

KG
11365
215

K.5

1
Zones No 5-
From
Jan 1853
To

KG-11365.215

KG 11365.25



1853 Saturday Jan. 11th 1853ref. cor
Pat. 90° 2' + 0" 30"

^{h m}
E.C. 2. 48.00 Bar. 29.860 69° E. 1.294
4. 40.00 .. 29.840 69 .. 27.3

Zone 27 = 26 repeated

Telescope East of Pier

No

1	00	40	57.4	55.4	00	40	55.40
2		41	21.7	25.6		41	25.65
3		41	31.0	35.0		41	35.00
4		42	1.6	5.8		42	5.70
5		42	26.4	30.3		42	30.35
6		42	36.2	40.3		42	40.25

B.D.

7		43	50.1	54.0		43	54.05
8		44	28.4	32.4		44	32.40

B.D.

9		45	39.5			45	113.50
10		45	47.2	45.2		45	45.20
11		45	51.2	53.3		45	53.25

D

12		47	26.0	20.0		47	30.00
13		47	39.0	43.0		47	43.00
14		48	3.7	7.7		48	7.70
15		49	52.4	54.4		49	54.40
16		50	11.5	11.5		50	15.50
17		50	15.6	19.6		50	19.60
18		51	23.2	27.4		51	27.30
19		51	43.7	47.5		51	47.60
20		53	34.8	38.8		53	38.80

Break

21		56	3.0	7.0		56	7.00
22		56	4.1	8.1		56	8.10
23		56	25.7	29.6		56	29.65
24		57	6.4	10.4		57	10.40
25		57	14.8	18.9		57	18.85
26		57	47.9	51.9		57	51.90
27		58	9.0	12.9		58	12.95
28 00		58	13.9	17.9	00	58	17.85

home 27
The moon one half ill.

1 11 + 0.6.19

1 11 9.55

1 12 4.03

1 13 2.34

1 12-13 7.58

1 11 3.07

B B Possibly circuit not broken till now

1 9 6.26

1 12 1.05

D B D

1 12 1.50

1 11 0.18

1 11 5.48

D

7 8.9 - 0.35

1 11 8.11

1 12 6.41

1 12 7.54

1 11 2.16

1 11 0.27

1 10 2.12

1 12 7.12

1 11 7.53

B

1 11 2.12

1 10.11 6.51

1 11 7.24

1 13 0.54

1 12 4.35

1 13 9.21

1 12 8.53

1 13 8.51

2nd wire lost

2nd wire lost —
C 15' south

no sig.

no sig.

Mlow 27

29	00	59	44.4	48.2	40.3	00	59	40.30
30		59	44.4	48.2			59	48.30
31	1	0	16.9	24.0		1	0	20.95
			D.D.					
32	1	5	19.9	24.0		1	4	23.90
33		4	24.0	24.0			4	24.00
34		3	34.6	38.5			4	38.55
35		5	31.0	35.0			5	35.00
36		5	45.4	49.4			5	49.40
37		5	51.3	0.2			5	0.25
38		1	21.8	25.8			1	25.80
39	1	7	4.4	8.4		1	7	8.40

40

41

42

43

B

44								
45	1	11	5.8	9.8		1	11	9.80
46	1	11	51.8	0.8		1	12	0.80
+			B.B.					
47	1	13	0.8	4.7			13	4.75
48		14	11.2	15.2			14	15.20
49		15	32.0	35.8			15	35.90
50		15	44.9	48.9			15	48.9
51		16	8.6	12.7			16	12.65
52		16	47.3	51.3			16	51.30
53		17	20.2	24.1			17	24.15
54		18	14.5	18.4			18	18.45
55	1	18	53.6	59.5		1	18	59.55
			B.D.					
56	1	19	44.5	48.5		1	19	48.50
57	x	20	53.8	53.8			20	53.80
58		21	47.2	47.2			21	47.30
58		22	35.2	—			22	39.20
59		23	20.4	24.6			23	24.50
60	1	24	2.9	6.9		1	24	6.9

my
Done 27

1 10 8.56

1 11 9.43

X 12 10.18

DD

1 13 4.53

1 12 3.14

1 11.12 3.09

1 12 6.26

1 10.11 5.34

1 12 0.18

1 11 3.37

1 11 0.89

1 7 7.50

1 10 9.26

1 11 7.10

X 12 -0.20

B

1 11.12 1.41

1 11 0.30

1 12.13 3.10

BB

1 12 9.00

1 10 0.53

1 12 7.05

1 12 0.83

1 11 8.08

1 12 0.31

X 12 10.44

1 12 10.17

1 12 3.21

B.D.

1 13 7.53

1 13 0.32

1 10 8.29

1 13 3.30

1 10 7.47

1 12 0.34

1st in lost wing2nd in lost
wing 1st in lost

8 doubt 1'

vision disturbed

No doubt particularly
wing 1st in lost lost with2nd in lost

Wone 27

B

61	1	24	54.6	58.6	1	24	58.6
62		25	42.7	46.8		25	46.75
63	1	26	24.9	28.8		26	28.85

BDB

64	1	28	49.7	53.7		28	53.70
65		29	10.1	14.1		29	14.10
66		29	20.5	24.7		29	24.60
67	1	30	18.7	22.5		30	22.60
68	1	30	53.8	57.8		30	57.80
69		31	7.8	11.9		31	11.85
70		31	16.4	20.5		31	20.45
71		31	35.4	39.4		31	39.40
72		32	23.5	27.4		32	27.45
73		33	15.2	19.2		33	19.20
74	1	33	27.5	31.6		33	31.55

75	1	33	42.2	46.1		33	46.15
76		33	51.2	0.6		34	0.40
77		34	53.0	57.0		34	57.00
78		35	4.7	8.7		35	8.70
79	1	35	24.5	28.5		35	28.55

Break

80	1	36	11.2	15.2		36	15.20
81		36	41.9	50.9		36	50.90
82		37	1.4	5.4		37	5.40
83	1	37	18.9	22.9		37	22.90

Dots

84	1	39	10.1	14.1		39	14.10
85		39	43.4	47.4		39	47.40
86		39	41.1	50.0		39	50.05
87		40	41.2	45.2		40	45.20
88		41	8.4	12.5		41	12.45
89		42	45.2	49.2		42	49.20
90	1	42	—	50.4	1	42	50.40

Break

Wone 27

Clouds prevent est. mag
no fog

B
11.2 5.34

7.57

8.39

B D B

1 13 5.13

1 13 9.39

1 11 3.22

1 12 9.42

Clouds have passed away

1 13 0.09

1 11 5.08

1 12 7.25

1 13 5.10

1 13 9.27

1 12 5.17

X 10 10.14

Many dargestons in the field

1 9 -0.21

1 12 5.16

1 13 8.26

X 12 10.17

1 13 5.22

B

1 9 9.32

1 12 8.36

1 13 7.15

* 11 0.16

D

1 11.12 2.42

X 11 -0.02

1 8. 4.21

1 13 4.89

1 12 4.01

1 12 4.12

1 13 0.32

B

} ground

Anrethet
had vision

no sig. 1st or 2nd

M^o Wome 29

91	1	43	26.6	30.4	1	43	20.50
92		43	49.1	53.1		43	53.10
93		43	57.1	1.1		44	1.10
94		44	27.6	31.7		44	31.65
95		44	42.4	46.4		44	46.40
96		45	28.7	29.7		45	29.70
97		46	39.0	42.9		46	42.95
98		47	15.0	19.0		47	19.00
99		47	25.9	29.9		47	29.90
100		47	—	33.8		47	33.80
101		48	22.7	26.5		48	26.60
102		48	24.9	28.9		48	28.90
103		49	27.9	31.9		49	31.90
104		50	14.6	18.5		50	18.55
105		50	15.7	19.6		50	19.65
106		50	46.4			50	50.40
107	1	50	50.6	54.5		50	54.55

Breaks.

108	1	51	23.4	27.4		51	27.40
109		52	17.8	21.7		52	21.75
110		52	25.4	29.4		52	29.40
111		52	30.5	34.5		52	34.50
112		52	52.4	56.3		52	56.35
113		53	12.5	16.5		53	16.50
114		54	14.6	18.6		54	18.60
115		55	3.2	7.1		55	7.15
116		55	40.0	43.9		55	
117		56	44.0	48.1		55	43.95
118	1	57	0.2	4.2		56	48.05
						57	4.20
119	1	58	8.2	12.2		58	12.20
120		58	15.8	15.8		58	15.80
121		58	33.1	37.3		58	37.20
122		58		41.4		58	41.40

W 1035

Wave 27

12 1.29

10 5.21

12 3.10

+ 11 -0.80

11 8.26

18 7.38

12 2.41

10 3.29

11 9.20

12 2.05

10.11 2.57

11 3.41

11 2.07

+ 11.12 -0.29

10.11 1.01

12 9.20

10.11 2.13

B

+ 11 -0.28

+ 11 -0.06

12 6.27

11 9.58

+ 13 -0.07

13 7.00

12 6.00

~~12 6.01~~

- 11 -0.27

12 3.24

+ 10 -0.34

11 7.51

B

13 3.36

~~1~~ 9 7.03

11 3.66

12 7.57

~~12 0.07~~

Certain

not sig.

not sig.
2 m lost

not sig.

another full 6 sec 11m

Certain

2 m lost

1 m lost

Main 27

123	1	59	24.5	28.6	1	59	28.55
124		59	42.4	46.3		59	46.35
125	2	0	42.2	46.3	2	0	46.25
126		2	8.7	12.7		2	12.70
127		2	26.9	30.9		2	30.90
128		3	14.7	18.6		3	18.65
129		3	49.4	53.4		3	53.40
130	2	4	0.1	4.1		4	4.10

Break Dots

131	2	4	54.3	58.3		4	58.30
132		5	13.6	17.4		5	17.50
133		6	1.1	5.1		6	5.10
134		6	10.8	14.8		6	14.80
135		7	9.2	—		7	13.20
136		7	34.2	38.3		7	38.25
137		7	57.1	55.1		7	55.10
138		8	20.4	24.4		8	24.40
139		8	45.7	49.7		8	49.70
140		8	48.2	52.0		8	52.10
141		9	16.3	20.3		9	20.20
142		9	35.0	39.0	2	9	39.00

143	2	10	54.7	58.7	2	10	58.70
144		11	36.4	40.6		11	40.50
145		12	22.0	26.0		12	26.00
146		13	0.7	4.6		13	4.65
147		13	19.8	23.8		13	23.80
148		13	39.6	43.7		13	43.65
149	2	13	47.1	51.0		13	51.05

Dots.

150	2	15	41.2	45.2		15	45.20
151		15	58.4	2.4		16	2.40
152		17	26.2	30.2		17	30.20

153	2	18	9.2	13.2	2	18	13.20
-----	---	----	-----	------	---	----	-------

Wave 27

1 12 ~~10.34~~ 0.59
 x 1 ~~13~~ ~~2.07~~ 10.34

1 13 2.10

1 9 5.47

1 12 3.50

1 12 8.49

x 10 0.04

x 10 10.42

BD

1 18 6.54

1 12 6.22

1 11 4.17

1 12 5.08

1 14 1.15

1 7 1.47

1 12 0.27

x 12 10.08

1 10 1.13

1 9 8.40

1 12 5.21

1 14 6.07

1 12 4.14

BD

1 18 Repeat

1 12 7.59

1 12 5.26

1 12 7.59

x 11 10.24

x 12 -0.10

1 11 7.11

1 12 4.57

BD

x 12 10.06

1 11 1.17

1 12 6.44

1 12 ~~6.26~~

1 12 6.30

2 min to double

no sig.

Done 27

154	2	18	24.1	28.1	2	18	28.10
155		18	32.0	36.0		18	36.00
156		19	9.1	13.1		19	13.10
157		19	24.2	28.2		19	28.20
158		19	50.6	54.6		19	54.60
159	2	20	0.5	4.5		20	4.50

B B B

160	2	20	28.3	32.3		20	32.35
161		20	37.4	41.4		20	41.40
162		21	20.2	24.2		21	24.20
163		21	44.0	48.0		21	48.00
164		23	3.7	7.7		23	7.70
165		23	9.8	13.8		23	13.80
166		23	32.0	36.0		23	36.00
167		23	49.5	53.4		23	53.45
168	2	24	5.6	9.6		24	9.60

B B B.

169	2	25	58.9	2.9		24	2.90
170		26	12.2	16.2		26	16.20
171	2	27	8.0	12.0	+2	27	12.00

June 27

12 9.11

12 - 0.33

11 3.47

12 0.11

11 5.07

12 6.08

B 33

12 7.27

12 0.54

11 3.34

2 9 7.09

12 9.26

10 9.50

11 5.45

12 7.00

9.10 5.10

B 33

12 0.01

12 - 0.03

10.11 4.22

comp. 5" s. of 12 m
 a comp suspected 4" s. fol
 m. s. s.

Wednesday ~~June 14~~ Iridgs 21

189.58 R
269.56 R

Zone 28 = x of 25

179.58

W 361 W of No 27

Mag. Dec.

1853 Jan 21st Friday 21 Zone 28

28829

10' N

First of 28 = 2 of 25

Mean

1	1	4.53.9	57.8	1..04..57.85
2		5.25.7	29.7	5..29.70

W 68

B

3		7.23.3	27.3	7..27.30
---	--	--------	------	----------

4		7.52.9	56.9	7..56.90
---	--	--------	------	----------

5		8.10.0	13.9	8..13.95
---	--	--------	------	----------

6		9.19.9	23.9	9..23.90
---	--	--------	------	----------

7		10.16.0	20.0	10..20.00
---	--	---------	------	-----------

8		10.52.5	56.5	10..56.50
---	--	---------	------	-----------

VV 158

9		11.38.7	7.8	11..07.80
---	--	---------	-----	-----------

10		11.17.7	21.7	11..21.70
----	--	---------	------	-----------

J.B.

11		11.51.9	55.8	11..55.85
----	--	---------	------	-----------

12		12.9.5	13.4	12..13.45
----	--	--------	------	-----------

13		13.10.2	14.2	13..14.20
----	--	---------	------	-----------

14		13.30.8	34.8	13..34.80
----	--	---------	------	-----------

16		13.53.0	57.1	13..57.05
----	--	---------	------	-----------

17		15.14.7	18.7	15..18.70
----	--	---------	------	-----------

18		16.16.0	20.0	16..20.00
----	--	---------	------	-----------

19		16.17.7	21.6	16..21.65
----	--	---------	------	-----------

20		16.34.5	38.7	16..38.60
----	--	---------	------	-----------

21		16.37.9	41.8	16..41.85
----	--	---------	------	-----------

22		17.34.0	38.0	17..38.00
----	--	---------	------	-----------

23		17.49.4	53.5	17..53.45
----	--	---------	------	-----------

24		18.10.2	14.1	18..14.15
----	--	---------	------	-----------

25		18.16.1	18.2	18..18.15
----	--	---------	------	-----------

26		19.3.3	7.3	19..07.30
----	--	--------	-----	-----------

B

27		20.6.5	10.5	20..10.50
----	--	--------	------	-----------

28		20.44.7	48.6	20..48.65
----	--	---------	------	-----------

29		20.49.9	53.9	20..53.90
----	--	---------	------	-----------

30		22.24.0	28.0	22..28.00
----	--	---------	------	-----------

31		22.39.5	63.4	22..43.35
----	--	---------	------	-----------

32		23.17.0	21.0	23..21.00
----	--	---------	------	-----------

Zone 28

Dec. + 0.10 to 20

EC 2. 55.00

29.968-62

SPA 27.9

4. 50.00

30.020-62

25.2

+3 8.2.2

+9-10 2.3.4

9 8.71

B

12 5.17

11 6.04

10 - 0.14

12 1.12

12 4.19

10 1.50

13 2.30

12 2.49

2.13

12 3.00

12 5.36

12 8.42

11 8.57

12 4.41

12 3.41

12 6.22

13 7.52

10 9.37

11 7.50

13 4.10 4.15

12 5.19

12 3.36

12 0.33

13 1.11

B

11 3.19

11-12 1.46

11-12 8.37

12 3.34

12 1.35

12 5.54

Clear & fine -
not very good seeing -
Moonlight interferes
with estimate of magnitude

yellowish

no sig

1st win of 10 = 2nd win of 1st
no sig

2nd win doubtful

Wave 28

3	1.	23.48.2	52.1	1.	23.52.15
84	1.	24.56.0	00.0		25.00.00
35		25.23.0	27.0		25.27.00
36		25.51.0	55.0		26.56.00
37		26.21.2	25.1		26.25.15
38		26.36.9	40.9		26.40.90
39		27.11.0	15.0		27.15.00

B.A.C. 472

40		28.24.5	28.6		28.28.55
41		29.7.6	11.7		29.11.65
42		29.39.2	43.2		29.43.20
43		30.18.2	22.2		30.22.20
44		30.45.6	49.7		30.49.66
45		31.55.6	59.7		31.59.65
46		32.47.1	51.0		32.51.05
47		33.27.3	31.3		33.31.30
48		34.55.9	59.9		34.59.90
49		35.20.3	24.4		35.24.35
50		36.21.6	0		36.06.05
51		36.9.3	13.3		36.13.30
52		36.11.0	15.0		36.16.00
53		37.36.6	40.4		37.40.40
54		37.47.7	51.7		37.51.70
55		37.57.0	1.1		38.01.05
56		38.24.7	28.7		38.28.70
57		39.36.1	40.0		39.40.05
58		39.56.2	58.3		39.58.25
59		40.12.0	15.9		41.15.95
60		41.37.0	41.0		41.41.00) no Dec
61		42.24.6	28.6		42.28.60
62		42.47.4	51.4		42.51.40
63		44.3.4	7.4		44.7.40
64		45.31.0	34.9		45.34.95
65		45.56.2	0.2		46.00.20
66		46.8.1	12.0		46.12.05
67		46.46.0	47.9		46.47.95
68		47.0.7	4.7		47.04.70
69					

W 535

W 661

W 733

Zone 25

10	3.03
11-12	2.33
11	3.57
13	4.04
12	9.51
12	7.11
7	2.13
12	
13	10.27
13	9.32
12	2.17
12	0.02
13	8.21
10	2.13
12	3.23
11	0.33
10-11	8.57
13	5.13
12	8.37
12	6.47
9	10.09
12	7.54
12	4.58
12	8.32
11	5.11
12	2.04
11	5.32
11	8.27
	B.B
9	5.28
12	4.33
12	2.00
12	6.59
12	7.30
12	4.11
13	2.02
12	0.33

yellow
shooting star
passed through

no sig

None 28

70	1.47.25.7	29.7	1.47.29.70
71	47.50.4	54.4	47.54.40
72	48.13.2	17.2	48.17.20
73	49.57.8	1.4	50.01.35

B

74	1. 50.41.0	45.0	50.45.00
75	52.30.4	34.3	52.34.35
76	52.40.7	44.7	52.44.70
77	53.28.7	32.6	53.32.65
78	53.59.7	3.6	54.03.65
79	54.21.5	25.6	54.25.55
80	55.54.1	58.1	55.58.10
81	55.59.8	3.9	56.03.85
82	56.31.8	35.8	56.35.80
83	56.58.3	2.4	56.02.35
84	57.33.0	37.0	57.37.00
85	58.1.9	5.9	58.05.90
86	59.34.5	38.4	59.38.45
87	59.42.2	46.0	59.46.10

D

88	2. 0.46.9	50.9	2.00.50.90
89	1. 6.0	9.9	1.09.95
90	1.14.1	18.2	1.18.15
91	2.48.6	52.6	2.52.60
92	3.25.8	29.7	3.29.76
93	3.53.7	57.7	3.57.70
94	3.59.8	3.9	4.03.85
95	5.31.9	35.9	5.35.90
96	5.34.6	38.5	5.38.55
97	7.15.6	19.5	7.19.55

W 1096

99
100
101
102

B

103
104

Zone 28

12 -0.20

12 2.28

10 1.09

13 3.55

B

11 4.29

12 0.17

11 6.39

10-11 2.35

10 2.01

12 4.25

12 9.20

9-10 1.53

11 10.03

no sig

12 1.58

11-12 9.50

13 9.23

13 0.39

11 0.53

B

12 2.42

8 3.57

13 2.56

11 1.52

12 1.51

12 1.33

12 6.58

11 1.02

12 3.03

12 9.00

no sig

13 2.07

12 4.69

12 0.26

12 9.07

11 10.36

1 win lost no sig

B

12 9.57

11 9.02

None 28

105			
106			
107			
108			
109			
110			
111			
112			
113			
114			
115			
116			
117	17. 14.5	18.5	2. 17. 18.50
118	18. 1.7	5.7	18. 05.70
119	18. 35.4	39.6	18. 39.50
120	18. 49.4	53.4	18. 53.40
121	2. 19. 46.0	50.0	19. 50.00
	B. D.		
122	2. 20. 37.0	41.0	20. 41.00
123	20. 54.1	58.0	20. 58.05
124	20. 55.3	59.3	20. 59.30
125	21. 17.2	21.2	21. 21.20
126	21. 59.3	3.3	22. 03.30
127	22. 22.6	26.7	22. 26.65
128	22. 51.4	55.3	22. 55.35
129	22. 59.5	3.6	23. 03.55
130	23. 9.6	13.5	23. 13.55
131	23. 28.2	32.2	23. 32.20
132	25. 32.4	36.4	25. 36.40
133	27. 20.4	24.4	27. 24.40
134	28. 42.0	46.0	28. 46.00
135	29. 18.9	23.0	29. 22.95
136	30. 10.4	14.4	30. 14.40
137	30. 54.5	58.3	30. 58.40
138	30. 55.0	59.0	30. 59.00
139	31. 46.3	50.4	31. 50.35
140	32. 4.0	-	32. 08.00
141	32. 9.0	13.0	32. 13.00

Zone 28

12 1.17
 13 5.10
 11 10.17
 13 5.57
 12 0.58
 12 2.04
 11-12 0.42
 7 7.54
 12 7.10
 11 8.45
 12 0.21
 12 9.34
 12 5.46
 10 4.59
 13 8.17
 13 2.21
 11 7.07

B-5

12 2.30
 11.12 2.53
 10.12 2.11
 11 1.14
 12 5.57
 12 1.07
 12 7.53
 12 7.00
 10 0.09
 12 10.10
 11 5.20
 12 3.22
 11-12 9.38
 13 9.01
 12 9.17
 11 9.17
 12 9.33
 10 2.26
 12 4.26
 12 7.28

no sig
orange

no sig

no sig

no sig

2nd win lost

Wone 28

143	2	32.10.9	14.9	2..32..14.90
143		32.43.6	47.5	32..47.55
144		32.22.7	26.6	32..26.65
145		33.53.2	57.2	33..57.20
146		34.48.6	52.6	34..52.60
147		35.5.0	9.0	35..09.00
148		35.48.5	52.5	35..52.50
149		37.45.7	—	37..45.70
150		38.10.6	—	38..14.60
151		38.21.0	25.0	38..25.00
152		38.35.1	39.2	38..39.15
		B.S.B.		
153		39.34.6	38.7	39..38.65
154		39.52.7	56.6	39..56.65
155		40.18.9	—	40..22.90
156				
157		41.14.3	18.4	41..18.35
158				
159		42.1.9	5.9	42..05.90
		B.B.B.		
160		43.27.9	34.9	43..31.90
161		43. —	31.9	43..31.90
162		44.28.0	32.1	44..32.05
163		45.16.0	20.0	45..20.00
164		45.51.5	55.6	45..55.55
165		47.6.9	10.8	47..10.85
166		47.44.4	48.4	47..48.40
		J		
167		48.51.9	55.9	48..55.90
168		49.8.2	12.1	2 ..49..12.15

Zone 28

12.7.45

12.6.16

9-10.8.02

13.8.27

12.7.03

13.8.08

11.8.43

13.7.32

12.10.31

12.6.40

12.7.52

B B B

12.2.47

11.12.037

11.7.22

12.6.47

12.9.09

12.7.30

x 6-10.8.43

B B B

10-11.5.13

10-11.9.03

11.3.33

12.0.36

12.4.22

11-12.8.22

11-12.2.22

B

12.9.47

12.6.17

no sig

2nd wind lost2nd win lost

no sig

no sig

2nd win lost

1 win lost

Saturday Jan. 29th 1853 Zone 29 = 28 repeated 10' to 20'

E.C. 3.18.00 Bar. 30.126 Alt. Ml 61° Ex. M 25.8

5. 08.00 " 30.050 " " 68 " " 263

Calm & fine definition

1	1.4	54.0	57.9	1.04.57.95
2	5	25.8	29.8	5.29.80
	B			
3	7	23.3	27.5	7.27.40
4	7	52.9	56.9	7.56.90
5	8	10.0	14.0	8.14.00
6	9	20.0	24.0	9.24.00
7	10	16.1	20.1	10.20.10
	C			
8	10	52.3	56.3	10.56.30
9	11	36	7.7	11.07.65
10	11	176	21.6	11.21.60
11	11	52.0	56.0	11.56.00
12	12	72	13.5	12.13.45
	D			
13	13	10.2	14.0	13.14.10
14	13	30.8	34.7	13.34.75
15	13	53.0	57.0	13.57.00
16	15	14.5	18.5	15.18.50
17	16	16.0	19.8	16.19.90
18	16	17.4	21.4	16.21.40
19	16	38.3	41.6	16.38.30
20	16	33.9	37.9	16.32.80
21	17	33.9	37.9	16.41.60
22				17.37.90
23	17	49.2	53.2	17.53.20
24	18	10.1	14.0	18.14.05
25	18		18.0	18.18.00
26	20	44.4	48.4	20.48.40

1 of Zone 28

Done 29

9.10 10+0.2.33
 9 8.10
 B

13 5.16
 11. 6.04
 + 10 -0.14

12 1 11
 12 4 19

9.10 1 49

13 2 29

12 2 48

13 3 0

12 5 35

12 8 41

11. 8 50

12 4 41

12 3 41

12 5 24

13 7 52

16 9 35

10 4 33

10 7 50

13 4 18

13 5 18

12 3 35

12 5 33

13 1 57

2nd sig mark

1st sig "

last mark

~~1st wire lost~~

1st wire lost

1st sig

1st wire lost

1st wire lost

Wone 29

20	53.3	1..20..53.30
22 23.8	27.8	22..27.80
22. 39.2	43.2	22..43.20
23. 16.7	20.8	23..20.75
23. 48.1	52.1	23..52.10
B B.		
24. 55.9	59.9	24..59.90
25. 23.0	27.0	25..27.00
25. 50.9	54.9	25..54.90
B B.		
26. 21.1	25.1	26..25.10
26. 38.8	40.8	26..40.80
27. 10.9	14.9	27..14.90
28. 24.2	28.3	28..28.25
29. 7.4	11.4	29..11.40
29. 39.2	43.1	29..43.15
30. 18.2	22.2	30..22.20
30. 45.6	49.6	30..49.60
B.		
31. 55.7	59.6	31..59.65
32. 47.0	51.0	32..51.00
33. 27.2	31.2	33..31.20
34. 55.7	59.7	34..59.70
35. 20.1	24.1	35..24.10
36. 2.0	5.9	36..5.95
10.9	13.1	36..13.10
36. 10.8	14.8	36..14.80
37. 36.4	40.4	37..40.40
37. 47.7	—	37..51.70
37. 57.0	1.0	38..01.00
39. 24.7	28.7	39..28.70
39. 36.0	40.0	39..40.00
39. 56.1	58.1	39..58.10
41. 15.8	15.8	41..15.85
42. 24.5	28.5	42..28.50
42. 47.4	51.4	42..51.40

Wone 29

11th Set
my star bed

11. 1 43
11. 8 35
12 3 84
12 1 35
12 5 55
10 3 04
B.B.

11. 2 33
10.7 5 57
13 4 5
B.D

12 9 31
12 7 11
7 2 12
13 16 27
13 9 32
12 2 17
12 0 01
13 8 20

Break

9.4 2 14
13 3 23
10-11 0 32
8 8 8 B 8 B B 8 8 B

10 9 00
13 5 13
12 8 38
12 + 0 16 gone
x 8 - 0 11

12 7 53
12 4 57
12 8 30
10-11 5 12
13 2 04
B. 200 missing
Rev Jan 28

11. 8 27
9.15 5 27
12 4 32

yellow

either amethyst or green

1st wire cut

2d wire cut

amethyst. Amp sp 3"

Wone 28

Mean
44. 3.2 7.2 1..44..07.20

44. 3.2 7.2

45. 31.0 34.9 45.34.95
B

45. 50.1 0.1 46.00.10

46. 5.1 12.1 46.12.10

B B

46. 44.0 47.5 46.47.90

47. 0.5 4.4 47.04.45

B

47. 25.5 29.5 47.29.50

B B

47. 50.5 54.5 47.54.50

B

48. 13.1 17.1 48.17.10

B B B

B B B

50. 40.8 44.5 50.44.80

52. 30.1 34.2 52.34.15

52. 40.5 44.4 52.44.45

53. 28.6 32.6 53.32.60

53. 57.6 3.5 54.03.55

54. 25.5 25.5 54.25.50

55. 53.9 57.9 55.57.90

55. 55.8 3.7 56.03.75

56. 31.8 35.6 56.35.70

56. 58.2 2.2 57.2.20

57. 33.0 37.0 57.37.00

58. 1.8 5.8 58.5.80

59. 42.1 46.1 59.46.10

B

2. 0.47.0 51.0 2.00.51.00

1. 5.8 9.8 1.09.80

1. 14.0 18.0 1.18.00

1. 40.4 44.4 1.44.40

2. 44.5 —

3. 25.9 29.9 03.29.90

Break

June 28

12 2 01

BBB

12 6 58

Break

12 7 31

12 4 11

BBB

13 2 01

12 0 32

Break

x 12 - 0 21

BBB

12 3 28

Job

11 1 10

BBB

1 3 56

Job

11 4 29

11 0 17

12 6 29

11 2 35

12 4 24 ^{miss}
Job 4.24 ^{2.28}

12 9 19

9 10 1 50

x 11 10 04

12 9 57 ^{sec min}
2 2-28

13 9 24

BBB

11 0 59

9

12 2 42

8 3 56

13 2 56

11 1 51

13 1 51

12 1 32

No AR

no sig

no sig

20 whole

None 24

2. 3. 53.7 57.5 2. 03. 57.60
2. 3. 59.7 3.8 4. 3. 45'

~~5. 34.2 38.1~~ ~~2. 05. 38.20~~
2. 5. 34.2 38.2 5. 38.20

2. 5. 53. 55.2 8. 53. 25'
8. 23.9 27.9 9. 27.40
9. 32.8 36.7 9. 36.75

19. 16.5 22.5 11. 22.50
11. 43.0 47.0 11. 47.00
12. 14.2 18.2 12. 18.20

2
12. 55.0 58.8 12. 58.90
13. 0.2 4.2 13. 04.20
14. 12.9 16.5 14. 16.45
15. 8.0 — 15. 12.00
15. 12.7 16.7 15. 16.70

J. 783 W 219

15. 54.0 58.0 15. 58.00
17. 14.2 18.2 17. 18.20
18. 1.6 5.7 18. 05.65
18. 29.3 33.3 18. 33.30
18. 35.4 39.4 18. 39.40

no AB

B

2. 19. 46.0 49.9 19. 49.95
20. 37.0 40.9 20. 40.95
20. 54.1 58.0 20. 58.05
20. 55.1 59.1 20. 59.10
21. 17.1 21.1 21. 21.10
21. 59.2 3.2 22. 3.20
22. 22.4 26.4 22. 26.40
22. 54.3 58.3 22. 58.30
22. 59.6 3.6 23. 03.60
23. 9.6 13.6 23. 13.60
23. 28.2 32.2 23. 32.20

25.

• 12 6 59
 • 11 1 01
 8 BNB BNB

ARh 3 08

• 12 9 00
 some h

• 11 10 37

• 11 9 59

• 11 9 03

• 11 10 17

wolken

• 12 5 56

• 12 6 55

205

• 12 4 04

• 11 8 42

• 7.8 7 55

• 12 7 10

• 12 7 44

• 11 9 38

• 12 5 46

• 11 4 58

13 8 21

• 13 8 15

• 13 2 25

AR

BR

• 11 7 07

• 12 2 51

• 12 2 52

• 12 2 12

• 11 1 17

• 12 5 58

• 13 1 07

• 12 7 58

• 12 7 00

• 12 10 12

or later
2028

BRB

• 11 5 20

Wone 29

noisy

noisy
ramp color

Darker
noisy

noisy

noisy

none 28

2 ₁₁ 27 20.5 24.4	2 ₁₁ 27 ₁₁ 24.46
28 42.0 45.9	28 ₁₁ 45.95
30 10.2 14.2	30 ₁₁ 14.20
30. 54.3 58.1	30 ₁₁ 58.20
30. 55.1 59.0	30 ₁₁ 59.05
31. 46.3 50.3	31 ₁₁ 50.30
32. 9.0 12.9	32 ₁₁ 12.95
32. 16.1 20.1	32 ₁₁ 20.10
33. 22.6 26.6	33 ₁₁ 26.60
34. 48.5 52.5	34 ₁₁ 52.50
35. 48.5 -	36 ₁₁ 52.50
38. 10.3 14.5	38 ₁₁ 14.40
38. 21.2 -	38 ₁₁ 25.20
39. 52.7 56.7	39 ₁₁ 56.70
40. 19.0 23.0	40 ₁₁ 23.00
40. 24.2 28.2	40 ₁₁ 28.20
41. 14.6 18.6	41 ₁₁ 18.60
42. 19. 5.9	42 ₁₁ 5.90

43. 28.0 31.9 *
 corresponds to 9.03 of Zone 28.

44. 28.0 32.0	43 ₁₁ 31.95
45. 15.8 19.8	44 ₁₁ 32.00
45. 51.4 55.5	45 ₁₁ 19.80
47. 68. 10.5	45 ₁₁ 55.45
2 ₁₁ 47. 44.2 48.3	47 ₁₁ 10.80
	2 ₁₁ 47 ₁₁ 48.25

Zone 29

$\mu = 222$ 1st w. l. almost unreachbar

• 12 9 38

• 12 9 18

• 17 9 17

• 13 9 35

• 11 2 27

• 12 7 28

• 11 3 24

• 10 8 03

• 13 7 03

• 11 8 42

x 12 10 31

• 12 0 38

• 11-12 0 36

• 11 5 23

• 12 6 47

12 9 09

8 44

15 10

10 9 13

4

3 33

12 0 36

12 4 22

11 8 23

12 2 22

1

noisy

unreachbar durch wolken

magnitude mountain durch wolken unreachbar
2nd zone l. - 1st noisy cloud

2nd l. Cloud

no sig. R. unreach. Cloud

Bright star Cloud

probably in R

None 30

1853

Feb 1st

h m s

E.C. 3..27..00

Bar. 30.548 Alt. Lh. 60° Ext. Lh. +25.0

" 7..27..00

" 30.534 " " 58 " " +20.2

2..21..42.1 46.0 ~ 2..21..46.05

23.. 1.9 5.9 23..05.40

23..07.9 11.8 23..11.85

3..30.1 34.1 23..34.10

23 47.8 51.7 23..57.75

24.. 3.7 7.7 24..07.70

B

25..56.9 0.9 25..00.90

26..10.3 14.3 26..14.30

26..50.2 54.1 26..54.15

27.. 8.1 12.0 27..12.05

28.. 7.8 11.8 28..11.80

28..41.6 45.5 28..45.55

29.. 6.2 10.2 29..10.20

D

30..02.8 6.8 30..06.80

31..11.6 15.5 31..15.55

B D

31..52.3 56.3 31..56.30

32..30.5 34.4 32..34.45

34..25.8 — 34..29.80

36..02.5 6.3 36..06.40

36..57.3 1.2 36..01.25

37..13.0 17.1 37..17.05

7..38.8 42.8 37..42.80

37..50.6 34.7 37..54.65

D

38..19.2 23.2 38..23.20

38..56.9 1.0 38..00.95

39..50.9 54.8 39..54.85

40..00.5 4.5 ~ 2 40..04.50

2 of Jan 27

None 30
Clear and calm - very fine definition

1853.0 $R = 2^h 21^m 51^s$
1853.0 Dec $+ 0^{\circ} 7' 22''$

no sig.

9 7.22
12 9.39
10.11 10.05

11.12 5.57
13 7.12

10 5.22

B

12 0.13

12 0.09

13 -0.13

10 4.34

12 3.51

12 -0.03

11 6.58

D

13 2.26

12.13 8.58

BD

12 2.52

12 3.38

13 7.23

13 10.10

12 1.12

12 8.06

12 3.56

11 2.42

D

10.11 10.34

10.11 4.26

11 10.31

9.11 2.59

2nd win lost

amelth

Wone 30

2..40.19.74 21.4 2..40..21.40

40.40.9 44.9 40..44.90

48.9 52.9 40..52.90

40 56.9 0.9 41..00.90

41..9.7 13.8 41..13.75

B

41..36.6 40.5 41..40.55

42..14.3 18.3 42..18.80

42..36.2 39.0 42..39.10

43..08.3 11.2 43..11.25

43..35. 39.0 43..39.00

43..37.9 41.8 43..41.85

D

44..15.6 19.6 44..19.60

50.4 54.4 44..54.40

45..6.6 10.5 45..10.55

45..13.9 17.9 45..17.90

45..31.2 35.1 45..35.15

B

47..21.1 25.0 47..25.05

7..38.0 42.0 47..42.00

48..04.9 9.0 48..08.95

48..52.1 55.9 48..55.50

49..03.9 7.9 49..07.90

49..12.3 16.3 49..16.30

49..28.1 32.1 49..32.10

49..51.2 55.2 49..55.20

B

51..34.0 38.0 51..38.00

51..47.7 51.8 51..51.75

52..2.7 6.5 52..06.60

52..9.0 13.0 52..13.00

52..17.8 21.8 52..21.80

52..46.9 — 52..50.90

53..35.8 39.9 53..39.85

D

54..13.8 17.9 2..64..17.85

Wane 30

11.12 6.35~
 10 1.28
 11 9.48
 11.12 6.41
 12 7.07
 B

9 3.37
 12 0.31
 11.12 2.26
 11.12 8.52
 11 -0.66
 12 9.12
 DD

12 0.44
 12.13 9.22
 12 2.13
 12 10.32
 12 6.38
 B

11.12 2.34
 13 2.57
 12 0.21
 11.12 3.00
 12 5.43
 10.11 4.26
 12 8.24
 12 1.317
 D B

11.11 2.37
 10.11 5.22
 11 10.07
 9.10 2.34
 10 1.48
 12 10.39
 11 9.07
 D

11.12 4.24

no sig.

Complete Vagranary" ^{Barney}

comp. 9" m. poll. 12 mag

Group

several others of 12 mag. unobserved

2nd win. lot

Wone 30

2..54.20.3 24.3 ~ 2..54..24.30

X 54.26.5 22.3

BB

55.02.0 6.0 55..06.00

16.7 20.7 55..20.70

29.9 33.9 55..33.90

66.2.0 6.0 56..06.00

6.9.0 13.0 56..13.00

56.44.3 48.3 56..48.30

56.59.5 034 57.03.45

7.25.7 29.8 57..29.75

55.1 39.2 57..59.15

8.06.2 12.2 58..10.20

D

2.55.16.2 20.1 59..20.15

3.00.51.8 55.7 3..00..55.75

1.5.5 9.5 1..09.50

3.1.18.7 22.7 1..22.70

B

3.02.7 6.8 3..06.75

3.7.4 11.4 3..11.40

3.28.7 32.8 3..32.75

3.58.0 2.0 4..02.00

4.46.2 50.1 4..50.15

5.14.0 18.0 5..18.00

5.15.2 19.2 5..19.20

5. — 35.5 5..35.50

6.09.3 13.2 6..13.25

B

6.43.1 47.1 6..47.10

6.50.7 54.7 6..54.70

7.10.3 14.3 7..14.30

7.22.3 26.2 7..26.25

DDD

8.42.7 46.5 8..46.60

9.46.3 50.6 3..9..50.55

Wone 30

10.11 8.37
10 9.35

B03

12 7.59

12 5.14

12 9.12

13.12 5.29

12 7.12

11 8.59

12 1.12

10 8.52

12 2.05

12 3.26

D

12 10.10

13 7.50

12 0.40

12 9.37

B9

13 2.44

12 2.32

12 7.52 8.57

13 0.52

9 8.47

12 0.17

12 1.05

12 1.00

12 3.04

B3

11 6.11

11 6.31

10 7.35

12 10.09

5.5.5

11 3.27

12 0.30

1st wire lost

rubric

None small stars about

noisy.

1st wire lost2nd wire, 1 only

Done 30

3.. 10.. 27.3	31.3 ~	3.. 10.. 31.30
10.. 49.2	53.2	10.. 53.20
10.. 56.0	00.0	10.. 56.
11.. 26.0	30.0	11.. 30.00
12.. 10.6	14.5	12.. 14.55
12.. 24.7	28.8	12.. 28.75
12.. 54.8	58.8	12.. 58.80
13.. 1.0	5.0	13.. 05.00
13.. 19.5	23.4	13.. 23.45
13 34.9	38.9	13.. 38.90

B D

14.. 00.1	4.2	14.. 04.15
14.. 51.6	55.4	14.. 55.50
15.. 14.1	18.0	15.. 18.05
15.. 43.1	47.1	15.. 47.10
16.. 15.8	19.8	16.. 19.80
16.. 17.1	21.0	16.. 21.05
17.. 22.4	26.3	17.. 26.35
17.. 43.9	47.8	17.. 47.85
18.. 19.6		18.. 23.60
18.. 51.8	55.0	18.. 55.00

18.. 51.0	55.0	18.. 55.00
18.. 57.5	1.6	19.. 01.50
19.. 30.0	34.1	19.. 34.05
19.. 57.1	12	20.. 01.15
19.. 58.7	2.7	20.. 02.70
20.. 15.5	19.5	20.. 19.50

B B B

21.. 18.3	22.3	21.. 22.30
22.. 5.2	9.2	22.. 09.20
22.. 20.3	24.4	22.. 24.35
23.. 39.3		23.. 43.30
23.. 44.2		23.. 48.20
23.. 49.8		23.. 53.80
23.. 50.3	54.3	23.. 54.30
24.. 20.2	24.3	24.. 24.25
25.. 41.7	45.5 ~	3.. 25.. 45.60

Wone 30

12. 8.28

13 3.19

12 - 0 35

11-12 2.14

11 8.54

12 2.17

10 8.33

12 8.09

12 9.49

7-8 0.53

B. B.

12 9.30

12 10.14

10-11 9.46

11 2.07

11 4.03

10-11 1.32

12 2.56

11 2.27

12 0.19

12 * 7.00 no HR

11 9.12

12 9.17

11-12 9.02

12 3.47

12 2.00

12 0.59

B. B.

12 4.05

19 5.41

98 2.38

10-11 3.32

12 4.49

12 7.29

12 6.59

9-10 8.00

12-13 2.56

no sig

no sig lost

no sig lost

no sig

may present the 12

no sig

} only
1st tiergroup
of many long stars -
in a line

June 30

3..26..18.6 ~~22.6~~ - 3..26..22.60

26..22.6 26.4 - 26..26.50

DBD

27..28.1 32.0 27..32.05

7..55.3 59.2 27..59.25

28..04.0 6.0 28..08.00

B

28..42.5 46.5 28..46.50

9..10.0 14.0 29..14.00

9..10.3 14.3 29..14.30

29..41.7 46.6 29..45.65

30..14.0 18.1 30..18.05

30..38.3 42.2 30..42.25

BB

31..07.7 11.4 31..11.55

31..32.3 36.3 31..36.30

31..45.2 49.2 31..49.20

32..58.0 2.0 32..02.00

32..21.2 25.3 32..25.25

33..36.0 39.9 33..39.95

33..47.0 50.9 33..50.95

34..4.0 8.0 34..08.00

34..17.1 21.1 34..21.10

4..38.2 42.0 34..42.10

4..47.9 51.8 34..57.85

5..2.4 — 35..06.40

X 35..12.3 no 2nd win or 1st time 35..16.30

35..36.1 — 35..40.10

B

36..36.3 40.3 36..40.30

36..43.2 47.2 36..47.20

D

37..04.0 8.0 37..08.00

37..19.3 23.2 37..23.25

37..38.4 42.4 37..42.40

37..53.4 57.4 37..57.40

38..7.0 10.9 38..10.95

40..02.0 6.0 3 ..40..06.00

June 30

12 6.43

2 min lost
no sig?

11 10.06

20138

11 1.42

12-13 5.04

11 8.02

B

12 2.14

9 6.18

} double
about 10"

4-5 6.23

11 8.19

11 2.22

12 0.21

B. B

12 2.46

11 4.01

12 7.48

great numbers
of small stars

11 2.47

12 5.26

12 3.58

(group
many of 12")

11-12 9.12

11-12 10.27

11 4.56

12 2.30

12 1.05

12 -0.11

11 10.00

12 4.13

2 min lost

B.

12 5.03

12 4.59

2 min lost

D

12 5.02

11 10.09

9 4.04

no sig

after 20

11-12 0.48

9 9.23

11+ 3.59

sick in stars
a 11-12 produced 2"

Wine 30

3.. 40.. 17.4	21.3	3.. 40.. 21.35
40.. 27.0	31.0	40.. 31.00
41.. 20.2	24.2	41.. 24.20
41.. 31.9	35.8	41.. 35.85
41.. 44.8	48.8	41.. 48.80
42.. 18.4	22.2	42.. 22.30
43.. 13.3	17.1	43.. 17.20
44.. 31.6	35.7	44.. 35.65
45.. 04.2	8.2	45.. 08.20
45.. 4.8	8.9	45.. 08.85
46.. 28.1	32.0	45.. 32.05
46.. 50.0	53.9	45.. 53.95
6.. 10.3	14.4	46.. 14.35
46.. 41.2	45.1	46.. 45.15
46.. 54.0	58.0	46.. 58.00
7.. 23.6	27.4	47.. 27.50

B

47.. 53.9	57.9	47.. 57.90
8.. 32.4	36.2	48.. 36.30
49.. 23.7	27.7	49.. 27.70
49.. 48.5	52.5	49.. 52.50
51.. 11.6	15.8	51.. 15.70
52.. 16.6	20.6	52.. 20.55
52.. 31.2	35.1	52.. 35.15
52.. 38.6	42.5	52.. 42.55
52.. 53.0	56.9	52.. 56.95
53.. 38.6	42.7	53.. 42.65
53.. 41.8	45.7	53.. 45.75
55.. 32.3	36.3	55.. 36.30
x 55.. 39.3	?	55.. 43.30

BDD

56.. 18.8	22.7	56.. 22.78
56.. 36.2	40.3	56.. 40.25
57.. 12.9	—	57.. 16.90
57.. 17.2	21.2	57.. 21.20

B

57.. 34.7	—	57.. 38.70
57.. 46.4	50.2	3 .. 57.. 50.30

Wone 30

12	6.04
11-12	5.57
11-12	5.46
2/2	3.36
13	3.30
12	7.39
12	4.47
11.	6.18
11-12	4.33
11-12	4.55
11-12	0.37
11-12	10.17
12	0.21
12	5.06
12	2.57
12	1.47
12	8.1
12	8.10
12	1.07
10-11	4.14
10-11	5.05
12	1.19
12	9.19
13	8.06
<u>12</u>	<u>-0.05</u>
12	6.47
11	3.40
12	5.51
10-11	6.44
12	3.29
13	3.25
9	-0.35
12	-0.40
12	-0.28
11	0.07
13	
12	9.20
10	3.30

vacancy -

no eig

comp 3" south fol

 no eig
 vac cany
 no g

2 in lost

2 in lost

Wone 30

3..57.46.9	50.7	3..57..50.80
58..22.0	25.7	58..25.85
59..20.4	24.3	59..24.35
3..59..28.3	32.4	59..32.35
4..1..15.6	19.7	4..01..19.65
46.3	50.2	1..50.25
1..49.4	53.4	1..53.40
2..7.9	—	2..11.90
2..14.1	18.0	2..18.05
2..26.9	30.8	2..30.85
B		
3..18.3	17.3	3..17.30
3..37.4	41.3	3..41.35
4..21.5	25.5	4..25.50
4..36.5	40.5	4..40.50
5..10.8	14.7	5..14.75
5..59.5	8.4	5..03.45
6..15.0	19.2	6..19.10
6..30.4	34.3	6..34.35
D		
7..05.8	9.7	7..09.85
7..38.5	—	7..40.50
7..39.8	43.7	7..43.75
7..57.0	—	8..01.00
8..4.9	?	4..8..08..90
8..24.6	28.4	4..08..28.50
9..51.2		
9..51.2	—	9..55.20
10..5.0	9.0	10..09.00
10..31.0	35	10..35.00
BD		
11..04.1	8.1	11..08.10
11..29.5	33.3	11..33.40
11..39.0	42.9	11..42.95
12..11	15.0	12..15.00
13..2.9	6.9	13..06.90
12.7	16.4	13..16.55
13..37.2	41.2	4..13..41.20

Wone 31

Wone 30

no sig

12	1.00
13	7.02
8-10	4.17
11	0.25
12	8.50
10	6.29
12	6.03
12	8.86
13	2.12
12	-0.13

no star 7 Jan 16

no sig.
2nd wire lost

B

11.12	2.06
12.12	6.27
10	2.46
12	9.16
12	3.33
10	9.45
12	10.00
11	3.01
12 D	6.18
12	6.13
11	5.53
10	-0.13
11	3.23
11	5.55

blue

2nd wire 0.2 early2nd wire lost2nd wire lost

Time 31. 5.06 = comp. m. ful No R obs

Duplex ~~obs~~2nd wire lost

10	5.11
12	0.40
12	6.18
12	9.18

B D

11.12	2.07
12	2.33
12	2.20
12	7.45
11.1	6.45
8.1	8.57
11	8.57

None 31

New sheet begins on this page

4.17.49.3 53.3
 15.38.2 2.2 ~ 4.. 16..02.20
 16..25.8 25.8 16..25.80
 17.. 7.8 11.8 17..11.80
 17..31.8 35.8 17..35.80
 17..49.3 53.3 17..53.30

J.D.

18.43.9 47.9 18..47.90
 19.. 8.8 12.9 19..12.85
 19— 16.7 19..16.70
 19.30.4 — 19..34.40
 19.41.3 46.2 19..45.25
 20.23.0 27.0 20..27.00
 20.24.2 28.1 20..28.15
 20.48.9 52.7 20..52.80
 21.. 8.6 12.3 21..12.40
 21..15.6 19.8 21..19.70
 21..25.8 29.8 21..29.80
 21.58.9 55.1 21..55.00
 23.19.9 23.9 23..23.90
 23.27.3 31.3 23..31.30
 23.. 37.1 23..37.10

BDB

24.28.2 32.1 24..32.15
 52.2 56.1 24..56.15
 25.11.3 — 25..15.30
 25.6 — 25..29.50
 34.6 38.6 25..38.60
 25.54.9 58.9 25..58.90
 26.. 8.5 12.4 26..12.45
 26..17.5 21.5 26..21.50
 26.32.7 36.8 26..36.75
 26.50.1 54.1 26..54.10
 27.. 9.1 13.1 27..13.10
 28.17.2 21.4 28..21.30
 29.41.5 45.3 29..45.40
 30 2.2 6.2 ~ 4 .. 30..06.20

Zone 31

no lig 3

group of 12th

9-10 4.52
 12 2.32
 12 2.40
 12 8.19
 10 -0.21
 12 8.58
 L.D.

12 7.30
 9 3.56
 12 3.34
 12 0.45
 10 6.36

1 win lost
 2 win lost

10-11 1.32
 10 3.04
 12 8.21
 11 4.51
 12 4.14
 12 7.31
 10-11 5.18

no lig

11-12 8.37
 10-11 9.22
 12 3.02
 13 3.03

corn of 11 3" S for
 very many largest stars

1st win lost

12 1.57
 12 8.36
 12 0.20
 12 5.01
 10-11 8.41
 12 3.51
 8 1.45
 11 -0.01

2 win lost
 2 win lost

W552

11 1.55
 6 6.06
 12 9.22
 10 5.05
 12 3.38
 11 1.14

W 572

Wone 31

4, 30.59.9	3.8	4, 31.03.85
31.33.0	37.0	31.37.00
31.47.2	51.1	31.57.15
32.28.4	32.3	32.32.35
2, 34.6	38.5	32.38.55
33.16.9	20.8	33.20.85
34.16.2	20.1	34.20.15

B

34.46.9	50.8	34.50.85
35.28.2	32.0	35.32.10
35.42.5	46.3	35.46.40
36.32.4	36.3	36.36.35
X 36.38.1	41.5	36.41.30
37.33.3	37.2	37.37.25
38.13.7	—	38.17.70
38—	18.2	38.18.20
39.24.9	28.7	39.28.80
53.9	57.9	39.57.90
40.41.6	45.7	40.45.65
40.50.2	54.0	40.54.10
41.26.7	30.6	41.30.65
42.20.8	24.7	42.24.75
43.7.2	10.5	43.10.35

BB

43.43.9	47.8	43.47.85
44.26.1	30.0	44.30.05
44.44.8	48.7	44.48.75
45.36.8	40.7	45.40.75
46.58.9	2.9	46.02.90
46.51.7	55.5	46.55.60
47.8.2	12.1	47.12.15
47.21.0	24.9	47.24.95
48.46.4	50.2	48.50.30
49.24.6	28.9	49.28.75
49.29.8	33.8	49.33.80
X 49.52.7 ⁵	56.7 ³	49.56.
50.32.7	36.7	50.36.70
50.54.9	58.8	4, 50.58.85

June 31

13 1.13
 9-10 1.28
 14 2.38
 12 5.52
 12 0.20
 12 0.09
 10-11 0.24

B

12 2.15
 12 0.18
 11 5.02
 11-12 5.24
 11-12 8.48
 12-8 7.42
 10-11 7.56
 10-11 7.06
 10-11 5.52
 12-13 4.37
 12 8.12
 12 -0.02
 12 2.34
 13 5.50
 12-0 6.00

B, B,

11-12 0.39
 12 8.79
 11 5.37
 10 10.10

9 0.28
 12 0.47
 12-13 2.18

10 5.14
 9-10 2.24
 12-13 6.35-6
 11 3.50
 12 5.13
 11 5.37
 11-12 3.15

no sig

no sig

no sig

2nd win lost
 1st win lost

1 win lost

no sig -

no sig

Wone 31

4..51..38.9	42.9 ~ 4..	51..42.90
52..38.3	42.3	52..42.30
52..59.7	3.2	52..13.45
53..29.0	32.8	53..32.90
53..45.7	49.4	53..49.55
54..30.7	34.7	54..34.70
54..43.8	47.9	54..47.85
56..14.2	18.1	56..18.15
7..9.0	13.0	57..13.00
57..38.5	—	57..42.50
57..56.1	00.1	58..00.10
58..36.6	40.5	58..40.55
59..12.2	16.1	59..16.15
4..59..33.0	36.9	4..59..36.95
5..0..58.2	14.0	5..00..14.10
0..30.2	34.2	00..34.20
1..06.5	10.4	1..10.45
1..19.4	23.3	1..23.35
1..54.7	58.7	1..58.70
BDB		
2..32.4	36.3	2..36.35
2..42.4	46.3	2..46.35
4..8.8	12.7	4..12.75
5..3.2	7.1	5..07.15
5..33.4	37.3 ~ 5	5..37.35

Wone 31

11 5.02

11-12 5.33

12 5.52

12-10 5.12

12-13 1.18

11-12 3.20

~~11~~ 9.40~~11~~ 4.18

12 3.47

10 1.29

9 7.38

12 2.23

11 9.46

12 5.35

~~11~~ 3.48

10-11 1.00

11 4.33

11-12 10.10

12 3.12

B & B

10-11 7.40

10 5.10

11 9.44

12-13 0.49

12-13 8.12

12 3.55

12-13 3.12

9 1.38

10-11 0.47

11 1.05

11 5.42

11 8.56

12 5.14

10-11 7.42

12 4.18

12 4.23

11-12 2.00

10-11 1.15

no sig 22 win lost

no sig

no sig

no sig

Wone 31

6.30.41.3 45.2

Chloe 31

11 3.57
 9-10 5.54
 9-10 8.00
 11 6.04

13
 11 4.42
 10 3.12
 10-11 9.25
 11 3.57

no sig
 no sig

11 1.30
 11 6.31
 11 1.23
 11 7.53
 11 7.22
 11 - 6.06

no sig

10-11 7.35
 11-12 4.13
 9-10 4.43
 9-10 3.27
 10 3.42
 11-12 5.42

2 in doubt
 no sig

11 8.08
 11-12 6.18

13 13

12 5.18

11 8.52

12-13 0.21

11 4.08

11 1.02

10-11 9.06

10-11 8.32

9-10 2.00

12 1.27

11 2.39

10-11 0.22

11-12 0.18

no sig
 2 in last

no sig
 no sig

com o f d 18"

Wone 31

5..32..01.9	6.0 ~	5..32..06.95
33..11.3	16.3	33..15.30
33..25.2	29.1	33..29.15
34..11.2	15.1	34..15.15
34..35.1	39.1	34..39.10
34..48.0	51.9	34..51.95
35..6.9	11.1	35..11.00
35..27.0	30.9	35..30.95
35..35.0	39.2	35..39.10
35..48.9	52.8	35..52.85
36..43.1	47.0	36..47.05
36..48.2	52.2	36..52.20

BBD

39..7.9	11.9	39..11.90
41..38.2	42.1	41..42.15
41..54.0	38.2	41..58.10
42..22.8	26.6	42..26.70

No M

43..47.0	51.1	43..51.05
44..4.0	7.8	44..07.90
45..19.8	23.6	45..23.70
45..31.6	35.6	45..35.60
45..48.1	52.1	45..52.10
47..03.8	7.7	47..07.75
47..43.4	47.3	47..47.35
48..30.4	34.5	48..34.45
48..41.0	44.7	48..44.85
49..34.5	38.3	49..38.40
49..50.1	54.1	49..54.10
50..49.4	53.6	50..53.50
50..54.5	58.3	50..58.40
52..16.1	29.9	52.. 49.95 ^{29.95}

D

52..48.0	51.9	52..51.95
52..56.7	0.7	52..00.70
53..25.9	29.8	53..29.85
54..4.8	8.7	54..08.75

~~4..24.5~~ ~~24.5~~

None 31

12 1.03
 11-12 9.07
 12 9.38
 12 7.37
 11 4.44
 12 1.42
 11-12 5.58
 9-10 5.55
 10-11 6.05
 9-10 6.15
 10 4.38
 10 1.04
 13.13.8
 11 1.02
 10 9.18
 10-11 - 0.02
 9 6.34
 12 6.19
 12 6.04
 12 4.44
 10 7.41
 12 7.17
 12-8 4.43
 11-12 4.48
 11-12 4.48
 12 3.43
 10 8.12
 12 1.21
 7 0.25
 11 4.12
 11 5.43
 10 2.43
 5
 11-12 0.34
 11-12 0.15
 12-0 4.50
 12 8.22

no sig

no sig

no AB

no sig

com f 8" 17th mag-

no sig

no sig

Wone 31

5.. 54.24.5	26.5	5.. 54..28.5
55.02.9	6.8	55..06.85
56.13.2	17.1	56..17.15
57.32.2	41.2	57..41.20
58.04.5	38.3	58..08.50
58.32.8	36.7	58..36.75
5.. 58.43.2	47.3	58..47.25
5.. 59.23.9	28.0	5.. 59..28.00
6.. 0.25.6	24.4	6..00..29.50
1..08.7	12.6	1..12.65
1..19.3	23.7	1..23.20
2..24.8	28.6	2..28.70
3..04.3	8.2	3..08.25
B		
3..35.3	42.2	3..42.25
4..00.1	4.1	4..04.10
4..09.5	13.4	4..13.45
4..16.2	20.0	4..20.10
5..18.2	22.0	5..22.10
3..31.1	35.0	5..35.05
5..49.6	—	5..53.60
5..54.4	—	5..58.40
6..35.0	38.9	6..38.95
6..49.9	53.8	6..53.85
7..34.7	38.8	7..38.75
7..45.7	49.7	7..49.70
8..6.0	9.9	8..09.95
8..39.4	43.3	8..43.35
9..2.6	6.5	9..06.55
9..33.8	37.8	9..37.80
D		
10..27.8	31.7	10..31.75
38.9	42.9	10..42.90
10..55.1	59.0	10..59.05
11..08.2	12.2	11..12.20
11..43.0	47.0	11..47.00
12..16.5	20.4	12..20.45

Zone 31-

11 - 0.30
 12 7.51
 9 1.52
 12 5.23
 11 3.02
 10.11 3.25-
 9.10 1.26
 9.10 5.26
 12 2.08
 11 0.02
 10 9.52
 12 3.06
 11 8.37

B

11-12 0.38
 11 6.55
 11 5.00
 11-12 7.22
 10-11 5.32
 12 0.42
 11 6.05
 11 1.40
 11 4.32
 12 4.36
 11 8.03
 11-12 2.28
 1-10 0.19
 9 3.43
 11-12 2.20
 11 0.39

8

10-11 6.52
 11 8.51
 12 0.08
 12 6.21
 10-11 7.46
 11 1.45

2- lost
 2- lost

mosing

Wone 31

None 31

10.11 4.18
8000

24 hr lost—

Feb. 8th 1853

Sky not clear

Zone 32 = 30 repeated.

Tel. W of River

Zero of prot
cor added90° 1'
1.30Hourly high 2^h 4^m West

E.G. 4.20.00 Bar. 30.120 60 Ext. 30.0

6.19.00 30.100 61 28.5

2. 21. 42.6 46.4 2. 21. 46.50

23. 2.2 6.2 2. 23. 06.20

13. 08.2 12.3 2. 23. 12.25

23. 30.6 34.5 2. 23. 34.55

23. 48.0 52.1 2. 23. 52.05

24. 4.1 8.1 2. 24. 08.10

B

25. 00.2 4.1 2. 25. 04.15

D

25. 57.3 1.3 2. 26. 01.30

6. 10.9 14.9 2. 26. 14.90

26. 32.9 36.8 2. 26. 36.85

B, D, B

27. 08.7 12.6 2. 27. 12.65

28. 8.4 12.3 2. 28. 12.35

28. 42.2 46.1 2. 28. 46.15

29. 06.8 10.9 2. 29. 10.85

30. 3.1 7.4 2. 30. 07.25

31. 12.1 16.1 2. 31. 16.10

BB

31. 52.8 56.8 2. 31. 56.80

32. 31.2 35.2 2. 32. 35.20

34. ~~34.5~~ 30.5 2. 34. 30.5036. ~~36.5~~ 7.3 2. 36. 07.30

36. 57.8 1.9 2. 37. 01.85

37. 13.4 17.5 2. 37. 17.45

37. 39.6 43.4 2. 37. 43.50

37. 51.3 55.2 2. 37. 55.25

D

38. 19.9 23.8 2. 38. 23.85

38. 57.7 1.6 2. 39. 01.65

39. 51.6 55.4 2. 39. 55.50

40. 1.2 5.2 2. 40. 05.20

Wone 32

9 7.21
 12 9.39
 X 10 10.04
 11.12 5.57
 12 7.10
 9 5.22
 B
 X 13 0.11 reject
 D

redish

12 0.13
 12 0.08
 X 13 -0.12
 B D B

10.11 4.33
 12.13 3.50
 X 12.13 -0.04
 12 6.37
 12 2.26
 12 8.59
 B B

12 2.51
 12 3.38
 13 7.25
 X 13 10.10
 12.13 1.11
 12 8.05
 12 3.54
 11.12 2.43

etwas MBS doubt - 1st wine lost
 1st wine lost

+ 11 10.35
 11 4.25
 X 1 10.30
 1.10 2.58

None 32

2..40..18.1 22.0

40..41.8 45.7

40..49.7 53.8

40..57.8 1.7

41..10.2 14.2

41..37.1 41.2

BD

42..15.0 18.9

2..35.8 39.8

43..9.0 13.0

43..35.8 —

43..38.6 42.6

44..16.3 20.2

B

44..51.0 —

~~47..21.9 25.9~~

47..21.9 25.9

48..5.8 9.7

~~48..52.8 56.8~~

49..13.2 17.2

49..28.8 33.0

49..52.2 56.4

BBB

51..34.9 38.9

51..48.7 52.7

52..3.4 —

52..9.8 13.7

53..36.6 40.5

54..14.9 —

54..21.1 25.0

B

55..2.8 6.9

5..17.5 21.3

5..30.5 34.6

~~5..62.9 6.8~~

6..44.9 48.9

57..00.3 4.2

2..40..22.05

2..40..45.75

2..40..53.75

2..41..01.75

2..41..14.20

2..41..41.15

2..42..18.95

2..42..39.80

2..43..13.60

2..43..39.80

2..43..42.60

2..44..20.25

2..44..55.00

2..47..25.90

2..48..09.75

2..48..56.80

2..49..17.20

2..49..32.90

2..49..56.30

2..51..38.90

2..51..52.70

2..52..07.40

2..52..13.75

2..53..40.55

2..54..18.90

2..54..28.05

2..55..06.85

2..55..21.40

2..55..34.55

2..56..06.85

2..56..48.90

2..57..04.25

Wone 32

1 12 6.35-

1 10.11 1.28

1 12 7.48

1 11.12 6.40

1 12 7.07

1 9.10 3.38

B.D.

1 12.13 0.29

1 12 2.24

1 11.12 8.50

1 12 0.08

1 12 9.11

1 12 0.48

B

1 13 9.23

A thin haze renders stars below the 11 mag. difficult to obs.

1 12 2.33

1 13 0.20

1 12 2.59

1 11 4.26

1 12 8.27

1 12 1.36

B.B.D.

1 11 2.36

1 10.11 5.22

X 11 10.07

1 10 2.34

1 11 9.07

1 12 4.23

1 11 9.33-

B

1 12 7.49

1 12 5.13

1 12 9.11

1 13 5.29

1 12 8.55

1 12 1.11

2d win lost
no sig.

2d win lost

comp. 9" m.p. 12 m

reject 2d win

2d win lost

2d win lost

Done 32

2.. 57.26.6	30.4	Mean
57.26.6	30.9	2.. 57.30.50
7.. 55.9	00.0	2.. 57.59.90
8.. 7.0	11.0	2.. 58.11.00
2.. 59.16.9	20.9	2.. 59.20.90
3.. 00.52.5	—	3.. 00.56.50
1.. 10.3	—	3.. 01.14.30
1.. 19.7	23.7	3.. 01.23.70
3.. 03.7	—	3.. 03.07.70
3.. 8.3	12.3	3.. 03.12.30
3.. 29.8	33.7	3.. 03.33.75
4.. 47.0	51.0	3.. 04.57.00
5.. 15.0	19.0	3.. 05.19.00
B		
6.. 09.8	13.9	3.. 06.13.85
6.. 44.0	48.1	3.. 06.48.05
6.. 51.7	55.6	3.. 06.55.65
7.. 11.2	15.3	3.. 07.15.25
DDD		
8.. 43.6	47.5	3.. 08.47.55
9.. 47.5	51.5	3.. 09.57.50
10.. 28.3	32.3	3.. 10.32.30
10.. 50.2	54.3	3.. 10.54.25
11.. 27.0	31.0	3.. 11.31.00
12.. 11.5	15.5	3.. 12.15.50
12.. 55.9	59.0	3.. 12.58.95
13.. 36.0	39.8	3.. 13.39.90
B		
14.. 56.5	56.5	3.. 14.56.50
15.. 15.3	19.1	3.. 15.19.20
15.. 44.2	48.1	3.. 15.48.15
16.. 16.9	20.8	3.. 16.20.85
16.. 18.1	22.0	3.. 16.22.05
17.. 23.2	27.3	3.. 17.27.25
17.. 44.9	48.8	3.. 17.48.85
18.. 20.7	24.4	3.. 18.24.55
18.. 52.1	56.1	3.. 18.56.10
19.. 31.0	35.0	3.. 19.35.05

None 32

12	8.67
12	2.03
12	3.26
12	10.11
12.13	7.50
12.13	0.89
12	9.37
13	2.42
12	2.32
12	7.57
9.10	3.46
12	0.16
12	3.04
11	6.11
11.12	0.29
10.11	7.34
11	3.26
12	0.28
12	4.28
13	3.18
12	2.93
11	8.53
10.11	8.33
7.8	0.52
12	10.13
10	9.46
11	2.06
11	4.02
10	1.31
12	2.56
11.12	2.26
12	0.18
11	9.12
12	9.01

} paint 2nd wire lost

2nd wire lost

8 Centaur

very faint - horse

no sig.

Wone 32

DDB

3..21..4	23.6	3.. 21..23.60
22..6.2	10.2	3.. 22..10.20
2..21.3	25.4	3.. 22..25.35
23..40.3	44.2	3.. 23..44.25
24..19.0	23.2	3.. 24..23.10
24..21.4	25.2	3.. 24..25.30
27..29.0	33.4	3.. 27..33.20
28..5.2	9.0	3.. 28..09.10

B

29..11.3	15.3	3.. 29..15.30
9..42.7	46.6	3.. 29..46.65
30..15.0	18.9	3.. 30..18.95
30..39.3	43.3	3.. 30..43.30
31..8.8	12.8	3.. 31..12.80
31..33.2	37.5	3.. 31..37.35
32..59.2	3.0	3.. 32..03.10
33..22.3	26.4	3.. 33..26.35

D

33..44.0	52.1	3.. 33..52.05
34..18.8	22.3	3.. 34..22.30
34..39.3	43.7	3.. 34..43.50
35..13.7	17.5	3.. 35..17.40
*36..39.4		3.. 36..43.40

not in printed Lones or copy.

*36.. 48.4	48.4	3.. 36..48.40
37..20.1	24.2	3.. 37..24.15
37..39.5	43.6	3.. 37..43.55
37..54.4	58.4	3.. 37..58.40
38..8.1	12.1	3.. 38..12.10
40..3.1	7.0	3.. 40..07.05
40..24.2	32.0	3.. 40..32.10
41..21.4	25.3	3.. 41..25.35
41..38.0	36.8	3.. 41..36.90
42..19.4	23.6	3.. 42..23.80

BB

44..32.9	36.8	3.. 44..36.85
----------	------	---------------

* these obs. on the sheet are vague

Done 82.

D.D.B

1 12 4.105
 1 11 5.141
 1 9.10 2.189
 1 12 3.130
 + 11 10.24
 1 11 8.100
 1 11 1.141
 1 10 8.101

B

1 9.10 6.118
 1 11 6.123
 1 11 8.117
 1 11 2.121
 1 12 0.119
 1 12 2.146
 1 11 3.159
 1 11 2.149

D

1 12 5.126
 1 11.12 9.110
 1 11.12 4.186
 1 13 2.180
 + 12 10.103
 1 12 5.100
 1 12 4.158
 + 12 10.109
 1 9.10 4.100
 1 12 0.147
 1 8.9 9.122
 1 10 3.159
 1 11.1 5.157
 1 12 5.146
 1 12 3.135
 1 12 7.139

B.B

1 6.117

1st win lost

very difficult
 to obs. here

duplex

At 8 dubia

1st win lost
 on 1st

Wome 32

3..45..05.3	9.4	3..45..09.35
45..28.9	33.1	3..45..33.02
47..55.0	59.1	3..47..59.05
48..33.2	37.3	3..48..37.25
49..24.9	28.9	3..49..28.90
49..49.7	53.6	3..49..53.65
52..17.8	21.9	3..52..21.85
2..32.3	36.3	3..52..36.30
X 2 54.2	58.1	3..52..58.15
53..39.8	44.0	3..53..43.90

4
D

4^h

Wone 32

111	4.53
12	0.37
12	8.08
12	1.08
10.11	4.13
10.11	5.08
11	9.19
13	8.06
12	6.48
11	3.40
12	5.51
⊙ 6.1	
10.11	6.46
12	3.28
10	-0.88
12	2.05
11.12	-0.30
11.12	0.06
10	3.30
10.13	7.00

Clearing up

9.10	4.16
11	0.24
12	8.52
⊙	
11	6.28
12	6.01
12	8.35
12	7.23
12	-0.26
10	2.06
12	6.28
10	2.46
12	9.16
11.12	3.83
10	9.44
11	3.02

comp duplex

no sig.

D. w. lost
no sig.
Admiral

no sig.

doubt

Wone 32

 $4_{-0.8}^{+0.8}$ ~~2~~

Wane 32

2nd wind

duplex emp 10m4m
~~emp 10m4m~~

12 6.13
11 5.53
10 -0.13
11 3.29
11.12 5.56
6 5.06
03 D 03
12 0.38
12 9.18
12 2.05
12 2.33
12 2.19
12 6.45

Through most of this zone the
smaller stars were observed with much
difficulty - the sky being partly overcast -

1853 Friday Feb 11th

Zone 33

Zero of ref $90^{\circ} 01' 30''$
ref cor added $1^{\circ} 20'$
 $90^{\circ} 2' 50''$

H. Angle 2.24 West

Chron. 8.30. end of zone Feb. W-
Obs'd by G. P. B

Clear & Fine

Zone 33 = Zone 31 repeated

E.C. 6.32.00 Bar. 29.750 67° Ext +35.3
 " 8.30.00 29.760 60 " 32.5

1st star is 2 of Zone 32

4.11.04.5 8.5 4.11.8.50

B

11.29.5 33.5 4.11.33.50

11.39.1 43.2 4.11.43.15

12.11.0 15.1 4.12.15.05

13.3.1 7.2 4.13.07.15

13.12.9 16.8 4.13.16.85

13.37.5 41.5 4.13.41.50

D

15.41.1 45.0 4.15.45.05

15.58.2 2.1 4.16.02.15

16.22.2 26.2 4.16.26.20

17.8.2 12.0 4.17.12.10

X 17.32.0 36.0 4.17.36.0

17.49.7 53.7 4.17.53.70

~~18.14.2 8. 4.18.18.20~~

18.44.0 47.9 4.18.47.95

19.9.0 13.2 4.19.13.10

19. 16.9 4.19.16.90

19.30.7 34.7 4.19.34.70

19.41.6 45.7 4.19.45.65

BD

20.23.1 27.1 4.20.27.10

20.24.5 28.5 4.20.28.50

20.49.0 53.0 4.20.53.00

21.8.7 12.7 4.21.12.70

Z83 is 31 repeated

8 5.07
 12 0.40
 12 9.18
 12 2.06

B

12 2.34
 12 2.20
 13 7.47
 11 6.45
 11 8.57
 11 8.56

D

10 9.51
 12 2.32
 12 2.39
 12 8.19
 10 -0.24
 12 8.58

X 13 ~~7.31~~ Repeat

12 7.30
 9.10 3.56
 3.34
 12 0.45
 10 6.36

B D

10.11 1.32
 10 3.03
 12 8.21
 12 4.57

duplex comp 8" north of

point doubtful

mura

1st in last -

no sig

Lone 33.

4..21..15.9	20.0	4..21..29.95
21..26.0	30.0	4..21..30.00
21..57.3	55.2	4..21..55.25
23..20.0	23.9	4..23..23.95
23..27.4	31.5	4..23..31.45
23..33.1	37.0	4..23..37.05
BB		
24..28.4	32.3	4..24..32.35
24..52.3	56.3	4..24..56.30
25..11.1	15.3	4..25..15.20
25..34.9	38.9	4..25..38.90
25..55.0	58.9	4..25..58.95
26..8.7	12.6	4..26..12.65
26..17.7	21.6	4..26..21.65
26..not seen		
B		
26..50.4	54.3	4..26..54.35
7..9.2	13.3	4..27..13.25
D		
28..17.9	21.8	4..28..21.85
29..41.5	45.6	4..29..45.55
29..44.3	48.2	4..29..48.25
30..2.2	6.3	4..30..06.25
31..00.7	4.0	4..31..04.05
31..33.1	27.1	4..31..37.10
31..47.2	51.2	4..31..57.20
32..28.4	32.6	4..32..32.50
32..34.8	38.8	4..32..38.80
34..16.4	20.3	4..34..20.38
34..47.1	51.1	4..34..57.10
BDB		
35..28.1	32.2	4..35..32.15
6..42.8	46.7	4..35..46.75
6..32.9	36.7	4..36..36.80
8..38.1	42.0	4..36..42.05
37..33.4	37.5	4..37..37.45

Lone 33.

12 4.13

12 7.81

11 5.18

12 8.36

10 9.21

12 3.03

12 1.56

12 8.36

12 6.19

10 8.41

12 3.51

8 1.45

11 - 0.02

11 1.57

12 6.07

12 9.22

9 5.04

11 3.38

9 - 0.35

11 1.14

12 1.16

9 1.28

11.12 2.42

12 6.47

12 0.18

11 6.22

12 2.15

12 0.19

11 5.01

11.12 5.25

11.12 8.15

12 7.39

duplex comp 3 s.p.

no sig

Many 12 mag stars have passed knobs

will list 2

no sig

Many 12 mag. unobserved

duplex com 11 s.p.

no sig

Lone 33.

4.38.13.5 17.7
 14.5 18.4 4.38.17.75
 38.18.45

~~29.25.0~~ 29.0

39.25.0 29.0 4.39.29.00
 39.41.0 57.9 4.39.57.95
 41.41.5 45.6 4.41.45.55

No R

41.26.8 30.9 4.41.30.85

DB

42.20.9 24.8 4.42.24.85
 43.06.7 10.6 4.43.10.65
 43.44.0 48.2 4.43.48.10

SSS

44.26.2 30.2 4.44.30.20
 44.44.9 49.0 4.44.48.95
 45.36.7 40.9 4.45.40.80
 45.59.2 3.1 4.46.03.15
 46.51.8 55.8 4.46.55.80
 47.8.4 12.3 4.47.12.35
 47.21.2 25.1 4.47.25.15
 48.46.5 50.6 4.48.50.55
 49.24.6 28.8 4.49.28.70
 49.29.9 33.9 4.49.33.90
 49.52.7 56.8 4.49.56.75
 50.32.9 36.8 4.50.36.85
 50.54.9 58.9 4.50.58.90
 51.39.0 42.9 4.51.42.95

B

52.38.6 42.6 4.52.42.60
 52.59.6 3.6 4.53.03.60
 53.29.1 33.6 4.53.33.05
 53.45.8 49.8 4.53.49.80
 54.30.9 34.8 4.54.34.85
 54.44.0 48.0 4.54.48.00
 56.14.5 18.3 4.56.18.40
 57.9.2 13.3 4.57.13.25
 57.38.6 42.8 4.57.42.70

Lone 33.

11 7.55
10 7.03

certain no sig

1 10.11 5.52
1 12 4.37
1 12 8.07
x 11 -0.00
1 12 2.34
D B

certain
N.R.

1 12.13 5.50
1 12.13 5.57
1 11 0.39
O O O

1 12 8.17
1 11 5.36
x 9 10.08
1 9.10 0.29
1 11.12 0.48
1 12 2.18
1 12 5.14
1 9 2.22

1 12 6.44
1 11.12 3.53
1 12
1 10 5.36
1 12 3.15
1 11.12 5.01
B

certain
no sig

1 11 5.31
1 12 5.52
1 12 5.12
1 12 1.18
1 11.12 3.20
1 10.11 9.40
1 12 4.18
1 12 3.47
1 11 1.30

certain

Zone 33

4..57.56.5	00.4	4..58..00.45
58.36.8	40.7	4..58..40.75
59.12.5	16.3	4..59..16.40
4..59..33.2	37.2	4..59..37.20
5..00..10.3	14.3	5..00..14.80
0..30.2	34.3	5..00..34.25
1..6.8	10.7	5..01..10.75
1..19.7	23.6	5..01..23.65
6.01 54.9	58.9	5..01..58.90

B2

2..32.8	36.7	5..02..36.75
2..42.6	46.7	5..02..46.65
4..8.9	12.7	5..04..12.80
6..20.8	24.7	5..06..24.75
7..55.9	59.8	5..07..59.85
8..6.0	09.9	5..08..09.95
9..1.1	6.0	5..09..05.05
9..17.1	21.2	5..09..21.15
10..1.0	5.0	5..10..05.00
10..18.1	22.0	5..10..22.05
10..51.2	55.1	5..10..55.15

D

11..25.9	30.0	5..11..29.95
12..15.2	19.2	5..12..19.20
13..9.9	14.0	5..13..13.95
13..49.6	53.6	5..13..53.60
14..12.5	16.5	5..14..16.50
14..39.6	43.3	5..14..43.45
15..07.4	11.5	5..15..11.45
15..9.7	13.8	5..15..13.75
15..45.4	49.3	5..15..49.35
16..23.1	27.1	5..16..27.10
16..32.6	36.7	5..16..36.65
16..46.9	29.1	5..16..50.90
17..25.0	29.1	5..17..29.05
17..38.6	42.6	5..17..42.60
18..32.6	36.7	5..18..36.65
18..40.9	44.9	5..18..44.90

Lone 33.

18 7.387
 12 2.24
 10.11 9.43
 12 5.34

 11 3.41
 10 1.00
 11 4.33
 X 11.12 10.09
 12 3.12
 B D

11 7.38
 10 5.09
 11 9.42
 12 3.12
 8 1.38
 10 0.42
 12 1.05
 10 6.42
 10 8.56
 12 5.32
 11 7.42
 D

12 4.48
 12 4.23
 12 2.00
 10.11 1.15
 11 3.37
 9 5.54
 8 - 0.18
 9 4.00
 11 6.02
 11.12 4.42
 9.10 3.12
 11 9.23
 11 3.57
 10 1.29
 11 6.30

accid. dot

no. 10

no. 10

Long 33.

5. 5. 18.47.1	51.3	
19.30.6	34.5	5. 18. 57.20
19.36.6	40.6	5. 19. 34.55
19.54.9	58.9	5. 19. 40.60
20.29.2	33.3	5. 19. 58.90
21.38.2	42.1	5. 20. 33.25
22. 9.6	13.7	5. 21. 42.15
		5. 22. 13.65

D.B.D

22.58.0	2.1	5. 23. 02.05
24.07.0	—	5. 24. 11.00
4 11.1	15.0	5. 24. 15.05
5.16.1	20.1	5. 25. 20.10
26.41.1	45.0	5. 25. 45.05
26.13.6	17.5	5. 26. 17.55

Break

27.17.3	21.3	5. 27. 21.30
27.57.6	13.5	5. 28. 03.55

BD

29.24.4	28.3	5. 29. 28.35
30.41.4	45.3	5. 30. 45.35

B

32. 2.0	6.0	5. 32. 06.0
33.11.7	15.6	5. 33. 15.65
34.11.6	15.6	5. 34. 15.60
34.35.3	39.2	5. 34. 39.25
35.07.3	11.2	5. 35. 11.25
35.27.0	31.2	5. 35. 31.10
35.35.3	39.2	5. 35. 39.25
35.49.1	53.2	5. 35. 53.15
36.43.2	47.2	5. 36. 47.20
36.48.5	52.5	5. 36. 52.50

BD

~~39. 8.0~~ ~~12.00~~

39.08.0	12.0	5. 39. 12.00
39.09.3	13.3	5. 39. 13.30

Lone. 33.

10 1.22
 11 7.33
 11 7.21
 X 11 6.05-
 9.10 7.33
 11 4.13
 8 4.43
 8 3.28

D BD

10 3.42
 8 0.18
 11 8.03
 12 5.18
 11 8.50
 12 0.21

B

9 4.08
 0.01
 0.02
 BD

10 0.22
 11 0.11

B

12 1.03
 12 4.07
 12 7.37
 11 4.44
 11 5.57
 9 5.55-
 10 6.05-
 8 6.17
 9.0 4.48
 9.10 1.05-

BD

Northern greater also 13 mag.

Fine nebulosity surrounding two following stars

11 1.03
 11 1.51

AS

noting

Done 33.

5..41..38.6 42.7 ~ 5..41..42.65
~~43..47.7~~ ~~5..43..57.20~~

Circuit Broken

43..47.2	51.2	5..43..51.20
44..40	39.9	5..44..07.95
45..20.0	24.0	5..45..24.00
45..31.8	35.8	5..45..35.80
45..48.3	52.4	5..45..52.35
47.. 48.3 ^{3.8}	7.7	5..47..07.75
47..43.7	47.8	5..47..47.75
48..31.0	34.8	5..48..34.90
48..41.1	45.2	5..48..45.15
49..34.7	38.7	5..49..38.70
49..50.2	54.2	5..49..54.20
50..49.7	53.8	5..50..53.75
50..54.7	58.7	5..50..58.70

5

52..16.3	20.2	5..52..20.25
52..48.0	52.2	5..52..52.10
52..56.8	00.8	5..53..00.80
53..26.0	30.0	5..53..30.00
54..5.0	9.0	5..54..09.00
55..3.0	7.0	5..55..07.00
56..13.6	17.4	5..56..17.50
57..37.4	41.4	5..57..41.40
58..4.8	8.8	5..58..08.80
58..32.8	36.7	5..58..36.75
58..43.3	47.2	5..58..47.25
59..24.2	28.2	5..59..28.20

BD

6..00..08.9	12.8	6..00..12.85
1..8.7	12.7	6..01..12.70
1..19.3	23.2	6..01..23.25
2..24.8	28.8	6..02..28.80

k

Zone 33

B 4.10 9.117
 11 - 0.102
 18 6.135
 B
 12 6.18
 12 6.04
 12 4.44
 10 7.40
 12 7.17
 12 4.43
 11.12 4.48
 11 4.07
 12 3.43
 9 8.10
 12 1.22
 7 0.25
 11 4.12
 10.11 5.25

9 2.43
 11 0.34
 11 6.17
 12 4.50
 12 8.20
 11.12 7.51
 11 1.52
 12 3.23

11 5.01
 10.11 3.25
 8 1.26
 7 5.26
 BDB

12 2.08
 10 0.01
 9 9.52
 12 3.07

duplex fol. 8

no sig

W 1513
 W 1534

Zone 33 A great part of the 12th mag
stars in this zone have been omitted - a probably
most of the stars are brighter for the assigned
magnitudes than in previous zones

1853phae.proj.115B
Zone 31 was observed continuously with zone
30 without altering the adjustments of the instruments.

It is in Dec $0^{\circ}00'$ to $0^{\circ}10'$

R $4^{\text{h}}30^{\text{m}}$ to $6^{\text{h}}30^{\text{m}}$ about

32 is 30 repeated = R $2^{\text{h}}20^{\text{m}}$ to R
Dec $0^{\circ}00'$ to Dec $0^{\circ}10'$

33 is 31 " R $4^{\text{h}}20^{\text{m}}$ to R $6^{\text{h}}30$
Dec $0^{\circ}00'$ to Dec $0^{\circ}10'$

