.4	13.5
	59.. 21.6	25.6

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1855phae.proj..222B

6.16
4.54
1.22

1855

Catalogue Stars 1855.0

Mag.	h	m	s	°	′	″
8	6	4	14.72	+ 0	19	59.6
9		4	38.18		25	28.3
9		5	55.90		20	52.7
7		6	20.02		23	13.9
8.9		10	55.03		26	3.2
9		13	12.24		26	34.7
7		18	19.87		23	13.2
9		19	5.62		23	51.3
9		37	27.49		29	56.7
7.8	5	59	43.27		20	25.2
6	6	19	46.99		22	56.8
9		22	33.68		26	20.5
9		31	20.33		22	26.0

Mag.	h	m	s	°	′	″
9	6	34	28.97	+ 0	24	03.6
9		40	20.86		29	39.0
8.9		40	32.96		28	37.8
8		40	45.05		27	46.4
9		45	37.79		22	32.5
9		50	22.81		28	54.3
9		56	7.88		20	45.6
9		58	12.08		29	30.3
9	7	7	23.94		28	17.8
9		7	53.87		26	53.2

Zone 91 20′ to 30′ Zone 92

Feb. 27

Clear and calm

G. P. B observes — C. W. T. records

12	3.08	
12	4.59	ms
12	8.05	
12	−0.15	ms
	D B	
12	3.36	
6.7	10.25	
11.12	5.40	
12	9.31	
12.13	10.27	
12	5.34	ms
	B	
11	2.28	first-signal comet
10.11	5.04	
10.2	0.53	ms medelish
9	8.43	

Feb. 28

Clear and calm G. P. B. observes

Bright-moonlight

11.12	3.11	
11.12	5.01	ms
12	8.07	
12	−0.15	ms
	B	Fine definition
11.12	3.38	
6.7	10.27	
11.12	5.44	
12	9.32	
12.13	10.29	
11.12	5.36	ms
	B B	
11	2.30	
10.11	5.07	
10	0.56	ms medelish
9	8.46	

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1855phae.proj..22B

9391

5.. 00.. 30.3 34.3
0.. 37.4 41.4
0.. 45.2 49.2
1.. 4.9 8.7
B D
1.. 40.3 44.2
3.. 12.0 16.0
4.. 14.5 18.5
4.. 16.8 20.8
4.. 33.8 37.9
4.. 38.4 42.3
5.. 19.4 23.4
5.. 56.0 0.0
6.. 20.3 24.2
B
7.. 2.1 6.2
7.. 18.6 22.6
8.. 45.0 49.0
9.. 9.8 13.9
9.. 25.9 30.0

B D B
10.. 31.6 35.4
10.. 55.2 59.2
11.. 3.7 7.7
11.. 12.6 16.5
B
12.. 41.0 45.0
12.. 48.7 52.8
13.. 6.0 10.0
13.. 12.3 16.4
13.. 30.3 34.3
14.. 18.4 22.4
14.. 19.3 23.3
14.. 48.7 52.7
14.. 61.0 65.0
B
15.. 18.1 22.1
15.. 18.1 22.1

9452

5.. 00.. 30.6 34.7
0.. 37.7 41.6
0.. 45.3 49.3
1.. 5.1 9.1
B B B
1.. 40.5 44.5
3.. 12.1 16.2
4.. 14.7 18.8
4.. 17.1 21.0
4.. 34.0 37.9
4.. 38.7 42.6
5.. 19.6 23.7
5.. 56.2 0.2
6.. 20.6 24.5
D
7.. 2.5 6.5
7.. 18.9 22.9
8.. 45.2 49.2

9.. 10.0 14.0
9.. 26.2 30.2
B
10.. 31.8 35.8
10.. 55.5 59.5
11.. 4.0 8.0
11.. 12.8 16.8
B B
12.. 41.1 45.2
12.. 48.9 52.9
13 6.3 10.2
13.. 12.8 16.8
13.. 30.8 34.8
14.. 18.9 22.8
14.. 19.8 23.7
14.. 49.0 52.9
14.. 51.2 55.2
D B
15.. 18.5 22.4

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1855phae.proj..222B

~~93 51~~ 20' to 30' ~~94 52~~

11.12	6..26		12	6..29	
11.12	5..05 ns		11.12	5..08 ns	
12	8..16 ns		12	8..18	
12	5..29		12	5..32	
	B D			B B B	
12	1..16		12	1..20	
11	2..01		11	2..03	
8	−0..06	white	8	−0..03	
12	0..02		12	0..06 ns	
12	6..42		11	6..43	
9	5..23		9	5..26	
12	0..03		12	0..03	
10	0..51		10	0..53	
7.8	3..09	reddish	7.8	3..11	water-melon red
	B			D	
12	2..53		12	2..56	
11.12	10..29		11.12	10..31	
12.13	9..24		12.13	9..25	
12		8 escaped the recorder	No star seen		
12.13	5..54		12	5..56	
12	3..23		12	3..25	
	B D B			B	
12	−0..20		12	−0..18	
9	5..59		9	6..02	
12	3..43		12.13	3..46	
11.12	0..27		12	0..29	
	B			B B	
12	9..50		12	9..52	
12	6..08 ns		12	6..11 ns	
12	9..34		12	9..36	
9	6..34 ns		9.10	6..36 ns	
12	6..42		12	6..44	
12	6..10		12	6..11	
12	6..55 ns		12	6..56 ns	
10	5..02		10	5..03	
10.11	7..51 ns		10.11	7..54 ns	
	B			D B	
12.12	3..12	Dense R	11	3..13	Sense R
9	9..34		9	9..34	X

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1855phae.proj..222B

~~9397~~

5.. 15.. 38.5 42.5

16.. 26.3 30.2
16.. 35.0 39.1

BD B

17.. 19.0 —
17.. 26.3 30.3
17.. 32.4 36.3
18.. 20.2 24.0
18.. 52.5 56.6
19.. 5.8 10.0
20.. 3.5 7.6
20.. 20.1 24.3

B B

21.. 10.9 14.9
21.. 19.4 23.5
22.. 15.4 19.4
22.. 35.0 39.0
22.. 57.3 1.3
23.. 18.0 22.0
23.. 37.7 41.8
23.. 42.9 46.9

B

24.. 4.0 8.0
24.. 39.0 43.0
25.. 3.8 7.9
25.. 19.5 23.6
25.. 58.9 2.7
28.. 1.3 5.8
28.. 3.4 7.5
28.. 17.8 21.8
28.. 30.7 34.5
28.. 42.9 47.1

D

29.. 38.0 41.9
30.. 35.2 39.1
32.. 9.6 13.5
32.. 17.7 21.7

~~9492~~

5.. 15.. 38.8 42.8

16.. 26.7 30.7
16.. 35.4 39.4

B B

17.. 19.3 23.3
17.. 26.8 30.8
17.. 32.9 36.8
18.. 20.4 24.5
18.. 52.9 56.9
19.. 6.3 10.3
20.. 4.0 8.0
20.. 20.6 24.5

B

21.. 11.3 15.2
21.. 19.9 23.9
22.. 15.8 19.8
22.. 35.1 39.2
22.. 57.7 1.6
23.. 18.2 22.2
23.. 38.1 42.1
23.. 43.0 48.0

B D

24.. 4.3 8.3
24.. 39.2 43.2
25.. 4.1 8.0
25.. 19.9 23.9
25.. 59.0 2.7
28.. 1.6 5.6
28.. 3.9 7.9
28.. 18.0 22.2
28.. 30.9 35.0
28.. 43.1 47.1

D

29.. 38.1 42.1
30.. 35.5 39.4
32.. 10.0 14.0
32.. 18.0 22.0

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1855phae.proj..222B

9391 20 to 30 9492

11.12 8..03
A group of 12 mag. stars
12 4..34
12 9..16
DB

11.12 −0..18 2 wm lost
11 4..57 ms
10 6..25 ms
× 7 3..12
12.13 3..10 Triple-comp. 14 mg. 20" s.p.
9.10 3..45 " 13 " 16 south
12.13 2..05 Comp. 12.13 m. 5" n.p.
11.12 9..46
BB
12 1..24
12.13 1..26 ms
12 1..02
12 7..02
11 9..26
12 3..49
11 4..19
11 10..27 ms
B
12 10..30
12 0..36
11 3..19
11 1..47
× 9 10..52 Extreme limit of the field
10 5..52
9 3..47 ms
12 9..01
12 8..59
12 9..12
D

11.12 4..16
12 4..09
11.12 8..00
11 10..00

11.12 8..05

12.13 4..36
12.13 9..18
BB
11.12 −0..16
11 5..00
10 6..27 ms
7 3..13
12.12 3..12 Triple as before
9.10 3..47
12.13 2..08 comp. 13 mag 6" n.p
11 9..49
B
12 1..26
12.13 1..28 ms
12 1..05
12 7..04
11 9..27
12 3..52
10.11 4..22
11 10..29 ms
BD
12 10..33
12 0..39
11 3..21
11 1..50
9 10..55 {The light of this star visible only - Dec. very uncertain
10 5..54
9 3..49 ms
12 9..03
12 9..01
12 9..15
D

12 4..19
12 4..11
11.12 8..02
10.11 10..03

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1855phae.proj..22B

9391

5h 33m 09.9	14.0
33m 16.6	20.9
B	
35m 28.8	32.8
35m 34.9	38.8
36m 4.1	8.1
36m 51.0	55.0
37m 3.9	8.0
37m 27.7	31.6
B B B	
37m 58.2	2.1
41m 18.0	22.0
43m 1.7	5.7
44m 3.1	7.0
44 —	11.2
44m 32.0	35.9
B	
45m 28.1	32.1
46m 4.9	9.0
46m 16.8	20.8
46m 19.5	23.5
46m 26.9	31.0
48m 29.5	33.4
B D	
49m 34.3	38.5
50m 0.1	4.1
50m 1.2	5.1
51m 57.5	1.2
51m 57.8	1.7
B B B B	
54m 13.2	17.4
55m 20.7	24.7
55m 42.0	45.9
56m 0.6	4.6
56m 38.6	42.5
57m 28.8	32.8
57m 39.3	43.4
57m 42.8	46.8

9492

5h 33m 10.3	14.2
33m 17.2	21.2
D	
35m 29.0	33.0
35m 35.0	39.0
36m 4.4	8.5
36m 51.4	56.3
37m 4.2	8.1
37m 27.9	31.9
B B	
37m 58.3	2.5
41m 18.2	22.2
43m 2.0	6.0
44m 3.3	7.4
44 —	11.5
44m 32.3	36.3
D D	
45m 28.3	32.3
46m 5.1	9.1
46m 17.2	21.1
46m 19.8	23.9
46m 27.2	31.2
48m 29.7	33.7
B	
49m 34.8	38.8
50m 0.7	4.6
50m 1.3	5.5
51m 58.0	2.0
51m 58.2	2.2
D B D	
54m 13.9	17.9
55m 21.0	25.0
55m 42.3	46.2
56m 0.9	4.9
56m 39.0	42.9
57m 29.1	33.0
57m 39.7	—
57m 43.0	47.0

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1855phae.proj..222B

~~93~~ 91 | 20 6 30 | ~~94~~ 92

12 5..35
12 5..59
B

10 8..03
11 0..20
12 8..03
12 7..29
11 5..46
x 9 9..50
BBB
12 3..55
9.10 0..49
11 −0..03
12 8..35
12 5..12 1st wire lost
11 9..40 red
B
12 −0..07
11 5..08 red
12 2..57
12 2..24 ms
12 2..29
12 6..55
B D
11 4..23
8.9 1..39
8.9 2..37 ms
11 10..16 red
12 9..38 ms
BBBB
11 −0..11
12 0..50
9.10 5..12 comp. 12 mag. 2" s.f.
12 9..42
11.12 5..54 red
10.11 0..02
12 2..59
12 7..35 ms

12 5..38
12 6..00 ms
D
10 8..05
11 0..23 ms
11.12 8..05
12 7..31
11 5..48
9 9..52
BB
12 3..58
x 10 0..50
11.12 −0..03
12.13 8..37
12 5..15 1st wire lost ms
11 9..42
DD
12 −0..04
11 5..10 red
12 3..00
12 2..28 ms
12 2..31
12 6..57
B
11 4..24
8.9 1..42
8.9 2..40 ms
11 10..17
12 9..39
DBD
11 −0..10
12 0..52
9.10 5..14 comp. 12 mag 2" s.f. also double
12 9..43
11.12 5..56 red
10.11 0..04
12 3..01 2 wire lost
12 7..37 ms

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1855phae.proj..221

G1

5.. 58.. 20.1 24.0
58.. 21.7 25.6
58.. 29.6 33.4
58.. 37.1 41.0
58.. 49.8 53.9
58.. 51.3 55.3
59. 1.4 5.3
59.. 13.3 17.3
BD
59.. 38.2 42.2
5.. 59.. 43.7 47.7
6.. 0.. 16.8 20.9

0 25.0
0.. 27.1 31.1
BB
1.. 29.9 33.9
1.. 45.2 49.2
1.. 54.0 58.0
2.. 45.7 49.8
3.. 16.5 20.5
DD
4.. 00.2 4.2

5.. 59.7?
6.. 0.9?
DB
7.. 25.0 —
7.. 32.8 36.8
7.. 46.4 49.5
8.. 39.8 44.0
8.. 59.5 3.6
9.. 45.7 49.7
B
[illegible]

G2

5.. 58.. 20.5 24.4
58.. 22.0 26.0
58.. 29.9 33.8
58.. 37.5 41.4
58.. 50.2 54.2
58 51.8 55.8
59. 1.9 5.8
B.

5.. 59.. 38.8 —
42.5 46.5
59.. 44.1 48.2
6.00.. 17.2 21.2

27.5 31.4
D
1m 30.2 34.1
1.. 45.9 49.9
1.. 54.3 58.3
2.. 46.0 50.0
3.. 16.9 20.9
B. B
4. 00.5 4.5
5. 24.4 28.4
5m 56ˢ.2 0ˢ.2
5.. 56.3 61ˢ.2
13 6m44ˢ.0 48ˢ.0

7. 25.3 29.4
7 33.2 37.2
7 46.2 50.0
8. 40.2 44.2
9. 0ˢ.1 4ˢ.0
9. 11ˢ.0 15.1 ~~9. 26ˢ.5 30ˢ.5~~
~~9 46.0 50.1~~ 9 26 5 30 5

9m46ˢ.0 50ˢ.1
10 4.0 8.0
~~10~~ 14.2 18.2
10 48.2 52.3
10 50.1 54.1

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1855phae.proj..222B

9391 20 to 30 9492

11 2..38
10 8..06 ns
11 9..58
9 8..16
12 3..04
12 5..55 ns
11 7..36
12 10..28
B D
10 5..03
11 0..18
10 0..20 Several stars 10..11 mv lost
11 5..10
12 1..09
10 1..03 comp. 12 mag. 6" s.p
B B B B
11 8..06
11 10..25
11 1..48
12 10..10
10 7..22
D D
12 7..39
Clouds
11 8..08 ns
11 8..59 ns
D B
12 0..20 2 wins lost
11 4..40
12 10..30
11.12 8..33
12 6..30
11 9..14
H B Clouds
12.13 7..20
11 8..49
9 2..03
12 1..30

11 2..39
10 8..09 ns
11 9..59
9 8..19
12 3..06
12 5..58 ns
11 7..36
B 10..28 no R

C 13,45.8
d 14 19.2
3-3.4

d & e 4s
e & f 6

10 a 5..04 2 win lost
11 b 0..18 3 10..11 mag
10 c 0..23
11 d 5..13
12 e 1..11 ns
10 f 1..05
D comp 12 8" s.p.
11 8..08
11 10..26
11 1..50
12.13 10..12
10 7..25
B B
12 7..42 (11.12) — 0..13
11 9..00 } Hum & comment
11.12 8..09 }
B (12) 2..43
12 0..19
11 4..39
12 10..32
11.12 8..36
12 6..32
11 9..15 (12) 6..53
D
11 9..16
11 9..34
10 — 0..14
12 5..34
12 8..31 ns

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1855phae.proj..22

91

6 13.363 40.1
14.20.0 24.0
14.29.3 33.3
14.57.2 1.1
6. 16.37.2 41.2
17.6.0 10.0
17.7.2 11.2
17.36.5 40.3
17.43.2 47.2
B D D B
18.28.3 32.4
18.53.8 57.8
19. 1.2 5.2
19.47.7 51.7
20.15.3 19.2
20.30.0 34.0
B
21.50.6 54.6
22 4.3 —
22. [illegible] 58.6
22.34.6 38.6
23.17.4 21.4
D B D
23.56.7 0.6
24.42.0 46.0
24.48.4 52.5
25.22.8 26.9
25.27.4 31.2
26 6.2 10.2
26.26.0 29.9
B
26.51.0 55.0

92

11.33.3 37.4
11.38.9 42.8
11.55.3 59.2

6 13.36.6 40.6
14.20.2 24.2
14.29.7 33.6
14.56.5 61.5
16.37.7 41.7
17. 6.4 10.3
17.7.7 11.7
17 36.8 40.8
17 43.5 47.6
D. B
18.28.8 32.7
18 54.1 58.1
19 1.6 — 19.42.8 46.8
19.47.9 51.9
20.15.7 19.8
20 30.3 34.3
D. D.
21.51.0 55.0
22. 4.8 8.7
22 4.9 8.9
22 35.0 39.0
22 59.9 63.9
23 17.8 21.8
B
23.57.0 61.0
24 42.3 46.3
24 48.8 52.9
25 23.1 27.2
— 31.6
26.6.7 10.7
26.26.5 30.3
D
26.51.3 55.3

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1855phae.proj..222B

~~9391~~ 20 to 30 ~~9452~~

12 8.19
12 8.53
10.11 1.29

12.13 7.20
11 8.49
~~9~~ 2.03
12.13 1.30
10 3.20
12 −0.13
12 2.03 ms
9 8.10
10.11 7.30 ms
D D D B
12 −0.02
12 3.29
12 5.12
6 2.54 yellow
12 1.50
12 9.24
B
11.12 7.52
12 6.09 ms 2nd twin lost
12 7.57 1st twin lost
9 6.17
12.13 5.25
12 6.10
D B B
12.13 5.52
10 2.26
12 3.50 ms
12 5.47
12 9.34 ms
10 2.05
12 5.41
B
12.13 5.10

12.13 7.21
11 8.50
9 2.06
12.13 1.33
10 3.23
12 −0.11
12 2.04 ms
9 8.12
10 7.33 ms
D B
12 −0.01
12 3.31
12 5.16 (12) 8.56
6 2.56 ms
12 1.52
12 9.26
D D
11.12 7.55
12 6.11
12 8.59 est ms
9 6.21 ms
12.13 5.26
12 6.13
B
12.13 5.54
10 2.26
12.13 3.51 ms
12 5.48
12 9.36 ms 1st twin lost
10 2.07
12 5.43
D
12.13 5.10

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1855phae.proj..22fB

~~43~~ 51

6	27.. 1.0	5.0
	27..27.0	31.0
	28.. 16.6	20.7
	28.. 59.1	—
	29.. 3.2	7.2
	B	
	29.. 35.8	39.7
	29.. 45.2	49.2
	30.. 13.4	—
	30.. 16.5	20.5
	30.. 17.6	21.6
	D	
	31.. 20.8	24.8
	31.. 36.7	40.7
	32.. 0.1	4.1
	32 —	22.8
	32.. 26.8	—
	33.. 15.1	19.1
	D B	
	34.. 29.9	33.9
	34.. 38.8	42.8
	34.. 39.5	43.5
	35.. 20.5	24.7
	35.. 56.1	0.1
	36.. 23.4	27.5
	36.. 35.9	40.0
	B	
	37.. 1.9	5.8
	37.. 9.1	13.1
	37.. 14.0	18.0
	37.. 27.5	31.3
	37.. 40.8	44.8
	37.. 43.9	47.8
	38.. 16.2	20.0
	38.. 26.7	30.6
	38.. 37.4	41.4
	38.. 47.0	51.0

52

6	27. 1.4	5.4
	27.27.2	31.2
	28. 27.0	21.0
	28.59.6	63.5
	29.	7.6
	B B	
	29. 36.0	40.1
	29 45.5	49.6
	30 13.8	18.0
	30. 16.9	20.9
	30. 18.0	22.0
	B	
	31. 21.2	25.2
	31 37.0	41.0
	32 0.5	4.4
	32 23.1	23.1
	32. 27.1	—
	33. 15.4	19.4
	D	
	34. 30.2	34.2
	34 39.1	43.0
	34 39.9	43.8
	35 21.0	25.0
	35. 56.6	60.5
	36. 24.0	27.9
	36 36.3	40.2
	D. B	
	37. 2.1	6.1
	37. 9.5	13.5
	37. 14.6	18.7
	37. 26.0	28.0
	37 41.1	45.1
	37 44.3	48.2
	38. 16.5	20.5
	38 27.0	31.0
	38 37.8	41.9
	38 47.8	51.4

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1855phae.proj.222B

9351 20 6 30'

9452

11.12 7..31
11 6..17 Examined and found −0..17
11.12 8..11
11.12 1..34 2 wire lost
11 3..56 ns
B

10 2..46
12 7..32
12 2..42 2 wire lost
11 2..43 ns
11.12 4..09 ns
D

× 9 2..26
10 10..09
12 1..07
11 4..18 1 wire lost
11 9..09 2 wire lost
12 2..13
D B

× 9 4..03
11.12 6..16 ns
10 0..26 ns
12 5..36
9.10 5..01
11 7..17
12 9..21
B

11 5..54
9.10 5..25
11.12 3..55 ns
11 8..49
Many stars

11.12 10..09
11.12 10..06
11.12 0..54
12 6..41
12 3..11
12 8..59

11.12 7..33 (11) −0..14
11 8.. not seen
11.12 8..13
11.12 1..35
11 3..59 1st wire lost ns
B B

10 2..48
12 7..35 comp 12 mag 15" n.p.
12 2..44 2 wire lost
11 2..45 ns
11.12 4..12 ns
B

9 2..28
10 10..11
12 1..09
11 4..21] 1st wire lost
11 9..11] 2 wire lost
12 2..15 comp 13" s.p 12.1 mag.
D

9. 4..04
12 6..18
10 0..26 ns
12 5..38
9.10 5..02
11.12 7..19
12 9..21
D B

11 5..56
9.10 5..26
11.12 3..57 ns
11 8..51

(11.12) 7..58 comp 4" s.p

11.12 10..09
11.12 10..08
11.12 0 56
12 6..43
12 3..13
12 9..00

m s
7..30 37,27.2
−0..14 37 53.4
26.2

7.30 38.47.1
−0..14 39.12.7
25.6

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1855phae.proj..22mB

91

6h 38m 58.9 2.9
39.. 2.2 6.2
DB
39..43.9 47.8
40..21.4 25.6
— 25.6
40..34.0 37.8
40..46.0 50.0
41..22.0 26.0
41..48.0 51.9
41..51.0 55.0
B
42..31.5 35.5
42..37.3 41.3
42..56.9 1.0
43..31.7 35.8
43..33.0 37.1
43..34.4 38.3
43..48.1 52.1
B
44.. 8.0 12.0
44..14.5 18.4
44..48.5 52.3
45.. 0.7 4.5
45.. 0.8 4.7
BB
45..39.0 43.0
45..57.8 1.8
46..50 8.0
46..14.1 18.2
46 — 47.5
46..56.5 0.4
47..06.4 10.3
47..22.4 26.2
B
47..40.9 —
47..45.0 —
47..48.8 52.7

92

6h 38m 59.s3 6s.2
2v.6 6v.6
BB
39. 44.3 48.3
40. 21.9 25.5
— 29.4
40. 34.3 38.3
— 46.4 50.3
41. 22.5 26.6
41. 25.4 29.5
41. 48.3 —
41. 51.3 55.3
D
42. 32.0 36.0
42 37.7 41.7
42. 57.3 61.3
43. 32.0 36.0
43 33.3 37.3
43 34.8 38.8
43 48.6 52.4
BB
44m.8v.3 12v.2
44.14.8 18.9
44.48.7 52.7
45 1.0 4.9
45 1.2 5.0
D
45. 39.3 43.2
45. 58.2 62.1
46. 4.5 8.5
46 14.6 18.7
46. 44.0 48.0
46. 56.9 60.7
47.6.9 10.9
47.22.9 26.9
D B
47.41.2 45.2
— 49.2
47.? 53.2

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1855phae.proj..222B

9391 20 h 30 94-92

12 8.31
12 6.15 ns
DB
12 10.44
× 8.9 9.38
10 3.47 1 wire lost and a wrong sig.
9 8.37
× 8.9 7.32 cent
12 1.03
11.12 10.16
11 0.08 ns
B
12 4.10
12 5.20
10.11 − 0.40
12 3.46
12 1.09 ns
12 0.04 ns
12 4.55
B
9 7.54
9/10 9.41 ns
11.12 5.55
11 7.49
12 7.24 ns
BB
× 9 ~~10~~ 2.31
12 4.20
9.10 8.01
11 6.29
11 2.06 1 wire lost
9 1.28
11 7.50
12 4.36
B
11.12 8.50 2 wire lost
11 10.06 2 wire lost
9 4.18

12 8.32
12 6.27 cent ns
B
12 10.46
8.9 9.41
10 3.47 read - 1 wire lost
9 8.37
8.9 7.33 cinsp. 13 may. 9" s.f
12 1.04 (11.12) 4.53 ns
11 10.17 2 wire lost
11 0.09
D
12 4.12
11.12 5.23 ns
10.11 − 0.40
12 3.47 ns
11 1.11 ns
12 0.04 ns
12 4.56 ns
BDB
9 7.55
10 9.42
11.12 5.57
11 7.52
~~12~~ 7.26
D
9 2.34
12 4.22
9.10 8.03
11 8.31
11 2.07
9 1.32
11 7.54
12 4.38
DB
11 8.53
11 10.06 2 wire lost
9 4.21

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1855phae.proj..22[illegible]

91 ~~93~~

6.. 48.. 15.5 19.6
48.. 31.0 34.9
48.. 47.8 51.6
48.. 56.4 0.3
49.. 6.6 10.6
49.. 26.4 30.3
49.. 34.9 38.0

D

a 50.. 9.7 13.7
b 50 23.0 27.0
c 50.. 23.6 27.5
51.. 35.3 39.2
e 51.. 51.0 55.1
g 52.. 21.2 25.2

BB

53.. 6.1 10.2
53 41.3 45.3
53.. 47.0 51.0
54.. 18.1 22.0
55.. 5.7 9.5
55.. 17.7 21.7
55.. 35.9 39.9

B

56.. 21.2 —
56.. 25.5 25.2
56.. 33.4 37.3
56.. 57.7 2.2
58. 13.0 17.0
58.. 18.7 22.9
58. 19.2 23.2
58. 38.2 42.4

B

59.. 10.3 14.3
6.. 59.. 12.0 16.0
7 1.. 2.9 7.0

~~94~~ 92

6, 48, 16, 0 200
48. 31.2 35.2
48, 48, 1 52.0
48, 56.9 60.8
49. 6.9 10.9
49. 26.7 30.8
49. 34.3 38.3

B

6, 50, 10.0 14.0
50, 23.3 27.2
50. 24.0 28.4
50, 49.0 52.9
51. 51.3 55.3
52. 21.5 28.7

D. B.

53, 06.5 10.5
53. 41.8 45.7
53, 47.3 51.3
54. 18.4 22.4
55. 06.0 10.0
55. 18.1 22.1
55. 35.8 40.2

B. D

56, 21.6 —
56 23.7 25.7
56, 33.8 37.8
56 58.3 62.3
58. 13.2 17.3
58 19.1 23.2
58 19.1 23.5
58. 38.7 42.7

B

59 10.9 14.9
6 59 12.5 16.5
7 59 31.3

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1855phae.proj..222B

~~9391~~ 20430 ~~94 92~~

12	4..28	
12	6..25	
12	9..23	
10	5..08	needlish
11.12	10..08	
12	10..11	
12	9..13	
	D	
12	7..30	
12	9..17	
11	8..56	
12	10..01	
12	4..17	
9	8..26	cent
	BB	
11	8..06	
12	10..39	
12	9..20	ms
11	8..06	
12	2..12	
11	5..01	
12	1..23	
	B	
11	8..01	2 min lost
9	0..43	D
10	0..06	
10	0..18	R bad
10	9..28	
[redacted]		comp 12.13 may 10" n.f.
11	5..47	
12.13	5..53	This is the comp.
11	8..59	
	B	
12	7..32	
11	4..03	
12	4..47	A little double star f. l. dist.

12	4..31	
12	6..26	
12	9..26	
10	5..09	needlish
12	10..07	
12	10..12	
12	9..14	
	B	
12	7..32	
12	9..16	ms
11	8..56	ms
12	10..04	
12	4..19	
9	8..27	
	D B	
11	8..07	
12	10..39	
12	9..21	ms
11	8..07	
12	2..14	
11	5..02	
12	1..26	
	B D	
10.11	8..03	2 min lost
9	0..46	
10	0..07	
10.11	0..17	
10	9..31	
12	[redacted]	
12	5..49	1 min lost — comp n.f.
12.13	5..55	This is the companion
11	9..01	
	B	
11	7..34	
10	4..05	ms
11.12	4..44	

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1855phae.proj..22[illegible]

~~95~~ 93 ~~96~~ 94

March 2

First star is 6.7 mag.

1855.0 R 6h 33m 37s.39
Dec +0° 37' 34".3

Ext Therm at Beginning 27°.1
End 25.6

x
10

6h 33m	33s.9	
	"	41s.5
34	27.4	31.4
34	44.9	48.9
	54.4	58.4
6 35m	12s.9	16.8
"	31s.0	35.0
"	35.6	39.3
36	12.3	16.2
"	19.0	23.0
"	35.0	39.0
	44.0	48.0 a

6h 33m	34s.3	38s.4
"	37.9	42.0
34	27.8	31.8
"	45.5	49.5
"	55.2	58.9
35	13.1	17.2
	31.5	35.5
		40.1
36	13.0	16.6
"	19.6	23.5
"	35.5	39.5
"	44.6	48.6 a

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~~95~~ 93 30 to 40 ~~96~~ 94

Mean Places of Catalogue Stars

for 1855.0

	h	m	s		°	′	″
6.7	6	33	37.79	+ 0	37	34.3
8.9	6	47	59.07		31	58.1
9	6	48	13.06		33	54.0
8.9	6	49	16.53		35	40.5
8	6	50	36.67		33	35.4
8	6	53	45.43		33	1.0
8	6	57	42.04		32	38.0
8	6	58	49.50		31	28.0
9.10	6	59	22.25		36	33.2
9	7	7	6.32		33	35.2
7	7	11	9.29		32	17.2
7	7	13	3.80		40	9.8
9	7	13	16.95		36	7.6
9	7	17	18.58	14 n.9	40	9.1
8	7	~~17~~	~~52.56~~		31	45.0
8.9	7	18	~~21.63~~ 33.97		37	15.7
9	7	19	11.02		31	53.7
8	7	19	34.06		31	10.6

	h	m	s		°	′	″
6	7	35	38.97	+ 0	31	44.5
9		44	49.34		29	33.0
9		49	4.14		30	54.4
9		49	23.23		39	7.1
8		57	33.59		30	12.5
8	7	59	32.86		32	59.9
8	8	00	50.38		33	13.3
9		1	3.40		34	4.0
9		18	48.96		33	46.0
9		19	47.57		30	52.5
7		22	29.15		30	~~50.5~~
x 9		27	54.89		34	4.2
7.8		39	8.91		33	8.7

1855

March 2d

J. H. S. observed and P. S. C. recorded

1855

March 5th

P. S. C. observed and J. H. S. recorded

7 7.32 ns

10 9.20

7 7.32 ns

1 1/12 1.20

10/11 5.34

10/11 7.38

B

10 8.19

10 2.6

10/11 10.27

11 6.8

11 10.0

10/11 2.18

10/11 6.31

D

10 9 22 Double no. following

6/7 2 33 ns

12 1 24 ns.

11 5 39

11 2 20

D.

10/11 8 19

12 2 9

(11 10.32) 1st wire da. last. ns.

11/12 6 12 short sig.

11/12 10 8 Double

11 2 30 Care

11 6 38 ns. sig.

B

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1855phae.proj..222B

9.. 5
6.. 40

95 93

6h 37m.	18.4	22.5	B
"	42.2	46.4	δ
38	48.4	52.3	
39	7.4	11.5	
"	47.2	51.2	
	B	D	
40	17.2	21.3	
40	20.2	24.1	
42	—	49.7	This appears, upon re-examination, to be the first-wire
"	52.9	56.9	θ
"	54.1	58.0	4
43	8.8	12.6	
44	9.2	13.0	
"	13.5	17.3	
"	18.5	22.3	
"	50.8	54.7	
	D	B	D
45	54.0	57.9	
46	15.9	19.7	
46	51.6	55.7	
47	18.8	23.0	
		B	
47	58.4	62.4	
48	12.6	16.4	
49	16.0	20.0	
49	57.3	61.4	
50	12.7	16.5	
"	32.9	37.0	
"	36.1	40.1	
		D	D
52	27.6	31.6	
"	30.1	34.1	
53	34.8	39.0	
"	41.0	44.6	
	B	D.	B
54	51.2	55.2	
55	23.3	27.4	
"	56.2	60.2	

96 94

			* !
6h 37m.	39.8	43.8	γ This star found upon re-examination to have a Dec (pg) equal 0..09 See margin opposite
37.	42.9	46.8	δ
38m.	48.9	52.8	
89	8.2	12.2	
	47.8	51.7	
40	17.8	21.8	are then the first wire on the zone 95
42	42.9	46.9	μ
42	50.4	54.1	5
42	53.3		θ
42	54.9	58.9	4
44m.	9.8	13.7	
"	14.0	17.9	
.	18.9	22.9	
"	51.4	55.3	
45	54.6	58.6	
46	16.5	20.4	
"	52.2	56.2	
47	19.3	23.2	
47	59.0	63.0	
48	13.2	17.1	
49	16.8	20.7	
49	58.3	62.2	
50	13.3	17.1	
"	33.6	37.7	
"	36.8	40.9	
52	28.3	32.1	
"	31.0	34.9	
53	35.4	39.5	
"	41.2	45.2	
54	52.0	55.8	
55	56.8	60.7	

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1855phae.proj..2225

93 95 30 & 40 96 97

11 . 8 . 11

11 0 . 0

11 9 . 52

11 3 . 07

11/12 4 . 10

B. D

11 8 . 15 8.9 − 0.24

11 6 . 30 1st wire lost

11 4 . 44 ns.

11 8 . 06 ns.

11 6 . 31

10/11 5 . 08 } beautiful cluster about 50 stars h. 413

10/11 2 . 10 ns.

10/11 7 . 40 ns

10/11 8 . 07

D B D

11/12 4 . 54

10/11 9 . 16

11/12 8 . 16

10/11 10 . 15

B

10 1 . 51

10 3 . 50

9/10 5 . 35

8/11 9 . 21

11 7 . 50

10/11 3 . 57

8 . 3 30 ns

D D

10/11 4 . 03 Very few stars

10 10 . 31 ns must be 10 . 13

10/11 8 . 59

11 5 . 44 ns

B D B

8/9/10 8 . 34

10/11 4 . 09

8/9 3 . 3

B D D

12 8 16

11 0 5 2 stars have same dec —

11 9 55

10/11 3 10

11/12 4 15

D. B.

11/12 8 19

11 6 38 } 11 . 6 . 33

11 4 47 } nsij

11 8 . 6 }

11 6 33 }

10 5 10 mostly

10 2 12 nsij 12-13 may be cluster mostly

10 7 42 nsij (Pl. 25) Ste Geneviève diam = 10'

11 8 9

B. B.

12 4 27 sure

12 9 20

12 8 20

12 10 20 no ij.

?

8/9 1 57

9 3 50

8/9 5 39

12 9 27

12 7 54

12 3 54

8 3 33 nsij

B. D.

12 4 6 (12 10 . 17)

12 10 16 ? nonij star —

11 9 2

12 6 46

D. B. D.

11 8 39

8 3 8

D. B

α 6.36 7. 57.3
β 8..14 8 31.8
34.5

α 6.38 13, 8.29
β 8..17 14.. 27.2
γ 0..09 14.. 48.2
δ 0..06 14.. 51.2
8..19 14.. 54.2

σ 6..38 − − 21.8
μ 6..33 − − 28.8
θ 4..47 − − 39.8
ψ 8..06 − − 32.7

6. 49 . 2

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1855phae.proj..222B

~~95~~ 93 ~~96.~~ 94

6 57	21.0	25.0
"	41.6	45.6
58	49.2	53.2
59	19.5	23.2
7 00	51.0	54.8
1	22.1	26.0
2	15.3	19.3
3	34.4	38.2
"	43.1	47.0
4	45.8	49.8
5	42.0?	45.7
"	51.1	54.9
6	48.5	?
7	6.2	10.0
"	11.6	15.5
8	25.4	29.4
9	2.9	6.9
11	8.8	12.9
13	13.6	17.5
"	16.8	20.8
16	9.5	13.4
	10.6	14.6
	19.9	23.4
	31.2	35.0
"	18.1	22.0
17	36.6	40.6
18	4.9	8.8
	33.6	37.7
19	10.7	14.9
	33.8	37.7
20	8.9	12.8
21	49.6	53.4

6 57 m	21.7	25.8
"	42.3	46.1
58	49.8	53.8
59	20.1	24.3
7 00 m	51.6	55.4
1	22.7	26.7
1 m	50.8	54.8
2	16.6	19.8
2 m	56.5	60.6
3	34.8	38.9
"	43.9	47.9
4	46.3	50.2
5 m	42.4	46.2
"	51.5	55.4
6	49.1	
7	6.7	10.8
"	12.2	16.2
"	26.2	30.0
9 m	3.9	7.7
11	9.8	13.8
13	4.2	8.2
	17.8	21.6
16	10.6	14.1
		15.4
"	17.1 90	22.8
"	37.6	41.5
18	5.7	9.5
	34.6	38.6
19	11.4	15.6
"	34.8	38.5
20	9.8	13.6
21	50.1	54.0

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1855phae.proj..222

10.15
7 3
7.10

95 98 30 to 40 96 94

11/12 6.30
8/9 2.33
11/12 10.1.21
10/11 6.29
9/10 8.29
10 9.29

D

10/11 5.8 — — — — — — — —
10/11 −0.5
10 3.4
10/11 4.19

B. B

10/11 2.51
11 1.89
11/12 6.02 2d w. R°.
10/11 3.32
11 7.04 ns
11/12 6 18 ns

D. B.

11 6.?
8 2.12
7/8 10.06
10 6 02

B.D.BB

11 9.31 (2d w lost, 1st w lost) no wires lost
11 9.20 ns
10 7.40 ns
11 8.41 ns
10 10.06
10/11 8.41

B

9.10 1.39
10 7.10 accidentally mark not on paper
10/11 1.49
9/10 1.08

D.D.D

10 9.58
10/11 10.19

12 6 25 sure
8 3 36
11 1 25 (AR not got?)
6 29 not got catalogue
6 3/4
11 6 32
11/10 9 33

B.

12/13 5 10
12 12 left 10,th + −0 18
11 −0 ∅
11 3 10 Ded. cert.
12 4 22

BD.

11 3 58 signal for ff
11 1 24 cent
12 6 7 2d lost
10/11 3 37
11 7 9 nasty.
12 6 20

BBB

10/11 6 08 cent
8/9 2 18
7/8 10 19
9/10 6 7

Dots Break Dots Break Dots Break Dots Break
Break Dots Break Dots
11 9 38 B
11 9 24 nasty ∅ 1st wire lost.

B. 9.38 57.48.9
10 neg 3.09 57.55.1

10 9
8 48

Dots. Very sift
8/9 1 (44?) nasty
8/9 7 48
9/10 1 43 sure
8 1 13

B 10.00
10 9 59 Comp. with 3 to 1st — Cut 2 Lafayette
10 10 22 5 double 12 in field. 1 other 2nd Cut

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1855phae.proj..222B

93 ~~95~~ ~~96~~ 94

22	24.1	27.9	
6 "	34.1	38.0	
	. . . .		
24	8.6	12.5	
25	28.9	32.8	
	37.8	41.8	
26	2.4	6.4	
	———	. . . .	
27	59.5	63.4	} Change to place them in order of RA
28	~~59~~	63.4	
"	13.8	17.6	
	—	. . . .	———
29	58.0	61.8	
30	49.0	53.0	
32	35.8	39.8	
32	58 2	62.0	
	. . . .	———	
34	39.6	43.6	
35	38.4	42.6	
"	48.6	52.5	
36	20.9	24.9	
	———		
37	30.0	33.9	
38	40.8	44.7	
"	41.3	45.2	
40	48 5	52.4	
	. . . . .		
41	15.3	———	+ RA?
41	24.2	28.2	
42	19.3	23.0	
	--- ———	---	
44	46.0	50.2	
	49.2	53.0	
46	11.5	15.5	
"	26.1	29.9	
	———	- - - -	
47	5.5	9.5	
48	—	41.1	
	3.2	7.2	

Retained

22	24.9	28.9	
	34.9	39.0	
	———	. . . .	23 26'2 30'2
24	9.5	13.4	
25	29.7	33.6	
"	38.8	42.5	
26	3.3	7.1	
	— —	— — — . .	
28	14.7	18.8	
X 28 m	14.7	18.8	55'0 59'0
	———		
29 m	59.0	62.9	
30 m	50.1	54.0	
32 m	36'3	40'5	
"	58'8	62.7	
	- - - -	———	
X JR 34	—	42.9 ?	
X 35	39 3	43 0	
"	—	53	
36	21.8	25.7 Corrected	
	- - - -		
37	30.8	34.5	
38	41.6	45.6	
"	42.5	46.3	
40	49.3	48 3	
	———		
41 m	17'5	21 5	
"	25.1	29.0	
42	20 0	24.1	
	— — — —	— —	
44	46.9	50.8	
	49.8	53.6	
46	12.2	16.1	
"	26 8	30 8	
	— - - -		
X 47	6.7	10.3	also there yet lacking G 2 diff. obs ?
47	58.0	62.0	
"	4.1	8.0	

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1855phae.proj..222B

~~95~~ 93 3 to 6 ~~96~~ 94

11 3.23
10/11 5.17 Decl.°
D

11/12 2.18
11 2.54
10 7.29
~~10~~ 4.35
10 BD

11 5.30 2 lost
11 6.05 1 lost
10/11 3.51
B-D-B

11 3.12
11. 6 26
11/12 10.00 nv
11. 1.51
D.B.D.B.D.B.B
10 10.30
6 1.40
10 7.17
10/11 3.43
B

11 7.42 ns
12 3.57
10/11 3.35 ns
11/12 3.57
DD

11/12 5.19 2 lost
11. 7.42
10.11 10.0
D B D

10.11 1.10
10 -0.30 nov.
10 1.31
10/11 7.41
B.D

11 8.26 double d.p
com = 12
11 1 22 1st lost
11 9.48 nov. ?

12. 3 30
12/11 5 20 nosij
B.D.B. 11/12 3 40
11/12 3 20
11 2 59
10 7 33
10 4 B40
Dots - Dots - Dots

11 Lost — 3 56
1 0 29
B

11 3 18
11 6 29 2 comp - 4 preceding no folg. distant 2"
11/12 10 B2
10 1 57
D.B.

10 10 35 ——— 1st wire bkt. no sij. 2d 7
6 1 43 Comp (2) 4" n (pr.)
10 7 22 nosij 1st bkt
10 3 48 2d. 6s 2 to zones.
D.

12 7 47
12 4 2
10 3 42 nosij. Blue star of 13th in field.
11 4 1 Comp no proc —
B

11/12 5 23 1st bkt
10/11 7 42 C
10/11 10 3
D.-D.-B.B.

10/11 1 14
10 -0 26 no. sij.
10/11 1 36
11 7 45
D.

11 8 31 comp 5" n.f. — 11 mag
11 1 28
11 9 51½ no sij

9.05
7.28
37

Dg BC 5 7.6

8.29 preceded

2.

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1855phae.proj..222B

~~R~~ 93

9	4.0	8.0
"	22.9	26.7
5 2m	9.4	—
"	10.8	—
"	—	14.4
5 2	46.1	50.1
56	—	35.4
"	44.3	48.2
57	33.8	37.2
59	24.0	27.9
"	33.1	37.0
"	58.0	62.0
8h 0m	50.2	54.0
1m	03.5	07.3
"	58.2	62.0
2	37.0	40.8
2	51.1	55.1
5	—	—
5	11.2	15.2
"	16.2	20.0
"	36.2	40.2
"	—	53.3
8	44.7	—
"	47.7	—
"	50.3	—
9	51.2	55.5
	B.	
11	20.7	24.4
12	—	8.5
"	32.2	36.1
15	4.7	8.3
16m	19.2	23.1
"	20.9	24.7

~~R~~ 94

	49	4.8 8.8
	"	23.9 47.9
R?	52m	10.0 ~~18.9~~ 2 wires not help?
		11.2 15.0
		(11.2 15.0) Subsequently ascertained
	52	46.9 50.9
R d Dz?	57	34.2 38.1
	59	24.8 28.7
	"	33.9 37.9 58.1 62.0
		58.8 62.7
	8h 0m	51.0 55.0
	1m	4.1 8.0
	"	59.0 63.0
	2	37.8 41.9
	4	52.0 56.0
	5m	12.0 16.0
	"	16.8 20.8
	6	37.0 41.0
X, R, Dz?	8m	45.1 49.2
	4	48.6 —
	4	51.1 55.0
	9	52.1 56.0
	11	21.2 25.4 ~~4h 58.3 62.3~~
	11	58.3 2.3
	12	0.4 4.4
		Ink failed
	15	5.3 9.2 17.9 21.8
	16	20.1 24.0
		21.5 25.5

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1855phae.proj...222B

~~95~~ 93 30 ± 40 ~~96~~ 94

10. 0 5-1
10 9.06
B. B
11 10.10 2ⁿ L
11 6 57 2ⁿ L. ns
11 1.59 ll. ns
10/~~11~~ 6.21
D B
11/12 4.12 1st L
11 0.45
11 0.08
10 7.41
9 2.58
9/10 Der ? 6.58 Com 5" n/p 12 mg
BD
9.10 3.11
10 3.1
10 2.15
10/11 3.53
10/11 3.7
D vacancy
10 6.41
10 9.28 ns
11 7.2
11 10.8 1st Lost
BDD
10 6.50 2nd L
10/11 ? 2nd L ns
10 5.35 2nd L ns
10 7.41
D B
11/12 6.39
11 6.57 SR Lost
11 3 47 2nd 1st Lost
9/10 10.5
B
10 10.13
9 1.20
11 2.08 ns

9/10 0 55
9 9 10
B. D.
10 10 12 D bet
10/11 7 1 comp nf ~~D bet very~~
10/11 2.0 ~~Saw~~ near R. as seen
10 6 27 , ~~D to~~ Brought Le
~~D~~ B. D. B. ~~D bet~~ - Found Close

9/10 0 ~~9~~ 55
10/11 7 43
9 8 7.5 + 5" n/p Upcoming comp - 13th Cap observed
D comp. 12 mg. 7" n/p
8 3 11
8/9 3 5
10 2 18
10 3 58
10 3 9
B. Dec Stars
11 5 46
10 9.20 Dusc
11/12 7" 7 (12) (10.12)
not seen
D.B
9/10 6 52
11 10 39 10.29 2nd Lost Vst double very
9/10 5 40 very
10/11 7 46 comp fully
B. B
12 6 40
10 7 00
10 3 50 ~~Hard to~~ very
8 10 9
D. D. D
10/11 10 18
~~1 Hy~~
9th 1 23
12 2 10 ns

6.40 30.55.2
7.02 31.32.1
3.52 31.33.9

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1855phae.proj..222B

95 93

8 16.5 20.7
49.0 52.8
19 47.0 51.0

21 11.4 15.2
22 28.9 33.0
23 10.2 14.3
23 22.2 26.0
24 23.9 27.8

27 45.1 49.1
29 2.8 6.9
1 27.1 31.2
" 27.9 32.1

30 16.0 19.7
" 33.5 37.4
33 36.2 39.9
35 5.9 —

39 47.7 51.7
40 8.2 —
" — 12.1
" 9.7 ?

There's the Cat. star x

96 94

9 18m 17 3 21 3
9 49.7 53.8
19 47.9 51.9

21 12.0 16.0 ✳ 27 7 31 6
22 29.9 33.9
23 11.1 15.0
11 23.0 27.0 ✳ 23m 50s 4
11 24.7 28.7 ✳ 25m 57s 1

27 45.6 49.4 Y 46.1 49.9
29 3.7 7.7
1 27.7 32.0
" 29 0 32.8

30 16.7 20.7
" 34.3 38.2
33 37.0 40 9
35 6.8 10.7
35m 23s 0

39m 48s 4 52.2 ~~37m 11s 7~~
40m 8s.3 —
13 2

1855phae.proj...222B

S.S.B 95 93 B.S.B. 96 94

10. 6.1
10 3.43
10/11 0.49
B.S.S B
do 8.28
9. 0.0
11 6.22
11 5.00
10/11 4.46
B
10 6.9
10/11 3.35
10/11 8.29
10/11 10.4 ns
B S
10 6.1
10/11 7.9
11 8.03
5.44 2 l.
11/12 S B
10/11 1.22
9/10 6.2 2 l
11 3.24 1 l ns
10 9.2 ns?
10/11 5.43
11 4.30 ns
10/11 8.21

10 6 7 very faint vacancy
Im 10 3 46 not 9th mag
10 0 52 / few stars
B.
10 8 30
12 8 28 1' 2 comp pres
7 + 0.2
11 6 28
11 5 3 no lig
10 4 50
B. D. B a — a preceded b by 0.s4 about
11 5 B
9 6 12 = Right angled triangle star light
10/11 8 8
11 8 31
11 10 7 comp no. lig
D.
11 6 7
11 7 9 < Suspected nebula for 4"
11 8 8 Few stars right triangle
12 5 49
B B. 12th mag star 5.5"
10 1 27 3 Class
9 3 29 2 Class
9 3.24 something lost
8 6 29 2 V. Nebulae lost
Blank

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1855phae.proj..22

20' to 30'

Zone ~~97~~ 95

Zone ~~9~~ 96

Observed March 16 by P. S. C.

Obsd by G. P. B. & C. H. D.

6 hours	—	58m	16.6	
58m	18.7	—		
—		22s	9	
38s	1	42s	0	
10s	2	—		
—		16.	8	

6	58	12.3	16.3	
		18.4	22.4	
		18.8	22.8	
	58	38.0	42.0	
	59	10.0	18.9	
	59	11 6	15.5	
6	59	30.3	34.3	
		B		
7	1	2.5	6.5	

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1855phae.proj..228

~~97 95~~ 98 96

Catalogue Stars

mag.	R	Dec.
9	6.. 58.. 12.08	29°.. 30'.. 3"
9	7 7.. 23.94 ~~not seen~~	28.. 17.8
9	7 7.. 53.87 not seen	27.. 23.2
7	7.. 11.. 29.18	20.. 33.0
8/9	7.. 11.. 59.80	21.. 26.6
9	7.. 12.. 59.82	23.. 07.5
6	14.. 37.14	26.. 49.8
7	23.. 30.73	27.. 13.2
8	23.. 43.24	27.. 59.3
8	27.. 11.27	29.. 09.2
8	27.. 24.65	28.. 19.3
9	37 2.36	28.. 45.4
8	39.. 36.65	22.. 13.5
9	39 36.46	22.. 28.4
9	44 49.32	29.. 32.3
9	51.. 59.45	20.. 40.7
7.8	~~52~~.. 59.17	19.. 39.3
9-10	53.. 12.68	20.. 39.1
9	54.. 16.39	21.. 42.3
9	56.. 41.88	25.. 42.4
9 7"	57.. 33.57	30.. 12.5
9 8"	20.. 17.09	23.. 15.9

mag.			
9	8	20.. 17.09	+0°.. 23'.. 15".9
9		21.. 58.04	0.. 27.. 52.5
7		22.. 29.15	30.. 04.2
8/9		45.. 31.91	23.. 06.5
9		51.. 44.24	21.. 08.7
9		54.. 53.01	25.. 10.1
8	9..	6.. 27.48	+0.. 24.. 34.2

While preparing for this zone (97) D.S. saw 4, then while observing P.S. saw 5 shooting stars which passed north,

Zone 98

March 27

Pos. 178°.. 10'

G.P.B observes C.W.Z Record - Nearly clear - definition good -

~~10~~ P.S. observed.

10	9 29	2. Quite bright
	~~9 00~~	1st wire bright
10/11	9 00	
12	9 32	2d wire
12	4 00	1st wire bright
12/13	4 50	Thin star comes after this
	D.	
12/13	4.50	

~~9~~ 10	9.. 29	Not as bright as 9
11	5.. 49	comp 11.12 — 7 m.f.
10	5.. 54 m s	Comp.
10	9.. 01	
11.12	7.. 33	
10	4.. 03 m s	
12	4.. 44	cent- B
12	4.. 48	A double

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1855phae.proj..22mB

hours 9795 9596

			7 1 13.8	17.8	
7h 2m	34.0	37.9	7 1 33.7	37.7	
	55.0	59.1	1 55.0	59.0	
2	26.7	30.8	2 26.2 BB	30.2	
			2 37.9	41.7	
	48.5	52.4	2 48.2	52.1	
	57.0	61.1	2 56.7	0.7	
	0.6	4.3	3	4.2	
	31.1	35.2	3 16.9	20.9	3.. 30.7 —
	39.1	—	3 35.0	39.0	
4m	13.0	17.0			
	18.5	22.2	4 18.0	22.0	6.. 11.3 16.3
5m	14.3	18.1	5 13.9	18.0	
	44.7	48.5	5 44.2	48.2	
6m	41.0	—	6		
			D		
7m	24.7	28.7	7 24.2	28.2	
	31.5	35.6	7.. 31.8	35.3	7.. 37.4 41.5
	49.9	—			
	55.0	58.9	7 54.6	58.6	~~9.. 30.7 34.7~~
8m	57.7	61.7			
	39.8	43.7			
	48.1	52.0			
9	31.0	—	9 30.7	34.7	
	32.7	36.5	9 32.2	36.2	
10	11.5	15.4	10 11.2	15.2	
	17.0	20.8	10 16.4	20.5	
	40.0	43.8	10 39.6	43.6	
11	11.0	15.0	11 10.4 B	14.7	
	29.9	33.9	11 29.4	33.5	
			D		
12	00.8	04.8	12 0.7	4.7	
13	00.6	4.3	13 0.2	4.1	
	—	5.7	13 1.2	5.0	
	20.5	24.4	13 20.1	24.1	
	39.7	43.7	13 39.3	43.4	

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1855phae.proj..222

~~1895~~ ~~98~~ 96

12	4 48	2d wire lost			(10m 10.41)
12	2 29	——— R. lit			
10	8 20				
11	8 04		10	8.04	
12	4 34	no sig		BB 4.35	
	5 18	(R lost ? probably)	12	5.17	
11	2 58	no sig	11	2.58	
9	9 42		9	9.43 ~~ms~~	
11	8 30			8.30 ms	1 wire lost
11/12	8 42		11	8.44	10 8.46 2 wires lo
11	10 00	2d wire lost	11	10.00	
11	8 34			8..	
Break					
12	3 53	reddish. cloudy			
12	10 8	mostly bluish	11	10.06 ms	(12 5.17)
13	4 28		12	4.18 ms	
9	8 20		9	8.20	
13	8 29	2d wire lost		8..	
D. B.				D	
* 11	8 20		10, 11	8.21	
12	6 31			6.33 ms	11 – 0.14
12	8 14	2d wire lost		& not seen	
* 11	7 22	no sig	10	7.25	12 9.28
11/12	8 28	no sig			
D. B. D.					
12	0 43	noisy. first wire 1/2 too late			
12	1 13				
12	9 28	2d wire lost		9.28	
11	9 44		11	7.46	
8	8 16		9	6.17	
9/10	3 24	no sig.	10	3.25 ms	
9/10	4 41	blue.	10.11	4.51	
11/12	8 48		11	D 6.48 cast	
* 7/8	0 30		8	0.31	
B.				D	
10	1 26		9	1.26	
* 9	3 09	2d wire ?	9	3.09	
9	5 12	noisy 1st wire lost. 2d ?	9	5.15 ms	
10	4 9		9.10	4.11	
13	4 8		12	4.07	

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1855phae.proj..222B

~~9795~~ 20530 ~~9896~~

			7..	14.. 26.0	30.0
				14.. 37.2	42.3
				14.. 42.1	46.0
				15.. 2.2	6.2
				15.. 29.0	33.1
				D B	
				15.. 58.7	2.8
				16.. 7.3	11.4
				16.. 7.8	12.0
				17.. 35.6	39.6
				18 2.2	6.2
				B	
				18.. 28.0	32.1
				18.. —	37.7
				19.. 5.7	9.6
				19.. 39.9	43.9
				20.. 30.7	34.8
				D B D	
				21.. 18.8	22.9
				22 2.2	6.1
				22.. 34.5	38.6
				22..	
				22.. 53.3	57.2
				23.. 31.3	35.2
				23.. 32.3	36.3
				23.. 43.5	47.6
				23.. 55.0	59.0
				D	
				24.. 10.5	14.5
				25.. 32.3	36.2
				25.. 47.5	51.4
				26.. 14.9	19.0
				26.. 23.2	27.2
				B	
				27.. 11.7	15.6
				27.. 25.4	29.5
				28.. 30.1	34.1
				28.. 47.3	51.3

4m	26.3	30.3	
	37.7	41.6	
	42.5	46.3	
15	02.3	06.4	
	29.6	33.3	
	—	. . . .	
16	—	03.0	
	7.7	—	
	8.5	12.0	do there each belongs to 2 diff stars
17	36.0	39.9	
18	2.5	6.3	
	. . . . .		
18	28.4	32.3	
	33.9	37.9	
19	5.8	9.8	
	40.2	44.0	
20	31.0	35.0	
	. . . . —		
21	19.0	23.0	
22	2.6	6.3 X	
	35.0	38.8	
	42.9	46.9	
	53.5	57.4	
23	31.7	—	
	32.4	36.6	
	44.0	47.9	
	55.3	59.3	
	—		
24	1 - 15.0		
25	32.8	36.6	
	34.3	38.2	
25	47.8	31.8	
26	15.1	19.2	
	23.7	27.7	
	. - . . —		
27	12.0	15.8	
	25.8	29.8	
28	30.3	34.3	
	47.7	51.5	

16.. 33.4	37.5		
17.. 22.7	—		
21.. 34.3	38.3		
22.. 42.5	46.5 ?		
26.. 34.0	38.0 ?		

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1855phae.proj..222B

8.3

~~7 95~~ ~~38~~ 96

Dots.

13 9 3 no sig.
6 6 51
13 9 28 no sig.
11/12 4 27 blue.
12 0 39

B. D.

12 8 10 1st wire lost – before wire ~~a~~ occidental
11 8 11 2d lost
10/11 9 10 no sig
12 3 40 Spruce 4 stars ~~a~~ # dft 3" side
12 1 6

Dots.

12 2 49
11/2 10 10 no sig.
12 3 58 no sig.
11/12 4 30
12 0 24

D. B. D.

12 1 42
12 1 20
12 5 22 ~~2 wire~~
12 1 51
12 2 34
9 9 19 2d wire lost
9/10 1 41 no sig
9/10 8 00
10 4 9

B.

12 9 28 Dec. 2
11/12 3 41 no sig
11/12 8 30
11/12 8 18 ½ two tube ~~1~~
12 7 58
11 10 01 no sig

D. B.

10 9 11
10 8 22
12 7 15 ~~the double star~~
11 4 54

12 9..04
6 6..54
12 7..28 cent ns
12 4..27
12 0..39

D B

12 8..11
11 8..12
10 9..16 ns 1 wire out (12 5..22 Double 13 on 12 s.p.
12 2..06 2 wire lost
12 3..41
12 1..07

B

12 2..49
12 10..10 1st wire lost
11 3..58
10..11 4..31
11.12 0..27

D B D

12 1..44 12m 3..00
12 1..22
10.11 5..25 ~~lost 5 wires~~
10.11 X 5..53 cent
10.11 2..35 ~~[illegible]~~
9 7..21 cent
9 1..41 on
9 10 8..03
10.11 4..09

D

X.. [7..28 cent. seen]
#11 3..44 10 6..31 ns
10 6..31 cent
9 8..20
12 5..58 cent
10 – 0..01

B

9 9..12
9 8..23
12 7..15
11 4..56

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1855phae.proj..22MB

9795

8m 54.8 58.7 ⊙

29 59.8 63.8

. . . .

30 31.7 35.6

31 14.8 18.7

" 38.5 42.2

49.6 53.7

32. 23.7 27.7

29.5 33.5

43.7 47.8

—— . . . .

33 44.1 ——

47.8 51.7

34 44.8 53.7

51.1 ——

35 22.9 26.8 no arc [10.11 08 2..09]

42.5 46.6

43.8 47.9

. . . . —— . . . .

36 46.5 50.5

37 53.0 07.0

30.1 34.1

38 27.2 ——

31.0 35.0

——

39 32.9 37.0 a

—— 41.0

39 ~~——~~ ——

39 ~~——~~ 43.8 ×

40 30.9 : 34.8 :

. . . .

54.3 58.2

42 55.3 59.2

43 19.9 23.9

27.8 31.5

44 50.1 54.0

—— . . . . ——

46 29.1 33.0

9896

7..28..54.5 58.2

29..59.6 3.6

BB

30..31.4 35.4

31..14.3 18.4

31..38.3 ~~42.0~~ 31..42.0 45.8

31..49.3 53.3

32..23.3 27.4

32..29.0 33.0

32..43.4 47.3

D

33..43.8 48.0

33..47.6 51.5

34..49.7 53.7 34..50.9 54.9 ?

35

35..5.7 9.6 ~~Motor pot. this~~ 19.1 am
{8 2..09 & 10.1 mag.

35..

35..43.9 48.0

B

36..46.2 50.1

37..2.9 6.8

37..30.1 34.0 37.5 ~~46~~ 58.6

38..26.8 ~~30.9~~

38 30.9 34.7

D

39..32.4 ——

39..36.8 40.7

39..37.0 41.0

40..30.5 34.4

40..53.9 57.9

~~B~~

42..55.0 59.2

43..19.7 23.7

43..27.4 31.4

44..49.8 53.8

BB

45. 45..22.0 26.0

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1855phae.proj..222

1895

11 1 33 } noisy.
11 1 42 } bkt. bkt - Nearly same R.
12 4 27 - bright than red 32 bkt

D.

12 0 44
12 8 20
12 2 10
9/10 6 13
11 9 27
11 7 47 noisy
11 8 40

B.D.

11 8 27 2d wire lost.
11 10 10
12 4 30
12 9 6 2d wire lost noisy
12 1 4 12 bkt
12 −0 12
12 0 18

D.B.D.

12 0 30
9/10 8 45
12 1 30
12 7 9 2d wire bt
10/11 7 10

B.

11 2 17
10 2 10 noisy 1st wire lost
10/11 2 29 2d wire bkt
12 2 59 noisy 1st wire lost
11/12 8 01 by eyepiece

D.

12 8 30 noisy.
12 6 32
12 1 43
8 6 37
10 9 3

B.D.B

13 9 14

1896

11 7..35 compn. 11 mag 8" n. p. – another star 7' north of this star

11 4..27

BB

12 0..44
11.12 8..21
12 2..21 cent. 2 wire lost −0.23
9 6..15
10..11 9..27
11 7..47 ns
12 6..41 cent

D

10 6..26 cent
10.11 10..12 ns
12 4..31 (12 7..08 ns) [0h36 36.8 −0..10 11.3
12 β 9..02 cent
Should be 0..56 probably
12 −0..10
[0..20]

BB

12. 0..31
10 8..46
12 1..30 12 — 0..10
12 7..12 2 wire lost
10.11 7..11 ns

D

11.12 2..17 2 wire lost
10 2..12
11 2..31 ?
12 2..58 There appears to be bad image to this star
12 8..03

Group of bright stars

2..31	32..42.8
2..58	32..45.8
8..03	33..36.3
6..33	34..00.0

BB

12 6..33 cent
12 8..33
12 1..44
7 6..86 yellow
7/10 9..37

BB 12 0..18

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1855phae.proj..222B

~~1795~~ 48..02.5 16 1855

~~1796~~

46	53.5	57.9 ⊖	
47	—	07.0	
	56.2	00.0	
48	42.6	46.5	
	—	50.9	
	48.6	52.5	
49	09.8	13.6	
	—	. . . .	
49	27.8	31.5	
50			
	29.0	33.0	
	54.2	55.2	
51	10.3	14.2	
	22.5	26.3	
	54.4	58.2	
52	00.4	4.3	
	—		
52	14.3	18.2	do these belong to Summerlin
	38.0	42.0	noisy
	47.3		
	59.9	363.9	
53	13.8	17.9	
54	17.9	21.9	
	54.0	58.0	
	. . . .		
54	40.8	44.5	
	58.0	62.0	
55	30.0	—	
	47.2	51.0	
	57.0	61.0	
56	02.8	06.8	
	31.3	35.1	
	42.7	46.8	
	. . . .	—	
57	34.5	38.3	
	35.8	39.7	
59	20.0	24.1	
	20.9	24.9	Now in clouds

Much one of the Comet from my observations

7..	46.. 53.5	57.5	
	47.. 2.9	6.9	
	47.. 56.0	59.9	(Dec 2..06 48,,18.8 22.9)
	48.. 2.5	6.4	
	48.. 42.3	46.8	
	48.. 46.7	50.6	
	49..		49..
	49.. 9.4	13.4	
		B	
	49.. 27.3	31.3	
	50.. 28.8	32.8	
	50. 51.2	55.3	
	51.. 10.0	14.0	
	51.. 22.2	26.2	
	51.. 54.1	58.0	
	52.. 0.0	4.1	
		B	
	52.. 14.0	18.0	
	52.. 35.7	39.6	
	52 37.8	41.8	
	52.. 43.0	47.0	
	52.. 59.7	3.7	
	53.. 10.2	14.3	
	53.. 13.6	17.5	
	54.. 17.6	BB B 21.5	
		B	
	54.. 40.3	44.2	
	54 57.8	1.9	
	55.. 29.7	33.6	
	55.. 46.8	50.9	
	55.. 56.8	0.8	
	56.. 2.4	6.4	56.. 10.4 14.5
	56.. 30.9	34.9	
	56.. 42.3	46.4	
		B D	
	57.. 34.2	38.1	
	57.. 35.3	39.3	58.. 03.1 7.2
	59.. 19.8	23.9	58.. 5.1 9.1
			58.. 58.2 2.2
	59.. 20.3	BB 24.5	59.. 1.6 5.6

81..37 m12

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1855phae.proj..222B

~~97 55~~

7 12
11 9 37 no sig 1st wire lost
3 29 blurish

10/11 6
12 1st wire lost
12 5-39
11/12 3 03
B. D.
11 2 11

~~12~~/13 8 19
12 8 01
11 5-29
8/9 3 39
12 7 12
11/12 0 40 no sig.
B.
12 6 41 no sig 1st lost
13 0 34

~~8/9~~ -0 11
~~11 +0 3~~

10/11 1 42
D.
11 5-33.
~~13~~ 5 27
12 9 22 2d wire lost.
12 5 30
12 8 41 noisy
10/11 7 30
~~9~~/12 8 29
9/10 5-43
D.B
10 10 13
12 6 53 ~~1st lost~~ noisy.
11 9 41
11 4 51 no sig 2d wire?
BDB

~~98 56~~

12 7.12
12 9.26 cent
12 3.41 cent blue color not noticed
12 1.41 ms R 7.48.02.5
12 1.46
12 2.06 2 wires
10 5.00 cent 11 6.09 ms
10.11 3.04
B
11 2.12

12 8.19
12 8.01
11 5.28
9 3.38
12 7.12
10 0.41 ms
B
12 6.42
12 0.28 cent
12 8.37
11 −0.12 ms
8 −0.21
11 1.26 11 0.40 ms
BBB
10 1.43
B
11 5.34
12 5.27
12 9.24
12 5.31
12 8.41 ms
11 7.31 12 0.00
10 8.29
11 5.45
B D
10 10.13
11 6.55 ms
(10.11 9.42) 12 5.27 12 3.54 ms
(11 4.53)

~~5.27~~
12 3.54
12 0.28
12 1.37

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1855phae.proj..222B

9795

0 40.7 44.7
1 1.9 5.8
1 31.0 34.8 (-)
2 39.1 43.1
3 8.1 12.1
23.8 27.9
26.2 30.2

4 00.2 04.2
10.1 13.8 ⊗
55.9 59.8
5 18.1 22.1
58.0 61.9
6 20.4 24.5
59.0
7 7.1 11.0
28.8? 33.0
30.3 34.5
8 00.4 04.5
8 31.1 35.1
57.2 61.0
9 11.2 15.2
30.3 34.2
10 7.8 11.8
19.0 23.0
36.3 40.1
11 00.0 04.0
19.0 23.0

12 39.1 43.0
14 22.8 26.7
30.5
16 44.3
47.1 51.1
56.0
16 16.7

9896

8 00 40.5 44.4
1 1.8 5.7
1 30.7 34.8
2 39.0 43.0
3 7.8 11.9
3 23.4 27.4
3 26.1 30.0
D B
3 59.9 3.9
4 9.7 13.6
4 55.5 59.5
5 18.0 22.0
5 57.6 1.7
6 20.2 24.2
B D
6 54.7 58.7
7 6.9 10.9
7 28.4 32.4

8 00.2 4.1
8 30.7 34.8
B
8 56.9 1.0
9 10.9 14.9
9 29.9 33.9
10 7.5 11.6
10 18.8 22.7
10 36.0 39.9
B
10 59.6 3.8
11 18.8 22.7

12 38.8 42.7
14 22.4 26.4
14 30.0
B B
15 40.2 44.3
15 47.4 51.4
16 16.0 20.0

14 16.0 20.0
14 48.6 52.6
15 23.5

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1855phae.proj..222B

~~9795~~

~~[illegible]~~ th 12 2 16
~~[illegible]~~ 12 0 20
~~[illegible]~~ 12/13 – 0 7

11/12 0 21
11 7 28
12 5 6
12 6 30 no sig.

B.

12 8 59
12 8 59
12 8 48 Very few stars
12/13 8 38
12 3 29
12/13 6 42

D.

12/13 3 54 1st wire lost no sig
12 7 5 no sig
12 5 36 comp.
13 5 10
9/10 1 03
12 8 4

B.D.

12 5 7
12 3 37
11 8 2
13 2 34 short signal.
12 5 11
12 9 10

D.B.

12 2 26 no sig. occ ?
13 5 36 vacancy.
[illegible]
12 8 19 steady light. no star above 16th w.
12 3 46
12/13 1 58 no sig. 1st wire lost

D.

12 9 43 no sig 2d lost
12 7 8 no sig 1st lost does this belong to next ?
12 8 26 no sig
12 0 12

~~9896~~

12 2 17 ~~[illegible]~~
12 0 18 1 27
12 – 0 06 10 11 9 42 11 4 53
11 [illegible] 0 22 B3
10.11 7 27
12 5 08
12 6 31 ns

D B

12 8 59
12 8 59
11.12 8 48
12.13 8 39
11.12 3 28
12 6 44

B D

12 4 00
12 7 07
11 5 36 comp 12 mag 3" s.p.
13 5 10 No 12
9 1 03
12 8 05

B

12 5 07
12 3 37
10.11 8 03
12 2 36
12/13 5 14 comp. 13 mag. 12" s.p. Red
12 9 11

B

12 2 47 cent
12 5 35

10 8 19 12 0 11
11.12 3 46 ns
12 1 56 ns

B B (12 0 59) (12 5 47)

12 9 43 (12 6 26)
11 7 35

9 – 0 11 this belongs on next page

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1855phae.proj..222B

~~97~~ 95

8h	17m	24.1	28.0
	18	39.6	43.5
		52.0	56.0
	19	34.4	38.4
	20	9.0	12.9
		18.1	22.1
	21	22.9	26.7
		59.1	63.0
	22	30.3	34.1
		58.2	62.3
	23	51.7	55.6
		57.9	61.8
	24	—	38.0
	25	14.2	18.2
		29.6	33.5
		39.9	43.8
	28	08.4	12.8
		29.8	33.8
	30	28.3	32.4

~~98~~ 96

8..	17.. 23.8	27.8
	18.. 39.4	43.3
	16.. 51.6	55.8
	B B B	
	19.. 34.0	38.0
	20.. 8.7	12.7
	20.. 17.8	21.8
	21.. 22.4	26.5
	21.. 58.9	2.9
	B D	
	22.. 29.8	33.8
	23.. 51.4	55.3
	23.. 57.6	1.6
	24.. 33.9	37.9
	B	
	25.. 13.7	17.7
	25.. 14.0	18.0
	25.. 29.0	33.0
	25.. 39.4	43.4
	B B	
	28.. 8.7	12.6
	28 29.4	—
	30.. 28.2	31.2
	B	

27.. 43.6 47.6

28.. 32.8 36.8
28.. 33.9 37.9

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1855phae.proj..222B

~~47~~ 95

10/11 — 0 11
13 0 24
12 6 ~~44~~ 13

B

13 9 43
12 5 20
10/11 3 14
13 10 8
9/10 7 54

D.B

8 10 3 Catalogue Star
13 ~~6~~ 27
13 8 12
12 —0 11 noisy Star Z
12/13 10 22 1st Nr ?
hazy

B.D

12/3 4 28 2° lost
12 5 47 1st lost.
12. 8 00
13 8 19

D.B.D no star above 8th mag in field

13 9 02
12 5 30 another shooting star going north to thwright
13 0 4

Notes. for determination

VACANCY

13 8 27
13 10 20 2. lost.
13 10 29 1. lost. n.s.
13 5 48 2 lost.
13 4 46
13 7 39
12 3 5

Mary

~~48~~ 96

12 0..25
12 6..15
B B B
12 9..43
12 5..21
9 3..16
12 10..08
9 7..56 reddish
B D
7.8 10..05

12 4..12
11 —0..11
12 10..13 east.
B
12 4..38 east
10.11 5..46
11 8..00
11 6..21 east
B B (12.13 8..21)
12/13 9..03
11 5..30 2 wire lost (12 3..22 ms) (12 3..24 ms)
12 0..05
B

In the first half of this zone the stars brighter than the 12th were much too numerous to be all observed. It is quite likely that several of the 10½ mag. escaped observation.

Towards the end of the zone the number of stars visible had greatly diminished. The difference was much more marked than will appear in the numbers observed.

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1855phae.proj..22

Zone ~~99~~ 97

G. P. B obs.
P. S. C rec.
April 3d 1855
Clear and calm
pretty good [illegible]

1st Star is 2 of Zone 97-96

P. C Set 178° 8"

Zone ~~100~~ 96

T H S obs
P.S.C rec
April 9th 1855
Clear and calm

beg 40°
Ext. Ther. end 39°

April 3d, 1855
G. P. B. Observed and P. S. C. rec.

8..	23..	56.3	0.3
	24..	32.7	36.7
	25..	12.8	—
	25..	---	16.7
	25..	27.8	31.9
	25..	38.1	42.1
		Dots	
	27..	42.3	46.3
	28..	7.2	11.2
	28..	28.1	32.2
	28	---	36.7
		B	
	30..	26.9	31.0
	30..	45.9	49.8
	30..	53.9	58.0

April 9th 1855
T. H. S. Observed and P. S. C. rec.

8h	23.	56.4	60.4
	24.	32.7	36.3
	25.	13.0	—
	25.	—	16.9
	25	27.9	31.9
		38.1	42.0
		—	
	27	42.3	46.3
	28	7.1	11.2
		28.2	32.1
		32.9	365
		. . . .	
	30	27.1	31.0
		—	50.0
		53.8	58.0

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1855phae.proj...222B

Zone ~~99~~ 97

Zone ~~100~~ 98

R Cat. Stars - Dec " 1855 May 7

	h	m	s	°	′	″			″	
8	22	29	.15	40	" 30	.. 04	.2	7h	2	20
8	45	31	5.91	+ 23	6	"5			8.9	
	51	44	.24		21	8.7			9	
	54	53	.01		25	10.1			9	
9	6	27	.48		24	34.2			8	
	13	29	.77		26	29.4			9	
	21	26	.57		26	41.9			9	
	30	29	.41		19	47.2			8	
	34	58	.16		22	41.7			7	
	38	20	.53		28	34.2			9	
	42	12	.96		23	48.3			9	
	42	46	.61		25	49.0			8	
10	0	2	.89		28	56.2			9	
	6	31	.02		~~20~~	6.5			4	
	7	23	.37		26	3.7			9	
	17	26	.08		19	59.0			8	
	33	45	.23		28	50.0			7.8	

11 — 0.10
12 10.13
11 4.37 2d last
11 5.47 1st last ns
10-11 8.01
12 6.21

Dots

12/13 8.21
12/13 9.04
11 6.31
12 3.35 noisy 1st two last double comp 12.15"SP

B

11 0.04
11/12 1.46
12 0.41 noisy

11/12 — 0.7
12 10.17
11 4.40 2d last
11 5.51 1st last ns
~~10~~-11 8.04
12 6.23

Br.

12.x2 8.25
12 9.07
11 5.35 doubt.
12 9.38 Comp 12/13 16"2p2"S

Dots accidental touch

11.12 0.08
12 1.49 noisy 1st one wrong
12 0.46

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1855phae.proj..22?B

97 99 20 to 30 100 98

D B

8.. 32.. 23.9 27.9
33.. 28.4 32.4

34.. 32.8 36.9
34.. 39.9 43.9
35.. 13.8 17.8
35.. 44.7 48.8

B. D

36.. 17.1 21.1
37.. 3.7 7.7
37.. 11.1 15.0
39.. 20.1 24.1
39.. 23.4 27.2

D B. D

40.. 16.2 20.2
40.. 23.0 27.0
41.. 47.0 51.0
42.. 26.0 30.0
42.. 44.3 48.3
42.. 49.0 53.0
42.. 59.9 4.0
43.. 0.7 4.7
43.. 45.7 49.6

B

44.. 34.3 38.4
44.. 57.6 1.6
45.. 8.6 12.5
45.. 31.2 ....
3....2 35.2

B D B

47.. 12.7 16.7
47.. 27.2 31.1
47.. 30.7 34.7
47.. 52.9 56.9
50.. 2.4 6.3
50.. 12.9 16.9

D

51.. 30.1 34.2
51.. 44.0 48.0

8h

34m 39.7 43.9
35 13.8 17.9
44.8 48.6

37. 3.9 37.8
11.0 15.0
39 20.1 24.0
23.5 27.1 There is another mark between these two

40m — 27.0
41m 47.2 51.0
42m 29.5 29.9

42 59.9 63.7
43m 0.6 4.2
45.8 49.8

44 34.4 38.7
57.7 61.1
45 8.3 12.4
31.4 35.4
— 35.4

47 13.0 16.8
27.7 31.5
30.5 34.9
53.0 56.9
50 2.3 6.4

51m 30.2 34.0
44.1 48.0

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1855phae.proj.2228

99 97 20' to 30' 100 98

	Sets Break		Sets Break
12/13	7.39		too small for obs.
12	0.58 followed by a double star of 13th mag.		not seen
12	6.21 2d Last	2.6.18	1st Last ns
12	6.02 1st Last noisy	116	6.8 ns
11	1.59	11	2.04
12 B	6.47	12	6.51
	B.D. Full Moon		BD B
12	10.8		
12	8.4	11.12	8.7
12	8.42 noisy	11	8.45
10/11	8.27	10	8.31
12	7.16 Double Com 13th SE d=11"	12	7.19 Comp 12 d=10" SE
	D. B. D.		B
12	0.48		
12	3.00 ns double Comp 12/13 SF 13"	12	3.01 1st Com Last comp 3.f.14"
12	0.19	11.12	0.22
11/12	2.41	12	2.44
12	8.58		
12	7.22 2d L.?		
11	10.29	11	10.24
11	10.9 noisy	11	10 15 ns
11/12	5.48	11	5.51
	B		D
11	4.46	10.4	4.51
11/12	7.38	10-11	7.41
11/12	7.07	10	7.39
10/11	0.13 2d Last	10.11	0.17 is 2d Com not Last
9	3.06 noisy 1st Last Cat. Star 8		3.10 1st " "
	B. D. 13		BD
11/12	3.24	10-11	3.28
12	0.00	11	0.04
10/11	0.7 ns	10	0.10 ns
12	3.09	11	3.12
9	0.41 Cat. golden colour	10	0.41 red?
12/13	5.40		
	D		B
11/12	2.59	10-11	3.04
9	1.08 Cat. Star not so bright	10	1.13 not quite so bright

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1855phae.proj..22FB

~~9957~~ 20′ to 8′ 98

8.. 51.. 59.0	3.0
53.. 45.0	49.1
54.. 8.6	12.5
54.. 21.9	25.9
B. D	
54.. 52.8	56.9
55.. 46.2	50.2
57.. 31.6	35.4
8 57 38.7	42.7
B D B	
9.. 00.. 18.5	22.5
0.. 19.0	23.0
2.. 15.3	19.3
2.. 47.2	51.2
2.. 48.3	52.4
3.. 11.2	15.2
3.. 20.0	24.1
3.. 31.8	36.0
D B D	
4.. 30.9	34.9
4.. 59.7	3.7
6.. 27.0	31.0
7.. 21.0	25.0
7.. 48.2	52.2
8.. 21.6	25.7
8.. 49.8	53.9
9.. 5.6	9.6
9.. 23.2	27.2
D	
10.. 20.0	24.0
10.. 49.0	53.0
11.. 18.9	23.0
11.. 45.0	49.0
12.. 34.0	38.0
B B	
13.. 13.9	17.8
13.. 29.5	33.5
13.. 39.6	43.5

8h	52m —	3.1
	53„ 44.9	48.9
	5	
	. . . .	
	54„ 52.8	56.9
	46.3	50.0
	57„ ~~36~~	35.3
	38.4	42.6
	.... —	
9h	0„ 18.7	22.7
	19.1	23.2
2m	15s.3	19.3
	47.3	51.4
	48.2	52.4
3	11.2	15.3
	20.1	24.0
	32.1	35.9
	— — —	
4	30.8	34.8
	59.8	63.7
6	27.2	31.0
7	20.9	24.9
	48.2	52.3
8	21.7	25.7
	49.9	53.7
9	5.6	9.7
	23.2	27.3
	— .... —	
10	20.4	24.0
	49.2	53.1
	19.1	22.9
11	45.1	49.0
12	34.2	38.1
	. . . — . . .	
13	14.0	17.9
	29.7	33.4
	39.8	43.7

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1855phae.proj..2228

99 B Star

20 to 30 98

as star 9th mag ~~immediately~~ preceding
11 8.40
12 7.49 Comp. 15 mg N.F. 12"
12 0.59
12 4.20

B.D

9 5.07 & Catalogue
12 2.46
12 8.20
12 0.03

B.D B

10/11 2.02 } very pretty double star
10/11 2.05 ns } very pretty double star
cannot distinguish any diff in mag.
12 4.44
12 4.56
12 3.54 ns
12/13 6.04
11 4.55
12 0.15

D.B.D

10/11 7.53
10/11 7.21
8 4.33 yellowish 3 12 mag
other than one not observed
12 7.12
12-13 6.14
12 1.12
11-12 8.12
11.12 3.38
12.13 9.10 Moon light very away.

D

10. 6.06
11 8.12
11-12 5.31
10-11 4.30
10.11 2.7

B. B

12 9.36
9 6.28 Catalogue
11 3.16

10.11 8.46 ns 1st lost
11 7.55 no companion!
lost
4.25 R lost

D

10th 5.12
11 2.50
12 8.24 1st lost ns
12 0.06

D.B.D.

11 2.08
11/10 2.09
1st star is 1/2 mag faster
12 4.50
11/12 5.01
11/12 3.59 ns
12/13 6.09
10/11 4.58
12 0.18

B.B B D

11 7.58
11 7.26
9 4.37 yellowish

12 7.18
12 6.19
11.12 1.16
10.11 8.16
10.11 3.43
11 9.15 doubt.

B D B

10 6.11
10.11 8.17
11 5.26 Cert
10 4.33 1 last one lost
10.11 0.12

D b D

11 9.39
10 6.81
10.11 3.32 cert

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1855phae.proj..22?B

97 ~~99~~ 20 to 30 ~~110~~ 98

9.. 14.. 32.0	36.0	9h 14m 32.0	36.2
14.. 49.7	----	47.7	53.9
15 0.0	4.0	15 00.2	04.2
15.. 22.4	26.3	~~16 26.1~~	~~30.1~~
16.. 26.3	30.5	16 26.1	30.1
D B			
17.. 41.9	45.9	17 41.9	45.9
18.. 15.9	20.0	18 16.0	19.9
18.. 44.9	49.0	45.0	49.0
20.. 7.8	11.7	20 7.9	11.8
20.. 20.9	25.0	21.0	25.0
21.. 26.5	30.4	21 26.7	30.6
21.. 32.0	36.0	21 32.2	36.2
D B			
22.. 51.9	55.9	22 52.0	56.0
23.. 10.2	14.2	23 10.3	14.3
23.. 44.0	48.0	44.1	48.1
23.. 56.2	0.1	56.3	~~59.2~~ 60.5
23.. 59.1	3.0	59.2	63.0
B D B.			
27.. 29.5	33.4	9h 27m 30.0	33.7
27.. 50.2	54.2	50.4	54.2
28.. 36.4	40.5	28 36.5	40.6
29.. 00.7	4.9	00.9	04.9
30.. 14.6	18.6	30 15.0	18.8
30.. 29.0	33.0	29.3	33.1
D			
32.. 01.2	5.1	32 01.4	05.3
32.. 25.3	29.4	25.4	29.6
32.. 49.2	53.2	49.5	43.5
32.. 56.0	00.0	56.3	60.1
33.. 10.9	14.8	33 ~~10.2~~	15.2

28.2 32.0 2

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1855phae.proj..222B

~~99~~ 97 20′ to 80′ ~~100~~ 98

12 −0.11 ~~2nd Lot~~
12 5.53 2nd Lot
11 7.17
12 10.12

Full Moon dreadfully away.

12-13 9.09
D. X
9 8.30
12 4.44
12 5.26
12 6.55
12 2.54
9 6.41 Catalogue
11 0 not obs.
12 4.46 ~~1st Lot~~
D. B
12 3.11
12 0.23
11 2.17
12-13 5.59
12 5.54 noisy
B.D.B

Dots for a whole minute
Scarcely any stars above 15th mag.

Clouds

12 2.22 very faint
11/12 1.52
12 2.45
12 9.19
12 9.28
9-12 0.15 Catalogue
D

Few Stars

10-11 8.06
10-11 6.42
11 7.15
11 4.16 hazy
10-11 1.21

clouds rather thick

11-12 −0.8
11.12 5.57
10-11 7.20

12. 9.11
B
9.10 8.34
11 4.48
11 5.31
11 6.59
11-12 2.38
9 6.45
11 4.42 hazy
D.b
11.12 3.16
11 0.26
10.11 2.20
11 6.01
10-11 5.57 hazy

Dots for a whole minute

12. 2.25
11/12 1.56
11/12 2.48 short sig.
11 9.22
11 9.31
8.9 −0.12
B.D

11 8.9
10.11 6.46 11.12 8 32 ✳
10.12 7.19
10.11 4.31
10 1.23 v.s.sy 1st dot.

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1855phae.proj..22fB

~~99~~ 97 20 to 30 98

B

9..	34..	34.7	38.8	9h	34m	34.9 38.9
	34..	57.7	1.6			57.9 61.7
	35..	34.0	37.9		35	34.0 38.1
	~~36.. 52.8~~		~~56.6~~			59.2 63.1 36m 2s.1 6s.1

	36..	52.8	56.6		36m	53.0 56.9
					37	15.0 18.9

B D

	38..	20.5	24.5		38	20.8 24.9
	38..	~~28~~.4	32.4			28.7 32.5
	38..	44.3	48.3			44.6 48.3
	39..	10.9	14.9		39	11.0 14.5

D B

	~~42~~..	12.7	16.7		42m	13.0 16.9
	42..	46.6	50.4			46.8 50.6
	43..	44.9	48.8		43m	?
	44..	49.5	53.5		44m	49.8 53.8
					45	33.3 37.1
	46..	13.0	17.0		46	13.0 17.1
	46..	53.2	57.1			53.2 57.3
	47..	34.5	38.4		47	34.7 38.7
9..	48..	45.6	49.6			45.6 49.6

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1855phae.proj..222B

99 97 20° 5 30' 100 98

B.		B. D. D.	
11	1.51	11	1.55
7	2.41 Catalogue	8	2.45
12-13	4.32	12.13	4.35
12	5.15	11.12	5.19 12 5.52 20
Moonlight interferes with estimate of magnitude			
12	10.08 1st look		
10-11	1,56	11	2.00
12	too cloudy	11	6.31
B.D.			
9	8.35 Catalogue	10.	8,39
11-12	3.18	10,11.	3.22
11-12	8.22	11	8.26
11	4.22	10-11	4.27
S.B.		B	
9	3.47 Catalogue	10-11	3.51 } Think no more diff than
8	6.47 Catalogue	8.9	6.50 } I may between them
10	10.49	10	10.52 doubt?
Low on the verge of the scale			
11	9.49	10	9.51
Clouds make it nearly impossible to observe			
12	1.44	11.12	1.39
11	5,49	11	1.47 cent.
10	10,03	11	5.54
11	8.38	9.10	10.08 certain short sig
		11	8.42

Zone given up once account of cloud

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1855phae.proj..222B

Zone ~~101~~ 99 ~~100~~ 30'–40' Zone ~~102~~ 100

First star of this zone
1855.0 { R.A. 8h 22m 29s.15
Ded. 0° 30' 4".2 mag 7. Ext ther beg. end.

April 12th 1855 April 1855
Clear and calm good seeing
H. T. S. obs. obs.
P. S. C. rec. rec.

Ther. beg. 40.5 Ther. beg.
Ther. end. 39.0 Ther end.

Position Circle
Set at 178°.10' Set at

April 12 April 16

T. H. S. Observed and P. S. C. recorded P. S. C. observed C. W. T. recorded

8.. 22.. 28.8	32.7	8.. 22.. 28.9	32.8
23.. 1.5	5.7	23.. 2.0	6.0
23.. 9.8	13.7	23.. 10.2	14.0
23.. 21.8	25.9	23.. 22.1	26.2
23.. 29.5	33.7		
D		B	
23.. 48.4	52.2		
24.. 23.5	27.5	24.. 23.8	27.8
24.. 32.8	36.8		
24.. 50.2	54.1	24.. 50.6	54.4
25.. 24.3	28.2		
B		D B	
26.. 12.1	16.1	26.. 12.1	16.1
26.. 59.2	3.1	26.. 59.6	—
27 —	7.1	27.. 3.1	7.0
D. B		D	
27.. 44.5	—	27.. 44.9	—

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1855phae.proj..222B

Zone ~~101~~ 99 ~~102~~ 30′–40′ Zone ~~102~~ 100

Catalogue Stars

Mag	R	D.	Mg 1855	R	Decl.
9	8h 19m 47.56	30° 52″.5	8	9h 2m 54.10	31′ 59″.7
7	22″ 29.15	30′ 4″.2	8.9	10″ 42.57	37′ 53.5
8	27″ 54.99	34′ 4″.2	8	49″ 58.75	35′ 10″.0
7½	39m 8.90	33′ 8″.6	8	10″ 13″ 57.06	30″ 27.9
8	40″ 8.17	36′ 25.3	8	10″ 19″ 27.83	35″ 22.9
~~8.?~~	40 8.962	33′ 6.8			
8	9 0. 7.76	38′ 31.6			

April 16 A balmy night – clear and calm
P. S. C. Observes and C. W. T. Rec.

1 2 4 23

7.	0.06	Catalogue Star	7	0..04
12.	3.06		12	3..03 color peculiar
11	6.30		11	6..32
10-11	5.09		11	5..09
11-12	4.18			
	Dots			B
11	8.38		11	~~4..11 = 4..54~~ cent ?
9.10	4.25		[11	4..54]
11	0.17			
12	2.41		12	2..42
11	9.31		12	9..30 No R
	Br			D B
11	– 0.1		11	– 0..05
11	3.44		11	3..41 2 wire lost
11	1.40 1st lost		11	1..37 ms
	D. Br			D
10-11	5.06 2d lost		11	5..07 2 wire lost

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1855phae.proj..2228

Zone +01

8.. 27 28..43.9 47.9
29.. 2.5 6.5

B D

29..17.0 20.8
29..26.9 30.5
29..27.8 31.2
29 —— 34.7
30.. 3.4 7.5

B

30..16.6 19.4
30..33.0 36.9
30..44.1 48.1

D B. D

31..59.8 3.4
32..27.4 31.5
32..48.4 52.6
33..35.5 39.5

B D B

33..56.3 0.1
34.. 6.5 10.6
35.. 5.3 9.3

D D

35..41.0 45.2
36.. 3.3 7.3
36..17.2 21.0
37..10.3 14.2

B B

38..32.1 36.1
39..15.2 18.9
39..27.1 31.1
39..47.3 51.5
40.. 7.7 11.7
40.. 8.0 12.1
40.. — 29.3
41.. 5.9 9.9

D

41..23.8 27.6

30' – 40' Zone +02

8.. 27 28..44.5 48.6
29.. 2.8 6.8

B

30..15.8 19.7
30..33.2 37.1

B B

31..59.9 3.9

32..49.0 —
33..36.0 39.9

B D

35.. 5.7 9.5

B

36..17.2 21.2
37..10.7 14.7

D

38..32.6 36.4
39..15.2 19.2

39..47.7 51.7
40.. 8.0 12.2

40.. 9.3 13.0

41.. 6.0 9.9

B

41..24.1 28.0

July Dec go thru

10h 8.. 33 ΔR = 0s.4
7h 6.. 31 ΔR = 1s.1
9h 3.. 09

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1855phae.proj..228

Zone 101 100 99

30'–40

Zone 102 100

11 6.20 1st lost

12 3.31

10-11 3.44

B.D.

12 5.18

8.27

11 10.18 ns

10 10.45 ns 1st lost

10-11 10.26

Sh.B

10 6.13 sh sig

10-11 7.14

10-11 9.6 Signal too long & too early

D. B.D

12 5.30

12 7.42

12 6.30

10-11 8.11

B D B

12 2.32

11 8.51

10.11 5.55

D. D

12 5.01

12-12 7.39

11 0.06

11 B 5.11

B B

11 4.21

12 3.47 ns

12 1.39

10 1.32

10.8 6.31 D change

10 3.31 Catalogue Star

9 3.08 ns Catalogue Star

11 8.28 1st lost

10-11 1.38

D

11 4.08

11 6.19 1st min lost [No star where the cat. star should be greater than 15 mag]

12 3.30 short sig

10 3.43

B

1 faint

10 ~~6.11~~ same

Stars disappears behind the scale

10 6.11

10.11 7.14

B B

12 5.30

12.13 7.4– No B disapp behind the scale

12 6.30 B? 2 min too

11 8.10

B D

2.

11 5.5 5'

B

two faint

12

12 0.05

11-12 5.11

D

11 4.21 comp s.p

12 3.48 [No star when the Cat. star should be]

1

10 1.32

7.8 6.31 change

10 3.33 No B

9 3.09 1 Min too bad

10-11 1.38

B

10 4.05 1 dot - per sec.

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1855phae.proj..22B

Zone +01 99

8	42 59.6	3.2
	43 0.2	4.0
	43 0.8	4.7
	43 —	8.7
	43 22.9	26.7
	D D B	
	44 9.7	13.7
	45 6.5	10.3
	45 7.4	11.2
	45 29.8	33.9
	45 —	40.6
	B B D	
	46 34.0	37.9
	47 2.3	6.2
	47 36.8	—
	D	
	49 24.8	28.9
	49 31.0	35.0
	49 46.5	51.0
	50 30.9	34.8
	B	
	51 39.9	43.9
	51 43.1	47.1
	52 25.0	29.0
	52 35.6	39.9
	52 56.7	1.0
	53 9.0	12.9
	D B	
	53 27.2	31.0
	53 32.4	36.5
	54 9.2	13.3
	54 25.0	28.9
	D D	
	54 48.0	52.0
	54 58.1	2.0
	D	
	56 30.0	34.0

30′ – 40

Zone +02 100

8	42 59.7	3.7
	43 5.0	8.9
	43 23.0	26.9
	D B	
	44 10.2	14.0
	45 6.9	—
	45 —	11.5
	B	
	46 34.2	38.1
	47 2.8	6.8
	B B	
	49 24.9	28.9
	50 31.1	36.1
	D	
	51 39.9	44.2
	51 43.4	47.3
	52 25.3	29.3
	53 9.3	13.5
	B	
	54 9.8	13.8
	54 25.4	29.6
	54	
	54 58.2	2.3
	B B	
	56 30.3	34.2

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1855phae.proj.:222B

Zone +01 — 30′ — 40′ — Zone +02

9-10	5,63 99	9.10	5..53 cent 100
11-12	0,32 ms		
11.12	0.22 ms		
10	4.38 1st lost ms	10	4..38 ms
10	8.31	9.10	8..31
	D. D. B		D B
12	3.32	12	3..22 sure
11-12	6.40	12	6..41 2 wire last comp s.p
11-12	5.34 ms	12	5..33 1 wire l
12	5,45		
11 J	10.31 ms 1st lost		10..32 No R
	B. B. D		B
12	4.18	12-13	4..14
10-11	8.13	12	8..12
12.13	7 38 2d lost at		
	D 10me of the minutes		B B
	of Sts. may be wrong		
11-12	1.51	12	1..53
11.12	5.25 noisy	12-13	5.. two faint
12	4.36		
11	9.45	12	9..44
	B		D
11	5.48	12	5..45
10	9.48 the signal to this	10.11	9..52 ms
	star is between the noise of the		
	preceding star		
10-11	8.03	11-12	8..04
11-12	7.15		7
12	7.47		
11-12	5.55	12-13	5..58
	D. B.		B
11-12	2.30		
11	3.31		
9	4.03	9	4..06
11	0.52	11-12	0..59 cent
	B. D		
11	1.55	12	1..51
11	9.32		B B ?
11	1.48		
	D		
11	4.26 ms	12	4..29

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1855phae.proj..22?B

Zone 10?

8.. 56.. 31.4 35.2
56.. 55.3 59.2
57.. 4.1 8.1
57 15.0 19.0
D B D
58 9.8 13.8
58.. 25.8 29.9
8.. 58.. 53.7 57.7
B D B
9.. 00.. 7.4 11.4
0.. 13.8 18.1
0.. 59.7 3.7
1.. 56.6 0.7
D D
2.. 16.9 20.9
2.. 27.3 31.2
2.. 54.0 58.3
3.. 9.5 13.3
3.. 14.6 18.3
3.. 30.2 33.9
B B
4.. 14.1 18.4
5.. 16.7 20.4
6.. 40.4 44.0
6.. 44.0 47.9
D D B
7.. 31.0 35.0
8.. 50.0 54.0
9.. 14.5 18.3
B B D
9.. 40.9 45.2
45.2 49.0
10.. 20.5 24.3
10.. 27.4 31.1
10.. 42.3 45.8
B
11.. 23.9 27.8
11.. 30.2 33.9
12.. 45.2 49.2
D D D

30'-40

Zone 10 n

10 D

8.. 56.. 31.9 35.8
56.. 55.8 59.8
57.. 4.3 8.2
57.. 15.4 19.5
D B
58.. 26.1 30.3
8.. 58.. 54.1 58.0
B
9.. 0.. 7.9 11.9
1.. 57.1 —
2.. 17.2 —
2.. 27.5 31.7
2.. 54.6 58.6
3.. 10.0 13.9
3.. 30.6 34.6
B B
4.. 15.0 —
5.. 18.9 21.0
6 — 44.4
6 — 48.3
B
7.. 31.5 35.3
9.. 14.9 18.9
B D
C
10.. 42.8 46.8
B B
#..
11.. 30.9 34.6

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1855phae.proj..222B

Zone 101 — 30 — 40 — Zone 102

97 — 100

11 3.06 ns
12 5.18
11 7.45
~~11~~ ~~D~~. 8.13
~~11~~ D.B.D
12 6.24
11 4.32
11 2.28
B.D.B
9 8.38 Catalogue Star
11.17 7.03
11.12 8.53
11 8.1
D.D
10-11 9.12
10.11 7.19
9 2.3 Catalogue Star
10 6.56
11-12 9.41 ns
11 ~~B~~ B 9.20
B.B
11 9.15
11-12 3.07
12 0.51
10-11 3.57 ns
D.D.B
10-11 2.31
12 5.41
11 5.35
B.B.D
11.12 9.52
12 1.06 ns
12 10.05
12 2.19
9 7.57 2d time to time
Sh B
~~11~~-12 3.3 ns
11-12 3.5 ns
12 6 89
D.D.D

12 3..09
12 5..18
11 7..49
11-12 8..18
D B
Sum
12 4..37
12 2..30 ns
B
9 8..41
11 12 8..04 Sum 2 wire lost
10-11 9..13 2 wire lost
11
11 7..20
9 2..09
10 7..00
11 9..20 ns
B B
12 9..20 2 wire lost
No stem in field
12 3..10
12 0..50 1st wire lost
11 4..00 1st wire lost
B
11 2..32
12 5.. two point
11 5..36
B D
Not seen
9 8..00
B B
12 3.07

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1855phae.proj..22?B

Zone ~~19~~ 99 30′ 40′ Zone ~~10~~ 10 D

9	13	33.4	37.3		
	13	41.8	45.2		
	13	53.1	56.7		
		B	B	B	
	15	22.7	26.9		
	15	29.9	34.1		
	15	48.9	53.0		
		Dots			
	18	01.0	5.0		
		No record			
		D			
	20	49.1	53.0		
	20	53.7	57.8		
	21	13.9	17.6		
	21	26.9	30.9		
		B			
	22	3.0	6.8		
	23	52.1	56.3		
	24	42.9	46.7		
		D	B		
	25	23.8	27.4		
	25	24.8	28.9		
	27	34.8	38.2		
	27	46.3	50.6		
		B	D		
	28	59.1	3.1		
	29	0.9	4.9		
	30	14.6	18.9		
	30	26.2	30.7		
	30	45.1	49.2		
		D	B	D	
	32	30.0	33.8		
	34	7.0	11.0		
	34	20.3	24.3		
	34	—	29.1		

9	13	—	45.5		
	13	53.6	57.3		
		B	D		
	15				
	15	30.5	34.4		
	15	49.3	—		
		B			
	18	1.3	—		
	19	42.8	47.1		
	19	48.6	52.5		
		D			
	20	49.2	53.1		
	21	14.0	17.9		
		B			
	22	3.2	6.9		
	23	53.0	56.9		
		B	B		
	25	24.0	28.0		
	27	35.4	—		
	27	46.8	50.8		
		B			
	28	59.4	3.4		
	~~30~~				
	30	26.9	30.8		
	32	30.2	34.0		
		D	B		
	34	7.0	11.0		

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1855phae.proj..222B

Zone +99

12 3.54
11-12 3.07
10-11 5.44 2 Signals
B.B.B
12 0.15
11 4.51
11-12 8.17
Dots for a whole minute
11 7.31
11 5.46
11 7.50
12 4.49
Dots
11-12 2.19
12 3.27 nwdj
12 2.09
12 2.22
PB
11-12 6.29
11 6.09 double signal
11 10.29
Dots Break
11-12 2.38
11-12 4.50 double star? The companion
12/13 is about 16" distant S.P.
12 7.55
10-11 9.58
B.D
11 2 36
11 − 0 37 ns
11-12 − 0 27
11 1.51
11 0.0
D.B.D
11-12 2.44
No stars in field above 14th mags
12 4.2
12 0.36
12 4.26 1st lost

30-40

Zone +102

12 3.08 1st win lost
11 5.47
BD
12 0.18 No R
11 4.51
12 8.19 ns 2 win lost
B
18 7.29 Some 2 win lost
11 5.49
11 7.51 ns
4 no faint
D
11-12 2.20
3 no faint
13 2.09
B

12 5.30 No stars in field above 14 mag.
12 6.09
12 10.39 Some R? 2 win lost
BD
12 2.42
Sun

12 7.57 2 win lost
10.11 [redacted] 10.00
B
11 2.35
~~0 30~~

11 1.56 No star in field above 15 mag

12 4.48
DB
12 4.03

4

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1855phae.proj..222B

Zone ~~101~~ 99 30 - 40' Zone ~~102~~ 100

B D B

9.. 34.. 59.4 3.4
36.. 8.2 12.1

D D D

37.. 26.7 29.9
37.. — 33.2
37.. 46.4 50.4
38.. 44.0 —
38.. 47.1 51.0
38 — 53.6

B B B

40.. 2.3 6.5
40.. 43.1 46.9
42.. 8.5 12.4
42.. 21.0 25.0

D

42.. 59.9 3.8
43.. 45.2 49.2
44.. 44.0 48.0
44.. 50.0 54.1

B

9.. 34.. 59.8 3.8

36.. 8.5 12.3

B D

37.. 26.4 30.3

37.. 46.9 50.8

38.. 47.2 51.3
38 — 54.0

B

40.. 2.6 6.7

42.. 21.2 25.2

D B

43.. 00.0 4.0
43.. 45.5 49.4
44.. 44.4 —
44.. 50.2 54.0

B

46.. 22.3 26.2
46.. 36.7 39.2
46.. 56.8 0.8
47.. 34.8 38.6
48.. 28.5 32.3
48.. 38.2 42.0

D D

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1855phae.proj..222B

99

Zone 101

B. D. B

12. 2.50

12 4.57 not observed

12 0.39

D. D. D

12 8.47

12 3 59 1st lost

12 3.39.

12 5.21 ns 2d lost

11 10.22 ns

11-12 4.45 1st lost ns

B. B. B

11. 12 1.19

11. 12 9.33

12 8.46

11 0.24

D

11 4.24

10 0.51

12 5.32

10 not observed

B

Circuit broke
stars lost here on account
of lamp

Lamp went out.

30 – 40′

100

Zone 102

D

11.12 2..50

12 4..58 No B

12 0..39

BD

12 8..49

13 3..39

11 10..31 ns

11 4..45 1 wire lost ns

B

12 1..20

12 ~~9..3~~

12 Sun too faint

11 0..26

D B

11 4..27

10 0..53

12 5..30 2 wire lost

10 −0..08 double comp. 15 may n.p

B

12 4..33

12 9..28 ns

12 2..12

9.10 0..07

12 3..40 ns

9-10 8..39

DD

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1855phae.proj..22?B

Zone ~~101~~ 99 . 30'–40' Zone 102 100

9.. 49.. 58.8	2.8	
50.. 0.9	5.0	
51.. 14.5	18.4	
51.. 19.1	23.2	
52.. 1.7	5.8	
D D		
53.. 8.9	13.1	
53.. 13.5	16.8	
54 9.4	13.6	
54 10.3	14.2	
B B		
55.. 31.8	35.8	
55.. 54.1	58.2	9.. 55.. 54.3 58.4
56.. 7.5	11.5	56 7.9 11.8
56 —	16.7 ?	
56.. 22.1	25.9	56.. 22.5 26.5
D B		D B D
56.. 47.1	51.0	56.. 47.3 51.2
57.. 43.6	47.5	57.. 43.7 47.7
57.. 50.3	54.2	5
9.. 59.. 37.6	41.6	9.. 59.. 38.0 41.8
10.. 0.. 6.1	10.2	10.. 0.. 6.4 10.4
0.. 12.9	—	This star not obs. in Zone 102 0.. 30.9 35.4
B D		B
1.. 45.6	—	1.. 45.9 50.0
1.. 48.0	—	
1.. 52.2	55.9	1.. 52.2 56.2
2.. 1.0	4.8	2.. 1.1 5.0
D D D		D
2.. 36.9	41.1	2.. 37.0 41.0
3.. 5.2	9.0	3.. 5.6 9.7
3.. 54.5	58.5	
4.. 56.9	0.7	4.. 57.1 1.1
B D D		D B
5.. 46.5	50.2	5.. 46.8 50.8
6.. 28.7	32.4	6.. 29.0 32.8
9.. 5.7	9.7	9.. 6.2 10.0
10.. 5.1	9.1	10.. 29.7 33.5 10.. 5.4 9.6 10.. 30.0 —
D B D		B D B

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1855phae.proj..222B

99

Zone +01

9. 5.13
12 1.34 ns
11-12 8.41
11-12 4.48
12 8.26
D. D
12 9.41
12 −0.14 1st w. too late noisy
12 6.54
11-12 7.49
B. B
12 9.04
11-12 9.28
11 −0.09
11 6.42 1st lost
11,12 1.31 ns
D. B
11 8.38
11-12 3.81
11-12 0.52
10-11 5.65
11 7.08
12 4.40 2d lost
B. D
11 5.37 2d l
11-12 −0.11 2d l
10-11 6.15
10 2.38
D. D. D
10-11 7.9
11-12 6.9
11.12 8.8
11 2.16
B. D. D
10-11 3.09
11-12 5.46
12 9.22
12 0.28
D B D

30 – 40'

100

Zone +02

9 5..15 comp 15 may
12 1..28 1st w in lost ns
13 4..23 2 w in lost
12 4..40 1 w in lost
B
12 9..45 No. R
12 −0..15
12 6..53
12 7..50 ns
12 BB 5..06
12 9..30
11 −0..09
12 1..30
D B D
11 8..40
12 3..30
12 0..53 ns
11 5..55
12 7..09
13 4..46 ns
B
12 5..34 ns
11 6..17
11 2..38 ns
D
11 7..09
11-12 6..10
4..07 N R
12 2..16
D B
11 3..09
12 5..45 11-12 3..12 ?
12 9..29 dim
12 9..30 2 w in lost
B D B

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1855phae.proj..222B

99

Zone 101

10.. 12.. 13.3 17.2
13.. 8.0 12.0

D D B

B B B

18.. 2.5 6.5
18. 15.9 20.0
19.. 15.5 19.5
19.. 27.9 32.1
D B B
21.. 25.0 29.1
21.. 31.4 35.4
21.. 48.9 52.8
24.. 9.8 13.9
24.. 21.8 25.7
24.. 25.1 29.2
24.. 38.4 42.6
B. D. B.

Star x = 1° of 105

100

30' - 40' Zone 102

10.. 12.. 13.5 17.3
13.. 8.3 12.2
13.. 57.2 1.2
14.. 5.0 8.9

B

16.. 31.1 35.1

B B

17.. 20.6 24.5
18.. 3.0 6.9
18.. 16.8 20.8

19.. 28.3 32.2
D B
21.. 25.5 29.2
21 31.7 35.6
21.. 49.2 53.2
24.. 10.2 14.2
24.. 22.2 26.3
24.. 25.8 29.8
24.. 39.0 43.0
B

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1855phae.proj..222B

Zone 99 lot		3°-40'	Zone 100	
8	1.05	8	1..03	
10.	4.13	10	4..12	
9	0.31 Catalogue Star	9	0..29	
12	5.14	12	5..11 ns	
12	2.2 not observed		2..	10..19
	D.D.B		B	12 15
11.*	4 41	11	4..39	5 6
12	6 3 = not observed			
11-12	1.19			
	B. B. B		D B	
12.	4.01	12	4..02	
10-11	8.21	10	8..21	
10-11	9.32	10	9..33	
12	6.43	12	6..4' N & R	
9	5.27 Catalogue Star	9	5..28	
	D.B B		D B	
12	0.30	12	0..28	
11-12	3.21	12	3..23 ns	
11-12	3.31	12	3..30	
11-12	7.18	11	7..18 comp n.f.-close	
11	7.51	11	7..52 ns	
12	7.30 ns	12	7..30 ns	
11-12B	8.31	11.12	8..32	
	BD.B		B	

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Apr 9 17 8 8
12 17 8 10
March 27 17 8 10

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