KG
11366
v.629

ERROR OF FRODSHAM 1327

APRIL 20, 1907 TO MAR. 10, 1908.

$b \sec \alpha = 0.44$ (W. end high)

Sat April 20, 1907

Dover Ci   Wolcles

Rattle at 9h 17m

α Hydrae −8°15'

θ Urs. Maj +52°6'

10 Leon. Min +36°49' (last train)

A [o Leonis] +10°19'

−8°15'
23m 26.3 13.7 0.0
28.9 11.2 0.1
31.2 8.7 9.9
34.2 6.2 0.4
36.4 3.6 0.0
42.7 57.4 0.1
46.3 53.8 0.1
50.1
15 | 7
50.05

+52° 6'
26m 49.2 5.7 4.9
53.2 1.6 4.8
56.8 57.5 4.3
1.3 53.7 5.0
5.3 49.7 5.0
15.4 39.4 4.8
21.2 33.4 4.6
27.4
15 | 5 8
27.39

+10°19'
36m 36.6 24.0 0.6
39.0 21.7 0.7
41.7 19.0 0.7
44.2 16.7 0.9
46.7 14.2 0.9
53.0 7.7 0.7
56.6 4.2 0.8
0.3
15 | 5 6
0.37

1.28 48.50
.02 48.65
1.26) 15 (12
126
240

9h 23m 50s.05
9 23 1.58
48.47
61
12
48.49

9h 27m 27s.39
9 26 38.89
48.50
.04
48.54

9h 37m 0s.37
9 36 11.68
48.69
.08
48.61

u = .12

48.49
.54
.61
3 | 1.64
48.55
.44
48.99

Chrond. 1327 is FAST

0m 48s.99

at 9h 30m S.T.

Mon. Apr. 22, 1907

Mer Cir

Wells.

Rattle at $9^h 30^m$

A [o Leonis] +10°19'

ε Leonis +24°12'

o Ursa Maj +59°29'

+10°19'

36^m 37.3 24.7 2.0
39.8 22.3 2.1
42.3 19.7 2.0
44.7 17.2 1.9
47.2 14.7 1.9
53.3 8.4 1.7
57.1 4.8 1.9
1.0
15)14.5
0.97

+24°12'

40^m 58.6 49.7 8.3
1.3 47.2 8.5
4.0 44.4 8.4
6.5 41.6 8.1
9.3 39.0 8.3
16.0 32.2 8.2
20.1 28.2 8.3
24.2
15)23
24.15

+59°29'

44^m 26.4 58.7 5.1
31.5 53.8 5.3
36.2 49.0 5.2
41.2 44.2 5.4
46.0 39.4 5.4
58.0 27.4 5.4
5.5 20.0 5.5
12.7
15)10.0
12.67

1.70 | 49.10
.18 | 49.32
1.52 | .22 (.14
152
680

$9^h\ 37^m\ 0^s.97$
9 36 11.65
49.32
.10
49.22

$9^h\ 41^m\ 24^s.15$
9 40 34.82
49.33
.07
49.26

$9^h\ 45^m\ 12^s.67$
9 44 23.57
49.10
.11
49.21

n = .14

49.22
.26
.21
3)1.69
49.23
.44
49.67

Sid. Chrod. 1327 is FAST

$0^m\ 49^s.67$

at $9^h\ 40^m$ S.T.

Wed. Apr. 24. 07

Amer Cir [illegible]

Rattler at 9h 34m

A [o Leonis] +10°19'
ε Leonis +24°12'
o Ursa Maj +59°28'
A [μ Leon] +26°27'

+10°19'		+24°12'		+59°28'		+26°27'	
36m 38.3 26.0		40m 59.7 51.0	0.7	44m 27.8 59.9	7.7	47m 53.3 45.6	8.9
40.8 23.5	4.3	2.3 48.3	0.6	32.7 55.3	8.0	56.1 43.0	9.1
43.4 21.0	4.3	5.0 45.7	0.7	37.6 50.2	7.8	58.9 40.3	9.2
45.8 18.3	4.4	7.8 43.0	0.8	42.5 45.6	8.1	1.7 37.3	9.0
48.2 15.9	4.1	10.4 40.2	0.6	47.1 40.5	7.6	4.2 34.7	9.0
54.6 9.7	4.1	17.2 33.3	0.5	59.5 28.5	8.0	11.2 27.8	9.0
58.4 6.0	4.3	21.2 29.3	0.5	6.7 21.3	8.0	15.3 23.6	8.9
	4.4		25.3		14.2		19.6
	2.3						
	15)22		15)47		15)144		15)77
	2.15		25.31		13.96		19.51

$9^h 37^m 2^s.15$	$9^h 41^m 25^s.31$	$9^h 45^m 13^s.96$	$9^h 48^m 19^s.51$
9 36 11.62	9 40 34.78	9 44 23.50	9 47 28.92
50.53	50.53	50.46	50.59
.03	.02	.04	.02
50.50	50.51	50.50	50.57

50.46
50.53
1.57) .070

u = .05

50.50
.51
.50
.57
4)208
50.52
.44
50.96

Frod. 1327 is FAST

$0^m 50^s.96$

at 9h 40m S. T.

Time - April 25.07

Meri Cir [illegible]

Rattle at 9h 38m

ε Leonis +24°12'

o Urs. Maj + 59°29'

A [μ Leonis] +26°27'

+24°12'			+59°29'			+26°27'		
9h 41m	0.2 51.4	1.6	44m	28.3 0.4	8.7	47m	54.0 46.2	0.2
	3.0 48.9	1.9		33.3 55.9	9.2		56.7 43.7	0.4
	5.7 46.2 ~~49.9~~	1.9		38.0 50.8	8.8		59.3 40.7	0.0
	8.3 43.6 ~~46.2~~	1.9		42.9 46.1	9.0		2.3 38.0	0.3
	10.2 41.9 ~~43.6~~	2.1		47.6 41.1	8.7		4.9 35.3	0.2
	17.7 34.1	1.8		59.8 29.2	9.0		11.7 28.3	0.0
	22.0 30.0	2.0		7.0 21.6	8.6		16.0 24.2	0.2
		25.9			14.3			20.0
		15)141			15)63			15)13
		25.94			14.42			20.09

1.20 50.95
.45 51.16
1.25 1.21 (17
.125
850

9h 41m 25.94s	9h 45m 14.42s	9h 48m 20.09s
9 40 34.78	9 44 23.47	9 47 28.90
51.16	50.95	51.19
.08	.13	.05
51.08	51.08	51.14

n = .17

51.08
51.08
51.14
3)153.30
51.10
.44
51.54

Frod. 1327 is FAST

0m 51.54s

at 9h 45m S. T.

Sat Apr. 27, 1907

Collimation Wel. obs

Started 2h 30m E.T.

S Coll on N. Coll. 68.5
66.3
67.0
66.2
66.4
5) 34.4
66.88

micrometer found at 33.846

Tel. on S. Coll. 34. ~~021~~ 053
.052
.031
.038
.022
5) 196 (34.0392

Tel. on N. Coll. 33. ~~237~~ 163
.168
.168
.172
.176
5) 847 33.1694

2) 67. ~~19~~ 20 86
33. ~~5943~~
.6043
.012
33.616

2:58

Set at 33.616

Sat. Apr. 27. 07

Started $3^h 0^m$ E.T.

Level Obs. [illegible]

Telescope South.

Zero	W. End	E. End			
W.	−33.8	−75.2	−109.0		
E.	+83.0	+41.7	+124.7	+15.7	
W.	−34.0	−76.0	−110.0		+29.0
E.	+82.3	+41.0	123.3	+13.3	

Telescope North

Zero	W. End	E. End			
W.	−34.8	−76.0	−110.8		
E.	+85.3	+44.0	+129.3	+18.5	
W.	−36.0	−77.0	−113.0		+38.4
E.	+ ~~86.2~~ 87.1	45.~~4~~8	+132.9	+19.9	

1 | 67.4

16) 67.4 (4.2125
64
34
32
20
16
40

.06
.252750 = b

Stopped 3 : 15 E.T.

.253
1.35
1265
759
253
.34155

b sec φ = 0.34 West end high.

Sat Apr. 27.07

Quer Cir [illegible]

Rattle after $10^h 08^m$

~~λ~~ Urs. Maj. +43°23′

μ " " +41°58′

+43°23′

11^m 50.2 54.4 4.6
53.6 51.3 4.9
56.6 47.7 4.3
0.3 44.3 4.6
3.7 41.1 4.8
12.1 32.2 4.3
17.7 27.4 5.1
22.4
15)50
22.33

+41°58′

17^m 8.4 12.0 0.4
11.7 8.7 0.4
15.4 5.2 0.6
18.8 1.5 0.3
22.0 58.6 0.6
30.3 50.4 0.7
35.6 45.2 0.8
40.2
15)40
40.27

$10^h 12^m 22^s.33$
10 11 30.00
52.33

$10^h 17^m 40^s.27$
10 17 48.05
52.22

μ = 1/6

52.33
.22
)55
52.28
.34 b sec u
52.62

Frod. 1327 is FAST

$0^m 52^s.62$

at $10^h 15^m$ S. T.

Mon Apr 29, 1907

Zol. Obs.

Mer Cir

Rattle at $10^h 10^m$.

λ Urs Maj +43° 23'
30 H. Urs. Maj + 66° 2'
μ Hydrae −16° 22'

+43° 23'

$10^h 11^m$ 50.9	55.2	6.1
54.1	52.0	6.1
57.6	48.4	6.0
1.0	45.0	6.0
4.4	41.6	6.0
12.9	33.1	6.0
18.0	28.0	6.0
		23.0
		15 | 02
		23.01

+66° 2'

17^m 22.3	17.4	9.7
28.4	11.6 ~~17.4~~	0.0
34.6	5.5 ~~11.6~~	0.1
40.7	59.6	0.3
46.7	53.2	9.9
1.8	38.3	0.1
10.8	29.1	9.9
		20.1
		15 | 01
		20.01

−16° 22'

22^m 4.4	53.3	7.7
7.2	50.7	7.9
9.8	48.2	8.0
12.0	45.4	7.4
14.7	42.9	7.6
21.1	36.5	7.6
25.1	32.8	7.9
		28.7
		15 | 128
		28.85

-.29 52.70
.225 53.17
.254 | .47 (.19
.25
.220
.225

$10^h 12^m 23.^s01$	$10^h 18^m 20.^s01$	$10^h 22^m 28.^s85$
10 11 29.96	10 17 26.84	10 21 36.15
53.05	53.17	52.70
	.25	.23
	52.92	52.93

u = .19

.19
1.2
38
.19
.228

1.33
.19
1197
133
.2527

53.05
52.92
52.93
3 | 290
52.97
.34 Bsecl.
53.31

Frod. 1327 is FAST

$0^m 53.^s31$

at $10^h 15^m$ S.T.

Wed. May 1, 1907

Mer. Cir. Whe. Obs.

Rattle at $11^h\,3\overset{7}{8}^m$

χ Urs. Maj + 48° 18' (last 8 wires)
β Leonis +15° 06'
γ Urs. Maj + 54° 13' (last 10 wires)
Rattle at $11^h\,52^m$

+48° 18'
42^m — — 24.2
— — 27.8
— 3.7 31.3
— 8.7 35.3
14.7 38.6
$5\,|\,157.2$
31.44
27.74
03.70

+15° 06'
$4\overset{4}{5}^m$ 49.5 38.0 7.5
52.1 35.4 7.5
54.4 33.0 7.4
57.0 30.3 7.3
59.4 27.8 7.2
6.0 21.5 7.5
10.0 17.7 7.7
13.7
$15\,|\,108$
13.72

+54° 13'
49^m — 39.2 15.1
— 45.6 19.4
— 51.9 23.6
— 58.2 27.7
4.5 32.0
$5\,|\,259.4$ $5\,|\,117.8$
51.88 23.56
31.57
51.99

$11^h\,42^m\,03.^s70$
11 41 9.60
54.10
.04
54.06

$11^h\,4\overset{5}{8}^m\,13.^s72$
11 44 19.85
53.87
.13
54.00

$11^h\,49^m\,51.94$
11 48 57.78
54.16
.09
54.06

aso
$n = 1/5$

54.03
.36
54.39

Sid 1327 is FAST

$0^m\,54.^s39$

at $11^h\,45^m$ S. T.

Illinois ~~City~~ May 2, 1907

Amer Cir Yerkes Obs.

Rattled at $10^h 08^m$

λ Urs. Maj $+43° 23'$

μ Urs Maj $+41° 58'$

31 Leon Min $+37° 11'$

$+43° 23'$

$10^h 11^m$ 52.3 56.7 9.0
55.6 53.3 8.9
58.7 49.7 8.4
2.3 46.1 8.4
5.6 42.7 8.3
14.3 34.7 9.0
19.3 29.4 8.7
24.4
15 | 51
24.34

$+41° 58'$

17^m 10.6 13.6 4.2
14.0 10.7 4.7
17.6 7.3 4.9
20.7 4.0 4.7
24.0 0.7 4.7
~~29.0~~
32.0 52.1 4.2
37.4 47.4 4.8
42.7
15 | 49
42.33

$+37° 11'$

22^m 56.0 54.8 0.8
59.3 51.7 1.0
2.2 48.6 0.8
5.3 45.4 0.7
8.2 42.6 0.8
16.2 34.5 0.7
21.2 30.0 1.2
25.7
15 | 67
25.45

$10^h 12^m 24.^s34$
10 11 29.92
54.42
.01
54.41

ass. $u = \frac{1}{5}$

$10^h 17^m 42.^s33$
96
10 16 47. ~~77~~
54. ~~56~~
37
~~.00~~
54.37

$10^h 23^m 25.^s45$
10 22 30.98
54.47
.03
54.50

54.41
.37
.50
3 | 128
54.43
.36
54.79

Frod. 1327 is FAST

$0^m 54.^s79$

at $10^h 15^m$ S.T.

Fri May 3, 1907

Mer Ci — Wells Obs.

Rattle $10^h 11^m$

ζ Leonis +23° 53' (last 10 wires)

μ Urs Maj +41° 58'

31 Leon Min +37° 11'

+23°53'

12^m —	18.2	41.0
—	22.3	43.7
—	26.3	46.6
—	30.3	49.2
	34.4	52.0

5|131.5 5|232.5

26.30 46.50

20.18

26.32

$10^h 12^m 26^s.31$

10 11 31.56

54.75

.09

54.84

+41°58'

17^m	11.0	14.0	5.0
	14.5	10.5	5.0
	17.8	7.3	5.1
	21.3	4.3	5.6
	24.4	0.9	5.3
	32.7	52.6	5.3
	37.7	47.6	5.3

42.7

15|93

42.62

$10^h 17^m 42^s.62$

10 16 48.94 (7 written over the 8)

54.68

54.68

+37°11'

22^m	55.9	55.0	0.9
	59.3	52.1	1.4
	2.4	49.0	1.4
	5.5	45.8	1.3
	8.7	42.7	1.4
	16.3	34.8	1.1
	21.0	30.5	1.5

25.9

15|99

25.66

$10^h 23^m 25^s.66$

10 22 30.96

54.70

.03

54.73

ass

$\nu = 1/5$

54.68

.73

.84

3|225

54.75

.36

55.11

Frod. 1327 is FAST

$0^m 55^s.11$

at $10^h 15^m$ S.T.

Sat May 4, 1907

Mer Cir — Wells Obs.

Rattle at $10^{h}25^{m}$

A[ρ Leonis] +9°47'

A[41 Leonis Min] +23°41'

42 Leonis Min +31°10

~~A[46 Leonis Min]~~ ~~+~~

[l Leonis] +11°2'

+9°47'

28^{m} 27.2 14.3 1.5
29.2 11.9 1.1
31.7 9.3 1.0
34.3 6.8 1.1
36.7 4.2 0.9
43.0 58.1 1.1
46.9 54.3 1.2
50.6

15 | 8 5
50.57

$10^{h}28^{m}50^{s}.57$
10 27 55.39

55.18
.15

55.33

ass
n = 1/5

+11°2'

44^{m} 54.0 41.8 5.8
56.3 39.4 5.7
59.0 36.8 5.8
1.4 34.3 5.7
4.0 31.7 5.7
10.1 25.4 5.5
14.2 21.7 5.9
17.8

15 | 111
17.74

$10^{h}45^{m}17^{s}.74$
10 44 22.76

54.98
.14

55.12

$0^{m}55^{s}.22$
.36 b sec δ

55.58

Frod. 1327 is FAST

$0^{m}55^{s}.58$

at $10^{h}35^{m}$ S.T.

Wed. May 8, 07

Mer Cir Wells

Rattle at $11^h 22^m$

λ Drac +69°51′ (last 6 wires)

υ Leonis −0°19′

3 Drac +67°16′

χ Urs Maj +48°18′

β Leonis +15°05′

−0°19′

32^m 45.5 32.1 7.6
47.8 29.7 7.5
50.4 27.0 7.4
52.8 24.7 7.5
55.3 22.3 7.6
1.4 16.0 7.4
5.1 12.4 7.5
8.7

15 ⌊112
8.75

+67°16′

37^m 15.0 16.1 1.1
21.3 10.3 1.6
28.0 4.4 2.4
34.4 57.7 2.1
39.9 51.2 1.1
56.5 34.9 1.4
6.2 25.6 1.8
15.6

15 ⌊121
15.81

+48°18′

41^m 31.3 41.4 2.7
35.0 38.0 3.0
38.6 34.3 2.9
42.3 30.4 2.7
45.9 26.7 2.6
55.2 17.6 2.8
0.9 12.0 2.9
6.3

15 ⌊59
6.39

+15°5′

44^m 52.3 40.9 3.2
55.0 38.3 3.3
57.4 35.7 3.1
0.0 33.3 3.3
2.4 30.4 2.8
8.9 24.2 3.1
12.8 20.4 3.2
16.7

15 ⌊87
16.58

2.39 56.89
∾ 56.75
2.39) .14

u = .06

$11^h 33^m 8.^s75$
11 32 12.00
56.75
.05
56.80

$11^h 38^m 15.^s81$
11 37 18.92
56.89
.09
56.80

$11^h 42^m 6.^s39$
11 41 9.49
56.90
.01
56.89

$11^h 45^m 16.^s58$
11 44 19.79
56.79
.04
56.83

56.80
56.80
.89
.83
4 ⌊332
56.83
.36
57.19

Frod. 1327 is FAST

$0^m 57.^s19$

at $11^h 40^m$ S. T.

Venus May 9, 1907

Mer Cir

W. L. Obs.

Rattle at $12^{h}42^{m}$

ε Urs. Maj. +56°28′

12 Can. Ven. sq. +38°49′ (middle 7 wires)

ε Virginis +11°28′

+56°28′

$12^{h}50^{m}$ 12.8 37.8 0.6
17.5 33.8 1.3
21.7 28.6 0.3
26.2 24.0 0.2
30.6 20.1 0.7
42.0 8.9 0.9
49.0 2.0 1.0
55.4
15|54
55.36

+38°49′

52^{m} ~~21.6~~ 56.8 8.4
29.7 48.7 8.4
34.3 44.3 8.6
39.3
7|17
39.27

+11°28′

58^{m} 7.0 55.0 2.0
9.6 52.6 2.2
12.1 50.0 2.1
~~15.1~~ 47.5 —
17.1 44.6 1.7
23.5 38.6 2.1
27.4 34.7 2.1
31.3
13|04
31.04

1.51 57.40
.20 57.12
1.30 .28
2

$12^{h}50^{m}55.^{s}36$
12 49 57.96
57.40
.06
57.34

$12^{h}52^{m}39.^{s}27$
12 51 41.92
57.35
.01
57.36

$12^{h}58^{m}31.04$
12 57 33.92
57.12
.07
57.19

ass m = $\frac{1}{10}$

57.34
.36
.19
3|89
57.30
.36
57.66

Frod. 1327 is FAST

$0^{m}57.^{s}66$

at $13^{h}0^{m}$ S.T.

Sat May 11, 1907

Mer Ci Wol-obs

Pattle at 11h 2m

ψ Urs Maj +45° 0'

δ Leonis + 21° 2'

ν Urs Maj + 33° 36'

+45° 0'	+21° 2'	+33° 36'
04m 52.0 58.0 0.0	09m 43.4 33.5 6.9	13m 58.1 54.3 2.4
55.5 54.7 0.2	46.0 31.0 7.0	1.1 51.5 2.6
59.0 51.4 0.4	48.7 28.3 7.0	4.2 48.6 2.8
2.5 47.7 0.2	51.3 25.7 7.0	7.1 45.5 2.6
6.0 44.1 0.1	54.0 23.1 7.1	10.0 42.5 2.5
14.6 35.4 0.0	0.7 16.5 7.2	17.3 35.1 2.4
19.8 30.1 9.9	4.6 12.4 7.0	21.8 30.7 2.5
25.0	8.7	26.5
15 | 108	15 | 79	15 | 43
25.05	8.53	26.29
11h 05m 25s.05	11h 10m 8s.53	11h 14m 26s.29
11 04 26.91	11 09 10.42	11 13 28.10
58.14	58.11	58.19
.01	.05	.02
58.13	58.16	58.21

ass
m = 1/10

58.13
.16
.21
3 | 150
58.17
.36
58.53

Frod. 1327 is FAST

0m 58s.53

at 11h 10m S.T.

Mon May 13, 1907

Mer Cir Wells

Rattle at 10h 50m.

β Urs. Maj + 56°53'
χ Leonis +7°50'
ψ Urs. Maj +45°0'

+56°53'		+7°50'		+45°0'	
10h 56m 30.7 56.6	7.3	0m 49.0 36.3	5.3	4m 52.7 59.0	1.7
35.6 52.2	7.8	51.6 33.8	5.4	56.2 55.7	1.9
40.0 47.6 ~~52.3~~	7.6	54.0 31.3	5.3	59.9 52.1	2.0
44.3 43.0	7.3	56.6 29.0	5.6	3.3 48.7	2.0
49.0 38.4	7.4	59.0 26.4	5.4	6.7 45.1	1.8
6.3 27.4	7.7	5.2 20.2	5.4	15.6 36.3	1.9
7.0 20.5	7.5	9.0 16.7	5.7	20.9 31.0	2.0
	13.8		12.8		26.0
	15 | 114		15 | 109		15 | 143
	13.76		12.73		25.95

1.53 59.10
.14 58.97
1.39 .13

m = .1

10h 57m 13s.76	11h 1m 12s.73	11h 05m 25s.95
10 56 14.66	11 0 13.76	11 04 26.87
59.10	58.97	59.08
.06	.08	.01
59.04	59.05	59.07

59.04
.05
.07
) 16
59.05
.36 b sec c.
59.41

Frod. 1327 is FAST

0m 59s.41

at 11h 0m S.T.

Tues May 14, 1907

Meri Cir   W.E. Obs

Rattle at $11^h 14^m$

δ Leonis $+6°32'$

[ι Leonis] $+11°2'$ (missed 1st wire).

$+6°32'$				$+11°2'$		
16^m 56.9	44.0		19^m		28.4	
59.7	41.7	0.9		43.4	26.0	9.4
2.1	39.2	1.4		45.9	23.7	9.6
4.5	36.4	1.3		48.3	21.2	9.5
7.0	34.2	0.9		50.7	18.5	9.2
13.7	28.2	1.2		57.1	12.4	9.5
17.0	24.3	1.4		1.0	8.3	9.3
		1.3		~~4.7~~		4.7
		20.4				13)92
		15)88				4.71
		20.59				

$11^h 17^m 20.59$ $11^h 20^m 4.^s71$

11 16 21.11

59.48

n = 0.1   .08

59.56

.36 b scale.

59.92

Frod. 1327 is FAST

$0^m 59.^s92$

at $11^h 17^m$ S.T.

Sat May 18, 1907

Trans Cir — Wells Obs.

Rattle at 11h 20m.

λ Drac +69°51'
υ Leonis −0°19'
ψ Urs. Maj +48°18'
β Leonis +15°06'

+69°51'
25m 48.2 44.1
55.5 57.4 2.3
2.9
2.7 50.1 2.8
9.7 42.9 2.6
17.0 35.8 2.8
34.7 17.4 2.1
45.3 7.0 2.3
56.1
15|39
56.26

−0°19'
32m 49.9 36.7 6.6
52.3 34.4 6.7
58.0 32.1 7.1
57.3 29.4 6.7
59.9 26.9 6.8
5.9 20.7 6.6
9.7 17.2 6.9
13.3
15|57
13.38

+48°18'
41m 35.6 45.8 1.4
39.3 42.3 1.6
43.0 38.6 1.6
46.7 34.8 1.5
50.3 31.4 1.7
59.6 22.0 1.6
5.2 16.5 1.7
10.8
15|119
10.79

+15°06'
44m 56.7 45.2 1.9
59.3 42.7 2.0
2.0 40.2 2.2
4.4 37.7 2.1
7.0 35.1 2.1
13.4 28.6 2.0
17.3 24.9 2.2
21.1
15|6
21.04

2.72
.13
2.59

01.71
01.42
.29 (.11
26
30

11h 26m 56.26s	11h 33m 13.38s	11h 42m 10.79s	11h 45m 21.04s
11 28 54.45	11 32 11.90	11 41 9.31	11 44 19.69
1 01.71	1 01.48	1 01.48	1 01.35
.19	.10	.02	.07
1 01.52	1 01.58	1 01.46	1 01.42

−.0052
+.2698
2|2646
.1323

01.48
01.35
2|2.83
1.42

1 01.52
.58
.46
.42
4|198
.495

m = 0.11

1m 01.50s
.36 to secd
1m 01.86s

Frod.-1327 is FAST

01m 01.86s

at 11h 35m S.T.

Mon May ~~17~~ 20, 1907

Mer Cir — Tole Obs.

o Leonis + 6°32'
λ Draconis + 69°51' (last 9 wires) Rattled at 11h 21m
υ Leonis − 0°19'
3 Drac. + 67°16'
ψ Urs Maj + 48°18'

+6°32'		-0°19'		+67°16'		+48°18'	
16m 59.5 46.8	6.3	32m 50.6 37.5	8.1	32m 20.3 22.0	2.3	41m 36.6 47.0	3.6
2.3 44.5	6.8	53.0 35.2	8.2	27.1 15.9	3.0	40.3 43.4	3.7
4.6 42.0	6.6	55.6 32.7	8.3	33.3 9.4	2.7	43.9 39.7	3.6
7.2 39.4	6.6	58.1 30.3	8.4	39.7 2.7	2.4	47.8 36.0	3.8
9.5 37.0	6.5	0.3 27.7	8.0	46.0 56.6	2.6	51.3 32.0	3.3
15.9 30.7	6.6	6.7 21.6	8.3	2.0 40.3	2.3	0.6 22.7	3.3
19.6 27.0	6.6	10.4 17.7	8.1	11.8 30.7	2.5	6.3 17.4	3.7
	23.2		14.2		21.4		11.8
	15)42		15)16		15)42		15)118
	23.28		14.11		21.28		11.79

11h 17m 23.s28	11h 33m 14.s11	11h 38m 21.s28	11h 42m 11.s79
11 16 21.04	11 32 11.88	11 37 18.46	11 41 9.27
1 2.24	1m 2.23	1m 02.82	1m 2.52
.21	.24	.38	.05
1m 2.45	1 2.47	1m 02.44	1 2.47

239 | 2.86
00 | 2.23
2.39) .63 (26
48
150

n = .26

2.45
2.47
2.44
2.47
4)1 83
2.46
.36
2.82

91
26
546
182
.2366

1.48
.26
888
296
.3848

.26
.21
26
52
.0546

Frod. 1327 is FAST

01m 02.s82

at 11h 30m S. T.

Tuesday May 21, 1907

Clear Cir [illegible]

Rattle after $10^h 0^m$

α Leonis +12°25'

+12°25'

10^h 04^m 4.352.2 6.5
6.749.7 6.4
9.147.1 6.2
11.7447 6.4
14.242.0 6.2
20.635.7 6.3
24.332.0 6.3
28.2
15 ⌊25
28.17
.10

ass m = 1/4

$10^h 04^m 28^s.17$
-10 03 25.33
1 02.84
.17
1 03.01
.36 b sec u
1 03.37

Trod. 1327 is FAST

$01^m 03^s.37$

at $10^h 04^m$ S.T.

Wed May 22, '07

Mer Cir Wells

Rattle at $13^h 29^m$

ζ Virginis −0°7′

A [m Virginis] −8°13′

η Urs. Maj + 49°47′

−0°7′

$13^h 30^m$	38.3	25.2	3.5
	40.8	22.9	3.7
	43.4	20.3	3.7
	45.8	18.1	3.9
	48.3	15.5	3.8
	54.5	9.3	3.8
	58.1	5.6	3.7
			1.8

15) 129
1.86

−8°13′

37^m	~~24.8~~	
	~~27.2~~	
	~~29.6~~	~~9.7~~
	~~32.3~~	~~7.2~~
	~~34.8~~	~~4.7~~
	~~44.7~~	~~2.0~~
	~~48.6~~	~~56.0~~

52.2

−8°13′

37^m	24.8	12.0	6.8
	27.2	9.7	6.9
	29.6	7.3	6.9
	32.3	4.7	7.0
	34.8	2.0	6.8
	41.0	56.0	7.0
	44.7	52.3	8.0
			48.6

15) 70
48.47

+49°47′

44^m	21.2	33.8	5.0
	25.2	30.3	5.5
	29.2	26.2	5.4
	32.9	22.5	5.4
	36.4	18.7	5.1
	46.3	9.2	5.5
	52.0	3.3	5.3
			58.0

15) 102
57.68

$13^h 31^m 1^s.86$	$13^h 37^m 48^s.47$	$13^h 44^m 57^s.68$
13 29 58.39	13 36 45.02	13 43 54.13
1 03.47	1 03.45	1 03.55
.09	.11	.03
1 03.56	1 03.56	1 03.52

a = 0

n = .1

03.56
3.56
3.52
3) 14

1^m ~~03~~ $3^s.55$
.368 sec
0 3 13.91

Frod. 1327 is FAST

$0^m\ 03^s.91$

at $13^h 35^m$ S.T.

Thursday, May 23, 1907

Mer Circle   DAJ obs

μ Boötis { +37 42. All;
Chronograph defective;
Last tap is for 15th wire 6.5 may
star 1½ s.

ι Boötis +41 9   II last 3: III all; cloudy

α Coronae Bor. +27 1 All but 1st 2 wires.

Rattle after 15h 34

String attached to counter weight of magnet. broken.

+32°42′

34.4 33.7 8.1
= =
= =
46.7 21.3 8.0
54.6 13.5 8.1
59.6 8.7 8.3
4.3
9) 08
4.09

ass.
μ = .1

$15^h\ 22^m\ 4^s.09$
15 21 0.22
1 3.87
.01
1 3.88

1 03.86
.36
1 04.22

+27°1′

31m
= =
29.7 11.2 0.9
32.2 8.4 0.6
35.0 5.5 0.5
41.9 58.7 0.6
46.2 54.7 0.9
.50.2
11) 37
50.34

$15^h\ 31^m\ 50.34$
15 30 46.53
1 03.81
.04
1 03.85

Frod. 1327 is FAST
$01^m\ 04^s.22$
at $15^h\ 30^m$ S. T.

Fri May 24, 1907

Mer Cir Wells

Ratte at 15h 08m

δ Bootis +33°40'

1 H Urs. Min +67°42' (last 10 wires)

μ Bootis +37°42'

+33°40'

15h 12m

23.0 19.3 2.3

25.8 16.4 2.2

28.7 13.2 1.9

32.0 10.3 2.3

35.0 7.6 2.6

42.2 0.0 2.2

46.8 55.6 2.4

51.2

15)21

51.14

+67°42'

14m 22.0 17.4

31.6 23.7

41.6 30.3

51.2 36.8

1.0 43.2

5)2074 5)1614

41.48 30.28

48.64

41.64

+37°42'

21m 35.2 34.2 9.4

38.3 31.2 9.5

41.4 28.0 9.4

44.4 24.7 9.1

47.5 21.7 9.2

55.3 14.0 9.3

0.2 9.3 9.5

4.7

15)101

4.67

1.2662
0.4208
1.6870

15h 12m 51.14
15 11 46.76
1 04.38
.03
1 04.41

15h 14m 41.56
15 13 37.02
1 04.54
.15
1 04.39

15h 22m 4.67
15 21 0.23
1 4.44
.01
1 04.45

2.44 04.54
.67 4.38
1.77 1.16

n = 0.1

1 04.41
.39
.45
3)125
1 04.42
.36 breck
1m 04.78

Frod. 1327 is FAST

0m 04s.78

at 15h 15m S.T.

Sat May 25, 1907

Mer Cir Wells.

γ Urs. Maj + 54°13'

Rattle at $11^h 59^m$

δ Virginis + 9°15'

δ Corvi − 22°6'

+54°13'		+9°15'		−22°6'	
$11^h 49^m$ 22.042.1	4.1	01^m 10.057.6	7.6	06^m 0.451.3	1.7
26.338.3	4.6	12.455.2	7.6	3.548.9	2.4
30.634.0	4.6	15.152.6	7.7	6.046.1	2.1
34.829.7	4.5	— 50.2	—	8.643.4	2.0
39.025.3	4.3	20.047.5	7.5	11.340.8	2.1
49.514.6	4.1	26.241.3	7.5	18.034.2	2.2
55.88.4	4.2	30.137.6	7.7	22.029.9	1.9
	2.3		34.0		26.0
	15)27		13(~~15~~)106		15)04
	2.18		~~33.71~~		26.03
			33.82		

1.39 04.92
.41 40.78
1.80
1.44
1.22 (12
18
40

11^h ~~48~~ 50 ^{m} $2^s.18$	$12^h 01^m 33^s.82$	$12^h 06^m 26^s.03$
11 48 57.26	12 00 29.04	12 05 21.33
1 04.92	1 04.78	1 04.70
.06	.09	.16
1 04.86	1 04.87	1 04.86

n = .12

$1^m 04^s.86$
.36 b sec δ
1 05.22

1.32
.12
264
132
.1584

Frod. 1327 is FAST

$01^m 05^s.22$

at $12^h 0^m$ S.T.

Wed. May 2~~8~~9, 1907

Mer Cir — Zollers

Rattle at $13^h 12^m$

α Virginis −10° 41′ (missed last 2 wires)

17 H Can. Ven +37° 40′

−10° 41′

21^m 2.5 —
5.0 —
7.7 45.3
10.0 42.7 — 3 0
12.6 40.2 — 2 7
18.9 34.0 — 2.8
22.6 30.2 — 2.9
2.8
26.3
11 | 45
26.41

+37° 40′

31^m 18.1 17.2 — 5.3
21.3 14.2 — 5.5
24.5 11.0
27.6 8.0 — 5.5
30.6 4.9 — 5.6
38.4 57.2 — 5.5
43.0 52.3 — 5.6
5.3
47.7
15 | 11 0
47.73

$13^h 21^m 26^s.41$
13 20 18.70
1 07.71
.11
1 07.82

ass
u = .1

$13^h 21^m 47^s.73$
13 30 39.90
1 07.83
.01
1 07.84

1 07.83
.36 b sec d
1 08.19

Frod. 1327 is FAST

$01^m 08^s.19$

at $13^h 25^m$ S.T.

Friday May 31, 1907

Mer Cir Wle. Obs.

β Bootis +40°45′
ψ Bootis +27°19′
Rattle after 15h 03m

+40°45′	+27°19′
14h59m 6.0 8.0 4.0	15h01m 11.4 4.0 5.0
9.2 4.4 3.6	14.3 1.3 5.6
12.3 1.4 3.7	17.0 58.7 5.7
16.0 58.3 4.3	19.8 56.0 5.8
19.0 55.0 4.0	22.6 53.1 5.7
27.0 46.5 3.5	29.4 46.0 5.4
32.0 41.8 3.8	33.8 41.8 5.6
37.0	38.2
15)139	109
	15)120
36.93	37.80

14h 59m 36.93s	15h 01m 37.80s
14 58 28.17	15 00 29.10
1 08.76	1 08.70
.00	.04
1 08.76	1 08.74

ass. n =.1

1m 08.75s
.36
1m 09.11s

Frod. 1327 is FAST

01m 09.11s

at 15h 0m S.T.

Sat June 1, 1907

Collimation Wells.

S. Coll. on N. Coll.

61.0
63.9
63.7
65.5
63.0
5)171
63.42

Set at 63.4

Tel. on S. Coll.

34.077
.068
.076
.079
.073
5)373
34.0746

micrometer
found at 33-61.3

Tel. on N. Coll.

33.141
.145
.151
.154
.157
5)748
33.1496
2)69.2242
33.6121
.012
33.624

33.624
Set at ~~33.612~~

Sat June 1, 1907

Level Observation W. L. Obs.

Telescope South

Zero	~~A~~ W end	~~W~~ E end			
E	+ 82.2	+39.0	+121.2		
W	− 30.7	−73.3	−104.0	+17.2	
E	+ 82.2	+39.5	+121.7		+37.0
W	− 29.7	−72.2	−101.9	+19.8	

Telescope North

Zero	W End	E End.			
W	−33.8	−76.2	− 110.0	+1~~4~~5.0	
E	+84.0	+41.0	+ 125.0		+28.3
W	−33.7	−76.0	− 109.7	+13.3	
E	+83.0	+ 40.0	+ 123.0		

16)+ 65.3 (4.08
64
130
128

4.08
.06
.2448
1.35
12240
7344
2448
330480

b sec α = 0.33 west end high

Time of ending
5h 35m

Sat ~~June 1, 1907~~

Time Ci   Yale Obs.

Rattle at 14h 47m

β Ursa min +74°32'

β Bootis +40°45' (middle 9 wires)

β Librae −9°2'

+74°32'			+40°45'			−9°2'		
14h 50m 43.0	38.4	1.4	59m 16.0	58.3	4 3	12m 46.7	34.3	1.0
52.3	29.8	2.1	19.3	55.0	4.3	49.6	32.0	1.6
1.3	20.0	1.3	27.4	47.0	4.4	51.8	29.3	1.1
10.9	10.7	1.6	32.2	41.9	4.1	54.7	27.0	1.7
19.8	1.8	1.6			37.3	57.1	24.3	1.4
42.8	38.3	1.1			9 | 114	2.8	18.3	1.1
57.3	24.7	2.0			37.16	7.0	14.3	1.3
		11.0						10.7
		15 | 121						15 | 99
		10.81						10.66

14h 52m 10.81s	14h 59m 37.16	15h 13m 10.66s
14 51m 1.69	14 58 28.19	15 12 1.61
1 9.12	1 08.97	1m 09.05

n = .0

1 9.12
8.97
9.05
3 | 14
1 09.05s
.33
1 09.38

Frod. 1327 is FAST

1m 09.38s

at 15h 0m S.T.

June 3, 1907

Meridian J A Dolson
12 Can Venat all; Int [illegible]
two prec. stars [illegible] of 2nd catly

γ Bootis + 38° 43 : all ; Clds:

Rained after $14^h 31$

12 Can Venat.
$12^h 52$ + 38 49

220 42.2 9.5
25.0 47.2 12.4
27.9 52.0 15.7
31.2 56.7 18.9
34.5 1.3 22.0

140.6 259.4 78.5
28.12 51.88 15.70
23.81 +05 23.70

51.93 51.93 52.00

T 12 52 51.95
12 51 41.63
1 10.32

+ 38 43
$14^h 29$

1.9 22.6 49.5
5.2 27.3 52.6
8.2 32.0 55.8
11.5 36.8 59.0
14.4 41.6 2.0

41.2 160.3 278.9
8.24 32.06 55.78
23.77 +05 23.66

32.01 32.11 32.12

14 29 32.08
14 28 21.44
1 10.64

m from [illegible] 29=00

$\tilde{T}$ 10.48
.33
T 10.81

Frod 1327 fast
$\tilde{T}$ $10^s.80$
at $13^h 40^m$ Sid T.

Thursday June 6, 1907

Mer. Circle J.A.D. [illegible]

ε Urs. maj. II +56°28
12 Can Ven seq. +38°49 all
Rated after 12h 54

12 58^D 56.3
3.0
9.8
16.4
23.0

3485
9.70
+07
9.77

12 49 57.38

1 12.39

12 52	23.9 ~~24.0~~	44.6	11.5
	27.0	49.2	14.5
	30.3	54.0	17.8
	33.5	58.8	20.9
	36.6	3.6	24.0
	1513	2702	887
	30.26	54.04	17.74
	23.80	04	23.69
	54.06	54.08	54.05
			54.06

12 51 41.59

1 12.47

1 12.43
33
1 12.76

Frod 1327 is fast
T 12.s76
at 12h 50 Sid T.

June 7, 1907 Friday

Mer Circle JHDolson

η Drac +61°43 II & III
β Herculis +21°42 all
o Ophiuchi +42°38 all

Rained after 16h35

0.3241
1.2662
1.5903

16h23

44.2 28.8
52.2 33.8
60 39.0
7.8 44.4
15.5 49.3
299.7 195.3
59.94 39.06
.08 38.93
~~54~~.02 0.13

16 23 $\overset{60}{\cancel{59}}$.07
16 22 46.41
1 13.66

16h27

3.0 20.3 42.9
5.7 24.2 45.5
8.4 28.3 48.1
11.0 32.2 51.0
13.7 36.2 53.4
41.8 141.2 240.9
8.36 28.28 48.18
19.95 .04 19.86
28.31 28.32 28.32

16 27 28.32
16 26 14.95
1 13.37

16h31

49.7 11.3 40.0
52.9 16.6 43.5
56.4 21.6 46.9
59.8 26.6 50.2
3.0 31.7 53.3
281.8 107.8 233.9
56.36 21.56 46.78
25.21 .05 25.08
21.57 2.161 21.70

16 32 21.62
16 31 8.19
1 13.43

13.66
13.37 } 13.51
13.43
13.47
.33
13.80.

Frod 1327 is fast

1m 13s.80
at 16h 30m Sid Time

June 8, 1907 Sat.

Mer. Circle [illegible]

~~Ratte~~ after 15h 5

δ Bootis +33°40 all
ι H Ur. min +67°42 ~~III~~ only;
μ Bootis +37°42 I last 2; II all; III [illegible]
for fol 7.0 star on bdw of III, 2¼ s.
then III for μ Bootis

15h 12

328 348 52.2 54 19.4 17.4
358 378 56.7 5 22.3 20.3
388 ~~348~~ 40 1.0 1.0 4.3 25.2 23.2
417 43.7 55 5.5 4.5 28.3 26.3
447 46.7 10.0 10.0 31.1 29.1

1938 2038 30.54 1.98 306.04 126.3 116.3 23.26
38.76 40.66 1.28 25.26
22.29 22.29 .04 .04 22.19 22.19
1.05 2.75 1.12 1.92 3.07 1.07

1.05
.12
.07
1.08

T 15 13 ~~3.01~~ 1.08
15 11 46.74

1 ~~11.27~~
14.34

14.34
~~16.30~~
33
~~16.63~~
14.64

15h 15
II
29.3
35.5
42.3
48.6
54.7

~~21 04~~ 20
~~41.08~~
40.08

22m

5.3 38.6
10.0 36.7
16.6 39.9
21.1 43.1
25.6 46.2

78.6 199.8
~~15.72~~ 14.56 ~~39.98~~ 37.98
~~23.43~~ 23.32
.04
~~15.76~~ 4.60 ~~16.58~~

22 ~~1 67~~
16.57
15 21 0.23

1 ~~16.34~~
14.34

Ford 1327 is fast
1 min. ~~13.80~~ 14.64
at 15h 15m
Sid Time

Corrected at time of reduction

Tuesday June 11, 1907

Mercier Wilcox

Rattle at $12^h 48^m$

ε Urs. Maj. + 56°28'

12 Can. Ven. + 38°49' middle 7 wires

ε Virg +11°28'

+56°28'

50m 32.0 56.8 8.8
36.7 52.5 9.2
41.0 48.0 9.0
45.5 43.4 8.9
49.7 39.0 8.7
1.1 28.0 9.1
7.7 21.3 9.0
14.3
15)70
14.47

+38°49'

52m — —
— —
— —
— —
41.2 16.1 7.3
49.2 8.2 7.4
54.0 — —
58.8
5)35
58.70

+11°28'

58m 27.0 14.8 1.8
29.6 — —
— 9.8 —
34.5 7.2 1.7
37.0 4.7 1.7
43.3 58.4 1.7
47.2 54.6 1.8
51.0
11)97
50.88

$12^h 51^m 14^s.47$
12 49 57.26
1 17.21

$12^h 52^m 58^s.70$
12 51 41.52
1 17.~~2~~18

$12^h 58^m 50^s.88$
12 57 33.70
1 17.18

n = 0

1 17.21
.18
.18
3).57
1 17.19
.33
1 17.52

Trod. 1327 is FAST

$1^m 17^s.52$

at $13^h 0^m$ S.T.

Wed. June 12, 1907

Tran Cir W. H. Obs.

Rattle at $12^h 57^m$

ε Virginis +11° 28'

ι Virg −5° 3'

43 Comae. +28°21'

REMOVED 2 gms. from FRODSHAM 1327 at $13^h 16^m$ S. T.

+11°28'

58^m	27.8	15.7	3.5
	30.4	13.2	3.6
	33.0	10.7	3.7
	35.4	8.2	3.6
	37.8	5.4	3.2
	44.2	59.4	3.6
	47.9	55.5	3.4
			51.7

15)113

51.75

−5°3'

06^m	3.6	50.5	4.1
	6.0	48.0	4.0
	8.6	45.7	4.3
	11.0	43.2	4.2
	—	40.6	—
	19.5	34.3	3.8
	23.3	30.7	4.0
			27.0

13)4

27.03

+28°21'

08^m	24.5	17.7	2.2
	27.2	14.9	2.1
	30.1	12.1	2.2
	33.0	9.3	2.3
	35.5	6.3	1.8
	42.7	59.6	2.3
	47.0	55.3	2.3
			51.0

15)112

51.08

$12^h 58^m 51^s.75$	$13^h 06^m 27^s.03$	$13^h 08^m 51^s.08$
12 57 33.69	13 05 8.99	13 07 32.91
1 18.06	01 08.04	01 08.17

aso u=0

1 18.06

.04

.17

3).27

$1^m 18^s.09$

.33

$1^m 18.^{42}$

Frod. 1327 is FAST

$01^m 18^s.42$

at $13^h 0^m$ S. T.

Times June 13, 1907

Transit Cir W. L. Ells.

Rattle at $13^{h}15$

ξ Urs Maj + 55°25′
ξ Virginis −0°7′ (missed 1st wire)
η Urs Maj + 49°47′ (last 5 wires)
η Bootis +18°52′

+55°25′
$13^{h}20^{m}$ 48.4 11.3 9.7
53.1 7.1 0.2
57.5 2.6 0.1
1.8 58.4 0.3
6.0 54.0 0.0
17.0 43.2 0.2
23.6 36.5 0.1
30.3
15⌊9
30.06

−0°7′
30^{m} — 89.7 —
55.2 37.4 2.6
57.8 34.8 2.6
0.3 32.3 2.6
2.7 29.8 2.5
8.8 23.8 2.6
12.5 20.0 2.5
16.3
13⌊37
16.28

+49°47′

+18°52′
51^{m} 9.6 59.2 8.8
12.3 56.7 9.0
15.0 54.0 9.0
17.6 51.4 9.0
20.1 48.8 8.9
26.8 42.3 9.1
30.7 38.4 9.1
34.6
15⌊75
34.50

18.05
18.01
~~17.83~~ .03
1.45 ⟌ ~~.08~~ ~~.12~~
145
350
290
60

m ~~.12~~ .03

$13^{h}\,21^{m}\,30^{s}.06$
13 20 12. ~~23~~ .01
18. 05
1 ~~17. 83~~
~~.07~~ .02
1 ~~17.90~~
18.03

$13^{h}\,31^{m}\,16^{s}.28$
13 29 58.27
1 18.01
~~.11~~ .03
1 ~~17.90~~
18.04

$13^{h}\,51^{m}\,34.50$
13 50 16.49
1 18.01
~~.07~~ .02
1 ~~17.94~~
18.03

~~1 17.90~~
~~.90~~
~~.94~~

~~01^{m} 17.91~~
~~.33~~
~~01^{m} 18.24~~

1 18.03
.33
1 18.36

Frod. 1327 is FAST

0^{m} $18^{s}.$~~24~~ 36

at $13^{h}35^{m}$ S. T.

Sat June 15, 1907

Amer Cir — Wolcott.

43 Comae +28°21′

Rattle at $13^h 12^m$

γ Hydra − 22°41′ (last 7 wires)

ξ Ursae Maj + 55°25′

ξ Virginis −0°7′

+28°21				+55°25′				−0°7′			
$13^h 08^m$	24.3	17.4	1.7	20^m	48.5	11.3	9.8	30^m	52.5	39.5	2.0
	27.1	14.6	1.7		53.0	7.0	0.0		55.3	37.2	2.5
	29.7	11.9	1.5		57.5	2.4	9.9		57.7	34.6	2.3
	32.6	9.0	1.6		1.7	58.3	0.0		0.2	32.2	2.4
	35.3	6.1	1.4		6.0	53.8	9.8		2.5	29.7	2.2
	42.4	59.4	1.8		16.8	43.0	9.8		8.8	23.6	2.4
	47.0	55.2	2.2		23.5	36.4	9.9		12.5	19.8	2.3
			51.0				30.0				16.2
			15)129				15)142				15)23
			50.86				29.95				16.15

$13^h 08^m 50.^s86$	$13^h 21^m 29.^s95$	$15^h 31^m 16.^s15$
13 07 32.88	13 20 11.96	15 29 58.25
1 17.98	1 17.99	1 17.90
.02	.03	.05
1 18.00	1 17.96	1 17.95

17.99
17.90
.09 1.06
1.45) 87

u = .06

1 17.95
.96
18.00
3)291

1 17.97
.33 brace
1 18.30

Frod. 1327 is FAST

$01^m 18.^s30$

at $13^h 20^m$ S.T.

Monday June 17, 1907

Mer Cir W. Wells.

Rattle at $13^h 53^m$.

τ Virginis +2°0'
d Bootis +25°32'
α Bootis +19°40'

+2°0'	+25°32'	+19°40'
13^h57^m 50.1 36.7 6.8	14^h07^m 2.3 54.3 6.6	12^m 19.0 8.5 7.5
52.7 34.6 7.3	5.0 51.4 6.4	21.6 6.1 7.7
55.0 32.0 7.0	8.2 48.7 6.9	24.2 3.4 7.6
57.3 29.6 6.9	10.4 46.0 6.4	26.9 0.9 7.8
0.3 27.1 7.4	13.2 43.2 6.4	29.3 58.2 7.5
6.1 20.9 7.0	20.0 36.7 6.7	36.0 51.7 7.7
9.8 17.2 7.0	24.2 32.4 6.6	39.6 47.7 7.3
13.4	28.4	43.8
15 | 78	15 | 44	15 | 1189
13.52	28.29	43.79

$13^h 58^m 13^s.52$	$14^h 07^m 28^s.29$	$14^h 12^m 43^s.79$
13 56 55.93	14 06 10.63	14 11 26.28
1 17.59	1 17.66	1 17.51
.09	.04	.06
1 17.68	1 17.70	1 17.57

as m = !

1 17.68
.70
.57
3 | 1.95
1 17.65
.33
1 17.98

Frod. 1327 is FAST

$01^m 17^s.98$

at $14^h 05^m$ S. T.

Tues. June 18, 1907

Inner Cir E.W.L. Obs.

Rattle at $13^h 02^m$

Rattle again at $13^h 11^m$.

ζ Urs Maj + 55° 25′

ζ Virg − 0° 07′

+55° 25′		
$13^h 20^m$	48.0 10.7	8.7
	52.6 6.5	9.1
	56.8 2.0	8.8
	1.2 57.7	8.9
	5.4 53.3	8.7
	16.3 42.3	8.6
	22.9 35.9	8.8
		29.6
		15)62
		29.41

− 0° 7′		
30^m	52.0 38.8	0.8
	54.5 36.4	0.9
	56.9 33.9	0.8
	59.4 31.4	0.8
	1.9 29.0 ~~31.4~~	0.9
	8.0 22.8	0.8
	11.7 19.1	0.8
		15.4
		15)62
		15.41

$13^h 21^m 29^s.41$

13 20 11.88

1 17.53

.13

1 17.40

$13^h 31^m 15^s.41$

13 29 58.23

1 17.18

.23

1 17.41

17.53

17.18

1.45 1.35 (.24

29

60

u = .24

1 17.40

.33

1 17.73

Frod. 1327 is FAST

0^m $17^s.53$

at $13^h 25^m$ S.T.

Wed June 19, 1907

Amer. Cir — Whole Obs.

Rattle at $13^h 42^m$

η Urs. Maj + 49°47'

η Bootis + 18°52' (middle ~~7~~ 9 wires)

τ Virg + 2°0'

α Drac. + 64°49'

$+49°47'$

$13^h 44^m$ 34.6 47.0 1.6
38.3 43.3 1.6
42.1 39.4 1.5
46.0 35.7 1.7
49.8 31.8 1.6
59.3 22.3 1.6
5.0 16.7 1.7
10.9
15 | 122
10.81

$+18°52'$ ~~+18~~

51^m –
–
–
16.4 50.3 6.7
19.0 47.6 6.6
25.5 41.1 6.6
29.4 37.3 6.7
33.3
9 | 29
33.32

$+2°0'$

57^m 49.3 36.1 5.4
51.8 33.8 5.6
54.2 31.2 5.4
56.8 28.7 5.5
59.3 26.2 5.5
5.2 20.1 5.3
9.0 16.5 5.5
12.8
15 | 110
12.73

$+64°49'$

02^m 15.7 6.0 1.7
21.6 0.3 1.9
27.3 54.3 1.6
33.4 48.7 2.1
39.0 42.9 1.9
53.7 28.3 2.0
2.4 19.8 2.2
11.1
15 | 145
10.97

$13^h 45^m 10^s.81$	$13^h 51^m 33^s.32$	$13^h 58^m 12^s.73$	$14^h 03^m 10^s.97$
13 43 53.69	13 50 16.44	13 56 55.92	14 01 53.68
1 17.12	1 16.~~8~~88	1 16.81	1 17.29
.06	.13	.20	.28
1 17.06	1 17.01	1 17.01	1 17.01

2.13
.03
2.1

17.29
16.81
.48 (.23
42
60

u = .23

1 17.06
17.01
17.01
17.01
4 | 09
1 17.02
.33
1 17.35

.28
.23
84
56
.0644

57
.23
171
114
.1311

.88
.23
264
176
.2024

1.21
.23
363
242
.2783

Frod. 1327 is FAST

$01^m 17^s.35$

at $14^h 0^m$ S.T.

Means. June 20, 1907.

Mer Cir Tele. Obs.

Rattle at $13^h 50^m$
η Bootis +18° 52′
τ Virginis +2° 0′

+18° 52′			+2° 0′	
$13^h 51^m$	8.3 57.9	6.2	57^m 49.0 35.9	4.9
	11.0 55.4	6.4	51.6 33.6	5.2
	13.4 52.6	6.0	54.0 31.0	.5.0
	16.2 50.0	6.2	$5\overset{6}{8}$.4 28.6	5.0
	18.7 47.3	6.0	59.0 26.2	5.2
	25.2 40.9	6.1	5.1 19.9	5.0
	29.1 37.0	6.1	8.7 16.1	4.8
		33.1		12.3
		15 ⌊11		15 ⌊74
		33.07		12.49

$13^h\ 51^m\ 33^s.07$
13 50 16.43
1 16.64
.13
1 16.77

$13^h\ 58^m\ 12^s.49$
13 56 55.91
1 16.58
.20
1 16.78

asa m=.23

1 16.78
.33 brecce
1 17.11

Trod. 1327 is FAST
$01^m\ 17^s.11$
at $14^h\ 00^m$ S. T.

Sat June 22, 1907

Amer Cir   Whi. Obs

Rattboat $13^h 40^m$
η Urs Maj + 49° 47′
η Bootis + 18°52′
τ Virginis + 2° 00′ (11 wires) ~~(1st tap doubtful)~~

+49° 47′

44m 33.3 45.9 9.2
37.5 42.2 9.7
41.0 38.3 9.3
45.0 34.6 9.6
48.5 30.6 9.1
58.4 21.1 9.5
4.0 15.5 9.5
9.7

15 | 106
9.71

+18°52′

51m 7.5 57.0 4.5
10.2 54.6 4.8
12.8 52.0 4.8
15.3 49.2 4.5
17.9 46.6 4.5
24.5 40.0 4.5
28.3 36.2 4.5
32.2

15 | 43
32.29

+2°0′

57m =
53.3 30.3 3.6
55.6 27.8 3.4
58.0 25.2 3.2
4.1 19.2 3.3
8.0 15.3 3.3
11.7

11 | 75
11.68

$13^h\ 45^m\ 9^s.71$
13 43 53.63
1 16.08
.07
1 16.01

$13^h\ 51^m\ 32^s.29$
13 50 16.41
1 15.88
.14
1 16.02

$13^h\ 58^m\ 11^s.68$
13 56 55.90
1 15.78
.22
1 16.00

assu = 1/4

1 16.01
.02
.00
1 16.01
.33 brace.
1 16.34

Frod. 1327 is FAST

$01^m\ 16^s.34$

at $13^h\ 50^m$ S. T.

Mon June 24, 1907

Mer Cir W.L.Mo.

η Bootis +18°52'

Rattle at $13^h 54^m$

τ Virginis +2°0'

α Drac +64°49' (1st 13 wires clds)

+18°52'			+2°0'			+64°49'	
13^h51^m 6.9 56.3	3.2	57^m	47.5 34.3	1.8	02^m	—	
9.4 53.8	3.2		50.0 32.0	2.0		—	
12.0 51.1	3.1		52.4 29.6	2.0		31.6 47.0	8.6
14.6 48.4	3.0		54.9 27.0	1.9		37.0 41.0	8.0
17.0 45.8	2.8		59.3 24.4	1.7		51.7 26.6	8.3
23.6 39.4	3.0		3.4 18.3	1.7		0.4 18.0	8.4
27.6 35.6	3.2		7.3 14.7	2.0			9.3
	31.6			11.0			9⌊16
	15⌊81			15⌊141			9.18
	31.54			10.94			

$13^h 51^m 31^s.54$	$13^h 58^m 10^s.94$	$14^h 03^m 9^s.18$
13 50 16.39	13 56 55.88	14 01 53.50
1 15.15	1 15.06	1 15.$\overset{6}{6}$8
.17	.28	.36
1 15.32	1 15.34	1 15.32

2.12 15.68
.03 15.06
2.09) .62 (.3

u = .3

15.32
.32
.34

3⌊98

15.33
.336 sec φ

15.66

1.22
.366

Frod 1327 is FAST

$01^m\ 15^s.66$

at $14^h 0^m$ S.T.

Tues June 25, 1907

Snow Cir Wells.

109 Virg +2°17' (last 10 wires)
[8 Librae] −15°37' (~~15~~ 5 wires)
α Librae −15°39'
Gr. 2164 +59°40'
~~B~~ β Bootis +40°45' (missed middle wire

+2°17'
42m — 41.5 2.4
— 45.2 4.7
— 49.0 7.3
— 52.5 9.8
56.2 12.2
5|2444 5|364
48.88 7.28
18.48
48.80

$14^h 42^m 48^s.84$
14 41 34.09
1 14.75
.29
1 15.04

−15°39'
46m ~~36.1~~ 24.4 —
38.2 ~~24.4~~ 21.9 0.1
40.7 19.3 0.0
43.3 16.7 0.0
45.8 14.2 0.0
52.3 7.7 0.0
56.1 3.8 9.9
0.0
0.0
0.0

$14^h 46^m 0^s.00$
14 45 45.37
1 14.63
.39
1 15.02

+59°40'
49m 35.2 28.1 3.3
40.0 3.4 3.4
45.0 58.4 3.4
49.8 53.5 3.3
54.7 48.4 3.1
6.4 36.3 2.7
14.5 28.6 3.1
21.6
15|89
21.59

$14^h 50^m 21.59$
14 49 6.28
1 15.31
.27
1 15.04

+40°46'
59m 12.0 13.8 5.8
15.1 10.7 5.8
18.4 7.4 5.8
21.7 4.2 5.9
25.2 0.7 5.9
33.3 52.1 5.4
38.3 47.8 6.1
(43)
14|127
42.91

$14^h 59^m 42^s.91$
14 58 27.96
1 14.95
.02
1 14.97

1.98 15.31
.04 14.63
2.02 .68 (.336
606
740
606
1340

u = .34

15.04
.02
.04
.97
1.07

1^m 15.02
.33
1 15.35

Frod. 1327 is FAST

$01^m 15^s.35$

at $14^h 50^m$ S.T.

Thurs. June 27, 1907

Mer Cir

20 ft. Obs

Rattle after 14h 05m

d Bootis +25° 32'

α Bootis +19° 40'

+25° 32'

06m 59.0 60.9 9.9
1.8 48.3 0.1
4.4 –
7.2 42.7 9.9
9.8 40.0 9.8
16.7 –
20.7 –
25.0
9 | 87
24.97

+ 19° 40'

12m 15.7 5.3 1.0
3.0
20.8 0.3 1.1
23.6 57.5 1.1
26.1 55.0 1.1
32.6 48.3 0.9
36.7 44.5 1.2
40.6
13 | 70
40.54

$14^h\ 07^m\ 24.^s97$
$14\ \ 06\ \ 10.52$
$1\ \ 14.45$
$.15$
$1\ \ 14.60$

ass u = 1/3

$14^h\ 12^m\ 40.^s54$
$14\ \ 11\ \ 26.19$
$1\ \ 14.35$
$.19$
$1\ \ 14.54$

$1\ \ 14.57$
$.33$ b sec u
$1\ \ 14.90$

Frod. 1327 is FAST

$01^m\ 14.^s90$

at $14^h\ 10^m$ S.T.

Fri June 28, 1907

Mer Cir　　　　Willis.

α Bootis +19°40′
λ Bootis +46°31′ (missed 1st wires)
θ Bootis +52°17′ Rattle at 14h 17m

+19°40′			+46°31′			+52°17′		
12m 15.4	5.1	0.5	13m —	40.4		22m 39.0	55.7	4.7
18.1	2.8	0.9	36.0	37.0	3.0	43.3	51.9	5.2
20.7	0.0	0.7	39.3	33.4	2.7	47.2	48.0	5.2
23.4	57.5	0.9	43.1	29.7	2.8	51.3	43.7	5.0
26.0	54.9	0.9	46.7	26.1	2.8	55.2	39.8	5.0
32.5	48.2	0.7	55.6	17.0	2.6	5.4	29.7	5.1
36.3	44.4	0.7	1.0	11.7	2.7	11.4	23.4	4.8
		40.4			6.4			17.6
		15 | 57			13 | 50			15 | 76
		40.38			6.38			17.51

14h 12m 40s.38	14h 14m 6s.38	14h 23m 17s.51
14 11 26.18	14 12 52.01	14 22 3 03
1 14.20	1 14.39	1 14.48
.16	.05	.12
1 14.36	1 14.34	1 14.36

1.29
.36
.93

14.48
14.20
.28

u = .3

1 14.35
.33
1m 14.68

Frod. 1327 is FAST

01m 14s.68

at 14h 15m S.T.

Sun June 30, 1907

Mercer [illegible]

Rattle at 16h 37m

η Herculis +39°6' (14th wire poor reject) Clds.

+39°6'

40m	28.0 28.8	6.8
	31.4 –	–
	34.5 22.3	6.8
	37.7 19.0	6.7
	40.9 15.8	6.7
	48.7 7.8	6.5
	53.7 3.1	6.8
		58.5
	13	48
		58.37

$$\begin{array}{rrr} 16^h & 40^m & 58^s.37 \\ 16 & 39 & 44.30 \\ \hline & 1 & 14.07 \\ & & .03 \\ \hline & 1 & 14.10 \\ & & .33 \text{ b secle} \\ \hline & 1 & 14.43 \end{array}$$

ass. w=3

Frod. 1327 is FAST

01m 14s.43

at 16h 40m S.T.

Mon July 1, 1907
Mer Cir   Wh. Obs.

ξ Bootis +14° 8′
μ Virg ~~5~~ −5° 15′ (9 wires)
109 Virg +2° 17′ (11 wires) Rattle at 14h 42m

+14° 8′
14h 37m 33.0 21.4 4.4
35.7 19.0 4.7
38.1 16.4 4.5
40.8 13.8 4.6
43.3 11.3 4.6
49.6 5.0 4.6
53.5 1.1 4.6
57.3
15 | 43
57.29

−5° 15′
39m = = —
5.7 — =
8.3 40.4 8.7
10.8 38.0 8.8
16.8 31.8 8.6
20.7 28.0 8.7
24.4
9 | 32
24.36

+2° 17′
42m = 11.0 8.7 =
29.0 6.3 5.3
31.7 3.7 5.4
34.1 1.2 5.3
40.3 55.0 5.3
44.0 50.3 5.3
47.6
11 | 72
47.65

14h 37m 57.29s	14h 39m 24.36s	14h 42m 47.65s
14 36 43.65	14 38 10.77	14 41 34.04
1 13.64	1 13.59	1 13.61
.20	.30	.25
1 13.84	1 13.89	1 13.86

ass. m = .3

1 13.84
.89
.86
3 | 259
1 13.86
.33
1 14.19

Frod. 1327 is FAST

01m 14.19s

at 14h 40m S.T.

Tues July 2, 1907
Time Cu [illegible]

Rattle at 14h 24m
γ Bootis +38°43'
ξ Bootism +14°8'
μ Virg −5°15'

+38°43'			+14°8'			−5°15'		
29m 4.9	4.8	9.7	37m 33.0	21.3	4.3	39m 0.7	47.8	8.5
8.0	2.0	0.0	35.6	18.9	4.5	3.2	45.4	8.6
11.0	58.5	9.5	38.0	16.3	4.3	5.7	42.9	8.6
14.2	55.4	9.6	40.6	13.7	4.3	8.1	40.3	8.4
17.4	52.2	9.6	43.0	11.2	4.2	10.6	38.0	8.6
25.2	44.3	9.5	49.5	5.0	4.5	16.7	31.7	8.4
30.0	39.6	9.6	53.4	1.0	4.4	20.4	28.0	84
		34.8			57.2			24.2
		15)123			15)27			15)37
		34.82			57.18			24.25

14h 29m 34.82s	14h 37m 57.18s	14h 39m 24.25
14 28 21.11	14 36 43.64	14 38 10.77
1 13.71	1 13.54	1 13.48
.03	.20	.30
1 13.74	1 13.74	1 13.78

ass
μ=.3

1 13.74
.74
.78
3)2.26
1 13.75
.33 back
1 14.08

Frod. 1327 is FAST

01m 14.08s

at 14h 35m S.T.

Fri July 5, 1907

Mer Cir   Wh. Obs.

Rattle at 14h 26m

γ Bootis +38°43'
ξ Bootis +14°8' (last 9 wires)
μ Virg −5°15'
β Urs Min +74°32' (miss 11th & 12th wires)
Last aim 14h 54m

+38°43'		+14°8'		−5°15'		+74°32'	
29m 4.2 4.2	8.4	37m 40.0 13.1	3.1	39m 0.2 47.2	7.4	50m 45.4 41.3	6.7
7.4 1.3	8.7	42.6 10.6	3.2	2.7 44.7	7.4	55.0 32.5	7.6
10.5 58.0	8.5	49.0 4.3	3.3	5.1 42.3	7.4	4.2 23.0	7.2
13.8 54.7	8.5	52.8 0.4	3.2	7.6 39.7	7.3	13.4 —	—
16.8 51.5	8.3		56.7	10.0 37.3	7.3	22.6 —	—
24.8 43.7	8.5		9)55	16.2 31.0	7.2	45.7 41.4	7.1
29.6 39.0	8.6		56.61	20.0 27.3	7.3	59.9 21.8	7.7
	34.2				23.7		13.6
	15)37				15)100		11)68
	34.25				23.67		13.62

14h 29m 34s.25	14h 37m 56s.61	14h 39m 23s.67	14h 52m 13s.62
14 28 21.06	14 36 43.61	14 38 10.74	14 50 59.89
1 13.19	1 13.00	1 12.93	1 13.73
.02	.14	.18	.59
1 13.21	1 13.14	1 13.11	1 13.14

3.61
−.09
3.7

13.73
12.93
).80(22
74
60

n = .22.

13.21
.14
.11
.14
4)70
13.18
.33 6 sec δ
13.51

Frod. 1327 is FAST

01m 13s.51

at 14h 40m S.T.

Mon July 8, 1907

Collimation

Robt. Ella

S Coll. on N. Coll. 73.5
72.9
73.5
71.4
73.0

5)143
72.9

Set at 72.9

Tel. on S. Coll.

micrometer found
at 33.623

Abandoned
Seeing Poor.

micrometer left at 33.6~~4~~23

Mon July 8, 1907
~~14th [illegible]~~

Levels Alvin W. L. Obs.

Telescope South.

Zero	W End	E End			
W	-23.7	$-6\overset{1.2}{7.5}$	-84.9		
E	+73.2	35.0	+108.2	+23.3	
W	-23.7	-61.4	-85.1		+47.2
E	+73.6	35.4	$+10\overset{9}{8}.0$	+23.9	

Telescope North

Zero	W End	E End			
W	-27.8	-65.2	-93.0		
E	+69.0	+31.7	+100.7	+77.3	
W	-26.0	-64.0	-90.0		+19.5
E	+70.0	+~~32.0~~ 31.8	+101.8	+11.8	

4.17
.06
.2502
1.35 sec α
125
75
25
.3375

16) +66.7 (4.17
64.
27
16
110
48
~~96~~
112

b sec α = 0.34 west end high.

Time of ending
$5^h 19^m$

Mon July 8, 1907

Mu Ci — Wells.

Rattle at 14h 56m

β Bootis +40° 45'
4 Bootis +27° 19'

+40° 45'

59m 9.8 11.6 1.4
13.2 8.5 1.7
16.3 5.1 1.4
19.5 1.9 1.4
22.8 58.6 1.4
31.0 50.4 1.4
35.9 45.0 1.5
40.8
15|110
40.73

+27° 19'

01m 15.3 8.0 3.3
18.0 5.4 3.4
20.9 2.6 3.5
23.5 59.8 3.3
26.3 57.0 3.3
33.3 50.0 3.3
37.5 45.9 3.4
41.7
15|102
41.68

14h 59m 40.73s
14 58 27.78
1 12.95
.01
1 12.96

15h 01m 41.68s
15 0 28.85
1 12.837
.10
1 12.93

aso
μ = 1/4

1m 12.94
.34 b rec'le
1 13.28

Frod. 1327 is FAST

01m 13.28s

at 15h 0m S. T.

Tues July 9, 1907

Coll. Wells.

S. Coll. on N. Coll. 71.7
70.6
70.9
72.1
72.0
5|73
71.46

Set at 71.5

Tel. on S. Coll. 33 760
.762
.778
.801
.770
5|3871
33.7742

Micrometer
found at 33.623

Tel. on N. Coll. 33.494
.478
.500
.491
.489
5|2452
33.4904
2|67.2646
33.6323
.012
33.644

Set at 33.644

Wed July 10, 1907

Mer Cir Tole Obs

Rattbeat $15^h 05^m$

β Librae −9°2′
γ Urs maj +72°10′ (missed 1st wire)
β Cor Bor. +29°26
ν′ Bootis +41°9′

−9°2′

$15^h 12^m$ 50.2 37.5 7.7
52.7 35.2 7.9
55.1 32.7 7.8
57.7 30.2 7.9
0.1 27.7 7.8
6.3 21.3 7.6
10.3 17.6 7.9
13.9
15⌊13.5
13.95

+72°10′

20^m 58.7 15.7 (23.4) 4.4
6.2 8.1 4.3
14.7 59.7 4.4
23.0 51.3 4.3
43.2 31.2 4.4
55.0 19.3 4.3
– 7.3
13⌊24
7.18

+41°09′
~~+29°26′~~

28^m 18.2 20.3 8.5
21.3 17.1 8.4
24.7 13.9 8.6
28.3 10.6 8.9
31.7 7.2 8.9
39.4 59.3 8.7
44.3 54.1 8.4
49.3
15⌊47
49.31

+29°26′
~~+41°09′~~

24^m 40.4 7.1
46.7 37.7 7.3
49.6 34.7 7.0
52.3 32.0 7.1
55.1 29.3 7.3
5.9 (58.9) 22.1 7.2
9.3 17.9 7.2
13.7
15⌊89
13.59

$15^h 13^m 13^s.95$	$15^h 22^m 7^s.18$	$15^h 25^m 13^s.59$	$15^h 28^m 49^s.31$
15 12 1.50	15 20 54.07	15 24 1.00	15 27 36.68
1 12.45	1 13.11	1 12.59	1 12.63
.21	.44	.01	.07
1 12.66	1 12.67	1 12.60	1 12.70

3.11
.16
3.27

13.11
12.45
.66 (2)
.54
6

n = .2

1 12.66
12.67
.60
.70
4⌊263
12.66
.34 6 sec. 6.
1 13.00

Frod. 1327 is FAST

$01^m 13^s.00$

at $15^h 20^m$ S.T.

Fri July 12, 1907

Quer Cu — Sol. Obs.

β Bootis + 40° 45′
4 Bootis + 27° 19′
Rattle at 15h 03m

+40° 45′			+27° 19′		
14h 59m	9.0 10.9	9.9	15h 01m	14.7 7.4	2.1
	12.3 7.9	0.2		17.4 4.7	2.1
	15.6 4.4	0.0		20.2 2.0	2.2
	18.9 1.2	0.1		23.0 59.1	2.1
	22.2 57.9	0.1		25.7 56.2	1.9
	30.3 49.8	0.1		32.7 49.4	2.1
	35.2 44.9	0.1		37.0 45.2	2.2
		40.1			41.0
		15 ⟌ .6			15 ⟌ 07
		40.04			41.05

$14^h\,59^m\,40^s.04$		$15^h\,01^m\,41^s.05$
14 58 27.71		15 00 28.80
1 12.33		1 12.25
.01		.08
1 12.34		1 12.33

ass. m = .2

$1^m\,12^s.34$
.34 l sec k
$1^m\,12.68$

Frod. 1327 is FAST

$01^m\,12^s.68$

at $15^h\,0^m$ S. T.

Sat July 13, 1907

aver Cn 20 h. Obs.

Rattle at $14^h 57^m$

β Bootis $+40°45'$

4 Bootis $+27°19'$

	$+40°45'$		
	9.0	10.8	9.8
$14^h 59^m$	12.3	7.7	0.0
	15.5	4.3	9.8
	18.8	1.1	9.9
	22.0	57.9	9.9
	30.2	49.7	9.9
	35.1	44.8	9.9
			40.0
			15)142
			39.95

	$+27°19'$		
$15^h 01^m$	14.6	7.2	1.8
	17.4	4.6	2.0
	20.1	1.8	1.9
	23.0	59.0	2.0
	25.6	56.2	1.8
	32.7	49.3	2.0
	36.8	45.1	1.9
			41.0
			15)144
			40.96

$14^h\ 59^m\ 39.^s95$
14 58 27.69
1 12.26
.01
1 12.27

$15^h\ 01^m\ 40.^s96$
15 60 28.78
1 12.18
.08
1 12.26

aso
n=.2

1 12.26
.34 brecle.
1^m 12.60

Frod 1327 is FAST

$01^m\ 12.^s60$

at $15^h\ 0^m$ S.T.

Mon July 15, 1907

Mer Cir Dole Obs

~~Rattle at~~ $15^h 20^m$

μ Bootis +37°42'

β Coron Bor +29°26'

ν' Bootis +41°9'

+37°42'	+29°26'	+41°9'
$15^h 21^m$ 41.9 41.0 2.9	24^m 45.6 39.5 5.1	28^m 17.3 19.3 6.6
45.0 38.2 3.2	48.5 36.9 5.4	20.6 16.3 6.9
48.3 35.0 3.3	51.2 34.0 5.2	23.7 13.1 6.8
51.4 32.0 3.4	54.3 31.0 5.3	27.0 9.7 6.7
54.5 28.7 3.2	57.0 28.2 5.2	30.4 6.3 6.7
2.2 21.0 3.2	4.1 21.1 5.2	38.6 58.3 6.9
6.9 16.2 3.1	8.3 16.9 5.2	43.4 53.3 6.7
11.6	12.7	48.4
15⌊89	15⌊93	15⌊57
11.59	12.62	48.38

ass. u = .2

$15^h 22^m 11^s.59$	$15^h 25^m 12^s.62$	$15^h 28^m 48^s.38$
$15^h 20^m$ 59.84	15 24^m 0.93	15 27 36.60
1 11.75	1 11.69	1 11.78
.03	.07	.01
1 11.78	1 11.76	1x 11.79

1^m 11.78
.76
.79
3⌊233
1^m 11.78
.34 b sec u
1^m 12.12

Trod. 1327 is FAST

$01^m 12^s.12$

at $15^h 25^m$ S. T.

Times July 18, 1907

Mer Cir E O Wells

α Serp +6°43' middle 5 wires.
β Serp +15°4~~2~~3'
γ Serp +18°26' (missed 9th ~~8th~~ wire)
Rattle at 15h 48m.

	+6°43'		+15°43'				+18°26'		
15h40m	46.1	42m	41.5	30.2	1.7	45m	20.7	10.2	0.9
	49.8		44.0	27.7	1.7		23.4	8.5	0.9
	53.6		46.7	25.0	1.7		26.0	5.0	1.0
	57.2		49.2	22.5	1.7		28.5	2.2	0.7
	60.7		51.8	20.0	1.8		31.0	59.7	0.7
	5 | 2674		58.2	13.4	1.6		37.7	53.4	1.1
	53.48		2.0	9.7	1.7		41.5	–	
					5.7				45.7
					15 | 126				13 | 60
					5.84				45.46

15h 40m 53.48	16h 43m 5.84s	15h 45m 45.46s
15 39 42.59	15 41 55.07	15 44 34.56
1 10.89	1 10.77	1 10.90
.16	.13	.12
1 11.05	1 10.90	1 11.02

azz

u = .2

1 11.05
10.90
11.02
3 | 2.97
1m 10.99
.34
1 11.23

Frod. 1327 is FAST

01m 11.23s

at 15h 40m S.T.

Fri July ~~2~~ 19, 1907

Ami Cir W. le Obs.

β Serp +15° 43′
μ Serp −3° 9′
ζ Urs. Min +78° 5′ (middle wire)
Rattle at 15h 52m
ε Cor Bor +27° 9′

2 +15° 43′
15h 44m
41.3 29.9 1.2
43.8 27.3 1.1
46.3 24.8 1.1
49.0 22.2 1.2
51.4 19.6 1.0
57.7 13.3 1.0
1.7 9.4 1.1
5.0
15 | 83
5.55

5 −3° 9′
47m
34.2 21.2 5.4
36.7 18.8 5.5
39.2 16.3 5.5
41.7 13.9 5.6
44.2 11.4 5.6
50.3 5.2 5.5
54.0 1.4 5.4
57.8
15 | 113
57.75

7 +78° 5′
49
=
=
30.0 41.8 1.8
~~33.4~~
0.5 12.2 2.7
18.4 54.0 2.4
36.3
7 | 12
36.17

4 +27° 9′
52m
29.8 22.3 2.2
32.9 19.7 2.6
35.5 17.0 2.5
38.2 14.1 2.3
41.0 11.3 2.3
47.8 4.4 2.2
52.0 0.3 2.3
56.4
15 | 28
56.19

$15^h\ 45^m\ 5^s.55$ (3)
$16^h\ 41\ 55.06$
1 10.49
.21
1 10.70

$15^h\ 47^m\ 57^s.75$ (5)
15 44 47.41
1 10.34
.32
1 10.66

~~$15^h\ 50^m\ 36^s.17$ (48)~~
~~15 47 23.99~~
~~1 12.18~~

$15^h\ 52^m\ 56^s.19$ (5)
15 53 45.59
1 10.60
.13
1 10.73

4.74 12.18
.05 10.34
4.79 1.84 (.38
4.8 1.44
40

ass u = .13

1 10.70
10.66
10.73
10.70
.34
1m 11.04

Prod. 1327 is FAST

01m 11s.04

at 15h 50m S. T.

Sat July 20, 1907

[illegible] Wells

ν¹ Bootis +41°9', (last 7 wires)
α Cor. Bor. +27°2'
~~α~~ Rattled out $15^h 38^m$
α Serp +6°43' (last 7 wires
β Ser +15°43'

+41°9'
29^m 5.0
8.3
11.7
15.0
18.2
5 ⌊58.2
11.64
24.52
47.12

+27°2'
31^m 30.4 22.9 3.4
33.3 20.3 3.6
35.8 17.4 3.2
38.7 14.7 3.4
40.4 11.9 3.3
48.4 5.0 3.4
52.5 0.8 3.3
56.7
15 ⌊103
56.69

+6°43'
41^m 6.5
9.0
11.5
14.0
16.5
5 ⌊57.5
11.50
18.59
52.91

+15°43'
42^m 41.2 29.7 0.9
43.6 27.1 0.7
46.2 24.6 0.8
48.7 22.0 0.7
51.4 19.5 0.9
57.7 13.2 0.9
1.7 9.3 1.0
5.5
15 ⌊64
5.43

$15^h 28^m 47^s.12$ | $15^h 31^m 56^s.69$ | $15^h 40^m 52^s.91$ | $15^h 43^m 5^s.43$
15 27 36.51 | 15 30 46.26 | 15 39 42.57 | 15 41 55.05

1 10.61 | 1 10.43 | 1 10.34 | 1 10.38
.01 | .13 | .27 | .21
1 10.62 | 1 10.56 | 1 10.61 | 1 10.59

aso
$n = 1/3$

1 10.62
.56
.59
1 10.59
.34 6 sec δ
1 10.93

Frod. 1327 is FAST

$01^m 10^s.93$

at $15^h 35^m$ S. T.

Tuesday, July 23, 1907

~~η Draconis + 61° 43'~~

~~κ Ophiuchi + 9° 37'~~
back at 16 45
~~Obs. prevented by clouds~~

|

Slims July 25, 1907

Mean Ci W.h.Obs.

μ Serp +4°45'
Rattle at 15h 50m

ε Coron Bor. +27°9'
ι Drac + 58°49'
ν Herc. +45°11' (11 wires|

4°45'			+27°9'			+58°49'			+45°11'		
15h 46m 58.6	45.6	4.2	54m 29.4	22.0	1.4	0m 35.2	5.5	0.7	06m —	—	
1.0	43.3	4.3	32.1	19.2	1.3	40.0	1.0	1.0	—	—	
3.7	40.7	4.4	34.9	16.3	1.2	44.7	56.2	0.9	35.8	28.2	4.0
6.3	38.2	4.5	37.6	13.7	1.3	49.4	51.4	0.8	39.0	24.6	3.6
8.7	35.7	4.4	40.3	10.8	1.1	54.1	46.5	0.6	42.9	21.0	3.9
14.7	29.5	4.2	47.2	3.9	1.1	6.2	34.7	0.9	51.3	12.3	3.6
18.4	25.7	4.1	51.6	59.8	1.4	13.2	27.4	0.6	56.7	7.2	3.9
		22.2			55.7			20.3			2.1
		15)23			15)95			15)58			11)191
		22.15			55.63			20.39			1.92

1.65 10.29
.08 10.02
1.57 .27
(17
157
113
1099

15h 47m 22s.15	15h 54m 55s.63	16h 1m 20s.39	16h 07m 1s.92
15h 46 12.13	15 53 45.51	16 0 10 ~~.86~~ .10	16 0 ~~8~~ 5 51.74
1 10.02	1 10.12	1 ~~9.53~~	1 10.18
.14	.06	10.29	.01
		.12	
1 10.16	1 10.18	1 10.17	1 10.17

u = .17

1 10.17
.34
1 10.51

Frod. 1327 is FAST

01m 10s.51

at 16h 0m S.T.

Fri July 26, 1907

Rev Cir W. Wells

θ Drac +58° 49′. (missed 1st 2 wires)

Rattle at 16h 04m

A [ie Herc.] +45° 11′

δ Oph. −3° 27′

+58° 49′		+45° 11′		−3° 27′	
16h 0m = 5.8		06m 28.7 35.1	3.8	10m 16.4 3.2	9.6
1.2		32.2 32.0	4.2	18.9 1.0	9.9
44.8 56.2	0.0	35.8 28.2	4.0	21.3 58.3	9.6
49.6 51.3	0.9	39.3 24.7	4.0	23.7 56.0	9.7
54.2 46.3	0.5	42.8 21.2	4.0	26.2 53.4	9.6
6.2 34.9	1.1	51.5 12.4	3.9	32.4 47.2	9.6
13.3 27.9	1.2	56.8 7.2	4.0	36.2 43.5	9.7
	20.6		2.0		40.0
	11 ⌊53		15 ⌊149		15 ⌊127
	20.48		1.99		39.85

1.65
.06
1.71

10.31
10.06
.25 (15
17
80
85

$16^h\ 01^m\ 20^s.48$	$16^h\ 07^m\ 1^s.99$	$16^h\ 10^m\ 39^s.85$
16 00 10.07	16 $0\overset{5}{8}$ 51.72	16 09 29.79
1 10.31	1 10.27	1 10.06
.11	.01	.14
1 10.20	1 10.26	1 10.20

m = .15

1 10.22
.34
1 10.56

Frod. 1327 is FAST

01m 10s.56

at 16h 05m S.T.

Sat
~~Fri~~ July 27, 1907

Mer Cir   [illegible]

B [ξ Herculis] + 31° 46′
η Herc. + 39° 6′
Rattle at $16^h 43^m$

+ 31° 46′				+ 39° 6′		
$16^h 38^m$	31.1	26.0	7.1	40^m	24.0	24.3	8.3
	34.0	23.3	7.3		27.3	21.3	8.6
	37.0	20.3	7.3		30.4	18.1	8.5
	39.8	17.4	7.2		33.6	15.0	8.6
	42.7	14.5	7.2		36.7	11.7	8.4
	49.7	7.3	7.0		44.7	3.9	8.6
	54.3	3.0	7.3		49.5	59.0	8.5
			58.6				54.3
		15	90			15	38
			58.60				54.25

$16^h\ 38^m\ 58^s.60$ | $16^h\ 40^m\ 54^s.25$
16 37 48.32 | 16 39 43.99
1 10.28 | 1 10.26
.04 | .01
1 10.32 | 1 10.27

ass w = 1/7

1 10.30
.34 l.secc.
1 10.64

Frod. 1327 is FAST

$01^m\ 10^s.64$

at $16^h\ 40^m$ S.T.

Mon July 29, 1907

Mer Cir W. E. Mo.

Rattle at 16h 33m.

E [ξ Herc] +31°46'
η Herc +39°6'
Br. 2377 +56°57'
49 Herculis. +15°08'

+31°46'
38m 31.2 26.4 7.6
34.1 23.4 7.5
37.2 20.4 7.6
40.0 17.6 7.6
42.7 14.7 7.4
50.0 7.5 7.5
54.3 3.0 7.3
58.7
15 | 112
58.75

+39°6'
40m 24.3 24.6 8.9
27.5 21.6 9.1
30.7 18.3 9.0
33.8 15.2 9.0
37.1 11.9 9.0
45.0 4.0 9.0
49.7 59.3 9.0
54.6
15 | 76
54.51

+56°57'
44m 1.3 27.2 8.5
6.0 23.0 9.0
10.5 18.3 8.8
14.8 13.4 8.2
19.4 9.2 8.6
30.5 57.9 8.4
37.5 51.0 8.5
44.3
15 | 43
44.29

+15°08'
48m 38.6 27.2 5.8
41.1 24.7 5.8
44.0 ~~22.0~~ 19.4 6.0
46.4 ~~22.0~~ 5.8
48.7 ~~19.4~~ 17.0 5.7
55.3 10.6 5.9
59.4 6.6 6.0
2.8
15 | 138
2.92

1.54
.27
1.27

10.70
10.55
.15
.27 (12
23

16h 38m 58.75s
16 37 48.28
1 10.47
.04
1 10.51

16h 40m 54.51s
16 39 43.96
1 10.55
.01
1 10.56

16h 44m 44.29s
16 43 33.59
1 10.70
.08
1 10.62

16h 49m 2.92s
16 47 52.37
1 10.55
.08
1 10.63

u = .12

1 10.62
.63
.51
.56
4 | 232
1 10.58
.34 Obsec
1 10.92

Frod 1327 is FAST

01m 10.92s

at 16h 40m S.T.

Tuesday, July 30, 1907

Ed.7, Ob

first α 6 Ophiuchi +12° 36′
rattle at $17^h\!:\!28^m$ (broken transit) 1st 2nd 4th & 5th wires missed

B Ophiuchi +4° 36′
~~M Herculis +27 46~~
~~3 Draconis +56 53~~
~~θ Draconis +58 49~~
~~μ~~ Gr[25$\overset{3}{8}$3] +42 08 ~~(broken transit~~

109 Herculis +21 ~~43~~ 44

+12° 36′

$\overline{}$ 12.2
9.8
31 29.3 7.1 6.4
4.5
2.3
40.6 56.0 6.6
44.5 52.0 6.5
~~48.2~~ 48.2
7 ⌊1.7
48.24

Error of 15s in reading sheet

+42° 8′
~~+4° 36′~~

$\overset{m}{13}$ 25.2 28.6 53.8
28.7 25.3 54.0
31.1 22.0 53.1
35.5 18.7 54.2
39.7 15.0 54.7
42.0 7.0 54.0
51.8 1.9 53.7
56.9
15 ⌊14.4
.96

4° 36′
+ ~~21° 44′~~

39 40.4 27.1 7.5
42.5 24.9 7.4
45.1 22.5 7.6
47.5 20.0 7.5
50.1 17.4 7.5
56.6 11.3 7.9
0.2 7.5 7.7
~~4.0 11.3 18.2~~ 4.0
~~7.5~~
15 ⌊12.3
.82

21° 44′

$\overset{m}{20}$ 30.4
33.1
35.7
38.3
40.9
47.9 3.7 51.6
51.9 59.5 51.4
55.9
mean Colby 20 55.78

mean per Colby
20 35.68
19.95
20 55.63

17 31 4$\overset{9}{8}$.24
17 30 38.80
1 10 ~~9~~.44
.08
1 10.52

18 1~~3~~ 5~~6~~7.96
47.25
18 12 ~~45.88~~
1 10.71
.00

17 ~~39~~ 40 4 3.82
17 38 54.52
1 10 ~~9~~.30
.10
1 10.40

18 20 5~~5~~6.70
18 19 44.05
1 10 ~~9~~.65
.06
1 10.71

1 10.52
.71
.40
.71
1 10.59

234

1 10.52
.40
.71
3 ⌊1.63
1 10 .54
.34 brecc
1 10.88

1 10.59
.34 Grub
1. 10.93

Frod. 1327 is FAST
$01^m\ 10^s$.~~88~~ 93
at $18^h\ 0^m$ S.T.

Wed July 31, 1907

Clear Cir W. Wells

~~Rattle at~~ $16^h 02^m$.

A [α Herculis] +45°11'
δ Ophi. −3°27'
ε Ophi −4°28'
τ Herculis +46°32'

+45°11'	−3°27'	−4°28'	+46°32'
06^m 29.3 35.7 5.0	$\overset{10}{\cancel{09}}{}^m$ 16.8 3.9 0.7	14^m 12.6 59.5 2.1	17^m 34.8 43.0 7.8
32.7 32.4 5.1	19.4 1.5 0.9	15.1 57.2 2.3	38.6 39.5 8.1
36.3 28.8 5.1	21.8 58.9 0.7	17.6 54.7 2.3	42.0 36.0 8.0
39.7 25.2 4.9	24.3 56.5 0.8	20.0 52.2 2.2	45.8 32.3 8.1
$\overset{3}{4\cancel{4}}$.2 21.7 4.9	26.7 54.0 0.7	22.4 49.7 2.1	49.2 28.6 7.8
52.1 13.0 5.1	33.0 47.8 0.8	28.7 43.6 2.3	58.0 19.7 7.7
57.3 7.8 5.1	36.7 44.2 0.9	32.4 39.8 2.2	3.6 14.3 7.9
2.6	40.5	36.3	9.1
15)78	15)60	15)18	15)145
2.52	40.40	36.12	8.97

$16^h 07^m 2^s.52$	$16^h \overset{10}{\cancel{09}}{}^m 40^s.40$	$16^h 14^m 36^s.12$	$16^h 18^m 8^s.97$
16 05 51.61	16 09 29.74	16 13 25.49	16 $\overset{6}{17}$ 58.01
1 10.91	1 10.66	1 10.63	1 10.96
.01	.12	.13	.02
1 10.92	1 10.78	1 10.76	1 10.94

ass m = 1/8

1 10.90
.94
.78
.76
4)338
1 10.84
.34 brace
1 11.18

Frod. 1327 is FAST

$01^m 11^s.18$

at $16^h 10^m$ S.T.

July 31, 1907

E.S.Y. Ob.

Rattle at 21 23
" " 22 03
~~β " Aquarii~~ 22 17
ε Pegasi +9 27

θ Pegasi +5 44
~~74 Cephei +71 53~~

3 Lacertae +51 46

~~+9 27~~
~~m~~
~~40 42.3~~
~~45.7~~
~~49.7~~
~~53.6~~
~~57.1~~
~~3.5 13.3 7.0~~
~~6.1 10.0 7.1~~
~~8.6~~

+9° 27'
40 25.9 13.3 9.2
40 28.4 11.0 9.4
31.1 8.6 9.7
33.6 6.1 9.7
36.0 3.5 9.5
42.3 57.1 9.4
45.7 53.6 9.3
49.8
s 11.0
21h 40m 49.73
21 39 39.22
1 10.51
~~.09~~
~~.70~~
1 10.60

+5° 44'
m s
6 19.7 6.7 6.4
21.7 4.2 6.3
24.9 1.8 6.7
27.1 59.2 6.3
29.8 56.9 6.7
35.6 50.7 6.3
39.4 47.0 6.4
43.2
s ~~15.33~~
22h 06m 43.22 .22
22 05 32.59
1 10.63
.10
1 10.73

+51° 46'
20 30.2 45.2 5.4
~~20 34.0 41.8 5.8~~
~~35.6~~ ?
37.5 36.7 5.2
41.6 34.0 5.6
45.3 30.1 5.4
55.7 19.2 4.9
1.3 13.5 4.8
7.7
11.4.8
h m s
22 20 7.65
22 19 56.84
1 10.81
.04
1 10.77

1 10.60
.73
.77
1 10.70
34
1 11.04

Frod 1327 m
FAST

01m 11.04s

at: 22h 02m S.T.

Means Aug 1, 1907

Mer Cir 20h. obs.

μ Herculis +27°47′
Rattle at $17^h 47^m$

ξ Drac +56°53′
67 Oph +2°56′

+27°47′		+56°53′		+2°56′	
43^m 35.3 28.2	3.5	52^m 25.8 51.3	7.1	56^m 48.4 35.4	3.8
38.1 25.4	3.5	29.9 47.1	7.0	51.1 33.0	4.1
40.8 22.8	3.6	34.5 42.7	7.2	53.5 30.5	4.0
43.6 20.0	3.6	39.2 38.1	7.3	55.9 28.1	4.0
46.5 17.2	3.7	43.6 33.3	6.9	58.4 25.4	3.8
53.6 10.0	3.6	55.0 22.3	7.3	4.4 19.2	3.6
57.6 6.0	3.6	1.9 15.6	7.5	8.3 15.6	9.9
	1.8		8.8		11.9
	15)119		15)91		15)141
	1.79		8.61		11.94

$17^h 44^m 1^s.79$	$17^h 53^m 8^s.61$	$17^h 57^m 11^s.94$
17 42 50.86	17 51 57.42	17 56 1.13
1 10.93	1 11 0.19	1 10.81
.10	.16	.22
1 11.03	1 11.03	1 11.03

1.53 11.19
.05 10.81
1.48 .38 (25
296
840
740
100

m = .26

1 11.03
.34
1 11.37

Frod. 1327 is FAST

$01^m 11^s.37$

at $17^h 50^m$ S.T.

1.86
.1
2.0

Sat Aug 3, 1907

Mer Cir Tel. Obs

ν Herc +19°22'
η Drac +61°43'
~~ζ Ophi~~ Rattle at 16h 30m
ζ Oph. −10°23' (missed 1st wires)

+19°22'
16h 18m 36.4 26.1 2.5
39.2 23.7 21.0 2.9
41.7 ~~22.8~~ 2.7
44.4 18.4 2.8
47.0 15.7 2.7
53.6 9.2 2.8
57.4 5.3 2.7
1.3
15 | 54
1.36

+61°43'
23m 7.0 46.0 3.0
12.2 41.0 3.2
17.4 35.8 3.2
22.8 30.5 3.3
27.9 25.0 2.9
40.7 12.2 2.9
48.6 4.4 3.0
56.7
15 | 82
56.55

−10°23'
32m 53.6 38.6 36.1 9.7
55.9 33.5 9.4
58.4 31.0 9.4
0.8 28.5 9.3
7.2 22.1 9.3
11.0 18.4 9.4
14.7
13 | 92
14.71

1.86 | 11.45
.18 | 10.87
2.04 | .58 (29

16h 19m 1s.36	16h 23m 56s.55	16h 33m 14s.71
16 17 50.36	16 22 45.10	16 32 3.84
1 11.00	1 11.45	1 10.87
.16	.28	.32
1 11.16	1 11.17	1 11.19

u = .29

1 11.16
.17
.19
3 | 22
1 11.17
.34 b sec δ
1 11.51

Frod. 1327 is FAST

01m 11s.51

at 16h 30m S.T.

Tuesday Aug. 6, 1907

Mer Cir [illegible]

α Bootis +19°40′
~~Rattto at~~ $14^h 14^m$.

+19°40′

$14^h 12^m$ 12.0 1.7 3.7
14.5 59.2 3.7
17.2 56.5 3.7
19.8 53.9 3.7
22.4 51.2 3.6
29.0 44.7 3.7
32.9 40.8 3.7
36.9

15 | 127

36.85

$14^h\ 12^m\ 36\overset{s}{.}85$
14 11 25.67

1 11.18
.16

1 11.34
.34 b sec a

1 11.68

oso
$n = .3$

Frod. 1327 is FAST

$01^m\ 11\overset{s}{.}68$

at $14^h\ 12^m$ S. T.

Wed. Aug. 7, 1907

Mer Cir W. L. Ells

Rattle at 16h 28m

ο Herculis	+42°38′
E [ξ Herc]	+31°46′
η Herc.	+39°6′

	+42°38′				+31°46′				+39°6′		
16h 31m	47.0	50.7	7.7	38m	32.0	27.0	9.0	40m	24.8	25.3	0.1
	50.4	47.4	7.8		35.0	24.2	9.2		28.2	22.0	0.2
	53.7	44.2	7.9		37.8	21.2	9.0		31.3	18.9	0.2
	57.0	40.7	7.7		40.7	18.3	9.0		34.4	15.7	0.1
	0.3	37.3	7.6		43.5	15.5	9.0		37.6	12.4	0.0
	8.8	29.0	7.8		50.7	8.0	8.7		45.6	4.7	0.3
	14.0	24.0	8.0		55.1	3.9	9.0		50.3	59.9	0.2
			19.0				59.5				55.2
			15)135				15)74				15)13
			18.90				59.49				55.09

16h 32m 18.90s	16h 38m 59.49s	1~~8~~6h 40m 55.09s
16 31 7.55	16 37 48.14	1~~8~~6 39 43.79
1 11.35	1 11.35	1 11.30
.00	.09	.03
1 11.35	1 11.44	1 11.33

ass
u=3

1 11.35
.44
.33
.3)1.12
1 11.37
.34
1 11.71

Trod. 1327 is FAST

01m 11.71s

at 16h 35m S.T.

Times Aug 8, 1907

Mer Cir

W.L. Obs.

Rattle at 16^h 37^m

E [ε Herc] + 31°46'

η Herc + 39°06' (missed 1st wire)

Gr. 2377 + 56°57'

49 Herc + 15°08'

+31°46'	+39°06'	+56°57'	+15°08'
38^m 31.8 27.0 8.8	40^m — 25.2 —	44^m 1.7 27.7 9.4	48^m 39.3 27.7 7.0
34.9 24.2 9.1	28.2 22.3 0.5	6.3 23.3 9.6	41.8 25.3 7.1
37.8 21.3 9.1	31.3 19.0 0.3	11.0 19.0 0.0	44.4 22.5 6.9
40.8 18.3 9.1	34.5 15.9 0.4	15.4 14.2 9.6	46.9 20.2 7.1
43.7 15.3 9.0	37.7 12.6 0.3	19.8 9.7 9.5	49.5 17.7 7.2
50.9 8.3 9.2	45.6 4.7 0.3	31.1 58.3 9.4	55.8 11.1 6.9
55.0 3.8 8.8	50.4 0.0 0.4	38.2 51.5 9.7	0.0 7.8 7.8
59.6	55.3	44.7	3.7
15)77	13)125	15)119	15)87
59.51	55.19	44.79	3.58

16^h 38^m 59.^s51	16^h 40^m 55.^s19	16^h 44^m 44.^s79	16^h 49^m 3.^s58
16 37 48.13	16 39 43.77	16 43 33.28	16 47 52.25
1 11.38	1 11.42	1 11.51	1. 11.33
.04	.01	.09	.09
1 11.42	1 11.43	1 11.42	1 11.42

1.54
127
1.27

11.51
11.33
127).18(.14
127
~~5~~530
508

c = .14.

1 11.42
.34 b sec φ
1 11.76

Frod. 1327 is FAST

01^m 11.^s76

at 16^h 45^m S.T.

Fri Aug 9, 1907

Mer Cir W.L.Obs

Rattle at 17^{h}02^m

α Herc. +14°30'
π Herc. +36°55' (missed 1st wire)

+14°30'

17^{h}11^m 13.2 1.5 4.7
15.6 59.0 4.6
18.1 56.4 4.5
20.7 54.0 4.7
23.3 51.2 4.5
29.7 45.0 4.7
33.6 41.1 4.7
37.4
15|48
37.32

+36°55'

12^m — 30.5 —
35.2 27.5 2.7
38.3 24.4 2.7
41.5 21.2 2.7
44.3 18.2 2.5
52.0 10.6 2.6
56.7 6.0 2.7
1.3
13|42
1.32

17^h 11^m 37^s.32
17 10 25.97
1 11.35
ass. .09
w=1/7 1 11.44

17^h 13^m 1^s.32
17 11 49.97
1 11.35
.02
1 11.37

11.44
.37
|81

1^m 11^s.40
.34 brace
1 11.74

Frod. 1327 is FAST

01^m 11^s.74

at 17^h 11^m S.T.

Sat Aug 10, 1907

Tran Ci   Wheeler

49 Herc. +15°8'

Raitt at 16h 51m

κ Ophi. +9°31'

ε Herc +31°04'

+15°08'	+9°31'	+31°04'
48m 39.3 27.8 7.1	54m 4.9 52.3 7.2	57m 29.2 23.8 3.0
41.9 25.3 7.2	7.3 50.0 7.3	32.2 21.1 3.3
44.4 22.7 7.1	9.9 47.4 7.3	34.8 18.2 3.0
46.9 20.3 7.2	12.4 45.0 7.4	37.9 15.2 3.1
49.5 17.7 7.2	15.0 42.3 7.3	40.8 12.3 3.1
55.8 11.3 7.1	21.2 36.3 7.5	48.0 5.2 3.2
59.8 7.3 7.1	26.3 32.5 7.8	52.2 0.9 3.1
3.5	28.7	56.87
15)85	15)105	15)85
3.57	28.70	56.57

16h 49m 3s.57	16h 54m 28s.70	16h 57m 56s.57
16 47 52.22	16 53 17.42	16 56 45.28
1 11.35	1 11.38	1 11.29
.06	.08	.03
1 11.41	1 11.46	1 11.32

ass
n = .1

1 11.41
.46
.32
3)119
1 11.40
.34 breck
1 11.74

Frod. 1327 is FAST
0 1m 11s.74 at
16h 50m S.T.

Mon Aug 12, 1907

Mer Cir Tele. Obs.

Rattle at $16^h 44^m$

49 Herculis +15°8'

ψ Ophi. +9°31'

ε Herc. +31°4'

ξ Drac +65°50'

+15°8'		+9°31'		+31°4'		+65°50'	
48^m 39.2 27.7	6.9	54^m 4.7 52.3	7.0	57^m 29.1 23.8	2.9	08^m 46.9 41.2	8.1
41.9 25.2	7.1	7.3 49.9	7.2	32.0 21.0	3.0	53.0 35.5	8.5
44.3 22.5	6.8	9.7 47.3	7.0	35.0 18.0	3.0	58.8 29.4	8.2
46.8 20.0	6.8	12.3 44.8	7.1	38.0 15.2	3.2	5.0 23.4	8.4
49.4 17.4	6.8	14.7 42.2	6.9	40.7 12.4	3.1	11.0 17.3	8.3
55.7 11.2	6.9	21.0 36.1	7.1	47.9 5.2	3.1	26.2 2.3	8.5
59.5 7.4	6.9	25.0 32.2	7.2	52.5 0.9	3.4	35.0 53.4	8.4
	3.3		28.4		56.6		44.2
	15)65		15)79		15)85		15)26
	3.43		28.53		56.55		44.17

$16^h 49^m 3.43^s$	$16^h 54^m 28.53^s$	$16^h 57^m 56.55^s$	$17^h 09^m 44.17^s$
16 47 52.19	16 53 17.39	16 56 45.25	17 08 32.49
1 11.24	1 11.14	1 11.30	1 11.68
.17	.20	.08	.34
1 11.41	1 11.34	1 11.38	1 11.34

2.23
.17
2.06

11.68
11.14
.54
412
1280
1236
.26

n = .26

1 11.41
.34
.38
.34
4)147
1 11.37
.34
1 11.71

Frod. 1327 is FAST

$01^m 11.71^s$

at $17^h 0^m$ S.T.

Tues Aug 13, 1907

[illegible] 20 bells.

α Bootis +19°40′
~~Rattle~~ at 14^h14^m.

+19°40′

14^h12^m	12-0	1.8	3.8
	14-7	59.3	4.0
	17-3	56.5	3.8
	20-0	53.8	3.8
	22-5	51.3	3.8
	29-0	44.7	3.7
	33-0	40.8	3.8
			37.0

15 | 137
36.91

$14^h 12^m 36^s.91$
.57
14 11 25.~~42~~
34
1 11 ~~.49~~
.14
1 11 ~~.63~~ 48
·34 b sec δ
azm = 1/4
1 11.~~97~~
82

Frod. 1327 is FAST

$01^m 11^s.82$

at $14^h 12^m$ S.T.

Wed Aug 14, 1907

Mer Cir Wells

Rattle at $16^h 52^m$

γ Oph. +9°31'
ε Herc. +31°4'

+9°31'

54^m 5.1 52.7	7.8
7.5 50.1	7.6
10.3 47.7	8.0
12.7 45.2	7.9
15.0 42.7	7.7
21.5 36.4	7.9
25.2 32.7	7.9
	28.9
15⌊137	
	28.91

+31°4'

57^m 29.5 24.0	3.5
32.4 21.3	3.7
35.4 18.4	3.8
38.2 15.5	3.7
41.0 12.6	3.6
48.0 5.4	3.4
52.6 1.3	3.9
	56.9
15⌊125	
	56.83

$16^h\ 54^m\ 28^s.91$
16 53 17.37
1 11.54
.19
1 11.73

$16^h\ 57^m\ 56^s.83$
16 56 45.21
1 11.62
.08
1 11.70

ass
n = 1/4

1 11.72
.34 bruce
1 12.06

Aug 15
ass n = 1/6

1 11.54
.12
1 11.66

1 11.62
.05
1 11.67

1 11.67
.34
1 12.01

Frod. 1327 is FAST

$01^m\ 12^s.06$

at $16^h\ 56^m$ S.T.

Times Aug 15, 1907

Mer Cir Yale Obs.

ε Herculis +31°4' (last 4 wires)
Rattle at $17^h 02^m$
η Ophi. −15°37'
ξ Drac. +65°50'
π Herc. +36°55'

−15°37'
05^m 51.3 39.8 1.1
53 9 37.3
56.4 34.8 1.2
59.2 32.2 1.2
2.0 29.8 1.4
8.2 23.4 1.8
11.8 19.7 1.6
1.5
15.7
15)10 5
15.70

+65°50'
08^m 46.8 41.3 8.1
52.9 35.5 8.4
59.0 29.3 8.3
5.0 23.3 8.3
10.8 17.3 8.1
26.0 2.3 8.3
35.0 53.2 8.2
44.1
15)1 8
44.12

+36°55'
12^m 32.0 30.5 2.5
35.2 27.8 3.0
38.3 24.7 3.0
41.4 21.4 2.8
44.4 18.4 2.8
52.1 10.7 2.8
56.8 6.0 2.8
1.4
15)6 1
1.41

2.23
.28
2.51

11.78
11.38
.40 (16
25
150

$17^h 06^m 15^s.70$
17 05 4.32
1 11.38
.~~20~~ 18
1 11.5~~8~~7

$17^h 09^m 44^s.12$
17 08 32.34
1 11.78
.2~~1~~
1 11.5~~6~~7

$17^h 13^m 1^s.41$
17 11 49.86
1 11.55
.03
1 11.58

u = .16

1 11.57
.34
1 11.91

1.31
.16
786
131
.2096

1.19
.16
714
119
1904

.16
116
.0256

96
16
.0256

Frod. 1327 is FAST

$01^m 11^s.91$

at $17^h 08^m$ S.T.

Fri Aug 16, 1907

Mer Ci   Cole Obs.

Rated at $17^h 52^m$

ν Herc. +37°16'

67 Ophi. +2°56'

o Herc. +28°45'

	+37°16'			+2°56'			+28°45'	
53^m	47.6 46.4	4.0	56^m	48.8 35.7	4.5	04^m	41.3 34.7	6.0
	50.6 ~~46.4~~ 43.6	4.2		51.5 33.3	4.8		44.2 32.0	6.2
	53.8 ~~43.6~~ 40.3	4.1		53.7 31.0	4.7		47.0 29.1	6.1
	56.9 ~~40.3~~ 37.0	3.9		56.3 28.4	4.7		49.8 26.3	6.1
	0.0 34.0	4.0		58.7 26.0	4.7		52.7 23.4	6.1
	7.5 26.2	3.7		5.0 19.7	4.7		59.3 16.5	5.8
	12.4 21.7	4.1		8.9 16.0	4.9		3.8 12.3	6.1
		17.0			12.4			8.0
		10 | 0			15 | 54			15 | 04
		17.00			12.36			8.03

$17^h 54^m 17^s.00$	$17^h 57^m 12^s.36$	$18^h 05^m 8^s.03$
17 53 5.44	17 56 1.00	18 03 56.59
1 11.56	1 11.36	1 11.54
.02	.14	.06
1 11.58	1 11.50	1 11.60

ase

u = 1/6

1 11.58
.50
.60
3 | 168
1 11.56
.34 B sec φ
1 11.90

Frod. 1327 is FAST

$01^m 11^s.90$

at $18^h 00^m$ S.T.

Sat Fr Aug 17, 1907.

Aur Cir Var Clds.

Rattle at 22h 0m

α Aquarii −0°46′ (missed 6th wire)
θ Peg +5°44′ (3rd wire poor)
(Through clds)

−0°46

01m 51.237.6 8.8
53.435.4 8.8
55.833.0 8.8
58.130.3 8.4
1.127.7 8.8
— 21.7 —
10.517.7 8.2
14.3
13|41
14.32

+5°44′

06m 20.77.6 8.3
23.35.3 8.6
25.72.9 8.6
28.30.5 8.8
— 57.8 —
37.051.9 8.9
41.048.0 9.0
44.3
13|45
44.35

22h 02m 14.s32
22 01 2.76
1 11.56
.15
1 11.71

22h 06m 44.s35
22 05 32.83
1 11.52
.14
1 11.66

apm = 1/6

1 11.69
.34 b.rec
1 12.03

Frod. 1327 is FAST

01m 12s.03

at 22h 00m S.T.

Mon Aug. 19, 1907

Mer Cir Yale Obs.

Rattle at $17^h 55^m$

o Herculis (?) +28°45′ ~~72 Oph. +9°33′~~ (last 9 wires)

η Serp. −2°55′

110 Her +20°27′ (Pen knocked off chronograph

Rattle at $18^h 45^m$.

β Lyrae +33°15′

~~+28°45′ (9)~~

~~05m 23.2~~
~~3.7 26.2~~
~~7.8 28.8~~
~~11.9 31.7~~
~~16.1 34.4~~

−2°55′

17m 19.3 6.3 5.6
21.7 4.0 5.7
24.3 1.4 5.7
26.7 59.0 5.7
29.3 56.4 5.7
35.4 50.3 5.7
39.1 46.5 5.6
43.0
15 | 127
42.85

+20°27′

42m 27.5 17.7 5.2
30.3 15.0 5.3
32.9 12.4 5.3
35.7 9.9 5.6
38.3 7.2 5.5
44.7 0.5 5.2
48.7 56.6 5.3
52.6
15 | 100
52.67

+33°15′

47m 23.9 — —
27.0
29.8 14.2 4.0
32.7 11.3 4.0
35.7 8.3 4.0
43.0 0.8 3.8
47.6 56.4 4.0
52.0
11 | 108
51.98

$18^h 17^m 42^s.85$	$18^h 42^m 52^s.67$	$18^h 47^m 51^s.98$
18 16 31.69	18 41 41.42	18 46 40.68
1 11.16	1 11.25	1 11.30
.16	.09	.04
1 11.32	1 11.34	1 11.34

assn := 1/6

1 11.33
.34 brace
1 11.67

Frod. 1327 is FAST

$01^m 11^s.67$

at $18^h 35^m$ S.T.

Tuesday Aug 20, 1907

Merc Cu 20 h. cells

Rattle at $14^h 09^m$
α Bootis +19° 40'

+19° 40'

$14^h 12^m$ 11.7 1.5 3.2
14.4 59.0 3.4
17.0 56.4 3.4
19.6 53.8 ~~56.4~~ 3.4
22.2 ~~49.8~~ ~~53.8~~ 51.0 3.2
28.7 44.4 3.1
32.7 40.7 3.4
36.7
~~8~~ 6
15 | 98
36.65

14^h 12^m $36^s.65$
14 11 25.46
1 11.19
.09
1 11.28
.34
1 11.62

ass u = 1/6

Frod. 1327 is FAST

01^m $11^s.62$

at $14^h 11^m$ S.T.

Thurs. Aug 22, 1907

Collimation 20 h. 00s

Started 3:35 PM.

S. Coll on N. Coll. 65.1
66.6
66.2
66.3
65.9
5|301 (66.02
6.02

Set at 66.0

Tel. on S. Coll. 33.871
.882
micrometer .874
found at 33.643 .868
.873
5|368 (33.8736
~~33.87~~

Tel. on N. Coll. 33.~~348~~ .363
.~~332~~ .387
.363
.375
.373
|363 (33.3726
2|67.2462
~~33.5731~~
33.6231
.012
33.635

Set at 33.635

Glenns Aug 22, 1907

Level Obs. E. Wells

Telescope South

Zero.	W. End.	E End.			
W	- 34.0	-77.0	- 111.0	+ 24.0	
E	+ 89.0	+46.0	+ 135.0		+43.8
W	- 34.8	- 77.7	- 112.5		
E	+ 87.5	+44.8	+132.3	+ 19.8	

Telescope North

Zero.	W End	E. End.			
W	-34.0	-76.1	-110.1	+ 25.9	
E	+89.0	+ 47.0	+136.0		+49.7
W	- 35.0	- 77.2	-112.2	+ 23.8	
E	+89.0	+ 47.0	+136.0		
					93.5

16)93.5 (5.844
80
135
128
70
64
60

5.844
.06
.35~~064~~

.35
1.35
675
405
.4725

b sec φ = 0.47 West end high.

Illinois Aug. 22, 1907.

Mer Cir Eola Obs.

Rattle $17^h 28^m$

α Ophi. +12°38'

ω Drac. +68°48'

μ Herc. +27°46'

+12°38'

31m	25.6	13.6	9.2
	28.0	11.1	9.1
	30.3	8.4	8.7
	33.0	5.9	8.9
	35.4	3.3	8.7
	41.8	57.0	8.8
	45.5	53.3	8.8

49.7

$15 \,|\, \underline{69}$

49.46

+68°48'

37m	37.3	47.2	4.5
	44.5	40.7	5.2
	51.0	33.8	4.8
	58.0	27.2	5.2
	5.0	19.8	4.8
	22.1	3.0	5.1
	32.2	52.5	4.7

42.4

$15 \,|\, \underline{67}$

42.45

+27°46'

43m	35.0	28.0	3.0
	37.9	25.2	3.1
	40.5	22.5	3.0
	43.3	19.7	3.0
	46.2	17.0	3.2
	53.1	9.8	2.9
	57.3	5.7	3.0

1.6

$15 \,|\, \underline{78}$

1.52

$17^h 31^m 49^s.46$	$17^h 38^m 42^s.45$	$17^h 44^m 1^s.52$
17 30 38.53	17 37 31.16	17 42 50.57
1 10.93	1 11.29	1 10.95
.10	.25	.06
1 11.03	1 11.04	1 11.01

2.58
.22
2.36

11.29
10.93
.36 (.15
236
1240

u = .15

1 11.03
.04
.01
1.08

1 11.03
.47 b sec e.

1 11.50

.69
.15
345
69
.1035

1.65
.15
825
165
.2475

.38
.15
190
38
.0570

Frod. 1327 is FAST

$01^m 11^s.50$

at $17^h 40^m$ S.T.

Sunday Aug 2~~6~~5, 1907

Mer Cir Wolc-Obs

Rattle at $19^h 09^m$

ϑ Lyrae +37° 58′ (9 wires)

4 Cygni +53°12′ (missed 1st wire)

δ Aquila +2°56′

+37°58′

14^m 0.7 41.4 2.1
3.9 38.3 2.2
11.~~7~~ 30.4 2.1
16.4 25.7 2.1
21.0
9 ⟌ 0.5
21.06

+53°12′

15^m – 49.1 —
35.1 45.3 0.4
39.3 41.0 0.3
43.4 36.9 0.3
47.4 32.9 0.3
57.9 22.4 0.3
4.0 16.4 0.4
10.2
13 ⟌ 22
10.17

+2°56′

21^m 37.8 24.7 2.5
40.2 22.2 2.4
42.7 19.8 2.5
45.2 17.3 2.6
47.7 14.8 2.5
53.7 8.8 2.5
57.5 5.0 2.5
1.3
15 ⟌ 37
1.25

$19^h 14^m 21^s.06$
19 13 10.36
1 10.70
.0~~2~~1
1 10.7~~2~~1

$19^h 16^m 10^s.17$
19 14 59.42
1 10.75
.0~~6~~4
1 10.~~69~~ 71

$19^h 22^m 1^s.25$
19 20 50.60
1 10.60
.09
1 10.69

aso
n = ~~7~~.1

1 10.71
.71
.69
1 10.70
.47
1 11.17

Fred. 1327 is FAST

$01^m 11^s.17$

at $19^h 20^m$ S.T.

Mon Aug 26, 1907

Clear Cir Wh Obs.

Rate at $17^h 40^m$

μ Herc. +27°46'

ξ Drac. +56°53'

+27°46'

$+43^m$ 34.7 27.7 2.4
37.7 25.0 2.7
40.3 22.2 2.5
43.0 19.3 2.3
45.7 16.5 2.2
52.8 9.4 2.2
57.1 5.4 2.5
1.3
15 | 31
1.21

+56°53

52^m 24.6 50.1 4.7
28.9 46.0 4.9
33.3 41.3 4.6
38.0 36.7 4.7
42.7 32.2 4.9
54.0 21.0 5.0
0.8 14.3 5.1
7.6
15 | 65
7.43

$17^h 44^m 1.^s21$
17 42 50.49
1 10.72
.04
1 10.76

assm = .1

$17^h 53^m 7.^s43$
17 51 56.67
1 10.76
.06
1 10.70

1 10.73
.47 b sec c
1 11.20

Frod. 1327 is FAST

$01^m 11.^s20$

at $17^h 45^m$ S.T.

Tues Aug 27, 1907

Amer Cir Wol. Obs.

Rattbat $14^h 09^m$

α Bootis +19°40'

+19°40'

$14^h 12^m$	11.2	0.9	2.1
	13.9	58.3	2.2
	16.4	55.7	2.1
	19.0	53.0	2.0
	21.5	50.4	1.9
	28.0	43.9	1.9
	32.1	40.0	2.1
			36.0

15 | 03

36.02

$$
\begin{array}{rrr}
14^h & 12^m & 36^s.02 \\
14 & 11 & 25.36 \\
\hline
 & 1 & 10.66 \\
 & & .06 \\
\hline
 & 1 & 10.72 \\
 & & .47 \\
\hline
 & 1 & 11.19
\end{array}
$$

aso u = .1

If rod. 1327 is FAST

$01^m\ 11^s.19$

at $14^h 11^m$ S.T.

Wed. Aug 28, 1907

Mer Cir   Wh Obs

Rattle at 21h 30m

74 Cygni +40° 0'

ε Pegasi +9° 27'

π² Cygni +48° 53'

+40° 0'			+9° 27'			+48° 53'	
33m 55.8 57.0	2.8		40m 26.1 13.5	9.6		43m 59.3 10.4	9.7
59.1 53.8	2.9		28.7 11.2	9.9		3.0 6.8	9.8
2.4 50.6	3.0		31.1 8.8	9.9		6.7 3.2	9.9
5.5 47.4	2.9		33.7 6.3	0.0		10.5 59.4	9.9
8.7 44.0	2.7		36.3 3.8	0.1		14.2 55.6	9.8
16.7 36.0	2.7		42.3 57.6	9.9		23.6 46.1	9.7
21.5 31.3	2.8		46.3 53.8	0.1		29.2 40.5	9.7
	26.7			50.0			35.0
	15 | 65			~~49~~ 15 | 145			15 | 135
	26.43			49.97			34.90

21h 34m 26s.43	21h 40m 49s.97	21h 44m 34s.90
21 33 15.82	21 39 39.43	21 43 24.26
1 10.61	1 10.54	1 10.64
.01	.08	.02
1 10.62	1 10.62	1 10.62

ass
n=.1

1 10.62
.47 b sec φ
1 11.09

Frod. 1327 is FAST

01m 11s.09

at 21h 40m S.T.

Times Aug 29, 1907

Trans Cir GWL Obs.

Rattle at 21h 09m

α Equulei +4°52' (3d wire fool)
β Cephei +70°9'
74 Cephei +40°0'

+4°52'		+70°9'		+40°0'	
21h 11m 59.9 46.7	6.6	27m 33.6 51.7	5.3	3~~4~~3m 55.7 56.9	2.6
2.6 44.4	7.0	41.3 45.0	6.3	59.0 63.9	2.9
5.0 41.9	6.9	48.3 37.4	5.7	2.2 50.6	2.8
7.2 39.3	6.5	55.7 30.2	5.9	5.4 47.4	2.8
9.7 36.9	6.6	2.9 22.9	5.8	8.6 44.0	2.6
15.9 30.7	6.6	21.0 4.9	5.9	16.7 36.3	3.0
19.7 27.0	6.7	32.2 53.8	6.0	21.5 31.3	2.8
	.23.3		43.1		26.4
	15)52		15)140		15)59
	23.35.		42.93		26.39

21h 12m 23s.35	21h 28m 42s.93	21h 3~~3~~4m 26s.39
21 11 12.82	21 27 32.20	21 33 15.82
1 10:53	1 10.73	1 10.57
.06	.15	.01
1 10.59	1 10.58	1 10.58

2.75 10.73
.09 10.53
2.66 .20 2)18 (.08

u = .08

1 10.58
.47 8 secs
1 11.05

1.85
.08
1480

Frod. 1327 is FAST

01m 11s.05

at 21h 25m S. T.

Sat Aug 31, 1907

Mer Cir W. L. Ellis.

Rattle at $17^h 56^m$

72 Oph. +9°33'

ο Herc. +28°45' (last 9 wires.)

0.2608
.0571
0.3179

+9°33'

03^m 44.7 32.0 6.7
47.1 29.6 6.7
49.5 27.0 6.5
52.2 24.6 6.8
54.6 22.0 6.6
0.8 15.9 6.7
4.7 12.0 6.7
8.3
15⌊5 0
8.33

+28°45'

— — 22.2
— 5^m 2.6 25.1
6.7 27.9
— 11.1 30.7
— 15.3 33.4
4⌊35 7 5⌊139 3
8.92 27.86
2.08 21.05
6.84 6.81

$18^h\ 04^m\ 8^s.33$
18 02 57.98
1 10.35
.08
1 10.43

$18^h\ 05^m\ 6^s.82$
18 03 56.33
1 10.49
.04
1 10.53

ass n = ~~.08~~ .1

1^m 10.43
.43
.53
3⌊1.39
10.46
.47 b sec a
1^m 10.93

Frod. 1327 is FAST

$01^m\ 10^s.93$

at $18^h 03^m$ S. T.

Wed ~~Ce~~ Sep. 4, 1907

Mer Cir. Willis

~~Rattle~~ at 18h 26m

α Lyrae +38°42'

110 Lyrae +20°27' (last 9 wires)

β Lyrae +33°15'

0.2608
.0282
0.2890

	+38°42'			+20°27'			+33°15'	
18h 34m	29.2 29.3	8.5	42m	— —	6.0	47m	22.7 18.7	1.4
	32.5 26.4	8.9		— 47.7	8.7		25.7 15.5	1.2
	35.7 23.0	8.7		— 51.6	11.3		28.7 12.9	1.6
	38.9 19.8	8.7		— 55.4	14.0		32.0 10.0	2.0
	42.0 16.7	8.7		— 59.6	16.6		34.6 7.0	1.6
	49.8 8.8	8.6		4 | 214 35	5 | 66		42.0 59.8	1.8
	54.7 4.1	8.8		53.58	11.32		46.3 55.3	1.6
		59.3		1.94	19.70			50.8
		15 | 52		51.64	51.62			15 | 120
		59.35						50.80

18h 34m 59s.35	18h 42m 51.63	18h 47m 50s.80
18 33 48.91	18 41 41.19	18 46 40.41
1 10.44	1 10.44	1 10.39
.01	.05	.03
1 10.45	1 10.49	1 10.42

assu = .1

1 10.45 x 2 = .90
10.49 x 1 = .49
10.42 x 2 = .84
5 | 223
.45

1 10.45
.47
1 10.92

Frod. 1327 is FAST

01m 10s.92

at 18h 40m S.T.

Fri Sep 6, 1907

Dear Cii Wells.

Rattle at 22h 02m

[27 Pegasi] +32°43' (5th–10th wires incl.)

π Pegasi +32°43'

ξ Cephei +57°~~5~~45' (missed 1st ~~1~~ 3 wires) ?

ϑ Aquarii −8°15' (missed 1st 3 wires.)

+32°43'
π Pegasi
06m
36.4 32.3 8.7
39.7 29.4 9.1
42.4 26.4 8.8
45.4 23.5 8.9
48.4 20.7 9.1
55.6 13.2 8.8
0.2 8.8 9.9
4.6
15 | 70
4.47

−8°15'
~~+57°45'~~
12m
52.5 24.7 7.2
54.8 22.2 7.0
1.1 16.0 7.1
4.6 12.4 7.0
8.5
9 | 48
8.53

+57°45'
08m
16.7 26.3 3.0
21.4 21.7 3.1
26.1 17.0 3.1
37.5 5.4 2.9
44.7 58.5 3.2
51.7
11 | 60
51.55

1.59
.14
1.73

10.65
10.49
.16

22h 07m 4s.47	22h 13m 8s.53	22h 08m 51s.55
22 05 53.90	22 11 58.04	22 07 40.90
1 10.57	1 10.49	1 10.65
.03	.10	.07
1 10.60	1 10.59	1 10.58

m = .1

1 10.59
.47 Brecle
1 11.06

Frod. 1327 is FAST

01m 11s.06

at 22h 10m S.T.

Sat Sep 7, 1907

Aur. Ci   Wh. Ells

Rattle at $18^h 49^m$

Cloudy

R Lyrae +43°49' (missed 1st wire)
γ Lyrae +32°34' (missed several wires 2nd group)
ξ Aquila +13°43' (last 5 wires)

+43°49'
53^m — 15.0
13.5 11.6 5.1
16.7 ~~11.6~~ 8.1 4.8
20.5 4.9 5.4
23.7 1.3 5.0
32. 352.8 5.1
37. 347.6 4.9
42.5
13 | 68
42.52

+32°34'
56^m 12.3 8.0 0.3
15.1 45.0 0.4
18.1 2.0 0.1
21.0 59.3 0.3
24.0 56.2 0.2
31.3 —
36.0 ~~45.0~~
40.3
11 | 16
40.15

+13°43'
02^m — — 34.7
— — 37.0
— — 39.5
— — 42.0
44.7
5 | 197.9
39.58
19.00
20.58

$18^h 53^m 42^s.52$ $18^h 56^m 40^s.15$ $19^h 02^m 20^s.58$
18 52 31.92   18 55 29.50   19 01 9.86
1 10.60   1 10.65   1 10.72
.00   .03   .07
1 10.60   1 10.68   1 10.79

ass n = .1

10.60 × 3 = 1.80
.68 × 2 = 1.36
.79 × 1 = .79
6 | 13.95
1^m 10.65
.47
1 11.13

Frod. 1327 is FAST

$01^m\ 11^s.13$

at $18^h 55^m$ S.T.

Wlms Sep 12, 1907

Mer Cir Yerkes Obs.

3 Lacertae +51°46'
Rattle at 22h 25m
7 Lacertae +49°48'
η Aquarii −0°36'

+51°46'

20m 29.34 54 4.7
33.4 41.2 4.6
37.3 37.1 4.4
41.3 33.2 4 5
45.3 29.3 4.6
55.4 19.3 4.7
1.3 13.5 4.8
7.3
15 | 46
7.31

+49°48'

28m 4.2 16.7 0.9
8.1 13.2 1.3
12.0 9.3 1.3
15.8 5.6 1.4
19.6 1.7 1.3
29.2 52.1 1.3
35.0 46.2 1.2
40.7
15 | 94
40.63

−0°36'

31m 23.6 10.6 4.2
26.2 5.0 4.2
28.7 ~~8.0~~ 5.5 4.2
31.1 ~~5.5~~ 3.2 4.3
33.6 0.7 4.3
39.7 54.5 4.2
43.4 50.9 4.3
47.3
15 | 20
47.13

1.27 | 10.20
.01 | 10.06
1.28) .14 (.11
128
120

22h 21m 7s.31
22 19 57.11
1 10.20
.04
1 10.16

22h 28m 40s.63
22 27 30.50
1 10.13
.03
1 10.~~13~~ 10

22h 31m 47s.13
22 30 37.07
1 10.06
.10
1 10.16

u = .11

1 10.16
10.16
10.10
3 | .42
1 10.14
.47 breck.
1 10.61

T

Frod. 1327 is FAST

01m 10s.61

at 22h 25m S. T.

Fri Sep 13, 1907.

Quer Cir W. W. Olds.

Patterns at 22h 25m.
7 Lacertae +49°48′
η Aquarii -0°36′
10 Lacertae +38°34′

+49°48′
28m 4.216.7 0.9
8.013.0 1.0
11.89.2 1.0
15.75.3 1.0
19.31.4 0.7
29.052.0 1.0
34.746.2 0.9
40.4
15 | 69
40.46

-0°36′
31m 23.410.3 3.7
25.98.0 3.9
28.46.4 3.8
30.8 3.1 3.9
33.20.5 3.7
39.454.3 3.7
43.250.6 3.8
46.9
15 | 134
46.89

+38°34
35m 47.747.7 5.4
51.044.6 5.6
54.041.3 5.3
57.338.3 5.6
0.435.0 5.4
8.227.3 5.5
13.022.4 5.4
17.8
15 | 110
17.73

22h 28m 40s.46
22 27 30.50
1 9.96
.03
1 9.92

22h 31m 46s.89
22 30 37.07
1 9.82
.09
1 9.91

22h 36m 17s.73
22 35 7.91
1 9.82
.01
1 9.83

azz m = .1

1m 9.92
.91
.83
3 | 266
1m 9.89
.47 b sec le
1 10.36

Frod. 1327 is FAST

01m 10s.36

at 22h 30m S. T.

Sat Sep 14, 1907

Mercer   Pole Obs.

Rattle at 22h 19m

η Aquarii −0°36'

10 Lacertae +38°34'

η Pegasi +29°44'

−0°36'		+38°34'		+29°44'	
31m 23.3 10.2	3.5	35m 47.7 47.6	5.3	39m 23.7 17.7	1.4
25.8 7.7	3.5	50.9 44.4	5.3	26.6 15.0	1.6
28.2 5.2	3.4	54.1 41.3	5.4	29.5 12.1	1.6
30.7 2.5	3.2	57.2 38.1	5.3	32.3 9.2	1.5
33.2 0.3	3.5	0.3 35.0	5.3	35.4 6.3	1.7
39.4 54.2	3.6	8.3 27.0	5.3	42.3 59.3	1.6
43.0 50.4	3.4	13.1 22.3	5.4	46.6 55.0	1.6
	46.7		17.7		50.8
	15 | 108		15 | 100		15 | 118
	46.72		17.67		50.79

22h 31m 46.72s	22h 36m 17.67s	22h 39m 50.79s
22 30 37.07	22 35 7.91	22 38 41.05
1 9.65	1 9.76	1 9.74
.09	.01	.03
1 9.74	1 9.77	1 9.77

ass
m=.1

1 9.74
.77
.77
| 18

1 9.76
.47

1 109.23

Frod. 1327 is FAST

01m 10.23s

at 22h 35m S.T.

Mon Sep 16, 1907

Clear Air Wheeler

~~Rattle~~ at $19.^h 36^m$

γ Aquilae +10°23′

δ Sagittae +18°18′ (9 wires)

ε Draco +70°2′

β Aquilae +6°10′ (3 wires)

+10°23′		+18°18′		+70°2′	
$19^h 42^m$ 37.7 25.3	3.0	44^m — —		48^m 33.0 50.3	3.3
40.3 23.0	3.3	— —		40.5 43.2	3.7
42.7 20.3	3.0	— —		47.6 36.0	3.6
45.3 17.8	3.1	9.0 42.6	1.6	54.8 28.4	3.2
47.8 15.2	3.0	11.4 40.0	1.4	2.0 21.4	3.4
54.0 9.2	3.2	18.0 33.5	1.5	19.9 3.7	3.6
58.0 5.3	3.3	21.8 29.7	1.5	30.8 52.6	3.4
	1.5		25.7		41.8
	15 | 84		9 | 67		15 | 410
	1.56		25.74		41.73

$19^h 43^m 1.^s56$	$19^h 44^m 25.^s74$	$19^h 49^m 41.^s73$
19 41 52.11	19 43 16.23	19 48 31.79
1 9.45	1 9.49	1 9.94
.15	~~.09~~ .12	.37
1 9.~~56~~ 60	1 9.~~58~~ .61	1 9.57

2.75
.18
2.57

9.94
9.45
.49
257
2330

(.19

m = ~~.15~~ .2

.79
.15
365
73
.1095

.158
.15
290
58
870

1.83
.15
915
183
.2745

1 9.60
.61
.57
3 | 178

1^m 9.59
.47
1 10.06

Frod. 1327 is FAST

$01^m 10.^s06$

at $19^h 45^m$ S.T.

Tues Sep 17, 1907

Mer Cir
~~Wells Obs~~ Wells Obs

Rattle at 17h 25m
β Drac + 52°22'
α Ophi + 12°38'
ι Herc + 46°3'

+52°22'		+12°38'		+46°3'	
28m 51.7 8.4	0.1	31m 23.6 11.7	5.3	37m 27.0 34.4	1.4
55.7 4.4	0.1	26.2 9.2	5.4	30.7 31.2	1.9
59.6 0.4	0.0	28.7 6.7	5.4	34.0 27.4	1.4
3.8 56.4	0.2	31.2 4.0	5.2	37.7 23.7	1.4
7.8 52.3	0.1	33.7 1.6	5.3	41.1 20.3	1.4
18.0 42.3	0.3	40.1 56.2	5.3	50.0 11.3	1.3
24.0 36.2	0.2	43.9 51.4	5.3	55.3 6.3	1.6
	30.0		47.6		0.7
	15 | 10		15 | ~~1~~98		15 | 111
	30.07		47.65		0.74

17h 29m 30s.07	17h 31m 47s.65	17h 38m 0s.74
17 28 20.31	17 30 38.08	17 36 51.02
1 9.76	1 9.57	1 9.72
.08	.14	.02
1 9.68	1 9.71	1 9.70

azz
u = .2.

1 9.68
.71
.70
1209
1 9.70
.47
1 10.17

Frod. 1327 is FAST

01m 10s.17

at 17h 35m S. T.

Wed Sep 18, 1907

Inner Cir Wells

~~Rattle at~~ $^{20^h}$ ~~18~~^{h} 18^m

γ Cygni +39°58'

ε Delf +10°59'

β Delf +14°16'

+39°58'			+10°59'			+14°16'	
$20^h 19^m$	34.5 35.8	0.3	29^m	33.9 24.9	5.8	$3\overset{3}{~~4~~}^m$	58.8 47.2	6.0
	37.5 32.5	0.0		36.3 19.3	5.6		1.3 44.8	6.1
	41.2 29.3	0.5		39.0 16.7	5.7		4.0 42.0	6.0
	44.3 26.2	0.5		41.4 14.1	5.5		6.5 39.6	6.1
	47.3 22.8	0.1		44.2 11.7	5.9		8.9 36.9	5.8
	55.6 14.6	0.2		50.3 5.4	5.7		15.2 30.5	5.7
	0.6 10.1	0.7		54.0 1.7	5.7		19.1 26.8	5.9
		5.3			57.9			22.9
	15	26		15	128		15	1~~4~~5
		5.17			57.85			22.9~~8~~3

$20^h\ 20^m\ 5^s.17$ $\quad$ $20^h\ 29^m\ 57^s.85$ $\quad$ $20^h\ 3\overset{4}{~~3~~}^m\ 22^s.93$

20 18 55.39	20 28 48.20	20 33 13.30
1 9.78	1 9.65	1 9.63
.01	.14	.13
1 9.79	1 9.79	1 9.76

o20 m=.2

$1^m\ 9^s.79$
.79
.76
24

1 9.78
.47
1 ~~9~~.25
10

Frod. 1327 is FAST

$01^m\ 10^s.25$

at $20^h\ 30^m$. S.T.

Times Sep 19, 1907

Mer Cir Pole Obs.

δ Cygni + 44° 54′ (last 9 wires)
Rattles at 19h 46m
α Aquilae + 8° 37′
κ Cygni + 52° 11′

0.2608
0.1498
0.4106

+ 44° 54′

19h 43m	—	—	34.6
	—	10.1	38.2
	—	15.5	41.7
	—	20.5	45.3
	—	26.0	48.6

4) 72.1 5) 208 4
18.02 41.68
2.57 26.06
15.55 15.62

+ 8° 37′

47m	2.5	49.8	2.3
	5.0	47.4	2.4
	7.2	45.0	2.2
	10.0	42.6	2.6
	12.6	40.0	2.6
	18.7	33.7	2.4
	22.4	30.0	2.4

26.12
15) 3.0
26.20

+ 52° 11′

53m	46.3	3.3	9.6
	50.8	59.2	0.0
	54.7	55.2	9.9
	59.0	51.5	0.5
	2.8	47.0	9.8
	13.1	37.3	0.4
	19.1	31.0	0.1

25.0
15) .3
25.02

19h 43m 15.59	19h 47m 26s.20	19h 54m 25s.02
19 42 5.80	19 46 16.57	19 53 15.36
1 9.79	1 9.63	1 9.66
.02	.15	.07
1 9.81	1 9.78	1 9.59

ass n = .2

1 9.81
.78
.59
3) 2.18
1 9.73
.47
1 10.20

Frod. 1327 is FAST

0h 1m 10s.20

at 19h 50m S. T.

Tues Sep. 24, 1907

Collimation W. L. Ells
N

S. Coll on N. Coll. 66.2
67.2
64.9
59.3
62.7
5 | 203
64.06

Set at 64.1

Tel. on S. Coll. 33.905
.922
micrometer found .922
at 33.635 .932
.927
5 | 108 (33.9216

Tel. on N. Coll. 33.332
.362
.352
.337
.358
5 | 241 (33.3482
2 | 12698
33.6358
.012
33.647

Set at 33.647

Tues Sep. 24, 1907.

Level Obs. Wl. Obs.

Telescope South:

Zero	W. End	E. End		
~~W~~	~~- 17.0~~	~~- 70.8~~	~~- 87.8~~	
~~E~~	~~+ 82.0~~	~~+ 39.8~~	~~+121.8~~	
W.	- 28.0	- 71.0	- 99.0	+ 20.0
E.	+ 81.0	+ 38.0	+ 119.0	+ 41.0
W	- 26.0	- 70.0	- 96.0	+ 21.0
E	+ 80.0	+ 37.0	117.0	

Telescope North.

Zero	W. End	E. End		
W	- 24.0	- 67.0	- 91.0	+ 28.0
E	+ 81.0	+ 38.0	+ 119.0	+ 56.0
W	- 23.0	- 66.0	- 89.0	+ 28.0
E	+ 80.0	+ 37.0	+ 117.0	
				97.0

16)97.0(6.0625
96
100
96
40

6.0625
.06
.363750

.364
1.35
1820
1092
364
.49140

b sec u = 0.49 West end high.

Tues Sep 24, 1907

Mer. Cir. Wole Obs.

β Drac +52°22' (last 5 wires)
α Oph. +12°38'
i Herculis +46°3'
Last min $17^h 41^m$.

+52°22'	+12°38'	+46°3'
$17^h 29^m$ — — 52.2	31^m 23.9 11.8 5.7	37^m 27.0 34.4 1.4
— — 56.4	26.4 9.4 5.8	30.7 31.2 1.9
— — 0.3	28.8 7.0 5.8	34.2 27.4 1.6
4.5	31.4 4.4 5.8	37.7 23.9 1.6
8.4	34.0 1.7 5.7	41.2 20.4 1.6
5)1 8	40.2 55.3 5.5	50.2 11.4 1.6
0.36	44.0 51.7 5.7	55.4 6.2 1.6
30.24	47.9	0.9
30.12	15)129	15)122
	47.86	0.81

$17^h 29^m 30^s.12$	$17^h 31^m 47^s.86$	$17^h 38^m 0^s.81$
17 28 20.06	17 30 37.95	17 36 50.81
1 10.06	1 9.91	1 10.00
.06	.10	.02
1 10.00	1 10.01	1 9.98

1.29 10.06
.122 9.91
1.07 .15

n = .15

1 10.00
.01
9.98
29.99

.69 .15
.15 .12
345 30
69 15
1035 .0180

1 10.00
.49
1 10.49

Frod. 1327 is FAST

$01^m 10^s.49$

at $17^h 30^m$ S.T.

Wed Sep 25, 1907

mer Cir [illegible]

Rattle at $17^h 54^m$

γ Draco + 51°30′ (7 wires)

o Herc. + 28°45′

+51°30′

$17^h 55^m$

15.4 59.2 4.6
25.4 49.3 4.7
31.4 43.6 5.0
37.3
7 | 26.6
37.37

+28°45′

04^m 39.1 32.6 1.7
42.0 29.9 1.9
44.7 27.0 1.7
47.7 24.2 1.9
50.3 21.3 1.6
57.4 14.3 1.7
1.7 10.1 1.7
6.6
15 | 132
5.88

$17^h 55^m 37^s.37$
17 54 27.23
1 10.14
.05
1 10.09

ass
$n = .15$

$18^h 05^m 5^s.88$
18 03 55.82
1 10.06
.05
1 10.1

1 10.10
.49 bucc
1 10.59

35
.15
175
35
.0525

Frod. 1327 is FAST

$01^m\ 10^s.59$

at $18^h 0^m$ S.T.

Thurs Sep 26, 1907

Quer Cir J.O. Wells.

~~Rattle~~ at $23^h 12^m$

t Pegasi : $+23°14'$
4 Cassi. $+61°46'$
70 Peg. $+12°15'$

$+23°14'$		$+61°46'$		$+12°5'$	
16^m 49.0 40.0	9.0	21^m 6.5 45.8	2.3	25^m 15.8 4.0	9.8
52.0 37.4	9.4	12.0 40.7	2.7	18.3 1.4	9.7
54.7 34.9	9.6	17.1 35.2	2.3	21.0 58.8	9.8
57.6 32.2	9.8	22.2 30.3	2.5	23.2 56.3	9.5
0.2 29.4	9.6	27.6 24.9	2.5	26.0 53.8	9.8
6.5 23.0	9.5	40.7 12.2	2.9	32.3 47.3	9.6
11.0 18.7	9.7	48.3 4.0	2.3	36.3 43.7	0.0
	15.0		56.3		40.0
	15)116		15)38		15)122
	14.77		56.25		39.81

$23^h 17^m 14^s.77$	$23^h 21^m 56^s.25$	$23^h 25^m 39^s.81$
23 16 4.53	23 20 46.06	23 24 29.53
1 10.24	1 10.19	1 10.28
.03	.06	.04
1 10.21	1 10.25	1 10.24

~~+.86~~
.22
~~1.86~~
1.64

10.28
10.19
.09

w = .06

1 10.21
.25
.24
3)10
1^m 10.23
.47~~7~~9
1 10.7~~0~~2

Frod. 1327 is FAST

0.1^m $10^s.7$~~0~~2

at $23^h 20^m$ S.T.

Mon Sep 30, 1907

Mer Cir Tel Obs.

α And + 28° 35'

~~A~~ [22 And] + 45° 33' (last 7) Pen not recording well

γ Pegasi + 14° 40 (missed 1st 3) Pen not recording

Rattle at 0^h 12^m

+14° 40'

09^m = 40 =

= 1.7 =

– 58.9 –

23.3 56.4 9.7

25.7 53.8 9.5

32.1 47.4 9.5

35.9 43.7 9.6

39.7

9|7 0

39.78

0^h 09^m $39^s.78$

0 08 29.31

1 10.47

.47~~7~~9 b sec a.

1 10.9~~4~~6

ass

u = 0

Trod. 1327 is FAST

01^m $10^s.9$~~4~~6

at 0^h 10^m S.T.

Tues Oct 1, 1907

Quer Cir Wells.

Rattle at $18^h 12^m$

η Serpentis −2°55'

109 Herculis +21°44'

ψ Drac +72°42'

7

$18^h 16^m$ −2°55'

18.0 4.8 2.8

20.4 2.4 2.8

22.959.9 2.8

25.357.4 2.7

27.7~~57.4~~55.8 2.7

34.048.8 2.8

37.745.1 2.8

41.4

15|58

41.38

20^m +21°44'

30.220.6 0.8

32.918.0 0.9

35.515.4 0.9

38.212.7 0.9

40.710.9 0.7

47.43.4 0.8

51.359.4 0.7

55.5

15|62

55.41

22^m +72°42'

35.012.3 7.3

43.34.3 7.6

51.356.0 7.3

59.847.4 7.2

8.139.2 7.3

29.018.4 7.4

41.05.9 6.9

54.0

15|100

53.67

$18^h\ 16^m\ 41^s.38$	$18^h\ 20^m\ 55^s.41$	$18^h\ 23^m\ 53^s.67$
18 16 31.02	18 19 45.08	18 22 43.52
1 10.36	1 10.33	1 10.15
.06	.03	.14
1 10.~~42~~ 30	1 10.30	1 10.29

3.21 | 10.15
.05 | 10.36
3.26

.21) .064
2956
1440

n = .06.

1 10.30
.4~~7~~9
1 10.7~~7~~9

2.16
.064
864
1356
.14424

Frod. 1327 is FAST

$01^m\ 10^s.7$~~7~~9

at $18^h 20^m$ S.T.

Wed Oct 2, 1907

Mer Cir　　　Fol Obs.

Rattle at $20^h\ 14^m$

γ Cygni　$+39°58'$
ε Delphini　$+10°59'$
β Delf　$+14°16'$

$+39°58'$			$+10°59'$			$+14°16'$	
20^h19^m 34.6	35.8	0.4	29^m 34.5	22.0	6.5	33^m 59.2	47.5	6.7
37.8	32.4	0.2	36.9	19.9	6.8	1.8	45.1	6.9
41.1	29.3	0.4	39.4	17.2	6.6	4.2	42.5	6.7
44.4	26.3	0.7	42.0	14.8	6.8	6.8	40.0	6.8
47.6	23.0	0.6	44.4	12.2	6.6	9.3	37.5	6.8
55.7	14.9	0.6	50.8	6.0	6.8	15.9	31.0	6.9
0.5	10.0	0.5	54.6	2.1	6.7	19.5	27.1	6.6
		5.4			58.3			23.3
	15	38		15	51		15	57
		5.25			58.34			23.38

$20^h\ 20^m\ 5^s.25$	$20^h\ 29^m\ 58^s.34$	$20^h\ 34^m\ 23^s.38$
20 18 55.08	20 28 48.00	20 33 13.10
1 10.17	1 10.34	1 10.28
.00	.04	.04
1 10.17	1 10.30	1 10.24

ass
u = .06

1 10.17
.30
.24
3 | 71
1 10.24
.49
1 10.7~~2~~3

Frod 1327 is FAST

$01^m\ 10^s.7\cancel{2}3$

at $20^h\ 30^m$ S.T.

Thurs Oct 3, 1907

Mer Cir　　　　Wells Obs

A θ Pisc　+5°52' (7 wires)
Rattle at $23^h 30^m$.
A λ And.　+45°57'

$+5^\circ 52^m$
24^m =
14.141.4　5.5
20.135.0　5.1
23.931.4　5.3
27.8
7|47
27.67

$+45^\circ 57'$
33^m 40.047.2　7.2
43.743.7　7.4
47.040.2　7.2
50.536.5　7.0
54.133.0　7.1
2.924.3　7.2
8.4 19.0　7.4
13.5
15|90
13.60

$23^h 24^m 27^s.67$
23 23 17.46
1 10.21
~~.08~~
~~1 10.13~~

$23^h 34^m 13^s.60$
23 33 3.66
1 9.94
~~.01~~
~~1 9.95~~

~~ass n = .1~~

ass n = 0

~~10.13 × 1 = 10.13~~
~~9.95 × 2 = 19.90~~
~~3|30.03~~
~~1^m 10.01~~
~~.49 b sec ce~~
~~1^m 10.50~~

10.21 × 1 = 10.21
9.94 × 2 = 19.88
3|30.09
10.03
.49 b sec ce.
10.52

Prod. 1327 is FAST

$01^m\ 10^s.5\cancel{0}2$

at $23^h 30^m$ S.T.

Fri Oct 4, 1907

Mer Cir   Wolb. Obs.

Rattle at 23h 49m.

ω Piscium +6°21'

A 33 Pisc -6°14'

β Cass + 58°38'

+6°21'

55m 21.28.2 9.4
23.65.7 9.3
26.03.3 9.3
28.5 0.9 9.4
31.058.3 9.3
37.252.2 9.4
41.048.3 9.3
44.7
15|101
44.67

-6°14'

01m 23.3 10.7 4.0
26.0 8.2 4.2
28.4 5.7 4.1
30.9 3.2 4.1
33.3 0.7 4.0
39.6 54.6 4.2
43.2 51.0 4.2
47.0
15|8
47.05

+58°38'

04m 41.311~~4~~ 2.~~7~~
46.369 3.2
51.12.3 3.4
55.857.5 3.3
0.552.6 3.1
12.340.8 3.1
19.333.7 3.0
26.6
15|78
26.52

$23^h 55^m 44^s.67$
23 54 34.62
1 10.05

$0^h 01^m 47^s.05$
0 0.0 37.04
1 10.01

$0^h 05^m 26^s.52$
0 04 16.51
1 10.01

m = 0.0

1 10.05
.01
.01
1 30|.07
$1^m 10^s.02$
.49
1 10.51

Frod. 1327 is FAST

$01^m 10^s.51$

at $0^h 0^m$ S.T.

Sat Oct 5, 1907

Mer Cir . Wells Obs.

β Aquarii - 5°59′
74 Cygni. +40°0′ (Russell wires clds)
ε Pegasi +9°27′ " " "
Rattle at 21h 42m.

π Peg. +32°43′ (9 wires)
ζ Cephei +57°45′ (9 ")
Rattle at 22h 11m.

-5°59′

21h 27m 28.4 15.7 4.1
31.0 13.0 4.0
33.4 10.4 3.8
35.9 8.0 3.9
38.1 5.4 3.5
44.6 59.4 4.0
48.3 55.7 4.0
52.0
15)143
51.95

+32°43′

≡
~~21.9 23.8~~
~~25.0 20.9~~

+57°45′

≡
~~21.9 20.4~~ ~~.3~~
~~25.0 15.9~~ 0.9
36.5 4.3 0.8
42.9 57.4 0.3
50.5
(7)25
50.36

21h 27m 51.95s
21 26 41.95
1 10.00

Sat Oct 5, 1907

Rattle at $23^h 04^m$

Br. 3077 +56°39′

E [γ Pisc] +2°46′

τ Peg. +23°14′

+56°39′	+2°46′	+23°14′
09^m 19.0 44.3 3.3	13^m 9.5 56.7 6.2	16^m 49.0 40.2 9.2
23.6 40.0 3.6	12.2 54.3 6.5	51.8 37.6 9.4
28.0 35.5 3.5	14.7 51.6 6.3	54.5 34.7 9.2
32.4 30.6 3.0	17.0 48.2 6.2	57.1 32.2 9.3
36.8 26.4 3.2	19.7 46.7 6.4	59.9 29.3 9.2
48.2 15.0 3.2	25.7 40.7 6.4	6.7 22.8 9.5
55.0 8.7 3.7	29.5 36.7 6.2	10.7 18.8 9.5
1.6	33.3	14.7
15)101	15)25	15)100
1.67	33.17	14.67

$23^h\ \overset{10^m}{\cancel{08}}\ 1.^s67$	$23^h\ 13^m\ 33.^s17$	$23^h\ 17^m\ 14.67$
23 8 51.61	23 12 23.11	23 16 4.50
1 10.06	1 10.06	1 10.17

m = 0

1 10.06
.06
.17
3)29
1.10.10
.49
1 10.59

Frod. 1327 is FAST

$01^m\ 10.^s59$

at $23^h 15^m$ S. T.

Sun Oct 6, '07

Mer Cir   Wh Obs.

Rattle at 20h 03m

ϑ Aquil −1°6'
o' Cygni +46°28'
24 Vulpec +24°23'

	−1°6'			+46°28'			+24°23'	
20h 07m	18.3 5.6	3.9	11m	19.3 27.4	6.7	13m	34.0 25.7	9.7
	21.0 3.0	4.0		23.2 24.2	7.4		36.9 23.0	9.9
	23.5 0.7	4.2		26.7 20.2	6.9		39.6 20.2	9.8
	26.0 58.1	4.1		30.3 16.8	7.1		42.2 17.5	9.7
	28.2 55.7	3.9		33.8 13.2	7.0		45.0 14.6	9.6
	34.7 49.4	4.1		43.1 4.2	7.3		51.7 8.1	9.8
	38.3 45.5	3.8		48.2 58.7	6.9		56.0 4.2	0.2
		42.0			53.5			59.9
		15)0.0			15)7.8			15)13.6
		42.00			53.52			59.91

20h 07m 42s.00	20h 11m 53s.52	20h 13m 59s.91
20 06 32.11	20 10 43.68	20 12 49.90
1 9.89	1 9.84	1 10.01

ass u = 0

1 9.89
9.84
10.01
3)27.74
1 9.91
.149
1 10.40

Chrod. 1327 is FAST

01m 10s.40

at 20h 10m S.T.

Mon Oct 7, 1907

Mer Cir Wells.

Rattle at 21h 58m:

α Aquarii −0°46′ (missed 1st 3(?) wires)
[27 Pegasi] +32°43′ (1st 10 wires)
π Pegasi +32°43′
24 Cephei +71°53′ (last 5 wires)

−0°46′	+32°43′	+71°53′
01m — 35.9 —	05m 35.6 31.3 6.9	9m — — 58.6
— 33.4 —	38.4 28.4 6.8	— — ~~6.8~~
— 31.0 —	41.4 25.4 6.8	— — 14.7
56.3 28.7 5.0	44.3 22.4 6.7	— — 23.0
58.9 26.0 4.9	47.2 19.5 6.7	— — 30.2
5.0 19.9 4.9	54.6 12.3 6.9	~~4~~ 5 | 73.3
8.7 16.1 4.8	59.0 7.8 6.8	14.66
12.4	3.5	59.36
9 | 40	15 | 61	15.36
12.44	3.41	

22h 02m 12s.44	22h 06m 3s.41	~~22h 09m 15.30~~
22 01 2.67	22 05 53.65	~~22 08 05.20~~
1 9.77	1 9.76	~~+ 10.10~~

1.2662
.5073
1.7735

3.06 ~~+ 10.10~~
9.77
.33

ass
u = 0

1 9.76
.49 b sec δ
1 10.25

Frod. 1327 is FAST

01m 10s.25

at 22h 05m S.T.

Tues Oct 8, 1907

Mer Cir   Wil Obs.

Rattle at $18^h 44^m$

β Lyrae +33°15'
o Drac +59°16'
R Lyrae +43°49'

+33°15'			+59°16'			+43°49'		
47^m 21.3	17.3	8.6	50^m 14.1	45.4	9.5	53^m 8.3	13.1	1.4
24.1	24.5	8.7	18.7	41.2	9.9	11.8	10.0	1.8
27.2	~~14.5~~ 11.5	8.7	23.7	36.2	9.9	15.0	6.6	1.6
30.2	8.4	8.6	28.7	31.2	9.9	18.5	~~6.5~~ 3.0	1.5
33.0	5.8	8.8	33.3	26.2	9.5	21.8	59.7	1.5
40.4	58.3	8.7	45.3	14.3	9.6	30.5	51.1	1.6
44.8	53.8	8.6	52.5	7.0	9.5	35.6	46.0	1.6
		49.5			59.7			40.9
	15	52		15	125		15	119
		49.35			59.83			40.79

$18^h\ 47^m\ 49.^s35$	$18^h\ 50^m\ 59.^s83$	$18^h\ 53^m\ 40.^s79$
18 46 39.64	18 49 50.10	18 52 31.07
1 9.71	1 9.73	~~18~~ ~~0~~ 1 9.72

ass. u = 0

1 9.72
.49 secs
$1^m\ 10.^s21$

Frod. 1327 is FAST

$01^m\ 10.^s21$

at $18^h\ 50^m$ S.T.

Wed Oct 9, 1907

Clear Cir   Tr. Wells Obs.

Results at 0h 11m

A σ Androm +36°16'
A 44 Pisc +1°25'

+36°16'
14m 11.39.4 0.7
14.46.4 0.8
17.53.1 0.6
20.60.2 0.8
23.757.3 1.0
31.250.0 1.2
35.745.0 0.7
40.4
15|62
40.41

+1°25'
21m 27.014.0 1.0
29.411.4 0.8
32.19.2 1.3
34.36.6 0.9
37.03.9 0.9
42.658.0 0.6
47.054.3 1.3
50.5
15|73
50.49

$0^h\,14^m\,40^s.41$
$0\ \ 13\ \ 30.95$
$1\ \ 9.46$

$0^h\,21^m\,50^s.49$
$0\ \ 20\ \ 40.64$
$1\ \ 9.85$

corr n = 0

9.46
.85
2|131
1 9.66
.49 secc.
1m 10.15

Frod. 1327 is FAST

$0.1^m\,10^s.15$

at $0^h\,15^m$ S.T.

Thursday Oct 10, 1907

Mer Cir

to be Obs.

Rattle at $20^h 42^m$

λ Cygni +36°9'

32 Vulpec +27°42'

ν Cygni +40°49'

+36°9'

44^m 29.1 27.0 6.1
32.3 24.1 6.4
35.0 21.1 6.1
38.3 17.8 6.1
41.3 15.0 6.3
48.8 7.3 6.1
53.7 2.7 6.4
58.1

15)16

58.11

+27°42'

51^m 20.3 13.1 3.4
23.1 10.4 3.5
25.8 7.5 3.3
28.7 4.8 3.5
31.5 2.1 3.6
38.3 55.3 3.6
42.4 51.2 3.6
46.7

15)112

46.75

+40°49'

54^m 22.3 24.4 6.7
25.6 21.1 6.7
28.7 17.7 6.4
32.0 14.6 6.6
35.3 11.2 6.5
43.7 3.2 6.9
48.5 58.2 6.7
53.3

15)48

53.32

$20^h 44^m 58^s.11$
20 43 48.82
1 9.29

$20^h 51^m 46^s.75$
20 50 37.51
1 9.24

$20^h 54^m 53^s.32$
20 53 44.10
1 9.22

1 9.29
.24
.22

3)75

1 9.25
.49

1^m 9.74

Frod. 1327 is FAST

01^m $9^s.74$

at $20^h 50^m$ S.T.

Fri Oct 11, 1907

Obser. C. Wea. clear

Rattle at $22^h 58^m$
α Peg +14°42' (last 6 wires)
Br 3077 +56°39'
E [A γ Pisc] +2°46' (last 10 wires)
γ Pisc. + ~~1~~0°45'
70 Peg. +12°15'

+14°42'
$23^h 01^m$ = − 33.0
= = 35.6
= − 38.1
— — 40.9
43.2
5)19 08
38.16
19.08
19.08

+56°39'
09^m 17.5 42.9 0.4
22.4 38.3 0.7
27.0 34.0 1.0
31.6 29.3 0.9
35.6 25.0 0.6
46.9 13.9 0.8
53.9 7.3 1.2
0.4
15)6 0
0.40

+2°46'
13^m = 24.6 45.6
= 28.4 48.1
— 32.0 50.5
35.2 52.9
39.6 55.3
5)1598 5)2524
31.96 50.48
18.48
32.00

+0°45'
22^m 57.8 44.7 2.5
0.3 42.3 2.6
2.7 39.8 2.5
5.3 37.3 2.6
7.7 34.7 2.4
14.0 28.6 4.6
17.5 24.9 2.4
21.2
15)38
21.25

+12°15'
25^m 14.4 2.3 6.7
17.0 59.9 6.9
19.6 57.3 6.9
22.0 54.9 6.9
24.5 52.2 6.7
31.0 46.0 7.0
34.8 42.3 7.1
38 6
15)68
38.45

$23^h 01^m 19.08$	$23^h 10^m 0^s.40$	$23^h 13^m 31.96$	$23^h 23^m 21^s.25$	$23^h 25^m 38.45$
23 00 10.05	23 08 51.53	23 12 23.08	23 22 12.36	12 24 29.50
1 9.03	1 8.87	1 8.88	1 8.89	1 8.95

u = 0

9.03 × 1 = 9.03
8.87 × 3 = 26.61
~~8.88 × 3 = 26.64~~
8.89 × 3 = 26.67
8.88 × 2 = 17.76
8.95 × 3 = 26.85
12)106.92(8.91
96
109
108

$1^m 8^s.91$
.149
1 9.40

Frod. 1327 is FAST

$01^m 9^s.40$

at $23^h 15^m$ S.T.

Sat Oct 12, 1907

Mer Cir Wh. Obs

Rattle at 0h 25m

~~[ε Androm] + ?~~

π Androm + 33°12'

[ε Androm] + 28°48' (7 wires)

α Cassiop + 56°2' (13 wires)

+33°12'

0h32m ~~38.1~~ 33.7 1.8
40.3 30.7 1.0
43.6 27.9 1.5
47.0 24.9 1.9
49.9 22.2 2.1
57.5 15.3 2.8
1.7 10.6 2.3
6.4
15 | 148
5.99

+28°48'

34m
34.2 5.6 9.8
41.2 58.3 9.5
45.8 54.1 9.9
49.8
7 | 60
49.86

+56°2'

35m 48.6 3.9 2.5
52.9 59.3 2.2
57.3 54.8 2.1
1.5 50.3 1.8
12.4 39.0 1.4
19.0 32.7 1.7
26.1
13 | 128
25.98

0h 33m 5s.99
0 32 57.59
1 8.40

0h 34m 49.86
0 33 41.18
1 8.68

0h 36 25.98
0 35 17.30
1 8.68

asd = 0

1 8.40
8.68
8.68
3 | 176
1 8.59
.49 breck
1 9.08

Frod. 1327 is FAST

0 1m 9s.08

at 0h 35m S.T.

Sun Oct 13, 1907

Quer Cir Wolcott Obs.

ϑ Cygni. +50°0'
Rattle at $19^h 38^m$
δ Cygni +44°54'

+50°0'

$19^h 34^m$ 29.7 42.7 2.4
33.3 38.7 2 0
37.0 34.9 1.9
41.2 31.2 2.4
44.8 27.2 2.0
54.6 17.7 2.3
0.2 12.2 2.3
6.1
15 | 14
6.09

$19^h 35^m 6^s.09$
19 33 57.72
1 8.37

$1^m 8^s.34$
.496 sec
1 8.83

+44°54'

42^m 40.1 46.4 6.5
44.0 43.0 7.0
47.2 39.5 6.7
51.0 36.0 7.0
54.2 33.0 7.2
3.0 23.7 6.7
8.2 18.7 6.9
13.7
15 | 67
13.45

$19^h 43^m 13^s.45$
19 42 5.14
1 8.31

Frod. 1327 is FAST

$01^m 8^s.83$

at $19^h 40^m$ S.T.

Tues Oct 15, 1907

Merz Cir Wells.

Rattle at $0^h\ 14^m$.

A ⌊44 Pisc $+1°25'$

12 Ceti ~~+~~ $-4°28'$

ξ Cass $+53°23'$

	$+1°25'$			$-4°28'$			$+53°23'$	
21^m	24.4 11.8	6.2	26^m	4.3 51.7	6.0	32^m	19.2 37.6	6.8
	27.2 9.6	6.8		7.0 49.0	6.0		23.3 33.5	6.8
	30.2 7.1	7.3		9.3 46.3	5.6		27.3 29.0	6.3
	32.4 4.6	7.0		11.9 43.8	5.7		31.7 25.0	6.7
	35.0 2.3	7.3		14.1 41.2	5.3		35.7 21.3	7.0
	41.2 55.8	7.0		20.4 35.2	5.6		46.0 10.7	6.7
	44.8 52.2	7.0		24.1 31.4	5.5		52.2 4.8	7.0
		48.3			27.7			58.6
	15	69		15	124		15	59
		48.46			27.83			58.39

	$0^h\ 21^m\ 48^s.46$	$0^h\ 26^m\ 27^s.83$	$0^h\ 32^m\ 58^s.39$
ass μ = 0	0 20 40.65	0 25 20.10	0 31 50.74
	1 7.81	1 7.73	1 7.65

1 7.81
.73
.65
3 | 219
1 7.73
.49 e secc
1 8.22

Frod. 1327 is FAST

$0\ 1^m\ 8^s.22$

at $0^h\ 25^m$ S. T.

Wed. Oct 16, 1907

Mer Cir — We Obs

Rattle at $19^h\,36^m$

δ Cygni +44°54'
? +10°07'
β Aquilae +6°10'

+44°54'		—	+6°10'	
42^m 39.5 45.3	4.8		51^m 29.8 16.9	6.7
42.8 42.1	4.9		32.2 14.4	6.6
46.3 38.6	4.9		34.9 12.0	6.9
49.9 35.0	4.9		37.3 9.6	6.9
53.3 31.6	4.9		40.0 7.0	7.0
2.0 23.0	5.0		46.0 0.8	6.8
7.2 17.6	4.8		49.7 57.2	6.9
	12.5			53.5
	15)57			15)63
	12.38			53.42

$19^h\,43^m\,12^s.38$
19 42 5.05
1 7.33

$19^h\,51^m\,53^s.42$
19 50 46.10
1 7.32

1 7.33
.49
1 7.82

Frod. 1327 is FAST

$01^m\,7^s.82$

at $19^h\,45^m$ S.T.

~~Time~~ Time Obs Oct 17, 1907

Meri Cir Wells

4 Cass +61°46'
70 Peg. +12°15'
Rattle at 23h 31m
A [A Andron] +45°57'

+61°46'		+12°15'		+45°57'	
21m 3.4 42.3	5.7	25m 12.4 0.3	2.7	33m 36.7 44.2	0.9
8.6 37.2	5.8	15.0 58.1	3.1	40.5 40.6	1.1
13.3 31.7	5.0	17.7 55.4	3.1	43.8 37.3	1.1
18.9 26.6	5.5	20.2 53.0	3.2	47.5 33.7	1.2
24.3 21.3	5.6	22.6 50.4	3.0	51.0 30.0	1.0
37.3 8.3	5.6	28.9 44.1	3.0	59.9 21.2	1.1
45.0 0.7	5.7	32.7 40.3	3.0	5.2 15.9	1.1
	53.0		36.5		10.5
	15 | 119		15 | 76		15 | 80
	52.79		36.51		10.53

23h 21m 52.79s	23h 25m 36.51s	23h 34m 10.53s
23 20 45.80	23 24 29.47	23 33 3.57
1 6.99	1 7.04	1 6.96

$m = 0$

1 6.99
7.04
6.96
3 | 20.99
1m 7.00
.49 b sec ce
1 7.49

Frod. 1327 is FAST

01m 7.49s

at 23h 25m S.T.

Fri Oct 18, 1907

Mer Cir Wallis

~~Ratto~~ at 22h, 34m

ξ Peg. +10° 21'

η Peg + 29° 44'

λ Peg + 23° 5'

+10° 21'		+29° 44'		+23° 5'	
37m 34.6 22.2	6.8	39m 20.7 14.3	5.0	42m 46.6 37.5	4.1
37.1 19.7	6.8	23.5 11.6	5.1	49.2 35.0	4.2
39.7 17.3	7.0	26.3 9.0	5.3	52.1 32.2	4.3
42.1 14.7	6.8	29.3 6.0	5.3	54.7 29.7	4.4
44.7 12.3	7.0	32.0 3.2	5.2	57.2 26.9	4.1
51.0 6.0	7.0	39.1 56.2	5.3	4.2 20.0	4.2
54.3 2.2	6.5	43.2 51.9	5.1	8.3 16.3	4.6
	58.3		47.4		12.2
	15 | 62		15 | 87		15 | 21
	58.41		47.58		12.14

22h 37m 58s.41	22h 39m 47s.58	22h 43m 12s.14
22 36 51.64	22 38 40.82	22 42 5.34
1 6.77	1 6.76	1 6.80

1 6.77
.76
.80

3 | 233

1 6.78
.49 b sec c

1 7.27

Frod. 1327 is FAST

01m 7s.27

at 22h 40m S.T.

Sat Oct 19, 1907

Quer Ci Wells.

Rattle at 22h 15m

[31 Pegasi] +11°44'

3 Lacertae +51°46'

7 " +49°48'

+11°44'	+51°46'			+49°48'	
	20m 29.6 37.3	6.9	28m	0.6 13.0	3.6
	33.2 33.0	6.2		4.2 9.1	3.3
	38.1 29.0	7.1		8.0 5.0	3.0
	41.7 25.3	7.0		11.8 1.7	3.5
	~~45.8 25~~			15.9 57.5	3.4
	51.3 14.6	5.9		25.3 48.0	3.3
	58.2 9.0	7.2		30.9 42.2	3.1
		3.2			36.2
		13)45			15)94
		3.35			36.63

22h 21m 3.35s	22h 28m 36.63s
22 19 56.55	22 27 30.02
1 6.80	1 6.61

Q20 pA = 0

1m 6.70

.49

1m 7.19

Frod. 1327 is FAST

01m 7.19s

at 22h 25m S.T.

Mon Oct 21, 1907

[illegible] Cir [illegible]

Rattle at $0^h 20^m$

12 Ceti $-4°28'$

ξ Cass. $+53°23'$

δ Androm $+30°21'$ (missed 1st wire)

$-4°28'$		$+53°23'$		$+30°21'$	
26^m 2.349.7	2.0	32^m 16.935.7	2.6	35^m 5.454.1	9.5
5.147.3	2.4	21.531.9	3.4	8.451.1	9.5
7.344.6	1.9	25.427.5	2.9	11.448.6	0.0
10.142.0	2.1	29.623.3	2.9	14.145.7	9.8
12.439.6	2.0	33.719.1	2.8	21.638.3	9.9
18.733.2	1.9	43.99.0	3.9	25.534.0	9.5
22.229.7	1.9	50.33.2	3.5		30.0
	25.9		56.3		13 | 11 2
	15 | 1		15 | 8 3		29.87
	26.01		56.55		

$0^h 26^m 26^s.01$	$0^h 32^m 56^s.55$	$0^h 35^m 29^s.87$
0 25 20.10	0 31 50.75	0 34 24.03
1 5.91	1 5.80	1 5.84
.08	.03	.03
1 5.83	1 5.83	1 5.81

1.08 5.80
1.35 5.91
1.43 .11

m = .08

1 5.83
.83
.81
3 | 247
1 5.82
.49
1^m 6.31

Frod. 1327 is FAST

$01^m 6^s.31$

at $0^h 30^m$ S. T.

Tues Oct 22, 1907

Mer Cir W. L. Obs

R~~attle~~ after $19^h 31^m$

ν Cygni + 50° 0′ wrong star. (Reject 14th wire)
δ Cygni + 44° 54′
α Aquilae + 8° 37′

	+50°0′			+44°54			+8°37′	
33^m	56.1 8.9	5.0	42^m	37.2 43.3	0.5	46^m	57.8 45.2	3.0
	59.9 ~~5.8~~	—		40.8 40.0	0.8		0.4 42.9	3.3
	3.9 1.3	5.2		44.2 ~~46.0~~ 36.7	0.9		2.8 40.3	3.1
	7.8 57.5	5.3		47.7 ~~36.7~~ 33.0	0.7		5.3 37.9	3.2
	11.7 53.7	5.4		51.2 29.5	0.7		8.0 35.3	3.3
	20.9 44.0	4.9		59.9 21.0	0.9		14.0 29.0	3.0
	27.0 38.3	5.3		5.1 15.5	0.6		17.9 25.3	3.2
		32.7			10.3			21.5
		13⌊78			15⌊54			15⌊86
		32.60			10.36			21.57

$19^h 34^m 32^s.60$	$19^h 43^m 10^s.36$	$19^h 47^m 21^s.57$
19 33 57.43	19 42 4.88	19 46 16.02
	1 5.48	1 5.55
		.06
		1 5.49

ass $u = \frac{1}{12}$

1^m 5.48
.49
1^m $5^s.97$

Frod. 1327 is FAST

01^m $5^s.97$

at $19^h 45^m$ S.T.

Wed Oct 23, 1907

Trans Cir

Tele Obs

Rattle at 22h 49m

o Andron + 41°50′

α Pegasi + 14°42′

+41°50′	
22h 58m 14.7 18.0	2.7
18.0 14.3	2.3
21.3 11.0	2.3
24.8 7.6	2.4
27.9 4.4	2.3
36.2 56.2	2.4
41.3 51.0	2.3
	46.2
	15)29
	46.19

+14°42′	
23h 00m 51.0 39.4	0.4
53.6 37.0	0.6
56.0 34.5	0.5
58.8 32.0	0.8
1.3 29.3	0.6
7.6 23.0	0.6
11.5 19.0	0.5
	15.2
	~~42~~
	15)~~38~~
	15.28

22h 58m 46s.19

22 57 40.96

1 5.23

~~.05~~

~~1 5.28~~

23h 01m 15s.28

23 00 9.96

1 5.32

.05

1 5.27

ass

r = 1/12

1 5.25

·49 Greece.

1m 5.74

Frod. 1327 is FAST

01m 5s.74

at 23h 0m S.T.

Friday Oct 25, 1907

Amer Ci Wolb Obs

Rattle at $22^h 40^m$.

λ Pegasi +23°5' (missed 8^{th} wire)

ι Cephe +65°43 wires 1,2,3, & 6,7,8

Clouds

β Andron +35°8'

[τ Pisc] +29°36'

~~ϑ~~ , Rattle at $1^h 12^m$.

υ Pisc +26°47'

+35° 8'

$1^h 5^m$ 10.47.6 8.0

13.64.8 8.4

16.6 1.8 8.4

19.458.6 8.0

22.755.7 8.4

30.148.3 8.4

34.643.7 8.3

39.2

15⌊21

39.14

~~.02~~

+26°47'

15^m 2.655.2 7.8

5.252.5 7.7

8.249.7 7.9

10.847.0 7.8

13.744.1 7.8

20.637.1 7.7

24.833.1 7.9

29.0

15⌊136

28.91

assu= .1

$1^h 5^m 39^s.14$

1 4 34.42

1 4.72

.02

1 4.70

$1^h 15^m 28^s.91$

1 14 24.08

1 4.83

.04

1 4.79

1 4.74

.49

$1^m 5.23$

Frod. 1327 is FAST

$01^m 5^s.23$

at $1^h 10^m$ S.T.

Sat Oct 26, 1907

Mer Cir Wells.

Ratthat $1^h 22^m$

η Pisc $+14°52'$
o Persei $+48°9'$

$+14°52'$			$+48°9'$	
$1^h\,\overset{7}{28}^m$ 13.3 1.8	5.1		34^m 49.7 59.9	9.6
15.6 59.2	4.8		53.2 56.4	9.6
18.2 56.7	4.9		56.6 52.8	9.4
21.0 54.3	5.3		0.3 49.0	9.3
23.7 51.5	5.2		4.2 45.3	9.5
30.2 45.3	5.5		13.4 36.2	9.6
34.0 41.4	5.4		19.7 29.9	9.6
	37.5			24.8
	15 | 87			15 | 1104
	37.58			24.76

$1^h\ 2\overset{7}{8}^m\ 37.^s58$ $\quad$ $1^h\ 33^m\ 24.^s76$
$1\ \ 26\ \ 33.10$ $\quad$ $1\ \ 32\ \ 20.45$
$1\ \ 4.48$ $\quad$ $1\ \ 4.31$
$.06$ $\quad$ $.02$
$1\ \ 4.42$ $\quad$ $1\ \ 4.33$

ase.
n=1

$1^m\ 4.^s37$
.49 b scale
$1^m\ 4.^s86$

Frod. 1327 is FAST

$0\ 1^m\ 4.^s86$

at $1^h\ 30^m$ S.T.

Tues Oct 29, 1907

Amer Cir   Wells

Ratto at 23h 56m

A [83 Pisc.] −6° 14′ (missed several of 1st 5 wires)
β Cass.   ±58° 38′ (missed 1st 2
γ Peg.   +14° 40′

−6° 14′

01m ± 4.3
19.7 2.0 1.7
22.4 59.4 ~~58.8~~ 1.8
56.8
64.4
33.4 48.4 1.8
~~40.7 48.4~~ ~~44.5~~
37.2 44.5 1.7
40.8
9 | 78
40.87

±58° 38′

04m 44.4 55.4 9.8
49.2 51.0 0.2
53.7 46.1 9.8
5.7 34.1 9.8
12.8 27.0 9.8
20.2
11 | 106
~~20.0~~
19.96

+14° 40′

9m 8.7 57.3 6.0
11.4 54.9 6.3
13.9 52.2 ~~54.9~~ 6.1
16.5 49.7 6.2
19.0 47.1 6.1
25.3 40.7 6.0
29.2 37.0 6.2
33.1
15 | 10
33.07

−.11   3.89
1.64   3.64
1.75) .25 (.14
175
750
710
40

0h 01m 40s.87	0h 05m 19s.96	0h 09m 33s.07
0 00 36.98	0 04 16.32	0 08 29.29
1 3.89	1 3.64	1 3.78
.15	.10	.09
1 3.~~78~~ .74	1 3.74	1 3.~~71~~ 69

n = .14

1 3.74
.74
.69
3 | 217
1 3.72
.49 b sec c
1 4.21

1.04
.14
416
104
1 .4565

.14
.81
4
1
.11 2
.1 34

.14
65
65
.07 1 5
.260
65
0910

.73
.14
292
73
.1032

Frod. 1327 is FAST

01m 4s.21

at 0h 05m S.T.

Wed Oct 30, 1907

Rattle at $20^h 32^m$

? + 15°35′ (about 15 wires)

α Delph. + 15°35′ (missed 1st 2 or 3 wires)

α Cygni + 44°57′

ε Cygni + 33°37′

+15°35′		+44°57′		+33°37′	
36^m		38^m 47.1 53.3	0.4	43^m 3.6 59.9	3.5
		50.7 50.0	0.7	6.6 57.0	3.6
7.6 40.5	8.1	54.1 46.4	0.5	9.4 54.0	3.4
10.2 38.0	8.2	57.9 43.0	0.9	12.4 51.0	3.4
16.3 31.9	8.2	1.0 39.6	0.6	15.4 48.0	3.4
20.2 27.8	8.0	9.7 30.9	0.6	22.8 40.5	3.3
	24.0	14.8 25.7	0.5	27.3 36.2	3.5
	9 | 5		20.3		31.7
	24.06		15 | 4 5		15 | 10 8
			20.30		31.72

$20^h 36^m 24^s.06$	$20^h 39^m 20^s.30$	$20^h 43^m 31^s.72$
20 35 20.46	20 38 16.77	20 42 28.18
1 3.60	1 3.53	1 3.54
.09	.01	.03
1 3.51	1 3.54	1 3.51

aso n = $\frac{1}{7}$

1 3.51

.54

.51

3 | 1 56

1 3.52

.49 b sec δ

1 4.01

Frod. 1327 is FAST

$01^m 4^s.01$

at $20^h 40^m$ S. T.

Times Oct 31, 1907

[illegible] Ci

Yale Obs.

Rattle at $21^h 32^m$

74 Cygni + 40° 0′ (last 8 wires

ε Pegasi + 9° 27′

π^2 Cygni + 48° 53′

0.5654
.1157
0.6811

+40° 0′

35.3
$21^h 34^m$ — — 38.6
— 17.7 41.7
— 22.6 45.3
— 27.4 48.3

3 | 67.75 | 209 2
22.57 41.84
4.80 24.09
17.77 17.75

+9° 27′

40^m 18.1 57 3.8
20.9 3.1 4.0
23.3 0.7 4.0
26.0 58.3 4.3
28.1 55.9 4.0
34.5 49.6 4.1
38.2 45.7 3.9
42.0
15 | 0 1
42.01

+48° 53′

43^m 50.3 1.7 2.0
54.2 58.0 2.2
57.8 54.1 1.9
1.7 50.7 2.4
5.4 46.6 2.0
14.7 37.3 2.0
20.0 31.6 1.6
26.0
15 | 0 1
26.01

$21^h 34^m 17^s.76$
21 33 14.87
1 2.89
.01
1 2.88

$21^h 40^m 42^s.01$
21 39 38.86
1 3.15
.15
1 3.00

$21^h 44^m 26^s.01$
21 43 23.15
1 2.86
.05
1 2.91

ass. $m = \frac{1}{5}$

1 2.88
2.91
3.00
3 | 279
1 - 2.93
.49 b secδ
1 3.42

Frod. 1327 is FAST

$01^m 3^s.42$

at $21^h 40^m$ S.T.

Fri ~~Oc~~ Nov. 1, 1907

Auto Ci — Wh. Obs.

Rattle at $20^h\,08^m$

o' Cygni sq. $+46^\circ 28'$

24 Vulpec $+24^\circ 23'$

γ Cygni $+39^\circ 58'$

$+46^\circ 28'$			$+24^\circ 23'$			$+39^\circ 58'$		
11^m	11.7 19.4	1.1	13^m	26.4 17.7	4.1	19^m	26.3 27.3	3.6
	15.3 15.7	1.0		29.0 15.2	4.2		29.7 24.3	4.0
	18.9 12.3	1.2		31.8 12.3	4.1		32.7 20.9	3.6
	22.4 8.8	1.2		34.4 9.7	4.1		35.8 17.8	3.6
	25.7 5.0	0.7		37.0 6.9	3.9		39.3 14.4	3.7
	34.7 56.0	0.7		44.2 0.2	4.4		47.0 6.6	3.6
	40.3 50.7	1.0		48.0 56.2	4.2		52.0 1.7	3.7
		45.6			52.2			56.8
		15 | 7 5			15 | 12			15 | 126
		45.50			52.08			56.84

$20^h\ 11^m\ 45^s.50$	$20^h\ 13^m\ 52^s.08$	$20^h\ 19^m\ 56^s.84$
20 10 42.93	20 12 49.40	20 18 54.35
1 2.57	1 2.68	1 2.49
.02	.09	.01
1 2.59	1 2.59	1 2.48

ass $n = \frac{1}{5}$

1^m 2.59
.59
.48
3 | 1.66
1^m 2.55
.49
1^m 3.04

Fred. 1327 is FAST

$01^m\ 3^s.04$

at $20^h\ 15^m$ S.T.

Mon Nov. 4, 1907

Mer Cir Pole Obs.

Rattle at $23^h.20^m$

γ Pisc. +0°45'

70 Pegasi +12°15'

ι And. +42°45' (Missed 1st wire)

41 H. Cephei +67°17'

+0°45'

$23^h 22^m$ 50.7 37.6 8.3
53.3 35.0 8.3
55.9 32.7 8.6
58.6 30.2 8.8
0.7 27.6 8.3
6.9 21.5 8.4
10.7 17.6 8.3
14.1
15 | 31
14.21

+12°15'

25^m 7.3 55.2
9.9 53.0 2.5
12.6 50.3 2.9
15.1 47.7 2.9
17.4 45.2 2.8
23.5 38.8 2.6
27.7 35.2 2.3
2.9
31.5
15 | 54
31.36

+42°45'

$\overset{11.0}{}$

34^m 11.0 7.7 8.7
13.7 4.2 7.9
17.1 1.0 8.1
20.5 57.3 7.8
29.1 49.6 8.7
34.2 44.2 8.4
39.0
13 | 16
39.12

+67°17'

$\overset{3}{44}^m$ 31.4 34.1 5.5
39.8 28.0 7.8
45.1 21.7 6.8
51.7 15.2 6.9
58.3 9.0 7.3
14.0 52.9 6.9
23.7 43.0 6.7
33.2
15 | 51
33.41

$23^h 23^m 14^s.21$	$23^h 25^m 31^s.36$	$23^h 34^m 39^s.12$	$23^h \overset{4}{45}^m 33^s.41$
23 22 12.17	23 24 29.33	23 33 37.03	23 43 31.51
1 2.04	1 2.03	1 2.09	1 1.90
.05	.04	.00	.09
1 1.99	1 1.99	1 2.09	1 1.99

2.51
.01
2.150

1.90
2.04
.14
125 .156
150

n = ~~.05~~
.06

1^m 1.99
1.99
2.09
1.99
4 | 4096
2.01
1 .49
1 2.50

Frod. 1327 is FAST

$0\ 1^m\ 2^s.50$

at $23^h 35^m$ S. T.

~~Mon~~ Tues Nov 5, 1907

Mer Cir Wh. Cls.

λ Peg +23° 5'

ι Cephei +65° 43'

Rattle at $22^h 51^m$

o Androm +41° 50'

+23° 5'		+65° 43'		+41° 50'	
42^m 41.4 32.2	3.6	46^m 29.0 23.0	2.0	58^m 11.0 13.7	4.7
44.0 29.8	3.8	35.2 17.1	2.3	14.3 10.7	5.0
46.7 27.0	3.7	41.0 11.3	2.3	17.7 7.2	4.9
49.7 24.3	4.0	47.7 5.2	2.9	21.0 3.9	4.9
52.3 21.4	3.7	53.3 59.2	2.5	24.2 0.7	4.9
58.8 14.9	3.7	8.2 44.4	2.6	32.3 52.3	4.6
3.0 10.9	3.9	17.2 35.2	2.4	37.5 47.3	4.8
	6.8		26.3		42.3
15	132	15	133	15	61
	6.88		26.22		42.41

$22^h 43^m 6^s.88$	$22^h 47^m 26^s.22$	$22^h 58^m 42^s.41$
22 42 5.11	22 46 24.83	22 57 40.75
1 1.77	1.39	1 1.66
.10	.26	.00
1 1.68	1.65	1 1.66

2.22 1.77
.42 1.39
1.8 .38

m = .21

ass. m = .2

1 1.68
.65
66
3 | 19
1 1.66
.49
1 2.15

Frod. 1327 is FAST

$01^m 2^s.15$

at $22^h 50^m$ S.T.

Times ~~O.~~ Nov. 7, 1907

Mer Cir Wole Obs.

Rattle at 21h 03m
ξ Cygni +29°51' (1st 4, 8th 10th & last 5 wires)
α Equulei +4°52'

+29°51'
21h 09m 34.6 28.5 3.1
37.4 25.7 3.1
40.4 22.8 3.2
43.1 20.0 3.~~1~~
17.1 —
10.2 —
1.6
~~6.8~~
9|51
1.57

+4°52'
11m 50.0 37.0 7.0
52.4 34.6 7.0
55.0 32.2 7.2
57.4 29.6 7.0
0.0 27.1 7.1
6.1 21.0 7.1
9.8 17.2 7.0
.13.6
15|80
13.53

21h 10m 1.57
21 09 0.00
1 1.57
.07
1 1.64

21h 12m 13.53
21 11 12.03
1 1.50
.16
1 1.66

ass u = .2

1m 1.s65
.49 brace
1m 2.14

Frod. 1327 is FAST

0 1m 2.s14

at 21h 10m S. T.

Fri Nov. 8, 1907

Dear Cir — Wh. Obs

Rattle at $22^h\ 56^m$

o Andron. +41°50′
β Peg. +27°35′ (last 8 wires)
Br. 3077 +56°39′

0.5654
.0524
0.6178

+41°50′
$22^h\ 58^m$ 10.7 13.3 4.0
13. 7 10.2 3.9
17.0 7.0 4.0
20.6 3.7 4.3
24 0 0.3 4.3
32.2 52.0 4.2
37.3 46.7 4.0
42.3
15)10
42.07

+27°35′
00^m — — 34.7
— — 37.7
— 19.7 40.3
— 23.4 43.2
— 27.8 46.2
3)70.9 5)202.1
23.63 40.42
4.15 20.83
19.48 19.59
3×.48 = 1.44
5×.59 = 2.95
8)4.39
.55

+56°39′
04^m 9.7 35.0 4.7
14.0 30.3 4.3
18.2 25.7 3.9
23.0 21.2 4.2
27.4 16.8 4.2
38.7 5.8 4.5
45.7 59.0 4.7
52.3
15)28
52.19

1.52 1.23
.52 1.50
) .27

$22^h\ 58^m$ 42.07
22 57 40.69
1 1.38
.00
1 1.38

$23^h\ 0^m\ 19^s.55$
22 59 18.05
1 1.50
.10
1 1.40

$23^h\ 09^m\ 52^s.19$
23 08 50.96
1 1.23
.15
1 1.38

ass. u = $\frac{1}{4}$

1 1.39
.49
1 1.88

Frod. 1327 is FAST

$01^m\ 1^s.88$

at $23^h\ 05^m$ S.T.

Sat Nov. 9, 1907

3:30PM. Collimation — Tel. Obs.

S Coll on N Coll.

69.0
69.2
70.1
68.2
69.0

5)455
69.1

Set at 69.1

Tel. on S Coll.

$33.\overset{9}{\cancel{8}}59$
$\overset{9}{\cancel{8}}62$
$.\overset{9}{\cancel{8}}51$
.963
.941

5)276 (33.9552

Micrometer found at $\overset{3}{\cancel{8}}3.646$

Tel-on N Coll.

$3\overset{3}{\cancel{4}}.250$
.238
.251
.247
.244

5)230 ($3\overset{3}{\cancel{4}}.2460$
$2)6\overset{7}{\cancel{8}}.2012$
33.6006
.012
33.6126

Micrometer set at 33.613

Sat Nov. 9, 1907

Level Observ. Yerkes Obs.

Telescope South

Zero	W End	E End			
W	−33.0	−72.0	−105.0		
E	+85.0	+46.0	+131.0	+26.0	
W	−32.6	−71.8	−104.4		+48.7
E	+83.1	+44.0	+127.1	+22.7	

Telescope North

Zero	W End	B End			
W	−29.0	−77.0	−106.0		
E	+92.0	+44.0	+136.0	+30.0	
W	−30.0	−78.0	−108.0		+58.0
E	+92.0	+44.0	+136.0	+28.0	

+~~16~~ 106.7

6.67
.06
.4002 b
1.35 sec ℓ.
0.640

16)106.7 (6.687
96
107
96
110
112

b sec ℓ = 0.64 W. End high

Mon. Nov. 11, 1907

Mer Cir

Took Obs. Rattle at $22^h 44^m$

ι Cephei +65°43'
δ Aquarii −16°19'
o Androm +41°50'
β Pegasi +27°35'

+65°43'		−16°19'		+41°50'		+27°35'	
46^m 28.222.2	0.4	50^m 21.410.0	1.4	58^m 9.912.8	2.7	59^m 52.245.1	7.3
34.216.7	0.9	24.27.7	1.9	13.29.4	2.6	55.242.4	7.6
40.10.2	0.3	26.34.9	1.2	16.46.1	2.5	57.839.8	7.6
46.24.1	0.3	29.02.4	1.4	20.02.8	2.8	0.636.9	7.5
52.058.6	0.6	31.559.9	1.4	23.059.4	2.4	3.334.0	7.3
7.343.3	0.6	37.953.5	1.4	31.257.1	2.3	10.428.1	7.5
16.234.0	0.2	41.949.7	1.6	36.346.3	2.6	14.722.9	7.6
	25.4		45.8		41.2		18.7
	15)37		15)111		15)41		15)111
	25.25		45.74		41.27		18.74

$22^h 47^m 25^s.25$	$22^h 50^m 45^s.74$	$22^h 58^m 41^s.27$	$23^h 0^m 18^s.74$
22 46 24.58	22 49 45.~~44~~ 00	22 57 40.64	22 59 18.~~44~~ 01
			73
1 0.67	1 0.74	1 0.63	1 0.~~60~~
.04	.04	.00	.01
1 0.71	1 0.70	1 0.63	1 0.72

2.29 1 0.74
2.22 0.67
2.51 .07

n = 0.03

1 0.71
.70
.63
.72
4)276
1 0.69
.64 b scale
1 1.33

1.3
.03
.039

Frod. 1327 is FAST

$0 1^m 1^s.33$

at $23^h 00^m$ S.T.

Tues Nov-12, 1907

Mer Cir Ed L Obs

A [λ And.] + 45° 57′
i Psci + 5° 7′
Rattle at 23h 38m

+45°57′

$3\overset{4}{8}^m$	29.5 37.1	6.6
	33.3 33.7	7.0
	36.5 30.3	6.8
	40.0 26.8	6.8
	44.0 23.0	7.0
	53.3 $\overset{14.8}{\cancel{19.0}}$	$\overset{}{9}$.1
	58.4 9.0	7.8
		3.6

15 | 87
3.58

+5°7′

35^m	49.3 36.3	5.6
	52.0 33.7	5.7
	54.3 31.1	5.4
	56.9 28.8	5.7
	59.0 26.3	5.3
	5.3 20.0	5.3
	9.1 16.7	5.8
		13.0

15 | 118
12.79

$23^h\ 3\overset{4}{8}^m\ 3\overset{s}{.}58$
23 33 3.21
1 0.37
.01
1 0.38

$23^h\ 36^m\ 12\overset{s}{.}79$
23 35 12.27
1 0.52
.04
1 0.48

aso n = $\frac{1}{20}$

1 0.43
.64 brec e.
1 1.07

Frod. 1327 is FAST

$01^m\ 1\overset{s}{.}07$

at $23^h\ 35^m$ S. T.

Wed Nov. 13, 1907

Mer Cir Wh Obs.

Eye piece removed this afternoon by J. A. D. & ~~set~~ returned just before observing.

[illegible] 20h 39m

32 Vulp [illegible] wires too fat.

v Cygni +40° 49'

Stopped by clouds.

+40° 49'

54m	12.0	13.7	5.7
	15.3	10.6	5.9
	18.4	7.3	5.7
	21.7	4.0	5.7
	24.9	1.0	5.9
	33.2	52.8	6.0
	38.0	47.7	5.7
			43.0

15) 13 6

42.91

20h 54m 42.91

20 53 43.30

x 59.61

.100

x 59.61

64 brace

1 $\overset{0}{1}$0.25

assume = $\frac{1}{20}$

Frod. 1327 is FAST

01m $\overset{0}{1}0^s.25$

at 20h 55m S. T.

Wed Nov. 13, 1907

[illegible] [illegible]

Rattle at $1^h\,23^m$

η Pisc. +14°52'

υ Persei +48°09'

43 Cass +67°34'

+14°52'

27^m	9.0 57.3	6.3
	11.5 55.0	6.5
	14.2 52.3	6.5
	16.4 49.8	6.2
	19.0 47.4	6.4
	25.6 40.8	6.4
	29.5 37.0	6.5
		33.0
		15⟌28
		33.19

+48°9'

32^m	45.2 55.3	0.5
	49.0 51.9	0.9
	52.5 48.1	0.6
	56.4 44.7	1.1
	59.8 40.7	0.5
	9.1 31.7	0.8
	15.0 26.0	1.0
		20.4
		15⟌58
		20.39

+67°34'

35^m	30.3 33.2	3.5
	36.9 27.0	3.9
	43.1 20.4	3.5
	49.8 13.6	3.4
	55.6 7.3	2.9
	12.3 51.3	3.6
	22.1 41.6	3.7
		32.0
		15⟌165
		31.77

$1^h\ 27^m\ 33^s.19$	$1^h\ 33^m\ 20^s.39$	$1^h\ 36^m\ 31^s.77$
1 26 33.12	1 32 20.45	1 35 32.05
1 0.07	0 59.94	59.72
.10	.03	.24
59.97	59.97	59.96

.27 | 1 0.07
2.42 | 59.72
2.15 | .35 (16
215
1350
1290

n = .16

59.97
.64
1^m 00.61

.16
.64
64
96
.1024
15
1.6
90
15
.240

Frod 1327 is FAST

c $1^m\ 00^s.61$

at $1^h\ 30^m$ S.T.

Friday
~~Wed.~~ Nov. 15, 1907

Mer Cir — Wh. Obs.

Rattle at 21h 00m
61 Cygni fr. = +38°17'
ξ Cygni +29°51' (11th wire [illegible])
A (t Cygni) +37°39'

+38°17'		+29°51'		+37°39'	
03m 14.4 14.5	8.9	09m 32.3 26.2	8.5	11m 35.9 34.8	0.7
17.9 11.3	9.2	35.2 23.3	8.5	38.5 31.9	0.4
20.8 8.1	8.9	37.7 20.5	8.2	41.7 28.4	0.1
24.2 5.0	9.2	40.7 17.8	8.5	45.0 25.5	0.5
27.4 2.0	9.4	43.5 15.4	~~8.9~~	48.0 22.3	0.3
34.7 54.2	8.9	50.7 7.7	8.4	56.0 14.4	0.4
39.6 49.2	8.8 *	55.0 3.4	8.4	0.4 10.0	0.4
	44.4		59.2		5.1
	15 | 47		~~15 | 36~~		15 | 29
	44.51		~~59.24~~		5.19
			13 | 27		
			59.21		

21h 03m 44.51s	21h 09m 59.21s	21h 12m 5.19s
21 02 44.96	21 08 59.85	21 11 5.83
59.55	59.36	59.36
.01	.03	.01
59.54	59.33	59.35

ass n = ~~1/8~~ .1

59.54
.33
.35
3 | 122
59.41
.64
1m 00.05

Frod. 1327 is FAST

01m 0s.05

at 21h 05m S.T.

Sat Nov. 16, 1907

Trans Cir

Tel. Obs

Rattle at $21^h 34^m$.

ε Pegasi $+9°27'$

π^2 Cygni $+48°53'$

16 Pegasi $+25°29'$

$+9°27'$

40^m 14.0 1.4 5.4
16.5 59.0 5.5
19.0 56.5 5.5
21.7 54.0 5.7
24.0 51.4 5.4
30.3 45.3 5.6
34.0 41.6 5.6
37.7
15 | 11 4
37.76

$+48°53'$

43^m 46.2 56.8 3.0
50.0 53.3 3.3
53.5 49.8 3.3
57.0 46.0 3.0
1.2 42.4 3.6
10.4 33.3 3.7
15.8 27.3 3.1
22.3
15 | 10 3
21.69

$+25°29'$

49^m 24.4 16.3 0.8
27.1 13.7 0.8
29.8 10.8 0.6
32.6 8.1 0.7
35.3 5.5 0.8
42.3 58.6 0.9
46.3 54.5 0.8
50.4
15 | 5 8
50.39

$21^h 40^m 37.^s76$
$21\ 39\ 38.63$
59.13
.08
59.05

$21^h 44^m 21.^s69$
$21\ 43\ 22.71$
58.98
.02
59.00

$21^h 49^m 50.^s39$
$21\ 48\ 51.32$
59.07
.04
59.03

1.15 58.98
.16 59.13
.15

~~n = .15~~

ass n = .1

59.03
.64 b secle.
59.67

Frod. 1327 is FAST

$0^m\ 59.^s67$

at $21^h 45^m$ S.T.

For Tues. Nov. 19, 1907

Mer Cir   W. C. Obs.

Rattle at $21^h 27^m$.
74 Cygni   + 40°0'
ε Pegasi   + 9°27'
π^2 Cygni   + 48°53'

+40°0'	+9°27'	+48°53'
$21^h 33^m$ 41.7 43.0 4.7	40^m 12.7 0.3 3.0	43^m 44.7 56.0 0.7
45.2 39.7 4.9	15.4 57.8 3.2	48.5 52.6 1.1
48.4 36.7 5.1	18.0 55.5 3.5	52.0 48.7 0.7
51.8 33.5 5.3	20.3 52.9 3.2	56.3 45.0 1.3
55.0 30.1 5.1	22.8 50.4 3.2	0.0 41.2 1.2
2.7 22.2 4.9	29.3 44.0 3.3	9.2 31.8 1.0
7.6 17.4 5.0	32.9 40.3 3.2	15.0 26.1 1.1
12.7	36.7	20.5
15 | 77	15 | 93	15 | 76
12.51	36.62	20.51

$21^h 34^m 12^s.51$	$21^h 40^m 36^s.62$	$21^h 44^m 20^s.51$
21 33 14.44	21 39 38.58	21 43 22.63
58.07	58.04	58.08
.01	.08	.02
58.08	58.12	58.06

ass m = 0.1

58.06
.08
.12
~~58~~.26
3
58.09
.64
58.73

Frod. 1327 is FAST

$00^m\ 58^s.73$

at $21^h 40^m$ S.T.

Wed Nov. 20, 1907

Mer Cir Wh Obs

Rattle at 23h 24m

70 Pegasi +12° 15' (last 5 wires)
F [77 Pegasi] +30° 49')
AL [λ Androm] +45° 57'
ι Pisc +5° 7'

+12° 15'
25m — — 40.8
— — 43.2
— — 46.0
48.2
50.7
5)228.9
45.78
18.88
26.90

+30° 49'
29m 53.2 47.2 0.4
55.5 44.8 0.3
58.4 41.4 9.8
1.2 38.6 9.8
4.0 35.7 9.7
11.7 28.7 0.4
15.4 24.3 9.7
19.7
15)148
19.99

+45° 57'
33m 27.0 34.0 1.0
30.6 30.7 1.3
34.0 27.3 1.3
37.9 23.7 1.6
40.8 20.3 1.1
49.8 11.0 0.8
55.0 5.7 0.7
0.4
15)8.2
0.55

+5° 7'
35m 46.0 33.0 9.0
48.8 30.7 9.5
51.2 28.3 9.5
53.5 25.8 9.3
56.0 23.3 9.3
2.1 17.0 9.1
5.9 13.2 9.1
9.5
15)93
9.62

~~23h 25m 26s.96~~
~~23 24 29.16~~
~~57.74~~

23h 36m 19s.99
23 29 22.50
57.49
.03
57.52

23h 34m 0s.55
06
23 33 3.~~24~~
57.~~49~~
.01
57.48

23h 36m 9s.62
23 35 12.~~48~~
44
57.~~55~~
.08
57.52

acc n = .1

57.52
.52
.48
3)152
57.51
.64 b sec φ
58.15

Trod. 1327 is FAST

0m 58s.15

at 23h 30m S.T.

Friday Nov 22, 1907

Mer Cir Tele Obs.

Rattle at $22^h 25^m$

7 Lacertae + 49°48' (11 wires clouds)

+49°48'

27^m 57.354.2 1.5
0.650.4 1.0
4.446.6 1.0
14.036.7 0.7
20.031.3 1.3
25.5

11 | 60

25.55

$22^h\ 28^m\ 25^s.55$

22 27 29.19

56.36
.103

ass n = .1

56.33
.64

56.97

Frod 1327 is FAST

$0^m\ 56^s.97$

at $22^h\ 27^m$ S.T.

Mon. Nov. 25, 1907

Mer. Cir. Wells Obs.

Rattle at 1h 41m

ε Cassiop + 63°13' (9 wires)

β Arietis + 20°21'

~~α Arietis + 48°~~

γ And + 41°53'

α Arietis + 23°1' (missed 1st 2 wires)

+63°13'	+20°21'	+41°53'	+23°1'
48m 5.9 17.4 3.3	50m 3.4 53.3 6.7	58m 38.7 41.6 0.3	02m = 19.7 17.0
11.7 12.1 3.8	6.0 50.9 6.9	42.0 38.2 0.2	34.0 ~~17.8~~ 14.3 8.3
25.4 58.2 3.6	8.7 48.2 6.9	45.4 35.0 0.4	36.6 ~~4.3~~ 11.6 8.2
34.0 50.4 4 4	11.4 45.6 7.0	48.8 31.7 0.5	39.3 ~~11.6~~ 9.0 8.3
42.2	14.0 43.0 7.0	51.8 28.4 0.2	46.2 2.3 8.5
9⟌83	20.6 36.2 6.8	0.2 20.3 0.5	50.2 58.3 8.5
41.92	24.5 32.3 6.8	5.1 15.3 0.4	54.4
	28.7	10.3	11⟌22
	15⟌68	15⟌28	54.20
	28.45	10.19	

1h 48m 41.92s	1h 50m 28.45s	1h 59m 10.19s	2h 02m 54.20
1 47 46.66	1 49 32.98	1 58 14.77	2 01 58.78
55.26	55.47	55.42	55.42
.13	.07	.00	.06
55.39	55.40	55.42	55.36

.37
1.98
1.61
1.61) .21 (13
16
50

55.47
55.36
(.19
1.61
149
1449

m = ~~.2~~ .13

55.39
.40
.42
.36
4⟌157
55.39
.64 δ sec φ
56.03

Frod 1327 is FAST

00m 56.03s

at 2h 0m S.T.

Wed. Nov. 27, 1907

Mer Cir. W. L. Ells.

α Ceti +3°43'
ρ Persei +38°29'
β Persei +40°36'
Rattle after 3h 04m.

	+3°43'			+38°29'			+40°36'	
57m	59.5 46.4	5.9	59m	41.7 41.7	3.4	02m	34.7 36.7	1.4
	1.9 44.2	6.1		44.7 38.4	3.1		38.2 33.3	1.5
	4.3 41.6	5.9		47.9 35.3	3.2		41.3 30.1	1.4
	7.0 39.0	6.0		51.0 32.2	3.2		44.7 26.7	1.4
	9.5 36.7	6.2		54.0 28.8	2.8		47.8 23.7	1.5
	15.9 30.2	6.1		2.1 21.0	3.1		56.0 15.4	1.4
	19.4 26.7	6.1		6.8 16.3	3.1		0.9 10.5	1.4
		23.0			11.6			5.8
	15⌊3			15⌊86			15⌊108	
		23.02			11.57			5.72

2h 58m 23.02s	3h 0m 11.57s	3h 03m 5.72s
2 57 27.96	2 59 16.58	3 02 10.70
55.06	54.99	55.02
.08	.01	.01
54.98	54.98	55.01

ass u = .1

54.98
54.98
55.01
3⌊27
54.99
.64 b sec u
55.63

Trod. 1327 is FAST

0m 55.63s

at 3h 0m S.T.

Fri Nov. 29, 1907

Clear Ci Hole Obs.

Rattle at $22^h 34^m$

ζ Pegasi Scat wires Clds too thick

η Pegas. +29° 44′

λ Peg. +23° 5′

+ 29° 44′

39^m 7.8 2.0 9.8
10.6 59.2 9.8
13.5 56.3 9.8
16.4 53.4 9.8
19.1 50.7 9.8
26.3 43.4 9.7
30.6 39.0 9.6
35.0

15 | 13 3
34.89

+ 23° 5′

42^m 34.1 25.0 9.1
36.3 22.0 8.3
39.0 19.3 8.3
42.1 17.0 9.1
44.8 14.4 9.2
51.8 7.9 9.7
55.8 3.8 9.6
59.9

15 | 8 2
59.55

$22^h\ 39^m\ 34.^s89$
22 38 40.18
54.71
.03
54.68

ass. m = −.1

$22^h\ 42^m\ 59.^s55$
22 42 4.77
54.78
.05
54.73

54.68
.73
141
54.70
.64 b. corr.
55.34

Frod. 1327 is FAST

$00^m\ 55.^s34$

at $22^h\ 40^m$ S.T.

Sat Nov 30, 1907

Mer Cir — Wells Obs.

Rattle at 21h 57m

α Aquarii. −0° 46′ (missed 1st star)

θ Pegasi. +5° 44′

ξ Cephei +57° 45′

★ −0° 46′

22h 01m 35.7 ~~19.9~~ 17.4 3.1
38.0 14.7 2.7
40.4 12.4 2.8
43.0 10.0 3.0
49.2 3.8 3.0
52.5 59.9 2.4
56.4
13) 54
56.42

+5° 44′

6m 2.9 50.0 2.9
5.2 47.7 2.9
7.8 45.0 2.8
10.0 42.6 2.6
12.4 40.0 2.4
19.0 33.9 2.9
22.9 30.2 3.1
26.5
15) 61
26.41

+57° 45′

07m 49.0 16.5 5.5
53.3 12.0 5.3
58.2 7.7 5.9
2.2 3.0 5.2
7.0 58.7 5.7
19.0 46.9 5.9
26.4 39.9 6.3
33.0
15) 128
32.85

22h 01m 56.42s
22 01 1.98
54.44
.14
54.30

22h 06m 26.41s
22 05 32.06
54.35
.12
54.23

22h 08m 32.85s
22 07 38.68 ~~39.03~~
54.17
.10
54.27

54.27
.64
54.91

−.01
.10
.04
1.59
1.55

54.44
54.35
2)99
54.40
.17
) 23 (.148
155
750
620
1300
1240

n = .15

.15
.92
30
135
.14

81
.15
405
81

.67
.15
335
67
.1005

Frod. 1327 is FAST

0m 54.91s

at 22h 05m S.T.

Mon. Dec. 2, 1907

Mer Cir Wells

~~Ratte~~ at 22^h05^m.

ζ Cephei +57°45' (last 10 wires)

ι Aquarii −8°15'

γ Aquarii −1°51'

3 Lacertae +51°46' (missed 1st 2 wires)

+57°45'

08^m 18.3 57.6
25.5 2.1
32.3 6.8
39.0 11.6
45.8 16.0
5)1609 5)341
32.18 6.82
34.59
32.23

−8°15'

12^m 27.6 14.9 2.5
30.2 12.3 2.5
32.5 10.0 2.5
35.0 7.7 2.7
37.2 5.0 2.2
43.5 58.5 2.0
47.4 54.8 2.2
51.2
15)28
51.19

−1°51'

17^m 23.2 10.0 3.2
25.8 7.7 3.5
28.1 5.3 3.4
30.7 2.9 3.6
33.0 0.4 3.4
39.6 54.0 3.6
43.0 50.3 3.3
46.9
15)109
46.73

+51°46'

20^m 19.2 18.9 8.1
23.0 14.7 7.7
27.3 10.3 7.6
37.2 1.0 8.2
43.1 55.0 8.1
49.1
11)108
48.98

1.59 53.59
1.27 .61
.86 1.20
1.43 53 60

−.15 53.97
.03 53.94
−.09 1.91
53 .96

152) 36 (24
304
560

$22^h\ 08^m\ 32.20$
38.61
22 07 ~~39.64~~
53.59
~~2.56~~
.17
53.76

$22^h\ 12^m\ 51^s.19$
22 11 57.22
53.97
.26
53.71

$22^h\ 17^m\ 46^s.73$
22 16 52.79
53.94
.24
53.70

$22^h\ 20^m\ 48^s.98$
22 19 55.37
53.61
.09
53.70

u = .24

53.76
.71
.70
.70
L7
53.72
.646 sec u
54.36

Frod. 1327 is FAST

$0^m\ 54^s.36$

at $22^h\ 15^m$ S.T.

Tuesday Dec 3, 1907

Mer Cir

Wells.

Rattle at $0^h 29^m$

π Androm. + 33° 12′
δ Androm. + 30° 21′
o Cassiop + 47° 47′ (7 wires)

+33° 12′

$0^h 32^m$ 22.7 18.9 1.6
25.5 15.8 1.3
28.3 13.0 1.3
31.7 9.8 1.5
34.5 7.0 1.5
42.0 59.7 1.7
46.0 55.0 1.0
50.7
15 | 10 6
50.71

+ 30° 21′

34^m 50.0 44.2 4.2
53.2 41.4 4.6
55.9 38.4 4.3
58.4 35.7 4.1
1.3 32.9 4.2
8.8 25.6 4.4
12.9 21.1 4.0
17.0
15 | 18
17.12

+ 47° 47′

— —
— —
— —
40^m 8.3 49.1 7.4
17.7 39.3 7.0
23.1 34.0 7.1
28.6
7 | 4 1
28.59

$0^h 32^m 50^s.71$
0 31 57.30
53.41
.06
53.35

$0^h 35^m 17^s.12$
0 34 23.75
53.37
.08
53.29

$0^h 40^m 28^s.59$
0 39 35.33
53.26
.05
5331

ass m = 1/4

53.35
.29
.31
3 | 9 5
53.32
.64 brecle.
53.96

Frod. 1327 is FAST

$0^m 53^s.96$.

at $0^h 35^m$ S.T.

Times Dec 5, 1907

Mer Cir Wells

Rattle at 22h 23m.

7 Lacertae +49°48′ (missed 1st wire)

η Aquarii −0°36′

10 Lacertae +38°34′

+49°48′

27m — 57.3 —
48.5 53.7 2.2
52.4 49.7 2.1
56.0 45.9 1.9
0.0 42.2 2.2
9.3 32.7 2.0
15.7 27.0 2.7
21.1
13)12
21.09

−0°36′

31m 5.2 52.3 7.5
7.7 49.9 7.6
10.4 47.3 7.7
12.7 45.0 7.7
15.2 42.3 7.5
21.3 36.1 7.4
25.2 32.5 7.7
28.7
15)1148
28.79

+38°34′

35m 29.0 29.0 8.0
32.0 26.0 8.0
35.2 22.6 7.8
38.4 19.4 7.8
41.7 16.4 8.1
49.7 8.5 8.2
54.4 3.7 8.1
59.0
15)00
59.00

22h 28m 21.09s
22 27 28.86
52.23
.07
52.30

aso m = 1/4

22h 31m 28.79s
22 30 36.31
52.48
.23
52.25

22h 35m 59.00s
22 35 6.73
52.27
.03
52.24

52.30
.25
.24
3)79
52.26
.64
52.90

Frod. 1327 is FAST

0m 52.90s

at 22h 30m S.T.

Friday Dec 6, 1907

Mer Cir | Wells.

Rattle at 0h 37m.

o Cassiop +47°47'

ζ And +23°46'

	+47°47'				+23°46'	
0h 39m	52.0 1.7	3.7		42m	53.6 44.4	8.0
	55.9 58.3	4.2			56.0 41.7	7.7
	59.3 54.7	4.0			58.5 39.1	7.6
	2.7 51.0	3.7			1.3 36.4	7.7
	6.7 47.3	4.0			4.0 33.7	7.7
	16.0 37.7	3.7			10.7 26.9	7.6
	21.4 32.5	3.9			14.7 23.0	7.7
		27.1				18.9
		15)143				15)129
		26.95				18.86

0h 40m 26.95s
35.28
0 39 ~~16.62~~
51.67
.05
51.72

0h 43m 18.86s
0 42 26.96
51.90
.12
51.78

are n = 1/4

51.75
.64 brecce.
52.39

ng rod. 1327 is FAST

0m 52.39s

at 0h 40m S. T.

Sat Dec 7, 1907

Mer Cir Wells.

Rattle at 22h 25m

7 Lacertae +49°48'
η Aquarii −0°36'
10 Lacertae +38°34'

+49°48'		−0°36'		+38°34'	
27m 43.956.4	0.3	31m 4.351.1	5.4	35m 28.027.9	5.9
47.652.8	0.4	6.748.7	5.4	31.024.7	5.7
51.548.9	0.4	9.246.2	5.4	34.321.9	6.2
55.345.0	0.3	11.743.7	5.4	37.518.6	6.1
59.041.1	0.1	14.141.3	5.4	40.715.1	5.8
8.531.7	0.2	20.335.0	5.3	48.67.4	6.0
14.225.8	0.0	24.031.5	5.5	53.22.9	6.1
	20.2		27.7		58.2
	15|19		15|105		15|00
	20.13		27.70		58.0

22h 28m 20.13s	22h 31m 27.70s	22h 35m 58.00s
22 27 28.80	22 30 36.29	22 35 6.69
51.33	51.41	51.31
.05	.18	.02
51.38	51.23	51.33

~~aps~~
~~u=1/4.~~
use u=.2

51.38
.23
.33
194
51.31
.64 b secs
51.95

Frod. 1327 is FAST

0m 51.95s

at 22h 30m S.T.

Wed Dec. 11, 1907

Tran Cir W. Wells.

ε Persei + 39° 44' (missed 1 of 4 wires)
λ Tauri +12° 14'
ν Tauri + 5° 44'
Rattle at $4^h 01^m$
c Persei + 47° 28'

20.6 48.0
25.4 51.3
30.3 54.4
35.0 57.6
39.5 0.7
5 | 150.8 5 | 272.0
30.16 54.40
30.40 24.50
60.56 30.40
30.28

+39° 44'
52^m
13.0 48.0 1.0
20.6 39.5 0.1
25.4 35.0 0.4
30.3
7 | 1.8
30.26

+12° 14'
56^m 0.3 48.4 8.7
3.0 46.0 9.0
5.6 43.4 9.0
7.7 40.8 8.5
10.5 38.4 8.9
16.9 32.0 8.9
20.7 28.2 8.9
24.5
15 | 64
24.43

+5° 44'
58^m 41.7 28.9 0.6
44 22.2 0.4
46.7 23.9 0.6
49.0 21.7 0.7
51.7 19.0 0.7
57.8 12.8 0.6
1.4 9.0 0.4
5.3
15 | 43
5.29

+47° 28'
02^m 13.9 23.0 6.9
17.3 19.4 6.7
21.2 15.7 6.9
24.7 12.2 6.9
28.3 8.4 6.7
37.6 59.3 6.9
43.0 54.0 7.0
48.5
15 | 65
48.43

$3^h 52^m 30^s.26$	$3^h 56^m 24^s.43$	$3^h 59^m 5^s.29$	$4^h 02^m 48^s.43$
3 51 40.70	3 55 34.91	3 58 15.71	+ 01 58.94
49.56	49.52	49.58	49.49
.01	.07	.08	.02
49.55	49.45	49.50	49.51

ooo m = .1

49.55
.45
.50
.51
49.50
.64 b sec.
50.14

Trod. 1327 is FAST

$0^m 50^s.14$

at $4^h 0^m$ S.T.

Times Dec 12, 1907

Mer Cir [illegible]

o Pisc. +8°41′

Rattle at $1^h 44^m$.

ε Cassiop +63°13′

β Arietis +20°21′ (missed 1st 4 wires)

γ Andr +41°53′

+8°41′

40^m 56.9 44.6 1.5
59.8 42.0 1.8
2.0 39.6 1.6
4.7 36.8 1.5
7.2 34.7 1.9
13.5 28.5 2.0
17.3 24.5 1.8
21.0

15 | 131
20.87

+63°13′

47^m 42.9 27.4 0.3
49.1 22.0 1.1
54.3 16.9 1.0
59.7 10.7 0.4
5.1 6.0 1.1
19.0 52.0 1.0
27.0 43.7 0.7
35.5

15 | 61
35.41

+20°21′

—
—
—

50^m 7.7 36.7 4.4
14.1 30.1 4.2
18.3 26.2 4.5
22.0

7 | 11
22.16

+41°53′

58^m 32.5 35.3 7.8
36.0 32.0 8.0
39.0 28.6 7.6
42.6 25.4 8.0
45.6 ~~13.8~~ 22.2 7.8
~~59.2~~
~~3.8 13.8~~
~~8.9~~
54.0 13.8 7.8
59.1 8.9 8.0
3.8

15 | 138
3.92

1.90
.15
1.75

49.07
49.31
.24 (.14
175
650

$1^h 41^m 20^s.87$
1 40 31.56
49.31
.11
49.20

$1^h 48^m 35^s.41$
1 47 46.34
49.07
.15
49.22

$1^h 50^m 22^s.16$
1 49 32.90
49.26
.07
49.19

$1^h 59^m 3^s.92$
1 58 14.66
49.26
.00
49.26

m = .14.

49.20
.22
.19
.26
4 | 87
49.22
.64 B sec δ
49.86

Frod. 1327 is FAST

$0^m 49^s.86$

at $1^h 50^m$ S. T.

Friday Dec. 13, 1907

Mer Cir   Wells.

γ Aquarii −1°51′
3 Lacertae +51°46′
Ratitte at $22^h 23^m$
7 Lacertae +49°48

−1°51′		+51°46′		+49°48′	
17^m 18.35.2	3.5	20^m 5.7 21.7	7.4	27^m 40.8 53.7	4.5
20.42.9	3.3	10.0 17.7	7.7	44.9 49.7	4.6
22.9 0.3	3.2	13.7 13.6	7.3	48.7 46.0	4.7
25.7 57.6	3.3	17.9 9.7	7.6	52.5 42.0	4.5
28.1 55.0	3.1	21.7 5.9	7.6	56.4 38.5	4.9
34.3 49.0	3.3	31.8 55.8	7.6	5.7 28.9	4.6
37.9 45.3	3.2	37.8 49.9	7.7	11.7 23.0	4.7
	41.9		43.7		17.3
	15|98		15|116		15|48
	41.65		43.77		17.32

$22^h 17^m 41.^s65$	$22^h 20^m 43.^s77$	$22^h 28^m 17.^s32$
22 16 52.67	22 19 55.08	22 27 28.66
48.98	48.69	48.66
.24	.09	.07
48.74	48.78	48.73

tan 51°46′ 1.2692 ~~.7879~~
" 49°48′ 1.1826 ~~[illegible]~~
" 1°51′ .0323
" 42°23′ .9126

1.2692
1.1826
2.4518
1.2259
−.03
1.26

48.69
.66
135

48.68
48.98
.30(24
252
480

n = .24.

−.03
−.9126
.94

1.2692
.9126
.3566

1.1826
.9126
.27

48.74
.78
.73
225
48 .75
.64
49.39

Frod. 1327 is FAST

$0^m 49.^s39$

at $22^h 20^m$ S. T.

Tuesday Dec. 17, 1907

Mer. Cir. Tele. Obs.

γ Androm.	+ 41°53′
α Arietis	+ 23°1′
β Triang.	+ 34°33′
55 Cassiop.	+66° 5′

Rattle at 2ʰ 10ᵐ.

+41°53′
58ᵐ 29.7 32.9 2.6
33.5 29.4 2.9
36.7 26.3 3.0
40.0 23.0 3.0
43.2 19.8 3.0
51.4 11.3 2.7
56.5 6.7 3.2
1.4
15 | 68
1.45

+23°1′
02ᵐ 20.1 11.0 1.0
22.9 8.7 1.6
25.4 5.7 1.1
28.3 3.0 1.3
31.0 07 1.7
37.6 54.0 1.6
41.3 49.7 1.0
45.4
15 | 97
45.65

+34°33′
04ᵐ 22.1 18.9 1.0
25.0 16.0 1.0
28.0 13.0 1.0
31.1 10.2 1.3
34.0 7.2 1.2
41.8 59.3 1.1
46.1 55.0 1.1
50.6
15 | 83
50.55

+66°5′
07ᵐ 4.0 0.3 4.3
10.8 54.0 4.8
16.6 47.9 4.5
22.6 41.3 3.9
28.7 35.7 4.4
44.3 20.5 4.8
53.1 11.2 4.3
2.5
16 | 35
2.23

2.26 46.66
.42 46.97
1.84 | .31 (.17
184
1260
1288

1ʰ 59ᵐ 1ˢ.45
1 58 14.61
46.84
.00
46.84

2ʰ 02ᵐ 45ˢ.65
2 01 58.68
46.97
.08
46.89

2ʰ 04ᵐ 50ˢ.55
2 04 03.63
46.92
.04
46.88

2ʰ 08ᵐ 2ˢ.23
2 07 15.57
46.66
.23
46.89

u =.17.

.49
.17
343
49
.0833

.22
.17
34
34
.0374

1.33
.17
931
133
.2261

46.89
.88
.84
.89
4 | 309
46.88
.64 b sec u
47.52

Frod. 1327 is FAST

0ᵐ 47ˢ.52

at 2ʰ 05ᵐ S. T.

Wednesday Dec. 18, 1907

Mer Cir   Wells

Rattle at $3^h 14^m$.
α Persei +49°32' (9 wires)
o Tauri + 8°42'
F [ξ Tauri] +9°25' $3^h 22^m 10^s.82$

+49°32'	+8°42'	+9°25'
18^m = =	20^m 14.3 1.4 5.7	22^m 33.6 21.3 4.9
=	17.0 59.0 6.0	36.0 18.2 4.2
6.7 56.3 3.0	19.3 56.6 5.9	38.8 16.0 4.8
10.0 52.4 2.4	21.9 54.2 6.1	41.5 13.7 5.2
20.2 42.7 2.9	24.2 52.0 6.2	43.7 11.3 5.0
25.9 37.0 2.9	30.4 45.7 5.7	50.0 4.7 4.7
31.7	34.2 42.1 6.3	53.3 0.9 4.2
9⌊39	38.2	57.1
31.43	15⌊1	15⌊51
	38.01	57.34

$3^h 18^m 31^s.43$	$3^h 20^m 38^s.01$	$3^h 22^m 57^s.34$
3 17 45.14	3 19 51.56	3 22 10.82
46.29	46.45	46.52
.04	.13	.12
46.33	46.32	46.40

ass n = 1/16

46.33
.32
.40
3⌊105
46.35
.64 sec a.
46.99

Frod. 1327 is FAST

$0^m 46^s.99$

at $3^h 20^m$ S.T.

Thurs Dec 19, 1907

Mer Cir [illegible]

Rattle at 23h 16m.
4 Cass + 61° 46'
ψ Pisc. + 0° 45' (last 7 wires.
70 Pegasi + 12° 15'

+ 61° 46'		+ 0° 45'	+ 12° 15'	
20m 40.0 18.8	8.8	23m 11.5	24m 50.7 38.9	9.6
45.2 13.8	9.0	14.0	53.5 36.4	9.9
50.3 8.7	9.0	16.3	56.0 33.9	9.9
55.6 3.3	8.9	19.0	58.6 31.2	9.8
0.8 58.0	8.8	21.0	0.9 28.7	9.6
13.6 45.2	8.8	15)81.8	7.3 22.7	0.0
21.7 37.3	9.0	16.36	11.0 18.7	9.7
	29.5	18.47		14.8
	15)68	57.89		15)13 3
	29.45			14.89

23h 21m 29.45s	23h 22m 57.89s	23h 25m 14.89s
23 20 43.81	23 22 11.68	23 24 28.82
45.64	46.21	46.07
.25	.23	.16
45.89	45.98	45.91

.22 46.07
1.86 45.64
1.64) .43 (.26
324
1060
984
76

n = .26

(45).89 × 3 = ~~1.78~~ 2.67
.98 × 1 = .98
.91 × 3 = 2.73
7)6.38
45.91
.646 sec u
46.55

.95
.26
570
190
.2470

.26 × .9 = .234
.26 × .7 = .162

Frod. 1327 is FAST

0m 46.55s

at 23h 23m S.T.

Sat Dec 21, 1907

Mer Cir. J.O. Wells.

4 Cass. +61°46′ (13 wires)
Rattle at 23h 24m
70 Pegasi +12°15′
F [π 2 Peg] +30°49′
i And +42°45′

+61°46′
23h 20m 44.0 12.5 6.5
49.2 7.1 6.3
54.1 2.2 6.3
59.2 57.0 6.2
12.4 44.0 6.4
20.5 36.3 6.8
28.8
13 | 33
28.25

+12°15′
24m 49.7 37.6 7.3
52.0 35.2 7.2
54.7 32.7 7.4
57.1 ~~35~~ 30.0 7.1
59.7 ~~22.7~~ 27.4 7.1
6.0 21.3 7.3
9.9 17.4 7.3
138
15 | 95
13.63

+30°49′
29m 39.4 34.0 3.4
42.7 31.3 4.0
45.0 28.0 3.0
48.2 25.4 3.6
51.1 22.7 3.8
58.4 15.4 3.8
2.6 11.0 3.6
6.8
15 | 120
6.80

+42°45′
33m 48.7 52.8 1.5
52.3 49.5 1.8
55.3 45.8 1.1
59.0 42.5 1.5
2.2 39.2 1.4
10.8 31.0 1.9
15.9 26.0 1.9
20.8
15 | 119
20.79

23h 21m 28s.25	23h 25m 13s.63	23h 30m 6s.80	23h 34m 20.79
23 20 43.74	23 24 28.80	23 29 22.05	23 33 36.18
44.51	44.83	44.75	44.61
.18	.13	.06	.00
44.69	44.70	44.69	44.61

.22 44.51
1.86 44.83
1.64 .31 (.19
.164
.1460
.1476

n = .19

44.69
.70
.69
.61
4 | ~~32~~ 269
44.67
.64 b sec δ.
45.31

.69
.19
621
69
.1311

.95
.19
855
95
.1805

.32
.19
288
32
.0608

Frod. 1327 is FAST

00m 45s.31

at 23h 30m S.T.

1907phae.proj.1633M

Mon Dec 23, 1907

Mer Cir Rorells

Rate at 4h 58m

β Erid. −5°12'

μ Aurigae +38°22'

α Aurigae +45°54'

−5°12'	+38°22'	+45°54'
6h 03m 39.8 27.0 6.8	07m 22.0 21.4 3.4	10m 3.6 11.0 4.6
42.4 24.5 6.9	25.0 18.5 3.5	7.3 7.7 5.0
45.0 22.0 7.0	28.0 15.3 3.3	11.0 4.0 5.0
47.4 19.6 7.0	31.3 12.2 3.5	14.4 0.4 4.8
49.9 17.1 7.0	34.3 9.0 3.3	18.0 56.9 4.9
56.0 10.9 6.9	42.2 1.2 3.4	26.7 48.0 4.7
59.7 7.2 6.9	47.1 56.4 3.5	32.0 42.7 4.7
3.4	51.8	37.4
15)69	15)107	15)61
3.46	51.71	37.41
5h 04m 3s.46	5h 07m 51s.71	5h 10m 37s.41
5 03 19.84	5 07 8.10	5 09 53.81
43.62	43.61	43.60

ass n = 0

43.61
.64 bsec ie
44.25

Trod. 1327 is FAST

00m 44s.25

at 5h 07m S. T.

Tues Dec 24, 1907

[illegible] Cu W. le Obs.

~~Rattle at~~ $23^h 31^m$.

i And +42°45'

ω^2 Aquarii -15°4'

Chronograph stopped.

41H Cephei +67°17'

Rattle after $23^h 46^m$

+42°45'		-15°4'		+67°17'	
$23^h 33^m$ 47.451.4	8.8	38^m 15.03.6	8.6	43^m 11.313.3	4.6
51.048.0	9.0	17.31.0	8.3	18.17.2	5.3
54.344.7	9.0	19.958.3	8.2	24.50.7	5.2
57.641.2	8.8	22.656.0	8.6	31.054.3	5.3
1.037.7	8.7	25.253.3	8.5	37.048.0	5.0
9.3296	8.9	31.446.7	8.1	53.332.0	5.3
14.224.4	8.6	35.343.0	8.3	2.822.0	4.8
	19.3		39.2		12.1
	15 | 61		15 | 28		15 | 76
	19.41		39.19		12.51

2.39 | 43.12
.27 | 43.38
2.66 | .26 (.0
2404

$n = .1$ ~~.09~~

$23^h 34^m 19^s.41$	$23^h 38^m 39^s.19$	$23^h 44^m 12^s.51$
23 33 36.12	23 37 55.81	23 43 29.39
43.29	43.38	43.12
.00	.12	.135
43.29	43.296	43.257

~~43.29~~
~~.29~~
.25

43.29
.26
.27
3 | 82
43.27
.64 b sec le.
43.91

1.18
.09
.1062

1.489
.1332

Frod. 1327 is FAST

$0^m 43^s.91$

at $23^h 40^m$ S.T.

Thurs Dec 26, 1907

W. L. Obs. Mer Cir.

Rattle at 23h 42m

41 H6 Cephei +67°17' (last 6 wires)

u Pegasi +18°36'

[ρ Cass] +56°59'

ω Pisc +6°21' (missed 1st 3 wires)

β Cass. +58°38'

+67°17'		+18°36'		+6°21'		+58°38'	
—	46.9	48m 14.8 54.2	9.0	54m 57.9 35.1	3.0	04m 12.4 42.0	4.4
—	52.7	7.7 51.7	9.4	0.2 32.7	2.9	17.0 37.4	4.4
—	0.3	10.3 49.0	9.3	2.9 30.1	3.0	21.6 32.7	4.3
—	6.2	13 0 46.6	9.6	8.9 23.7	2.6	26.3 28.3	4.6
30.4	13.1	15.3 44.0	9.3	12.7 20.4	3.1	31.0 23.2	4.2
		21.9 37.4	9.3		16.5	43.0 11.9	4.9
		25.7 33.5	9.2			~~49~~ 50 .34.4	4.7
			29.7				57.8
			15)98		1)51		15)43
			29.65		16.46		57.29

23h 48m 29s.65	23h 55m 16s.46	0h 04m 57s.29
23 47 47.19	23 54 34.01	0 04 14.83
42.46	42.45	42.46

m = 0

42.46
.64 Brecce.
43.10

Frod. 1327 is FAST

0m 43s.10

at 23h 55m S. T.

Friday Dec. 27, 1907

Amer Ci Wells.

~~Rattle~~ at $23^h 55^m$.

A [33 Pisc] −6°14'

α And. +28°35'

A [22 And] +45°13'

−6°14'	+28°35'	+45°13'
0^m 54.7 41.8 6.5	03^m 51.6 44.9 6.5	05^m 39.3 46.4 5.7
57.3 39.2 6.5	54.7 42.1 6.8	43.0 42.7 5.7
59.7 36.8 6.5	57.4 39.4 6.8	46.3 39.4 5.7
2.0 34.3 6.3	0.3 36.7 7.0	49.9 35.6 5.5
4.5 31.9 6.4	2.9 33.7 6.6	53.3 32.0 5.3
10.9 25.7 6.6	10.0 26.8 6.8	2.2 23.3 5.5
14.3 22.0 6.3	14.2 22.5 6.7	7.5 18.1 5.6
~~22.0~~	18.3	12.7
18.3		
15 | 34	15 | 45	15 | 117
18.23	18.30	12.78

$0^h 1^m 18^s.23$	$0^h 04^m 18^s.30$	$0^h 06^m 12^s.78$
0 0 36.43	0 03 36.72	0 05 31.15
41.80	41.58	41.63
.10	.04	.01
41.70	41.54	41.64

azo m = .1

41.70
.54
.64
3 | 188
41.63
.64 b secs.
42.27

Frod. 1327 is FAST

$00^m 42^s.27$

at $0^h 04^m$ S.T.

Sat Dec. 28, 1907.

Mer Cir — Wh. Obs.

Rattle after 0h 10m.
A (o And.) + 36° 16' (missed 1st & 6th wires)
Clouds.

Rattle again 0h 29m.
π And. + 33° 12'
δ And. + 30° 21'
o Cassiop + 47° 47'

+ 33° 12'		+ 30° 21'		+ 47° 47'	
32m 10.2 6.0	6.2	34m 37.3 31.7	9.0	39m 41.2 50.7	1.9
13.25.2	6.4	40.3 28.9	9.2	44.9 47.2	2.1
16.0 0.2	6.2	43.0 26.0	9.0	48.4 43.4	1.8
19.0 57.2	6.2	45.9 23.2	9.1	52.1 39.7	1.8
21.8 54.2	6.0	48.8 20.2	9.0	55.7 36.1	1.8
29.2 47.0	6.2	56.0 13.0	9.0	5.0 27.0	2.0
33.7 42.4	6.1	0.3 8.7	9.0	10.4 21.4	1.8
	38.0		4.5		16.0
	15|13		15|78		15|41
	38.09		4.52		15.94

0h 32m 38s.09	0h 35m 4s.52	0h 40m 15s.94
0 31 56.94	0 34 23.41	0 39 34.81
41.15	41.11	41.13

ass u = 0

41.13
.64 l secs
41.77

Sid. 1327 is FAST

0m 41s.77

at 0h 35m S T

Tuesday Dec 31, 1907

Mer Cir Wells

A [33 Pisc] −6° 14′
β Cass +58° 38′
Rattle at 0h 07m
γ Pegasi +14° 40′

−6°14′		+58°38′		+14°40′	
0m 52.6 39.6	2.2	04m 9.3 39.2	8.5	08m 44.3 32.7	7.0
55.0 37.3	2.3	13.8 34.6 29.7	8.4	46.8 30.1	6.9
57.6 35.0	2.6	18.7 ~~34.6~~	8.4	49.3 27.6	6.9
0.0 32.3	2.3	23.5 25.0 ~~29.7~~	8.5	51.8 25.0	6.8
2.5 29.7	2.2	28.3 20.3	8.6	54.3 22.4	6.7
8.7 23.6	2.3	39.7 8.4	8.1	1.0 16.0	7.0
12.3 20.0	2.3	47.1 1.6	8.7	4.7 12.2	6.9
	16.0		54.3		8.5
	15|22		15|35		15|67
	16.15		54.23		8.45
0h 1m 16s.15		0h 04m 54s.23		0h 09m 8s.45.	
0 0m 36.39		0 04 14.72		0 08 28.70	
39.76		39.51		39.75	
.17		.12		.11	
39.59		39.63		39.64	

~~14.5~~
1.64 39.51
+.26 −.11 .15
+0.08 39.76
1.56) 2.5(.16
156
940

m = .16

39.59
.63
.64
3|186
39.62
.64 b sec φ
40.26

Frod. 1327 is FAST

0m 40s.26

at 0h 05m S.T.

Wed Jan. 1, 1908.

Quer Cir Wells.

α Ceti +3°43′ (missed 1st wire).
ρ Persei +38°29′
β Persei +40°36′
Rattle at $3^{h}04^{m}$

	+3°43′			+38°29′			+40°36′	
$2^{h}57^{m}$	— 30.7 —		59^{m}	25.7 25.3	1.0	02^{m}	18.9 20.6	9.5
	46.0 28.3	4.3		28.7 22.3	1.0		22.0 17.2	9.2
	48.7 25.7	4.4		32.0 19.2	1.2		25.3 14.0	9.3
	51.1 23.4	4.5		35.4 16.2	1.6		28.7 10.9	9.6
	53.6 20.7	4.3		38.4 13.1	1.5		31.7 7.6	9.3
	59.7 14.4	4.1		46.3 5.0	1.3		40.0 59.6	9.6
	3.6 10.7	4.3		51.0 0.5	1.5		44.9 54.7	9.6
		7.2			55.7			49.9
		13⌊21			15⌊9 8			15⌊11 0
		7.16			55.65			49.73

$2^{h}\ 58^{m}\ 7^{s}.16$	$2^{h}\ 59^{m}\ 55^{s}.65$	$3^{h}\ 02^{m}\ 49^{s}.73$
2 57 27.89	2 59 16.46	3 02 10.59
0^{m} 39.27	39.19	39.14
.14	.02	.01
0 39.13	39.17	39.13

ass $n = \frac{1}{6}$

0^{m} 39.13
.17
.13
3⌊43

0 39.14
.64 b sec n
39.78

Frod. 1327 is FAST

0^{m} $39^{s}.78$

3^{h} 0^{m} S. T.

Times Jan 2, 1908

Amer Ci Wells

Rattle at 23h 51m.

ω Pisc +6° 21'

α Cand. +28° 35'

A [22 Andr] +45° 34'

+6° 21'		+28° 35'		+45° 34'	
54m 49.3 36.3	5.6	3m 48.7 42.1	0.8	05m 36.0 43.2	9.2
51.9 33.8	5.7	51.6 39.3	0.9	40.1 39.4	9.5
54.3 31.2	5.5	54.1 36.4	0.5	42.9 36.2	9.1
56.6 28.7	5.3	57.2 33.7	0.9	46.7 32.7	9.4
59.0 26.6	5.6	0.0 30.9	0.9	50.4 29.0	9.4
5.4 20.5	5.9	7.1 23.8	0.9	59.2 20.4	9.6
8.9 16.2	5.1	11.0 19.6	0.6	4.3 14.9	9.2
	13.0		15.2		9.8
	15 | 117		15 | 57		15 | 102
	12.78		15.38		9.68

$23^h\ 5\overset{5}{8}^m\ 12^s.78$ $0^h\ 04^m\ 15^s.38$ $0^h\ 06^m\ 9^s.68$

23 54 33.93 0 03 36.63 0 05 31.02

ass u = 1/6

38.85 38.75 38.66

.13 .06 .02

38.72 38.69 38.68

38.72
.68
.69
3 | 209
38.670
.64 6 sec u
39.34

Frod. 1327 is FAST

$0^m\ 39^s.34$

at $0^h\ 0^m$ S.T.

Fri. Jan 3, 1908

Mer Cir

Wells

Rattle at $5^h\ 18^m$.

17 Camel $+62°59'$

ε Orionis $-1°16'$

o Aurigae $+49°47'$

$+62°59'$

21^m	16.3 59.8	6.1
	21.8 53.7	5.5
	26.4 49.0	5.4
	33.2 43.7	6.9
	37.8 38.2	6.0
	50.6 24.0	4.6
	59.7 16.2	5.9
		8.3
	15	137
		7.91

$-1°16'$

31^m	47.7 34.7	2.4
	50.3 32.5	2.8
	52.5 30.0	2.5
	55.2 27.3	2.5
	57.6 24.9	2.5
	4.0 19.0	3.0
	7.6 15.2	2.8
		11.3
	15	48
		11.32

$+49°47'$

38^m	48.8	1.3	0.1
	52.4	57.5	9.9
	56.2	53.7	9.9
	59.8	49.8	9.6
	4.0	46.3	0.3
	13.2	36.5	9.7
	19.5	31.0	0.5
			25.5
		15	05
			25.03

$5^h\ 22^m\ 7^s.91$	$5^h\ 32^m\ 11^s.32$	$5^h\ 39^m\ 25^s.03$
5 21 29.70	5 31 32.99	5 38 46.87
38.21	38.33	38.16
.10	.09	.03
38.31	38.24	38.19

1.96
1.18
2 | 1.14
1.57
.02
1.59

38.21
.16
| 37
38.18
38.33
.15

ass u = 0.1

38.31
.24
.19
3 | 74
38.25
.64 b sec u
38.89

Frod. 1327 is FAST

$00^m\ 38^s.89$

at $5^h\ 30^m$ S.T.

Mon Jan 6, 1908

Meri Cir — W. Wells

Rattle at 0h 27m

π Andr + 33° 13'

α Cassiop + 56° 2'

β Ceti − 18° 29'

ζ Andr. + 23° 46'

+ 33° 13'		+ 56° 2'		− 18° 29'		+ 23° 46'	
32m 5.51.6	7.1	35m 10.734.1	4.8	39m 9.659.0	8.6	42m 38.229.6	7.8
8.458.9	7.3	14.930.3	5.2	12.356.4	8.7	40.726.6	7.3
11.655.9	7.5	19.425.6	5.0	14.753.7	8.4	43.323.6	6.9
14.752.9	7.6	24.221.8	6.0	17.351.4	8.7	46.021.1	7.1
17.5500	7.5	28.817.0	5.8	19.948.7	8.6	49.018.4	7.4.
25.0425	7.5	39.2 6.1	5.3	26.542.3	8.8	55.611.5	7.1
29.438.1	7.5	46.059.3	5.3	30.338.4	8.7	59.67.7	7.3
	33.6		52.6		34.4		3.7
	15⟌106		15⟌100		15⟌49		15⟌96
	33.71		52.67		34.33		3.64

1.48
133
1.8.1

36.89
37.10
.21 (12
18
30

0h 32m 33.71s	0h 35m 52.67s	0h 39m 34.33s	0h 43m 3.64s
0 31 56.80	0 35 15.78	0 38 57.23	0 42 26.58
36.91	36.89	37.10	37.06
.03	.06	.15	.05
36.88	36.95	36.95	37.01

m = .12

1.24
.12
248
124
.1488

36.88
.95
.95
.01
4⟌379
36.95
.64 bsec a.
37.59

Frod. 1327 is FAST

0m 37.59s

at 0h 35m S.T.

Wed Jan 8, 1908

Mer Cir Wells.

Rattle at $0^h 46^m$

ε (20 Ceti) −1° 39'
γ Cass. +60° 13'
ε Pis. +7° 24'

−1° 39'		+60° 13'		+7° 24'	
48m 30.2 17.1	7.3	50m 56.7 30.9	7.6	58m 21.6 8.9	0.5
32.9 14.5	7.4	1.9 26.5	8.4	24.2 6.7	0.9
35.2 12.0	7.2	6.6 21.2	7.8	26.7 4.2	0.9
37.7 9.5	7.2	11.6 16.1	7.7	29.0 1.4	0.4
40.0 7.3	7.3	16.5 11.3	7.8	31.7 59.0	0.7
46.2 1.0	7.2	28.8 58.8	7.6	37.9 52.7	0.6
49.9 57.3	7.2	36.7 51.5	8.2	42.0 49.1	1.1
	53.2		43.8		45.5
	15 | 90		15 | 139		15 | 56
	53.60		43.93		45.37

$$\begin{array}{r} -.03 \\ .13 \\ \hline .10 \\ .05 \\ \hline 1.75 \\ \hline 1.7 \end{array} \quad \begin{array}{r} 36.30 \\ 36.01 \\ \hline 1.7\,)\,\cancel{36}.29\,(.17 \\ 17 \\ \hline 120 \\ 119 \\ \hline \end{array}$$

$0^h\ 48^m\ 53.^s60$	$0^h\ 51^m\ 43.^s93$	$0^h\ 58^m\ 45.37$
0 48 17.29	0 51 7.92	0 58 9.08
36.31	36.01	36.29
.16	.14	.13
36.15	36.15	36.16

n = .17

$$\begin{array}{r} 36.15 \\ .64 \text{ b sec } \epsilon \\ \hline 36.79 \end{array}$$

$$\begin{array}{r} .94 \\ .17 \\ \hline 658 \\ 94 \\ \hline .1598 \end{array} \quad \begin{array}{r} .83 \\ .17 \\ \hline 581 \\ 83 \\ \hline .1411 \end{array} \quad \begin{array}{r} .78 \\ .17 \\ \hline 546 \\ 78 \\ \hline .1326 \end{array}$$

Frod. 1327 is FAST

$6^m\ 36.^s79$

at $0^h\ 50^m$ S. T.

Friday Jan 10, 190~~7~~8

Mr Cu Wheeler

Rattle after $0^h 45^m$

ε Pisc +7°24'

β And +35°8'

+7°24'

$0^h 58^m$ 20.9 8.0 8.9
43.2 5.7 8.9
25.6 3.3 8.9
28.2 0.7 8.9
30.8 58.2 9.0
37.0 52.0 9.0
40.7 48.2 8.9
44.5
15 | 70
44.47

+35°08'

$1^h 04^m$ 40.6 37.7 8.3
43.0 34.7 7.7
46.4 32.0 8.4
49.7 28.7 8.4
52.5 25.6 8.1
0.3 18.3 8.6
4.7 13.6 8.3
8.9
15 | 1 7
9.11

$0^h 58^m 44^s.47$
0 58 9.05
35.42
.13
35.55

$1^h 05^m 9^s.11$
1 04 33.71
35.40
.04
35.44

ass n = $\frac{1}{6}$

35.50
.64 b sec δ.
36.14

Trod. 1327 is FAST

$0\ 0^m\ 36^s.14$

at $1^h 0^m$ S.T.

Sat Jan 11, 1908

Collimation   W. L. Obs.

S Coll. on N. Coll.   75.7
71.2
74.7
72.2
73.7
5)17 5
73.50

Set at 73.5

Micrometer found at 33.613   Tel. on S. Coll.

34.084
~~.114~~ .083
.112
.109
.120
5)50 8 (34.1016

Tel. on N. Coll.

32.939
.943
.951
.933
.935
5)201 (32.9402
2)67.0418
33.5209
.012
33.5329

Micrometer set at $ 33.533

Sat Jan 11, 1908

Level Obs: Pole Obs.

Telescope South.

Zero	W. End	E. End		
~~W~~	~~-33.8~~ ~~-50.9~~	~~75.2~~ ~~-89.5~~	-109.0 ~~-140.4~~	~~+23.6~~
E	+85.6	+47.0	+132.6	+22.2
W	-35.9	-74.5	-110.4	+42.8
E	+85.4	+47.0	+132.4	+20.6
W	-36.8	-75.0	-111.8.	

Telescope North.

Zero	W End	E. End.		
W	-33.2	-71.1	-104.3	
E	+83.7	+46.5	+130.2	+25.9
W	∓34.2	-72.1	-106.3	+49.7
E	+84.1	+46.0	+130.1	+23.8

5.78
.06
.3468 b
1.35
17340
10404
3468
0.468180

16) 92.5 (5.78
80
125
112
130
128

b sec. φ = 0.47 West end high

Sat Jan 11, 1908

Thor Ci — Whells

Rattle at $0^h 37^m$

o Cass. +47° 47′ Clouds
ξ And +23° 46′ ..
μ And. + 38° 0′ ..

+47° 47′
$0^h 39^m$ 34.7 44.7 9.4
38.3 41.3 9.6
41.7 37.7 9.4
45.7 34.0 9.7
49.3 29.7 9.0
58.4 20.7 9.1
4.0 15.0 9.0
9.4
15 | 96
9.64

+23° 46′
$4\overset{2}{8}^m$ 36.2 27.4 3.6
39.0 24.9 3.9
48.2 22.1 3.3
44.0 19.5 3.5
46.9 16.8 3.7
54.0 9.7 3.7
57.6 5.9 3.5
1.8
15 | 120
1.80

+38° 0′
51^m 42.7 42.3 5.0
45.9 39.1 5.0
49.0 36.0 5.0
52.1 32.9 5.0
55.0 29.6 4.6
3.0 22.0 5.0
7.7 17.2 4.9
12.3
15 | 68
12.45

$0^h 40^m 9^s.64$
0 39 34.52
0 35.12
.03
0 35.~~15~~
.09

$0^h 4\overset{3}{4}^m \overset{s}{1}.80$
0 42 26.51
35.29
.08
35.37

$0^h 52^m 12^s.45$
0 51 37.55
34.90
.02
34.92

aso m = 1/6

0^m 35.09
34.92
35 37
3 | 38
35.13
.47 b sec u
35.60

Frod. 1327 is FAST

$0^m 35^s.60$

at $0^h 45^m$ S.T.

Mon Jan 13, 1908

Mer Cir

Wh Wls

Rattle at 4h 30m:

ν Eridani −3° 32′
τ Tauri +22° 47′
4 Camel. +56° 36′

−3° 32′

31m 54.041.0 5.0
56.438.7 5.1
58.936.2 5.1
1.433.5 4.9
4.031.0 5.0
10.224.7 4.9
13.721.2 4.9
17.4
15|73
17.49

+22° 47′

36m 52.142.9 5.0
54.740.4 5.1
57.337.5 4.8
0.135.0 5.1
2.932.3 5.2
9.625.1 4.7
13.321.5 4.8
17.5
15|72
17.48

+56° 36′

40m 12.237.8 0.0
16.8330 9.8
21.229.0 0.2
26.024.0 0.0
31.219.5 0.7
41.48.3 9.7
48.31.7 0.0
55.0
15|04
55.03

4h 32m 17.49s
4 31 43.41
34.08
.19
34.27

4h 37m 17.48s
4 36 43.~~41~~ 39
34.09
.10
34.19

4h 40m 55.03s
4 40 20.64
34.39
.12
34.27

0.60
−.97
1.57

34.39
34.08
.31

n = 0.2

34.27
.19
.27
3|73
34.24
.47 B sec d
34.71

Frod. 1327 is FAST

0m 34.71s

at 4h 35m S.T.

Tues Jan 14, 1908

Mer Cir   Wells

ε 3' Pisc. + 7°5'   Rattle at 1h13m
ν Pisc +26°47' (7 wires)
δ Cass +59°45' (last 10 wires)

+7° 5'
1h09m 5.1 51.8
7.3 49.4 6.9
9.6 47.0 6.7
12.0 44.5 6.6
14.6 42.2 6.5
20.9 36.0 6.8
24.7 32.1 6.9
6.8
28.4
15 | 56
28.37

+26°47'
14m = =
= =
= =
42.0 12.5 4.5
49.0 5.5 4.5
53.1 1.4 4.5
57.4
7 | 19
57.27

+59°45'
26m 5.4 35.0 0.4
13.0 27.6 0.6
20.3
5 | 13
20.26

1h 09m 28s.37
1 08 54.45
33.92
.16
34.08

1h 14m 57s.27
1 14 23.48
33.79
.08
33.87

1h 20m 20s.26
1 19 46.42
33.84
.16
33.68

ass n = .2

34.08
33.87
33.68
3 | 2.63
33.88
.147 bruce
34.35

Frod. 1327 is FAST

00m 34s.35

at 1h 15m S. T.

Wed Jan 15, 1908

Mer Cir Wil Obs.

Rattle at $3^h 18^m$.

o Tauri +8° 42' (9 wires)

f " +12° 37'

δ Persei +47° 30'

+8° 42'

20^m = = =

8.7 41.0

11.1 38.6 9.7

17.4 32.3 9.7

21.3 28.7 0.0

24.8

9 | 79

24.88

+12° 37'

25^m 57.0 44.6 1.6

59.2 42.2 1.4

1.7 39.7 1.4

4.1 37.0 1.1

6.9 34.6 1.5

13.0 28.5 1.5

17.0 24.5 1.5

20.7

15 | 10.7

20.71

+47° 30'

36^m 20.7 30.0 0.7

24.4 26.3 0.7

28.0 22.7 0.7

31.9 19.43 1.2

35.3 15.4 0.7

44.4 6.6 1.0

50.0 1.1 1.1

55.4

15 | 65

55.43

$3^h 20^m 24^s.88$

3 19 51.38

33.50

.15

33.35

a sec n-2.

$3^h 26^m 20^s.71$

3 25 47.28

33.43

.14

33.29

$3^h 36^m 55^s.43$

3 36 22.13

33.30

.04

33.34

33.35

.29

.34

3 | ~~1.08~~ .98

33.33

.47 bucle

33.80

Frod. 1327 is FAST

$0^m\ 33^s.80$

at $3^h 30^m$ S.T.

Fri Jan 17, 1908

Mer Cir

Sole Obs

v Pisc. +26° 47' (last 5 wires)

~~Radcliffe~~ at 1h 17m

δ Cass. 59° 46'

η Pisc. +14° 52'

υ Persei +48° 10'

+59° 43'		+14° 52		+48° 10'	
19m 31.8 4.7	6.5	26m 41.0 29.0	0.0	32m 16.6 26.7	3.3
37.0 0.7	7.7	43.3 26.7	0.0	20.4 23.6	4.0
41.7 55.2	6.9	45.7 24.0	9.7	23.9 19.4	3.3
46.3 50.2	6.5	48.3 21.4	9.7	27.4 15.7	3.1
51.4 45.6	7.0	50.9 19.0	9.9	31.6 12.3	3.9
3.7 33.2	6.9	57.2 12.5	9.7	40.6 2.7	3.3
11.0 25.6	6.6	1.1 8.8	9.9	46.3 57.2	3.5
	18.4		5.0		51.9
	15)66		15)139		15)183
	18.44		4.93		51.75

1h 20m 18s.44	1h 27m 4s.93	1h 32m 51s.75
1 19 46.32	1 26 32.59	1 32 19.48
32.12	32.34	32.27
.12	.10	.03
32.24	32.24	32.30

.80
-.64
1.44

32.12
32.34
.22 (.15
144
760
720

m = .15

.64
.15
320
64
960

.15
80
~~30~~
120
.1200

32.24
.24
.30
32.26
.47 brace.
32.73

Frod. 1327 is FAST

0m 32s.73

at 1h 25m S.T.

188

Sat Jan 18, 1908

Mer Cir Wells

β Erid − 5°12′ Rattle at $5^h\ 06^m$

μ Aurigae + 38°23′ (missed 1st wires)

α Aurigae + 45°54′

−5°12′		+38°23′		+45°54′	
03^m 28.1 15.0	3.1	07^m − 9.7	—	09^m 51.7 59.2	0.9
30.6 12.7	3.3	13.0 6.7	9.7	55.2 55.7	0.9
33.0 10.1	3.1	16.1 3.6	9.7	58.7 52.3	1.0
35.5 7.6	3.1	19.4 0.5	9.9	2.4 48.5	0.9
37.9 5.3	3.2	22.6 57.3	9.9	6.0 45.0	1.0
44.2 59.0	3.2	30.3 49.4	9.7	14.6 36.0	0.6
47.7 55.4	3.1	34.8 44.5	9.3	20.0 30.9	0.9
	51.6		39.9		25.7
	15) 87		13) 111		15) 69.
	51.58		39.85		25.46

$5^h\ 03^m\ 51^s.58$	$5^h\ 07^m\ 39^s.85$	$5^h\ 10^m\ 25^s.46$
5 03 19.83	5 07 8.12	5 09 53.82
31.75	31.73	31.64
.15	.02	.02
31.60	31.71	31.6~~7~~6

n = .15

31.60
.71
.6~~2~~6
~~203~~
3) 19 ~~3~~7
31.6~~4~~6
.47 b sec δ
32.1~~2~~3

.15
.12
30
15

of rod. 1327 is FAST

$0^m\ 32^s.1$~~2~~3

at $5^h\ 06^m$ S. T.

Mon Jan 20, 1908

[illegible] Cir [illegible]

Rate at 1h 59m

α Arietis + 23° 2'

β Trianguli + 34°33' (missed 1st wire)

+23° 2'	
02m 3.354.3	7.6
6.051.7	7.7
8.749.0	7.7
11.446.2	7.6
14.143.4	7.5
20.936.8	7.7
24.832.9	7.7
	28.8
	15 | 12 3
	28.82

+34°33'	
2.0	
04m 8.259.2	7.4
11.156.2	7.3
14.1530	7.1
17.050.2	7.2
24.742.7	7.4
29.138.0	7.1
	33.7
	13 | 8 2
	33.63

m = .15

2h 02m 28.82s
2 01 58.28
3
30.54
.07
30.46

2h 04m 33.63s
2 04 3.17
30.46
.03
30.43

.49
.15
245
49
.0735

.22
.15
110
22
.0330

30.44
.476 sec e
30.91

Frod. 1327 is FAST

0m 30.91s

at 2h 03m S. T.

Tues Jan 21, 1908

Aur Cii Wh Clo.

Rattle at $6^h 25^m$

8 Lyncis +61°34' (missed 1st wire)

γ Gemini +16°29'

S Monoce +9°59' (missed 1st wire)

ε Gemini +25°13'

+61°34'

28^m —37.0
4.8 32.3 6.1
9.3 27.0 6.3
14.5 21.7 6.2
19.3 16.6 5.9
31.9 3.3 5.2
40.4 56.0 6.4
48.2
13 | 103
48.02

+16°29'

32^m 29.7 18.6 8.3
32.5 16.1 8.6
35.0 13.4 8.4
37.4 10.9 8.3
40.1 8.3 8.4
46.5 2.0 8.5
50.3 58.1 8.4
54.2
15 | 31
54.21

+9°59'

36^m —48.8 —
3.8 46.4 0.2
6.3 43.9 0.2
8.8 41.3 0.1
11.2 38.7 9.9
17.4 32.7 0.1
21.3 29.0 0.3
25.2
$1\overset{3}{5}$ | 10
25.078

+25°13'

38^m 20.8 12.5 3.3
23.6 9.9 3.5
26.3 7.1 3.4
29.0 4.4 3.4
31.7 1.7 3.4
38.4 54.8 3.2
42.8 50.7 3.5
46.7
15 | 104
46.69

$6^h 2\overset{9}{8}^m 48^s.02$	$6^h 32^m 54^s.21$	$6^h 36^m 25^s.08$	$6^h 38^m 46^s.69$
6 29 18.26	6 32 24.27	6 35 55.14	6 38 16.81
29.76	29.94	29.94	29.88
.10	.07	.08	.05
29.86	29.87	29.86	29.83

+.94 | 29.76
.74 − .68 | 29.94
.42 + |
+1.62 | .18 (11
162
180

m = 0.11

.94
11
94
94
.1034

45
45
.495

29.86
.87
.86
.83
122
29.86
.47 B sec a
30.33

Frod. 1327 is FAST

$0^m 30^s.33$

at $6^h 30^m$ S.T.

Wed Jan 22, 1908

Quer Cii Tele Obs.

8 Monoc +4° 38'

10 Monoc * -4°42' Rattle at 6h 22—

8 Lyncis +61°34'

51 Aurigae +39°28'

+4°38'		-4°42'		61°34'		+39°28'	
19m 02.47.0	7.2	23m 31.7 18.4	0.1	28m 58.3 36.4	4.7	32m 16.9 17.5	4.4
2.5 44.6	7.1	34.0 16.1	0.1	3.7 31.9	5.6	20.0 14.6	4.6
5.0 42.2	7.2	36.3 13.7	0.0	8.7 26.6	5.3	23.2 11.1	4.3
7.4 39.5	6.9	38.7 11.3	0.0	13.9 21.4	5.3	26.7 7.8	4.5
9.7 37.0	6.7	41.3 8.6	9.9	19.3 16.4	5.7	29.8 4.6	4.4
16.1 31.0	7.1	47.7 2.7	0.4	32.4 3.5	5.9	37.4 56.7	4.1
19.7 27.2	6.9	51.2 58.9	0.1	40.0 55.4	5.4	42.7 52.1	4.8
	23.3		55.1		47.7		47.0
	15 | 74		15 | 7		15 | 106		15 | 31
	23.49		55.05		47.71		47.21

+.94
1.00
1.94

29.46
29.58
.12
.176 (.06
24

m = 1/20 .06

6h 19m 23s.49	6h 23m 55s.05	6h 29m 47s.71	6h 32m 47s.21
6 18 54.00	6 23 25.47	6 29 18.275	6 32 17.63
29.49	29.58	29.4~~4~~6	29.58
.05	.06	.06	.01
29.44	29.52	29.52	29.57

29.52
.44
52
.57
~~2~~. | 205
29. 51
47 breck
29.98

Frod. 1327 is FAST

0m 29s.98

at 6h 25m S.T.

Sat Jan 25, 1908

Mer Ci

Wole Obs.

Rattle at $7^h 11^m$.

λ Gemini +22°9′

ι Gemini +27°59′

+22°09′

14^m ~~37.3~~
41.231.7 2.9
43.729.0 2.7
46.326.2 2.5
49.223.7 2.9
51.821.0 2.8
58.314.4 2.7
2.510.4 2.9
6.4
15) 58
6.39

+27°59′

20^m ~~2.6~~ 2.6 56.0 8.6
~~8.8~~ 5.9 53.3 9.2
8.5 8.6 50.3 8.9
11.3 47.7 9.0
14.0 44.8 8.8
21.0 37.6 8.6
25.4 33.7 9.1
29.4
15) 656
29.44

$7^h\ 15^m\ 6^s.39$
$7\ \ 14\ \ 38.27$
28.12
.05
28.07

aso.
n = .1

$7^h\ 20^m\ 29^s.44$
$7\ \ 20\ \ \ 1.38$
28.06
.04
28.02

28.04
.47 brecle
28.51

Frod. 1327 is FAST

$0^m\ 28^s.51$

at $7^h\ 20^m$ S. T.

Monday, Jan 27, 1908

[illegible] J.A.D. obs

Results after 7h 15m

ι Gemin +27 59 lost 1st wire
ρ Gemin +31 58 all.
24 Lyncis +58 56 all
χ Gemin +24 37 all

ι Gem.	ρ Gem.	24 Lyncis	χ Gem.
7h20	7h23	7h34	7h38
X 20.7 44.4	12.2 31.2 56.0	57.2 28.5 8.9	56.0 13.6 35.9
5.3 24.9 47.4	15.4 35.7 58.8	2.0 35.3 13.5	58.8 18.0 39.3
8.0 29.2 50.2	18.0 21.0 39.9 1.6	6.9 42.6 18.4	1.4 21.9 42.2
11.0 33.2 52.7	24.0 44.4 4.8	11.7 49.8 23.3	4.2 26.0 45.0
13.6 37.2 55.6	48.6 7.7	16.6 57.0 28.1	7.0 30.0 47.6
1452 2503	906 1998 3089	3344 2132 922	3074 1095 2100
2904 50.06	18.12 39.96 1.78	6.88 42.64 18.44	1.48 21.90 42.00
~~58.08~~ .04 20.90	21.87 04 21.77	35.93 07 35.77	20.42 04 20.30
29.08 29.16	39.99 40.00 40.01	42.81 42.71 42.67	21.90 21.94 21.70
7h 20m 29s.12	23 40.00	35 42.73	39 21.83
7 20 1.39	23 12.30	35 14.90	38 54.25
27.73	27.70	27.83	27.58
.04	.07	.07	.05
27.69	27.77	7 90	27.53

25 0

3
22
37

73
70 201
58 .67
.83 27.75
47 = [illegible]

28.22

284
91

Frod 1327 is fast
0m 28s.20
at 7h 30m Sid. T.

Jan 30, 1908

Mer Cir. JAD obs

θ Gemin +34 4 all ; Chron shut?
15 Lyncis +58 32.5 III last 3 w.

Results before 6h 55

ζ Gem +20'42 all
63 Aurigae +39'28 all

Seeing bad

	θ Gemin.		15 Lyncis		ζ Gem.			63 Aurigae		
	6h 46		6h 50		6h 58			7h 5		
	42.9	27.5	22.15		41.4	58.6	21.1	17.0	37.6	5.0
	45.5	30.4	27.00		44.2	2.6	24.0	20.0	42.7	8.0
		33.5			46.8	6.5	26.5	23.2	47.1	11.2
	48.5	36.6	31.50		49.6	10.5	29.3	26.6	51.9	14.5
	51.7	39.4			52.0	14.7	31.6	29.7	56.9	17.6
	54.5									
	2431	1674	80.65		23.40	32.9	13.25	116.5	236.2	56.3
			26.88							
	4862	3348	40.09	0.2824	46.80	6.58	26.50	23.30	47.24	11.26
	22.37	22.26		1.3206	19.83	+04	19.73	24.02	+05	23.94
	10.99	11.22		1.6030	6.63	6.62	6.77	47.52	47.29	47.35
				40.09						
	6 47 11.11		49 46.79		6h 59 6.67			7h 5 47.39		
α	6 46 44.10		49 19.84		58 39.67			5 20.37		
	27.01		26.95		27.00			27.02		

27.00
47 = b ref
27.47

Frod 1327 is fast
ō 27s.47
at 6h 55 Sid Time

Jan 31, 1908

Mr Cu. JAD obs

Rotate after 4^h 12

γ Tauri +15 26 all
δ Tauri +17 20 all
ε Tauri +18 59 all
Seeing bad

γ Tauri			δ Tauri			ε Tauri		
4^h 14			4^h 17			4^h 23		
35.3	52.0	13.6	39.5	56.1	18.3	16.0	33.2	55.0
37.6	55.8	16.5	42.2	04	20.8	19.0	37.0	57.7
40.5	59.6	19.0	44.5	4.0	23.3	21.5	41.0	.5
43.0	3.5	21.5	47.1	8.0	26.1	23.9	45.0	3.0
45.5	7.3	23.6	50.0	11.6	28.5	26.5	48.7	5.7
2019	2982	942	2233	201	1170	1069	2049	3019
4038	5964	1884	4466	4020	2340	21.38	40.98	0.38
19.23	04	19.14	19.43	04	19.33	19.61	04	19.52
59.61	59.68	59.70	4.09	40.24	4.07	40.99	41.02	41.86
4^h 14 59.69			4^h 18 4.13			4 23 40.96		
4 14 33.21			4 17 37.49			4 23 14.45		
26.48			26.64			26.51		

d

48 48 48
64 [58]
51 51 .51
163 .52
.54 .50

26.52
.47
26.99

Frod 1327 is fast
$\tilde{0}$ 27.00
at 4^h 20 Sid T.

Sun Feb ~~1~~ 2, 1908

Mer Circle JAD obsr

2 H Camel +59 37 all. ~~Short~~ Record looks defective

f Tauri +12 37 all
ε Eridani −9 46 all

Rattle through 3^h 32

δ Persei +47 30. I & II
ν Persei +42 17 I & II

Seeing very bad

2 H Cam.

3^h21

× 475
× 548
× 22
300 95
35.2 ×
2340

3260 58.50
1.1713 0.2760
0.2961 0.2961
1.4674 0.5721
29.34 37.34
1.94 2.04
3 22 2.14
3 21 36.16
25.98
.07
25.92

f Tauri

3^h25

48.9 5.7 27.0
51.5 9.3 29.5
54.0 13.0 32.0
56.8 16.8 34.5
59.2 20.8 36.9
2704 65.6 159.9
54.08 13.12 31.98
19.00 +04 18.91
13.08 13.16 13.07
3 26 13.10
3 25 47.05
26.05
.05
26.10

ε Erid.

3^h28

37.5 53.6 ×
40.0 57.2 17.5
42.4 1.2 19.9
45.0 5.0 22.6
47.4 8.5 25.0
2123 305.5
42.46 1.10
18.82 .04
01.30 1.06
3^h 29 1.18
3 28 35.34
25.84
.08
25.92

δ Persei

3^h36

12.7 36.5
16.3 42.1
20.0 47.6
23.5 53.0
27.3 58.4
99.8 237.6
19.96 47.52
27.45 +05
47.41 47.57
3 36 47.49
3 36 21.77
25.72
.01
25.71

ν Persei

3^h38

49.7 11.7
53.5 16.7
56.5 21.6
0.2 26.7
3.6 31.7
283.5 108.4
56.70 21.68
25.07 +05
21.77 21.73
3 39 21.75
3 38 55.98
25.77
.00
25.77

1.7 25.98
−.2 25.84
+.07 = m
N not used.
.72 25.98
.75 26.05
.74 25.84
25.72
25.77
436
87

Used δ Persei +47° and ν Persei +42°

25.72
25.77
25.75
.47 = b and
26.22

Frod is fast 5^m $26^s.20$

at 3^h 40^m Sid Time Feb 2, 1908

Mon. Feb 3, 1908

Mer Circle JAD Lsr

Rutter after 2^h 8

α Arietis +23° 2 all
β Triang +34 33 all

α Arietis

~~2^h 2~~
2^h 1

57.9	15.2	38.1
0.6	19.3	40.7
3.1	23.3	43.6
5.8	27.4	46.3
8.6	31.3	48.7
15.0	116.5	217.4
3.00	23.30	43.48
20.15	.04	~~22.54~~ ~~20.06~~
23.15	23.34	23.42

2 2 23.30
α 2 1 58.09
25.21

β Triang

2^h 3

59.7	19.1	44.5
2.7 5 8	23.5	47.5
8.8	28.2	50.6
11.5	32.6	53.6
	37.2	56.5
28.5	140.6	252.7
5.70	28.12	50.54
~~20.06~~		~~22.51~~
22.51	.03	22.41
28.21	28.17	28.13

2 4 28.17
2 4 2.91
25.26

25.24
h.suf 47
25.71

Ford 1327 is fast

0^m $25^s.70$

at 2^h 0 Sid Time

Tues. Feb 4, 1908

Mer Circle J.A.D. obsr

α Arietis +23° 2 all
θ Persei +48° 50
μ Ceti +9 44 all
Seeing very bad for all stars
Rattle after 2h 4?

α Arietis

57.2	14.7	37.6
00	18.8	40.2
2.6	22.8	42.9
5.5	26.8	45.8
8.2	30.7	48.0
13.5	113.8	214.5
2.70	22.76	42.90
20.15	.04	20.08
22.85	22.80	22.83

22.83
α 2 1 58.07
24.76

θ Persei

42.5	6.9	38.8
46.5	12.5	42.6
50.1	17.8	46.2
53.8	23.8	50.4
57.7	29.2	53.8
250.6	90.2	231.8
50.12	18.04	46.36
~~24.06~~ 28.17	.05	28.04
18.29	18.09	18.32

18.23
2 37 53.74
24.49

2h 39	58.6	14.3	35.7
	0.7	18.0	37.9
	3.2	22.0	40.7
	5.7	25.7	43.1
	7.8	29.7	45.9
	16.0	109.7	203.3
	3.20	21.94	40.66
	18.81	.04	18.73
	22.01	21.98	21.93

2 40 21.99
2 39 57.27
24.72

.39
.40
.79

76
72 74

44
123
.61

76
49
72
197
66
47
25.13

Frod 1327 is fast
0 25s.13

at 2h 20
Sid Time

Friday Feb 7, 1908

Mer. Circle J.A.D. obsr

θ Persei +48°50 all
41 Arietis +26°53 I & II
τ Persei +52 23 all
Results after 2^h 49

θ Persei	41 Arietis	τ Persei
2^h 37	2^h 44	2^h 47
40.3 4.9 36.8	29.5 47.7	26.7 53.2 27.5
44.2 10.5 40.7	325 518	30.9 59.4 31.7
47.8 16.2 44.5	× 55.9	34.8 5.3 35.6
51.7 21.6 48.2	378 59.9	38.9 11.3 40.0
55.6 27.5 51.7	40.7 ×	43.0 17.5 43.5
239.6 80.7 221.9	1405 1676	1743 3267 1783
47.92 16.14 44.38	35.13 55.87	3486 5.34 3566
28.16 06 28.04	20.80 04	30.40 06 30.26
~~52.12~~ 16.08 16.20 16.34	55.93 55.91	5.26 5.40 5.40
2^h 38 16.20	44 55.92	2 48 5.35
α 2 37 53.65	44 33.12	2 47 42.78
~~98.5~~ 22.55	22.80	22.57

39 22.57
~~40~~ 22.80
79 .23

55 55
80 57 56
57 80
192
.64 .68
22.66
b red .47
23.13

Frod 1327 is fast

0^m 23^s.13

at 2^h 49^m Sid Time

Sat Feb. 8, 190~~7~~ 8

[illegible] [illegible]

Rattle at $2^h 42^m$.

41 Arietis +26°53'

t Persei +52°23'

+26°53'

44^m 29.3 21.6 0.9
32.0 19.0 1.0
35.0 16.2 1.2
37.5 13.5 1.0
40.4 10.7 1.1
47.2 3.9 1.1
51.6 59.7 1.3
55.6

15 | 82

55.55

+52°23'

47^m 26.4 43.3
— 39.7
— 36.2
— 31.1
42.4
52.7
58.8

4.9

2 48 4.9
42.76

27.14

$2^h 44^m 55^s.55$

and m = 1/4

$2 \quad 44 \quad 33.\cancel{04}$ 10

$22.\cancel{51}$ 45
.110

$22.\cancel{41}$ 35
.147

$22.\cancel{98}$ 82

Frod. 1327 is FAST

$0^m \; 22^s.\cancel{98}$ 82

at $2^h 45^m$ S.T.

Mon Feb. 10, 1908

Mer Cir. Wendell.

Rattle before $7^h 47^m$.

χ Gemin +28°3

27 Lyncis +51°46'

+28°3'

57^m 47.0 40.0 7.0
49.6 37.1 6.7
52.7 34.5 7.2
55.2 31.9 7.1
58.3 28.9 7.2
5.2 22.0 7.2
9.2 17.7 6.9
13.5
15|7 8
13.52

+51°46'

$8^h 1^m$ 16.3 31.8 8.1
19.9 28.0 7.9
24.2 24.0 8.2
28.0 19.9 7.9
32.2 16.3 8.5
42.0 6.2 8.2
48.2 59.9 8.1
54.0
15|10 9
54.06

$7^h 58^m 13^s.52$
7 57 52.82
20.70
.07
20.63

$8^h 01^m 54^s.06$
8 02 33.52
20.54
.07
20.61

-.38 20.70
.36 20.54
.74 .16

ass n =.2

20.62
.47 brecke.
21.09

Frod. 1327 is FAST

$0^m 21^s.09$

at $8^h 0^m$ S.T.

Tues Feb. 11, 1908

Mer Cir   Wells

Rattle at $8^h 0^m$

27 Lyncis +51°46'

β Cancri + 9°28'

31 Lyncis +43°29'

+51°46'		+9°28'		+43°29'	
01m 15.431.0	6.4	11m 28.315.9	4.2	16m 20.925.2	6.1
19.427.2	6.6	30.813.3	4.1	24.322.0	6.3
23.423.3	6.7	33.311.0	4.3	27.318.7	6.0
27.519.2	6.7	36.08.4	4.4	31.015.2	6.2
31.315.3	6.6	38.45.9	4.3	34.312.0	6.3
41.45.2	6.6	44.759.6	4.3	42.93.3	6.2
47.559.4	6.9	48.355.9	4.2	48.158.3	6.4
	53.5		52.2		53.3
	15)50		+9		15)18
	53.33		15)20		53.12
			52.13		

.36
.75
1.01) 1.8

assu = 0.1

$8^h 01^m 53^s.33$	$8^h 11^m 52^s.13$	$8^h 16^m 53^s.12$
8 01 33.51	8 11 32.23	8 16 33.31
19.82	19.90	19.87
104	107	100
19.86	19.83	

19.83
.47 prece.
20.30

Frod. 1327 is FAST

$0^m\ 20^s.30$

at $8^h\ 10^m$ S. T.

Wed Feb. 12, 1908

Mer Cir [illegible]

~~R~~ α Aurigae + 45°54′
Rattle at $5^h 44^m$
β Tauri + 28°32′ (Missed 1st wire)

+45°54′
9^m 38.7 46.0 4.7
42.5 42.4 4.9
45.8 39.0 4.8
49.3 35.4 4.7
53.0 32.0 5.0
1.9 23.0 4.9
7.0 17.6 4.6
12.3
15)59
12.39

+28°32′
20^m — 14.4 —
23.7 11.3 5.0
26.2 8.9 5.1
29.2 6.0 5.2
32.2 3.3 5.5
39.4 56.2 5.6
43.6 52.0 5.6
47.7
13)87
47.67

5^h ~~8~~ 10^m $12.^s39$
5 09 53.46
18.93
.01
18.94

ass m = .1

$5^h 20^m 47.^s67$
5 20 28.52
19.15
.04
19.11

18.94
19.11
2)2.05
19.02
.47 brace
19.49

Frod. 1327 is FAST

0^m ~~5^s~~ $19.^s49$

at $5^h 10^m$ S.T.

Sat Feb. 15, 1908

Mer Cir

Wells

Rattle at 7^{h} ~~05~~ 10^{m}.

λ Gem +16°42'

δ Gem +22°9'

ι Gem +27°58'

ρ Gem +31°58'

Rattle at $7^{h} 25^{m}$.

+16°42'		+22°9'		+27°58'		+31°58'	
$7^{h} 12^{m}$ 41.7 —		14^{m} 30.0 —		19^{m} 52.2 45.0	7.2	13^{m} 1.9 57.2	9.1
44.3 28.0	2.3	33.0 —		54.9 42.4	7.3	4.8 54.3	9.1
46.9 25.5	2.4	35.7 —		57.7 39.7	7.4	7.7 51.4	9.1
49.4 23.0	2.4	38.0 12.7	0.7	0.3 36.9	7.2	10.7 48.4	9.1
52.0 20.2	2.2	40.9 10.2	1.1	3.2 34.0	7.2	13.5 45.6	9.1
58.4 13.7	2.1	47.6 3.5	1.1	— 27.0	—	20.9 38.2	9.1
— —		— 59.4		14.4 22.8	7.2	25.3 33.9	9.2
					18.6		29.6
10 | 14		6 | 29		15 | 81		15 | 84	
6.14		55.48		18.54		29.56	

Gao m =.1

$7^{h} 13^{m} 06^{s}.14$	7^{h} ~~15~~ 14^{m} 55.48	$7^{h} 20^{m}$ 18.54	7^{h} ~~24~~ 23^{m} 29.56
7 12 48.84	7 14 38.24	7 20 1.34	7 23 12.26
17.30	17.24	17.20	17.30
.06	.05	.04	.03
17.24	17.19	17.16	17.27

17.24
.19
.20
.27
4 | 90
17.22
.47
17.69

Frod. 1327 is FAST

0^{m} $17^{s}.69$

at $7^{h} 20^{m}$ S. T.

Mon. Feb. 17, 1908

Mer Cir   Tele Obs

Rattle at $5^h 05^m$.

μ Aurigae +38° 23′

C Stopped by clds.

+38° 23′

$5^h 06^m$ 54.1 54.0   8.1
57.2 50.9   8.1
0.3 47.9   8.2
3.5 44.6   8.1
6.6 41.3   7.9
14.4 33.6   8.0
19.3 28.7   8 0
24.0
16 |4
24.03
~~.01~~
~~24.02~~

ass n = .1

$5^h 07^m 24^s.03$
5 07   7.72

16.31
.47 b sec c.

16.78

Frod. 1327 is FAST

$0^m 16^s.78$

at $5^h 07^m$ S. T.

Tues Feb. 18, 1908

Mer Cir Wells

Rattle at 8h 44m.

ζ Hydrae +6°18'

ι Ursae Maj +48°24'

10 Ursa Maj +42°9' (last 8 wires)

0.5654
0.1300
0.6954

+6°18'
50m 24.3 12.0 6.3
26.7 9.3 6.0
29.3 6.6 5.9
31.7 4.1 5.8
34.5 1.7 6.2
40.7 55.3 6.0
44.1 52.0 6.1
48.3
15 |06
48.04

+48°24'
52m ~~35.9~~ 46.3 2.2
40.0 42.7 2.7
43.4 39.4 2.8
47.1 35.2 2.3
50.9 32.1 3.0
0.2 22.9 3.1
6.3 18.2 4.5
11.7
15 |73
11.49

+42°9'
— 15.4
— 18.8
54m 56.6 21.7
1.7 25.0
7.0 28.0
3 |5.3 5 |108.9
1.77 21.78
4.96 24.90
56.81 5~~6~~.88

8h 50m 48.04s
8 50 32.57
15.47
~~.08~~
15.~~55~~
39

ass n =.1

8h 53m 11.49s
8 52 55.87
15.62
.02
15.6~~0~~4

8h 54m 56.85
8 54 41.25
15.60

15.55
.60
.60
3 |175
15.58
.47 b sec δ
16.05

15.39
.64
.60
3 |143
15.48
.47
15.95

Frod. 1327 is FAST

0m ~~16.05~~s 15.95s

at 8h 50m S.T.

Times Feb. 20, 1908

over Cin — 20 in Obs.

η Tauri + 23° 49′
ξ Persei + 31° 37′
ε Persei + 39° 45′
Rattle at $3^h 53^m$

+ 23° 49′

$3^h 41^m$ 48.9	40.1	9.0
51.4	37.3	8.7
54.3	34.6	8.9
56.9	32.0	8.9
59.6	29.2	8.8
6.3	22.6	8.9
10.6	18.3	8.9
		14.3

15)64
14.43

+ 31° 37′

48^m 7.0	1.7	8.7
10.0	59.0	9.0
12.5	56.0	8.5
15.7	53.0	8.7
18.4	50.3	8.7
25.6	43.2	8.8
30.0	38.7	8.7
		34.3

15)54
34.36

+ 39° 45′

51^m 23.6	24.5	8.1
26.9	21.4	8.3
30.0	18.3	8.3
33.2	15.1	8.3
36.3	11.8	8.1
44.4	3.7	8.1
49.2	58.9	8.1
		,54.1

15)14
54.09

$3^h 42^m 14^s.43$
3 42 0.11
14.32
.05
14.27

ass m =.1

$\overset{3}{\cancel{4}}{}^h 48^m 34^s.36$
3 48 20.09
14.27
.03
14.24

$\overset{3}{\cancel{4}}{}^h 51^m 54^s.09$
3 51 39.90
14.19
.01
14.18

14.27
.24
.18
3)69
14.23
.47
14.70

Frod. 1327 is FAST

$0^m 14^s.70$

at $3^h 45^m$ S.T.

Friday Feb. 21, 1908

Over Cir Wells.

Rattle at $6^h 13^m$.

μ Gemini $+22°34'$

$+22°34'$

17^m 11.9 2.9 4.8
15.0 0.3 5.3
17.9 57.7 5.6
20.3 55.1 5.4
23.0 52.4 5.4
30.1 45.7 5.8
33.7 41.7 5.4
37.6
15)103
37.69

$6^h\ 17^m\ 37.69$
6 17 23.86
13.83
.05
13.78
.47 &sec e
14.25

aso n =.1

Frod. 1327 is FAST

$0^m\ 14^s.25$

at $6^h 17^m$ S.T.

Monday Feb. 24, 1908

Clear Cir

Tele Obs.

Rattle at 9h 01m

ϑ Hydrae +2°42'

40 Lyncis +34°47'

+2°42'

~~10~~m 24.21.3 5.5
9 27.08.9 5.9
29.36.6 5.9
31.94.1 6.0
34.21.5 5.7
40.455.2 5.6
44.051.4 5.4
4.7.7

15|127
47.85

+34°47'

15m 11.88.7 0.6
14.85.9 0.7
17.65.0 0.6
20.9 0.0 0.9
24.0 57.1 1.1
31.34 9.6 0.9
36.0 44.8 0.8
40.5

15|61
40.41

9h ~~10~~ 9m 47.85s
9 9 35.43

12.42
.09

12.33

aso n = .1

9h 15m 40.41s
9 15 28.05

12.36
.02

12.34

12.34
.47 brace

12.81

Frod. 1327 is FAST

0m 12.81s

at 9h 15m S.T.

Tuesday Feb. 25, 1908

Mer Cir Wl. Obs.

ν Orionis + 14°47′. (last 6 wires)
Rattle at $6^h 05^m$
η Gemin +22°32′
μ Gemin +22°34′
δ Monoc +4°38′

Clouds

+22°32′
9^m 6.0 56.7 2.7
8.4 54.2 2.6
11.2 51.4 2.6
14.0 48.8 2.8
16.7 46.0 2.7
23.5 39.4 2.9
27.4 35.3 2.7
31.2
15|52
31.35

+22°34′
17^m 10.2 1.1 1.3
12.7 58.7 1.4
15.6 56.1 1.7
18.2 53.1 1.3
21.0 50.8 1.8
27.6 43.7 1.3
31.6 39.9 1.5
36.0
15|113
35.75

+4°38′
18^m 42.0 29.4 1.4
45.2 27.0 2.2
47.6 24.7 2.3
50.8 22.0 2.8
53.0 19.8 2.8
58.2 22.9 1.1
2.0 9.4 1.4
5.8
15|148
5.99

$6^h\ 9^m\ 31^s.35$
6 9 19.52
11.83
.05
11.78

$6^h\ 17^m\ 35^s.75$
6 17 23.80
11.95
.05
11.90

$6^h\ 19^m\ 5^s.99$
6 18 53.71
12.28
.08
12.20

ass n = .1

11.78 × 2 = 23.56
11.90 × 2 = 23.80
12.20 × 1 = 12.20
5|59.56
11.91
.47
12.38

Frod. 1328 is FAST

$0^m\ 12^s.38$

at $6^h\ 15^m$ S. T.

Fri Feb. 28, 1908

Merid Cir W.E. Ells

ε Leonis +24°12'
o Urs. Maj. + 59°28'
Rattle at $9^h 47^m$

+24°12'			+59°28'		
40^m 23.5	15.0	8.5	43^m 53.3	—	
26.2	12.3	8.5	58.6	—	
28.9	9.8	8.7	3.0	15.7	8.7
31.6	6.8	8.4	8.2	11.3	9.3
34.2	4.0	8.2	13.0	6.3	9.3
41.1	57.3	8.4	25.0	54.3	9.3
45.2	53.4	8.6	32.4	46.7	9.1
		49.4			39.4
	15	37		11	61
		49.25			39.55

$9^h 40^m 49^s.25$ $9^h 44^m 39^s.55$
9 39 38.67 9 44 29.00
10.58 10.55

m = 0

10.57
.47 b rec'd.
11.04

Frod. 1327 is FAST

$0^m 11^s.04$

at $9^h 42^m$ S.T.

Sat Feb. 29, 1908

mer Cir — W. L. Ells.

Rate at 9h 00m

σ² Urs Maj +67°31′ (missed 11th wire)

ϑ Hydrae : +2° 42′

40 Lyncis +34°47′

+67°31′

07m 29.0 31.6 0.6
35.7 25.7 1.4
41.8 19.0 0.8
48.4 12.7 1.1
54.9 — —
11.4 49.85 0.9
20.2 39.8 0.0
30.7
13 | 5 5
30.42

+2°42′

09m 22.3 39.0 1.3
24.8 6.6 1.4
27.2 4.3 1.5
29.7 2.0 1.7
32.2 59.4 1.6
38.4 53.2 1.6
42.1 49.3 1.4
45.7
15 | 11 2
45.75

+34°47′

14m (5) 9.7 7.0 6.7
12.8 4.0 6.8
15.8 0.7 6.5
18.8 57.9 6.7
21.5 55.0 6.5
29.2 47.5 6.7
34.0 43.0 7.0
38.4
15 | 5 3
38.35

9h 02m 30.42s	9h 09m 45.75s	9h 14(5)m 38.35s
9 02 20.71	9 09 35.42	9 15 28.04
9.71	10.33	10.31
.30	.17	.05
10.01	10.16	10.26

−.86 10.31
+1.50 9.71
2.36 .60 1.25
.472
.1280

u = $\frac{1}{4}$

ass u = .2

10.01
.16
.26
3 | .43
10.14
.47 brech.
10.61

Frod. 1327 is FAST

0m 10.61s

at 9h 10m S.T.

Tues Mar 3, 1908

Mer Cir　　　　Wel. Obs

Rattle at $9^h 08^m$

ϑ Hydrae + 2°42' (last 10 wires)

40 Lyncis + 34°47' (last 12 wires)

+2°42'

9^m	36.7	58.2
	40.0	0.4
	44.3	2.7
	48.0	5.3
	51.4	7.8
	5)220.4	5)14.5
	44.08	2.90
		18.48
		14.42

1.1713
.0855
1.2568

+34°47'

15^m	28.0	53.5
	32.3	56.6
17.3	37.0	59.5
20.3	41.3	2.3
	45.8	5.3
2)37.6	5)184.4	5)297.2
18.80	36.88	59.44
18.06		22.50
36.86		36.94

.86
.88
.94
91+4
3.64
.86
5)4.50

$9^h\ 09^m\ 44.25$
9 09 35.41

azo. w = .1

8.84
.08
8.76
.84

8.80
.47 b sec [illegible]
9.27

$9^h\ 15^m\ 36.90$
9 15 28.03

8.87
.03
8.84

Frod. 1327 is FAST

$0^m\ 9.^s27$

at $9^h\ 10^m$ S. T.

Times Mar 5, 1908

Mer Cir Wells

Rates at $9^h 35^m$

A [ο Leonis] +10°19′ (missed 1st 2 wires)

ε Leonis +24°12′

υ Urs. Maj. +59°28′ (missed 11, 12, 13 wires)

A [μ Leon +26°26′]

+10°19′

36ᵐ 46.7 —
44.3
4.0 41.7 5.7
6.7 39.2 5.9
9.0 36.6 5.6
15.5 30.0 5.5
19.0 26.5 5.5
22.8
11 | 90
22.82

+24°12′

40ᵐ 20.3 12.0 2.3
23.2 9.3 2.5
26.1 6.4 2.5
28.7 3.8 2.5
31.5 1.2 2.7
38.3 54.3 2.6
42.1 50.3 2.4
~~50.3~~
46.1
15 | 36
46.24

+59°28′

43ᵐ 50.3 22.2 2.5
55.3 17.5 2.8
0.0 12.9 2.9
4.9 — —
9.7 — —
22.1 50.9 3.0
29.6 43.9 3.5
36.4
11 | 51
36.46

+26°26′

47ᵐ 14.3 6.4 0.7
17.0 4.0 1.0
19.6 1.3 0.9
22.4 58.3 0.7
25.2 55.7 0.9
32.2 48.7 0.9
36.0 44.3 0.3
40.5
15 | 59
40.39

$9^h 36^m 22^s.82$	$9^h 40^m 46^s.24$	$9^h 44^m 36^s.46$	$9^h 47^m 40^s.39$
9 36 15.23	9 40 38.66	9 44 29.03	9 47 32.79
7.59	7.58	7.43	7.60
.07	.05	.08	.04
7.52	7.53	7.51	7.56

−.74 | 7.43
+.78 | 7.59
152 | 16

m = .1

7.52
.53
.51
.56
4 | 12
7.53
.47 b sec u
8.00

Bond. 1327 is FAST

$0^m 8^s.00$

at $9^h 45^m$ S. T.

Sat Mar 7, 1908

Mer Cir Wli Obs

Rattle at $9^h 10^m$

[38 Lyncis] ~~[illegible]~~ + 37°12' (last 10 wires)
40 Lyncis +34°47'
α Hydrae −8°16'
θ Urs. Maj +52°6'

+34°47'		−8°16'		+52°6'	
$9^h 15^m$ 6.2 3.3	9.5	22^m 47.3 35.4	2.7	26^m 12.3 28.7	1.0
9.2 0.4	9.6	50.0 32.7	2.7	16.2 24.47	0.9
12.1 57.3	9.4	52.7 30.3	3.0	20.5 20.6	1.1
15.2 54.4	9.6	55.4 27.7	3.1	24.4 16.7	1.1
18.0 51.5	9.5	57.8 25.2	3.0	28.2 12.5	0.7
25.7 43.8	9.5	4.1 19.2	3.3	38.6 2.7	1.3
30.2 39.3	9.5	7.9 15.3	3.2	45.0 56.6	1.6
	35.0		11.6		50.3
	15 ⌊116		15 ⌊76		15 ⌊80
	34.77		11.51		50.53

	$9^h 15^m 34.^s77$	$9^h 23^m 11.^s51$	$9^h 26^m 50.^s53$
ɷ	9 15 28.00	9 23 4.75	9 26 43.79
m = 0	67.77	6.76	6.74

6.76
.47
7.23

Frod. 1327 is FAST

$0^m 7.^s23$

at $9^h 22^m$ S. T.

Monday March 9, 1908

Clear Air ⌣ D. Wells.

η Leonis +17°13'
λ Hydrae ~~+~~11°54'
Rattle at 10h 08m
λ Ursae Majoris +43°22'

	+17°13'			−11°54'			+43°22'
02m	≡	—	05m	48.7 36.7	5.4	11m 7.7 12.3	0.0
	8.8 42.5	1.3		51.4 34.4	5.8	11.4 8.8	0.2
	11.3 40.0	1.3		54.0 32.0	6.0	14.5 5.4	9.9
	17.8 33.5	1.3		56.4 ~~32.0~~ 29.0	5.4	18.0 2.0	0.0
	21.9 29.7	1.6		58.9 26.7	5.6	21.5 58.6	0.1
		25.8		5.3 20.5	5.8	29.9 50.3	0.2
		9 ⌊63		8.9 16.7	5.6	34.8 45.2	0.0
		25.70			12.7		39.9
					15 ⌊12 3		15 ⌊3
					12.82		40.02

10h 02m 25.70s	10h 06m 12.82s	10h 11m 40.02s
10 02 19.89	10 06 7.01	10 11 34.26
5.81	5.81	5.76

aso u = 0

5.81
.81
.76
~~9~~ 3 ⌊238
5.79
.47 b sec δ
6.26

Frod. 1327 is FAST

0m 6.26s

at 10h 06m S.T.

Tuesday Mar 10, 1908

Tran Cir   Zo Lells

Rottle at 9h 51m

π Leonis   +8°29′
η Leonis   +17°13′

+8°29′

$9^h 55^m$ 3.3 51.2   4.5
6.0 48.8   4.8
8.4 45.8   4.2
10.7 43.5   4.2
13.5 41.0   4.5
19.5 34.8   4.3
23.2 31.0   4.2
27.4
~~29~~
15 | 31
27.21

+17°13′

$10^h 02^m$ 0.2 49.5   9.7
3.0 46.9   9.9
5.7 44.8   0.3
8.8 41.7   0.5
11.3 39.3   0.6
17.7 33.0   0.7
21.1 29.0   0.1
25.3
15 | 21
25.14

$9^h 55^m 27^s.21$
9 55 21.92
5.29

$10^h 02^m 25^s.14$
10 02 19.89
5~~8~~.25

ass n=0

5.27
.47 b secδ
5.74

Frod. 1327 is FAST

$0^m 5^s.74$

at $10^h 0^m$ S.T.