KG
11366
156

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Susan Raymond
Records I.
Variables and Asteroids -

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I Magnitudes of Comparison Stars for Variables and Asteroids

Object	Sequence	Pages
B.D. +18° 3186		39, 61, 62, 63, 65.
Pallas	A	107, 108, 109, 110
	B	98, 99, 104, 106, 122, 123, 124, 125, 126, 127.
	C	95, 96, 97, 101, 102, 103, 112, 113, 122 123, 124, 125, 126, 127.
Nysa	A	117, 118, 120, 121, 131, 132, 133, 134, 135, 136, 137.
Ceres	A	144, 145, 146, 147.
Psyche	A	164
	B	154, 155, 156, 157, 158
Hebe	A	165, 166, 167, 168, 169.
Flora	A	175, 176, 177, 178.
Julia	A	181, 182, 183, 184.
Iris	A	187, 188, 193

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II. Measures of Brightness of Variables and Asteroids

Object — Pages

S Ursae Majoris (1st estimates) 5-29
" (2nd ") 30-51
" (3rd ") 52-57, 90.
B.D. +18° 3188 64, 66-89, 174
Pallas 111, 114-116, 128-130, 139, 147
Nysa 140-143
Ceres 149-153
Psyche 159-163
Hebe 171-173, 186.
Flora 180
Julia 185.
Iris 194, 5, 6, 7, 8, 9.

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Thursday, June 25, 1914.

Estimates

3 10 Provisional ~~Measures~~ of Magnitudes
of s Ursae Majoris [This page not to be used].

~~AC~~ MC 3286
13.3

AC 2539
n.s. t. visible
< 14.7

AC 2475
n.s. u visible
< 14.6

AC 2508
n.s < 13.3

AC 2689
9.7

3 00

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1914phae..proj.1158R

Friday, June 26, 1914.

$11^h\ 40^m$ Estimates of Magnitudes of s Ursae Majoris.

AC 3610
11.2
difficult

AC 4340
11.5

AC 3523
11.0

AC 3542
12.6

AC 3900
9.8

AC 4591
11.4 difficult

AC 4199
< 11.0 [star near
f and g brighter than
usual : p
g

AC 3500
10.7

AC 4654
m.s < 13.3

AC 4176
Can't see any
companion stars

AC 4460
13.5

AC 3680
12.8

AC 4690
12.5 difficult

AC 4516
12.5

$12^h\ 55^m$

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1914phae.proj.1158R

Friday, June 26, 1914.

$2^h\ 15^m$	AC 4695 n.s < 10.6	AC 5080 11.0 difficult	
	AC 3640 n.s < 11.0	AC 5560 11.8	AC 5178 n.s. < 11.0
	AC 4702 n.s. < 12.8	AC 4898 10.0	AC 5976 9.9
	AC 4782 n.s < 11.0	AC 5584 11.2	AC 5719 11.5
	AC 4789 10.8	AC 5673 11.5	Ac 6029 9.8
	AC 4884 9.8	AC 5571 11.5	AC 5897 9.8
	AC 5602 12.0	AC 5792 10.5	AC 7066 ns < 12.8
	AC 4979 9.8	AC 5621 12.0	AC 6229 ns < 12.5
	AC 5415 n.s < 11.0	AC 5894 9.7	AC 6050 10.7

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1914phae.proj.1158R

Friday, June 26, 1914.

AC 6275
ns < 11.6

AC 6105
11.3

AC 6170
nothing on plate

AC 6348
12.5 difficult

AC 6395
ns < 12.5

AC 6328
13.3
ns < ~~12.8~~

AC 6292
ns < 13.4

AC 6391
$4^h 20^m$ 12.8 very difficult

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1914phae.proj.1158R

Saturday, June 27, 1914.

$9^h\ 15^m$ Estimates of Magnitudes of Ursae Majoris

AC 6525	AC 7376	AC 7594
10.4	10.5	n.s. < 11.0
AC 6949	AC 7403	AC 7436
12.5	9.8	9.4 Diffuse
AC 6457	AC 7418	AC 8048
n.s. < 11.4	9.7	9.4
AC 7217	AC 7385	AC 7462
12.0	10.2	9.4
AC 6414	AC 7452	AC 8205
13.3 Diffuse	9.7	n.s. < 11.0
AC 7273	AC 7392	AC 7545
10.9	9.8	10.5
AC 7381	AC 7459	AC 8371
10.4	9.7	n.s < 12.5
AC 7344	AC 7444	AC 7751
10.5	9.3	n.s < 11.0
AC 6862	AC 7415	AC 8197
Nothing on plate	9.7	n.s < 11.0

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1914phae.proj.1158R

Saturday, June 27, 1914.

AC 8388
13.4 difficult

AC 8207
ns < 12.8

AC 8443
11.8

AC 8460
11.2

AC 8476
10.4

AC 8391
ns < 12.5

AC 8509
10.4

AC 8467 does not come Regin. Should this be 8469?
AC 8467
12.5 difficult

AC 8598
9.7

AC 8504
10.5

AC 8713
ns < 12.5 difficult.

AC 8554
9.4

AC 9281
9.7

AC 8571
9.8

AC 9446
~ 12.8

AC 8640
10.4

AC 9176
9.8

AC 9345
10.1

AC 8646
ns < 10.2

AC 9229
9.8

AC 8690
11.0

AC 9539
12.8 very difficult.

AC 9587
11.4 difficult.

AC 10190
12.6

AC 10223
ns < 10.6

AC 10270
11.2

AC 10293
10.8

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1914phae.proj.1158R

Saturday, June 27, 1914.

AC 10373
10.3

AC 10405
9.8

AC 10460
9.4

AC 10488
9.4

AC 10503
9.7

AC 10531
10.7

AC 10538
10.4

AC 10545
10.6 difficult

AC 10586
11.2

AC 10664
ns < 11.4

AC 11195
9.8

AC 11269
10.8

AC 11313
10.8

AC 11357
11.5

AC 11537
ns < 11.6

$12^h 45^m$

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1914phae.proj.1158R

Monday, June 29, 1914

$9^h\ 10^m$ Estimates of Magnitudes of S Ursae Majoris -

AC 11575 ns < 11.4.	AC 13138 10.4	AC 13075 10.7
AC 11667 10.7	AC 13045 10.8	AC 14890 9.8 difficult
AC 12963 13.0	AC 12408 ns < 11.0	AC 13950 ns < 11.0 difficult
AC 13049 10.6	AC 13097 10.4	AC 14873 9.0
AC 13115 10.0	AC 13524 10.5	AC 13869 ns < 11.4
AC 13184 10.4	AC 13161 9.7	AC 14036 ns < 12.8 difficult
AC 13641 9.7	AC 12905 13.6	AC 14059 ns < 12.8 difficult
AC 13789 9.0 very difficult	AC 13201 10.7	AC 13977 ns < 11.6 difficult
AC 13229 11.5	AC 13675 8.9	AC 13893 ns < 9.0

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1914phae.proj.1158R

Thursday, June 29, 1914.

AC 13989	I 33976	I 33914
ns < 13.4	9.8	not on plate
AC 14820	I 34037	I 34649
10.8	10.4	12.0
AC 14925	I 35996	I 37129
10.4	10.0	9.4
AC 14880	I 37915	I 37996
10.4	not on plate	ns < 12.8
AC 14136	I 37958	I 33947
11.5	ns < 13.3	not on plate
AC 14015	I 38012	I 33977
ns < 10.6	ns < 13.3	9.5
AC 13956	I 37914	I 35995
11.2	11.8	9.8
I 32542	I 35956	I 37953
9.7	9.7	ns < 12.8
I 31813	I 34027	
12h 45m	9.8	
can't find & region		
not on plate		

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1914phae.proj.1158R

Monday, June 29, 1914.

$2^h\ 55^m$

I 34533
12.0

I 35345
ns < 13.4

I 34740
10.1

Stopped here
to select plates

AC 3972
ns < 9.3

AC 4385
12.0

* AC 6471
ns < 9.9

AC 6268
ns < 11.0

AC 6930
ns < 10.2
diffuse

AC 6893
ns < 10.6

AC 6826
ns < 9.9 diffuse
because near edge
9 plate

AC 6706
10.2

AC 6603
9.8

AC 6561
9.6 diffuse

AC 6585
ns < 9.3

AC 6520
10.1

AC 6548
9.7

AC 6439
ns < 10.6

AC 6372
ns < 9.9

AC 6349
ns < 11.6

AC 6322
ns < 12.4

AC 6233
ns < 11.6

AC 5827
9.5

AC 5327
ns < 9.9

AC 5257
ns < 9.0

AC 5233
ns < 9.0
very diffuse &
very near edge

$4^h\ 45^m$

* On all the following plates S Vesae Majoris is very near edge of plate

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1914phae.proj.1158R

Tuesday, June 30, 1914.

$9^h\ 30^m$ Estimates of Magnitudes of S Ursae Majoris

× AC 7837	AC 8410	AC 3486
ns < 9.9	ns < 12.5	10.6
‡ × AC 8510	AC 8602	AC 8586
10.7	ns < 9.9	9.7
AC 3464	AC 3474	AC 8436
10.3	10.0	n.s. < 11.6
AC 7332	AC 3501	AC ~~8199~~ 7778 [is wrong enough?]
10.7	10.8	n.s < 10.2
AC 7440	AC 3598	AC 7716
9.4	ns. < 10.2	n.s < 10.2 difficult
AC 7623	AC 3756	AC 7609
ns. < 9.3	ns < 11.4	n.s < 10.2
AC 7644	AC 4266	AC 7362
ns < 9.6	10.8	9.9 difficult
AC 7968	AC 3832	AC 7630
ns < 9.3 difficult	ns < 9.6	n.s. < 10.6
AC 8314	AC 3561	AC 8199
ns < 9.9	10.9	ns < 10.2

‡ Plate rejected without remark. See p. 30.

× very near edge of plate

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1914phae.proj.1158R

Tuesday, June 30, 1914.

AC 8373
n.s. < 10.6

AC 8531
9.4

AC 3493
ns < 9.6

AC 3700
12.0 difficult

AC 3872
ns < 9.6

AC 3537
11.2

AC 8656
ns < 9.3

AC 8136
11.3

AC 8330
n.s < 12.4

AC 8720
10.8

AC 3850
ns < 11.4

AC 7395
10.4

AC 7633
too difficult

AC 3718
too poor to estimate

AC 7509
too poor to estimate

AC 8472
too poor to estimate

AC 5930
9.8

AC 6042
ns < 9.3 very poor

AC 6171
plate too poor

AC 6300
ns < 9.9

AC 6314
ns < 12.4

AC 6383
ns < 11.0

AC 6458
ns < 9.3
very poor

AC 6560
Images too
faint to estimate

AC 6960
plate fogged

AC 4432
ns. < 11.0

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1914phae.proj.1158R

Tuesday, June 30, 1914.

AC 4491
ns < 12.4

AC 4599
ns < 10.2

AC 4627
from plate

AC 4747
12.5

AC 4783
ns < 10.6

AC 4803
11.2

AC 4863
too faint to estimate

AC 4776
ns < 9.3

AC 4954
9.4

$12^h 45^m$

AC 4691
ns < 10.6

AC 5009
9.8

AC 5049
ns < 10.6

AC 4656
12.0 diffuse

AC 5334
11.1 diffuse

AC 5360
ns < 9.6

AC 4570
ns < 12.5

AC 4451
12.5

AC 6914
ns < 10.2

AC 6470
ns < 10.2

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Tuesday, June 30, 1914.

$2^h\ 15^m$

AC 6208
ns < 11.0

AC 6073
11.2

AC 5852
9.98

AC 5963
9.9

AC 6409
ns < 10.2
difficult

AC 7274
plate fogged

AC 4611
ns < 12.4

AC 4523
ns < 12.8

AC 6287
ns < 11.0

AC 6135
11.5

AC 6536
ns < 9.6
difficult

AC 5876
9.8

AC 5662
11.3

AC 12833
ns < 11.4

AC 12884
ns < 12.5

AC 12896
ns < 11.4

AC 13027
11.8 1

AC 13044
17.3 10.9

AC 13060
10.5

AC 13149
9.5 faint

AC 13513
10.4

AC 13664
9.7 fogged

AC 13695
10.0

AC 13799
9.1

AC 13857
11.5

AC 13900
ns < 10.2

AC 13916
ns < 9.0 poor

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Tuesday, June 30, 1914.

AC 13996
ns. < 9.9

AC 14073
ns < 11.0

AC 14324
Stars too faint
to estimate

AC 14683
ns < 9.3

AC 14787
11.5

AC 14891
10.4

AC 14756
11.5

AC 14452
ns < 10.6

AC 14029
ns < 13.4

AC 13927
ns < 10.6 diffuse

AC 13884
too foggy to estimate

AC 13748
10.0 diffuse

AC 13658
10.0

AC 13225
too faint to estimate

AC 13519
10.7

AC 13705
too poor to estimate

AC 13904
ns < 10.2

AC 14080
ns < 13.4

AC 14848
10.4

AC 14696
ns < 12.5

AC 13894
too poor to
estimate

AC 13674
8.9

AC 13815
11.2

AC 14087
ns < 10.6

AC 13116
10.0

AC 13972
ns < 10.6

AC 13084
10.7

AC 14924
10.0 diffuse

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1914phae.proj.1158R

Wednesday. July 1, 1914.

$9^h\ 10^m$ Estimates of Magnitudes of S Ursae Majoris —

AC 10611 ns < 11.6	AC 12409 ns < 10.2	AC 10480 9.4
AC 10667 ns < 10.2	AC 12590 10.4	AC 10353 10.7
AC 11024 10.1	AC 9301 9.8	AC 10219 ns < 12.8
AC 11332 too faint to estimate	AC 9444 9.7 difficult	AC 9842 10.5
AC 11526 ns < 12.8 very faint	AC 9533 ns < 10.6	AC 9624 ns < 9.6
AC 11569 ns < 12.8 faint	AC 9837 10.1	AC 9422 Too black to see anything
AC 11733 10.8	AC 10008 ns. too poor	AC 9268 Too poor to see regions
AC 11866 ns < 10.2 very faint	AC 10294 11.5	
AC 12319 10.6	AC 10399 9.8	AC 12357 9.8

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Wednesday. July 1, 1914.

AC 11893
Too faint to estimate

AC 11619
ns < 11.4

AC 11511
12.8

AC 10705
ns < 10.2 difficult

AC 10634
ns < 10.2 faint

AC 10687
ns < 10.6

AC 11486
ns < 11.6

AC 11776
9.7

AC 12436
ns < 11.6 difficult

AC 9467
ns < 12.4

AC 9708
9.3 faint

AC 10587
ns < 9.3

AC 9918
9.3

AC 9346
10.7

AC 11624
ns < 9.6 poor

AC 11194
9.8

AC 11539
ns < 10.2 poor

AC 12524
11.0 difficult

AC 10466
9.4

AC 10593
ns < h = 10.2

AC 10606
ns < 11.0

AC 12316
10.8

AC 10000
ns < 11.6

AC ~~10~~ 9560
ns < 12.8 difficult

AC 10296
10.7

AC 9874
region not on plate

AC 9565
region not on plate

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1914phae.proj.1158R

Wednesday. July 1, 1914.

AC 7393
10.0

AC 7218
ns < 10.6

AC 6967
ns < 10.2 faint

AC 6460
ns < 10.6 faint

AC 6405
ns < 11.0

AC 6320
ns < 11.6

AC 6207
ns < 11.6

AC 6058
11.1

AC 5960
10.4

12h 45m

AC 7439
9.8

AC 7499
10.0

AC 7516
10.4

AC 7535
too faint to estimate

AC 7549
ns < 10.6

AC 7580
N1 10.9

AC 7591
ns < 10.2

AC 7643
ns < 10.6

AC 7653
ns < 10.2 difficult

AC 7649
too faint to see region

AC 7628
poor plate

AC 7554
10.8

AC 7530
10.3

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1914phae.proj.1158R

Wednesday, July 1, 1914.

$2^h\ 0^m$

AC 7471
9.8

AC 7409
10.0

AC 6985
ns < 9.6 very poor plate

AC 6491
ns < 11.0

AC 6361
ns < 11.6

AC 6158
ns < 11.0

AC 5929
9.7

AC 5994
10.5

AC 6367
ns < 12.4

AC 6542
10.5

AC 7467
9.8

AC 7523
10.0

AC 7585
ns < 10.2

AC 7664
ns < 11.4 difficult

AC 7566
11.1

AC 7507
9.8

AC 6429
ns < 10.6
very near edge

AC 6094
11.2

AC 7284
10.7

AC 7538
10.4

AC 7342
10.7

AC 5887
9.7

AC 7674
ns < 9.6 faint

AC 6273
ns < 11.6

AC 7636
ns < 11.4

AC 4327
ns < 11.0 faint

AC 3473
10.4

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1914phae.proj.1158R

Wednesday. July 1, 1914.

AC 3555
ns < 11.0

AC 3681
ns < 12.4

AC 3706
ns < 12.5

AC 3588
ns < 10.6
doubtful

AC 3508
ns < 11.0

AC 3720
ns < 11.4

AC 3691
ns < 11.0

AC 4379
ns < 13.8

AC 4501
ns < 11.0

AC 4548
to near edge

AC 4606
ns < 11.4

3h 0m

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1914phae.proj.1158R

Thursday, July 2, 1914.

$9^h\ 0^m$ Estimates of Magnitudes of S Ursae Majoris

AC 4677
ns < 12.5

AC 4790
11.5 definite

AC 4920
9.7

AC 4992
9.8

AC 5093
ns < 11.0

AC 5603
11.3

AC 5769
ns < 11.0

AC 5669
11.5

AC 5031
10.5

$9^h\ 55^m$

AC 4811
10.8

AC 4692
ns < 9.3
very faint

AC 4554
ns < 10.2 poor

AC 4470
ns < 11.0

AC 4273
10.8

AC 4352
11.5

AC 4590
ns < 10.6 poor

AC 4717
ns < 11.6

AC 5188
ns < 11.4

AC 5819
9.8

AC 4933
9.4

AC 4532
ns < 11.6

AC 4625
ns < 12.4

AC 5756
11.5

AC 4940
plate too poor

AC 4447
ns < 12.4

AC 3758
ns plate blurred

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1914phot.proj.-0598

Thursday, July 2, 1914.

$10^h\ 35^m$

AC 10655
ns < 11.0
difficult

AC 9430
12.0

AC 9538
region too indistinct

AC 7687
ns < 10.2

AC 7679
ns < 11.0

AC 11437
ns < 11.6

AC 14757
ns < 11.0

AC 11825
9.5

AC 11507
ns < 12.4

AC 10467
9.8

AC 9286
9.7

AC 8429
ns < 11.0

AC 7773
ns < 10.6

AC 8466
ns < 9.3 very faint

AC 8670
ns < 9.0 very faint

AC 10281
11.2

AC 13532
10.4

AC 7729
ns < 9.3

AC 8241
ns < 12.4 difficult

AC 8540
9.9

AC 9153
10.7

AC 10209
ns < 12.

AC 10604
11.0 difficult

AC 11307
11.3

AC 11586
ns < 9.6 difficult

AC 12143
plate too poor

AC 13765
10.4 difficult

AC 13625
10.0

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1914phae.proj.1158R

Thursday, July 2, 1914.

AC 13043
too faint to estimate

AC 11644
ns < 10.6 diffuse

AC 11555
ns < 11.0

AC 11404
ns < 11.0

AC 11186
10.0 diffuse

AC 10479
9.7

AC 10375
10.4

AC 9553
ns < 12.4

AC 9487
ns < 11.4

AC 9367
11.2

AC 8578
9.7

AC 8502
ns < 10.2

AC 8347
ns < 10.6

AC 8164
ns < 11.4

AC 7713
ns < 9.6

AC 7683
too faint to estimate

AC 7685
ns < 9.6 very faint

AC 7699
ns < 10.2 faint

AC 7760
ns < 9.9 diffuse

AC 8179
ns < 11.0

AC 8296
ns < 12.0

AC 8352
too faint to estimate

AC 8486
ns < 11.0

AC 8533
9.8

AC 8615
9.7

AC 8725
ns < 10.2

AC 9250
9.7 diffuse

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1914phae.proj.1158R

AC 9329
10.7

AC 9434
ns < 12.5

AC 9449
Too indistinct
to estimate

AC 9544
ns < 11.6

AC 9592
ns < 11.0

AC 10364
10.4

AC 10413
10.3

AC 10567
ns < 10.2

AC 10630
ns < 11.0

12h 30m

AC 11281
* 10.8

AC 11353
too indistinct to
estimate

AC 11466
ns < 11.0
difficult

AC 11516
ns < 11.6

AC 11591
ns < 13.4

AC 11650
ns < 9.3
very faint

AC 12373
ns < 10.6

AC 13520
10.5

AC 13676
8.9 very doubtful
stars very faint

AC 13728
10.4

AC 13696
10.2

AC 9241
nothing on plate

~~AC~~
MC 3268
13.7

~~AC~~
MC 5314
8.9 F.C.

MC 5091
8.8

MC 3241
ns < 11.4

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1914phae.proj.1158R

Thursday. July 2, 1914.

MC 3264
13.6 diffuse

M□ 3213
ns < 13.4 diffuse

M□ 3241
ns < 13.3 diffuse

M□ 3286 4926
~~12.4~~ 12.4 unresolved object

M□ 4928
9.8

I 17812
13.0

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1914phae.proj.1158R

Friday, July 3, 1914.

Estimates of Magnitudes of S Ursae Majoris

MC 5166
9.8 difficult
p.c

MC 5171
13.6

MC 5476
10.2 difficult

MC 5186
9.8

MC 4928
9.9

MD 3264 wrong object
11.7

MD 5624
12.0

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1914phae.proj.1158R

Tuesday, July 7, 1914 –

$9^h\ 15^m$ Second Estimates of Magnitudes of S Ursae Majoris – South End Up –

AC 7332
10.7

AC 9708
9.2 difficult

AC 10667
ns < 9.3

AC 7440
9.4

AC 9467
ns < 12.4

AC 10611
ns < 11.6

AC 3464
9.8 difficult

AC 12436
ns < 11.0

AC 12524
ns < 10.6

Plate rejected without remark. cent.

AC 8510
10.7 very near edge

AC 12590
10.3

AC 12316
10.8

AC 11194
9.8

AC 12319
10.8

AC 9565
too difficult & near edge

AC 11624
ns < 10.2

AC 11569
ns < 11.6

AC 10296
10.9

AC 9346
~~9~~ 10.8

AC 11526
ns < 11.0

AC 9874
too near edge

AC 9918
11.5 difficult

AC 11332
ns < 10.2 difficult

AC 9560
8.9

AC 10587
ns < 9.3

AC 11024
10.3

AC 10000
ns < 11.6

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1914phae.proj.1158R

Tuesday, July 7, 1914.

AC 10606	AC 5334	AC 4783
ns < 11.0	ns < 11.0	ns < 10.6
AC 10593	AC 4657	AC 4747
ns < 10.6	12.5	ns < 12.5
AC 10466	AC 5049	AC 4627
9.5	ns < 9.6	blurred
AC 11539	AC 5009	AC 4599
ns < 12.4	9.8	ns < 9.9
AC 6470	AC 4691	AC 4491
ns < 10.2	ns < 10.6	ns < 11.4
AC 6914	AC 4924	AC 4432
ns < 10.2	9.4	ns < 11.6
AC 4451	AC 4776	AC 6960
12.0	ns < 9.6	too poor to estimate
AC 4570	AC 4863	AC 6560
ns < 12.5	too faint	too poor to estimate
AC 5360	AC 4803	AC 6458
ns < 9.3	11.2	ns < 9.3 faint
very faint		

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1914phae.proj.1158R

Tuesday, July 7, 1914

AC 6383
ns < 11.4

AC 6314
ns < 12.4

AC 6300
ns < 9.9

AC 6171
too poor

AC 6042
ns < 9.6
very faint

AC 5930
9.8

AC 7630
ns < 10.6

AC 7362
ns < 9.6

AC 7609
ns < 10.6

AC 7716
ns < 9.6

AC 8436
ns < 11.6

AC 8586
9.7

AC 3486
ns < 10.6

AC 3561
ns < 11.4

AC 3832
ns < 9.3

AC 4266
10.7

AC 3757
ns < 11.0

AC 3598
ns < 10.2

AC 3501
10.8

AC 3474
10.3

AC 8602
ns < 9.6
very poor

AC 8410
ns < 11.6

AC 8314
ns < 10.6

AC 13956
ns < 11.0

AC 7968
too poor

AC 7644
ns < 9.6

AC 7623
ns < 9.6 difficult

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1914phae.proj.1158R

AC 9268
Too poor to estimate

AC 12357
9.8

AC 9422
nothing on plate

AC 9842
10.7

AC 10219
ns < 11.6

AC 10353
10.7

AC 10480
9.7

AC 10399
9.8 difficult

AC 10294
12.0

AC 10008
Too faint to see region

AC 12409
ns < 10.6

AC 9837
10.0

AC 9533
ns < 10.6

AC 9444
Too difficult

AC 9301
99 very difficult

AC 11733
10.8

AC 11866
ns < 10.2

AC 14683
ns < 9.3 poor

AC 14324
Too poor to estimate

AC 14073
ns < 11.0

AC 13996
ns < 10.6

AC 13916
Too poor to estimate

AC 4790
11.5

AC 4677
ns < 12.5

AC 4606
ns < 12.5

AC 4548
ns < 11.0

AC 4501
ns < 10.6

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1914phae.proj.1158R

Tuesday, July 7, 1914

AC 4379 ns < 12.5	AC 4327 ns < 10.6	AC 9624 ns < 9.9
AC 3691 ns < 10.6	AC 11776 9.8	AC 13900 ns < 10.2
AC 3720 ns < 12.5	AC 11486 ns < 11.0	AC 13857 11.8
AC 3508 ns < 10.6	AC 10687 ns < 10.6	AC 13799 too poor to estimate
AC 3588 too poor to estimate	AC 10634 ns < 10.6 diffuse	AC 13695 9.8
AC 3706 ns < 12.5	AC 10705 ns < 10.2	AC 13664 9.7 diffuse
AC 3681 ns < 11.6	AC 11511 12.9	AC 13513 10.0
AC 3555 ns < 11.0	AC 11619 ns < 11.6	AC 13149 ns < 9.3 faint
AC 3473 10.3	AC 11893 too poor to estimate	AC 13044 10.9

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1914phae.proj.1158R

Tuesday, July 7, 1914

AC 13027 11.2	AC 14087 ns < 11.6	AC 13519 10.8
AC 13060 10.7	AC 13815 10.9	AC 13225 too poor to estimate
AC 12896 ns < 11.6	AC 13674 8.9	AC 13656 10.3 diffuse?
AC 12884 ns < 12.8	AC 14696 ? too poor to estimate.	AC 13748 10.4
AC 12833 ns < 11.0	AC 14696 ns < 12.5	AC 13584 too diffuse?
AC 14924 10.4	AC 14848 10.8	AC 14829 ns < 12.4
AC 13084 10.8	AC 14080 ns < 12.5	AC 13927 ns – too diffuse to estimate
AC 13972 ns < 10.6	AC 13904 ns < 10.2	AC 14452 ns < 10.2
AC 13116 10.3	AC 13705 too poor to estimate	AC 14756 11.4

12h 45m

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1914phae.proj.1158R

Tuesday, July 7, 1914

$2^h\ 45^m$	AC 14891	AC 4352	AC 5203
	10.5	11.5	11.3
	AC 14787	AC 4273	AC 5093
	ns < 11.0	10.8	ns < 10.6
	AC 13950	AC 4470	AC 4992
	ns < 10.2	ns < 11.0	9.8
	AC 14890	AC 4554	AC 4920
	10.2	ns < 10.2	9.7
	AC 13075	AC 4692	AC 14015
	10.3	too diffuse	ns < 10.2
	AC 13675	AC 4811	AC 8533
	8.8	10.9	9.8
	AC 5188	AC 5031	AC 8486
	ns < 11.0	10.4	11.0
	AC 4717	AC 5069	AC 8352
	ns < 11.6	11.5	too poor
	AC 4590	AC 5769	AC 8291
	ns < 9.9 faint	ns < 10.6	ns < 11.4

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1914phae.proj.1158R

Tuesday, July 7 1914

AC 8179
ns. < 11.4

AC 7765
ns < 9.9

AC 7699
ns < 9.9

AC 7685
ns < 9.3

AC 7683
ns < 9.3 faint

AC 7713
ns < 9.6

AC 8164
ns. < 11.0

AC 8347
ns < 10.6 diffuse

AC 8502
ns < 10.6

AC 8578
9.5

AC 9367
11.2

AC 9487
ns < 11.6

AC 9553
ns < 12.4
diffuse.

AC 10375
10.5

AC 10479
9.7

AC 13696
10.3

~~AC~~

AC 13728
10.3

AC 13676
8.8

AC 13520
10.5

AC 12373
ns < 10.6

AC 11650
too faint to estimate

AC 11591
ns < 12.8

AC 11516
ns < 11.6

AC 11466
ns < 11.0

AC 11353
too faint to estimate

AC 11281
too near edge to obtain accurate estimates

AC 10630
ns < 11.0

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1914phae.proj.1158R

Tuesday, July 7, 1914.

AC 10567
ns < 10.2

AC 10413
10.4

AC 10364
10.4

AC 9592
ns < 10.2

AC 9544
ns < 12.5
diffuse

AC 9449
too near edge

AC 9434
ns < 12.5

AC 9329
10.5

AC 9250
9.7

AC 8925
ns < 10.2

AC 8615
9.8

3h 58m

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1914phae.proj.1158R

Wednesday, July 8, 1914.

$9^h\ 25^m$ Estimates of Magnitudes of S Ursae Majoris

AC 8640	AC 8509	AC 8371
10.4	10.4	ns < 12.5
AC 9446	AC 8391	AC 7545
ns < 12.4	ns < 11.4	10.5
AC 8571	AC 8476	AC 8205
9.5	10.9	ns < 11.4
AC 9281	AC 8460	AC 7462
9.8	11.1	9.7
AC 8554	AC 8443	AC 8048
9.5	11.9	9.4
AC 8713	AC 8207	AC 7436
ns < 10.2	ns < 12.5	9.6
AC 8504	AC 8388	AC 7594
10.7	ns < 12.8	ns < 11.0
AC 8598	AC 8197	AC 7415
9.7	10.6	9.8
AC 8469	AC 7751	AC 7475
ns < 11.4	ns < 11.0	9.5

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1914phae.proj.1158R

Wednesday, July 8, 1914

AC 7444	AC 7344	AC 3972
9.4	10.7	too far on a plate
AC 7459	AC 7381	AC 8690
9.5	10.4	10.9
AC 7392	AC 7273	AC 9229
9.8	10.8	9.7
AC 7452	AC 6414	AC 8646
9.7	ns < 11.4	ns < 10.6
AC 7385	AC 7217	AC 9345
9.8	12.1	10.4
AC 7418	AC 6457	AC 9176
9.6	ns < 11.6	9.8
AC 7403	AC 6949	AC 14136
9.8	ns < 12.5	ns < 11.4
AC 7376	AC 6525	AC 14880
10.3	10.4	10.5
AC 6862	AC 4385	AC 14925
nothing on plate	12.0	10.4

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1914phae.proj.1158R

Wednesday, July 8, 1914

AC 14820 10.8	AC 6273 ns < 11.6	AC 5756 11.5
AC 13989 ns < 12.5	AC 7674 ns < 9.6	AC 4625 ns < 12.4
AC 13893 too poor to estimate	AC 5887 9.8	AC 4532 ns < 11.6
AC 13977 ns < 11.6	AC 7342 10.8	AC 4933 9.4
AC 14059 ns < 12.4	AC 7538 10.5 difficult	AC 5819 9.8
AC 14036 ns < 13.3	AC 7284 10.8	AC 13281 10.8
AC 13869 ns < 11.0	AC 3758 ns < 10.2	AC 12905 13.4 difficult
AC 14873 9.1	AC 4447 ns < 11.6	AC 13161 9.7
AC 7636 11.5	AC 4940 plate too poor	AC 13524 10.5

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1914phae.proj.1158R

Wednesday, July 8, 1914

AC 13097 11.3	AC 13049 10.5	AC 10664 ns < 11.4
AC 12408 ns < 11.0	AC 12963 12.7	AC 10586 ns < 11.6 diffuse
AC 13045 10.8	AC 11667 10.8	AC 10545 ns < 11.0
AC 13138 9.8	AC 11585 ns < 11.4 diffuse	AC 10538 10.4
AC 13229 ns < 11.6	AC 11537 ns < 11.6	AC 10531 10.3
AC 13789 too diffuse	AC 11357 12.0	AC 10516 too diffuse
AC 13641 9.8	AC 11313 10.8	AC 10503 9.5
AC 13184 10.4	AC 11269 10.5	AC 10488 9.8
AC 13115 10.3	AC 11195 9.8	AC 10460 9.4

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1914phae.proj.1158R

Wednesday, July 8, 1914

AC10405
9.8

AC10373
10.4

AC10293
10.8

AC10270
11.4

AC10223
ns < 11.0

AC10190
12.6

AC9587
ns < 11.0

AC9539
ns < 11.4 faint

AC7499
9.8

AC7530
10.4

AC7554
10.5

AC7628
too indistinct
to estimate

AC7649
too faint

AC7653
ns < 10.6

AC7643
ns < 10.6

AC7591
ns < 10.2

AC7580
10.9

AC7549
11.0 diffuse

AC7535
too poor

AC7516
10.3

AC6094
11.3

AC6429
ns < 10.6

AC7507
9.8

AC7566
11.0

AC7664
ns < 10.2

AC7585
ns < 10.2

AC7523
10.3

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1914phae.proj.1158R

Wednesday. July 8, 1914

AC7467
9.8

AC7409
9.8

AC6542
10.4

AC7471
9.8

AC6367
ns < 11.6

AC5994
10.4

AC5929
9.7

AC6158
ns < 11.0

AC6361
ns < 11.6

AC6491
ns < 10.6

AC6985
ns < 9.6

12h 45m

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1914phae.proj.1158R

Wednesday, July 8, 1914

$2^h\ 45^m$

AC 6170
rolling on plate

AC 6105
11.2

AC 6275
ns < 11.6

AC 6050
10.8

AC 6209
ns < 12.5

AC 7066
ns < 12.5

AC 5897
9.8

AC 6029
9.9 dy just

AC 5719
11.5

AC 5976
10.4

AC 5978
ns < 10.6

AC 5874
9.7

AC 5621
12.1

AC 8472
plate too poor

AC 7395
10.3

AC 7509
plate too poor

AC 7633
plate too poor

AC 3718
plate too poor

AC 3850
ns < 11.4

AC 8720
10.7

AC 8330
ns < 11.6

AC 8136
11.4

AC 8658
plate too poor

AC 3537
11.7

AC 3872
ns - very faint images

AC 3700
12.2

AC 3493
ns < 10.6

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1914phae.proj.1158R

Wednesday, July 8, 1914

AC 8531	AC 6460	AC 5560
9.2	ns < 10.6	11.5
AC 8373	AC 6967	AC 5780
ns < 11.6	ns < 10.6	ns < 10.6
AC 8199	AC 7218	AC 5415
ns < 10.6	ns < 11.6.	ns < 11.4
AC 7439	AC 7393	AC 4979
9.7	10.3	9.7
AC 3960	AC 3792	AC 5602
10.3	10.5	12.0
AC 6058	AC 5571	AC 4884
11.0	11.5	10.3
AC 6207	AC 5623	AC 4199
ns < 11.6	11.5	ns < 11.0
AC 6320	AC 5584	AC 4789
ns < 11.6	10.9 faint	10.8
AC 6405	AC 4898	AC 4782
ns < 10.6	~~region not on plate~~ 10.0	ns < 11.6 diffuse

$4^h 0^m$

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1914phae.proj.1158R

Thursday, July 9, 1914.

$9^h\ 0^m$ Estimates of Magnitudes of S Ursae Majoris

AC 7778	AC 11644	AC 9153
plate too poor	ns < 10.6	10.4
AC 6391	AC 13043	AC 8540
ns < 12.5	plate too poor	10.1
AC 6328	AC 13625	AC 8241
ns < 12.8	10.0	ns < 12.5
AC 6292	AC 13765	AC 7729
ns < 11.0	10.4 difficult	ns < 9.6
AC 6395	AC 12143	AC 13532
ns < 12.4	plate too poor	10.6
AC 6348	AC 11566	AC 10281
ns < 12.5	ns < 10.6 difficult	10.9
AC 11106	AC 11307	AC 8670
9.9	11.2	plate too poor
AC 11404	AC 10604	AC 7773
ns < 11.0	ns < 11.0	ns < 11.0
AC 11555	AC 10209	AC 8466
ns < 11.0	ns < 10.6	plate too poor

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1914phae.proj.1158R

Thursday, July 9, 1914

AC 8429	AC 9538	AC 3500
ns < 11.0	plate too poor	10.7
AC 9286	AC 9430	AC 4591
9.7	11.8	10.6
AC 10467	AC 10655	AC 3547
9.8	ns < 11.0	11.5
AC 11507	AC 4782	AC 4340
ns < 12.4	ns < 12.4	10.9
AC 11825	AC 3640	AC 4516
9.7	ns < 11.0	ns < 12.4
AC 14757	AC 4695	AC 3680
ns < 11.0	ns < 10.2	ns < 12.5
AC 11437	AC 4690	AC 3621
ns < 11.6	ns < 11.0	F plate
AC 7679	AC 4460	AC 4176
10.8	ns < 12.5	plate too poor
AC 7687	AC 4654	AC 3900
ns < 10.2	ns < 12.5	9.9

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1914phaa.proj.11583

AC 3523
10.9
Isochromatic

AC 3610
ns < 11.0

AC 3476
nothing on plate

*I 33976
9.8

I 31813
region not on plate

AC 32542
9.8

I 38012
~~plate too poor~~
ns < 12.8

AC
I 37958
ns < 12.8

I 37915
not on plate

I 35996
10.0

I 34037
10.3

I 37914
11.8

I 35957
9.5

I 34027
9.4

I 33914
not on plate

I 34649
11.9

I 37129
9.4

I 37996
ns < 12.8

I 33947
not on plate

I 37953
ns < 12.8

I 35345
ns < 13.4

I 35995
9.8

I 34533
13.4

I 33977
9.4

I 34740
9.9

AC 3213
11.6

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1914phae.proj.1158R

Thursday. July 9, 1914

~~AC~~ MC5166
10.4

MC5771
13.5

MC5476
10.5

MC5186
10.1

MC4928
10.3

M☐3264 wrong object
11.6 difficult

M☐5314
irregular
8.9

MC3286
13.5

MC5091
irregular
8.9

MC3241
11.7 difficult

MC3264
13.5

M☐3213 wrong object
10.4

M☐3241 wrong object
10.5

M☐3286 wrong object
10.4

M☐4928
10.6

M☐5624
12.2

AC5762
11.5

AC6287
ns < 11.0

AC6135
11.7

AC6536
ns < 9.9

AC5876
9.5 difficult

AC4523
ns < 11.6

AC4611
ns < 11.0

AC7274
nothing on plate

AC6409
ns < 10.2

AC5963
9.8

AC5852
9.7

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1914phae.proj.1158R

Thursday, July 9, 1914

AC6073

11.1

AC6208

ns < 11.0

A

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1914phae.proj.1158R

Thursday, July 9, 1914.

Third Estimates of Plates with [Widely Differing / Discordant] Values

AC 10531
10.3

AC 13513 /
9.7 10.5

AC 10281 /
9 11.8 2

AC 7475
9.7

AC 10480
9.4

AC 9153
10.7

AC 7385
10.3

AC 10294
11.5

AC 4591
10.4

AC 9345
10.3

AC 4451
12.0

AC 3542
11.5

AC 9918
11.4

AC 4656 /
11.6

AC 4340
11.2 10.8

AC 8571
9.4

AC 3464
10.3

I 34027
9.7

AC 8469
11.5

AC 7523
10.1

I 34533
13.4

AC 8476
10.8

AC 7393
10.3

MC 5166
9.8

AC 3537
11.1

AC 3474
10.4

MC 5476
10.4

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1914phae.proj.1158R

Thursday, July 9, 1914

MC 5186
9.5 dupl

MD 4928
9.7 9.8

MC
MD 4928
9.5

MD 3286
12.4 dupl
wrong object

MC 5186
9.5

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1914phae.proj.1158R

Friday, July 10, 1914

Third Estimates of Plates Giving Widely Differing Values of Magnitudes of Ursae Majoris

AC 10586	AC 11624	AC 8373
11.4	ns < 10.2	ns < 10.6
AC 10545	AC 13989	AC 3493
10.4	ns < 13.4	ns < 10.2
AC 8296	AC 7462	AC 7218
ns < 11.4	9.5	ns < 10.6
AC 4590	AC 4523	AC 7664
ns < 10.2	ns < 12.8	ns < 10.6
AC 6414	AC 4611	AC 5049
ns < 11.6	ns < 12.5	ns < 9.9
AC 12436	AC 11536	AC 11539
ns < 11.4	ns < 9.9	ns < 11.6
AC 11539	AC 6292	AC 8410
ns < 11.6	ns < 11.4	ns < 11.6
AC 11526	AC 10219	AC 3561
ns < 11.0	ns < 11.6	ns < 11.4

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1914phae.proj.1158R

Friday, July 10, 1914

AC 4491	AC 13115	AC 13116
ns < 11.6	10.4	10.2
AC 4432	AC 12963	AC 14087
ns < 11.6	12.8	ns < 10.6
AC 7716	AC 11357	AC 13815
ns < 9.6	12.2	10.9
AC 7554	AC 3720	AC 14848
10.8	ns < 11.6	10.5
AC 4702	AC 11486	AC 14080
ns < 12.5	ns < 11.4	ns < 12.5
AC 4690	AC 13857	AC 13748
ns < 11.0	11.5	10.3
AC 10488	AC 13996	AC 4884
9.8	ns < 10.6	10.4
AC 13097	AC 4606	AC 4782
10.5	ns < 11.6	ns < 11.0
AC 13138	AC 14924	AC 11591
9.8	10.3	ns < 13.3

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1914phae.proj.1158R

Friday, July 10, 1914.

AC 11353
plate too poor

AC 9592
ns < 11.0

AC 9544
ns < 12.5

AC 14890
10.4

AC 13075
10.7

AC 9560
8.9

M 3241
10.4

M 3213
10.5

I 38012
ns < 13.3

I 37958
~~380~~
ns < 13.3

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1914phae.proj.1158R

Monday. July 13, 1914.

MD 3264
ns < 13.4

MD 3286
13.3
In these two cases
wrong object used previously

AC 3610
11.6

AC 4460
ns < 12.5

AC 5334
ns < 11.0

AC 8199
ns < 11.0

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Monday. Oct. 25, 1915

AM ~~6319~~ Series C 9.

Scale N AM 6319

	Sc B	Sc C
5 = 1	4.5	
8 = 2	6.3	
·	~~3 4.0~~	
11 = 4	F	
9 = 5	7.8	
	~~6~~	
	~~7 F~~	
7 = 8	6.8	
	~~9 F~~	
	~~10~~	
	1 4.3	
	2 4.8	
	3 4.5	
	4 5.3	
	6 6.5	
	8a 7.9	
	10 8.5	
	14 F	
	15	
	16	
	17	
	18	
	20	

These measures were taken for practise — glass side up —

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1914phae.proj.1158R

Monday. Oct. 25, 1915

AM Series C9 Comparison Stars for +18° 3186.

Scale N AM 8445

	ScB	ScC	Mean	Wedge	Diff		ScB	ScC	Mean	Curve	Wedge
3	4.2	3.8	4 3.90	1	7.04 3.14	a	4.2	3.8	4.2 4.00	± 2	3.22 7.22
4	5.7	5.3	5.0 5.25	1 ±	7.82 2.67	b	~~3.5~~ 4.8	4.4	4.8 4.60	± 2	2.95 7.55
5	6.0	5.6	5.5 5.55	0	8.06 2.51	c	6.0	5.6	5.3 5.45	2	2.59 8.04
6	6.7	6.3	6.0 6.15	1 ±	8.47 2.32	d	~~5.3~~ ~~5.5~~	4.9	5.1 5.00	1	2.78 7.78
7	7.2	6.8	6 5.8 6.80	0 0	9.04 2.24	e	6.2	~~5.8~~	5.5 5.65	2	2.54 8.19
8a	7.8	7.4	7.2 7.30	1	9.68 2.38	f	7.2	6.8	6.8 6.80	0 0	2.27 9.07
9	8.2	7.8	8.0 7.90	1	10.09 2.19	g	7.8	7.4	7.0 7.20	2 ±	2.23 9.43
10	8.5	8.1	8.3 8.20	1	10.66 2.46	h	8.5	8.1	8.5 8.30	± 2	2.28 10.58
14	9.0	8.6	8.5 8.55	0	10.79 2.24		F		8.8 8.80		2.32 11.12
15	F		9.0 9.00	11.13	2.13	j			9.5 9.5		2.55 12.05
16			9.4 9.40	11.60	2.20						
17			9.3 9.30	11.83	2.53						
18			9.6 9.60	12.41	2.81						

	Mean	Wedge	Diff	Curve	Wedge
a	4.00	7.62	3.62	3.83	7.83
b	4.60	8.06	3.46	3.62	8.22
c	5.45	8.86	3.41	3.34	8.79
d	5.00	8.77	3.77	3.48	8.48
e	5.65	9.15	3.50	3.28	8.93
f	6.80	9.44	2.64	2.88	9.68
g	7.20	10.10	2.90	2.77	9.97
h	8.30	10.78	2.48	2.49	10.79
i	8.80	11.08	2.28	2.32	11.12
j	9.50	11.62	2.12	2.13	11.63

Final means f.60

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1914phae.proj.1158R

Monday, Oct. 25, 1915

All Series C 9 – Readings for Practice

Scale N AM 6319

	Sc B	Sc C
3	B 3.2	B
4	4.2	4.2
5	4.2	4.2
6	5.6	5.0
7	6.3	6.0
8a	6.5	6.5
9	8.5	7.8
10	F	
14	F	
15		
16		
17		
18		

	AM 6445	AC 11561 + AC 12559 (Two exp)	AM 6319	Adopted Wavelength
a	7.83	7.62	7.73	7.73 0 11 10
b	8.22	8.06	7.93	8.07 14 1 15
c	8.79	8.86	8.78	8.81 3 5 2
d	8.48	8.77	8.93	8.73 20 4 25
e	8.93	9.15	9.08	9.05 3 10 12
f	9.68	9.44	9.66	9.59 7 15 9
g	9.97	10.10	9.80	9.96 16 14 1
h	10.79	10.78	10.72	10.76 4 2 3
i	11.12	11.08	11.14	11.11 3 3 1
j	11.62	11.62	F	11.62 – 0 1

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Tuesday, Oct 26, 1915

AM Series C9 Comparison Stars for +18° 3186

Scale N AM 6319

	ScB		ScC	mean	wagn.	Diff.
3	3.3	2.9	B	2.9	7.04	4.14 a
4	3.8	3.4	Ba 4.0	3.70	3 3 7.82	4.12 b
5	4.4	4.0	4.2	4.10	1 1 8.06	3.96 c
6	4.5	5.1	5.0	5.05	1 0 8.47	3.42 d
7	6.2	5.8	5.8	5.80	0 0 9.04	3.24 e
8a	7.2	6.8	7.5	6.65	2 1 9.68	3.03 f
9	7.5	7.1	6.8	6.95	1 2 10.09	3.14 g
10	7.8	7.4	7.1	7.60	2 2 10.66	3.06 h
14	8.9	8.5	8.8	8.65	1 2 10.79	2.14 i
15	F		9.6	9.6	11.13	1.53 j
16			9.8	9.8	11.60	1.80
17			F		11.83	
18			F		12.41	

	ScB		ScC	mean	curve	wagn.
	5.2	4.8	4.3	4.65	2 3	3.72 8.37
	5.5	5.1	4.8	4.95	1 2	3.62 8.57
	6.5	6.1	6.0	6.05	1 0	3.35 9.40
	6.5	6.1	6.4	6.25	1 2	3.30 9.55
	6.8	6.4	6.5	6.45	0 1	3.25 9.70
	7.5	7.1	7.2	7.15	1 0	3.03 10.18
	7.7	7.3	7.3	7.30	0 0	2.95 10.25
	8.8	8.4	8.5	8.40	0 1	2.34 10.74
	F		8.9	8.9		2.05 10.95
	F		F			

	mean	wagn	Diff	curve	wagn
a	4.65	7.62	2.97	~~3.61~~ 3.08	7.73
b	4.95	8.06	3.11	~~3.5~~ 2.98	7.93
c	6.05	8.86	2.81	2.73	8.78
d	6.25	8.77	2.52	2.68	8.93
e	6.45	9.15	2.70	2.63	9.08
f	7.15	9.44	2.29	2.51	9.66
g	7.30	10.10	2.80	2.50	9.80
h	8.40	10.78	2.38	2.32	10.72
i	8.90	11.08	2.18	2.24	11.14
j	F	11.62		F	F

Final means 7.60

* Wrong star used at first it was supposed. No another was used, but original star was correct one

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Tuesday, Oct. 26, 1915

AC Series C 9 Comparison Stars f. +18°3186

Scale N AC 12559

	ScB	ScC		mean	wt.	Diff	ScB	ScC		mean	Curve	wt.	
3	4.3	3.9	4.5	4.30	± 2	7.04	2.74	a	5.0	4.6	4.7	4.65	0 1	2.92	7.57
4	5.2	4.8	4.8 5.2	4.80	0 0	7.82	3.02	b	5.5	5.1	5.2	5.15	± 0	2.90	8.05
5	5.5	5.1	5.3	5.20	± 1	8.06	2.86	c	6.8	6.4	6.1	6.25	2 ±	2.57	8.82
6	6.3	5.9	5.8 5.1	5.85	1 0	8.47	2.62	d	6.5	6.1	5.9	6.00	1 ±	2.62	8.62
7	7.2	6.8	6.5	6.65	2 ±	9.04	2.39	e	7.2	6.8	6.5	6.65	2 ±	2.50	9.15
8a	7.6	7.2	7.2	7.20	0 0	9.68	2.48	f	7.3	6.9	6.8	6.85	1 0	2.46	9.31
9	8.1	7.7	8.0	7.85	± 2	10.09	2.24	g	8.2	7.8	7.5	7.65	2 ±	2.40	10.05
10	8.5	8.1	8.2	8.15	± 0	10.66	2.51	h	8.5	8.1	8.2	8.15	± 0	2.39	10.54
14	*9.0	8.6	8.5	8.55	0 ±	10.79	2.24	i	8.8	8.4	8.5	8.45	0 1	2.43	10.88
15	F		8.5	8.5		11.13	2.63	j	F		9.0	9.0		2.47	11.47
16			9.2	9.2		11.60	2.40								
17			9.3	9.3		11.83	2.53								
18			F			12.41									

Final means f. 60

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1914phae.proj.1158R

Tuesday. Oct. 26, 1915

AC Series C 9 Comparison Stars for +18°3186.

Scale N AC 11561

	ScB		ScC	mean	mag	Diff	ScB	ScC	mean	mean	Curve	mag
3	4.8	4.4	4.1	4.25	2	7.04 2.79 a	5.5	5.1	5.2	5.15	1 0	2.52 7.67
4	5.5	5.5	5.5	5.50	0	7.82 2.32 b	6.2	5.8	5.6	5.70	1 1	2.37 8.07
5	~~6.2~~ 5.9	5.5	5.7	5.60	1	8.06 2.46 c	7.4	7.0	6.6	6.80	2 2	2.09 8.89
6	7.0	6.6	6.2	6.40	2	8.47 2.07 d	7.3	6.9	6.8	6.85	1 0	2.07 8.92
7	7.1	6.7	7.0	6.85	1	9.04 2.19 e	7.5	7.1	7.2	7.15	1 0	2.00 9.15
8a	8.2	7.8	7.7	7.75	0	9.68 1.93 f	8.3	7.9	7.5	7.70	2 2	1.87 9.57
9	8.8	8.4	8.2	8.30	1	10.09 1.79 g	8.8	8.4	8.4	8.40	0 0	1.74 10.14
10	F		8.9	8.9		10.66 1.76 h	F		9.3	9.3		1.73 11.03
14			9.2	9.2		10.79 1.59 i			9.5	9.5		1.78 11.28
15			9.4	9.4		11.13 1.73 j			9.9	9.9		1.87 11.77
16			9.5	9.5		11.60 2.10						
17						11.83						
18						12.41						

Final means p. 60

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Wednesday, October 27, 1915

Estimates of Magnitudes of Variable B.D. +18° 3186

AC 6319
10.9

AC 11561
11.4

AC 12559
11.2

AM 8445
10.2

AC 9548
ns < 10.8

AC 10527
10.4

AC 11657
11.5

AM 4870
11.4

AM 4887
10.9

AM 4927
10.6

AM 4969
10.9

AM 4989
11.3

AM 5038
11.3

AM 5097
Dept in plate makes
it impossible to measure

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Wednesday, October 27, 1915

Comparison Stars for + 18° 3186.

		ScB	ScC		Mean	Mag	Diff	Curve	Mean
	AC 12559								
f		7.3	~~7.2~~ 6.9	7.1	7.00	1	9.59	2.59	
g		7.6	7.2	7.2	7.20	00	9.96	2.76	
g'		7.9	7.5	7.3	7.40	1		2.63	10.03
h		8.4	8.0	8.4	8.20	2	10.76	2.56	
	AC 11561								
		ScB		ScC					
f		7.8	7.4	7.4	7.40	00	9.59	2.19	
g		8.2	7.8	7.6	7.70	1	9.96	2.26	
g'		8.4	8.0	7.8	7.90	1		2.10	10.00
h		F		9.0	9.00		10.76	1.76	
	AC 10527								
f		7.6	7.2	7.3	7.25	01	9.59	2.34	
g		8.0	7.6	7.4	7.50	1	9.96	2.46	
g'		8.2	7.8	7.8	7.80	00		2.27	10.07
h		F		8.8	8.80		10.76	1.96	
	AC 11909								
f		8.8	8.4	7.9	8.15	2	9.59	1.44	
g		F		8.4	8.40		9.96	1.56	
g'				8.7	8.70			1.52	10.22
h				9.2	9.20		10.76	1.56	

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Wednesday, Oct. 27, 1915

Estimates of Magnitudes of Variable B.D. +18°3186

AM 4927	AM 5581	AM 6229
10.5	11.3	10.0
AM 8445	AM 5600	AM 6244
10.1	11.5	11.3
AC 10527	AM 5707	AM 6282
10.4	11.3	11.4
AC 11909	AM 6057	AM 6431
11.3	10.2	11.3
AM 5106	AM 6383	AM 9484
10.9	11.0	Plate too poor
AM 5359	AM 6014	AM 9449
11.4	10.9	10.3
AM 5414	AM 6106	AM 9485
10.3	10.7	Plate too poor
AM 5428	AM 6153	AC (?) AM 11875 C
11.2	9.4	Plate too poor
AM 5528	AM 6217	AC 12376
11.3	11.4	ms 10.8

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Wednesday, Oct. 29, 1913

Estimates of Magnitudes of Variable B.D. +18°3186

AM 3421	AM 3821	AM 4366
9.4	11.2	11.3
AM 3442	AM 3889	AM 4454
10.5	9.7	11.1
AM 3462	AM 4157	AM 4485
10.6	10.8	9.8
AM 3536	AM 4180	AM 4600
11.2	Plate too poor to estimate	Too poor to estimate
AM 3586		
11.4	AM 4222	AC 6280
	11.4	11.2
AM 3585		
11.3	AM 4268	AC 6665
	9.5	10.2
AM 3639		
11.3	AM 4293	AC 6779
	11.2	as < 11.1
AM 3749		
11.3	AM 4330	AC 6839
	11.4	9.5
AM 3793		
9.3	AM 4353	AC 6998
	11.2	Plate too poor to estimate

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Wednesday. October 27, 1915

Estimates of Magnitudes of Variable +18°.3188

AC 7057
Plate too poor
To estimate

AC 7420
11.2

AC 7428
11.2

AC 7483
9.4

AC 7503
11.3

AC 7546
ns < 11.1

AC 7656
Too poor to estimate

AC 7661
9.3

AC 7689
9.6

AC 7702
10.3

AC 7758
10.4

AC 7849
11.0

AC 7979
Plate too poor to estimate

AC 7990
Plate too black

AC 8287
11.0

AC 8305
11.3

AC 8361
10.9

AC 8416
9.4

AC 8454
11.0

AC 8489
10.6

AC 8512
9.5

AC 8543
10.3

AC 8572
Too poor to estimate

AC 8584
Plate too poor

AC 8611
10.7

AC 8635
9.4

AC 8644
ns < 10.8

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1914phae.proj.1158R

Wednesday, October 27, 1915

Estimates of Magnitudes of Variable +18° 3186

AC 10385
11.2

AC 10395
11.2

AC 10556
ns < 11.1

AC 10564
ns < 10.8

AC 10583
11.0

AC 10636
10.9

AC 10657
ns < 10.8

AC 10688
10.4 difficult

AC 10704
9.8

AC 10781
10.9

AC 11380
9.8

AC 11509
11.4 difficult

AC 11558
11.3

AC 11670
10.2

AC 11709
ns < 10.8

AC 11715
9.9 difficult

AC 11752
11.2

AC 11826
9.7

AC 11844
ns < 10.8

AC 8650
10.6

AC 8666
ns < 10.8

AC 8741
10.3 difficult

AC 8827
10.5

AC 8838
9.5

AC 8884
ns < 10.0

AC 8975
ns < 9.1

AC 9414
11.2

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1914phae.proj.1158R

Wednesday, October 27, 1915

Estimates of Magnitude of Variable +18°, 3186

AC 9466
11.4

AC 9556.
10.4

AC 9599
Too faint to estimate

AC 9673
11.6 very faint

AC 9707
11.4

AC 9714
9.8

AC 9744
9.4

AC 9785
10.2

AC 9801
11.3

AC 9849
ns < 9.6

AC 1991
10.5

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1914phae.proj.1158R

Thursday, October 28, 1915

Estimates of Magnitude of Variable +18°. 3186.

AM 2525
11.3

AM 2617
11.2

AM 2824
11.3

AM 101
10.3

AC 6577
11.2

AC 6511
10.9

AC 6472
11.3

AC 6260
11.0

AC 6142
Plate too poor.

AC 5943
ns < 10.8

AC 5332
11.4

AC 5251
10.3

AC 5141
ns < 10.0

AC 5053
11.3

AC 11930
11.2

AC 12500
11.0

AC 14179
10.7

AC 6363
11.3

AM 1382
11.0

AM 1219
9.4

AM 1209
11.3

AM 1179
9.8

AM 965
11.4

AM 842
9.8

AM 825
11.3

AM 548
11.3

AM 508
11.2 difficult

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1914phae.proj.1158R

Thursday, October 28, 1915

Estimates of Magnitudes of Variable +18° 3186

AM 432	AC 6521	AC 10524
9.9	10.2	10.5
AM 121	AC 6498	AM 2033
10.5	11.2	11.2
AM 3075	AC 6444	AM 1881
Plate too poor to estimate.	ns < 10.0	11.4
	AC 6109	AM 1395
AM 3133	11.3	9.8
10.7		
	AC 5988	AM 1343
AM 2061	9.3	10.9
9.9		
	AC 5899	AM 1311
AM 2175	11.4	11.4
10.9		
	AC 5218	AM 1192
AM 2327	Plate too poor	ns < 10.8
Plate too poor to estimate		
	AC 11802	AM 1009
	ns < 10.8	11.3
AC 6531		
11.3	AC 11918	AM 860
	10.9	11.3

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Thursday, October 28, 1915

Estimates / Magnitude of Variable +18° 3186

Not in ledger

AM 658
9.4 Iso

AM 2764
10.9

AM 537
9.4 Iso

AM 2895
10.6

AM 472
10.6

AC 6598
10.9

AM 211
Plate too poor

AC 2588 ~~2588~~ 4.3
10.6 difficult

AM 3074
10.4 difficult

AC 2588
11.0

AM 3090
11.3

AC 2622
9.4

AM 2078
9.8

AC 2672
11.2

AM 2218
10.5

AM 2580
9.8

h m
12.50

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Thursday, October 28, 1915

Estimates of Magnitude of Variable +18°.3186

AC 2728	AC 3583	AC 4729
11.3	9.5	11.3
AC 2769	AC 3677	AC 4826
10.4.	11.3	9.4
AC 2836	AC 3701	AC 4993
11.1	~~11.0~~ 11.1	10.4
AC 2842	AC 3717	AC 5097
11.0 difficult	Plate too poor	10.2
AC 3358	AC 3817	AC 236
10.7	11.3	11.3
AC 3455	AC 3842	AC 296
Plate too poor	11.2 difficult	11.5
AC 3518	AC 3860	AC 410
11.4	9.7 difficult	Plate too poor
AC 3525	AC 3964	AC 734
11.4 Iso	Too difficult to estimate	11.3
AC 3589	AC 4014	AC 738
11.5	10.3	9.8

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1914phae.proj.11568

Thursday, October 28, 1915

Estimates of Magnitudes of Variable +18° 3186

AC 784 11.0	AC 1665 11.2	AC 1748 11.4
AC 788 11.4	AC 1626 10.9 difficult	AC 1683 11.0 difficult
AC 816 Plate too poor	lost in ledger AC 1574 ns < 10.0	lost in ledger AC 1651 11.3 difficult
AC 834 11.0	AC 1479 Too poor to estimate	AC 1576 11.3 difficult
AC 876 Plate too poor to estimate.	AC 1469 11.3	AC 1474 ns < 10.1 Iso. P
AC 903 Plate too poor	AC 1362 9.3	AC 1250 11.1
AC 2424 9.7	AC 942 Plate too poor to estimate	AC 904 ns < 10.8
AC 1855 9.8	AC 2473 10.5	AC 2719 9.8 difficult
AC 1716 Plate too poor to estimate.	AC 1668 10.3	AC 2787 10.9

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1914phae.proj.1158R

Thursday, October 28, 1915

Estimates of Magnitude of Variable +18° 3188 -

AC 2816
Plate to prove
to estimate.

AC2314
10.6 Difficult

AC 2834
10.3 Difficult

AC 2887
11.2

AC 2676
11.3

AC 2637
10.8 Difficult

AC 2560
11.0

AC 2530
11.2

AC 2462
10.5

AC 2403
11.3

4h 35m

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1914phae.proj.1158R

Friday, October 29, 1915

Estimates of Magnitude of Variable +18°.3186

AC 10139 10.9	AC 10390 11.2	AC 11405 Too poor to estimate
AC 10149 10.6	AC 10496 11.0	AC 11428 11.3
AC 10150 11.3	AC 10509 ns < 10.0	AC 14952 Plate too poor
AC 10162 11.2	AC 10583 ~10.4 difficult	AC 14989 9.7 mistake of a unit
AC 10163 11.3	AC 10557 ns < 9.6	AC 15089 ns < 10.8 Isochromatic
AC 10170 10.4	AC 10625 11.3 faint	AC 15097 Plate too poor
AC 10191 9.4	AC 10721 ns < 9.6	AC 15128 9.8
AC 10295 10.4	AC 10735 9.4	AC 15176 10.9
AC 10354 10.9 difficult	AC 10766 10.6	AC 15766 Plate too poor

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1914phae.proj.1158R

Friday. October 29, 1915

Estimates of Magnitude of Variable +18°, 3186.

AC 15169	AC 11700	AC 12619
11.1 diffuse	10.4	11.3
Eryth. Pl.		
AC 11483	AC 11764	AC 12934
9.8	9.3	9.4
AC 11560	AC 11813	AC 12983
11.4	ns < 10.0	11.3
AC 11567	AC 11832	AC 13090
11.2	10.7 faint	11.3
AC 11581	AC 11976	AC 13105
11.3	ns < 10.0	10.4
AC 11586	AC 12388	AC 13130
11.2	10.9	10.6
AC 11588	AC 12397	AC 13153
9.4	11.3	11.0
AC 11647	AC 12443	AC 13183
ns < 10.0	9.9	Plate too poor
AC 11674	AC 12469	AC 13197
10.7	10.1	ns < 10.0

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1914phae.proj.1158R

Friday, October 29, 1915

Estimates of Magnitude of Variable +18°3188

AC 13202	AC 14030	AC 16454
ns < 10.0	10.9	11.2
AC 13316	AC 14048	AC 16477
9.3	10.9	10.9
AC 13859	AC 14058	AC 16486
11.2	9.3	ns < 9.6
AC 13919	AC 14074	AC 16496
Plate Imperfection	ns < 10.0	ns < 9.6 Yellow
AC 13922	AC 14105	AC 16498
Plate Imperfection	9.3	Plate Imperfection
AC 13946	AC 14147	AC 16516
11.3	ns < 10.0	10.9 difficult
AC 13955	AC 14174	AC 16523
Plate Imperfection	10.4	ns < 10.0
AC 13973	AC 14236	AC 16549
ns < 10.0	10.6	9.8 Yellow
AC 14006	AC 14319	AC 16557
ns < 9.6	ns < 10.8	ns < 10.8

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1914phae.proj.1158R

Friday, October 29, 1915

Estimates of Magnitude of Variable +18° 3186.

AC 16604 10.6	AC 15202 11.3	AC 15311 ns < 10.0
AC 16666 Plate too faint	AC 15232 11.3	AC 15353 11.3
AC 16702 ns < 9.0	AC 15238 10.3 Eruptive Pl	AC 15355 Plate too faint
AC 16769 ns < 10.0 Yellow	AC 15243 ns < 10.8 faint Eruptive Pl	AC 15407 11.4
AC 16795 10.4	AC 15249 9.3	AC 16037 11.3
AC 16838 Plate too faint	AC 15277 ns < 10.8	AC 16101 10.2 Yellow
AC 15179 10.4	AC 15294 ns < 10.0	AC 16170 10.6
AC 15181 10.6 faint	AC 15297 ns < 10.8	AC 16263 11.4
AC 15185 11.4	AC 15307 11.0 difficult	AC 16328 ns < 10.8 Yellow

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1914phae.proj.1158R

Friday, October 29, 1915

Estimates of Magnitude of Variable +18° 3186.

AC 16368	AC 7580	AC 5964
ns - Plate light struck	9.4	10.3
AC 16413	AC 5038	AC 5997
11.0	9.3	10.9
AC 16425	AC 5106	AC 6123
11.3 very faint	10.9	9.4
AC 7001	AC 5114	AC 6161
ns < 10.8	10.2	11.2
AC 7251	AC 5123	AC 6201
11.2	Plate bad spot	ns < 9.6
AC 7389	AC 5144	AC 6252
10.6	9.8	11.3
AC 7410	AC 5258	AC 6278
10.9	ns < 10.8	11.3
AC 7456	AC 5878	AC 6368
9.7	9.4	11.2
AC 7504	AC 5889	AC 6410
11.3	10.5	ns < 9.6

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1914phae.proj.1158R

Friday, October 29, 1915

Estimates of Magnitude of Variable +18°, 3186.

AC 6438 ns < 9.6	AC 7619 10.5	AC 8397 Plate too poor
AC 3176 10.2	AC 7707 9.8	AC 8407 Plate too poor
AC 3418 ns < 10.8	AC 7866 Plate too poor	AC 8448 10.4
AC 3494 9.4 very faint	AC 8003 ns < 10.8	AC 8463 9.8
AC 3544 ns < 10.0	AC 8251 10.8	AC 8479 10.3
AC 9598 Plate too poor	AC 8268 11.0	AC 8505 11.3
AC 9639 10.9	AC 8326 11.3	AC 8515 9.8
AC 9740 ns < 10.0	AC 8334 11.4	AC 8547 11.3
AC 9791 10.6	AC 8380 10.4	AC 8575 10.6

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1914phae.proj.1158R

Friday, October 29, 1915

Estimates of Magnitude of Variable +18° 3188

AC 8587
ns < 10.0

AC 8618
ns < 9.6

AC 8707
ns < 10.0

AC 8874
11.3 faint

AC 9413
11.3

AC 9427
Plate too poor

AC 9554
9.4

AC 6461
9.8

AC 6513
10.9 faint

AC 6543
10.9

AC 6579
11.3

AC 6625
9.3

AC 6639
10.3

AC 6673
ns < 10.8

AC 6821
10.9 very faint

12h 45m

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1914phae.proj.1158R

Friday, October 29, 1915

Estimates of Magnitude of Variable +18°. 3186.

AM8302	AM8658	AC14226
Does not identify	11.2	9.4
AM9108	AM8906	AC14243
ns < 10.8	ns < 10.8	ns < 9.6
AM8368	AM8951	AC14263
11.3	ns < 11.1	11.0
AM8417	AM8967	AC14822
11.0	9.9	10.2
AM8431	AM9019	AC15015
11.4	ns < 10.0	ns < 10.0
AM8478	AM9060	AC15040
11.0	ns < 10.0	ns < 9.6
AM8539	AC14160	AC15110
11.0 faint	11.3	9.9
AM8542	AC14171	AC15121
11.1	11.4	ns < 10.8
AM8591	AC14204	AC15144
10.9	ns < 10.8	11.2

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1914phae.proj.1158R

Friday, October 29, 1915

Estimates of Magnitude of Variable +18°, 3186

AC 15189	AC 1813	AC 3898
10.6 very faint	10.7	11.5
AC 15211	AC 1829	AC 3957
11.3	9.4	11.0
AC 15227	AC 1916	AC 4000
11.2	10.5	11.2
AC 1505	AC 3570	AC 4595
11.2	11.0	Plate too poor
AC 1581	AC 3589	AC 4646
Defect in plate	ns < 9.6	9.8
AC 1656	AC 3724	AC 4736
ns < 9.6.	11.0	11.3
AC 1670	AC 3727	AC 4833
ns < 10.0	9.4	10.3
AC 1706	AC 3753	AC 4892
9.8	10.4	ns < 10.0
AC 1759	AC 3808	AC 4941
10.5	9.8	Plate too poor

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1914phae.proj.1158R

Friday. October 29, 1915

Estimates of Magnitude of Variable +18°, 3186.

AC 4942
9.8

AC 4972
ns < 10.0

AC 4977
Plate too poor

AC 51
9.8

AC 225
9.8

4h 30m

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1914phae.proj.1158R

Saturday, October 30, 1915

86. Estimates of Magnitude of Variable +18°, 3186.

AM 6440
11.3

AM 6865
10.5

AC 6051
ns f 10.8

AC 12036
No images seen by Leland

AM 6063
ns f 9.6

AM 6936
10.3

AM 5766
11.4, 11.3, 11.2, 11.0, 11.3 F

AM 3658
9.5 (very faint image), 9.4, 9.5, 9.6, 9.8, 10.2, 10.8, 10.9, 11.1, 11.0
11.2, 11.2, 11.3

AM 1402 (12th image too faint, about 10.4), 9.4, 9.5, 9.6, 9.8, 10.0, 9.9
Impossible to measure any more images
on account of superposition

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1914phae.proj.1158R

Saturday, October 30, 1915

Estimates of Magnitude of Variable +18° 3186.

AM858

9.4, 9.4, 9.5, 9.6, 9.7, 10.4, ~~10.5~~ 10.0.

AM3752

11.3, 11.2, 10.2, 9.4, 9.6, 9.8, 9.8, 9.9, 10.2

AC345

Plate too poor - images too faint.

T

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1914phae.proj.1158R

Saturday, October 30, 1915

Estimates of Magnitude of Variable +18°, 3186.

I 18290	I 18281
11.1	10.4
I 21379	I 15670
11.2	11.3
I 22783	I 15852
11.3	11.3
I 22915	AC 13032 AC 13035 (?)
10.4	11.0
I 22950	I 12943
11.2	11.2
I 23238	I 8834
11.4	11.3
I 21333	I 8777
11.3	11.3
I 20955	I 3748
11.4	11.0
I 18913	I 6615
11.3 Isolm.	10.2

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1914phae.proj.1158R

Tuesday, January 25, 1916

Estimates of Magnitude of S Ursae Majoris.

MD 3213
ns 13.3

MD 3241
ns 12.8

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1914phae.proj.1158R

Friday. February 4, 1916

Series 7

Scale V 2 1 0	Na 156	Pole
		Ua 159
	pc B pc C	pc B pc C
5	2.4	2.3
6	2.4	2.5
7	2.8	2.5
8	3.2	2.8 B
9	3.8	3.8 4.2
10	3.9	3.8 4.5
11	4.5	~~4.4~~ 4.8 ~~3.6~~ ~~5.4~~
12	4.2	~~5.4~~ 5.4
13	5.3	5.8 6.2
14	5.8	6.4 6.6
15	6.8	7.5 7.3
16	7.2	7.6 7.7
17	7.3	7.7 8.0
18	7.6	7.8 8.3
19	8.2	7.9 8.3
20		9.2
21		9.7
22		9.8
23		9.9
24		F
25		

Practise readings.

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1914phae.proj.1158R

Saturday, February 5, 1915

Scale V

Series 7

$2^h\ 15^m$

		Na 156		Na 159	
		ScB	ScC	ScB	ScC
Images 5	1				
1, 2, 3, 4	2				
distorted	3				
	4				
	5	1.3		2.0	
	6	1.8		2.2	
	7	2.4		2.6	
	8	2.7 ~~3.6~~		2.9	B
	9	3.6		3.8	4.0
	10	3.3	B	3.9	4.1
	11	4.3	4.3	5.2	4.8
	12	4.4	4.5	5.7	5.3
	13	5.5	5.2	6.2	6.4
	14	6.0	5.7	6.7	6.7
	15	6.7	6.5	7	7.1
	16	6.8	6.9		7.5
	17	F	7.3		8.0
	18		8.0		8.3
	19		8.2		8.4
	20		8.8		9.0
	21		9.1		9.2
	22		9.2		9.4
	23		9.5		9.2
	24		9.4		F
	25		F		

~~Fractur Readings~~

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1914phae.proj.1158R

Saturday. February 5, 1915

Scale V

Series 7

Na 158

	Sc B	Sc C
1	1.4	
2	2.8	
3	3.0	
4	3.2 ~~3.6~~	
5	3.4	
6	3.4	D
7	5.1	5.2
8	5.6	5.5
9	5.3	5.4
10	6.6	6.4
11		7.3
12		8.2
13		8.8
14		9.2

Series not all measured D one sitting so measures not used

4h 30m

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1914phae.proj.1158R

Monday, February 7, 1916

Scale V

Series 7

$8^h\ 50^m$

	Na 158			Pole			Diff				
	Sc B	Sc C		Na 159 Sc B	Sc C		Mean	Diff.		Mean	Diff
Images too indistinct	4										
	5	2.0 1.9			1.6 1.5		1.70	22	4.79	1.80	20 20 4.69
x	6	~~2.0 1.7~~			2.2 2.1		2.05	01	3.06	2.15	05 05 4.96
	7	2.4 2.3			2.7 2.6		2.45	12	4.86	2.55	15 15 4.76
	8	2.6 2.5			3.0 2.9		2.70	22	5.53	2.80	20 20 5.43
x	9	3.3 3.2 ~~2.5~~			3.4 3.3		3.25	02	5.58	3.35	05 05 5.48
	10	3.2 3.1	B		3.5 3.4	B	3.25	12	5.77	3.35	15 15 5.67
	11	3.7 3.6	4.3	4.00 3 3	4.7 4.6	4.6	4.65	01	4.38	33	5.17 4.38 33 5.17
*	12	3.8	4.2	4.35 01	4.9 5.7	5.3	5.40	00	4.88	55	4.98 4.88 55 4.98
*	13	5.8	5.5	5.60 11	6.2 6.1	6.0	6.25	10	5.92	33	4.38 5.92 33 4.38
	14	5.8 5.7	5.6	5.70 11	6.8 6.6	6.7	6.70	00	6.20	55	4.45 6.20 50 50 4.45
	15	6.5 6.4	6.6	6.55 01	F	7.1			6.82	33	4.26 6.82 31 34 4.26
x	16	6.8 6.7	7.1 ~~7.4~~	6.95 21		7.6			7.28	33	4.12 7.28 33 32 4.12
	17	F	7.2			7.7			7.45	22	3 4.18 7.45 25 25 4.18
	18		8.0			8.3			8.15	12	3.91 8.15 15 15 3.91
	19		8.2			8.5			8.35	12	4.07 8.35 15 15 4.07
	20		8.7			8.8			8.75	01	3.98 8.75 05 05 3.98
	21		9.0			9.4			9.20	22	3.76 9.20 20 20 3.76
	22		9.2			9.4			9.30	11	3.89 9.30 10 10 3.89
	23		9.2			9.7			9.45	23	3.89 9.45 25 25 3.89
x	24		9.6 ~~9.2~~			F			9.60		4.04 9.60 4.04
	25		F			F					

x Wrong star measured first

* Discordant see page 100.

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1914phae.proj.1158R

Monday February 7, 1916

Scale V Series 7 Plot Sheet 1.

No 157 Pallas Comp. stars Alt. −0.05

		Sc B	Sc C		Cu	Magn.	Magn.	Mean	Mean Cor. for Alt.	
							*No 165			
×	1	2.0 1.9		2.00	4.75	6.75	6.93	6.84 09 09	6.78	
	2	2.6 2.5	B	2.60	5.21	7.81	7.27	7.54 27 27	7.48	note
	3	3.9 3.8	4.2	4.05 1½	5.43	9.48	9.39	9.44 04 05	9.38	
Sequence C	4	4.2 4.1	4.5	4.35 1½	5.30	9.65	9.45	9.55 10 10	9.49	
	5	3.9 3.8	4.1	4.00 10 10	5.45	9.45	9.42	9.44 01 02	9.38	
	6	4.1 4.0	4.4	4.25 1½ 15	5.34	9.59	9.69	9.64 05 05	9.58	
	7	6.2 6.1	6.2 5.8	6.20 0 0	4.42	10.62	10.35	10.48 14 13	10.42	
	8	6.3 6.2	6.2	6.25 05 05	4.40	10.65	10.55	10.60 05 05	10.54	
	9	6.5 6.4	6.3	6.40 10 10	4.35	10.75	10.56	10.66 09 10	10.60	
	10	6.9 6.8	7.1	7.00 10 10	4.20	11.20	10.96	11.08 12 12	11.02	
	11	F	7.6	7.60	4.19	11.79	11.84	11.82 03 02	11.76	
	12		8.2	8.20	3.97	12.17	12.38	12.28 11 10	12.22	
	13		8.7	8.70	3.90	12.60	12.87	12.74 14 13	12.68	
	14		9.2 ~~8.9~~	9.20 ~~8.80~~	3.89 ~~3.89~~	13.09 ~~12.69~~	13.30	13.20 11 10	13.14	

See p. 126 for magnitudes 7 3-7.

× Image distorted slightly

* Copied from p. 102.

Note - 3 additional stars on p. 112.

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1914phae.proj.11588

Monday, February 7, 1916

Scale V Series 7 Plot Sheet, Alt. −0.05

Na 158 Pallas Conj. Stars

	Sc B	Sc C				
1						Reject these magnitudes
2	B			Cu	Mag.	
3	2.8 2.7	2.80		5.34	8.14	
Sequence C 4	3.2 3.1	3.20		5.56	8.76	
5	2.8 2.7	2.80		5.34	8.14	
6	3.0 2.9	B 3.00		5.46	8.46	
7	4.9 4.8	5.0	4.95	0505	4.96	9.91
8	5.2 5.1	5.3	5.25	0505	4.83	10.08
9	5.3 5.2	5.6	5.45	1515	4.75	10.20
10	6.3 6.2	6.3	6.30	00	4.38	10.68
11	F 7.2		7.20		4.16	11.36
12	8.0		8.00		4.02	12.02
13	8.5		8.50		3.92	1242
14	9.3		9.30		3.91	13.21

Magnitudes not accordant with Na 157 and Na 165, and, as Na 158 was a decidedly inferior plate, magnitudes are to be rejected.

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1914phae.proj.1158R

Tuesday, February 8, 1916

Scale V

Series 6

$8^h\ 45^m$

Nu 14, Pole

	ScB	ScC	Diff Print	Diff Mean	
5	B	1.2			
6	1.1	1.10	6.01	1.20	5.91
7	1.6 / 1.5	1.50	5.81	1.60	5.71
8	1.8 / 1.7	1.70	6.53	1.80	6.43
9	2.3 / 2.2	2.20	6.63	2.30	6.53
10	2.3 / 2.2	2.20	6.82	2.30	6.72
11	2.9 / 2.8	B 2.80	6.75	2.90	6.65
12	3.5 / 3.4	B 3.40	6.46	3.50	6.36
13	4.4 / 4.3 / 3.6	4.4 4.40 00	5.90	4.40 0000	5.90
14	5.3 / 5.2 / 5.6	5.3 5.30 00	5.35	5.30 0000	5.35
15	5.5 / 5.4 / 6.2	5.5 5.50 00	5.58	5.50 0000	5.58
16	6.5 / 6.4	6.4 6.45 01	4.95	6.45 0505	4.95
17	6.9 / 6.8	7.0 6.95 01	4.68	6.95 0505	4.68
18	F	7.4 7.40	4.66	7.40	4.66
19		8.4 8.40	4.02	8.40	4.02
20	8.6 / ~~8.4~~	8.60	4.13	8.60	4.13
21		9.1 9.10	3.86	9.10	3.86
22		9.3 9.30	3.89	9.30	3.89
23		9.3 9.30	4.04	9.30	4.04
24		9.5 9.50	4.14	9.50	4.14
25		F			

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1914phae.proj.1158R

Tuesday February 8, 1916

Scale V

Series 6

Plot Sheet 1 All +0.04

Na 142

Pallas Comp. Stars.

	Sc B	Sc C	Cu	Mag[1]
1	1.2 1.1 B	1.20	5.69	6.89
2	~~1.3~~ ~~1.2~~ 2.2 1.8	~~1.30~~ 1.90	~~5.80~~ 6.40	8.30 ~~7.10~~
3	2.1	2.20	6.59	8.79
4	2.5 2.4	2.50	6.70	9.20
5	2.7 2.6	2.70	6.70	9.40
6	2.9 2.8 B	2.90	6.66	9.56
7	3.5 3.4	3.50	6.44	9.94
8	3.8 3.7	3.80	6.27	10.07
9	3.4 3.3 B	3.40	6.48	9.88
10	3.8 3.7 4.0	3.90 10 10	6.23	10.13
11	4.9 4.8 5.3 5.2	5.05 15 ~~25~~	5.63	10.68
12	5.2 ~~4.6~~ 7.0 5.4	3.35 05 05	5.48	10.83
13	6.9 7.2	7.10 10 10	4.68	11.78
14	F 7.5	7.50	4.51	12.01

Sequence B

[1] Means Taken on page 106.

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1914phae.proj.1158R

Tuesday, February 8, 1916

Scale V

Series 7

	Ma 156				Pole			
					Ma 159			
	ScBScC				ScBScC			
12	4.3 4.2	4.4	4.35	0 1	5.4 5.3	5.4	5.40	0 0
13	5.7 5.6	5.5	5.60	1 1	6.3 6.2	6.2	6.25	1 0

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1914phae.proj.1158R

Wednesday. February 9. 1916

Scale V

Series 8

9h 30m

	Na 163				Pola Na 166				
	ScB	ScC			ScB	ScC			Mean Diff.
5	1.6 / 1.5				1.6 / 1.5				1.60 00 4.89
6	1.8 / 1.7				2.0 / 1.9				1.90 10 10 5.21
7	2.0 / 1.9				2.3 / 2.2				2.15 15 15 5.16
8	2.0 / 2.4				2.7 / 2.6				2.60 10 10 5.63
9	28 / 2.7				3.2 / 3.1				3.00 20 20 5.83
10	2.9 / 2.8	B			3.3 / 3.2	B			3.10 20 20 5.92
11	3.8 / 3.7	B			4.0 / 3.9	4.3	4.15	1 2	3.98 18 17 5.57
12	4.6 / 4.5	4.6	4.60	00	4.9 / 4.8	4.5	4.70	2 2	4.65 05 05 5.21
13	5.9 / 5.8	5.76	5.75	1 2	6.0 / 5.9	5.8	5.90	1 1	3.82 07 08 4.48
14	6.3 / 6.2	6.4	6.35	0 1	6.5 / 6.4	6.4	6.45	1 0	6.40 05 05 4.25
15	6.8 / 6.7	6.7	6.75	1 0	6.9 / 6.8	6.6	6.75	2 1	6.75 00 00 4.33
16	F 7.2				F 7.2				7.20 00 00 4.20
17	7.7				7.6				7.65 05 05 3.98
18	7.9				7.8				7.85 05 05 4.21
19	8.4				8.5				8.45 05 05 3.97
20	8.8				8.6				8.70 10 10 4.03
21	9.1				9.2				9.15 05 05 3.81
22	9.2				9.4				9.30 10 10 3.89
23	89.2				9.3				9.25 05 05 4.09
24	9.75				9.5				9.50 00 00 4.14
25	9.8 very faint				9.8				9.80 00 00 4.07

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Wednesday February 9, 1910

Scale V Series 8 Plate Shut 1 Alt. −0.06

No. 165 Pallas Comp. Stars

	Sc B	Sc C	Sc B	Mean	Cor	Magn*
	1.9		1.7			
1	1.8		1.6	1.80 10 10	5.13	6.93
	2.1		2.0			
2	2.0		1.9	2.05 05 05	5.22	7.27
	3.5		3.7			
3	3.4		3.6	3.60 10 10	5.79	9.39
	3.7		3.7			
4	3.6		3.6	3.70 00 00	5.75	9.45
	3.7		3.6			
Sequence C 5	3.6 B		3.5	3.65 05 05	5.77	9.42
	3.8		3.9			
6	3.7	4.5 3.80 05 05	3.8	4.18 33 32	5.51	9.69
	5.7		5.9			
7	5.6	5.8 5.80 10 10	5.8	5.80 00 00	4.55	10.35
	5.9		6.2			
8	5.8	6.2 6.05 15 15	6.1	6.12 08 07	4.43	10.55
	5.9		6.3			
9	5.8	6.2 6.10 20 20	6.2	6.15 05 05	4.41	10.56
	6.6		6.5			
10	6.5	6.9 6.55 05 05	6.4	6.72 18 17	4.24	10.96
11	F 7.8		F	7.80	4.04	11.84
12	8.4			8.40	3.98	12.38
13	8.9			8.90	3.97	12.87
14	9.3			9.30	4.00	13.30

* See page 96 where means are Taken.

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1914phae.proj.1158R

Wednesday February 9, 1915

Scale V Series 8 Plot Sheet I Alt. -0.06

No ~~165~~ 164 Pallas Comp. 5 stars. — Lowest image —

1	Sc B	Sc C	Mean	Cu	Mags.	
2	1.9 1.8		1.90	5.12	7.02	
3	2.9 2.8		2.90	5.78	8.68	N.B. Reject these magnitudes — See note p. 97, which holds good here.
4	2.9 2.8		2.90	5.78	8.68	
5	3.2 ~~2.5~~ 3.1		3.20	5.88	9.08	
Sequence C 6	3.0 2.9	B	3.00	5.82	8.82	
7	5.0 4.9	4.9	4.95	5.05	10.00	
8	5.3 5.2	5.0	5.15	4.93	10.08	
9	5.5 5.4	5.2	5.35	4.80	10.15	
x 10	5.9 ~~6.2~~ 5.8	5.8	5.85	4.55	10.40	
11	~~image interfered with~~ — too difficult to get measures					
12	F 7.6		7.60	4.06	11.66	
13	8.3		8.30	3.98	12.28	
14	ns					
1	1.7 1.6		1.70	4.99	6.69	

x wrong object measured first.

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Thursday. February 10, 1916.

Scale V

$8^h 45^m$

Series 5

Na 135

Pole

	ScB	ScC		Typ.
5	1.3 1.2	1.30		5.19
6	1.7 1.6	1.70		5.41
7	2.0 1.9	2.00		5.31
8	2.4 2.3	2.40		5.83
9	2.8 2.7	2.80		6.03
10	2.9 2.8	B 2.90		6.12
11	3.7 3.6	4A1 3.90 20	20	5.65
12	4.7 4.6	4.7 4.70 00	00	5.16
13	5.2 5.1	5.80 5.10 10	10	5.20
14	6.2 6.1	6.0 6.10 10	10	4.55
15	6.8 6.7	6.96 6.70 10	10	4.38
16	7	6.9 6.90		4.50
17		7.4 7.40		4.23
18		7.7 7.70		4.36
19		8.3 8.30		4.12
20		8.5 8.50		4.23
21		8.8 8.80		4.16
22		7 9.5 F		
23				
24				
25				

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Thursday, February 10, 1916

Scale V

Series 5

Na 133 Pallas Conjunction Stars

Images very much elongated.

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Thursday, February 10, 1916

Scale V

Series 5 Plot Sheet 1. alt. −0.09

No 134 Pallas Companion Stars Lowest Two agreed

		ScB	ScC	Cu	Magn	Magn No 142	Mean	Mean	Co. for alt.
1	1.6 1.5		1.60	5.28	6.68	6.89	6.78 10 11		6.76
2	2.4 2.3		2.40	5.83	8.23	8.30	8.26 03 04		8.24
3	2.7 2.6		2.70	5.98	8.68	8.79	8.74 06 05		8.72
4	3.1 3.0		3.10	6.08	9.18	9.20	9.19 01 01		9.17
5	3.2 3.1	B	3.20	6.04	9.24	9.40	9.32 08 08		9.30
6	3.5 3.4	B	3.50	5.92	9.42	9.56	9.49 07 07		9.47
7	3.8 3.7	4.0	3.90 10 10	5.70	9.60	9.94	9.77 17 17		9.75
8	4.2 4.1	4.5	4.35 15 15	5.42	9.77	10.07	9.92 15 15		9.90
9	4.3 4.2	4.4	4.35 05 05	5.42	9.77	9.88	9.82 05 06		9.80
10	4.6 4.5	4.6	4.60 00 00	5.28	9.88	10.13	10.00 12 13		9.98
11	3.5 3.4	5.5	5.50 00 00	4.85	10.35	10.68	10.52 17 16		10.50
12	3.5 3.4	5.4	5.45 05 05	4.88	10.33	10.83	10.58 25 26		10.56
13	F	7.0	7.00	4.37	11.37	11.78	11.58 21 20		11.56
14	F	7.4	7.40	4.31	11.71	12.01	11.86 15 15		11.84

Sequence B

See f. 126 for magnitudes revised.

[1] Copied from f. 99

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Friday, February 11, 1916

Scale V

Series 331

$9^h\ 0^m$ MC 6388 Pallas Comparison Stars Ref. Seq. for Centre

	ScB	ScC	ScC	Mean	Diff	P.C. ScB	ScC	ScC	Mean	Diff
1	B					5.6 5.5	5.5	5.6	5.55 03 00	
2	2.0 1.9			2.00	6.56	5.58 02 03				2.03
3	2.6 2.5			2.60	—	6.8 6.7	6.8	6.9	6.85 02 05	
4	3.5 3.4	B		3.60	6.87	6.82 02 03				1.74
5	4.3 4.2	4.3		4.30 00 00	6.59	F 7.6	7.5	7.5	7.55 05 05	—
6	4.9 4.8	5.2		5.05 15 15	6.16	8.9	8.9	8.90 00 00		1.47
7	5.9 5.8	5.6		5.75 15 15	5.99	F	F			
8	6.2 6.1	6.4		6.30 00 00	5.80					
9	6.5 6.44	6.8		6.65 15 15	5.77					
10	6.7 6.6	6.8		6.75 05 05	5.75					
11	F	7.6	7.6	7.60 00 00	5.62					
12	F	7.8	7.8	7.80 00 00	5.63					
13		8.1	8.4	8.25 15 15	5.69					
14		8.6	8.7	8.65 05 05	5.87					
15		8.8	9.1	8.95 15 15	5.83					

Magnitudes for Reference Sequence were thus obtained by finding the mean of values given in Records MOR 16: 134 + 152.

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Friday, February 11, 1916

Scale V Series 331 Plot Sheet 2.

	Me 6388			Pallas		Companion Stars Sequence A					
						F.C.					
	Sc B	Sc C	Sc C	Cu	Magn.	Sc B	Sc C	Sc C	Cu	Magn.
1	B					5.5 5.4	5.6	5.55 05 05	2.04	7.59
2	1.3 1.2		1.30	6.41(?)	7.71	5.5 5.4	5.6	5.55 05 05	2.04	7.59
3	1.5 1.4		1.50	6.45	7.95	6.5 6.4	6.6	6.55 05 05	1.81	8.36
4	1.7 1.6		1.70	6.49	8.19	7.0 6.9	7.2	7.10 10 10	1.68	8.78
5	1.9 1.8		1.90	6.53	8.43	7.1 7.0	7.2	7.15 05 05	1.66	8.81
6	2.7 2.6		2.70	6.69	9.39	F	7.4	7.40	1.68	9.03
7	3.3 3.2		3.30	6.82	10.12	F	8.6	8.60	1.48	10.08
8	2.9 2.8		2.90	6.75	9.65	F image	8.6	8.60	1.48	10.08
9	2.9 2.8	B	2.90	6.75	9.65		8.8	8.80	1.48	10.28
10	4.7 ~~3.8~~ 4.6	4.7	4.6	4.65 05 05 4.68	6.54	11.22	t.p.			
11	3.7 3.86	B	B	3.70	6.88	10.58	t.p.			
12	4.9 4.8	5.1	3.20 10 10 5.3	5.05 15 15	6.36	11.41	F			
13	7.0 6.9	6.9	6.90 00 00 6.9	6.95 05 05	5.67	12.62				
x 14	F	7.8	7.7	7.75 05 05	3.58	13.33				
15		8.6	8.6	8.60 00 00	6.70	14.30				

	Mean Magn.	Mean Corr. for Alt.
1	7.74	7.92
2	7.74	7.92
3	8.44	8.62
4	8.76	8.94
5	8.82	9.00
6	9.20	9.38
7	10.03	10.21
8	9.81	9.99
9	9.89	10.07
10	10.91	11.09 ~~10.09~~
11	10.63	10.81
12	11.35	11.53
13	12.57	12.75
15	14.19	14.37

N.B. Relative magnitudes need not be corrected for altitude.

x Fainter star companion

N.B. Means Taken from f.110.

Copied from f.110.

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Friday, February 11 1916

Series 336

Scale V

	Mc 6451			Pallas		Comparison Stars. Ref. Sq. f. Center P.C.				
	ScB	ScC	ScC	Mean	Diff	ScB	ScC	ScC	Mean	Diff
1	1.4 1.3			1.40	6.21	5.5 5.4	5.6	5.6	5.60 5.55	2.06
2	2.5 2.4			2.50	6.06	6.7 6.6	6.7	6.7	6.70 6.70	1.86
3	3.0 2.9			3.00	—	F	7.8	7.5	7.65 7.65	—
4	4.4 4.3	4.4		4.40	5.97		8.4	8.8	8.60 8.60	1.77
5	4.8 4.7	4.6		4.70	6.19		8.8	9.1	8.95 8.95	1.84
6	5.6 5.4	5.7		5.60	5.61		9.8	9.9	9.90	1.31
7	6.3 6.2	6.2		6.25	5.49		F			
8	6.5 6.4	6.3		6.40	5.70					
9	6.9 6.8	6.8		6.85	5.57					
10	7.0 6.9	7.1		7.05	5.45					
11	F	7.4	7.8	7.60	5.62					
12		7.7	7.8	7.75	5.58					
13		8.3	8.2	8.25	5.69					
14		8.4	8.8	8.60	5.92					
15		9.1	9.0	9.05	5.73					

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Friday. February 11, 1916

Scale V Series 336 Plot Sheet 2.

Ue 6451 Pallas Comparison Star Sequence - A

	ScB	ScC	ScC	Cu	Magn	ScB	ScC	ScC		Cu	Magn
						P.C.					
1	1.4 1.3		1.40	6.21	7.61	5.9 5.8	5.8 5.85	5.9	5.88 02 03	2.02	7.90
2	1.6 1.5		1.60	6.20	7.81	6.0 5.9	5.8 5.75 05 25	5.7	5.88 12 13	2.02	7.90
3	2.0 1.9		2.00	6.19	8.19	6.6 6.5	6.7 6.70 00 00	6.7	6.65 05 05	1.88	8.53
4	2.4 2.3		2.40	6.17	8.57	6.7 6.6	7.1 7.10 00 00	7.1	6.90 20 20	1.84	8.74
5	2.4 2.3		2.40	6.17	8.57	7+ 6.9 6.8	7.2 7.15 05 05	7.1	7.02 12 13	1.82	8.84
6	3.0 2.9		3.00	6.11	9.11	F	7.5		7.50	1.78	9.28
7	3.3 3.4		3.50	6.05	9.55	F	8.6		8.60	1.78	10.38
8	3.1 3.0 3.4		3.50	6.05	9.55		8.2		8.20	1.76	9.96
9	3.5 3.4 B		3.50	6.05	9.55		8.3		8.30	1.77	10.07
10	4.5 4.4	4.9	4.70 20 20	5.90	10.60		F				
11	4.8 4.7	4.8	4.80 00 00	5.88	10.68						
12	5.5 5.4	5.6	5.55 05 05	5.74	11.29						
13	6.9 6.8	7.1	7.00 10 10	5.52	12.52						
14	———										
15	F 8.4		8.40	5.68	14.08						

	Magn. Ue 6388 S.T.	Magn. Ue 6451 P.C.	S.T.	P.C.	Mean
1		7.59		7.90	7.74 15 16
2		7.59		7.90	7.74 15 16
3		8.36		8.53	8.44 08 09
4		8.78		8.74	8.76 02 02
5		8.81		8.84	8.82 01 02
6	9.39	9.03	9.11	9.28	9.20 19 17 09 8
7	10.12	10.08	9.55	10.38	10.03 09 05 48 35
8	9.65	10.08	9.55 7.2	9.96	9.81 16 27 26 15
9	9.65	10.28	9.55	10.07	9.89 24 38 34 18
10	11.22		10.60		10.91 31 31
11	10.58		10.68		10.63 05 05
12	11.41		11.29		11.35 06 06
13	12.62		12.52		12.57 05 05
15	14.30		14.08		14.19 11 11

1 Copied from f.108

N.B. ~~Final Means Taken~~ f.108

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Monday. February 14, 1916

Estimates of Magnitude of Pallas.

$9^h\ 0^m$	Plate No.	Exposure	Magnitude	Remarks
	Ha 133	—	8.9	
x	Ha 165	—	9.2	Comparison stars differ widely in brightness
x	Ha 158	—	9.2	" " "
	Ha 142	—	8.5	
x	Ha 164	1	9.2	
x	Ha 157	1	9.3	
	Ha 134	1	~~8.6~~ 8.5	Defect near image
	Ha 136	1	8.5	
	Ha 131	1	8.5	Defect near image Straight trails
x	Ha 155	1	9.2	
x	Ha 160	1	9.4	Difficult
x	Ha 161	1	9.4	
x	Ha 162	1	9.3	
	Ha 144	1	8.5	
	Ha 140	1	8.4	
	Ha 137	1	8.9	
x	Ha 164	2	9.2	
x	Ha 157	2	9.4	
	Ha 134	2+3	8.9	
	Ha 136	2	8.6	
	Ha 131	2	8.9	

x For these measures see later pages 114 et seq. as three new stars have been added to exposure nine. These estimates were made.

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1914phae.proj.1158R

Tuesday, February 15, 1916

Scale V

No 165 Pallas Conj. Stars - Alt -0.06

ScB ScC

	2a	2.6 2.5		Cu	Means	Cors. for alt.	No 157 Means	Means
Sequence C	2b	2.9 2.8		5.51	8.11	8.05	7.78	7.90 15 15
	2c	3.3 3.2	B	5.78	8.68	8.62	8.25	8 44 18 19
				5.84	9.18	9.12	8.83	8.98 14 15

For other stars of this sequence see page 102

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Tuesday, February 15, 1916

Scale V

No 159 Pallas Comp. 5 stars. alt −0.05

	Sc B	Sc C	Cu	Mean	Corr. f. alt.
Sequence 2a	~~2.4~~ 2.6	2.5	5.22	7.80	7.75
2b	2.9	2.8	5.40	8.30	8.25
2c	3.3	3.2	5.58	8.88	8.83

2a 2.5 cloudy star

For other stars of this sequence, see page 96.

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Tuesday, February 15, 1916

Estimates of Magnitude of Pallas

$9^h 30^m$	Plate No.	Exposure	Magn.	Remarks.
	Ha 158	—	9.3	
	Ha 157	1	9.5	
	Ha 155	1	9.3	
	Ha 165	—	9.3	
	Ha 160	1	9.4	
	Ha 161	1	9.4	
	Ha 162	1	9.3	
	Ha 144	2	8.6	Difficult. Images trailed
	Ha 140	2	8.5	
	Ha 137	2	8.5	
	Ha 164	1	9.3	
	Ha 134	2	8.6	
	Ha 136	~~3~~ 4	8.7	
	Ha 131	3	8.6	
	Ha 157	2	9.5	
	Ha 160	2	9.4	
	Ha 161	2	9.4	
	Ha 155	2	9.3	
	Ha 162	2	9.3	
	Ha 144	3	8.6	
	Ha 140	3	8.6	
	Ha 137	3	8.6	
	Ha 164	2	9.3	
	Ha 134	3	8.5	
	Ha 136	4.5	8.6	
	Ha 131	4	8.6	
	Ha 157	3	9.3	
	Ha 160	3	9.3	
	Ha 161	3	9.4	

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1914phae.proj.1158R

Tuesday, February 15, 1916

Estimates of Magnitude of Pallas

Plate No.	Exposure	Magn	Remarks
Ha 155	3	9.4	
Ha 162	3	9.4	
Ha 144	4	9.0	Very difficult.
Ha 140	4	8.5	
Ha 137	4	8.8	
Ha 164	3	9.3	
Ha 134	4	8.5	
Ha 136	2	8.6	
Ha 131	3	8.5	
Ha 157	4	9.4	
Ha 160	4	9.4	
Ha 161	4	9.5	
Ha 155	4	9.3	
Ha 162	4	9.4	
Ha 144	3	8.9	
Ha 140	3	8.5	
Ha 164	4	9.3	
Ha 160	3	9.4	
Ha 161	3	9.4	
Ha 155	3	9.3	
Ha 162	3	9.3	

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1914phae.proj.1158R

Tuesday, February 15, 1915

Estimates of the Magnitude of Pallas 1914 YD

Plate No	Exposure	Magn	Remarks
I 38824	1	9.8	
I 38825	3	9.8	
"	6	9.8	
	10	9.9	
I 38824	2	9.8	
	8	9.9	
	4	9.8	
	9	9.8	
I 38825	2	9.8	
	5	9.8	
	1	9.8	
I 38824	3	9.8	
	10	9.8	
	5	9.8	
	11	9.8	
I 38825	8	9.8	
	11	9.9	
	4	~~9.9~~ 9.8	
	7	9.8	
I 38824	6	9.8	
I 38825	9	9.8	
I 38824	7	9.8	

N.B. In entering these estimates in ledger, subtract $\overset{m}{0.2}$ as the correction for altitude should not have been applied to relative magnitudes.

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1914phae.proj.1158R

Wednesday, February 16, 1916

Scale V Plate

MC 3976 Nyssa Comparison Stars - Kapteyn Sequence

	ScB	ScC	ScC	Means	Diff.	ScB	ScC	ScC	Means	Diff
						6.8		6.75 05 05		
1				—	—	6.7	6.8	6.7	6.78 02 03	1.28
2				—	—	F	7.2	7.4	7.30 10 10	1.10
3	B			—	—	F	9.3	7.4	7.35 05 05	1.39
4	2.6 2.5	B		2.60	7.32		9.2	9.1	9.15 05 05	0.77
5	3.3 3.2	B		3.30	7.36		10.0	10.0	10.00 00 00	0.66
6	3.9 3.8	4.1		4.00 10 10	7.01		F	F		
7	4.9 4.8	5.2		5.05 15 15	6.40					
8	3.7	3.8		3.80 00 00	5.82					
9	6.7 6.6	6.6		6.65 05 05	5.40		F			
10	6.9 6.8	6.80 6.8		6.85 05 05	5.78					
11	F	7.8	7.60 20 20 7.4	7.60 20 20	5.29					
12		8.2	8.05 15 15 7.9	8.05 15 15	5.05					
13		F	7 8.5	8.60 10 10	4.96					
14		9.6	9.45 15 15 9.3	9.45 15 15	4.91					

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Wednesday, February 16, 1915

Scale V

Plate sheet 3.

Mc 3976 Nyra Comparison Star Sequence

P.C. P.C.

	Sc B	Sc C	Sc C	Sc B	Means	Cu	Sc C	Sc C	Means	Cu	Means	Corr. det.
1	3.7 3.6	B	B	3.7 3.6	3.70 00 00	7.08	9.6	9.5	9.55 05 05	0.69	10.24	10.30
2	3.5 3.4	B		3.5 3.4	3.50 00 00	7.16	9.7	9.7	9.70 00 00	0.68	10.38	10.44
3	3.6 3.5	B	B	3.6 3.5	3.60 00 00	7.13	9.5	9.4	9.45 05 05	0.70	10.15	10.21
4	3.9 3.8	4.1	4.0	3.8 3.7	3.95 05 15 05 15	6.98	9.9	9.8	9.86 05 05	0.67	10.52	10.58
5	3.3 3.2	B	B	3.4 3.3	3.35 05 05	7.21	9.6	9.6	9.60 00 00	0.69	10.29	10.35
6	3.8 3.7	4.2	4.2	4.0 3.9	4.05 25 15 15 05	6.93	For 10.0	10.0	10.00 00 00	0.66	10.66	10.72
7	4.0 3.9	4.4	4.4	4.0 3.9	4.20 20 20 20 20	6.86	F	F				
8	4.2 4.1	4.4	4.5	4.3 4.2	4.35 15 05 15 05	6.79						
9	6.0 5.9	5.8	5.8	6.3 6.2	5.98 02 18 18 32	5.98						

	Means	Means Corr. for P.C.
1	10.78	10.84
2	10.66	10.72
3	10.73	10.79
4	10.93	10.99
5	10.56	10.62
6	10.98	11.04
7	11.06	11.12
8	11.14	11.20
9	11.96	12.02

N.B. Reject these magnitudes because Mc 3976 is not a centred plate and sequence is not at centre.

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Wednesday. February 16, 1916

Scale V

Tue 3976 Type Comparison Stars - Kapteyn Segment

		P.C.
	ScB ScC ScC	ScB ScC ScC
1	1.1	6.8 6.8 6.8
2	1.3	F 7.3 7.2
3	1.6	F 7.6 7.6
4	2.7 B	9.2 9.2
5	3.6 B	10.0 10.0
6	4.0 4.1	F
7	5.1 5.0	F 7
8	5.8 5.6	
9	6.6 6.5	
10	F 6.9 7.1	
11	7.6 7.7	
12	7.8 7.9	
13	8.8 8.6	
14	9.8 9.8	

Remeasured by mistake.

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Wednesday, February 16, 1916

Scale V

Hyza Com

Plot sheet 3 -

Mu Hyz 6888 Hyza Comparison Star Segment

P.P.

	ScB	ScC	ScC	Cu	Meagn	ScB	ScC	ScC	Means	Cu	Meagn
1	3.8 3.7			3.80	6.67	10.47	F 8.4	8.6	8.50 10 10	1.60	10.10
2	3.7 3.6			3.70	6.72	10.42	8.5	8.5	8.50 00 00	1.60	10.10
3	3.9 3.8	B		3.90	6.60	10.50	8.8	8.6	8.70 10 10	1.59	10.29
4	4.0 3.9	4.25 05 03 4.2	4.3	4.12 12	6.49	10.61	9.1	9.0	9.05 05 05	1.58	10.63
5	3.8 3.7	B	D	3.80	6.67	10.47	8.6	8.4	8.70 10 10	1.59	10.29
6	4.1 4.0	4.45 05 03 4.4	4.5	4.28 18	6.42	10.70	9.3		9.30	1.58	10.88
7	4.3 4.2	4.45 05 03 4.3	4.4	4.38 08	6.37	10.75	9.5		9.50	~~1.58(?)~~	~~11.08?~~
8	4.9 4.8	4.85 05 03 4.8	4.9	4.88 02	6.10	10.98	9.8		9.80	~~1.68(?)~~	~~11.43(?)~~
9	6.0 5.9	5.80 00 00 5.8	5.8	5.90 10 10	5.75	11.65	F				

	Meagn. 6888 St. I.	Meagn. 6888 P.C.	Meagn. 3976 St. I.	Meagn. 3976 P.C.	Means 6888 St. I + P.C.
1	10.51	10.14	10.84	10.30	10.28 19 18
2	10.46	10.14	10.66 72	10.44	10.26 16 16
3	10.54	10.33	10.73 79	10.21	10.50
4	10.65	10.67	10.93 9	10.58	10.61
5	10.51	10.33	10.56 62	10.35	10.47
6	10.74	10.92	10.98 04	10.72	10.70
7	10.79	–	11.06 12		10.75
8	11.02	–	11.14 20		10.98
9	11.69	–	11.96 62		11.65

For final means see J. 137

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Wednesday, February 16, 1916

Scale V

Nu 6888 — Nyra Companion Stars. Kapteyn Sequence.

	ScB	ScC	SeC	Diff	F.C.	ScB	ScC	SeC	Means	Diff.
1	1.7 1.6			1.70	6.36	6.4	6.3 6.2	6.1	6.30 10 10	1.76
2	1.9 1.8			1.90	6.50	6.7	6.6 6.55	6.5	6.62 08 07	1.78
3	2.1 2.0			2.10	6.64	6.8	7.0 6.9	6.8	6.85 05 05	1.89
4	2.9 2.8	B		2.90	7.02	F	8.3	8.3	8.30 00 00	1.62
5	4.4 4.3	4.6		4.50 10 10	6.16		9.2	9.1	9.15 05 05	1.51
6	4.8 4.7	4.8		4.80 00 00	6.21	almost sf.				
7	5.4 5.3	5.6		5.50 10 10	5.95	T.f.				
8	5.9 5.8	5.7		5.80 10 10	5.82	F				
9	6.3 6.2	6.5		6.40 10 10	5.65					
10	6.9 6.8	7.1		7.00 10 10	5.63					
11	7.0 6.9	7.1 9.0	7.2	7.05 05 05	5.84					
12	F	7.2	7.4	7.30 10 10	5.80					
13		7.6	7.5	7.55 05 05	6.01					
14		8.4	8.4	8.40 00 00	5.96					
15		9.2	9.2	9.20 00 00	5.85					

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Saturday, February 19, 1916

Scale V

Plate Sheet 4

GM

~~Mc~~ 2255

Pallas Comparison Stars

	ScB	ScC			Mag		ScB	ScC			Diff	
1	3.9 3.8	B	3.90	—	—	1	5.5 5.4	5.4	5.45	05 05	2.17	
2	5.3 5.2	5.3	5.30 00 00	2.82	8.12	2	6.8 6.7	6.8	6.80	00 00	2.59	
3	6.0 5.9	5.9	5.95 05 05	2.74	8.69	3	F	7.5	7.50		2.45	
4	6.5 6.4	6.2	6.35 15 15	2.68	9.03	4	F	9.8	9.80		2.30	115 K
5	6.4 6.3	6.4	6.40 00 00	2.68	9.08	5		7.7	7.70		2.58	
6	6.6 6.5	6.4	6.50 10 10	2.66	9.16	6		7.8	7.80		2.91	
7	6.7 6.6	6.8	6.75 05 05	2.63	9.38	7	F	8.6	8.60		2.49	
8	Suj.	—			—	8		8.7	8.70		2.63	
9	F	7.4	7.40	2.56	9.96	9		9.2	9.20		2.70	
10	F	7.5	7.50	2.55	10.05	10		9.6	9.60		2.90	

Sequence B

Ha 142

	ScB	ScC			Mag		ScB	ScC			Diff	
2b	3.9 3.8	4.1	4.00 10 10	—	—	b	5.7 5.6	5.5	5.60 10 10		6.07 2.76 ~~2.31~~	
2c	4.6 4.5	4.8	4.70 10 10	~~3.08~~	7.78	c	6.5 6.4	6.5	6.50 00 00		6.43 2.78	
3	6.9 5.8	5.7	~~6.30~~ 10 10	~~2.81~~	8.61	d	F	7.5	7.50		5.32 2.65	
4	6.7 5.6	5.8	5.70 05 05	2.82	8.57	e		7.8	7.80		5.66 2.57	V Cet
5	5.4 5.8	5.7	5.80 10 10	2.81	8.61	f		8.30	8.00		5.20 2.74	
6	5.9 5.8	5.8	5.85 05 05	2.80	8.65	g	F	8.2	8.20		6.04 3.05	
7	F	6.9	6.90	2.68	9.58	h		8.8	8.80		5.89 3.38	

Sequence C

Ha 165

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Monday, February 21, 1916

Scale V

Plot Sheet 4

AC 6765 Pallas Comparison Stars

				Cu	Magn						Diff.	
	1	4.9 4.8	4.8	4.80 05 05	—	—	1	6.6 6.5	6.7	6.65 05 05	1.57	
	2	6.5 6.4	6.3	6.40 10 10	—	—	2	F	7.75	7.50	1.89	
	3	~~6.8~~ F	7.1	7.10	1.78	8.88	3		7.9	7.90	2.05	
Sequence B	4	~~6.8~~ F	7.3	7.30	1.84	9.14	4	F	8.2	8.20	1.90	1.15 f
Na 142	5	~~7.6~~ F	7.2	7.20	1.81	9.01	5		8.6	8.60	1.68	
	6	F	7.6	7.60	1.93	9.53	6		8.8	8.80	1.91	
	7	F	7.8	7.80	1.44	9.19	7		9.3	9.30	1.79	
	8	Sm.	—	—	—	—	8		F			
	9		8.1	8.10	1.95	10.05	9					
	10		8.1	8.10	1.95	10.05	10					
	2b	4.0 3.8	4.1	4.05 05 05	—	—	b	6.5 6.4	6.3	6.40 10 10	5.37 1.96	
Very	2c	4.2 4.1	4.3	4.25 05 05	—	—	c	7.1 7.0	7.2	7.15 05 05	5.08 2.13	
weak	3	5.7 5.6	5.7	5.70 00 00	2.33	8.03	d	F	8.4	8.40	4.42 1.75	
edge	4	5.9 5.8	5.8	5.85 05 05	2.32	8.17	e		8.8	8.80	4.66 1.57	V. Celi
Images	5	5.9 5.8	5.8	5.85 05 05	2.32	8.17	f		9.3	9.30	3.90 1.44	
almost	6	5.9 5.8	5.9	5.90 00 00	2.29	8.19	g		9.7	9.70	1.55	
reel on glass	7	F	7.3	7.30	2.12	9.42	h		9.9	9.90	2.28	

Sequence C
Na 165

Measured glass side up.

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Monday. February 21, 1916.

Scale V

Plate Sheet 5

AC 5367 — Pallas Companion Stars

				Cu	Magn.				Diff	
	1	3.8 3.7	4.1 3.45 15 15	—	—	1	5.8 5.7	5.4 5.50 00 00	2.42	
	2	5.3 4.7 5.2	5.3 5.30 00 00	—	—	2	7.0 6.9	7.1 7.05 05 05	2.34	
	3	6.3 6.2	6.4 6.35 05 05	2.44	8.79	3	F 7.8	7.80	2.15	
Sequence B	4	6.7 6.6	6.7 6.70 00 00	2.39	7.09	4	F 8.0	8.00	2.10	115 V
Nu 142	5	6.7 6.6	6.7 6.70 00 00	2.39	7.09	5	7.9	7.90	2.38	
	6	6.6 6.5	6.8 6.70 10 10	2.39	7.09	6	8.1	8.10	2.61	
	7	F 7.5	7.00	2.28	9.78	7	8.9	8.90	2.19	
	8	Suf. —	—	—	—	8	8.8	8.80	2.53	
	9	7.7	7.70	2.26	9.96	9	9.4	9.40	2.50	
	10	9.4	7.40	2.29	9.69	10	9.8	9.80	2.70	
	26	3.5 3.4	B 3.50	—	—	L	4.9 4.8	5.2 5.05 15 15	3.31	
	2c	3.6 3.5	B 3.60	—	—	L	5.9 5.8	5.8 5.80 15 15	3.43	
Images distorted	3	4.9 4.8	4.8 4.80 05 05	3.28 (51)	8.13 (36)	d	F 7.4	7.40	2.75	270 V
Sequence C	4	5.0 4.9	5.1 5.05 05 05	3.32 (43)	8.37 (50)	e	7.9	7.90	2.47	
Nu 165	5	4.7 4.6	4.8 4.75 05 05	3.26 (53)	8.01 (28) x	f	7.9 diff	7.90	2.84	
	6	4.9 4.8	5.2 5.05 15 15	3.32 (43)	8.37 (50)	g	7.9			
	7	6.6 6.5	6.5 6.55 05 05	3.22	9.77					

x extrapolated.

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Monday, February 21, 1916

Scale V

Plot Sheet 5

AC 5223 Pallas Comparison Stars

				Cu	Magn.					Diff.	
	1	4.6 4.5	4.8	4.70 10 10	—	—	1	6.5 6.4	6.6	6.55 05 05	1.67
	2	6.1 6.0	6.0	6.05 05 05	—	—	2	I 7.9	7.90		1.49
	3	F 7.2	7.20		1.62	8.82	3	F 8.3	8.30		1.65
Sequence B	4	F 7.4	7.40		1.58	8.98	4	F 8.5	8.50		1.60	115 V
Mar 14 2	5	7.4	7.40		1.58	8.48	5	8.6	8.60		1.68
	6	7.6	7.60		1.54	9.14	6	9.1	9.10		1.61
	7	8.1	8.10		1.51	9.61	7	9.8	9.80		1.29
	8	sm —	—		—	—	8	7.f.			
	9	8.2	8.20		1.54	9.74	9	7.f.			
	10	8.3	8.30		1.58	9.88	10				
	2b	5.7 5.6	5.7	5.70 05 05	—	—	b	6.9 6.8	6.9	6.90 05 05	1.46
Images not as for 2 as in previous plate	2c	6.3 6.2	6.1	6.20 10 10	1.38	7.58	c	F 7.7	7.70		1.58
	3	F 7.3	7.30		1.55	8.85	d	F 9.1	9.10		1.05	270 V
	4	F 7.3	7.30		1.55	8.85	e	9.1	9.10		1.27
	5	7.4	7.40		1.55	8.95	f	9.3	9.30		1.44
	6	F 7.7	7.70		1.56	9.26	g	9.7	9.70		1.55
	7	8.8	8.80		1.22	10.02	h	F			
Sequence C Mar 6 5											

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Means from Magnitudes on

	AM 2255 115K	AC 6765 115K	AC 5367 115K	AC 5223 115K	Mean	Mean + .106	Final Mean
1	–	–	–	–	–		
2	8.1	@	@	@	8.10	8.24	8.17 07 07
3	8.49	8.88	8.79	8.82	8.80 11 08 02 02	8.72	8.76 04 04
Sequence B 4	9.03	9.14	9.09	8.98	9.06 03 08 03 08	9.17	9.12 06 06
Na 142 5	9.08	9.01	9.09	8.98	9.04 04 03 05 06	9.30	9.17 13 13
6	9.16	9.53	9.09	9.14	9.23 07 30 14 09	9.47	9.35 12 12
7	9.38	9.79	9.78	9.61	9.64 24 15 14 03	9.75	9.70 06 05
8	–	–	–	–	—		
9	9.76	10.05	9.96	9.74	9.93 03 12 03 19	9.80	9.86 07 06
10	10.05	10.05	9.69	9.88	9.92 13 13 23 04	9.98	9.95 03 03

	270V	270V x	270V x	270V	
2b	–	–	–	–	–
2c	7.78	–	–	7.58	7.68 10 10
Sequence C 3	8.61	8.03	8.13 36	8.85	8.73 12 12
Na 65 4	8.57	8.17	8.37 50	8.55	8.71 14 14
5	8.61	8.19	8.01 28	8.95	8.78 17 17
6	8.65	8.19	8.37 50	9.26	8.96 31 30
7	9.58	9.42	9.77	10.02	9.80 22 22

Mean of 76

x Reject Sequence 2 on AC 6765 + AC 5367 - Images greatly distorted because near edge of plate

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Tuesday. February 22, 1916

Scale V

AM 22 55

4.7
a 4.6 4.8 4.75 05 05 3.16

V Ceti

AC 6765

4.8
a 4.7 5.1 4.95 15 15 2.96

AC 5367

3.8
a 3.7 4.1 3.95 15 15 3.96

AC 5223

6.4
a 6.3 6.4 6.40 00 00 1.51

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1914phae.proj.1158R

Tuesday, February 22, 1916

Estimates of Magnitude of Pallas using Revised Magnitudes of Comparison Stars

10^h 10^m	Plate No.	Exposure	Magn.	Remarks.
	Ha 158	—	8.4	
	Ha 162	1	8.5	
	Ha 155	X 2	8.5	
	Ha 133	—	8.9	difficult
	Ha 142	—	8.5	
	Ha 161	X 5	8.8	very difficult
	Ha 160	1	8.7	
	Ha 164	1	8.6	
	Ha 140	1	8.9	Defect near 3
	Ha 165	—	8.7	
	Ha 144	1	8.7	
	Ha 157	1	8.7	
	Ha 131	1	8.9	
	Ha 136	1	8.9	
	Ha 134	1	8.6	Defect near Pallas
	Ha 137	1	9.0	Plate fogged
	Ha 162	2	8.5	
	Ha 155	1	8.5	
	Ha 161	1	8.7	
	Ha 160	2	8.7	
	Ha 164	2	8.6	
	Ha 140	2	8.6	
	Ha 144	2	9.0	images very much elongated
	Ha 157	2	8.7	
	Ha 131	2	8.8	
	Ha 136	2	8.6	images very bright, so difficult
	Ha 134	2	8.8	images bright & elongated
	Ha 137	2	8.8	
	Ha 162	3	8.7	

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Tuesday, February 22, 1916

Estimates of Magnitude of Pallas

Plate No.	Exposure	Mags.	Remarks
Ha 155	3	8.7	
Ha 161	2	8.7	
Ha 160	3	8.7	
Ha 164	3	8.7	
Ha 140	~~3~~	8.7	
Ha 144	3	8.9	
Ha 157	3	8.7	
Ha 131	3	8.7	
Ha 136	3	8.9	
Ha 134	3	8.9	
Ha 137	3	8.9	
Ha 162	4	8.7	
Ha 155	4	8.6	
Ha 161	3	8.7	
Ha 160	4	8.7	
Ha 164	4	8.7	
Ha 140	4	8.7	
Ha 144	4	8.8	
Ha 157	4	8.7	
Ha 131	4	8.6	
Ha 136	4	8.7	
Ha 134	4	8.8	
Ha 137	4	9.0	badly fogged
Ha 162	5-	8.6	
Ha 155	5	8.7	
Ha 161	4	8.7	
Ha 160	5	8.7	
Ha 140	5-	8.8	
Ha 144	5-	8.9	

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1914phae.proj.1158R

Tuesday, February 22, 1916

Estimates of Magnitude of Pallas

Plate No	Exposure	Magnitude	Remarks
No 131	5	8.8	
No 136	5	8.8.	

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1914phae.proj.1158R

9h 15m

Thursday, February 24, 1916

Scale V

UC 3774 Type Comparison Stars – Kapteyn Sequence

				Diff	F.C.		Diff
1	1.8 1.7	1.80	6.42	6.26	6.5 6.4 6.2 6.2	6.30 20 10 10	1.76
2	2.2 2.1	2.20	7.19	6.20	6.7 6.6 6.6 6.8	6.70 00 10 10	1.70
3	2.3 2.2	2.30	7.65	6.44	6.9 6.8 6.8 6.8	6.83 07 03 03	1.91
4	3.3 3.2 B	3.30	6.80	6.62	F 8.4 8.4	8.40 00 00	1.52
5	4.3 4.2 4.7	4.50 20 20	5.78	6.16	9.3 9.4	9.35 05 05	1.31
6	4.5 4.4 5.0	4.75 25 25	5.96	6.26	9.8	9.80	1.21
7	5.7 5.6 5.6	5.65 05 05	5.44	5.80	10.0	10.00	1.45
8	5.9 5.8 5.8	5.85 05 05	5.48	5.77	F		
9	6.6 6.5 6.4	6.50 10 10	5.40	5.55			
10	F 7.4	7.40	5.10	5.23			
11		7.29 7.37 25 05 05	5.53	5.64			
12		7.3 7.47 35 05 05	5.71	5.75			
13		7.9 7.8 7.85 05 05	6.27	5.71			
14	F 8.8	8.8 8.80 00 00	5.48	5.56			
15		9.6 9.5 9.55 05 05	5.20	5.60			

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1914phae.proj.1158R

Thursday, February 24, 1916

Scale v

Mc 3774 Nyra Comparison Star Sequence A

				Cu	Magn.	FC				Cu	Magn
1	2.7 2.6		2.70	6.55	9.25	F ×	8.4 8.7	8.6	8.50 10 10	1.46	9.96
2	2.3 2.2		2.30	6.42	8.72		8.7	8.7	8.70 00 00	1.43	10.13
3	2.9 2.8		2.90	6.58	9.48	F	8.8	8.7	8.75 05 05	1.42	10.17
4	3.2 3.1	B	3.20	6.52	9.82		9.0	9.0	9.00 00 00	1.40	10.40
5	3.2 3.1	B B	3.20	6.62	9.82	F	8.9	8.9	8.90 00 00	1.41	10.31
6	4.0 3.9	4.1 4.2	4.10 10 00	6.41	10.51		9.7		9.70	1.32	11.02
7	3.7 3.6	4.0 3.9 (B)	3.87 17 30	36.48	10.35		9.6		9.60	1.34	10.94
8	4.0 3.9	4.4 4.4	4.27 27 03	6.37	10.64		9.9		9.90	1.31	11.21
9	5.3 3.2	5.5 6.7	5.50 20 00	20 5.93	11.43	F					

N.B. Reject these magnitudes because Mc 3774 is not a centred plate and sequence was not at centre.

× wrong star

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1914phae.pfoj.1158R

Thursday, February 24, 1916

Scale V

Mc 6695 Nova Companion Stars – Kapteyn Sequence

					Diff	P.C.		Diff
1	2.2 2.1		2.20		5.86	6.5 6.4 6.3 6.4	1.42 6.40 10 10 00	1.66
2	2.4 2.3		2.40		6.00	6.8 6.7 6.8 6.8	6.80 00 00 00	1.60
3	2.6 2.5	B	2.60		6.14	7.0 6.9 7.2 6.9	7.02 7.03 03 17 13	1.71
4	3.4 3.3	B	3.40		6.52	F 8.2 8.4	8.30 10 10	1.62
5	4.4 4.3	4.6	4.40		6.26	8.9 8.9	8.90 00 00	1.76
6	4.9 4.8	4.9	4.90 00 00		6.11	54	—	
7	5.4 5.3	5.6	5.50 10 10		5.95	9.7	9.70	1.75
8	5.8 5.7	5.4	5.60 20 20		6.02	F		
9	6.3 6.2	6.3	6.30 00 00		5.75			
10	6.7 6.6	7.0	6.85 15 15		5.78			
11	6.9 6.8	7.0	7.1	7.00 10 10	5.89			
12	F	7.2	7.2	7.20 00 00	5.90			
13		7.6	7.7	7.65 05 05	5.91			
14	F	8.2	8.2	8.20 00 00	6.16			
15		9.5	9.4	9.45 05 05	5.60			

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Thursday, February 24, 1916

Scale V

Nyssa Comparison Star Sequence A

						Cu	Magn.	P.C.			Cu	Magn.
	2.6							~~8.7~~				
1	2.5			2.60		6.13	8.73	F 8.6	8.2	8.40 20 20	1.66	10.06
	2.8							~~8.7~~				
2	2.7			2.80		6.23	9.03	F 8.6	8.2	8.40 20 20	1.66	10.06
	2.9											
3	2.8			2.90		6.28	9.18	F 8.4	8.5	8.45 05 05	1.67	10.12
	3.0											
4	2.9			3.00		6.34	9.34	8.7	8.6	8.65 05 05	1.68	10.33
	3.3											
5	3.2	B	B	3.30		6.47	9.77	8.6	8.8	8.70 10 10	1.68	10.38
	3.7											
6	3.6	B	B	3.70		6.49	10.19	9.2		9.20	1.69	10.89
	3.9				3.98							
7	3.8	4.1	4.0	4.00 10 10		6.42	10.42	F 9.0		9.00	1.69	10.69
	3.9				4.10							11.10
8	3.6	4.3	4.3	4.17 27 13 13		6.38	10.55	9.4		9.47	1.70	~~12.10~~
	5.3				5.34			9			76	
9	5.2	5.5	5.4	5.40 10 10 10		6.01	11.41	8.8 v.f.		9.80	1.62	11.42

N.B. Reject these magnitudes.
Sequence more than 80 mm.
from center.

Prismatic comparison images very faint.

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Saturday. March 4. 1916

Scale V

Plate Sheet 7

AC 13404 Nyssa Comparison Stars -

				Mean	Diff
1	5.8 5.7 5.8			5.80 00 00	2.16
2	6.0 5.9 5.9			5.95 05 05	2.45
3	6.3 6.2 6.3			6.30 00 00	2.44
4	F	7.6	7.8	7.70 10 10	2.22
5		8.7	8.6	8.65 05 05	2.01
6		9.6	9.3	9.45 15 15	1.56
7		10.0	9.5	9.75 25 25	1.70
8		F	9.6	9.60	2.02
9					

92K

					Cu	Meagre
1	F	8.5	7.9	8.20 30 30	2.13	10.33
2		7.7	8.1	7.90 20 20	2.20	10.10
3		8.2	7.9	8.05 15 15	2.17	10.22
4		7.8	8.4	8.10 30 30	2.16	10.26
5		8.4	8.1	8.25 15 15	2.12	10.37
6		8.8	8.6	8.70 10 10	2.01	10.71
7		8.8	8.7	8.75 05 05	1.98	10.73
8			9.2	9.20	1.88	11.08

Nyssa Sequence A

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Saturday March 4, 1916

Scale V

Plate Sheet 7

Nyssa Comparison Stars AC 13 418

			Mean	Diff
	4.8			
1	4.7	4.5	4.65 15 15	3.39
	4.7			
2	4.6	4.8	4.75 05 05	3.65
	5.0			
3	4.9	5.2	5.10 10 10	3.64
	7.0			
4	6.9	7.4 7.4	7.27 27 1313	2.65
92K 5	F	8.8 8.6	8.70 10 10	1.96
6		9.4 9.2	9.30 10 10	1.71
7		9.6 9.6	9.60 00 00	1.85
8		9.8 9.8	9.80 00 00	1.82
9		F F		

				Ce	Mag
	7.1				
1	7.0	7.1	7.10 00 00	2.73	9.83
2	F	6.8	6.80	2.87	9.67
3	7.0	7.3	7.15 15 15	2.70	9.85
Nyssa 4	F	7.7 7.8	7.75 05 05	2.43	10.18
Sequence A 5	F	7.6 7.8	7.70 10 10	2.45	10.15
6		8.6 8.8	8.70 10 10	1.98	10.68
7		8.8 8.9	8.85 05 05	1.94	10.79
8		9.8 9.7	9.75 05 05	1.72	11.47

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Salem Harv. March 4, 1916

Scale V

Plot Sheet 7

AC 13296 Mysa Comparison Stars

					Mean	Diff.
1	5.8	5.7		5.80 10 10	2.26
2	5.9	5.8		5.90 10 10	2.50
3	6.8	6.5	8.8×	6.70 20 20	2.04
4	F	8.4	9.9×	8.60 20 20	1.32
5		9.5	9.7	9.60 10 10	1.06
6		10.0	10.0	10.00 00 00	1.01
7		F	F		
8					
9					

92K

					Cu	Magn.	Mc6888	AC13404	AC13418	Mean
1	F	8.8	8.8	8.80 00 00	1.25	10.05	10.28	10.33	9.83	10.12 16 07 21 29
2		8.9	8.9	8.90 00 00	1.22	10.12	10.26	10.10	9.67	10.04 08 22 06 37
3		9.1	9.2	9.15 05 05	1.16	10.31	10.60	10.22	9.85	10.22 09 28 00 37
4		9.1	9.3	9.20 10 10	1.14	10.34	10.61	10.26	10.18	10.35 01 26 09 17
5		9.3	9.4	9.35 05 05	1.11	10.46	10.47	10.37	10.15	10.36 10 11 01 21
6		10.0	9.8	9.90 10 10	0.99	10.89	10.70	10.71	10.68	10.74 15 04 03 08
7		9.8	9.7	9.75 05 05	1.02	10.77	10.75	10.73	10.79	10.76 01 01 03 03
8		F	F			—	10.98	11.08	11.47	11.18 – 20 10 29
						—	11.65	—	—	11.65 – 00 – –

Mysa Sequence A

× Wrongly recorded for 4 in sheet 5

" " 3 " " 4

, Wrong star

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Saturday. March 4, 1916

Scale V

	α M 7903	Nyssa Comparison Stars
	1	
	2	
	3	
92K	4	
	5	N.B. I was so elongated, they are too difficult to compare with scale.
	6	
	7	
	8	
	9	
	1	
	2	
	3	
Nyssa	4	
Sequence	5	
	6	
	7	
	8	

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Monday March 6, 1916

Estimates of Magnitude of Pallas.

Plate No.	Magn.	Remarks.
AM 11108	8.6	
AM 10089	Images not comparable.	All near edge of plate
AM 11132	" "	"
AM 11138	" "	"
~~AM~~ AM 11150	8.7	
AM 11262	Pallas too elongated for measurement	
AM 11332	8.7	
AC 16814	Pallas too elongated for measurement.	

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Monday. March 6, 1916

Estimates of Magnitude of Nova

Plate No.	Exposure	Magnitude	Remarks
Ha 174	—	10.45	
Ha 182	—	10.5	
Ha 181	1	10.6	
Ha 179	1	10.5	
Ha 177	1	10.2	Difficult because images have jerkin shape.
Ha 176	1	10.6	
Ha 173	1	10.5	
Ha 171	1	10.6	
Ha 184	1	9.8	
Ha 181	2	10.6	
Ha 179	2	10.6	
Ha 177	2	10.6	
Ha 176	2	10.6	
Ha 173	2	10.5	
Ha 171	2	10.5	
Ha 184	2	10.1	
Ha 181	3	10.6	

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Tuesday March 7, 1916

Estimates of Magnitude of Nova

Plate No.	Exposure	Magnitude	Remarks.
Na 179	3	10.6	
Na 177	3	10.6	
Na 176	3	10.6	
Na 173	3	10.5	
Na 171	3	images not comparable -	
Na 184	3	10.1	
Na 181	4	10.6	
Na 179	4	10.6	
Na 177	4	10.6	
Na 176	4	10.6	
Na 173	4	10.6	
Na 171	4	10.6	
Na 184	4	10.2	
Na 179	5	10.6	
Na 177	5	10.6	
Na 176	5	10.5	
Na 171	5	10.6	
Na 184	5	10.0	

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Tuesday March 7, 1916

Estimates of Magnitude of Nova

Plate No	Exposure	Magnitude	Remarks
Na 174	—	10.5	
Na 182	—	10.6	
Na 171	1	10.6	
Na 184	1	9.7	
Na 181	1	10.6	
Na 173	1	10.5	
Na 179	1	10.6	
Na 177	1	10.8	
Na 176	1	10.3	
Na 171	1	10.5	
Na 184	1	9.7	
Na 181	2	10.6	
Na 173	2	Can't be measured in each of superpositions.	
Na 179	2	10.6	
Na 177	2	10.6	
Na 176	2	10.6	
Na 171	2	10.6	
Na 184	2	10.0	
Na 181	3	10.6	
Na 173	3	10.6	
Na 179	3	10.6	
Na 177	3	10.6	
Na 176	3	10.5	
Na 171	3	10.6	
Na 184	3	10.6	
Na 177	4	10.6	
Na 176	4	10.5	

All previous measures of Na 184 have been of the wrong object.

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Tuesday. March 7, 1916

Estimates of Magnitude of Nova

Plate No	Exposure	Magnitude	Remarks
Na 184	1	10.6	
Na 171	4	10.6	
Na 181	4	10.6	
Na 173	4	10.6	
Na 179	4	10.6	
Na 184	2	10.6	
Na 177	5	10.6	
Na 176	4	10.5	
Na 171	5	10.6	
Na 184	4	10.6	
~~Na 173~~	~~5~~		
Na 179	5	10.6	
Na 176	5	10.5	
Na 184	5	10.5	

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Friday March 10, 1916

Scale V

9h 45m

Plot Sheet 8.

Ceres Comparison Stars — AM 6684

			Mean		Diff.
		3.4			
1	3.3	B	3.40		3.54
		3.9			
2	3.8	4.2	4.05	15 15	3.19
		4.3			
3	4.2	4.5	4.40	10 10	3.24
		4.9			
4	4.8	4.8	4.85	05 05	3.35
		4.9			
5	4.8	5.2	5.05	15 15	3.11
		6.0			
6	5.9	5.7	5.85	15 15	2.82
		6.4			
7	6.3	6.3	6.35	05 05	2.71
		6.6			
C_2 8	6.5	6.8	6.70	10 10	2.41
		6.7			
9	6.6	6.7	6.70	00 00	2.54
		6.9			
10	6.8	6.8	6.85	05 05	2.50
11	F 7.5	7.4	7.45	05 05	2.29
12	7.7	7.7	7.70	00 00	2.26
12a	8.3	8.4	8.35	05 05	2.06
13	8.6	8.7	8.65	05 05	1.77
14	9.1	9.1	9.10	00 00	1.69

			Mean	Cu	Magn
		2.9			
1	2.8	B	2.90	—	—
		4.7			
2	4.6	4.8	4.75	05 05	3.18 7.93
Ceres		4.9			
3	4.8	5.2	5.05	15 15	3.12 8.17
Sequence A		4.8			
4	4.7	5.1	4.95	15 15	3.13 8.08
		5.6			
5	5.5	5.8	5.70	10 10	2.92 8.62
		6.0			
6	5.9	6.2	6.10	10 10	2.78 8.88
		6.8			
7	6.7	6.8	6.80	00 00	2.49 9.29

Means Taken f. 1917

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1914phot.proj.11503

Friday. March 10, 1916.

Scale V

Plot Sheet 8

AM 9453 - Ceres Comparison Stars

1	4.9 4.8	5.2	5.15 Sc BC	5.1	5.02 12 13	1.92	
2	4.9 4.8	5.2	5.25	5.3	5.08 18 17	2.16	
3	4.9 4.8	5.6	5.50	5.4	5.20 30 30	2.44	
4	6.5 6.4	6.3	6.25	6.2	6.38 12 13	1.82	
5	6.0 5.9	5.9	5.75	5.8	5.88 12 13	2.28	
6	6.4 6.3	6.8	6.60	6.4	6.50 10 10	2.17	
7	6.8 6.7	6.8	6.85	6.9	6.82 02 03	2.24	
8	F	7.4	7.40	7.4	7.40 00 00	1.71	
9	~~6.9~~ F 7.3		7.2		7.25 05 05	1.99	
10	F	7.5	7.4		7.45 05 05	1.90	
11		7.9	7.8		7.75 05 05	1.99	
12		8.1	7.9		8.00 10 10	1.96	
12a		8.4	8.5		8.45 05 05	1.96	
13		8.8	8.6		8.70 10 10	1.72	
14		8.8	8.8		8.80 00 00	1.99	

Ceres Sequence A

					Mean	Cu	Means
1	4.0 3.9	4.4	4.40 Sc C	4.4	4.20 20 20	–	
2	5.0 4.9	5.1			5.05 05 05	2.17	7.22
3	6.0 5.9	5.9			5.95 05 05	2.06	8.01
4	5.9 5.8	5.6			5.75 15 15	2.08	7.83
5	6.4 6.3	6.3			6.35 05 05	2.01	8.36
6	6.6 6.5	6.7			6.65 05 05	1.98	8.63
7	F	7.2			7.20	1.95	9.15

Means Taken J. 147

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Friday. March 10, 1916

Scale V

Plot Sheet 8

AN 6604 – Ceres Comparison Stars

		3.9				
1	3.8	4.3	4.10	20	20	2.84
		4.4				
2	4.3	4.8	4.60	20	20	2.64
		5.3				
3	5.2	5.3	5.30	00	00	2.34
		5.9				
4	5.8	5.8	5.85	05	05	2.35
		5.9				
5	5.8	5.8	5.85	05	05	2.31
		6.5				
6	6.4	6.7	6.60	10	10	2.07
		6.6				
7	6.5	6.8	6.70	10	10	2.36
		6.9				
8	6.8	7.2	7.05	15	15	2.06
		7.1				
9	7.0	7.4	7.25	15	15	1.99
10	F	7.2	7.4	7.30	10	10	2.05
11	F	7.6	7.7	7.65	05	05	2.09
12		8.0	8.0	8.00	00	00	1.96
12a		8.4	8.4	8.40	00	00	2.01
13		8.6	8.7	8.55	05	05	1.87
14		8.8	8.7	8.75	05	05	2.04

C_2

			Mean	Cu	Mag
		4.0			
1	3.9	4.4	4.20	20	20	2.76	6.96
		4.8					
2	4.7	5.4	5.10	30	30	2.50	7.60
		5.5					
3	5.4	5.8	5.65	15	15	2.37	8.02
		5.7					
4	5.6	5.8	5.75	05	05	2.34	8.09
		6.4					
5	6.3	6.3	6.35	05	05	2.21	8.56
		6.6					
6	6.5	6.8	6.70	10	10	2.14	8.84
		6.9					
7	6.8	7.2	7.05	15	15	2.08	9.13

Ceres Sequence A

Means Taken f. 147

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Friday March 10, 1916

Scale v

Plot Sheet 8

AM 6459 – Ceres Comparison Stars

	1	3.5 3.4 B	3.50		3.44
	2	3.9 3.8 4.3	4.10 20 20		3.14
	3	4.5 4.4 4.8	4.65 15 15		2.99
	4	5.4 5.3 5.5	5.45 05 05		2.75
	5	5.3 5.2 5.4	5.35 05 05		2.81
	6	6.3 6.2 6.2	6.25 05 05		2.42
C_2	7	6.3 6.2 6.7	6.50 20 20		2.56
	8	6.5 6.4 6.7	6.60 10 10		2.51
	9	6.9 6.8 6.9	6.90 00 00		2.34
	10	6.9 6.8 6.7	6.80 10 10		2.55
	11	F 7.4 7.4	7.40 00 00		2.34
	12	7.8 7.8	7.80 00 00		2.16
	12a	8.5 8.3	8.40 10 10		2.01
	13	8.7 8.8	8.75 05 05		1.67
	14	9.0 8.9	8.95 05 05		1.84

			Mean	Cu	Mag	AM 6684	AM 9453	AM 6604	Mean
	1	3.3 3.2 B	3.30	–	–	–	–	6.96	6.96 – – – 00
	2	4.3 4.2 4.8	4.55 25 25	3.04	7.59	7.93	7.22	7.60	7.58 01 35 36 02
	3	4.9 4.8 5.3	5.10 20 20	2.65	7.95	8.17	8.01	8.02	8.04 09 13 03 02
Ceres	4	5.5 5.4 5.4	5.45 05 05	2.75	8.20	8.08	7.83	8.09	8.05 15 03 22 04
Sequence A	5	5.9 5.8 5.9	5.95 00 00	2.58	8.53	8.62	8.36	8.56	8.52 01 10 16 04
	6	6.4 6.3 6.4	6.40 00 00	2.47	8.87	8.88	8.63	8.84	8.80 07 08 17 04
	7	6.8 6.7 7.2	7.00 20 20	2.33	9.33	9.29	9.15	9.13	9.22 11 07 07 09

x wrong star marked

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1914phae.proj.1158R

Monday, March 13, 1916

Estimates of Magnitude of Ceres

$9^h\ 0^m$	Plate No	Ex frame	Magnitude	Remarks
	Ha 189	—	7 7.9	
	Ha 192	1	7 7.8	
	Ha 186	1	7 7.8	
	Ha 191	1	7 7.9	
	Ha 194	1	7 7.8	
	Ha 188	1	7 7.9	images timed to compare
	I 39177	1	7.8	
	I 39177	3	7.8	
	I 39178	1	7.8	
	I 39178	2	7.9	
	I 39179	1	7.8	
		15	7.9	
	I 39180	15	7.9	
		3	7.8	
	I 39181	1	7.7	
		4	7.8	
	I 39182	1	7.9	
		13	7.9	
	I 39183	1	7.9	
		13	7.8	
	I 39185	1	7.9	
		21	8.1	
	Ha 192	2	7.8	
	Ha 186	2	7.8	
	Ha 191	2	7.9	
	Ha 194	2	7.8	
	Ha 188	2	7.8	
	I 39177	24	7.8	
		17	7.9	

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1914phae.proj.1158R

Monday, March 13, 1916

Estimates of Magnitude of Ceres

Date	No.	Ephemeris	Magnitude	Remarks.
I 39178		8	7.9	
		12	7.8	
I 39179		2	7.9	
		7	7.8	
I 39180		11	7.9	
		1	7.8	
I 39181		5	7.9	
		3	7.9	
I 39182		7	8.0	
		4	8.0	
I 39183		7	8.0	
		11	8.0	
I 39185		13	8.0	
		7	8.0	
Ha 192		3	7.9	
Ha 188		3	7.8	
Ha 191		3	7.9	
Ha 194		3	7.9	
Ha 188		3	7.8	
I 39177		15	7.9	
		12	7.9	
I 39178		11	7.9	
		7	7.9	
I 39179		4	7.9	
		10	7.9	
I 39180		2	7.9	
		12	7.9	
I 39181		2	7.9	
I 39182		5	8.0	

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1914phae.proj.1158R

Estimates of Magnitude of Ceres

Plate No.	Exposure	Magnitude	Remarks
I 39182	9	7.9	
I 39183	8	7.9	
	4	8.0	
I 39185	19	8.0	
	5	7.9	
Nw 192	4	8.0	
Nw 186	4	7.8	
Nw 191	4	8.0	
Nw 194	4	8.0	
Nw 188	4	8.0	

All the images are extremely light and at times the asteroid images are of a slightly different shape and hard to compare accurately with the star images.

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1914phae..proj..1159R

Tuesday, March 14, 1916

Estimates of Magnitude of Ceres

$q^h\ 0^m$

Plate No.	Exposure	Magnitude	Remarks
I 39177	6	7.9	
	9	7.9	
I 39178	10	7.9	
	5-	8.0	
I 39179	6	7.9	
	13	7.9	
I 39180	5-	7.9	
	8	7.9	
I 39182	3	8.1	
	11	8.0	
I 39183	3	8.0	
	10	7.9	
I 39185	10	7.9	
	16	8.1	
Ha 192	5-	7.8 - images are very hard & compact	
Ha 188	5-	7.9 " " " " " "	
Ha 191	5-	7.9 " " " " " "	
I 39177	23	8.0	
	7	8.0	
I 39178	4	8.0	
	9	7.9	
I 39179	12	8.0	
	5-	7.9	
I 39180	7	8.0	
	13	7.9	
I 39182	2	7.9	
	12	7.9	
I 39183	2	8.0	
	9	8.2	

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1914phae.proj.1158R

Tuesday, March 14, 1916

Estimates of Magnitude of Ceres

Plate No.	Exposure	Magnitude	Remarks
I 39185	18	8.1	
	20	7.9	
I 39177	22	7.9	
	8	8.0	
I 39178	3	7.9	
	6	8.0	
I 39179	9	8.0	
	3	8.0	
I 39180	10	7.9	
	14	7.9	
I 39182	6	8.0	
	12 8	8.0	
I 39183	12	8.0	
	5	8.0	
I 39185	17	8.0	
	12	8.0	
I 39177	21	7.9	
	11	7.9	
I 39179	14	8.0	
	8	7.9	
I 39180	4	7.9	
	9	8.0	
I 39182	10	8.1	
I 39183	6	8.1	
I 39185	9	7.9	
	15	8.1	
I 39177	5	8.0	
	19	8.1	
I 39179	11	7.9	

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1914phae.proj.1158R

Tuesday, March 14, 1916

Estimates of Magnitude of Ceres

Plate No.	Exposure	Magnitude	Remarks
I 39180	6	8.0	
I 39185	4	8.0	
	11	8.0	
I 39177	2	7.9	
	10	7.9	
I 39185	8	7.9	
I 39177	4	8.0	
	20	8.0	
I 39185	14	8.0	
I 39177	16	8.0	
	13	7.9	
I 39185	2	8.0	
I 39177	14	8.0	
	18	7.9	
I 39185	6	8.0	
AC 16907	—	nc	
AC 17145	—	8.0	
AC 17117	—	image distorted - too near edge of plate	
AC 17102	—	7.9	
AC 17063	—	7.9	
AC 16972	—	nc	
AC 17002	—	7.9	
AC 16913	—	8.0	
I 39186	3	8.0	

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1914phae.proj.1158R

Friday March 17, 1916

Scale V

Plot sheet 9

9h 0m AC 10969 - Psyche Comparison Stars.

				Mean	Diff	
		6.6				
1	6.5	6.3		6.45 15 15	0.71	
		6.8				
2	6.7	N 6.6		6.70 10 10	0.88	
3	7	N 7.6	7.5	7.58 05 05	0.70	
4	F	8.5	8.5	8.50 00 00	0.81	Hyades Sequence
5		8.6	8.5	8.55 05 05	0.87	
6		8.8 9.2	9.1	9.15 05 05	0.82	
7		9.5	8 9.5	9.50 00 00	1.20	
8a		F	F			
9						

1	F	7.8	7.7	7.75 05 05	0.77	8.52	
2		7.6	7.6	7.60 00 00	0.76	8.36	
3		7.5	7.8	7.65 15 15	0.77	8.42	
4		8.1	7.8	7.95 15 15	0.79	8.74	
5	F	8.1	8.4	8.25 15 15	0.79	9.04	
6		8.2	8.3	8.25 05 05	0.79	9.04	Psyche Sequence
7		8.5	8.5	8.50 00 00	0.82	9.32	AB
8		8.8	8.5	8.65 15 15	0.84	9.49	
9		8.8	8.9	8.85 05 05	0.86	9.91	
10		8.8	8.8	8.80 00 00	0.85	9.65	
11		8.4	8.5	8.45 05 05	0.82	9.27	
12		9.0	9.1	9.05 05 05	0.87	9.92	
13		9.0	8 9.0	9.00 00 00	0.86	9.86	
14		9.5	9.2	9.50 30 30	0.92	10.42	
15		9.6	9.8	9.80 00 00	—		

Stars 1, 4 and 15 are very difficult to measure on account of other nearby stars.

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1914phae.proj.1158R

Friday, March 17, 1916

Scale V

Plot Sheet 9

AC 11278 — Psyche Comparison Stars

				Mean	Dif	
	1	5.3 5.2	5.3	5.30 00 00	1.86	
	2	6.1 6.0	6.0 5.9	5.95 15 15	1.63	
	3	6.3 6.4	6.3	6.50 00 00	1.75	
	4	F	7.8 7.8	7.80 00 00	1.61	
Hyades	5		7.9 8.0	7.95 05 05	1.47	
Sequence	6		8.4 8.3	8.35 05 05	1.62	
	7		8.9 8.9	8.90 00 00	1.80	
	8a		9.5 9.3	9.40 10 10	—	
	9		10.0 10.0	10.00 00 00	1.87	
	1	F	7.4			
	2	6.9 6.8	6.8 6.85 6.9	6.88 02 03	1.68	8.56
	3	6.8 6.9	7.1 7.0	6.98 05 07	1.66	8.64
	4	F	7.4 7.4	7.40 00 00	1.63	9.03
Psyche	5		7.4 7.2	7.30 10 10	1.64	8.94
Sequence	6		7.5 7.4	7.45 05 05	1.63	9.08
	7		7.7 7.8	7.75 05 05	1.62	9.37
	8		7.8 7.8	7.80 00 00	1.62	9.42
	9		7.9 7.9	7.90 00 00	1.61	9.51
	10		8.0 7.9	7.95 05 05	1.61	9.56
	11		7.9 7.9	7.90 00 00	1.61	9.51
	12		8.3 8.2	8.25 05 05	1.62	9.87
	13		8.1 8.1	8.10 00 00	1.61	9.71
	14		8.5 8.5	8.50 00 00	1.69	10.13
	15		8.9 8.9	8.90 00 00	1.64	10.54

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1914phae.proj.1158R

Friday. March 17. 1916

Scale V

Plot sheet 9

AC 12683 - Psyche Comparison Stars

				Mean	Diff	
		3.9				
1	3.8	4.5	4.6	4.33 43 17 27	2.83	
2	5.3 5.2	4.9	5.1	5.10 20 20 00	2.48	
3	4.9 4.6	5.3	5.2	5.07 37 23 13	3.18	
4	6.5 6.4	6.8	6.5	6.60 10 20 10	2.71	
5	6.4	6.9	6.9	6.87 07 03 03	2.56	Hyades Sequence
6	F	7.4	9.4	7.40 00 00	2.57	
7		8.0	8.1	8.05 05 05	2.65	
8a		8.6	8.8	8.70 10 10	—	
9		9.4	9.4	9.40 00 00	2.47	

		5.6				
1	5.5	5.8		5.70 10 10	2.70	8.40
2	5.1 5.0	5.4		5.25 15 15	2.76	8.01
3	5.6 5.5	5.8		5.70 10 10	2.70	8.40
4	6.2 6.1	6.2		6.20 00 00	2.64	8.84
5	6.3 6.2	5.9		6.10 20 20	2.66	8.76
6	6.6 6.5	6.6		6.60 00 00	2.62	9.22
7	6.5 6.4	6.3		6.40 10 10	2.63	9.03
8	6.7 6.6	6.7		6.70 00 00	2.61	9.31
9	6.9 6.8	7.1		7.00 10 10	2.59	9.59
10	6.9 6.8	6.8		6.85 05 05	2.60	9.45
11	6.8 6.7	6.8		6.80 00 00	2.60	9.40
12	6.9 6.8	6.8		6.85 05 05	2.60	9.45
13	F	7.4	7.4	7.40 00 00	2.58	9.98
14	F	~~8.3~~ 7.8	7.7	7.70 00 00	2.55	10.25
15	F	8.3	8.5	8.40 10 10	2.52	10.92

Psyche Sequence A B C

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1914phae.proj.1158R

Friday, March 17, 1916

Scale V

Plot Sheet 9

AC 11192 - Psyche Comparison Stars

					Mean	Diff
	1	5.4	5.3	5.5 (5.5)	5.43 07 13 07	1.78
	2	6.2 (6.3)	5.8	5.8	5.77 33 17 17	1.61
	3	6.3 (6.4)	6.4	6.2	6.33 07 07 13	1.92
Hyades	4	F	7.6	7.3	7.45 15 15	1.86
Sequence	5		7.7	7.8	7.75 05 05	1.67
	6		8.2	8.2	8.20 00 00	1.77
	7		8.7	8.7	8.70 00 00	2.00
	8a		9.2	9.0	9.10 10 10	—
	9		F	F		-

							AC 10969	AC 11278	AC 12683	Mean
	1	6.6 (6.7)	6.7	6.9	6.77 07 07 13	1.75	8.52	8.52	—	8.40	8.48 04 04 12 08
	2	6.8 (6.9)	6.4	6.8	6.70 20 30 10	1.75	8.45	8.36	8.56	8.01	8.34 11 02 22 33
	3	6.8 (6.9)	6.8	6.8	6.83 07 03 03	1.77	8.60	8.42	8.64	8.40	8.52 08 10 12 12
	4	6.8 (6.9)	7.1	7.0	7.00 10 10 00	1.76	8.76	8.74	9.03	8.84	8.84 05 10 19 00
Psyche	5	F	6.8	6.9	6.85 05 05	1.76	8.61	9.04	8.94	8.76	8.84 23 20 10 08
Sequence	6		7.3	7.6	7.45 15 10	1.78	9.23	9.04	9.08	9.22	9.14 09 10 06 08
	7		7.1	7.1	7.10 00 00	1.77	8.87	9.32	9.37	9.03	9.15 28 17 22 13
	8		7.8	7.3	7.55 25 25	1.78	9.33	9.49	9.42	9.31	9.39 06 10 03 05
	9		7.9	7.8	7.85 05 05	1.79	9.64	9.71	9.51	9.59	9.61 03 10 10 02
	10		7.5	7.8	7.65 15 15	1.78	9.43	9.65	9.56	9.45	9.52 09 13 04 07
	11		7.8	7.4	7.60 20 20	1.78	9.38	9.27	9.51	9.40	9.39 01 12 12 01
	12		7.8	8.0	7.90 10 10	1.80	9.70	9.92	9.87	9.45	9.74 04 18 13 29
	13		8.1	8.0	8.05 05 05	1.81	9.86	9.86	9.71	9.98	9.85 01 01 14 13
	14		8.3	8.4	8.35 05 05	1.83	10.18	10.42	10.13	10.25	10.24 06 18 11 01
	15		9.1	8.8	8.95 15 15	—	—	—	10.54	10.92	10.73 A A 19 19

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Hyades Sequence. Magnitudes. Means from HC 7814+HC 7836

	Star Images			P.C.			Diff. Images		
1	–			7.26	7.06	7.16 15 10	7.12	7.45	7.28 16 17
2	–			7.82	7.35	7.58 24 23	7.63	7.70	7.66 03 04
3	–			8.22	8.28	8.25 03 03	8.09	8.10	8.10 01 00
4	9.55	9.11	9.33 22 22	9.34	9.29	9.32 02 03	9.35	9.23	9.29 06 06
5	9.38	9.28	9.33 05 05	9.80	9.37	9.58 22 21	9.35	9.37	9.36 01 01
6	10.14	9.93	10.04 10 10	10.08	9.73	9.90 18 17	10.05	9.87	9.96 09 09
7	10.75	10.46	10.60 15 14	10.83	10.71	10.77 06 06	10.94	10.61	10.80 19 19
9	12.00	11.74	11.87 13 13						

Rejected above this line

Rejected below this line

Final means

1	7.16	–	–	–
2	7.58	–	–	–
3	8.25	–	–	–
4	9.31	02	01	02
5	9.42	09	16	06
6	9.97	07	07	01
7	10.70	10	–	10
9	11.87	–	–	–

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Saturday, March 18, 1916

Estimates of Magnitude of Psyche

Plate No	Exposure	Magnitude	Remarks
Ha 206	—		Images too diffuse to compare-
Ha 201	—		" " " " "
Ha 200	1		" " " " "
Ha 205	4	9.3	
Ha 203	1	nc	
	2	9.4	
Ha 200	2	9.3	
Ha 198	1	nc	
	2	nc	
	3	nc	
	4	9.35	
I 39191	1	9.6	
I 39190	1	9.6	
I 39189	1	9.5	
I 39188	1	9.5	
I 39187	1	9.3	Difficult. Image of Psyche near edge of plate.

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1914phae.proj.1158R

Monday, March 20, 1916

Estimates of Magnitude of Psyche

Plate No.	Exposure	Magnitude	Remarks
Ha 203	3	9.5	Images have peculiar shape.
Ha 198	5	9.5	
Ha 200	3	9.5	
Ha 205	1	~~7~~	
	2	9.5	
I 39191	13	9.5	
I 39190	15	9.6	
I 39189	13	9.9	
I 39188	11	9.5	
I 39187	~~13~~ 5	9.6	
Ha 203	~~4~~ 5	9.5	
Ha 200	4	9.6	
Ha 205	3	9.6	

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1914phae.proj.11588

Tuesday, March 21, 1916

Estimates of Magnitude of Psyche

Plate No.	Exposure	Magn.	Remarks
I 39191	+7	9.6	
I 39190	7	9.6	
I 39189	7	9.7	
No 203	4	9.5	
I 39188	7	9.6	
I 39187	3	9.6	
I 39189	2	9.7	
I 39190	13	9.7	difficult on account of other near stars.
I 39191	3	9.9	
I 39188	2	9.8	
I 39187	2	9.7	
I 39189	10	9.7	
I 39190	4	10.0	
I 39191	12	9.6	
I 39188	10	9.6	
I 39187	4	9.7	
I 39189	6	9.7	
I 39190	12	9.8	
I 39191	4	9.9	
I 39188	9	9.7	
I 39189	12	9.9	
I 39190	9	9.9	
I 39191	9	9.8	
I 39188	4	9.7	
I 39189	4	9.8	
I 39190	3	9.7	
I 39191	11	9.9	
I 39188	6	9.9	
I 39189	11	9.9	

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1914phae.proj.1158R

Tuesday, March 21, 1916

Estimates of Magnitude of Psyche

Plate No	Exposure	Mag.	Remarks
I39190	6	9.8	
I39191	2	9.9	
I39188	8	9.8	
I39189	9	9.6	
I39190	11	9.9	
I39191	10	9.9	
I39188	3	9.8	
I39189	5	9.9	
I39190	14	9.9	
I39191	6	9.8	
I39188	5	9.8	
I39189	8	10.0	
I39190	5	9.7	
I39191	3	9.8	
I39189	3	9.7	
I39190	2	9.8	
I39191	8	9.9	
I39190	8	9.8	
	10	9.8	
MC5985	—	12.1	- Obj. is Astraea. Psyche is ns.
MC5930	—	9.3	- See next page for this estimate with different Comparisons.

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1914phae.proj.1158R

Thursday, March 23, 1916

Re-measure of Psyche

Plate No.	Exposure	Mags	Remarks
MC 5930	—	~~10.1~~ 9.8	The magnitudes used for the comparison stars here are the means from MC 5930 & MC 5985.

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1914phae.proj.1158R

Magnitudes of Eros 1912

	Hes 930	Hes 985	Mean
6	8.96	9.22	9.09 13 13
7	9.67	9.74	9.70 03 04
8	10.00	10.41	10.20 20 21
9	10.33	10.92	10.62 29 30
10	11.24	11.41	11.32 08 09

Psyche Sequence RA

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1914phae.proj.1158R

Friday March 24, 1916

Scale V

Plot Sheet 10

AC4958 – Hehe Comparison Stars.

					Diff
	1	3.6 3.5 B		3.60	3.11
	2	4.9 4.8 3.2		5.05 15 15	3.33
	3	5.5 5.4 3.5		5.55 00 00	3.03
Ref.	4	3.2 5.1 5.3		5.25 05 05	3.70
Sequence	5	5.9 5.8 6.2		6.05 15 15	3.54
near	6	6.8 6.7 6.7		6.75 05 05	2.81
Sect. Sol.	7	F 8.1 8.0 7.5		7.75 25 25	2.18
	8	8.9 8.8 8.5		8.65 15 15	1.97
	9	8.4 8.8 9.5 8.8		9.03 23 47 23	1.77
	10	8.0 7.9 7.8		7.85 05 05	2.77
	11	9.1 9.0 9.3		9.15 15 15	1.47
	12	F			

				Cu	Diagn
	1	6.1 6.0 6.2	6.15 05 05	3.18	9.33
	2	6.5 6.4 6.4	6.45 05 05	3.08	9.53
Hehe	3	6.7 6.6 6.5	6.60 10 10	3.02	9.62
Sequence A	4	6.9 6.8 7.0	6.95 05 06	2.88	9.83
	5	6.9 6.8 7.2	7.05 15 15	2.85	9.90
	6	7.4 7.3 7.5 7.2	7.37 03 03 19	2.58	9.95
	7	F 7.7 7.8	7.75 05 05	2.47	10.22
	8	7.8 7.5	7.65 15 15	2.54	10.19
	9	9.3 9.3	9.30 00 00		—

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1914phae.proj.1158R

Friday March 24, 1916

Scale V

Plot Sheet 10

AC 6281 - Kobe Comparison Stars

					Diff
	1	4.3 4.2	4.7	4.50 20 20	2.21
	2	5.6 5.5	5.6	5.60 00 00	2.78
	3	6.3 6.2	6.2	6.25 05 05	2.33
	4	6.1 6.0	6.1	6.10 00 00	2.85
Ref Seq.	5	6.5 6.4	6.5	6.50 00 00	3.09
new	6	6.9 6.8	6.7	6.80 10 10	2.76
Sect. Sft.	7	6.9 6.8	6.8	6.85 05 05	3.08
	8	F 8.0	8.0	8.00 00 00	2.62
	9	8.2	8.2	8.20 00 00	2.60
	10	7.9	8.2	8.05 15 15	2.57
	11	8.5	8.5	8.50 00 00	2.12
	12	9.4	9.5	9.45 05 05	2.17

					Cu	Diagram
	1	6.3 6.2	6.4	6.35 05 05	2.82	9.17
	2	6.8 6.7	6.8	6.80 00 00	2.91	9.71
Kobe	3	6.7 6.6	6.8	6.75 05 05	2.90	9.65
Sequence A	4	7.1 7.0	7.0	7.05 05 05	2.92	9.97
	5	7.1 7.0	7.5	7.30 20 20	2.88	10.18
	6	F 7.4	7.3	7.35 05 05	2.87	10.22
	7	7.3	7.8	7.7 7.60 30 20 10	2.78	10.38
	8	7.7	7.8	7.75 05 05	2.73	10.48
	9	8.6	8.7	8.65 05 05	2.32	10.97

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Friday, March 24, 1916

Scale V

Plot Sheet 10

AC 4948 Hebe Comparison Stars

					Diff.	
	1	3.6 3.5 B		3.60	3.11	
	2	4.9 4.8 5.1		5.00 10 10	3.38	
	3	3.9 3.8 5.4		5.65 25 25	2.93	
	4	5.7 5.6 5.5		5.60 10 10	3.35	
Ref. Seq	5	6.3 6.2 6.5		6.40 10 10	3.19	
near	6	6.6 6.5 6.4		6.50 10 10	3.06	
Sect. Sob.	7	F 7.0 7.4		7.20 20 20	2.73	
	8	8.4 8.0		8.20 20 20	2.42	
	9	8.7 8.7		8.70 00 00	2.10	
	10	8.3 8.4		8.35 05 05	2.27	
	11	8.9 8.7		8.80 10 10	1.82	
	12	9.8 10.0		9.90 10 10	1.72	

					Cu	Magn.
	1	6.1 6.0 5.9		6.00 10 10	3.14	9.14
	2	6.4 6.3 6.4		6.40 00 00	3.09	9.49
Hebe	3	6.6 6.5 7.0		6.80 20 20	2.99	9.79
Sequence A	4	6.7 6.6 6.8		6.75 05 05	3.00	9.75
	5	F 7.5 7.4		7.45 05 05	2.77	10.22
	6	7.4 6.9		7.15 25 25	2.87	10.02
	7	7.7 7.8		7.75 05 05	2.63	10.38
	8	7.7 7.6		7.65 05 05	2.68	10.33
	9	9.2 8.8		9.00 20 20	2.02	11.02

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Friday. March 24, 1916

Scale V

Plot Sheet 10

AM 3890 – Helio Comparison Stars

					Diff.
	1	5.3	5.4 5.3	5.30 10 10	1.47
Images elongated	2	6.2	6.3 6.3	6.40 10 10	1.98
	3	6.5	6.6 6.4	6.45 05 05	2.13
	4	6.7	6.8 6.5	6.65 15 15	2.30
Ref. Sty	5	F	7.4 7.4	7.40 00 00	2.19
mean	6	F	7.3 7.4	7.35 05 05	2.21
Cent Str.	7		8.0 7.9	7.95 05 05	1.98
	8		8.8 8.8	8.80 00 00	1.82
	9		8.9 9.1	9.00 10 10	1.80
	10		9.1 8.9	9.00 10 10	1.62
	11	F	8.7 8.8	8.75 05 05	1.87
	12	F	F		

					Cu	Mean	AC4958	AC6281	AC4948	Mean	
	1	6.6	6.7 6.7	6.70 00 00	2.22	8.92	9.33	9.17	9.14	9.14	22 19 03 00
	2	6.8	6.9 7.2	9.05 15 15	2.27	9.32	9.53	9.71	9.49	9.51	19 02 20 02
Helio	3	F	7.3 7.4	7.35 05 05	2.21	9.56	9.62	9.65	9.79	9.66	10 07 01 13
Sequence A	4		7.4 7.5	7.45 05 05	2.18	9.63	9.83	9.97	9.75	9.80	17 03 17 05
	5		7.9 7.8	7.85 05 05	2.08	9.93	9.90	10.18	10.22	10.06	13 16 12 16
	6		7.8 7.8	7.80 00 00	2.09	9.89	9.95	10.22	10.02	10.02	13 07 20 00
	7		8.1 8.1	8.10 00 00	2.00	10.10	10.22	10.38	10.38	10.27	17 05 11 11
	8		8.2 8.4	8.30 10 10	1.96	10.26	10.19	10.48	10.33	10.32	06 13 16 01
	9		9.0 9.0	9.00 00 00	1.78	10.78	—	10.97	11.02	10.92	14 – 05 10

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1914phae.proj.1158R

Magnitudes of Reference Squares near Sect. 58.

	MC 5586		MC 5750		Mean
		F.C.		F.C.	
1		6.87	7.0	6.55	6.71 16 16
2		8.39	9.03	8.38	8.38 01 00
3		8.67	9.22	8.49	8.58 09 09
4	9.20	8.71	9.41	8.72	8.95 24 46 23
5	9.64	9.53	9.60	9.59	9.59 05 06 01 00
6	9.64	9.43	9.50	9.65	9.56 08 13 06 09
7	9.86	10.12	9.87	9.88	9.93 07 19 06 05
8	10.70	10.63	10.54	10.76	10.62 08 05
9	10.97		10.64	10.82	10.80 17 16
10	10.70		10.54	10.95	10.62 08 05
11	10.70		10.54		10.62 08 05
12	11.61		11.62		11.62 01 00

Reject above two upper red lines and
below two lower red lines

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Friday. March 31, 1916

Estimates of Magnitude of Nebulæ

Plate No	Exposure	Magnitude	Remarks

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Saturday. April 1, 1916

Estimates of Magnitude of Helix -

Plate No.	Exposure	Magnitude	Remarks.
Ha 110	—	10.0	Images difficult to compare -
Ha 98	—	98	
Ha 111	1	10.2	
Ha 106	1		to near edge of plate.
Ha 99	1	9.9	
Ha 103	15	10.2 — 10.0	
Ha 108	1	10.2	very near edge of plate Reject.
Ha 101	—	9.9	
Ha 105	—	10.0	
I 39142	1	10.0	
I 39143	1	10.2	
I 39140	1	10.2	
I 39141	1	10.2	
Ha 111	4	10.0	
Ha 99	12	10.0	
Ha 103	12	F	
	3	F	
	4	99	
Ha 108			to near edge of plate
I 39142	8	10.0	
I 39143	16	10.1	
I 39140	13	10.0	
I 39141	10	10.2	
Ha 111	2	10.1	
Ha 99	3	9.9	
Ha 103	1	10.0	
I 39142	5	10.2	
I 39143	6	10.2	
I 39140	10	10.1	

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Saturday, April 1, 1916

Estimates of Magnitude of Nebulae

Plate No.	Exposure	Magnitude	Remarks
I39141	7	10.1	
Ha 111	3	images to distorted	
Ha 99	4	10.0	
I39142	4	10.2	
I39143	10	10.2	
I39140	7	10.2	
I39141	4	10.2	
Ha 99	5	nc	
I39142	7	10.2	
I39143	13	10.2	
I39140	4	10.2	
I39141	2	10.2	
I39142	3	10.2	
I39143	4	10.2	
	9	10.2	
I39140	9	10.2	
I39141	9	10.2	
I39142	6	10.2	
I39143	3	10.2	
	8	10.2	
I39140	6	10.1	
I39141	6	10.0	
I39142	2	10.2	
I39143	15	10.1	
I39140	12	10.2	
I39141	5	10.2	
I39143	10	nc	
I39140	3	10.0 difficult	
I39141	8	10.1	

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Saturday, April 1, 1916

Estimates of Magnitude of Nebulae

Plate No.	Exposure	Magnitude	Remarks
I39143	14	10.2	
I39140	11	10.2	
I39141	3	10.2	
I39143	12	10.2	
I39140	8	10.2	
I39143	7	10.2	
	5	7.p.	
I39140	5	10.2	
	2	10.2	
I39143	2	10.2	

The Manuscript images were very difficult to estimate, because the definition was very poor & images often very foggy and large - Harvard images more distinct.

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Saturday April 1, 1916

Estimates of Magnitude of Variable +18° 3186.

Plate No.	Exposure	Mags.	Remarks
AC 17392 -	no possible to measure		
AC 17382 -	1.	10.3	
	2	10.4	
AC 17398	N 11	9.5	
	X 10	10.3	
	X 9	11.0	
	X 5	11.2 (?) ≠ <i, but cant uncertain	
	X 6	11.3 or 11.4. j cant be seen	
	X 7	11.2 (?) j cant be seen.	
	X 8	~~Cant distinguish~~ cant distinguish F.	
	X 4	<i, but cant uncertain	
	X 3	11.4	
	X 2	10.9 ? very uncertain	

All these measures are very difficult.

AC 17383 First 4 images all that can be seen. All images are < 11.1 fourth from ~~N~~ W end is decidedly faintest.

Images seen are 1.7.8.9.10. ~~six~~ seven being the faintest seen

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Tuesday, April 25, 1916

Scale V

Plate Sheet II

MC 4819 - Flora Comparison Stars -

					Cu	Mag.
	1	1.7 1.6		1.70	5.74	
	2	2.8 2.7		2.80	6.22	
	3	3.4 3.3	B	3.40	6.34	
	4	3.9 3.8	4.2	4.05 15 15	6.29	
	5	4.9 4.8	5.2	5.05 15 15	6.04	
I.M. Region	6	6.4 6.3	6.3	6.35 05 05	5.51	
	7	7.0 6.9	7.2	7.10 10 10	5.21	
$11^h 40^m$	8	F 7.3	7.3	7.30 00 00	5.46	
$+10^\circ$	9	F 8.0	8.0	8.00 00 00	5.36	
	10	8.3	8.2	8.25 05 05	5.61	
	11	8.8	8.8	8.80 00 00	5.26	
	12	F 9.4	9.3	9.35 05 05	5.17	
	13	9.4	9.6	9.50 10 10	5.43	
	14	9.7	9.4	9.55 15 15	-	
	15	9.8	9.8	9.80 00 00	-	
	1	4.0 3.9	4.1	4.05 05 05	6.29	10.34
Flora	2	3.9 3.8	4.3	4.10 20 20	6.27	10.37
Sequence A	3	4.6 4.5	4.7	4.65 05 05	6.14	10.79
	4	4.9 4.8	5.2	5.05 15 15	6.04	11.09
	5	5.9 5.8	5.8	5.85 05 05	5.80 5.73	11.65
	6	6.4 6.3	5.8	6.10 30 30	5.72	11.82

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Tuesday, April 25, 1916

Scale V

Plot Sheet 11

MC 4887 - Flora Comparison Stars -

					Ca		
	1	1.4 1.3		1.40		6.04	
	2	2.9 2.8		2.90		6.12	
	3	3.6 3.5	B	3.60		6.14	
	4	4.9 4.8	4.8	4.85	05 05	5.49	
IM Region	5	5.9 5.8	5.7	5.80	10 10	5.29	D
	6	6.6 6.5	6.5	6.55	05 05	5.31	
$11^h\ 40^m$	7	F 9.3	9.4	9.35	05 05	4.96	
$+10^\circ$	8	F 9.7	9.5	9.60	10 10	5.16	
	9	F 8.3	8.3	8.30	00 00	5.06	
	10		8.8 8.4	8.80	00 00	5.06	
	11		9.0 9.2	9.10	10 10	4.96	
	12		9.3 9.4	9.35	05 05	5.17	
	13		9.8 9.6	9.70	10 10	5.23	
	14		9.4 9.8	9.60	20 20	-	
	15		10.0 9.7	9.85	15 15	-	

Mag

	1	4.6 4.5	4.8	4.70	10 10	5.72	10.42
Flora	2	4.7 4.6	4.8	4.75	05 05	5.69	10.44
Sequence A	3	5.1 5.0	5.2	5.15	05 05	5.53	10.68
	4	5.6 5.5	5.4	5.50	10 10	5.38	10.88
	5	6.3 6.2	6.1	6.20	10 10	5.22	11.42
	6	6.5 6.4	6.1	6.30	20 20	5.20	11.50

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Tuesday, April 25, 1916

Scale V

Plot Sheet II

MC 4925 – Flora Comparison Stars –

	1	1.5 1.4		1.50	5.94		
	2	2.9 2.8		2.90	6.12		
	3	3.2 3.1	B	3.20	6.54		
	4	4.3 4.2	47	4.50 20 20	5.84		
DM Region	5	6.5 5.4	5.3	5.40 10 10	5.69		
	6	6.5 6.4	6.4	6.45 05 05	5.41		
11h 40m	7	F 7.2	7.4	7.30 10 10	5.01		
+10°	8	F 7.8	7.5	7.65 15 15	5.11		
	9	8.4	8.5	8.45 05 05	4.91		
	10	8.9	9.0	8.95 05 05	4.91		
	11	9.3	9.2	9.25 05 05	4.81		
	12	9.3	9.5	9.40 10 10	5.12		
	13	9.8	9.6	9.70 10 10	5.23		
	14	9.6	9.7	9.65 05 05	–		
	15	10.0	F	10.00	–		

						Means	MC 4819	MC 4887	Means
	1	4.5 4.4	4.6	4.55 05 05	6.00	10.55	10.34	10.42	10.44 11 10 03
Flora	2	5.0 4.9	4.9	4.95 05 05	5.86	10.81	10.37	10.44	10.54 27 17 10
Sequence A	3	5.0 4.9	5.2	5.10 10 10	5.80	10.90	10.79	10.68	10.79 11 00 11
	4	5.9 5.8	5.7	5.80 10 10	5.54	11.34	11.09	10.88	11.10 24 01 22
	5	6.3 6.2	5.9	6.10 20 20	5.50 43	11.53	11.65	11.42	11.53 10 12 11
	6	6.5 6.4	6.3	6.40 10 10	5.35	11.75	11.82	11.50	11.69 06 13 19

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Magnitudes of Sequence at $11^h 40^m$ $+10°$.

	Star Images		Diff. Images		P.C.
1					7.41
2	9.20	8.91	8.51	8.72	8.91
3	9.80	9.54	9.43		
4	10.40	10.25	10.00		
5	10.96				
6	11.61	11.83			
7	12.28	12.06			
8	12.71	12.53			
9	13.13	13.30			
10	13.69	13.74			
11	13.90	13.95			
12	14.24	14.51			
13	14.80	14.73			
14		14.73			
15		14.84			

For these magnitudes see next page.

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Magnitudes of Sequence at $11^h 40^m$ $+10°$

	Star Images MC 4819 Ld 45:20 W	MC 4887 Ld 46:137		Diff. Images			F.C.		
1	–	–		7.22	7.23	7.22 00 01 Reject	7.54	7.35	7.44 10 09
2	9.33	9.06	9.20 13 14	8.64	8.87	8.76 12 11 about this line.	9.04	9.18	9.11 07 07
3	9.93	9.69	9.81 12 12	9.56	9.65	9.60 04 05		9.82	9.82
4	10.53	10.40	10.46 07 06	10.13	10.30	10.22 09 08			
5	11.09	–	11.09						
6	11.74	11.98	11.86 13 12						
7	12.41	12.21	12.31 10 10						
8	12.84	12.68	12.76 08 08						
9	13.26	13.45	13.36 10 09						
10	13.82	13.89	13.86 04 03						
11	14.03	14.10	14.06 03 04						
12	14.37	14.68	14.52 15 14						
13	14.93	–	14.93						
14									
15									

Final means

1	7.44	–	–	–
2	9.02	18	26	09
3	9.74	07	14	08
4	10.34	12	12	–
5	11.09	–	–	–
6	11.86	–	–	–
7	12.31	–	–	–
8	12.76	–	–	–
9	13.36	–	–	–
10	13.86	–	–	–
11	14.06	–	–	–
12	14.52	–	–	–
13	14.93	–	–	–
14	–			
15	–			

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Wednesday, April 26, 1916

Estimates of Magnitude of Flare

Plate No.	Exposure	Magn	Remarks
I 38755	1	10.5	
I 38756	1	10.5	
I 38755	7	10.5	
I 38756	7	10.5	
I 38755	4	10.5	
I 38756	4	10.5	
I 38755	6	10.6	
I 38756	6	10.6	
I 38755	3	10.5	
I 38756	3	10.5	
I 38755	2	10.5	
I 38756	2	10.5	
I 38755	5	10.5	
I 38756	5	10.5	

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Friday, April 28, 1916

Scale V

Plot Sheet 12

AC 9433 - Julia Comparison Stars -

				Mean	Diff.
1	4.5 4.4 4.3	4.4		4.45 05 05	2.29
2	4.4	4.6		4.55 05 05	2.45
3	6.0 5.9	5.9		5.95 05 05	2.41
4	6.9 6.8	6.8		6.85 05 35	2.45
5	7	7.8	7.8	7.80 00 00	2.41
6		8.6	7.9	7.88 10 50 20 30	2.53
7		8.8	8.8	8.80 00 00	2.13
8	7	9.5	9.3	9.40 10 10	1.84
9		9.6	9.7	9.65 05 05	2.24
10		9.7	9.6	9.65 05 05	2.40
11		10.0	9.9	9.95 05 05	2.61

114K

					Diff.	Mean
1	6.6 6.5	6.8		6.70 10 10	2.45	9.15
2	7	7.5	7.6	7.55 05 05	2.48	10.03
3		7.8	7.8	7.80 00 00	2.46	10.26
4		8.2	8.2	8.20 00 00	2.39	10.59
5		8.0	8.6	8.48 33 33 27 07	2.34	10.67
6		9.4	9.6	9.50 19 10	2.62	11.52
7		9.7	9.8	9.75 05 05	2.43	12.18

Julia Sequence A4

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Friday April 28, 1916

Scale V

Flat Sheet 12

AM 10774 – Julia Comparison Stars

			Mean	Diff
1	4.6 4.5 5.1		4.85 25 25	1.89
2	5.2 5.1 5.5		5.35 15 15	1.65
3	6.7 6.6 6.5		6.60 10 10	1.76
4	F 7.6	7.8	7.70 10 10	1.60
5	F 8.5	8.4	8.45 05 05	1.76
6	9.0	9.1	9.05 05 05	1.58
7	9.2	9.2	9.20 00 00	1.73
8	9.4	9.4	9.40 00 00	1.84
9	9.7	9.9	9.80 10 10	2.09
10	F			
11				

Images slightly elongated.

1141K

Julia Sequence A

					Diff	Mean
1	F 7.6	7.6	7.60 00 00		1.68	9.28
2	8.2	8.2	8.20 00 00		1.64	9.84
3	8.4	8.4	8.40 00 00		1.63	10.03
4	8.9	8.7	8.80 10 10		1.62	10.42
5	9.0	8.8	8.90 10 10		1.62	10.52
6	9.4	9.5	9.45 05 05		1.82	11.27
7	9.9	9.9	9.90 00 00		—	—

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1914phae.proj.1158R

Friday, April 28, 1916

Plot Sheet 12

Scale V

AM 9243 – Julian Comparison Stars –

			Mean	Diff.
1	3.7 B		3.80	2.94
2	3.7 B		3.80	3.20
3	4.9	5.4	5.20	3.16
4	6.0	5.9	6.00	3.30
1141 5	F 7.5	7.5	7.50	2.71
6	9.9	8.4	8.15	2.48
7	8.9	8.9	8.90	2.03
8	9.6	9.6	9.60	1.64
9	10.0	10.0	10.00	1.89
10	~~10.0~~			
11				

						Magn
1	6.8					
2	F					
Julian 1	6.9		6.90	2.96		9.86
Sequence A2	7.7	7.8	7.75	2.60		10.30
3	8.6	8.2	8.40	2.25		10.65
4	8.6	8.8	8.70	2.09		10.79
5	~~6.9~~ 8.8	8.7	8.75	2.08		10.83
6	9.4	9.6	9.50	1.73		11.23
7	10.0	9.8	9.90	1.76		11.66

x wrong star

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Friday, April 28, 1916

Scale v

Plot Sheet 12

AM 10198 – Julian Comparison Stars

				Mean	Diff.
1		4.4 4.3	4.4	4.40 00 00	2.34
2		4.5 4.4	4.6	4.55 05 05	2.45
3		6.2 6.1	5.8	6.00 20 20	2.36
4		6.9 6.8	6.9	6.90 00 00	2.40
5	F	8.0	8.2	8.10 10 10	2.11
6		8.8	8.8	8.80 00 00	1.83
7		9.4	9.2	9.30 10 10	1.63
8		9.8	9.7	9.75 05 05	1.49
9		F	F		
10					
11					

114K

						Magn. AC 4433	AM 10774	AM 9243	Mean
1	F	7.4	7.7	7.55 15 15	2.28	9.83	9.15	9.28	9.86	9.61 22 46 25
2		8.0	8.2	8.10 10 10	2.11	10.21	10.03	9.84	10.30	10.18 03 13 12
3		8.4	8.5	8.45 05 05	1.97	10.42	10.26	10.03	10.65	10.44 02 18 21
4		8.8	8.9	8.85 05 05	1.81	10.66	10.59	10.42	10.79	10.68 03 09 11
5		9.2	9.9	9.05 15 15	1.73	10.78	10.67	10.52	10.83	10.76 02 09 07
6		9.5	9.6	9.55 05 05	1.54	11.09	11.52	11.27	11.23	11.28 13 24 05
7		9.8	9.8	9.80 00 00	—	—	12.18	—	11.66	11.92 — 26 26

Julian Sequence A

Magnitudes for 114K were adopted means from Bl 7 – 15 Magns.

Magnitudes from 10774 to be rejected. Sequences differ in dist from center of plate by 22 mm.

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1914phae.proj.1158R

Saturday: April 29, 1916

Plate No.	Estimates of Exposure	Magnitude of Polaris	Remarks
Ha 128	1 4	too faint	
	~~2~~ 3	10.0	
	~~3~~ 2	10.0	
	~~4~~ 1	9.9	

Star #1, which Castle used here is rather uncertain in magnitude.

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Wednesday, May 3, 1916

Estimati[on] of magnitude of Weber

Plate No	Exposure	Design
I 39143	11	10.2

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Thursday, May 18, 1916

Scale V

Plot Sheet 13

MC 10414 — Iris Comparison Stars

						7h. Sec.				
	1	2.0 2.7 1.9		2.00	6.72	7.3	7.3	7.30 00 00	1.42	
	2	2.8 2.7		2.80	6.53	7.9	7.8	7.85 05 05	1.48	
	3	2.9 2.8		2.90	6.72	8.4	8.1	8.25 15 15	1.37	
I.M. Region	4	3.9 3.8	B	3.90	6.12	8.9	8.8	8.85 05 05	1.17	
	5	4.5 4.4	4.4	4.45 05 05	5.89	9.4	~~8.8~~	9.29.30 10 10	1.04	
	6	4.9 4.8	4.9	4.90 00 00	5.92	9.3	9.4	9.35 05 05	1.47	
	7	5.2 5.1	5.4	5.30 10 10	5.91	9.8	F	9.80	1.49	
	8	6.3 6.2	6.2	6.25 05 05	5.49	F		—	—	
	9	6.3 6.2	6.2	6.25 05 05	5.57			—	—	
	10	6.9 6.8	6.9	6.90 00 00	5.31			—	—	

					Cu Magn.					Cu Magn.
	1	2.8 2.7	B	2.80	6.59	9.39	7.4	9.4	7.40 00 00	1.46	8.86
	2	2.7 2.6		2.70	6.63	9.33	7.2	7.3	7.25 05 05	—	—
Iris	3	2.9 2.8		2.90	6.57	9.47	7.8	8.0	7.90 10 10	1.38	9.28
Comparison	4	3.9 3.8		3.90	6.22	10.12	8.8	8.5	8.65 15 15	1.24	9.89
Stars	5	3.8 3.7		3.80	6.24	10.04	8.9	8.8	8.85 05 05	1.18	10.03
Sequence A	6	4.3 4.2	4.4	4.35 05 05	6.04	10.39	9.3	9.4	9.35 05 05	1.15	10.50
	7	4.0 3.9	4.5	4.25 25 25	6.09	10.34	9.3	9.3	9.30 00 00	1.13	10.43
	8	4.4 4.3	4.8	4.60 20 20	5.98	10.58	9.6	[illegible] 9.6	9.60 00 00	1.42	11.02
	9	5.0 4.9	5.4	5.20 20 20	6.81	11.01	F	F	—		

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1914phae.proj.1158R

Thursday, May 18, 1916

Scale V

Plot Sheet 13

MC 10583 – Iris Comparison Stars –

						F.C.			
	1	2.8 2.7 2.7		2.80	5.92	7.2	7.1	7.15 05 05	1.57
	2	3.2 3.1		3.20	6.13	7.8	7.8	7.80 00 00	1.53
	3	3.4 3.3	B	3.40	6.22	8.4	8.2	8.30 10 10	1.32
D.M. Region	4	4.0 3.6 3.9	4.2	4.10 10 10	5.92	8.8	8.5	8.65 15 15	1.37
	5	4.6 3.8 4.5	4.8	4.70 10 10	5.64	8.8	8.8	8.80 00 00	1.54
	6	5.1 5.0	5.4	5.25 15 15	5.57	9.1	9.3	9.20 10 10	1.62
	7	5.9 5.8	5.9	5.90 00 00	5.31	9.6	9.4	9.50 10 10	1.71
	8	6.3 6.2	6.4	6.35 05 05	5.39	F	F	—	—
	9	6.5 6.4	6.5	6.50 00 00	5.32	F	F	—	—
	10	6.6 6.5	6.9	6.75 15 15	5.46	F	F	—	—

				Cu	Magn.				Cu	Magn.
	1	2.8 2.7		2.80	—	—	7.4	7.5	7.45 05 05	1.55	9.00
	2	2.9 2.8		2.90	—	—	7.4	7.5	7.45 05 05	1.55	9.00
Iris Comparison	3	3.4 3.3		3.40	6.10	9.50	7.9	7.8	7.85 05 05	1.47	9.32
Stars	4	3.7 3.6	B	3.70	6.01	9.71	8.4	8.3	8.35 05 05	1.38	9.73
	5	3.9 3.8	4.3	4.10 20 20	6.89	9.99	8.8	8.7	8.75 05 05	1.42	10.17
Sequence A	6	4.9 4.8	4.8	4.85 05 05	5.67	10.52	9.5	9.3	9.40 10 10	1.70	11.10
	7	4.6 4.5	4.8	4.70 10 10	5.71	10.41	9.1	8.9	9.00 10 10	1.52	10.52
	8	4.9 4.8	4.9	4.90 00 00	5.65	10.55	9.5	9.5	9.50 00 00	—	—
	9	5.9 5.8	5.5	5.70 20 20	5.42	11.12	F	F	—		

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1914phae.proj.11588

Thursday May 18, 1916

Scale V

$2^h\ 48^m$

Series 347 - MC 10581 - Pole

	SB	SC	Copied from p. 191 - MC 10584					FC.		Copied from p. 191 - MC 10584			
10	2.9 2.8		2.90	2.70	2.80	1010	6.22 5	4.6 4.5	4.6	4.60 00	4.50	4.55 05 05	1.94
11	3.9 3.8	B	3.90	3.70	3.80	1010	5.75 6	5.6 5.5	5.3	5.45 12	5.40	5.42 03 02	1.69
12	4.2 4.1	4.0	4.10 11	3.90	4.00	1010	5.86 7	6.0 5.9	5.7	5.85 12	5.60	5.72 13 12	1.59
13	4.8 4.7	4.7	4.75 01	4.60	4.68	07 05	5.62 8	6.5 6.4	6.5	6.50 00	6.80	6.65 15 15	1.58
14	5.2 5.1	5.3	5.25 10	4.70	4.98	27 28	5.67 9	F	7.3	7.5 7.40 11	7.30	7.35 05 05	1.48
15	6.0 5.9	5.7	5.85 21	5.20	5.52	33 32	5.56 10	F	7.6	7.6 7.60 00	7.55	7.58 02 03	144
16	5.6 5.5	5.8	5.70 11	5.85	5.78	05 07	5.62 11		7.8	7.7 7.75 01	7.85	7.80 05 05	1.75
17	6.3 6.2	6.2	6.25 01	6.00	6.12	13 12	6.51 12		8.4	8.4 8.40 00	8.35	8.38 02 03	1.48
18	7.0 6.9	6.8	6.90 11	6.85	6.88	02 03	6.18 13		8.8	8.9 8.85 01	9.15	9.00 15 15	1.30
19	F	7.5	7.27 35 21	7.00	7.18	17 18	5.24 14		9.3	9.0 9.15 21	9.60	9.38 23 22	1.27
20	F	7.5	9.67.55 01	7.45	7.50	05 05	5.23 15		9.6	9.4 9.50 11	10.00	9.75 25 25	1.33
23			8.0 7.9	7.95 01	7.90	7.92	03 03 5.42 16		F	F			
25			8.4 8.3	8.35	01	8.40	8.38	03 02 5.49					
26			8.9 8.8	8.85	10	8.95	8.90	05 05 5.43					
27			9.1 9.0	9.06 01	9.25	7.15	10 10	5.64					

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1914phae.proj.1158R

Thursday. May 18, 1916

Scale V Series 347 Δt. + 0.11

MC. 10583 — I.M. Region $5^h 50^m$ $+79.5$ — Iris Comp. Stars.

			Cu Mag.				FC on SC B		Cu Mag	
	2.8									
1	2.7 B	2.80	6.09	8.89	1	F	7.1 6.9	7.001	1.52	8.52
	2.9									
2	2.8	2.90	6.07	8.97	2		7.8 7.7	7.751	1.46	9.21
	3.8									
3	3.7 B	3.80	5.85	9.65	3		8.0 dy 8.2 sy.	8.101	1.42	9.52
	4.0									
4	3.9 4.2	4.101	5.78	9.88	4		8.6 8.4	8.501	1.39	9.89
	4.6									
5	4.5 4.8	4.701	5.68	10.38	5		8.7 8.8	8.751	1.37	10.12
	5.1									
6	5.0 5.1	5.100	5.62	10.72	6		9.2 9.1	9.151	1.34	10.49
	5.8									
7	5.7 5.6	5.701	5.51	11.21	7		9.6 9.5	9.551	1.32	10.87
	6.5									
8	6.4 6.1	6.302	5.39	11.69	8		10.0 v.f. 10.0	10.000	—	—
	6.3									
9	6.2 6.4	6.351	5.38	11.73	9		F F			
	6.8									
10	6.7 ~~8.2~~ 6.8	6.801	5.31	12.11	10		F			
	6.9									
11	6.8 7.1	7.001	5.30	12.30						
12	F 7.3 7.3	7.300	5.30	12.60						
13	F 7.4 7.4	7.400	5.31	12.71						
14	7.8 7.8	7.800	5.33	13.13						
15	8.0 8.4	8.202	5.39	13.59						
16	8.3 8.2	8.251	5.40	13.65						
17	8.8 8.5	8.651	5.48	14.13						
18	8.8 8.8	8.800	5.51	14.31						
19	9.0 9.1	9.051	5.58	14.63						
20	9.5 9.6	9.551	—							

See page 192 for concluded magnitudes of this sequence.

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1914phae..proj.1158R

Thursday, May 18, 1916

Scale V

MC 10584 – Pole – Series 347

					P.C.	
10	2.7 2.6	B	2.70	5	4.4 4.3 4.6	4.50 1
11	3.7 3.6		3.70	6	5.4 5.3 5.4	5.4000
12	3.9 3.8	B	3.90	7	5.8 5.7 5.4	5.6022
13	4.5 4.4 4.7		4.601 1	8	6.8 6.7 6.8	6.8000
14	4.6 4.5 4.8		4.701 1	9	F 7.3 7.3	7.3000
15	5.2 5.1 5.2		5.2000	10	7.4 7.7	7.5521
16	5.9 5.8 5.8		5.8501	11	7.8 7.9	7.8501
17	6.1 6.0 5.9		6.0011	12	8.3 8.4	8.3510
18	7.0 6.9 6.7		6.8521	13	9.2 9.1	9.1510
19	6.9 6.8 7.1		7.0011	14	9.4 9.8	9.6022
20	F 7.5	7.4	7.4501	15	Th. 10.0	10.00 —
23	F 8.0	7.8	7.9011	16	F	
25	8.3	8.5	8.4011			
26	9.0	8.9	8.9501			
27	9.1	9.4	9.2521			

4h 5m

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1914phae.proj.1158R

Magnitudes of D.M. $5^h\ 50^m$ $+17.5^\circ$.

	Star Im. MC 10414 Δ 2,1203	Star Im. MC 10583 Δ 1,1869 190.		P.C. MC 10414	P.C. MC 10583		Final Mean
1	8.92	9.00	8.96 04 04	1 8.79	8.64	8.72 07 08	8.72 a 10
2	9.01	9.08	9.04 03 04	2 9.34	9.32	9.33 01 01	9.33 a 00
3	9.46	9.76	9.61 15 15	3 —	9.63	9.63 a 00	9.62 01 01
4	9.84	9.99	9.92 08 07	4 10.23	10.00	10.12 11 12	10.02 10 10
5	10.20	10.49	10.34 14 15	5 10.64	10.23	10.44 20 21	10.37 00 a
6	10.81	10.83	10.82 01 01	6 —	10.60	10.60 a 00	10.82 00 a
7	11.00	11.32	11.21 11 11	7 —	10.98	10.98 a 00	11.21 00 a
8	11.67	11.80	11.74 07 06	8			11.74 00 a
9	11.81	11.84	11.82 01 02	9			11.82 00 a
10	12.20	12.22	12.21 01 01				12.21 00 a
11	12.41	12.41	12.41 00 00				12.41 00 a
12	12.68	12.71	12.70 02 01				12.70 00 a
13	12.90	12.82	12.86 04 04				12.88 00 a
14	13.46	13.24	13.35 11 11				13.35 00 a
15	13.72	13.70	13.71 01 01				13.71 00 a
16	13.72	13.76	13.74 02 02				13.74 00 a
17	14.49	14.24	14.36 13 12				14.36 00 a
18	14.73	14.42	14.58 15 16				14.58 00 a
19	15.03	14.74	14.88 15 14				14.88 00 a
20	—						—

Reject above this line

Reject below this line

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1914plate.proj.11508

Magnitudes of Iris Sequence - A

	Star Im.			P.C.			Final Means
	MC 10414 Pl: 187	MC 10073 Pl: 184		MC 10414	MC 10073		
1	9.39	—	9.39 00 a	7.30 8.86	9.00	8.93 07 07	9.16 23 23
2	9.33	—	9.33 00 a	7.85 -	9.00	9.00 a 00	9.16 17 16
3	9.47	9.50	9.48 01 02	8.25 9.28	9.32	9.30 02 02	9.39 09 09
4	10.12	9.71	9.92 20 21	8.85 9.89	9.73	9.81 08 08	9.86 06 05
5	10.04	9.99	10.02 02 03	9.30 10.03	10.17	10.10 07 07	10.06 04 04
				Reject between these lines			
6	10.39	10.52	10.46 07 06	9.35 10.50	11.10	10.80 30 30	10.46 00 a
7	10.34	10.41	10.38 04 03	9.80 10.43	10.52	10.48 05 04	10.38 00 a
8	10.58	10.55	10.56 02 01	+ 11.02	—	11.02 00 a	10.56 00 a
9	11.01	11.12	11.06 05 06	—	—	— —	11.06 00 a
10							

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1914phae.proj.1158R

Saturday, May 20, 1916

Estimates of Magnitude of Iris.

Plate No.	Exposure	Magn.	Remarks
I39039	1	9.7	
I39038	1	10.0	
I39032	1	9.6	
I39037	1	9.7	
I39031	1	9.7	
I39036	1	9.7	
I39030	1	10.0	
I39039	21	9.7	
I39038	20	9.8	
I39032	22	10.0	
I39037	13	9.7	
I39031	17	9.7	
I39036	~~12~~ 11	9.7	
I39030	13	9.8	
I			

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1914phae..proj..1158R

Saturday, May 20, 1916

Estimates of Magnitude of Iris

Plate No-	Exposure	Mag.	Remarks
I 39030	7	9.7	
I39037	7	9.7	
I39031	7	9.7	
I39036	7	9.7	
I39038	7	9.8	difficult
I39032	7	9.7	
I39039	7	9.6	
I39030	12	9.8	
I39037	12	9.8	
I39031	12	9.7	
I39038	12	9.8	
I39036	12	—	
I39032	12	9.7	
I39039	12	9.8	
I39030	3	9.8	
I39037	3	10.0	
I39031	3	9.7	
I39038	3	9.8	
I39036	3	10.0	difficult
I39032	3	9.7	
I39039	3	9.8	
I39031	16	9.8	
I39038	16	9.8	
I39032	16	10.0	
I39039	16	9.8	
I 39030	6	9.9	
I39037	6	9.7	
I39031	6	9.7	
I39038	6	10.0	

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1914phae.proj.1158R

Saturday, May 20. 1916

Estimates of Magnitude of Iris

Plate No.	Estimate	Magn	Remarks
I39036	6	9.9	
I39032	6	9.7	
I39039	6	9.7	
I39030	8	9.8	
I39037	8	9.8	
I39031	8	9.9	
I39038	8	10.0	
I39036	8	9.7	
I39032	8	9.7	
I39039	8	9.7	
I39030	11	9.8	
I39037.	11	9.6	
I39031	11	9.6	
I39038	11	9.8	
I39032	11	9.8	
I39039	11	9.8	

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1914phae.proj.1158R

Monday May 27 1916

Estimates of Magnitude of Iris

Plate No.	Exposure	Magn	Remarks
I39030	10	9.8	
I39037	10	9.9	Difficult & wide denscin
I39031	10	9.9	
I39038	10	9.7	
I39036	10	9.7	
I39032	10	9.7	
I39039	10	9.8	
I39038	17	9.8	
I39032	17	10.0	
I39039	17	9.7	
I39038	18	9.8	
I39032	18	10.0	
I39039	16	9.8	
I39030	2	10.0	
I39037	2	9.7	
I39031	2	9.8	
I39038	2	9.7	
I39036	2	9.8	
I39032	2	9.7	
I39039	2	9.7	
I39030	5	9.7	
I39037	5	9.9	
I39031	5	9.8	
I39038	5	9.8	
I39036	5	9.8	
I39032	5	9.8	
I39039	5	10.0	
I39030	9	9.7	
I39037	9	9.8	

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1914phae.proj.1158R

Monday, May 22, 1916

Estimates of Magnitude of Iris

Plate No-	Exposure	Magnitude	Remarks
I39031	9	9.8	
I39038	9	10.0	
I39036	9	9.8	
I39032	9	10.0	
I39039	9	10.0	
I39031	13	9.7	
I39038	13	9.8	
I39032	13	10.0	
I39039	13	9.8	
I39030	4	10.0	
I39037	4	9.8	
I39031	4	9.7	
I39038	4	9.9	
I39036	4	9.9	
I39032	4	9.7	
I39039	4	10.0	
I39031	14	9.8	
I39038	14	10.0	very close to another image.
I39032	14	10.0	
I39039	14	9.8	
I39032	19	10.0	
I39038	~~21~~ 19	10.0	
I39039	19	9.8	
I39032	21	10.0	
I39031	15	9.7	
I39038	15	10.0	
I39032	15	10.0	
I39039	15	9.7	
I39032	20	9.8	

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1914phae.proj.1158R

Monday. May 22, 1916

Estimate of Magnitude of Iris

Plate No	Exposure	Magnitude	Remarks
I3903	~~20~~	9.8	

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1914phae.proj.1158R

~~Tuesday~~ Wednesday May 24. 1916

Estimates of Magnitude of Iris. South end of -

Plate No-	Exposure	Magnitude	Remarks -
I39039	1	9.8	
I39038	1	9.8	
I39037	1	9.7	
I39036	1	9.9	- Exposures 1 & 2 are really between long & ex posure -
I39032	1	9.7	
I39031	1	10.0	
I39030	1	10.0	
I39039	14	9.7	
I39038	14	10.0	Images 14 & 7 really below (same as) Tabulation of Magns.
I39037	14	10.0	
I39031	14	9.7	
I39036	7	10.0	
I39037	7	9.7	
I39030	7	9.7	
I39039	7	9.7	
I39038	7	10.0	
I39032	7	9.8	
I39031	7	9.8	
I39036	10	10.0	
I39037	10	9.8	
I39030	10	9.9	
I39039	10	9.8	
I39038	10	9.8	
I39032	10	9.7	
I39031	10	9.8	
I39036	8	9.8	
I39037	8	9.8	
I39030	8	9.9	
I39039	8	9.9	

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1914phae.proj.1158R

Wednesday May 24, 1916

Estimates of Magnitude of Iris - South end of -

Plate No.	Exposure	Magnitude	Remarks
I39038	8	10.0	
I39032	8	9.7	
I39031	8	10.0	
I39036	2	9.8	- Image merely a part of Image 1. Take mean of Magns. for 1 + 2.
I39037	2	9.8	
I39030	2	10.0	
I39039	2	9.8	
I39038	2	9.7	
I39032	2	9.7	
I39031	2	9.8	
I39036	4	9.8	
I39037	4	9.7	
I39030	4	10.0	
I39039	4	10.0	
I39038	4	10.0	
I39032	4	9.7	
I39031	4	9.8	
I39036	9	10.0	
I39037	9	10.0	
I39030	9	9.8	
I39039	9	9.8	
I39038	9	10.0	
I39032	9	9.8	
I39031	9	9.8	
I39036	3	9.8	
I39037	3	9.8	
I39030	3	10.0	
I39039	3	9.8	
I39038	3	10.0	

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1914phae.proj.1158R

Wednesday, May 24, 1916

Estimates of Magnitude of Iris - South end of -

Plate No.	Exposure	Magnitude	Remarks
I3903 2	3	9.8	
I3903 1	3	9.8	
I3903 6	6	9.8	
I3903 7	6	9.8	
I3903 0	6	9.8	
I3903 9	6	9.8	
I3903 8	6	9.8	
I3903 2	6	9.7	
I3903 1	6	9.8	
I39039	15	9.8	
I39038	15	10.1	See note on neg. 64 - J. 200
I39032	23 15	10.0	
I39031	15	10.0	
I39039	17	9.8	
I39038	17	10.0	
I3903 2	17	10.0	
I39031	17	9.8	
I3903 9	21	9.8	
I3903 2	21	10.0	
I39039	19	9.8	
I39038	19	9.9	Difficult.
I39032	19	10.0	
I39036	5	9.6	
I39037	5	9.9	
I39030	5	9.8	
I39039	5	10.0	
I39038	5	10.0	
I39032	5	9.9	
I39031	5	9.9	

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Wednesday, May 24, 1916

Estimates of Magnitude of Iris. South end of -

Plate No.	Exposure	Magnitude Pennules.
I3903 7	11	9.8
I3903 0	11	9.7
I39039	11	9.8
I39038	11	9.8
I3903 2	11	10.0
I39031	11	9.6
I39039	16	9.8
I39038	16	9.9
I3903 2	16	9.9
I39031	16	10.0
I39037	12	9.8
I3903 0	12	10.0 - for in ages
I39039	12	9.7
I39038	12	10.0
I3903 2	12	9.8
I39031	12	9.8
I39037	13	9.8
I3903 0	13	9.8 very faint
I39039	13	9.9
I39038	13	9.8
I3903 2	13	10.0
I39031	13	9.8
I39039	18	9.8
I39038	18	9.9
I3903 2	18	9.8
I39031	18	T.P.
I39039	20	9.8
I39032	20	9.9
I39039	22	T.P.

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1914phae.proj.1158R

Wednesday May 24, 1916

Estimates of Magnitude of Iris

Plate No.	Exposure	Magnitude	Remarks.
I3903 2	22	10.0	

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1914phae.proj.1150R

Friday, May 26, 1916

Estimate of Magnitude of Iris - Re-measures -

Plate No.	Exposure	Magnitude	Remarks -
~~I 39039~~			
I 39031	1	10.0	
I 39038	1	9.7	
I 39036	7	10.0	
I 39038	7	10.0	
I 39030	3	10.0	
I 39036	3	9.9	
I 39037	3	9.7	
I 39038	3	10.0	
I 39031	16	9.9	
I 39038	16	9.8 but nearly 9 as per scale, so uncertain	
I 39030	12	9.8	
I 39035	12	10.0	
I 39036	5	9.8	
I 39038	5	9.8	
I 39032	9	9.7 ruby fc.	
I 39036	9	10.0	
I 39037	9	9.7	
I 39039	9	10.0	
I 39038	6	10.0	
I 39032	11	9.7 Faint images	
I 39036	11	9.7	
I 39037	14	9.8	
I 39038	19	9.7	
I 39039	8	9.7	
I 39031	15	9.7	
I 39032	18	9.9	

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Monday. May 29, 1916

Estimate of Magnitude of Iris

Plate No.	Exposure	Magn.	Remarks
J 39036	10	9.7	

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1914phae.proj.1158R

Tuesday, June 6, 1916

Estimates of Magnitude of Variable +18 3186.

Plate No.	Exposure	Magn.	Remarks.
AC 17586	—	images so faint that they are impossible to measure.	
AC 17637	—	variable does not appear.	
AC 17645	—	variable does not show.	
AC 17640	1	10.7	very difficult.
	~~5~~	11.0	
	3	10.9	
	6	n.s.	
	4	11.0	
	2	10.5	
AC 17648	1	n.s.	
	2	10.6	
	~~9~~ 10	9.5	
	~~10~~ 11	n.s.	
	4	10.9	difficult
	7	10.4	
	3	10.5	F.
	8	9.9	
	5	11.0	
	9	9.7	
	6	10.4	

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1914phae.proj.1158R

Wednesday, June 7, 1916

NGC 5080 - June Comp. Stars - Seq B.

	ScB	ScC	ScC		F.C.		
					6.5		
1	2.2 2.1			2.20	6.4	6.6	6.55 05 05
2	3.3 3.2			3.30	F	7.9	7.90
3	3.8 3.7	B		3.80		9.2 9.3	9.25 05 05
4	4.6 4.5	4.9		4.75 15 15		9.8 9.9	9.85 05
5	3.9 3.8	3.8		3.85 05 05		F F	
6	6.0 5.9	6.1		6.05 05 05			
7	6.7 6.6	6.5		6.60 10 10			
8	6.8 6.7	6.8		6.80 00 00			
9	F	7.6	7.6	7.60 00 00			
10	F	7.8	7.8	7.80 00 00			
11		8.4	8.5	8.45 05 05			
12		8.8	8.8	8.80 00 00			
13		9.3	9.3	9.30 00 00			
14		9.7	9.6	9.65 05 05			
15		10.0	9.9	9.95 05 05			

DM Seq. 11h0 ~ +5°

Images elongated

Seq. B. June -

					5.9		
1	1.4 1.3			1.40	5.8	5.7	5.80 10 10
					6.3		
2	2.2 2.1			2.20	6.2	6.4	6.35 05 05
3	2.7 2.6			2.70	F	7.6 7.2	7.40 20 20
4	2.9 2.8			2.90		7.9 7.9	7.90 00 00
5	2.9 2.8			2.90		8.1 8.1	8.10 00 00
6	4.0 3.9	B		4.00		9.2 9.2	9.20 00 00
7	4.3 4.2	4.2	4.2	4.23		9.7 9.8	9.75 05 05

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Wednesday. June 9, 1916

M C 7318 - June Comf. Stars - Seq B.
F.C.

		1.5			6.2	
	1	1.4	1.50		6.1 6.1	6.1 5 0 5
	2	2.7 2.6	2.70		F 7.4 7.4	7.4 0 0 0
	3	3.3 3.2	3.30		8.2 8.1	8.1 5 0 5
I.M. Seq.	4	4.0 3.9 B	4.00		8.8 8.9	8.8 5 0 5
11 h 0 m +5°	5	5.0 4.9 5.2	5.10 10		9.5 9.8	9.6 15 15
	6	5.3 5.2 5.5	5.40 10		9.8 9.5	9.6 15 15
Images	7	5.4 5.3 5.5	5.55 15 15		F F	
elongated	8	6.1 6.0 6.9	6.00 10			
	9	7.0 6.9 7.1	7.05 05 05			
	10	7.2 7.1 7.3	7.25 05 05			
	11	F 7.9	7.9 7.90 0 0			
	12	8.1	8.2 8.15 05 05			
	13	8.2	8.5 8.35 15 15			
	14	8.9	8.9 8.90 0 0			
	15	9.5	9.8 9.65 15 15			

	1	B			5.3 5.2 5.5	5.40 10 10
		1.4			6.2	
	2	1.3	1.40		6.1 5.9	6.0 15 15
		2.3			6.9	
Seq. B	3	2.2	2.30		6.8 6.8	6.8 5 0 5
June	4	2.5 2.4	2.50		F 7.2 7.4	7.3 0 10 10
	5	3.3 3.2	3.30		7.7 7.5	7.6 0 10 10
	6	3.8 3.7	3.80		8.2 8.2	8.2 0 0 0
	7	4.2 4.1 4.2	4.20 0 0		8.9 8.9	8.9 0 0 0

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1914phae.proj.1158R

Thursday. June 8, 1916

Estimates of Magnitude of Variable +18° 3188

Plate No.	Exposure	Magnitude	Remarks
AC17640	1	10.6	Images very poor – used 0.5 inch eye-piece.
	5	11.2.	
	6	ns	
	#3	10.7	
	4	11.0	
	2	10.9	
AC17648	1+11	ns	
	10	9.4	
	3	10.8 – images vf.	
	7	10.9	
	4	11.2 – too faint to estimate with certainty.	
	2	10.8	
	5	11.0 – too faint " " "	
	8	9.9	
	6	10.9	
	9	9.9	

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1914phae.proj.1158R

Monday, Dec. 30, 1918

Scale V Additional Comp. Stars for +18° 3188.

AC 12559 -

~~Original Comp Stars~~ ~~Cdd. Comp. Stars~~

	Sc B	Sc C	Diff.	Cu	Magn
	6.0				
a	5.9		1.73		
	6.9				
b	6.8		1.17		
	6.9				
b_1	6.8		~~1.97~~	1.26	8.16
c		7.6	1.21		
d		7.7	1.03		
e		7.8	1.25		
e_1		7.8		1.30	9.10
f		7.9	1.69		
g		8.3	1.66		
g_1		8.4		1.83	10.23
g_2		8.7		2.03	10.73
h		8.6 8.8	8.70 ± 1 2.06		
k		8.9	2.21		
k_1		9.0		2.08	11.08
l		9.4	2.22		

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1914phae.proj.1158R

Monday Dec. 30, 1918

Scale ✓ Measures for additional Comp. Stars for +18° 3186

AM AC 8445

	S.B	S.C	Diff	Cu	Magn
	5.9				
a	5.8		1.83		
	6.1				
b	6.0		1.91		
	6.3				
b_1	6.2			1.86	8.16
	7.0				
c	6.9		1.81		
	6.9				
d	6.8		1.83		
e		7.5	1.55		
e_1		7.7		1.89	9.59
f		7.7	1.89		
g		7.9	2.06		
g_1		8.2		1.90	10.10
g_2		8.0		1.89	10.69
h		8.8	1.96		
k		9.3	1.81		
k_1		9.6		1.73	14.53
l		10.0	1.62		

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1914phae.proj.1158R

Monday, Dec. 30, 1918

Scale V Measures for Additional Comp. Stars for +18° 3188

AC 10527

	S.B	S.C	Diff	Cu	Magn
	6.8				
a	6.7		0.93	~~0.73~~	
	~~7.9~~				
b	7.6 →		0.47		
b,	~~7.8~~ 7.7 →			0.87	8.57
c	7.8		1.01		
d	7.8		0.93		
e	8.2		0.85		
e,	8.1			0.93	9.03
f	8.5		1.09		
g	8.8		1.16		
g,	8.7			1.17	9.87
g₂	8.8			1.23	10.03
h	8.9		1.86		
K	9.4		1.71		
K,	9.7			1.91	11.61
l	9.8		1.82		

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1914phae.proj.1158R

Monday, Dec. 30, 1918

Scale V Measures for Additional Comp. Stars in +18° 3186.

AC 11561–

	Sc B	Sc C	Diff	Cu	Magn	AC 12559	AM 8446	AC 10527
	6.9							
a	6.8		0.83					
b	7.1		0.97					
b_1	7.7			0.87	8.57	8.16	8.16	8.57
c	7.9		0.91					
d	7.9		0.83					
e	8.2		0.85					
e_1	8.6			0.91	9.51	9.10	9.59	9.03
f	8.8		0.79					
g	8.9		1.06					
g_1	8.9			0.98	9.88	10.23	10.10	9.87
g_2	9.0			1.00	10.00	10.73	10.69	10.03
h	9.6		1.16					
K	9.8		1.31					
K_1	9.6 (faint image)			1.28	10.88	11.08	11.53	11.61
l	9.9		1.72					

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Means —

8.36 21 ~~20~~ ~~20~~ 21

9.31 20 21 28 ~~28~~

10.02 14 21 08 ~~15~~

10.36 ~~36~~ 37 33 ~~33~~

11.28 ~~40~~ 20 25 33

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Monday, Dec. 30, 1918

I 13032 -

Measures for positions of stars k and l in sequence for +18° 3186.

	x	y	x	y			Mean x	Mean y
d	1501	1771	1502	1769			1502	1770
q	1334	1803	1336	1803			1335	1803
q_2	1338	1673	1337	1673			1338	1673
k	1397	1742	*1383	*1751	1397	1742	1397	1742
l	1419	1689	1418	1691			1418	1690

	Diff x(k)	163x	Diff y(k)	163y
d	+ 10.5	+ 1711.5	+ 2.8	+456.4
q	− ~~8.2~~ 6.2	− ~~6946~~ 1010.6	+6.1	+994.3
q_2	− 5.9	− 961.7	− 6.9	− 1124.7

	Diff x(l)	163x	Diff y(l)	163y
d	+ 8.4	+1369.2	+8.0	+1304.0
q	− 8.3	−1352.9	+11.3	+1841.9
q_2	− 8.0	−1304.0	− 1.7	− 277.1

	(d)	3.004588 (q)	(q_2)
log 163x	~~3~~.23337	~~2.830544~~	2.198304
log sec δ	0.02375	0.02405	0.02264
colog 15	8.82391	8.82391	8.82391
	2.08103 (120.51)	−1.85254 (71.21) ~~−1.68340 (48.24)~~	−1.82959 (67.54)

(d) $16^h 22^m 1.0^s$ $+18^\circ 46.6'$ (q) $16^h 25^m 9.9^s$ $+18^\circ 53.4'$ (q_2) $16^h 25^m 8.5^s$ $+18^\circ 20.5'$

	$+2^m$	0.5		−7.6		~~+46.2~~ −16		−16.6		~~+1~~ 7.5		+18.7
	16 24	1.5	+18	39.0		~~8.1~~ 58.7	18	36.8	16 24	1.0	18	~~18~~ 39.2

16 23

K (mean positions) — R.A. $16^h 24^m 0.4^s$ $-\delta = +18^\circ 38.3$ 1855

* wrong star measured

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	(d)	(g)	(g_2)
$\log 163X$	3.13646	$\bar{3}.13127$	$\bar{3}.11528$
$\log \sec \delta$	0.02325	0.02405	0.02264
$\operatorname{colog} q$	8.82391	8.82391	8.82391
	1.98412	$\bar{1}.97923$	$\bar{1}.96183$
	96.41	−95.33	−91.59

(d) 16 22 1.0 +18 46.6 (g) 16 25 9.9 +18 53.4 (g_2) 16 25 8.5 +18 20.5

	+1	36.4		−21.7		−1	35.3		−30.7		−1	31.6		+4.6		
16	23	37.4	18	24.9	16	23	34.6	18	22.7	16	23	36.9	18	25.7		

l(mean position) − $16^h 23^m 36.3$ − $+18^\circ 24.2$ 1855

d(1900) 16 24.0 +18 5.3 (g)(1900) 16 27.2 +19 0 g_2(1900) 16 27.1 +18 27

		+2	0.5		−7.6			−1	24.2		−16.6			−1	17.5	+18.7
16	26	~~0.5~~	18	45.4	16	26	0	18	43.4	16	26	0				

45.7

K(mean position) 1900 $16^h 26^m$ $+18^\circ 45$

(d) 16 25.6 (g) 16 25.6 (g_2) 16 25.5 18 31.6

18 31.3 18 29.3

l(mean position) 1900 16 25.6 $+18^\circ 30.7$

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Tuesday, December 31, 1918

Estimates of Magnitudes of +18° 3188.

	Plate No.	Magn.	Remarks	
				.587
Aug. 1, 1912 (?)	I37920	7.7	near edge of plate	2449616.5
Sept. 2, 1900	I25727	10.9		5265 .604
Apr. 13, 1900	I25133	11.2	edge	5123 .737
Apr. 24, 1900	I25219	9.4	(?) images elongated	5134 .842
May 7, 1900	I25303	11.0		5147 .705
May 11, 1900	I25332	10.7		5151 .752
July 4, 1900	I25526	11.5		5205 .619
July 1, 1902	I28943	9.4		3932 .633
May 26, 1899	I22950	11.5		4801 .697
June 21, 1894	I11216	11.5		3001 .649
July 28, 1899	I23238	11.5		4864 .629
Aug. 10, 1896	I15650	11.4		3782 .566
Aug. 11, 1896	I15670	11.3	edge	3783 .594
June 26, 1897	I18290	11.2		4102 4101 .637
June 25, 1897	I18281	11.0	i	4101 .636
May 2, 1894	I11031	10.3		2951 .769
June 7, 1895	I12943	11.2		3352 .679
July 14, 1893	I8777	11.5		2659 .598
July 16, 1893	I8786	10.7		2661 .610
July 20, 1893	I8834	<11.3		2665 .586
July 8, 1892	I6525	11.0		2288 .588
June 23, 1891	I3748	10.7		1907 .655
Aug. 25, 1890	I1678	8.9	(?) images poorly	1605 .619
Oct. 6, 1898	I21333	11.4		4569 .500
Oct 10, 1898	I21379	11.4		4573 .502
Oct 13, 1899	I23783	11.5 (?)	edge — poor im	4941 .524
July 1, 1898	I20939	9.4 (?)		4472 .694
July 5, 1898	I20955	11.5		4476 .681
July 2, 1895	I13032	10.6		3377 .621

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Wednesday, Jan. 1, 1919
~~Tuesday,~~ ~~Dec. 31, 1918~~

Estimates of Magnitude of $\gamma + 18° 3186$.

	Plate No	Mean	Remarks	
Aug. 18, 1916	AC 17798	11.2 ✓	scratched	2421094 ~~24209~~ .545 ✓
Oct. 21, 1916	18036	F 10.2 or 10.3		21158 .470 ✓
Dec. 28, 1916	18360	10.2 ✓		1226 .950 ✓
Sept. 17, 1917	18790	11.4 ✓		1336 .781 ✓
Aug. 12, 1917	19025	9.8 ✓		1453 .560
Oct. 22, 1917	19315	11.4 ✓		1524 .485 ✓
Apr. 12, 1916	175 16 ~~20046~~	10.1 ✓		0966 .839 ✓
~~Feb. 9, 1916~~	17302	9.3 ✓		0903 .943 ✓
" 18, 1918	19849	9.4 ✓		1643 .931 ✓
May 8, 1918	20107	9.9 ✓		1722 .679 ✓
June 3, 1918	20169	10.2 ✓		1748 .767 ✓
Sept. 21, 1918	20518	10.3 ?		1858 .535 ✓
June 5, 1916	17652	11.2 ✓		1020 .736 ✓
June 26, 1916	17683	11.2 ✓		1041 .673 ✓
July 6, 1916	AM 12151	10.7 ✓		1051 .618 ✓
July 19, 1916	12220	11.2 (?) ✓		1064 .584 ✓
July 23, 1916	12246	11.4 ✓		1068 .589 ✓
July 24, 1916	12256	11.2 ✓		1069 .587 ✓
June 21, 1917	13325	10.7 ✓		1401 .622 ✓
June 24, 1917	13342	11.5 ✓		1404 .605 ✓
Sept. 4, 1915	11079 ✓	9.5 ✓		0745 .508 ✓
May 11, 1916	11711	11.3 ✓		0995 .809 ✓
June 2, 1916	11876	9.9 ✓		1017 .764 ✓
Sept. 6, 1917	AC 19086	10.2 (?) ✓		1478 .575 ✓
Feb. 17, 1918	19838	11.2 ✓		1642 .869 ✓
Apr. 6, 1918	20038	9.5 ✓		1690 .812 ✓
May 4, 1918	20096	11.1 ✓		1718 .812 ✓
June 8, 1918	20180	9.5 (?) ✓		1753 .700 ✓
Aug. 19, 1918	20387	11.0 ✓		1825 .555 ✓

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Wednesday, Jan. 1, 1919

Estimates of Magn. 7 + 8 3188.

	Plate No	Magn	Remarks	
Sept. 22, 1918	AC20524	11.1 ✓		1859 .509 ✓
Oct. 1, 1918	AC20551	10.1 ✓		1868 .497 ✓
Mch. 22, 1917	AC18698	11.2 ✓		1310 .802 ✓
" 30, 1917	18741	9.9 ✓		1318 .761 ✓
Dec. 30, 1915	17179	9.2 ✓ 10.1	for Lin ages	0862 .954 ✓
Mch 31, 1916	17467	10.6 ✓		0954 .647 ✓
Apr. 7, 1916	17500	9.9 ✓		0961 .825 ✓
Apr. 10, 1916	17509	11.2 ✓		0964 .796 ✓
May 21, 1916	17621	11.4 (?) ✓		1005 .784 ✓
June 29, 1916	17693	9.2 ✓ 11.0		1044 .634 ✓
July 17, 1916	17730	11.0 ✓		1062 .655 ✓
Aug. 14, 1916	17779	11.0 (?) ✓		1090 .588 ✓
Sept. 12, 1916	17871	11.3 (?) ✓		1119 .695 ✓
Sept. 19, 1916	17901	10.9 (?) ✓		1126 .581 ✓
Oct. 26, 1916	18053	11.1 ✓		1163 .468 ✓
Nov. 3, 1916	18102	11.2 ✓	Faint	1171 .483 ✓
~~June~~ Jan. 12, 1917	18428	10.5 ✓	"	1241 .943 ✓
Jan 17, 1917	18458	9.9 ✓		1246 .892 ✓
July 3, 1918	20242	11.2 ✓		1778 .626 ✓
May 2, 1918	20089	10.7 ✓		1716 .739 ✓
May 17, 1918	20143	11.5 ✓		1731 .698 ✓
Mar. 2, 1918	19891	11.1 ✓		1655 .916 ✓
Mar. 17, 1918	19942	9.8 ✓		1670 .835 ✓
Sept. 4, 1917	19073	11.1 ✓		1476 .535 ✓
Sept. 18, 1917	19153	9.9 ✓		1490 .511 ✓
May 31, 1917	18877	9.8 ✓		1380 .714 ✓
May 3, 1917	18818	11.2 ✓		1352 .761 ✓
Mar. 25, 1917	18914	9.9 ✓		1313 .817 ✓
May 2, 1916	17551	11.3 ✓		0986 .743 ✓

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Wednesday, June 1, 1919 $+18^{\circ}$ 3158

Plate No	Magn	Remarks			
AC 17449	9.5	Mch. 27, 1916	24h 09m 50s	.859	
16760	11.5 (?)	Sept. 22, 1915	0763	.529	
16556	11.0	July 4, 1915	0683	.702	
16483	11.0	May 19, 1915	0631	.741	
16455	11.4 F	May 11, 1915	0629	.758	
16320	11.1	Mar. 24, 1915	0581	.851	
16252	11.1	Mar. 12, 1915	0569	.873	
AM 12052	11.4	June 23, 1916	1038	.630	
12062	10.3	June 24, 1916	1039	.616	
12070	11.2	June 27, 1916	1042	.584	
12042	11.2	June 22, 1916	1037	.674	
11259	11.0	Sept. 26, 1915	0767	.505	
10980	11.5	Aug. 12, 1915	0722	.529	
10669	9.7 (?)	June 12, 1915	0661	.670	
10687	11.4	June 16, 1915	0665	.667	
10708	11.0	June 19, 1915	0668	.665	
10562	10.9	May 7, 1915	0625	.840	
10436	11.3	Apr. 18, 1915	0606	.847	
AC 20527	11.2 F	Sept. 24, 1918	1861	.519	

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Saturday, Jan. 4, 1919

Remarks for mags. of +18° 3183.

AC 18360	10.2 or 10.3	difficult
17467	10.7	"
17730	11.0	
7619	F	too difficult to measure

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Monday, Jan. 6, 1919

Remarks for magn 7 +18° 3186

Plate No.	Magn.	Remarks
I 37920	9.7 9.8	D[illegible] and
I 13032	10.2	
I 28943	9.7	
I 25727	11.0 i	
I 25332	10.5	
I 25303	11.2	
I 25219	~~9.8~~ 9.5	
I 20939	9.5 i	
I 18281	10.3	
I 11031	10.2	
I 8786	10.6 ie (?)	
I 6525	11.2 e	
I 1678	9.3	

I 18281	10.3
I 13032	~~10.4~~ 10.4
AC 11674	10.9 for images
AC 11832	too faint to measure

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