

KG
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Book 6
Asteroids.

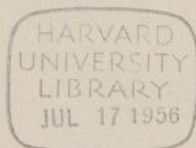
H. W. Clark.

KC 11365.704

Any scale measures ^{recorded} ~~made~~ in this book,
although arranged in regular order on
the page, were observed promiscuously.

D. W. Block.

KB 11345.704



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1918phae.proj..705B

7

Friday Sept. 6, 1918

Examination for Asteroids

Flora

MC 15030 ✓

15050 ✓

15051 ✓

Examined and asteroid marked.
Cursor examination shows no
variation.

David

MC 14509 ✓

14510 ✓

14515 ✓

14517 ✓

Examined and asteroid marked.
Cursor examination shows no
variation.

Pallas

MC 14904 ✓

14905 ✓

14958 ✓

marked as MC 14904
14905

must be off corner of MC 14958

Cursor examination shows
no variation.

Saturday Sept. 7 1918

Examination for Asteroids

Egeria

MC ✓ 14745

✓ 14746

✓ 14565 Images close.

Examined and marked
Cursor examination shows
no variation.

Wednesday Sept. 11, 1918

Examination for Asteroids

1:00

<u>Celuta.</u>	✓	MC 14748
	✓	14804
	✓	14806
	✓	14807
	✓	14808

Asteroid looked for but not found
either by trail or by superposing
MC 14804 on MC 14807.

No suitable chart plate available
for superposing.

2:00

Tuesday Sept. 16, 1918

Examination for Asteroids.

10:15

Melpomene

✓ MC 15064

✓ MC 15065

superposed on MC 14818 and
asteroid found near edge,
marked

Cursory examination showed
no variation.

Prokne

✓ MC 15090

✓ MC 15091

Found by trail, marked.

Cursory examination showed
no variation.

Ino.

✓ MC 15191

✓ MC 15199

Found by trail, marked.

Cursory examination showed
no variation.

11:00

Monday Sept. 16, 1918

Examination for Asteroids

2:00Antigone.

marked on following plates,
 some marked by D.W.B. some
 by S.R. - Asteroid already
 found to be variable by S.R.

MC ✓ 15008

✓ 15015

✓ 15016

✓ ~~15021~~
✓ ~~15021~~

✓ 15024

✓ 15025

✓ 15028

✓ 15029

✓ 15033

✓ 15034

✓ 15035

✓ 15038

✓ 15039

✓ 15041

✓ 15059

✓ 15083 Wrong region.

✓ 15084 " "

✓ 15085 " "

✓ 15088 " "

✓ 15089 " "

✓ 15097 Exp. too short to show asteroid

✓ 15102

✓ 15103

✓ 15104

✓ 15105

2:30

12

Saturday Sept. 21, 1918

Examination for Asteroids.

11:00Bruchsalia

- ✓ MC 15223 superposes on MC 13591
 Found near northern edge of
 plate and marked.
 cursory examination shows
 no variation.

Luo

- ✓ MC 15228 -
 Found and marked.
 cursory examination shows
 no variation.

Prokne

- ✓ MC 15058 - Found and marked.
 Plate broken when received.
 cursory examination shows
 no variation.

11:3012:00Ampella

- ✓ MC 15169 cursory examination
 ✓ 15170 does not show variation.
 ✓ 15198 see next page.
 Found, ^{and marked} on MC 15169 and 15170
 by superposing on MC 13445
 Cannot find on MC 15198 either
 by trail or super. on MC 13445
 and MC 14057

12:30

Saturday Sept. 21, 1918

Examination for Asteroids

1:40

Amphella continued.

✓ MC 15188 Found, and
by aid of this found
asteroid an

✓ MC 15198.

Cursorry exam. shows
no variation

2:00

2:30

Aguntania - See note on cover of MC 15185

✓ MC 15185

✓ 15189

✓ 15190

✓ 15197

Found and marked near eastern
(following) edge of MC 15185
Appears to be travelling in
south easterly instead of, as
in circular 203, in south
westerly direction

Not found on MC 15189 Probably off
15190 edge
15197

Cursorry examination shows no
variation.

3:00

Saturday Sept. 21, 1918

Examination for Asteroids.

2:25

Ampella

✓ MC 15107 Found and
marked. by superposing
on MC 11715

But in south of position
on MC 15170 - Does asteroid
change its motion from
~~to~~ moving northward
between Aug 15, 1918 (MC 15107)
and Aug 27, 1918 (MC 15170)
to moving southward between
Aug 27, 1918 (MC 15170) and
Sept. 2, 1918 (MC 15198)?

Curious exam. shows no
variation.

3:50

10:35

~~See 7. B below~~

alt. con. +0.2

Images of 15

~~12:30~~

Friday Oct 4 1918

asteroid exposures
very different from
pale exp. poor

aH3

Procure - M C 15058

Images very poor

Scale ~~7~~Exposures numbered prec. & fallCorrections to Sec 1 0.0
Sec 2 0.0

Exp. No.

Sec Procure Sec

Exp. No.

Star "b" DM +1° 4155

9m 14 12 1/2
14 21 1/25m X2
9m X4merged into
bright star.2X
4X

} not comparable

14 30 1/2

5

X6

7.5 7.45 7.4

6X

7.7 7.70 7.7

14 38

10

X7

6.5 6.55 6.6

7X

6.6 6.60 6.6

14 47 1/2

5

X9

6.9 7.05 7.2

9X

7.5 7.40 7.3

14 55

10

X10

6.5 6.45 6.4

10X

6.5 6.50 6.5

15 05

10

X11

6.6 6.50 6.4

11X

6.5 6.50 6.5

15 12 1/2

5

X12

7.4 7.35 7.3

12X

7.4 7.35 7.3

15 21 1/2

9

X14

6.5 6.55 6.6

14X

6.8 6.80 6.8

15 30 1/2

5

X16

7.4 7.40 7.4

16X

7.6 7.65 7.7

15 36

6

X17

7.2 7.05 6.9

17X

7.4 7.40 7.4

Star "a" DM +1° 4161

Star "c" DM +1° 4144

2X

not comparable.

2X

8.6

} not comparable

4X

4X

7.9

6X

6.7 6.75 6.8

6X

8.1 7.95 7.8

7X

5.9 5.85 5.8

4.36

7X

6.8 6.80 6.8

9X

6.8 6.75 6.7

9X

8.6 8.40 8.2

10X

6.4 6.30 6.2

10X

6.7 6.70 6.7

11X

6.4 6.30 6.2

11X

6.7 6.75 6.8

12X

6.8 6.80 6.8

12X

8.6 7.8

Reject image hard to compare with scale.

14X

6.5 6.50 6.5

14X

6.8 6.75 6.7

16X

6.9 6.90 6.9

16X

7.8 7.75 7.7

17X

6.7 6.65 6.6

17X

7.7 7.65 7.6

no. Stars of Polar Sequence

Very hard to compare with

10

5.2 5.25 5.3

3.77

11

5.4 5.35 5.3

4.20

12

5.6 5.55 5.5

4.31

13

5.8 5.75 5.7

4.35

7. B. - 2nd exp. is comes between the principal exposures. These are not measured. The regular 2nd exposures were also omitted 11:10. ~~see this in meas. this plate.~~

Friday Oct. 4, 1918

Search for Aquitania11:15Aquitania

MC 15301 ✓

15302 ✓

15312 ✓

15313 ✓

15317 ✓

15318 ✓

Aquitania not found on any of the above plates either by superposition on MC 15197 and ~~and~~ on each other or by trail.

12:00Search for Antigone

✓ MC 15311 Sept. 28, 1918

✓ 15316 Sept. 29, 1918

no chart plate available for superposing.

Not found by trail.

Position for plate obtained from Mr. Campbell from plotting & carried down from positions of Aug. 15, 1918

and therefore probably considerably ant.

12:20

alt. lon. +.02

10:15

Saturday Oct. 5, 1918

7.B - a 2nd Exp. comes between the principal exposures on this plate. These are not measured. The regular 2nd Exp. are also omitted in this measure of this plate.

17

Campella - MC 15188

Exposures numbered prev. to foll.

Scale M

Exp. No.

Campella

Star "b" DM +8⁰ 4847

Q.M.T. Mid Time	Exp. Length		Sc 1	mean	Sc 2	Cu.	mag.		Exp. No	Sc 1	Sc 2	Cu.	mag.	Diff.	
13 14 1/2	1	X1	—	8.50	8.5	2.25	10.75 ¹⁰		1 X	—	8.40	8.4		2.05	
13 21 1/2	9	X3	6.9	6.85	6.8	3.90	10.15 ¹⁰		3 X	6.6	6.4	6.60	6.6	3.85	
13 30 1/2	5	X5	—	7.60	7.6	3.34	10.94 ²⁹		5 X	6.5	7.20	7.2		3.25	
13 38	10	X6	6.6	6.75	6.9	3.98	10.73 ⁰⁸		6 X	6.3	6.45	6.4	4.27	10.72 ²⁹ 4.00	
13 47 1/2	5	X8	—	7.60	7.6	3.26	10.86 ²¹		8 X	7.1	6.9	7.15	7.2	3.30	
13 55	10	X9	5.6	5.55	5.5	4.48	10.03 ⁶²		9 X	6.1	5.9	5.95	5.8	4.36	10.31 ¹² 4.50
14 05	10	X10	5.6	5.55	5.5	4.50	10.05 ⁶⁰		10 X	6.1	5.9	5.95	5.8	4.36	10.31 ¹² 4.50
14 12 1/2	5	X11	—	7.60	7.6	3.28	10.88 ²³		11 X	7.0	6.8	7.05	7.1	3.40	
14 21 1/2	9	X13	6.5	6.50	6.5	4.00	10.50 ¹⁵		13 X	6.6	6.4	6.60	6.6	3.85	
14 30 1/2	5	X15	—	7.70	7.7	3.24	10.94 ²⁹		15 X	6.0	7.30	7.3		3.15	
14 38	10	X16	6.4	6.40	6.4	4.33	10.73 ⁰⁸		16 X	6.0	5.8	6.05	6.1	4.33	10.58 ⁰⁵ 4.40
Star "a"						7.16	10.65		Star "c" DM +8°						
DM +8° 4842						Cu.	mag.	Diff.	DM +8° 4844						

Exp. No. Sc 1 mean Sc 2

Exp. No. Sc 1 Sc 2

1 X	-	7.90	7.9	2.28	1 X	-	8.7	2.38
3 X	5.8	5.95	5.9	4.23	3 X	7.1	6.9 7.15 7.2	3.93
5 X	6.8	6.95	6.9	3.23	5 X	f	7.7	3.38
6 X	5.8	5.85	5.7	4.37 10.22 ⁰⁶ 4.33	6 X	7.0	6.8 7.10 7.2	4.19 11.29 ²³ 3.98
8 X	6.8	6.95	6.9	3.23	8 X	f	7.8	3.28
9 X	5.8	5.75	5.7	4.40 10.15 ⁰¹ 4.43	9 X	6.7	6.5 6.70 6.7	4.24 10.94 ¹² 4.38
10 X	5.8	5.75	5.7	4.40 10.15 ⁰¹ 4.43	10 X	6.7	6.5 6.75 6.8	4.23 10.98 ⁰⁸ 4.33
11 X	6.8	6.95	6.9	3.23	11 X	f	7.8	3.28
13 X	5.8	5.75	5.7	4.43	13 X	6.9	6.7 7.05 7.2	3.88
15 X	6.8	6.85	6.8	3.33	15 X	f	7.7	3.38
16 X	5.8	5.70	5.8	4.40 10.10 ⁰⁶ 4.48	16 X	6.8	6.6 6.80 6.8	4.22 11.02 ⁰⁴ 4.28

Scale M no. Stars of Polar Sequence

no. Sc 1 Sc 2 Diff.

	sc1	mean	sc2	Diff		sc1	sc2	Diff	
11	4.8 ^{5.0}	5.05	5.1	4.50	13	5.8 ^{6.0}	5.95	5.9	4.35
12	5.1 ^{5.3}	5.30	5.3	4.56	14	6.1 ^{6.3}	6.40	6.5	4.25
16	6.7 ^{7.5}	7.57	7.2	4.25	15	6.7 ^{6.9}	6.90	6.9	4.18

Wednesday Oct. 23, 1918

Examination for Asteroids.

10:40

Hygeia

- ✓ MC 15331 Oct. 3, 1918
- ✓ 15332 Oct. 3, 1918
- ✓ 15359 Oct. 11, 1918
- ✓ 15360 Oct. 11, 1918

Found by trail on MC 15331

15332 Am

South west corner of plate,

Found on extreme per. edge of MC 15360
by trail and checked by superimposing
on MC 7327

Just off edge of MC 15359

MC 7327 and MC 15360 overlap
considerably more than should
be expected from ~~their~~ the
positions of centers.

Cursory examination shows
no variation.

11:20

Wednesday Oct. 23, 1918

Examination for Asteroids.

11:35

Hedwig

✓ MC 15356 Oct. 10, 1918.

Not found by means of trail.

No suitable chart plate available
for superposing.

11:55

✓ 12:00

Melpomene

MC 15081 ~~Aug~~ Aug. 3, 1918 Broken at Lab.

Cannot find asteroid.

Plate poor - shows only bright
stars.

12:10

Possibly off edge as asteroid
appeared near edge of
MC 15065, Aug 1, 1918 and
is travelling south.

Friday Oct. 25, 1918

Examination for Asteroids.

11:35

Urania

- ✓ MC 14731 Mar. 30, 1918
- ✓ 14596 " 16, 1918
- ✓ 14597 " 16, 1918

Not found either by trail or
by superposing
MC 14597 on MC 7938
and MC 9975
also MC 14731 and MC 7938.

12:05

12:20

Kalliope

- ✓ MC 14506 Feb. 8, 1918
- ✓ MC 14507 Feb. 8, 1918
- ✓ MC 14525 Feb. 15, 1918

Cannot find by trail.
No suitable chart plate available
for superposing.

12:35

Friday Oct. 25, 1918
Examination for Asteroids

1:15

Eliminator.

✓	MC 14755	April 5, 1918
✓	14756	April 5, 1918
✓	14766	April 6, 1918
✓	14767	April 6, 1918

Cannot find by trail.

Had only suitable chart
plates MC 244, MC 14739, show
only the brightest stars.

1:35

Saturday Oct 26, 1918

10:45

Examination for Asteroids.

Flora

✓ MC 14967

June 8, 1918

Not found either by trail or
by superposing on MC 14819
or with help of B 13991.

11:30

11:30

Proserpina

Proserpina

✓ MC 14809

May 4, 1918

✓ MC 14813

May 8, 1918

✓ 14814

May 8, 1918

✓ ~~14856~~ 14956

June 7, 1918

✓ 14957

June 7, 1918

✓ 14965

June 8, 1918

✓ 14966

June 8, 1918

Cannot find either by trail
or by superposing

MC 14809 on MC 14814

or MC 14957 on MC 14965

No suitable chart plate available.

11:50

Saturday Oct. 26, 1918

Examination for Asteroids

12:00

Alkeste

✓ MC 14768 April 6, 1918
✓ 14812 May 8, 1918

Not found by track on
MC 14768 - No suitable
chart plate available
for superposing
Not found on MC 14812 either
by track or by superposing
on MC 10497.

12:20

Tuesday Oct. 29, 1918.

Examination for Asteroids.

11:30

Angelina.

- ✓ MC 14779 April 15, 1918
- ✓ MC 14787 April 25, 1918 Fogged
- ✓ MC 14788 April 25, 1918 Fogged

Not found by means of trail.
No suitable chart plate
available for superposing.
Tried ~~paper~~ comparing ^{MC 14779} with
Q 8284 but MC plate
showed more (fainter)
stars.

11:50

2:10

Superposed ^{MC} 481 and 484
on portions of MC 14779
but could not find
asteroid.

2:20

2:20

Eunomia

- ✓ MC 14511 Feb. 11, 1918
- ✓ MC 14586 Mar. 15, 1918
- ✓ 14587 Mar. 15, 1918
- ✓ 14730 Mar. 30, 1918
- ✓ 14742 April 1, 1918 Broken slide 4536

~~Cannot find either by trail
or by superposing MC 14730 on
MC 14742~~ See next page

Tuesday Oct 29, 1918

Examination for Asteroids.

✓ Pennonia

Found an MC 14730 and MC 14742
MC 14586, 14587 by
superposing ~~on~~ MC 14730
on each.

Found ^{marked} an MC 14511 and
checked by comparing
with S 12524.

Suspected to be variable.

3:05

Wednesday Oct. 30, 1918

Examination for asteroids.

10:00

Parthenope

✓	MC 14486	Fogged	Feb. 2, 1918
✓	14487	Fogged	Feb. 2, 1918
✓	14492	} wrong region	Feb. 4, 1918
✓	14493		Feb. 4, 1918
✓	14498	Out in R.A.	Feb. 5, 1918
✓	14499	Fogged	Feb. 5, 1918

Found and marked

on MC 14486

14487

14499 by

superposing on

MC 12583 and

MC 14486 on 14499

Curcory Hann. shows no
variation

10:45

Wednesday Oct. 30, 1918

Examination for asteroids.

11:00Brynnor

✓ MC 14488	Feb. 2, 1918	Fogged
✓ 14502	Feb. 8, 1918	
✓ 14503	Feb. 8, 1918	

Found marked on MC 14502
and checked by superposing
on MC 14296.

marked region on MC 14503
MC 14488 Fogged, does not
show objects as faint
as Brynnor.

11:30

Shows no variation.

11:45Drina

✓ MC 14752	Apr. 5, 1918
✓ 14753	Apr. 5, 1918
✓ 14763	Apr. 6, 1918
✓ 14764	Apr. 6, 1918

Found by means of trail.

Cursory examination shows
no variation.

12:00

12:40

Wednesday Oct. 30, 1918
Examination for Asteroids

Juena

✓ MC 14778 Apr. 15, 1918
✓ 14794 Apr. 26, 1918
✓ 14795 Apr. 26, 1918 *Only fogged*

Not found by trail. No.
suitable chart plate available
for superposing.

Tried superposing MC 14778 on
MC 14794 but former
shows many more stars
than latter.

12:55

Friday Nov. 1, 1918

9:50

Examination for Asteroids.

Europa.

✓	MC	14588	Mar. 15, 1918
✓		14589	Mar. 15, 1918

Cannot find either by trail
or by superposing
on MC 7319 + MC 5150

10:20

Metis.

✓	MC	14771	Apr. 14, 1918	
✓		14773	Apr. 14, 1918	Thrown away
✓		14780	Apr. 15, 1918	
✓		14781	Apr. 15, 1918	Slide 4538

Cannot find by trail. No
suitable chart plate available
for superposing.

10:35

10:50

Pyraissalia.

✓	MC	14810	May 4, 1918
---	----	-------	-------------

Found by trail.
Cursory examination shows
no variation.

11:05

Friday Nov. 1, 1918

Examination for Asteroids.

1:45

Nausikan

✓ I 39481 Sept. 13, 1918

Found by superposing
on I 24105 ✓

Cursory exam. shows
no variation.

2:00

Wednesday Nov. 6, 1918

Examination for Asteroids.

11:35

Hercules

✓ MC	14800	May 1, 1918
✓	14801	May 1, 1918
✓	14811	May 4, 1918
✓	14943	June 3, 1918
✓	14935	June 1, 1918
✓	14936	June 3, 1918
✓	15012	June 8, 1918

Examined by Miss Leavitt.

Not found on 14800
14801
14811

Marked on 14935

14936

14943 near edge

MC 15012 - must have
~~gone~~ moved so as to
be off edge

11:50

Pallas

✓ MC 15005

Out in P.A.

Wrong region for Pallas

Thursday Nov. 7, 1918

Examination for Asteroids

11:05

Prokne

✓ MC 15053 July 27, 1918

Found by trail.

Curvory Hamination shows
no variation.

11:10

Ilmatar.

✓ MC 14743 April 2, 1918

Only one appearance

Only plate available for
superposing shows
only bright stars.

11:15

11:45

✓ Eunike

MC

144⁶~~62~~

Jan. 15, 1918

Dense

14467

Jan. 21, 1918

Badly fogged

14483

Feb. 1, 1918

14484

Feb. 1, 1918

Found on MC 14483 & 14484

not on 14462, 14467

Curvory Hamination shows
no variation.

12:15

12:30

✓ Hebe

MC 14747 April 2, 1918

Found marked on So. fall.

corner. Checked by super. on MC 8481

12:35

Friday Nov. 8, 1918

Examination Jars Asteroids.

10:30

✓

Ino.

I

39469 Sept. 3, 1918

39476 Sept. 10, 1918

39477 Sept. 10, 1918

Found on I 39476 & 39477
but not on 39469

Currygram. shows no variation.

10:50

✓

Tercidina

MC

14460 Jan. 14, 1918. Slide 4578

14461 Jan. 15, 1918. Slide 4557

Plates badly broken and
piece missing.

Asteroid faint, not found by
trail. Plates difficult
to handle so did not look
for plate & superpose.

11:00

11:15

✓

Dembowska

MC 14456 Jan. 4, 1918

14458 Jan. 12, 1918

Found by trail on 14458 and
by help of that on 14456

Currygram. shows no variation.

11:30

Saturday Nov. 9, 1918

Examination for asteroids

1:30

Bellona

✓	MC	14 372	Nov. 16, 1917
✓		14 373	Nov 16, 1917
✓		14 391	Nov. 17, 1917
✓		14 392	Nov 17, 1917
✓		14 425	Dec 7, 1917
✓		14 426	Dec 7, 1917
✓		14 436	Dec 11, 1917
✓		14 437	Dec. 11, 1917
✓	MF	1343	Nov. 17, 1917
✓		1344	Nov 17, 1917

Found by trail an MC 14391
and by this help on ~~all~~
others and an 14426 by super.
an 14436 - Found an
all plates.

✓ Pyche also found an
MC 14372, 14373, 14391, 14392,
MF 1343, 1344

Currygram shows no
variation

2:30

Monday Nov. 11, 1918

Examination for asteroids

10:30

Sappho.

MC	14370	Nov. 16, 1917	✓
	14371	Nov. 16, 1917	✓
	14389	Nov. 17, 1917	✓
	14390	Nov. 17, 1917	✓
MF	1321	Nov. 14, 1917	✓
	1322	Nov. 14, 1917	✓
	1340	Nov. 17, 1917	✓
	1341	Nov. 17, 1917	✓

Found and marked on all
plates.
Cursory exam. shows no
variation.

11:00

11:45

Amphitrite

MF	1136	Oct. 2 ⁰ , 1917	✓
	1137	Oct. 20, 1917	✓
	1145	Oct. 22, 1917	✓
	1146	Oct. 2 ¹ / ₂ , 1917	✓

Found and marked on all
plates.
Cursory exam. shows
no variation.

12:15

Tuesday Nov. 12, 1918

Examination for Asteroids.

Vesta

mf	1134	Oct. 20, 1918	✓
	1135	Oct. 20, 1918	✓
	1220	Nov. 3, 1918	✓

Found and marked on all.

Cursory exam. shows no variation.

Fortuna

mf	1119	Oct. 16, 1917	✓
	1120	Oct. 16, 1917	✓
	1131	Oct. 17, 1917	✓
	1132	Oct. 19, 1917	✓
	1133	Oct. 20, 1917	✓

Found and marked on all.

Cursory exam. shows no variation.

Friday Nov. 15, 1918

37

Examination for Asteroids.

10:10

Juno.

M.F. 805

811

822

824

829

830

832

July 13, 1917

July 22, 1917

July 26, 1917

July 27, 1917

July 28, 1917

July 30, 1917

July 30, 1917

✓

✓

✓

✓

✓

✓

✓

Found and marked on all.
Cursey gam. shows no variation.

10:40

11:00

Juno.

M.F. 821

855

856

857

1035

1114

July 26, 1917

Aug. 7, 1917

Aug. 8, 1917

Aug. 8, 1917

Oct. 2, 1917

Oct. 14, 1917

✓

✓

✓

✓

✓

✓

Found and marked on all.
Cursey gam. shows no variation.

11:30

Friday Nov. 15, 1918
Examination for Asteroids.

12:15

Remanusa

MF 804
820

July 13, 1917

July 26, 1917

✓

✓

Found by trail on MF 820
Not found on MF 804 Object
probably too faint to show
on 804 as plate is fogged
Cursory exam. shows no
variation.

12:30

1:45

Idecuba

I 39497

Nov. 5, 1918

✓

Found & marked Superposed on
Cursory exam. shows no
variation.

2:00

2:15

Nausikaa

I 39495 Nov. 5, 1918

✓

39496 Nov. 5, 1918

✓

Sept. 13, 1918 ←

39480 on plate

Found by superposing on
I 4667

✓

Cursory exam. shows no
variation.

Victoria

MC 15396 Nov. 8, 1918

✓

Found by trail

Cursory exam. shows no variation

2:30

Tuesday Nov. 19, 1918

Examination for Asteroids

11:15

Hygeia

M.F.	823	July 27, 1917	✓
M.F.	858	Aug. 10, 1917	✓
M.F.	859	Aug. 10, 1917	✓

marked on all.
Cursory exam. shows no
variation.

11:35

12:10

Nemesis

M.F.	881	Aug. 20, 1917	✓
	1070	Oct. 4, 1917	✓
	1097	Oct. 11, 1917	✓
	1098	Oct. 11, 1917	✓

cannot find ^{by trail on super. on 1070 on 1097} object faint
and plates do not show
very faint stars; limit
of visibility of best is 12.8

12:40

2:00

Thuthe

M.F.	1088	Oct. 6, 1917	✓
	1089	Oct. 6, 1917	✓
	1104	Oct. 13, 1917	✓
	1105	Oct. 13, 1917	✓

marked faint obj. on 1088 found
obj. super. on M.F. 947 can
see trace of this obj. on 1089 ^{assumed}
be Thuthe not found on other plates

2:20

Tuesday Nov. 19, 1918

Examination for asteroids

2:20

Sirius

MF

1099

Oct 11, 1917

✓

1106

Oct 13, 1917

✓

1107

Oct 13, 1917

✓

1117

Oct 16, 1917

✓

1118

Oct 16, 1917

✓

Faint. Not found.

Tried superposing MF 1118

the best plate, on Q 27722

2:50

Wednesday Nov. 20, 1918
Examination for asteroids.

10:20

Polyhymnia

M.F.	1143	Oct. 22, 1918	✓
	1144	Oct. 22, 1918	✓
	1237	Nov. 5, 1918	✓
	1238	Nov. 5, 1918	✓

Not found by trail or by
super. on L 32170.

10:40

Pales

10:50

M.F.	1212	Nov. 2, 1917	✓
	1213	Nov. 2, 1917	✓
	1234	Nov. 5, 1917	✓
	1235	Nov. 5, 1917	✓

Not found plates slightly
fogged and asteroid faint.
Super. 1213 on 1234

11:20

12:40

Papagena

M.F.	1242	Nov. 7, 1917	✓
	1243	Nov. 7, 1917	✓
	1318	Nov. 14, 1917	} 10° out in dec. ✓
	1319	Nov. 14, 1917	
	1320	Nov. 14, 1917	✓

Found on 1242 1243 1320

Curvory diam. shows no variation

Salvia Found on M.F. 1318 ✓ 1319 ✓ taken
10° out in dec. for Papagena.
Curvory diam. shows no variation

1:00

Friday Nov. 22, 1918

Examination for asteroids.

2:00

Hertha

MC	14368	Nov. 16, 1917	✓
	14369	Nov. 16, 1917	✓
MF	1121	Oct. 16, 1917	✓
	1122	Oct. 16, 1917	✓
	1148	Oct. 24, 1917	✓
	1251	Oct Nov. 8, 1917	✓
	1252	Nov. 10, 1917	✓
	1316	Nov. 14, 1917	✓
	1317	Nov. 14, 1917	✓

Found and marked on
all but MC 14369 which
does not show the asteroid.
Curry's spec. shows no variation.

3:00

Monday Nov. 25/1918

Examinations for asteroids.

11:20

Hera

mt. 1240

Nov. 7, 1917

✓

1241

Nov. 7, 1917

✓

Not found. Superposed on
S 161869. Object probably
faint.

11:40

Saturday Nov. 30, 1918

Examination for Asteroids

Leto.

L 39499 Nov. 23, 1918 ✓

Superposed on L 25925 but
not found
Extrapolated 5 days, and
probably faint.

Sunday Dec. 7, 1918

Examination for asteroids.

3:00

Heubar.

I. 39505

Nov. 27, 1918

✓

39506

Nov. 27, 1918

✓

Found by super. on I 26459

Cursey diam. shows no
variation.

3:30

Tuesday Dec. 3, 1918

Examination for Asteroids.

10:15

Hecuba.

Q 39502 Nov 26, 1918 ✓

Found by superim on Q 39506

Cursory exam. shows no variation.

10:20

11:40

Hygiea.

Q 39501 Nov. 25, 1918 ✓

39503 Nov. 27, 1918 ✓

39504 Nov. 27, 1918 ✓

Found by superimposing
Q 39501 on 39503

Cursory exam. shows no variation.

12:00

Tuesday, Dec. 10, 1918

See 7.B - below

10:35
2.10

Lactitia. - snow on ground. -
Images elongated.

Comparison stars used:-

Differential in sid. + mean interval a	DM - 7° 121
rejected as it would be small fraction of minute	DM - 6° 126
Time of start 23 41 ^m sid. time.	DM - 7° 113
6 29 E.M.T.	DM - 7° 115
Time of ending First break came	
Scale M 0 ^h 57 ^m sid. 6 33 E.M.T.	
there was a 13 th eff. of 2 ^m after last break	not in cat. not used.
39509 Epps. numbered from plate & fall.	
Lactitia, Sc 1 mean Sc 2 2nd mean P. 53 Cw mag	Star "a" 2nd mean P. 53 30 22 Diff.
10 7 38 12 - 7.45 7.4 7.5 2.88 10.33	10 1 16.9 10.32 6.7 6.35 6.8 6.8 6.82 2.95
5 7 30 1/2 - 8.25 8.3 8.2 2.39 10.64	11 7 - 7.5 7.5 7.50 2.27
27 27 10 3 - 9.20 9.2 9.2 1.54 10.74	10 3 - 8.5 8.4 8.45 1.32
9 7 21 24 - 7.65 7.7 7.6 2.94 10.59	9 4 6.8 6.80 6.8 6.7 6.75 3.02
27 16 8 - 8.80 8.8 8.8 1.93 10.73	8 5 - 7.8 7.9 7.85 1.92
5 7 12 1/2 - 8.20 8.2 8.2 2.47 10.67	7 6 - 7.5 7.3 7.40 2.37
10 6 65 6 - 7.55 7.5 7.6 3.14 10.69	6 7 6.3 6.4 6.35 6.4 6.40 3.37
10 6 55 8 - 7.50 7.5 7.5 3.21 10.71	5 8 6.4 6.55 6.7 6.3 6.42 3.35
5 6 47 1/2 7 - 8.25 8.2 8.3 2.50 10.70	4 9 - 7.2 7.6 7.40 2.37
26 44 3 70 - 8.85 8.8 8.9 1.93 10.78	3 10 - 7.7 8.1 7.90 1.87
10 6 38 2 - 7.85 7.8 7.9 3.16 11.01	2 11 6.3 6.35 6.4 6.6 6.48 3.29
4 5 6 31 1 - 8.50 8.4 8.6 2.47 10.97	1 12 - 7.3 7.6 7.45 2.32
Mean mag. 10.71	38 07 03 12 02 04 02 00 04 07 30 26

11:00

continued next page

7.B - exposure numbers changed
as I discovered N. end of
plate was opposite end to
that having numbered corner.

11:00

Tuesday
Monday Dec. 10 1918Scale M Lactitia continued.

39509 continued

Exp No.	Star "b"	1 st meas.	2 nd meas.	Diff.
12	—	7.75	7.6	7.9 2.82
11 2	—	8.25	8.2	8.3 2.32
10 3	—	9.05	8.8	9.3 1.52
9 4	—	7.70	7.6	7.8 2.87
8 5	—	8.45	8.4	8.5 2.12
7 6	—	7.75	7.7	7.8 2.82
6 7	—	7.55	7.3	7.4 3.22
5 8	—	7.50	7.3	7.3 3.27
4 9	—	7.80	7.7	7.9 2.77
3 10	—	8.70	8.7	8.7 1.87
2 11	—	7.45	7.2	7.7 3.12
1 12	—	8.10	8.0	8.2 2.47

Exp No.	Star "c"	1 st meas.	2 nd meas.	Diff.
12	—	7.85	7.8	7.9 2.86
11 2	—	8.30	8.3	8.3 2.41
10 3	—	9.20	9.1	9.3 1.51
9 4	—	7.85	7.8	7.9 2.86
8 5	—	8.85	8.8	8.9 1.86
7 6	—	8.30	8.2	8.4 2.41
6 7	—	7.60	7.6	7.6 3.11
5 8	—	7.50	7.5	7.5 3.21
4 9	—	8.00	7.9	8.1 2.71
3 10	—	8.80	8.8	8.8 1.91
2 11	—	7.50	7.2	7.8 3.21
1 12	—	8.30	8.1	8.5 2.41

11:30

Exp No.	Star "d"	1 st meas.	2 nd meas.	Diff.
12	—	8.00	7.9	8.1 2.89
11 2	—	8.40	8.4	8.4 2.49
10 3	—	9.45	9.2	9.7 1.44
9 4	—	7.85	7.9	7.8 3.04
8 5	—	9.00	8.5	9.2 1.89
7 6	—	8.40	8.4	8.4 2.49
6 7	—	7.75	7.8	7.7 3.14
5 8	—	7.70	7.8	7.6 3.19
4 9	—	8.45	8.3	8.6 2.44
3 10	—	8.85	8.8	8.9 2.04
2 11	—	7.60	7.5	7.7 3.29
1 12	—	8.40	8.3	8.5 2.49

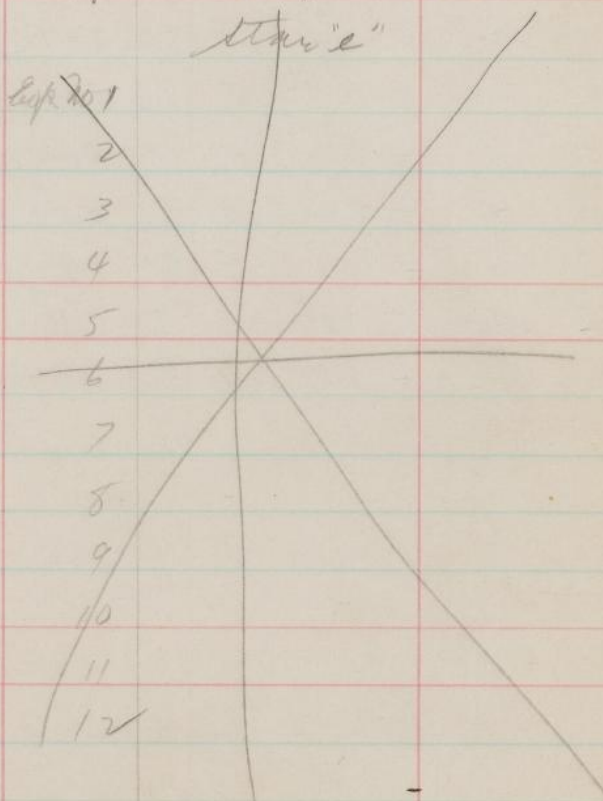


Plate started 0^h 59^m 18^s = 7^h 47^m 6^s M.T.First Break 7^h 50^m 6^s M.T. = 1^h 02^m 18^s T.M.T.Stopped 2^h 03^m 51^s M.T.

Lactitia - continued.

4B - See
note
on Bottom
P. 47

49

11:45
Scale M 39510 - Images elongated. -

Lactitia				Star "b"			
Exp 70	Sc 1	Sc 2	Mag	Exp 70	Sc 1	Sc 2	Diff.
1 + 50 1/2 21	-	9.7	0.97	10.67 ⁰⁶ 12 1	-	9.6	0.97
5 8 47 1/2 2	-	8.6	2.35 ²	10.95 ³⁴ 11 2	-	7.9	2.67
2 8 4 10 3	-	9.3	1.62	10.92 ³¹ 10 3	-	8.8	1.77
10 8 38 9 4	-	8.1	2.75	10.85 ²⁴ 9 4	-	7.3	3.27
5 8 28 1/2 5	-	8.8	1.84	10.64 ⁰³ 8 5	-	8.5	2.07
2 8 27 6	-	9.4	1.18	10.58 ⁰³ 7 6	-	9.5	1.07
9 8 21 1/2 7	-	7.9	2.76	10.86 ⁰⁵ 6 7	-	7.6	2.97
2 8 16 8	-	8.7	1.71	10.41 ²⁰ 5 8	-	8.8	1.77
5 8 12 1/2 9	-	8.3	2.10	10.40 ²¹ 4 9	-	8.6	1.97
10 7 3 10	-	8.1	2.26	10.36 ²⁵ 3 10	-	8.2	2.37
10 7 55 11	-	7.9	2.39	10.29 ³² 2 11	-	8.1	2.47
3 7 48 1/2 12	-	8.9	1.74 ²	10.64 ²⁰³ 1 12	-	8.7	1.87

Star "a"				Star "c"			
Exp 70	Sc 1	Sc 2	Diff.	Exp 70	Sc 1	Sc 2	Diff.
12 1	-	8.6	1.17	12 1	-	9.7	1.01
11 2	-	7.6	2.17	11 2	-	8.2	2.51
10 3	-	8.5	1.27	10 3	-	9.2	1.51
9 4	-	6.5	3.27	9 4	-	7.9	2.81
8 5	-	7.9	1.87	8 5	-	8.8	1.91
7 6	-	8.7	1.07	7 6	-	9.3	1.41
6 7	-	6.8	2.97	6 7	-	8.1	2.61
5 8	-	8.4	1.37	5 8	-	8.7	2.01
4 9	-	7.7	2.07	4 9	-	8.4	2.31
3 10	-	7.5	2.27	3 10	-	8.6	2.11
2 11	-	7.4	2.37	2 11	-	8.5	2.21
1 12	-	8.1	1.67	1 12	-	8.9	1.81

12:15

continued next page

50

Tuesday Dec. 10, 1918
 Lactitia continued.
 I 39510 continued.

12:15
Scale 71.

		Star "d"		
Eff	No.	Sc 1	Sc 2	Diff
✓	1		7.2	.
11	2		8.7	2.19
10	3		9.3	1.59
9	4		8.1	2.79
8	5		9.2	1.69
7	6		9.7	1.19
6	7		8.2	2.69
5	8		9.1	1.79
4	9		8.9	1.99
3	10		8.7	2.19
✓	11		8.5	2.39
1	12		9.3	1.59

12:20

Plate started 2nd 04^m 52^m
 First break 9^h 00^m 27^s = 2^h 42^m 10^s did. Time.
 Stopped 3^h 17^m 10^s did. Time = 10^h 05^m

12:30 Lactitia continued.

7.B - See 51
 note Bottom
 P. 47

Scale 1/2 39511 - Images elongated.

Length	Lactitia	Mag	Star 'b'	Diff
5 10 9 55	8.9	1.65	10.55 ³⁰	8.8 1.77
5 9 47 ¹¹	8.9	1.50 ²	10.40 ⁴⁵	8.9 1.67
2 9 44	9.8	1.45	10.25 ⁴⁰	9.6 0.97
10 9 38	8.3	2.46	10.76 ⁰⁹	8.1 2.47
5 9 30 ¹²	8.5	2.17	10.67 ¹⁸	8.3 2.27
2 9 27	9.4	1.25 ²	10.65 ²⁰	9.2 1.37
9 9 21 ¹²	8.3	2.45	10.75 ¹⁰	8.1 2.47
2 9 16	9.8	1.28 ²	11.08 ²³	9.3 1.27
5 9 12 ¹²	8.7	2.60 ²	11.38 ⁴⁸	8.1 2.47
10 9 05	8.1	2.85	11.05 ²⁰	7.7 2.87
8 8 56	8.2	2.63	10.83 ⁰²	7.8 2.77

Star "a" Diff. 9.39
10.85

Star "c" Diff.

Mag	Star "a"	Diff.	Mag	Star "c"	Diff.
12 1	8.2	1.57	12 1	8.8	1.91
11 2	8.4	1.37	11 2	9.9	0.81
10 3	8.9	0.87	10 3	8.4	2.31
9 4	7.5	2.27	9 4	8.6	2.11
8 5	7.6	2.17	8 5	9.4	1.31
7 6	8.8	0.97	7 6	8.2	2.51
6 7	7.3	2.47	6 7	9.2	1.51
5 8	8.7	1.07	5 8	8.2	2.51
4 9	7.7	2.07	4 9	7.9	2.81
3 10	6.8	2.97	3 10	8.0	2.71
2 11	6.9	2.87	2 11		
1 12			1 12		

1:00

52

Tuesday Dec. 10, 1918

Lactitia continued.

1100
Scale M.

I 39511 - continued.

<u>Star "d"</u>		
<u>Exp No.</u>	<u>sci</u>	<u>Diff.</u>
121	2.2	.
112	9.5	1.39
103	9.6	1.29
94	9.8	1.09
85	8.3	2.59
76	8.7	2.19
67	9.7	1.19
58	8.6	2.29
49	9.6	1.29
310	8.6	2.29
211	7.9	2.99
112	8.1	2.79

1105

Wednesday Dec. 18, 1918 - dull day but

53

2:00

Lactitia continued

See P. 47

Eight even
7.3 - see note
bottom P 47

Scale 77

39509 - Images elongated - Second measure

Lactitia		Star "f"	
Exp. No.	Sec	Exp. No.	Sec
121	7.5	121	7.9
11 2	8.2	11 2	8.3
10 3	9.2	10 3	9.3
9 4	7.6	9 4	7.8
8 5	8.8	8 5	8.5
7 6	8.2	7 6	7.8
6 7	7.6	6 7	7.4
5 8	7.5	5 8	7.3
4 9	8.3	4 9	7.9
3 10	8.9	3 10	8.7
2 11	7.9	2 11	7.7
1 12	8.6	1 12	8.2

Star "a"

121	6.8
11 2	7.5
10 3	8.4
9 4	6.7
8 5	7.9
7 6	7.3
6 7	6.4
5 8	6.3
4 9	7.6
3 10	8.1
2 11	6.6
1 12	7.6

Star "c"

121	7.9
11 2	8.3
10 3	9.3
9 4	7.9
8 5	8.9
7 6	8.4
6 7	7.6
5 8	7.5
4 9	8.1
3 10	8.8
2 11	7.8
1 12	7.5

2:20

Wednesday Dec. 18, 1918
~~Tuesday~~

2:20 Lactitia - continued. growing darker,
 started snowing

Scale M. 39509 - continued

<u>Star "d"</u>		
12	1	8.1
11	2	8.4
10	3	9.7
9	4	7.8
8	5	9.2
7	6	8.4
6	7	7.7
5	8	7.6
4	9	8.6
3	10	8.9
2	11	7.7
1	12	8.5

2:25

Friday Dec. 13, 1918

9:50

Lactitia. - Far mago. of comp. stars.

Scale m. MC 13776 - Pole. - MC Series 853

Primaries				P. C.			
Sc 1	mean	Sc 2	mean	Sc 1	Sc 2	mean	Diff.
5	1.8 1.6 2.9 2.7 3.8 4.6	a. 1.80 a. 2.90 a. 3.80 4.40	1.70 1.75 2.50 2.70 3.80 4.00		7.3 7.8 9.4 9.8	7.15 7.80 9.20 9.70	0.05 -0.73 -0.69 -1.07 -0.92
6	2.7 2.9 3.8 4.6	2.90 a. 3.80 4.40	2.50 2.70 3.80 4.00		7.8 9.4 9.8	7.80 9.20 9.70	0.00 -1.07 -0.92
8	3.8 4.6	3.80 4.40	3.80 4.00		9.4 9.8	9.20 9.70	0.20 -0.92
9	4.6 5.0	4.40 4.85	4.00 4.25		9.8	9.70	0.10 -0.83
10	5.0 5.3	4.85 5.50	4.25 5.10				
11	5.3 5.8	5.50 5.85	5.10 5.55				
12	5.8 6.4	5.9 6.7	5.70 6.28				
13	6.4 7.0	6.7 6.9	6.28 6.75				
14	7.0 7.4	6.9 7.4	6.75 7.28				
15	7.4 7.7	7.4 7.7	7.28 7.65				
16	7.7 8.2	7.7 8.2	7.65 8.05				
17	8.2 8.5	8.2 8.5	8.05 8.50				
18	8.5 8.7	8.5 8.7	8.50 8.70				
19	8.7 8.9	8.7 8.9	8.70 8.90				
20	8.9 9.4	8.9 9.4	8.90 9.40				
23	9.4 9.6	9.4 9.6	9.40 9.70				
25	9.6 9.7	9.6 9.7	9.70 9.75				
26							
27							
28							
29							
30							

10
9:10

10:10

Friday Dec. 13, 1918
LactitiaScale M MC 13776 - Pole continued MC Series 853

Diff. "g"		mean g+h		Diff. "h"		mean h		Diff	
Sc 1		mean		Sc 1		mean		Sc 2	
5	5.8	5.95	5.9	5.90	5.82	5.7	5.85	5.8	5.86
6	6.7	6.85	6.8	6.82	6.78	6.6	6.80	6.8	6.80
7	-	-	-	-	-	-	-	-	-
8	8.10	8.1	8.00	7.85	7.90	7.9	7.92	0.31	0.31
9	8.70	8.7	8.70	8.70	8.70	8.7	8.70	0.13	0.13
10	8.90	8.9	8.85	8.80	8.80	8.8	8.82	0.20	0.20
11	9.40	9.4	9.40	9.35	9.40	9.4	9.38	0.17	0.17
12	9.60	9.6	9.65	9.65	9.70	9.7	9.65	0.21	0.21
13	9.90	9.9	9.85	9.85	9.80	9.8	9.85	0.45	0.45
14
15
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10:15

Friday Dec. 13, 1918

Lactitia

10:15

Scale m

mc 13780 - Ref. Seq. in center

mc Series 853

and Comp stars.

Alt. Cor. 0.00

a, b, c (d if any)

Primary				P.C.			
Sc 1	mean	Sc 2	Cu.	Mag.	Sc 1	Sc 2	Cu. mag.
1	^{2.8} _{2.6} ^a _{2.80}		4.57	7.37		8.6	-0.91 7.69
2	^{3.8} _{3.6} ^a _{3.80}		4.52	8.32		8.8	-0.93 7.87
3	^{4.9} _{4.7} ^{1.2} _{4.75}	4.6	4.36	9.11		9.7	-0.96 8.74
4	^{5.0} _{4.8} ^{0.1} _{4.95}	4.9	4.34	9.29		9.8	-0.95 8.85
5	^{5.4} _{5.2} ^{2.1} _{5.55}	5.7	4.19	9.74			
6	^{6.1} _{5.9} ^{1.0} _{6.15}	6.2	4.04	10.19			
7	^{7.0} _{6.8} ^{0.1} _{6.95}	6.9	3.87	10.92			
8	^{7.1} _{6.9} ^{1.1} _{7.20}	7.3	3.82	11.02			
9	^a _{7.80}	7.8	3.66	11.46			
10	^a _{8.30}	8.3	3.60	11.90			
11	^a _{8.60}	8.6	3.68	12.28			
12	^a _{8.70}	8.7	3.71	12.41			
13	^a _{8.90}	8.9	3.79	12.69			
14	^a _{9.30}	9.3	3.97	13.27			
15	^a _{9.90}	9.9	4.20	14.10			
						x	
a	^{5.3} _{5.1} ^{1.0} _{5.35}	5.4	4.24	9.59			
b	^{6.8} _{6.6} ^{0.1} _{6.75}	6.7	3.93	10.68			
c	^{6.9} _{6.7} ^{1.0} _{6.85}	6.8	3.91	10.76			

10:45

x 15 seems defective.

58

45
10:32Friday Dec. 13, 1918
Lactitia.Scale m. MC 13780 - continued. MC Series 853

Diff "g"		mean "g+h"	Cu. mag.	Diff "h"	
sc1	sc2			sc1	sc2
1	6.7 ^{6.9} 6.90 ⁰⁰ 6.9	7.02 ^{12 13}	0.40 7.42	6.9 ^{7.1} 7.15 ^{1.0}	7.2
2	7.7	7.75 ^{1.0}	0.28 8.03	7.8	
3	8.7	8.70 ⁰⁰	0.19 8.89	8.7	
4	8.8	8.85 ^{0.1}	0.18 9.03	8.9	
5	9.4	9.40 ⁰⁰	0.20 9.60	9.4	
6	9.5	9.60 ^{1.1}	0.23 9.83	9.7	
7	.			.	
8	.			.	
9	.			.	
10	.			.	
11	.			.	
12	.			.	
13	.			.	
14	.			.	
15	.			.	
a	.			.	
b	.			.	
c	.			.	

10:55

10155

Friday Dec. 13, 1918

LactitiaScale 71 MC 13 782 - ~~antenna~~ Pole MC Series 85

<u>Primary</u>			
	Sc 1	mean	Sc 2
5	1.7	a.	.
	1.5	1.70	.
6	2.5	a.	.
	2.3	2.50	.
8	3.8	a.	.
	3.6	3.80	.
9	4.0	a.	.
	3.8	4.00	.
10	4.3	1.0	.
	4.1	4.25	4.2
11	5.1	0.0	.
	4.9	5.10	5.1
12	5.4	2.1	.
	5.2	5.55	5.7
13	6.0	0.0	.
	5.8	6.00	6.0
14	6.7	1.2	.
	6.5	6.55	6.4
15	7.0	2.1	.
	6.8	7.15	7.3
16	.	a.	.
	.	7.60	7.6
17	.	a.	.
	.	7.90	7.9
18	.	a.	.
	.	8.50	8.5
19	.	a.	.
	.	8.70	8.7
20	.	a.	.
	.	8.90	8.9
23	.	a.	.
	.	9.40	9.4
25	.	a.	.
	.	9.80	9.8
26	.	.	.
27	.	.	.
28	.	.	.
29	.	.	.
30	.	.	.

<u>P.C.</u>		
Sc 1	Sc 2	
7.1	1.0	.
6.9	7.15	7.2
.	a.	.
.	7.80	7.8
.	a.	.
.	9.20	9.2
.	a.	.
.	9.70	9.7
.	a.	.
.	9.90	9.9

11:10

60

11:10Friday Dec. 13, 1918
Lactitia

mc Series 853

Scale m.

MC 13782 -

Pole continued.

Diff "g"mean
"g+h"Diff "h"

	sc 1	sc 2	
5	5.9 5.7	5.85 5.8	5.82
6	6.8 6.6	6.80 6.8	6.78
8	.	7.8	7.85
9	.	8.7	8.70
10	.	8.8	8.80
11	.	9.3	9.35
12	.	9.6	9.65
13	.	9.8	9.85
14	.	.	.
15	.	.	.
16	.	.	.
17	.	.	.
18	.	.	.
19	.	.	.
20	.	.	.
23	.	.	.
25	.	.	.
26	.	.	.
27	.	.	.
28	.	.	.
29	.	.	.
30	.	.	.

sc 1	sc 2
5.8 5.6	5.80 5.8
6.8 6.6	6.75 6.7
.	7.9
.	8.7
.	8.8
.	9.4
.	9.7
.	9.9
.	.
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11:20

Friday Dec. 13, 1918

Lactitia — For mags of Comp. stars
a, b, c, d,

1:25

Scale m. AM 11416 — Images hazy

Stars of Ref. Seq. (marked on MC 13780)

<u>Sc 1</u>	<u>Sc 2</u>	<u>Diff.</u>
4	7.6	1.46
5	7.9	1.77
6	8.8	1.21
7	9.6	1.22
8	10.0	1.02

Comp. Stars.

<u>Sc 1</u>	<u>Sc 2</u>	<u>Diff.</u>	<u>mag.</u>
a	8.6	1.41	9.01
b	9.4	1.20	10.60
c	9.6	1.17	10.77
d	9.8	1.11	10.91

AM 11444 — Images hazy

Stars of Ref. Seq.

<u>Sc 1</u>	<u>Sc 2</u>	<u>Diff.</u>
4	7.6	1.46
5	8.1	1.57
6	8.7	1.31
7	9.6	1.22
8	9.9	1.12

Comp Stars

<u>Sc 1</u>	<u>Sc 2</u>	<u>Diff.</u>	<u>mag.</u>
a	8.3	1.41	9.71
b	9.2	1.24	10.44
c	9.4	1.20	10.60
d	9.7	1.17	10.87

1:30

Saturday Jan. 11, 1919

Examination for Asteroids.

11:20

Victoria

I 39513	Dec. 21, 1918	✓
39514	Dec. 21, 1918	✓
39515	Dec. 23, 1918	✓
39516	Dec. 23, 1918	✓

not found by superposing on I 24492

29671

Position extrapolated 17 days.
Asteroid may have ~~passed~~
near turning point in
path.

11:45

11:45

Sirona

I 39517	Dec. 23, 1918	✓
39518	Dec. 23, 1918	✓

Found and marked by
superposing on I 24672

Cursory examination does
not show the variation
suspected.

12:15

Thursday Jan. 16, 1919

Examination for Asteroids.

11:00

Serena

Q 39523 Jan. 4, 1919 ✓
Q 39524 Jan. 4, 1919 ✓

Not found.

Plates slightly fogged
and asteroid faint.

Also plates for superposing
had region near edge.

11:45

1:30

Palatia

Q 39519 Dec. 26, 1918 ✓
39520 Dec. 26, 1918 ✓
39525 Jan 6, 1919 ✓
39526 Jan 6, 1919 ✓

Superposed Q 39520 and
Q 39526 on
MF 1153 but did
not find asteroid.

Region is very rich and
asteroid quite faint.

Also.

Q 39527 Jan 6, 1919 ✓
Q 39528 Jan 6, 1919 ✓

Superposed on MF 2204 not
found. Region rich and
asteroid faint.

2:30

Thursday Jan. 16, 1919
Examination for asteroids

3:00

✓ Flora

MC 14968 June 8 1918 Broken Slide no 3713
Not found by trail or
superposing on MC 14819

Alcete

✓ MC 14757 Apr. 5 1918 Broken slide
no 3712

Found marked with a question
checked by superposing on
MC 14768

✓ MC 14768 Apr. 6 1918
Found by help of MC 14757.
See D.W.B. 6:23.

Curvory diam. shows no
variation.

4:00

Saturday Feb. 8, 1919.

Lactitia Cys. numbered ~~fall~~ ^{fall} & ~~free~~ ^{free}.
alt. Corr. - 0.34

2:00 ✓ 3953⁴ - Comp. stars a, b, c, d marked on this plate.

Scale m

"a" = $27m + 0^{\circ} 261$

g. m. T. mid. time		<u>Lactitia</u>		<u>Cu.</u>		<u>mag.</u>		<u>Star "b"</u>		<u>Cu.</u>		<u>mag.</u>	
Exp. length		Sc. 1		Sc. 2		Corrected for alt.		Sc. 1		Sc. 2			
13 34 ³⁰	3	12X		8.8	2.78	11.24 ⁰⁶	12X	2.52	8.7				
13 30 ³⁰	5	11 2		8.7	2.86	11.56 ²²	11 2	2.62	8.6				
13 27 ²⁰	10 3			9.1	2.07	10.83 ⁴⁷	10 3	2.02	9.2				
13 21 ³⁰	9 4			8.1	3.56	11.66 ³²	9 4	3.32	7.9				
13 16 ²⁰	8 5			9.3	2.15	11.45 ¹⁹	8 5	2.42	8.8				
13 12 ¹⁰	7 6			8.4	3.18	11.38 ⁰⁶	7 6	3.12	8.1				
13 5 ¹⁰	6 7			7.8	3.87	11.67 ³⁰	6 7	4.02	7.2	4.02	11.22 ⁰⁰		
12 55 ¹⁰	5 8			7.8	4.08	11.88 ⁴⁴	5 8	4.02	7.2	4.02	11.22 ⁰⁰		
12 47 ³⁰	4 9			8.1	3.36	11.46 ¹²	4 9	3.22	8.0				
12 44 ²⁰	3 10			9.3	2.34	11.64 ³⁰	3 10	2.62	8.6				
12 38 ¹⁰	2 11			7.8	4.03	11.83 ⁴⁹	2 11	4.02	7.2	4.02	11.22 ⁰⁰		
12 30 ³⁰	1 12			8.6	3.54	11.80 ⁵⁰	1 12	3.52	7.7				
Diff.		<u>Star "a"</u>		<u>Cu.</u>		<u>mag.</u>		<u>Star "c"</u>		<u>Cu.</u>		<u>mag.</u>	
2.68	12X			8.2			12X	2.61	9.0				
2.68	11 2			8.2			11 2	2.81	8.8				
2.08	10 3			8.8			10 3	2.01	9.6				
3.18	9 4			7.7			9 4	3.71	7.9				
2.08	8 5			8.8			8 5	2.11	9.5				
3.08	7 6			7.8			7 6	3.11	8.5				
4.08	6 7			6.8	4.05	10.85 ⁰³	6 7	3.91	7.7	3.98	11.68 ⁰⁷		
4.08	5 8			6.8	4.05	10.85 ⁰³	5 8	4.01	7.6	3.98	11.58 ⁰³		
3.38	4 9			7.5			4 9	3.41	8.2				
2.28	3 10			8.6			3 10	2.71	8.9				
3.98	2 11			6.9	4.04	10.94 ⁰⁶	2 11	4.01	7.6	3.98	11.58 ⁰³		
3.08	1 12			7.8		mean 10.88 ²⁶⁴	1 12	3.41	8.2				
2:40													

66

Saturday Oct. 8, 1919
Lactitia.

2:40

23953⁴ — continued.

Scale m	Star "d"	cu	Mag.
<u>Exp 30</u>	<u>Diff</u>		
12 X	3.158.8		
11 X	3.258.7		
10 X	2.259.7		
9 X	3.658.3		
8 X	2.159.8		
7 X	3.458.5		
6 X	3.758.2	3.98	12.18 ²³
5 X	4.157.8	3.98	11.78 ¹⁷
4 X	3.358.6		
3 X	2.159.8		
2 X	4.057.9	3.98	11.88 ⁰⁷
1 X	3.658.3		
			<u>5.84</u>
			11.95 <u>mean</u>

Pole Exposure. Pole exp. 1st too long. Corr. +0.09

	mean	Diff	corr. for over exposure
13	6.1 6.16	6.1 4.20	4.11
14	6.5 6.19	6.5 4.10	4.01
15	6.8 6.64	6.8 4.13	4.04
16	7.04 7.29	7.2 4.20	4.11
17	7.79 7.7	7.7 3.93	3.84
18	7.99 7.9	7.9 4.16	4.07
19	8.59 8.5	8.5 3.92	3.83
20	8.69 8.6	8.6 4.13	4.04
23	8.99 8.9	8.9 4.44	4.35
25	9.79 9.7	9.7 4.17	4.08

3:00



0.09 added to correct for 1st overexposure

See P. 85
of this
book
10:50

Monday Feb. 10, 1919 Superseded See P. 85 67

Lactitia. Exper. numbered fall to piece.

✓ J 39533 Last exp. not accounted for.

Scale M	Lactitia	Star "t"	Cu.	mag.
Exp. length	Sc1	Sc2		
? 13 X	n.2	9.8		
10 12 2	8.7	8.3	3.23	11.53 ³²
10 11 3	8.8	8.4	3.30	11.70 ⁴¹
5 10 4	9.3	8.6		
2 9 5	n.2.	f		
10 8 X	8.6	8.1	3.10	11.20 ⁰³
5 7 7	8.8	8.8		
2 6 X	n.2.	9.1		
9 5 X	8.6	7.8		
2 4 10	9.6	9.3		
5 3 11	9.1	8.6		
10 2 12	7.9	7.7	280	10.50 ⁷³
3 1 13	n.2.	1.13		mean 11.23

Not used

Star "a"	Cu.	mag.	Star "c"	Cu.	mag.
13 X	9.7		13 X	8.6	13 steps n.2.
12 2	7.7	280 10.50 ²¹	12 2	8.6	3.43 12.03 ²⁹
11 3	7.7	280 10.50 ²¹	11 3	8.6	3.43 12.03 ²⁹
10 4	8.3		10 4	9.1	
9 5	9.2		9 5	f	
8 6	7.8	2.91 10.71 ²⁰	8 6	8.3	3.23 11.53 ²¹
7 7	8.6		7 7	8.7	
6 8	9.2		6 8	9.8	
5 9	7.9		5 9	8.1	
4 10	8.7		4 10	9.7	
3 11	8.4		3 11	8.7	
2 12	7.6	2.72 10.32 ¹⁹	2 12	8.2	3.17 11.37 ³⁷
1 13	9.6	mean 10.51 ²⁰³	1 13	n.2.	mean 11.44 ²⁹⁶

Monday Feb. 10, 1919
Lactitia.

Scale m 239533 - continued.

Exp No.	Star "d"	Cu.	Mag.
13 X			
12 X	8.7	3.50	12.20 ⁰⁰
11 X	8.8	3.58	12.38 ¹⁸
10 X	9.2		
9 X	9.3		
8 X	8.6	3.44	12.04 ¹⁶
7 X	8.8		
6 X	n.r.		
5 X	8.8		
4 X	n.r.		
3 X	9.2		
2 X	8.7	3.50	12.20 ⁰⁰
1 X	n.r.	mean 8.2	12.20

Pole Exposure

13	7.8	2.80
14	7.7	2.95
15	7.9	3.18
16	8.1	3.30
17	8.5	3.13
18	8.7	3.36
19	8.9	3.52
20	8.9	3.83
23	4	
25	4	

11:50

Saturday Feb. 15, 1919
Search for Asteroids.

10:30

✓ Johanna.

⊙ 39592 Feb. 5, 1919 slightly fogged.
 Superposed on ⊙ 32406
 Not found. - Object is given
 as 11.5 mag. in Marseille
 circular No. 106. It is probably
 too faint to be seen on
 this plate. The limit of
 visibility of plate is assumed
 about 13.0 mag. There is
 no standard region near
 enough to give more
 definite limiting mag.

✓ Hestia

⊙ 39593 Feb. 5, 1919 slightly fogged.
 Superposed on ⊙ 24358
 Not found - Object given
 as 11.0 mag. in Marseille
 Circular No. 110. See note
 on Johanna above as regards
 mag. of this object.

✓ Lactitia

✓ ⊙ 39590 } Feb. 5, 1919 Badly
 ✓ 39591 } fogged

Compared with ⊙ 39534
 taken Feb. 1, 1919 on which Lactitia
 is seen. It is too faint to
 be seen on these fogged plates.

11:45

Thursday Feb. 20, 1919

Asteroids

3:55

Eunomia

✓ MC 14777 Apr. 15, 1918
Found marked - compared
with MC 360.

Damborska

✓ MC 14428 Dec. 10, 1917
✓ 14429 Dec 10, 1917
Found and marked
hyperposed on MC 14334

4:05

Cursory exam. shows
no variation.

4:15

Palatia

✓ 39532 Jan. 20, 1919
✓ 39535 Feb. 1, 1919
Not found; region is very
rich and asteroid
quite faint.

4:30

Friday Feb. 28, 1919.

Asteroids

10:30

Elsa

- ✓ I 39536 Feb. 1, 1919
 ✓ I 39537 Feb. 1, 1919
 ✓ I 39538 Feb. 2, 1919
 ✓ I 39539 Feb. 2, 1919

Not found -

Used for super. -

Q 21366

Q 21425

Q 21218

Q 30074

Region thick and Asteroid faint.

Perseida

- ✓ MC 14430 Dec 10, 1917
 ✓ 14431 Dec 10, 1917

Not found - Super. on
MC 9697Pandora

- ✓ Q 39610 Feb. 17, 1919

Not found - faint,
Super. on Q 24161Felicitas

- ✓ Q 39611 Feb. 17, 1919

not found faint -
Super. on Q 29899

12:00

72

Saturday Mar. 15, 1919.

11:20

Two relative mags ^{from 70 K.} of comp. stars for Heaba
on α 39497.DM 11312

Comp. stars

$a = DM + 17^{\circ}403$

$b = DM + 17^{\circ}405$

$c = DM + 18^{\circ}328$

$d = DM + 18^{\circ}329$

Scale N

	Comp. stars					
	<u>Sc A</u>	<u>Sc B</u>	<u>Sc C</u>	mean	Cur. mag.	
a		7.5	6.9	7.00	1.30	8.30
b		8.4	8.5	8.45	1.50	9.95
c			9.2	9.20	1.60	10.80
d			9.7	9.70	1.68	11.38

70 K

					Diff.
1		6.4	6.3	6.35	1.28
2		6.7	6.5	6.60	1.25
3		8.2	8.2	8.20	1.44
4			9.2	9.20	1.55
5			9.8	9.80	1.74

AC 19414

	Comp. stars					
	<u>Sc A</u>	<u>Sc B</u>	<u>Sc C</u>	mean	Cur. mag.	
a		6.2	6.1	6.15	2.40	8.55
b		7.4	7.5	7.45	2.34	9.79
c		8.2	8.2	8.20	2.30	10.50
d		8.5	8.5	8.50	2.28	10.78

70 K

					Diff.
1		5.3	5.3	5.30	2.33
2		5.4	5.3	5.35	2.50
3		7.3	7.3	7.30	2.34
4		8.4	8.5	8.45	2.30
5			9.3	9.30	2.24

11:40

11:40

Scale N

Q C 17062

Saturday Mar. 15, 1919

Comp. stars for Heeuba. on I 39497

Comp. stars

	Sc A	Sc B	Sc C	Mean	Cur.	Mag.
a	6.4	6.8	6.3	6.35	2.98	9.33
b	7.5	7.9	7.7	7.60	2.70	10.30
c	8.1	8.5	8.3	8.20	2.55	10.75
d	8.3	8.7	8.4	8.35	2.51	10.86

70 K

	Sc A	Sc B	Sc C	Mean	Cur.	Mag.
1	4.1	4.3	4.1	4.03	3.60	
2	4.3	4.7	4.5	4.47	3.38	
3	6.8	7.2	6.7	6.75	2.89	
4	8.2	8.6	8.2	8.20	2.55	
5			9.2		2.34	

Diff.

Q C 19605

Comp. Stars.

	Sc A	Sc B	Sc C	Mean	Cur.	Mag.
a	6.2	6.6	6.2	6.20	2.58	8.78
b	7.4	7.8	7.6	7.50	2.52	10.02
c	8.2	8.6	8.4	8.30	2.54	10.84
d	8.4	8.8	8.6	8.50	2.54	11.04

70 K

	Sc A	Sc B	Sc C	Mean	Cur.	Mag.
1	4.3	4.5	4.1	4.10	3.53	
2	5.2	5.6	5.2	5.20	2.65	
3	7.2	7.6	7.1	7.15	2.49	
4	8.3	8.7	8.4	8.35	2.40	
5			8.8		2.74	

Diff.

12:05

Saturday Mar. 15, 1919

12:45

Decuba

See 7 B below.

Scale 71

1 3 9 4 9 7

{Comp. stars identified on cover}
{Comp. stars marked on plate}

Qm T. time	alt	az	no.	Decuba	Mag.	Star "b"	Diff.	Qm T. time
15 49	2	1		Sc 1	2.90	Sc 1		
				7.5	10.40 ¹²	7.2	2.82	
15 55	10	3		4.9	5.14	4.8	5.22	
				4.7 4.90 4.9	10.04 ²⁴	4.8		
16 05	10	3		5.0	5.00	4.8	5.17	
				5.05 5.1	10.05 ²³	4.8		
16 12 1/2	5	4		5.4	4.18	5.6	4.22	
				6.10 6.1	10.28 ⁰⁰	5.6		
16 16	2	5		5.8	2.96	7.2	2.92	
				7.5 7.5	10.46 ¹⁸	7.2		
16 21 1/2	9	6		5.6	5.2	5.5	4.62	
				5.75 5.7	10.27 ⁰¹	5.5		
16 27	2	7		7.7	2.39	7.6	2.42	
					10.31 ⁰³			
16 30 1/2	5	8		7.2	3.11	6.9	3.12	
					10.37 ⁰³	6.9		
16 38	10	9		6.6	3.41	6.5	3.57	
				6.80 6.8	10.39 ¹¹	6.5		
					2.51			
				Star "a"	Diff.	Star "c"	Diff.	
				5.3	3.29	7.5	3.22	
				5.5 5.4				
				3.688	4.94	5.2	5.57	
				4.6	4.84	5.5	5.22	
				3.439	3.90	6.3	4.42	
				4.6	3.04	7.7	3.02	
				4.8 0.0	4.33	6.2	4.62	
				4.80 4.8	2.89	7.3	3.42	
				5.7 0.0	3.24	6.8	3.87	
				5.70 5.7	3.64			
				4.0 1.1				
				4.3 4.40 4.3				
				6.0 2.1				
				5.85 5.7				
				5.5 0.0				
				5.35 5.5				
				4.8 1.1				
				4.85 5.2				
				Star "d"		Star "d"		
				8.3	2.72	6.9	4.87	
				6.3	4.72	8.7	2.32	
				6.1 6.30 6.3	4.67	8.2	2.82	
				6.2 6.35 6.3	3.82	7.6	3.42	
				7.1 1.1 7.3	2.72			
				6.9 7.20 7.3				
				8.3				

7B - Exps on this plate ~~from~~ run from
1:00 fall to prec. contrap. to usual prec. to fall.
direction.

Saturday, Mar. 15, 1919 N.A. 254W 75
Dec. +17.8 Alt. 60.4
Hecuba - Epps numbered fol. & prec.

1:55

For

Scale m 039502 - Comp. stars see plate cover

Hecuba					Star "b"				
App. no.	Length	App. no.	Sec 1	Sec 2	App. no.	Sec 1	Sec 2	Sec 3	Mag.
16 48 4	1	1	8.2	2.82	11.02 ⁰¹	1	6.9	7.7	2.75
16 55 10	2	2	7.3	3.80	11.10 ⁰⁹	2	6.7	6.9	3.57 10.47 ⁰⁰ 3.45
17 05 10	3	3	7.3	3.86	11.16 ¹⁵	3	6.8	6.9	3.57 10.37 ^{42 05} 3.70
17 12 1/2 5	4	4	7.8	3.22	11.02 ⁰¹	4	7.7		2.75
17 16 2	5	5	8.6	2.46	11.06 ⁰⁵	5	7.0	8.5	2.05
17 21 1/2 9	6	6	7.2	3.67	10.87 ¹⁴	6	6.8	6.9	3.60
17 27 2	7	7	8.7	2.70	11.40 ³⁹	7	8.6		1.95
17 30 1/2 5	8	8	7.9	2.90	10.80 ²¹	8	6.9	7.7	2.75
17 38 10	9	9	7.5	3.67	11.17 ¹⁶	9	6.7	6.9	3.57 10.47 ⁰⁰ 3.65
17 44 2	10	10	8.8	2.30	11.10 ⁰⁹	10	8.4		2.15
17 47 1/2 5	11	11	7.7	2.76	10.46 ⁵⁵	11	7.0	7.8	2.75
17 55 10	12	12	7.4	3.57	10.97 ⁰⁴	12	6.8	6.9	3.57 10.52 ⁰⁵ 3.60
18 0 1/2 1	13	13	n.v.			13	9.5		1.05
Star "a"					Star "c"				
1	6.6	7.5	2.76	11.01 mean	1	8.4		82	2.75
2	6.4	6.7	3.58	10.28 ⁰⁸	2	7.2	3.57	10.77 ³²	4.02
3	6.5	6.5	3.60	10.10 ¹⁰	3	7.3	3.57	10.87 ²²	3.92
4	6.8	7.1	3.21		4	7.9			3.32
5	6.6	8.3	1.96		5	8.6			2.62
6	6.4	6.6	3.66		6	7.6			3.62
7	8.5		1.76		7	8.6			2.62
8	6.6	7.6	2.66		8	8.2			3.02
9	6.4	6.6	3.59	10.19 ⁰¹	9	7.7	3.60	11.30 ²¹	3.52
10	8.5		1.76		10	8.8			2.42
11	6.6	7.5	2.76		11	8.5			2.72
12	6.4	6.7	3.58	10.23 ⁰³	12	7.8	3.61	11.41 ³²	3.42
13	n.v.				13	9.3			1.92

Saturday Mar. 15, 1919.
Hecuba - Epps numbered foll. to prec.

2:25

Scale M. 39502 - continued.

Epps. Star "d"

	X	Sc1	Sc2	Av. mag.	Diff.
1	X	.	8.7		3.04
2	.	.	7.8	3.61 11.41	3.94
3	.	.	7.8	3.61 11.41	3.94
4	.	.	8.3		3.44
5	.	.	8.8		2.94
6	.	.	7.8		3.94
7	.	.	8.8		2.94
8	.	.	8.4		3.34
9	.	.	7.9	3.62 11.52	3.84
10	.	.	9.2		2.54
11	.	.	8.8		2.94
12	.	.	8.1	3.65 11.75	3.64
13	.	.			

2.09 11.52 Mean mag.

Seq. 20. Polar Sequence.

	X	Sc1	Sc2	Diff.
10	X	5.1	5.2	3.77
11	X	5.8	5.9	3.55
12	X	5.9	6.1	3.76
13	.	6.6	6.7	3.55
14	.	6.8	7.1	3.48
15	.	.	7.6	3.48
16	.	.	7.7	3.70
17	.	.	7.9	3.73
18	.	.	8.4	3.66
19	.	.	8.7	3.72
20	.	.	8.9	3.83

2:40

Tuesday Mar. 18, 1919.

N.G. 1.17 W.
Dec. +17.8 alt. com +16

77

11:15

Alcuta - Exps. numbered fall. to prec.

Scale M 39505 - Comp. stars on 39502.

Exp. No.	Star	Sc 1	Sc 2	Av.	Mag.	Exp. No.	Star	Sc 1	Sc 2	Diff.	Diff.
1	Alcuta		8.8	2.12	10.92 ¹²	12	Star "a"		8.3		1.96
2			8.6	2.94	11.54 ⁵⁰	13		5.9 ^{6.1 1.0} 6.15	6.2		4.11
3		6.6 ^{6.8 0.1} 6.75	6.7	4.30	11.05 ⁰¹	14			7.8		2.46
4			8.6	2.88	11.48 ⁴⁴	15		6.9 ^{7.1 1.0} 7.20	7.3		3.06
5		6.9 ^{7.1 1.0} 7.15	7.2	3.56	10.71 ³³		Star "b"			Av. mag.	
6		5.8 ^{6.0} 6.10	6.2	4.40	10.50 ⁵⁴	1			8.5		2.05
7			8.4	2.72	11.12 ⁰⁸	2			8.1		2.45
8			7.4	3.51	10.91 ¹³	3		5.9 ^{6.1 0.0} 6.10	6.1		4.45
9		6.4 ^{6.6 0.1} 6.65	6.5	4.37	11.02 ⁰²	4			7.8		2.75
10		6.5 ^{6.7 1.0} 6.65	6.6	4.36	11.01 ⁰³	5		6.8 ^{7.0 0.1} 6.95	6.9		3.60
11			7.7	3.50	11.20 ¹⁶	6		5.8 ^{6.0} 6.10	6.2	3.52 9.62 ⁰⁰	4.45
12			8.7	2.75	11.45 ⁴¹	7			7.8		2.75
13		6.7 ^{6.9 1.0} 6.85	6.8	3.96	10.81 ²³	8		6.9 ^{7.1 1.0} 7.15	7.2		3.40
14			8.7	2.50	11.20 ¹⁶	9		5.9 ^{6.1 0.0} 6.10	6.1	3.52 9.62 ⁰⁰	4.45
15			7.6	3.10	10.70 ³⁴	10		5.9 ^{6.1 0.0} 6.10	6.1	3.52 9.62 ⁰⁰	4.45
	Star "a"				mag. diff.	11		6.7 ^{7.1 1.0} 7.15	7.2		3.40
1			8.2		2.06	12			8.5		2.05
2			7.9		2.36	13		6.6 ^{6.8} 6.80	6.8		3.75
3		5.8 ^{6.0 0.1} 5.95	5.9		4.31	14			8.3		2.25
4		6.7 ^{6.9}	7.8		2.46	15			7.7		2.85
5		5.7 ^{5.9 6.80}	6.7		3.46						
6		5.85	5.8	3.50	9.35 ⁰²						
7			7.8		2.46						
8		6.5 ^{6.7 0.1} 6.75	6.8		3.51						
9		5.7 ^{5.9 1.1} 5.80	5.7	3.49	9.29 ⁰⁴						
10		5.7 ^{5.9 1.0} 5.85	5.8	3.50	9.35 ⁰²						
11		6.9 ^{7.1 1.0} 7.15	7.2		3.11						

9.62 mean mag.

continued next page.

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Tuesday Mar. 18, 1919

11:45

Idecuba

Scale m

J 39505 - continued.

Star "c"					Star "d"				
Exp. no.	Sc 1	Sc 2	Cor. mag.	Diff.	Exp. no.	Sc 1	Sc 2	Cor. mag.	Diff.
1	7.0	7.2			1		9.5		
2		8.3		2.92	2		8.8		2.94
3	6.8 ^{7.0 0.1} 6.95	6.9		4.27	3		7.7		4.04
4		8.3		2.92	4		8.9		2.84
5		7.6		3.62	5		8.2		3.54
6	6.8 ^{7.0 0.1} 7.05	7.1	3.67 10.72 ¹³	4.17	6		7.5	3.72 11.22 ^{0.1}	4.24
7		8.5		2.72	7		8.9		2.84
8		7.6		3.62	8		8.2		3.54
9	6.7 ^{6.9 0.0} 6.90	6.9	3.63 10.53 ^{0.6}	4.32	9		7.6	3.70 11.33 ^{0.4}	4.14
10	6.7 ^{6.9 0.0} 6.90	6.9	3.63 10.53 ^{0.6}	4.32	10		7.6	3.73 11.33 ^{0.4}	4.14
11		7.6		3.62	11		8.2		3.54
12		8.5		2.72	12		8.9		2.84
13		7.3		3.92	13		7.9		3.84
14		8.7		2.52	14		9.2		2.54
15		7.8		3.42	15		8.7		3.04

^{1.78}
10.59 Mean mag.

^{1.88}
11.29 Mean mag.

Polar Sequence

no.	Sc 1	Sc 2	Diff.	no.	Sc 1	Sc 2	Diff.
10	5.5 ^{5.7 1.0} 5.65	5.6	3.37	17		7.9	3.73
11	5.9 ^{6.1 1.2} 5.95	5.8	3.60	18		8.2	3.86
12	6.1 ^{6.3 1.0} 6.25	6.2	3.61	19		8.7	3.72
13	6.7 ^{6.9 1.0} 6.85	6.8	3.45	20		8.8	3.93
14	6.8 ^{7.0 0.1} 6.95	6.9	3.70				
15		7.4	3.68				
16		7.6	3.80				

12:10

Tuesday Mar. 18, 1919

N.A. 3 10 W.
Dec. +17.8Alt. Low 79
+31

2:25 Iteuta - Edges, numbered for fall & price

N.B. Only 12 edges on plate, 12th up not accounted for by Record book
See Iteuta book

Scale m. I 39506. - Comp stars on I 39502

9 m 9 Sunstine.	Edge No.	Iteuta		Edge No.	Star "a"		Edge No.	Star "a"		Diff.
		Sc 1	Sc 2	Cu. mag.						
17 07 6	1	6.7 ^{6.9 1.0} _{6.85}	6.8	3.90 10.75 ⁰¹	1	6.3 ^{6.5} _{6.40}	6.3			4.15 3.86
17 12 1/2 5	2	6.8 ^{7.0 1.0} _{7.10}	7.2	3.70 10.80 ⁰²	2	6.5 ^{6.7} _{6.60}	6.5			9.5 3.86
17 16 2	3		7.8	2.53 10.33 ⁴⁹	3		7.8			7.5 2.46
17 21 1/2 9	4	6.4 ^{6.6 0.1} _{6.55}	6.5	4.32 10.87 ⁰⁵	4	5.8 ^{6.0} _{6.05}	6.1			5.0 4.21
17 27 2	5		8.2		5	6.7 ^{6.9} _{6.90}	8.1			4.5 2.76
17 30 1/2 5	6		7.6	3.42 11.02 ²⁰	6	5.8 ^{6.05} _{6.1}	6.9			5.5 3.36
17 38 10	7	6.4 ^{6.6 0.1} _{6.55}	6.5	4.20 10.75 ⁰⁷	7		6.1	4.18 10.23 ⁰⁴		5.0 4.21
17 44 2	8		8.4	2.56 10.96 ¹⁴	8		7.8			7.5 2.46
17 47 1/2 5	9		7.7	3.22 10.92 ¹⁰	9	6.8 ^{7.0 3.1} _{7.15}	7.3			11 3.46
17 53 10	10	defective			10	5.8 ^{6.0 1.1} _{6.10}	6.2	4.19 10.29 ⁰²		4.5 4.76
18 05 70	11	6.8 ^{7.0 1.1} _{6.90}	6.8	4.11 11.01 ¹⁹	11	5.8 ^{6.0} _{6.10}	6.2	4.19 10.29 ⁰²		4.5 4.76
	12			7.41	12					
	13			10.82	13					

10.27 mean mag.

Star "b" Cu. mag. Diff.

1	6.6 ^{6.8 1.1} _{6.70}	6.6	3.85	
2	6.7 ^{6.9 1.0} _{6.85}	6.8	3.41	
3		7.8	2.46	
4	5.8 ^{6.0 3.1} _{6.15}	6.3	4.40	
5		7.8	2.46	
6	6.7 ^{6.9 1.2} _{7.05}	7.2	3.21	
7	6.7 ^{6.3 0.0} _{6.30}	6.3	4.21 10.51 ⁰¹	4.25
8		7.5	2.46	
9	6.8 ^{7.0 2.1} _{7.15}	7.3	3.40	
10	6.2 ^{6.4 0.1} _{6.35}	6.3	4.21 10.56 ⁰²	4.20
11	6.3 ^{6.5 1.0} _{6.45}	6.4	4.22 10.67 ⁰⁹	4.10

Mean mag. 10.58

Star "c" Cu. mag.

1		7.2		4.02
2		7.5		3.72
3		8.6		2.62
4	6.5 ^{6.7 2.2} _{6.90}	7.1		4.32
5		9.2		2.02
6		7.8		3.42
7	6.7 ^{6.9 1.2} _{7.05}	7.2	4.23 11.28 ⁰³	4.17
8		8.8		2.42
9		8.1		3.12
10	6.8 ^{7.0 1.1} _{7.10}	7.2	4.23 11.33 ⁰²	4.12
11	6.8 ^{7.0 1.1} _{7.10}	7.2	4.23 11.33 ⁰²	4.12

11.31 mean mag.

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Tuesday Mar. 18, 1919

2:45

IdecubaScale M 939506 — continued.

Endp.	Star "d"			
No.	Sc 1	Sc 2	ln.	Mag. Diff.
1	.	7.9		3.84
2	.	8.2		3.54
3	.	8.8		2.94
4	.	7.6		4.14
5	.	9.2		2.54
6	.	8.3		3.44
7	.	7.6	4.22	11.82 $\frac{10}{4.14}$
8	.	9.2		2.54
9	.	8.5		3.24
10	.	7.7	4.22	11.92 $\frac{00}{4.04}$
11	.	7.8	4.21	12.01 $\frac{09}{3.94}$
12				<u>2.75</u>
13				11.92 mean mag.

Seq. No. Polar Sequence.

	Sc 1	Sc 2	Diff.
10	4.9 $\frac{5.10}{5.05}$	5.0	3.97
11	5.2 $\frac{5.4}{5.50}$	5.6	4.05
12	5.7 $\frac{5.9}{5.85}$	5.8	4.01
13	5.9 $\frac{6.1}{6.00}$	5.9	4.30
14	6.2 $\frac{6.4}{6.30}$	6.2	4.35
15	6.7 $\frac{6.9}{6.90}$	6.9	4.18
16	.	7.2	4.20
17	.	7.5	4.13
18	.	7.8	4.26
19	.	8.2	4.22
20	.	8.6	4.13

2:55

82

Friday Mar 21, 1919

12:25 SygeiaScale m MC 15331 - continued

Star "d"					
Exp no.	Sc1	Sc2	Av.	mag.	Diff.
1	^{6.8} 6.6	6.70	6.6		4.10
2	^{6.9}		7.7		3.10
3	^{6.0} 6.7	6.80	6.7		4.00
4	^{6.0} 5.8	5.95	5.9	4.77	10.72 ⁰⁰ 4.85
5	^{6.0} 5.8	5.95	5.9	4.77	10.72 ⁰⁰ 4.85
6	^{6.7} 6.5	6.55	6.4		4.25
7	^{6.3}		7.6		3.40
8	6.1	6.20	6.1		4.60
9	^{6.9}		7.6		3.20
10	6.7	6.85	6.8		3.95
11	^{6.9} 6.7	6.80	6.7		4.00
10.72 Mean					

Star "e" Polar sequence

	Sc1	Sc2	Diff.
10	^{3.8} 3.6		5.22
11	^{4.9} 4.7	^{4.75} 4.6	5.20
12	^{5.0} 4.8	^{4.85} 4.7	5.01
13	^{5.4} 5.2	^{5.40} 5.4	4.90
14	^{6.0} 5.8	^{5.85} 5.7	4.80

12:30

Friday Mar. 21, 1919. alt. corr. +.08

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12:30

Hygeia - Comp. stars identified on cover
of MC 15331

Scale M

MC 15332

- Exposed numbered pres. & fall

Exp. Length	Exp. No.	Hygeia	Star "b"
g m. p. diff. time		Sc 1 Sc 2 Cu. mag.	Sc 1 Sc 2 Cu. mag. diff.
18 55 1/2	9	1 5.2 5.4 5.4 5.00 10.40 ¹¹	21 5.1 5.30 5.3 5.06
19 05	10	2 5.1 6.30 5.3 5.07 10.37 ¹⁴	2 5.2 5.35 5.3 4.76 10.11 ⁰⁶ 5.01
19 12 1/2	5	3 6.2 6.40 6.4 4.28 10.68 ¹⁷	3 5.9 6.00 5.9 4.36
19 16	2	4 5.4 7.4 3.25 10.65 ¹⁴	4 6.9 7.10 7.1 3.26
19 21 1/2	9	5 5.2 5.45 5.5 5.00 10.45 ⁰⁶	5 5.1 5.35 5.4 5.01
19 27	2	6 6.4 7.2 3.24 10.44 ⁰⁷	6 6.9 7.10 7.1 3.26
19 30 1/2	5	7 6.2 6.35 6.3 4.28 10.63 ¹²	7 5.9 6.00 5.9 4.36
19 38	10	8 5.3 5.45 5.4 4.98 10.43 ⁰⁸	8 5.2 5.40 5.4 4.75 10.15 ⁰² 4.96
19 44	2	9 6.5 7.7 3.10 10.80 ²⁹	9 6.9 7.10 7.1 3.26
19 47 1/2	5	10 6.3 6.45 6.4 4.16 10.61 ¹⁰	10 6.1 6.25 6.2 4.41
19 55	10	11 5.2 5.40 5.4 4.90 10.30 ²¹	11 5.2 5.50 5.6 4.74 10.24 ⁰⁷ 4.86
20 1 1/2	3	12 6.8 7.05 7.1 3.36 10.41 ¹⁰	12 6.8 6.95 6.9 3.41
		6.17 10.51	
		Star "a" Cu. mag. diff.	Star "c" Cu. mag. diff.
		1 4.4 4.65 4.7 5.18	1 5.8 5.95 5.9 4.91
		2 4.3 4.55 4.6 4.97 9.52 ¹⁰ 5.28	2 5.7 5.85 5.8 4.69 10.54 ¹¹ 5.01
		3 5.1 5.30 5.3 4.53	3 6.4 6.65 6.7 4.21
		4 5.9 6.15 6.2 3.68	4 7.7 3.16
		5 4.6 4.80 4.8 5.03	5 5.8 5.90 5.8 4.96
		6 6.3 6.47 6.6 3.36	6 7.7 3.16
		7 4.8 6.5 5.50 5.5 4.33	7 6.4 6.55 6.5 4.31
		8 5.9 4.75 4.7 4.90 9.65 ⁰³ 5.08	8 5.8 5.95 5.9 4.68 10.63 ⁰² 4.91
		9 6.2 6.37 6.6 3.46	9 7.8 3.06
		10 5.4 5.2 5.45 5.5 4.38	10 6.3 6.60 6.7 4.26
		11 4.8 4.80 4.8 4.89 9.69 ⁰⁷ 5.03	11 5.9 6.10 6.1 4.67 10.77 ¹² 4.76
		12 6.4 6.2 6.30 6.2 3.53	12 7.7 3.16
		1.88	1.94
		Continued next page	10.65 Mean
		9.62 Mean	

1:00

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Friday Mar. 21, 1919
Hygeia1:00Scale m MC 15332 continued.

<u>Exp. No.</u>	<u>Star "d"</u>		Cu. mag.	Diff.
	sc 1	sc 2		
1	^{6.0} 5.8	5.90 5.8		4.90
2	^{5.9} 5.7	5.85 5.8	4.69 10.54 ^{0.5}	4.95
3	^{6.5} 6.3	6.50 6.5		4.30
4		7.6		3.20
5	^{6.0} 5.8	5.90 5.8		4.90
6		7.7		3.10
7	^{6.6} 6.4	6.70 6.8		4.10
8	^{5.9} 5.7	5.85 5.8	4.69 10.54 ^{0.5}	4.95
9		7.6		3.20
10	^{6.6} 6.4	6.65 6.7		4.15
11	^{6.1} 5.9	6.00 5.9	4.68 10.68 ^{0.9}	4.80
12		7.6		3.20

$$\frac{1.76}{10.59} \text{ mean}$$
Star No Polar Sequence

	sc 1	sc 2	Diff.
10	^{3.9} 3.7		5.12
11	^{4.2} 4.5	4.65 4.6	4.90
12	^{5.0} 4.8	4.95 4.9	4.91
13	^{5.6} 5.4	5.60 5.6	4.70
14	^{6.0} 5.8	5.95 5.9	4.70

1:05

Monday Mar. 31, 1919.

See P. 67 of this book.

2:30

Laetitia - Ears. numbered fall. to pres.
alt. corr. - 0.04

Scale M. I 39533 - Re measure.

g.m.t. of mid of Ear		Laetitia		Star "b"	
Length Ears		Sc 1	Sc 2	Sc 1 Diff	Sc 2
h m	m				
11 05	10 2 X	7.9	3.26 11.16	3.10	7.8
11 12 1/2	5 3 2	8.8	reject	2.20	8.7
11 16	2 4 3	9.6	reject	1.30	9.6
11 21 1/2	9 5 4	8.6	3.28 11.88	3.00	7.9
11 27	2 6 5	f		1.80	9.1
11 30 1/2	7 6	9.4	reject	2.10	8.8
11 38	10 8 X	8.8	3.38 12.18	3.00	7.9
11 44	2 9 2	f		1.10	9.8
11 47 1/2	10 4	9.3	reject	2.10	8.8
11 55	10 11 1/2	8.8	2.97 11.77	3.00	7.9
12 05	10 12 1/2	8.7	2.97 11.67	3.10	7.8
13 1/2		n.r.	3.59 11.72	n.r.	
Diff.		Star "a"		Star "c"	
3.17	2 X	7.6	3.05 10.65	3.58	7.9
2.37	3 2	8.4		2.68	8.8
1.97	4 3	8.8		1.98	9.5
2.97	5 4	7.8		3.28	8.0
1.67	6 5	9.1		2.18	9.3
2.07	7 6	8.7		2.78	8.7
2.97	8 X	7.8	3.10 10.90	3.38	8.1
1.57	9 7	9.2		1.88	9.6
2.17	10 8	8.6 7		2.68	8.8
3.07	11 12	7.7	3.08 10.78	2.88	8.6
2.97	12 1/2	7.8	3.10 10.90	2.78	8.7
13 1/2		n.r.	mean 10.81 corr. for alt. 10.77	n.r.	mean 11.52 corr. for alt. 11.48
3:00		mean resid. for Ear 2		Ear 11	
		Ear 8		Ear 12	

86

3:00

Monday Mar. 31, 1919

Lactitia

Scale M. I 39533 continued.

<u>Star "d"</u>				
<u>Exp No.</u>	<u>Sc</u>	<u>Diff</u>	<u>Sc</u>	<u>Cur. mag.</u>
2 X	3.38	8.5	3.23	11.73 ¹⁹
3 X	3.08	8.8		
4 X	.	9.0		
5 X	3.18	8.7		
6 X	.	9.0		
7 X	3.08	8.8		
8 X	3.18	8.7	3.25	11.95 ⁰³
9 X	2.48	9.4		
10 X	2.98	8.9		
11 X	3.08	8.8	3.27	12.07 ¹⁵
12 X	3.18	8.7	3.25	11.95 ⁰³
13 X	.	n.r.		11.92
				corr for alt.
				11.88

Star no. Polar Exposure

		<u>Diff.</u>
13	7.3	3.00
14	7.8	2.85
15	7.8	3.28
16	8.1	3.30
17	8.5	3.13
18	8.8	3.26
19	.	
20	.	

3:10

88

1:45

Scale m

Thursday April 3, 1919

H.A. 045Z

Dec. +14.0

alt. Cor.

+1.6

Nauvika - Exps numbered fall. to prec.prec. to fall. m.p.a.

Scale m I 39481 - Comp. stars identified on plate cover.

Exp. Exp.		Star "a"	
Length no.		Sc1	Sc2
9.29.7. mild exp.		5.9	
17 08 4	1	5.5	5.7
		5.3	
17 12 1/2 5	2	5.1	5.3
		6.4	
17 16 2	3	6.2	6.3
		5.0	
17 21 1/2 9	4	4.8	4.7
		6.3	
17 27 2	5	6.1	6.4
		5.1	
17 30 1/2 5	6	4.9	5.2
		4.9	
17 38 10	7	4.7	4.8
		6.3	
17 44 2	8	6.1	6.5
		5.5	
17 47 1/2 5	9	5.3	5.4
		4.7	
17 55 10	10	4.5	4.7
		4.8	
18 05 10	11	4.6	4.8
		6.1	
18 12 1/2 5	12	5.9	5.8
18 16 2	13	not seen.	

Nauvika Star "a"

1	6.2	6.6	
2	5.9	6.0	
3	6.8	6.9	
4	5.3	5.5	
5	6.9	7.2	
6	5.9	5.9	
7	5.4	5.5	3.57
8	6.9	7.2	
9	6.1	6.1	
10	5.4	5.6	3.57
11	5.6	5.7	3.49
12	6.7	6.9	

Exp. no		Sc1	Sc2		
1	5.9	6.0	5.9		
2	5.7	5.8	5.7		
3	6.6	6.8	6.8		
4	4.7	4.9	4.9		
5	6.5	6.7	6.8		
6	5.6	5.7	5.6		
7	4.9	5.1	5.2		
8	6.8	6.9	6.8		
9	5.9	6.0	5.9		
10	4.7	4.9	5.8		
11	4.9	5.1	5.1		
12	6.2	6.4	6.5		

Star "c"

1	6.6	6.8	6.8
2	6.3	6.5	6.6
3	5.9	7.7	
4	5.7	5.8	5.8
5		7.8	
6	6.5	6.6	6.6
7	5.8	5.8	5.7
8		7.7	
9	6.7	6.8	6.8
10	5.8	5.9	5.8
11	5.9	6.0	5.9
12		7.7	

2:25

Thursday April 3, 1919 89
 Nauvoo - types numbered fall. To press

2:25

Scale 21 L39481 - continued.

Polar Exposure

Star no.	Sc 1	Sc 2	Diff
10	5.1 ^{5.3} 5.35	5.4	3.67
11	6.1 ^{6.3} 6.25	6.2	3.30
12	6.4 ^{6.6} 6.55	6.5	3.31 3.15
13	6.8 ^{7.0} 6.95	6.9	3.35
14		7.4	3.25

2:30

See M.D.A. 5: 32

Saturday April 5, 1919

alt. corr. -10

11:00

Ino. - Exposures numbered prec. to fall.

Scale M

MC 15191. - For comp. stars see plate cover.

Exposure		Ino.		Star "b"	
Length	No.	Sc. 1	Sc. 2	Sc. 1	Sc. 2
Cu.	mag.	Cu.	mag.	Cu.	mag.
Diff.		Diff.		Diff.	
18:31	4	1	7.3	1	6.9
18:38	10	2	5.9	2	5.9
18:44	2	3	7.9	3	8.2
18:47 1/2	5	4	6.8 6.95	4	6.8 7.10
19:55	10	5	5.8 5.95	5	5.8 6.10
19:05	10	6	5.9 6.10	6	5.7 5.95
19:12 1/2	5	7	6.9 7.10	7	6.8 7.10
19:16	2	8	8.4	8	8.1
19:21 1/2	9	9	6.7 6.80	9	6.2 6.45
19:27	2	10	8.1	10	8.4
19:30 1/2	5	11	7.83	11	6.9 7.10
19:33 1/2	1	12	8.8	12	9.2
Star "a"		Star "c"		Star "c"	
Cu. mag. Diff.		Cu. mag. Diff.		Cu. mag. Diff.	
1	5.8 5.90	1	8.3	1	8.3
2	4.6 4.80	2	7.3	2	7.3
3	6.8 6.95	3	8.8	3	8.8
4	5.7 5.90	4	7.8	4	7.8
5	4.7 4.90	5	7.69	5	7.69
6	4.6 4.85	6	7.1	6	7.1
7	5.9 6.00	7	8.2	7	8.2
8	6.8 6.95	8	8.8	8	8.8
9	5.1 5.30	9	7.6	9	7.6
10	6.9 7.15	10	8.7	10	8.7
11	5.9 6.00	11	8.1	11	8.1
12	8.1	12	9.8	12	9.8
9.64 mean mag.		11.46 mean mag.		11.46 mean mag.	

11:40

Saturday April 5, 1919

Sec.11:40Scale m MC 15191 - continuedPolar Sequence.

<u>Star No.</u>	<u>Sc 1</u>	<u>Sc 2</u>	<u>Diff.</u>
9	3.7 ^{3.9}		4.93
10	3.9 ^{4.1}		4.92
11	4.7 ^{4.9 1.1}	4.7	4.75
12	4.9 ^{5.1 0.0}	5.1	4.76
13	5.7 ^{5.9 1.1}	5.7	4.50
14	5.9 ^{6.1 1.1}	5.9	4.65
15	6.2 ^{6.4 1.1}	6.2	4.78
16	6.8 ^{7.0 1.1}	6.9	4.45
17		7.4	4.23
18		7.9	4.16

11:50

Monday, April 7, 1919

alt. Cor. -.14

10:05 Ino. - Exposures numbered prec. to fall.

Scale M. MC 15199 - For comp. stars see plate over

Exp. Length		Ino.		Exp. No.		Star "b"		Exp. No.		Star "c"		Exp. No.		Star "e"				
Sec. 1	Sec. 2	Cu.	mag.	Sec. 1	Sec. 2	Cu.	mag.	Diff.	Sec. 1	Sec. 2	Cu.	mag.	Diff.	Sec. 1	Sec. 2	Cu.	mag.	Diff.
9.779																		
18:38	10	2	6.5	6.65	6.6	3.64	10.29 ⁰⁵		2	6.6	6.85	6.9	3.60	10.45	3.52			
18:44	2	3			8.7	1.48	10.18 ⁰⁶		3			8.7			1.67			
18:47 1/2	5	4			7.7	2.51	10.21 ⁰³		4			7.8			2.57			
18:55	10	5	7.0	7.05	7.1	3.25	10.38 ⁰⁶		5	6.9	7.10	7.1	3.54	10.64	3.27			
19:05	10	6	6.8	6.7	6.8	3.53	10.28 ⁰⁴		6	6.7	6.85	6.8	3.60	10.45	3.52			
19:12 1/2	5	7			7.7	2.58	10.28 ⁰⁴		7			7.8			2.57			
19:16	2	8	6.9		8.7	1.53	10.23 ⁰¹		8			8.7			1.67			
19:21 1/2	9	9	6.7	6.90	6.9	3.37	10.27 ⁰³		9	6.8	7.05	7.1			3.32			
19:27	2	10			8.6	1.60	10.20 ⁰⁴		10			8.7			1.67			
19:30 1/2	5	11			7.8	2.40	10.20 ⁰⁴		11			7.9			2.47			
?	12		Cannot det.	did time of last break			2.44 10.24		?	12								
Star "a"								Star "c"								1.54 10.51 mean mag.		
?	1		5.1						?	1								
	2	4.9	5.10	5.1	3.94	9.04 ²⁸	4.08		2			7.6	3.46	11.06 ²³	3.55			
	3	6.8		7.9		1.28			3			9.7			1.45			
	4	6.6	6.70	6.6		2.48			4			8.7			2.45			
	5	5.5	5.70	5.7	3.84	9.54 ²²	3.48		5			8.2	3.38	11.58 ²⁹	2.95			
	6	5.3	5.50	5.5	3.88	9.38 ⁰⁶	3.68		6			7.8	3.43	11.23 ⁰⁶	3.35			
	7	6.3	6.40	6.3		2.78			7			8.7			2.45			
	8			7.8		1.38			8			9.7			1.45			
	9	5.5	5.55	5.6		3.63			9			8.1			3.05			
	10			7.7		1.48			10			9.6			1.55			
	11	7.0	6.8	6.90	6.8	2.28			11			8.7			2.45			
?	12								?	12								
9.36 9.32 mean mag.								.87 11.29										

Monday April 7, 1919

10:25 Duo.Scale M MC 15199 - continued,Palau Sequence.

<u>Star No</u>	<u>Sc 1</u>	<u>Sc 2</u>	<u>Diff.</u>
9	4.8 ^{5.0} _{4.90}	4.8	3.93
10	4.9 ^{5.1} _{5.00}	4.9	4.02
11	5.7 ^{5.9} _{5.80}	5.7	3.75
12	5.9 ^{6.1} _{6.00}	5.9	3.86
13	6.5 ^{6.7} _{6.75}	6.8	3.55
14	6.9 ^{7.1} _{7.15}	7.2	3.50
15	.	7.6	3.48
16	.	7.9	3.50
17	.	8.3	3.33
18	.	8.7	3.36

10:30

Monday April 14, 1919.

alt. corr. +.07

Ampella - Exposures numbered free to fall.1:30Scale m.

MC 15169 - For comp. stars see plate cover

g. mid. exp.			Ampella			Star "b"					
g. exp	Length	Exp. no.	Sc1	Sc2	Cu. Mag.	Exp. no.	Sc1	Sc2	Cu. Mag.	Diff.	
14:22 1/2	7	1	6.8 6.95 6.9		3.40 10.35 ⁴⁴	1		7.2		3.57	
14:27	2	2		8.7	2.02 10.72 ⁰¹	2		8.8		1.97	
14:30 1/2	5	3		7.6	3.13 10.73 ⁰⁶	3		7.7		3.07	
14:38	10	4	5.9 6.20 6.3		4.26 10.46 ²³	4	6.6 6.4	6.60 6.6	4.04 10.64 ⁰⁶	4.17	
14:44	2	5		8.8	2.18 10.98 ¹⁹	5		8.7		2.07	
14:47 1/2	5	6		7.7	3.28 10.98 ¹⁹	6		7.6		3.17	
14:55	10	7	6.6 6.70 6.6		4.18 10.88 ⁰⁹	7	6.7 6.5	6.60 6.5	4.04 10.64 ⁰⁶	4.17	
15:05	10	8	7.0 6.8 6.8		3.96 10.86 ⁰⁷	8	6.8 6.6	6.80 6.8	4.01 10.81 ¹¹	3.97	
15:12 1/2	5	9		7.7	3.25 10.95 ¹⁶	9		7.6		3.17	
15:16	2	10		8.8	2.26 11.06 ²⁷	10		8.6		2.17	
15:21 1/2	9	11	6.7 6.70 6.7		4.00 10.70 ⁰⁹	11	6.8 6.6	6.85 6.9		3.92	
15:27	2	12		8.8	1.99 10.79 ⁰⁰	12		8.8		1.97	
			Star "a"			Star "c"					
			Cu. Mag. Diff.			Cu. Mag. Diff.					
			1	5.8 5.85 5.7	3.02	1		7.7		3.52	
			2	6.5 7.9	1.97	2		9.1		2.12	
			3	6.3 6.60 6.7	3.27	3		8.1		3.12	
			4	5.4 5.2 5.45 5.5	4.36 9.81 ¹¹	4		7.2	3.95 11.15 ⁰⁰	4.02	
			5	7.9	1.97	5		8.9		2.32	
			6	6.4 6.2 6.50 6.6	3.37	6		7.8		3.42	
			7	5.4 5.2 5.35 5.3	4.39 9.74 ⁰⁶	7		7.1	3.97 11.07 ⁰⁸	4.12	
			8	5.5 5.3 5.50 5.5	4.35 9.85 ⁰⁵	8		7.3	3.93 11.23 ⁰⁸	3.92	
			9	6.4 6.2 6.35 6.3	3.52	9		7.9		3.32	
			10	7.9	1.97	10		8.9		2.32	
			11	5.7 5.5 5.65 5.6	4.22	11		7.3		3.92	
			12	8.1	1.77	12		9.1		2.12	

1:55

On this plate and on MC 15170 there are a short exp. (2^m?) between Principal exps. - These short exps. are not measured.

Monday April 14, 1919

95

Ampella - Expos. numbered from prec. to fall

1:55

Scale M m c 15169 - continued.

Polar Sequence

<u>Star No.</u>	<u>Sec 1</u>	<u>Sec 2</u>	<u>Diff.</u>
10	4.1 ^{4.3} _{4.25}	4.2	4.77
11	5.0 ^{5.2} _{5.20}	5.2	4.35
12	5.3 ^{5.5} _{5.45}	5.4	4.41
13	5.9 ^{6.1} _{6.00}	5.9	4.30
14	6.6 ^{6.8} _{6.85}	6.9	3.80
15	6.7 ^{6.9} _{7.00}	7.1	4.08
16	.	7.4	4.00
17	.	7.8	3.83

2:00

2:00

Monday April 14, 1919

alt. con. +.12

Ampella - Exposures numbered free to fall

Scale M.

MC 15170 - For comp. stars see plate cover.

gm	Exp. no.	Length. mm.	Ampella		Cu.	Mag.	Exp. no.	Star "b"		Cu.	Mag.	Diff.
			Sec 1	Sec 2				Sec 1	Sec 2			
15:32 1/2	1	1	6.4	8.5	2.37	10.87 ⁰⁰	1	6.8	8.6			2.36
15:38	10	2	6.2 6.40	6.4	4.27	10.67 ²⁰	2	6.6 6.75	6.7	4.08	10.83 ⁰¹	4.21
15:44	2	3	.	8.6	2.24	10.84 ⁰³	3	.	8.7			2.26
15:47 1/2	5	4	6.4	7.6	3.33	10.93 ⁰⁶	4	6.8	7.7			3.26
15:55	10	5	6.2 6.45	6.5	4.18	10.63 ²⁴	5	6.6 6.80	6.8	4.07	10.87 ⁰³	4.16
16:05	10	6	6.2 6.50	6.6	4.23	10.73 ¹⁴	6	6.5 6.75	6.8	4.08	10.83 ⁰¹	4.21
16:12 1/2	5	7	.	7.7	3.30	11.00 ¹³	7	.	7.6			3.36
16:16	20	8	.	8.8	2.27	11.07 ²⁰	8	.	8.8			2.16
16:21 1/2	9	9	6.7 6.80	6.9	3.98	10.78 ⁰⁹	9	7.1 7.00	6.9			3.96
16:27	2	10	.	8.8	2.25	11.05 ¹⁸	10	.	8.8			2.16
16:30 1/2	5	11	6.9	7.7	3.30	11.00 ¹³	11	7.1	7.6			3.36
16:38 37 1/2	9	12	6.7 6.90	6.9	3.94	10.84 ⁰³ 10.41 10.87	12	7.1 7.05	7.0			3.96
			Star "a"		Cu.	Mag.	Diff.	Star "c"		Cu.	Mag.	Diff.
			Sec 1	Sec 2				Sec 1	Sec 2			
1	.	7.6				2.23	1	.	8.9			2.46
2	5.4	5.4	5.2 5.40	5.4	4.27	9.67 ⁰⁴	4.43	2	7.2	4.00	11.20 ⁰⁴	3.76
3	6.7	7.9				1.93		3	8.9			2.46
4	6.5 6.65	6.6				3.18 2.18		4	7.9			3.46
5	5.5 5.3 5.55	5.6				4.25	9.80 ⁰⁹	4.28	5	7.3	8.96	11.26 ⁰²
6	5.4 5.2 5.40	5.4				4.27	9.67 ⁰⁴	4.43	6	7.3	3.96	11.26 ⁰²
7	6.2 6.45	6.5				3.38		7	8.1			3.26
8	.	7.9				1.93		8	8.9			2.46
9	5.8 5.6 5.70	5.6				4.13		9	7.5			3.86
10	6.7	8.1				1.73		10	8.9			2.46
11	6.5 6.75	6.8				3.08		11	8.1			3.26
12	5.6 5.75	5.7				4.08		12	7.5			3.86
					9.71 mean mag.						11.24 mean mag.	

2:25

Monday April 14, 1919

2:25

Ampella.

Scale M. SA C 15170 - continued

Polar Sequence.

<u>Star No.</u>	<u>S₁</u>	<u>S₂</u>		
10	5.3	.	Mean Diff.	
11	5.1	5.2	5.25	4.30
12	^{5.8} 5.6	5.6	5.70	4.16
13	^{6.1} 5.9	6.1	6.10	4.20
14	^{6.6} 6.4	6.6	6.60	4.05
15	^{6.9} 6.7	6.9	6.90	4.18
16	.	7.6	3.80	
17	.	7.8	3.83	

2:30

Monday April 28, 1919

Examination for Asteroids.

11:30 ✓ Ariane

Q 39644 April 22, 1919

Found by super. on Q 12656
 cursory examination shows no
 variation.

11:35

Thursday May 8, 1919

Examination for asteroids.

11:30

✓ Ariane

Q 39645 April 30, 1919

Found by Super. on Q 39644
Cursor exam. shows no variation.

✓ Parthenope

✓ Q 39648 } May 3, 1919
✓ 39649 }

Found by Super. on 917129

Cursor exam. of Q 39649 shows
a possible slight variation

12:15

100

Saturday May 10, 1919

alt. Corr. + .05

10:40

Prokue - Epps numbered prec. to fall.

Scale M

MC 15091 - For Comparison stars see plate cover.

5 min. time		Epps		Prokue		Epps		Star "b"	
2 min. length	Epps no.	Sc 1	Sc 2	Q. Cu.	Mag.	Epps no.	Sc 1	Sc 2	Q. Cu.
14:55	10	1	6.8 ^{7.0} 6.95	6.9	3.17 3.15	10.10 ¹⁰	1	7.4	3.09
15:05	10	2	6.7 6.85	6.8	3.19 3.21	10.06 ¹⁴	2	7.4	3.09
15:12 1/2	5	3		7.7	2 2.50	10.20 ⁰⁰	3	7.9	
15:16	2	4		8.6	1.58	10.18 ⁰²	4	8.7	
15:21 1/2	9	5		7.1	3.00	10.10 ¹⁰	5	7.5	
15:27	2	6		8.6	1.55	10.15 ⁰⁵	6	8.8	
15:30 1/2	5	7		7.7	2.60	10.30 ¹⁰	7	7.7	
15:38	10	8	6.8 6.85	6.9	3.32	10.17 ⁰³	8	7.2	3.12
15:44	2	9		8.7	1.68	10.38 ¹⁸	9	8.7	
15:47 1/2	5	10		7.7	2.60	10.30 ¹⁰	10	7.7	
15:52	4	11		7.8	2.50	10.30 ¹⁰	11	7.9	
Diff.									
3.15	1	6.8 6.95	6.9	3.17	10.12 ⁰⁷		1	7.5	3.07
3.20	2	6.7 6.90	6.9	3.18	10.08 ⁰³		2	7.5	3.07
2.40	3		7.7		2.05		3	8.3	
1.40	4		8.7		1.55		4	8.9	
3.00	5		7.1		2.95		5	7.5	
1.50	6		8.6		1.45		6	8.8	
2.50	7	6.8	7.6		2.45		7	7.8	
3.35	8	6.6 6.75	6.7	3.20	9.95 ¹⁰		8	7.4	3.09
1.60	9		8.5		1.55		9	8.9	
2.50	10		7.6		2.45		10	8.3	
2.40	11		7.7		2.35		11	8.5	
					10.15 mean mag.				
									10.43 mean mag.

Star no.		Polaris sequence		Star no.	
Sc 1	Sc 2	Diff.	Sc 1	Sc 2	Diff.
6.1	6.15	6.2	3.40	6.9	7.15
11	6.7	6.6	3.21	7.2	3.15
12				7.6	3.05
13					
14					

Friday May 16, 1919.

H. G. 0.41 W

all low

11:00

Ariane - App. numbered ~~stars~~ to prec.
Images elongated.

Scale M. 39645 - App. For comp. stars see plot covers.

9. m. time			Ariane		Exp. 7.5		Star "b"		Cu. mag.		Diff.	
9. m.	Exp.	10.	Sc 1	Sc 2	Cu. mag.	1	2	7.6			2.80	
?	?	1	.	8.4	.	2	.	7.3			3.10	
13:47 1/2	5	2	.	7.9	.	3	.	6.7	3.60	10.30 ⁰⁸	3.70	
13:55	10	3	.	7.5	3.72 11.22 ⁰³	4	.	6.7	3.60	10.30 ⁰⁸	3.70	
14:05	10	4	.	7.4	3.72 11.20 ⁰⁵	5	.	7.6			2.80	
14:12 1/2	5	5	.	7.8	2.93 10.73 ⁶²	6	.	7.9			2.50	
14:16	2	6	.	8.7	.	7	.	6.9			3.50	
14:21 1/2	9	7	.	7.5	2.78 11.28 ⁰³	8	.	7.9			2.50	
14:27	2	8	.	8.8	2.52 11.32 ⁰⁷	9	.	7.6			2.80	
14:30 1/2	5	9	.	8.1	3.15 11.25 ⁰⁰	10	.	6.8	3.61	10.41 ⁰³	3.60	
14:38	10	10	.	7.7	4.00 11.70 ⁴⁵	11	.	8.4			2.00	
14:44	2	11	.	8.9	.	12	.	7.7			2.70	
14:47 1/2	5	12	.	8.2	2.89 11.09 ¹⁶	13	.	6.9	3.62	10.52 ¹⁴	3.50	
14:55	10	13	.	7.9	3.56 11.46 ²¹	14	.	7.8			2.60	
15:1 1/2	3	14	.	8.7	2.25 11.25	Star "c"			1.53	10.38 mean mag.		
			Star "a"		Cu. mag.	Diff.	1	8.7			2.74	
			1	7.6		2.22	2	8.4			3.04	
			2	7.4		2.42	3	7.7	3.75	11.45 ⁰³	3.74	
			3	5.8 5.95 5.9	3.60	9.55 ²⁵	4	7.6	3.73	11.33 ⁰⁹	3.84	
			4	5.8 5.95 5.9	3.60	9.55 ²⁵	5	8.3			3.14	
			5	7.1		2.72	6	8.8			2.64	
			6	7.9		1.92	7	7.6			3.84	
			7	6.8		3.02	8	8.9			2.24	
			8	7.7		2.12	9	8.2			3.24	
			9	7.1		2.72	10	7.5	3.71	11.21 ²¹	3.94	
			10	6.2	3.60	9.80 ⁰⁰	11	8.8			2.64	
			11	8.5		1.32	12	8.4			3.04	
			12	7.6		2.22	13	7.9	3.78	11.68 ²⁶	3.54	
			13	6.7	3.60	10.30 ⁵⁰	14	8.8			2.64	
			14	7.5		2.02			1.67	11.42 mean		

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Friday May 16, 1919

Orion11:20Scale M.

J 39645 - continued

Polar Exposure

Star No.	<u>Sc 1</u>	<u>Sc 2</u>	Diff.
11	^{5.8} 5.6	^{6.1} 5.9	³ 4.70
12	^{6.8} 5.9	^{6.15} 6.2	3.71
13	^{6.8} 6.6	^{6.85} 6.9	3.45
14	^{7.1} 6.9	^{7.10} 7.1	3.55
15	.	7.3	3.78
16	.	7.6	3.80
17	.	7.9	3.73

11:25

Friday May 16, 1919
Exam for Asteroids.

11:25

* Bellona

✓ Q 39646 May 2, 1919
✓ 39647 May 2, 1919

Found by Super. on
Q 17292

Cursory exam. shows
no variation

* Examined plate for
about 1/2 hour yesterday
without finding
asteroid.

11:40

04

Monday May 19, 1919.

11:40

Juno - For mag. of Comp. Stars.

Scale 71.

AM 7652. $20^h 05^m - 0.4$

Comp. Stars - see plate cover of M7805

ScA	ScB	ScC	mean	From 112 K	From 112 K	Tromp	Taquarii
					cu.	cu.	mag
a	7.0 7.4	6.8	6.90 ± 1	1.96	8.86	2.76	9.06
b	7.3 7.7	7.2	7.25 ± 0	1.96	9.21	2.06	9.31
c	7.5 7.9	7.6	7.55 ± 0	1.97	9.52	1.97	9.52
d	7.8 7.9	7.7	7.75 ± 1	1.97	9.72	1.92	9.67
e	8.2 8.6	8.4	8.30 ± 1	1.97	10.27	1.77	10.07

mags from Bk 7:115

112 K

Diff.

8.46	1	6.5 6.9	6.3	6.40 ± 1	2.04	
9.17	2	7.2 7.6	7.2	7.20 ± 0	1.97	
10.27	3		8.4	8.40 ± 2	1.87	
10.57	4		8.6	8.60 ± 2	1.97	
11.12	5		9.2	9.20 ± 2	1.92	
11.35	6		9.2	9.20 ± 2	2.15	

mags. from Bk 92:38

T Aquarii

9.50	h	6.8 7.2	6.7	6.75 ± 1	2.75	
9.49	k	7.4 7.8	7.6	7.50 ± 1	1.99	
8.36	l	6.4 6.8	6.4	6.40 ± 0	1.96	
8.55	m	6.7 7.1	6.7	6.70 ± 0	1.85	
9.39	n	7.0 7.4	6.8	6.90 ± 1	2.49	
10.25	o		8.8	8.80 ± 2	1.45	
10.57	p		8.8	8.80 ± 2	1.77	

12:00

Monday May 19, 1919

12:00 Duno - For mag. of comp. stars.Scale 7. Qm 11319 $20^{\text{h}} 54^{\text{m}} + 0.3$ Comp. Stars - see plate covers of m7805

	Sc A	Sc B	Sc C	Mean	Fr. 112K		Fr. T Aquarii	
					Cu.	Mag.	Cu.	Mag.
a		7.2 7.6	7.0	7.10 ±	1.96	9.06	1.95	9.05
b		7.5 7.9	7.5	7.50 00	1.92	9.42	1.86	9.36
c		7.8 8.2	7.8	7.80 00	1.89	9.69	1.80	9.60
d		8.0 8.4	7.9	7.95 0 ±	1.88	9.83	1.75	9.70
e		8.3 8.7	8.4	8.35 ± 0	1.86	10.21	1.67	10.02

112K					Diff.
1		6.4 6.8	6.5	6.45 0 1	2.01
2		7.2 7.6	7.2	7.20 0 0	1.97
3			8.6	8.60 . a	1.67
4			8.7	8.70 . a	1.87
5			9.2	9.20 . a	1.92
6			9.4	9.40 . a	1.95

T Aquarii					
h		7.0 7.4	6.9	6.95 0 ±	2.55
k		7.7 8.1	7.8	7.75 ± 0	1.74
l		6.3 6.7	6.2	6.25 1 0	2.11
m		6.5 6.9	6.3	6.40 1 ±	2.15
n		7.2 7.6	7.1	7.15 0 ±	2.24
o			8.8	8.80 . a	1.45
p		8.9 8.9	8.9	8.90 . a	1.67

12:20

106

Monday May 19, 1919

2:00

Juno - Fw mags. of comp. stars

Scale 7.AM 14365 21^h 00^m +0.0

Comp. Stars - See plate cover of M7805

	Sc A	Sc B	Sc C	Mean		Fv. Cur.	112 K mag.	Fv. Cur.	T Aquarii mag.
a	5.2 5.6	5.3	5.25	0 1		3.54	8.79	3.54	8.79
b	5.4 5.8	5.5	5.45	0 1		3.50	8.95	3.44	8.92
c	6.4 6.8	6.4	6.40	0 0		3.27	9.67	3.08	9.48
d	6.5 6.9	6.6	6.55	1 0		3.23	9.78	3.00	9.55
e	7.4 7.8	7.5	7.45	0 1		2.97	10.42	2.57	10.02

	112 K				Diff
1	5.1 5.5	5.2	5.15	1 0	3.31
2	5.4 5.8	5.5	5.45	0 1	3.82
3	7.2 7.6	7.2	7.20	0 0	3.07
4		7.8	7.80	a	2.77
5		8.7	8.70	a	2.42
6		8.6	8.60	a	2.75

T Aquarii

h	5.9 6.3	5.8	5.85	1 0	3.65
k	6.2 6.6	6.2	6.20	0 0	3.29
l	5.2 5.6	5.2	5.20	0 0	3.16
m	5.4 5.8	5.3	5.35	0 1	3.20
n	6.1 6.5	5.9	6.00	1 1	3.39
o		8.6	8.60	a	1.65
p	8.	8.5	8.50	a	2.07

2:20

Monday May 19, 1919

2:20

Juno - Four Magns. of Comp. stars.

Scale 7

Am 14384 20^h 0^o

Comp. stars - see plate cover of M 7805

	Sc A	Sc B	Sc C	Mean	Fr. 112 K.		Fr. T Aquarii	
					cu.	mag.	cu.	mag.
a	6.4	6.4	6.40	00	2.58	8.98	2.89	9.29
b	7.1	6.9	7.00	11	2.39	9.39	2.68	9.68
c	7.2	7.2	7.20	00	2.34	9.54	2.58	9.78
d	7.4	7.4	7.40	00	2.29	9.69	2.50	9.90
e	8.2	8.3	8.25	01	2.12	10.37	2.07	10.32

	112 K.					Diff.
1	<u>5.6</u> 6.0	5.6	5.60	00		2.86
2	6.7 7.1	6.6	6.65	10		2.52
3		8.3	8.30	.a		1.97
4		8.6	8.60	.a		1.97
5		8.6	8.60	.a		2.52
6		9.2	9.20	.a		2.15

T Aquarii

h	6.1	6.5	6.2	6.15	10	3.35
k	6.7	7.1	6.8	6.75	10	2.74
l	5.5	5.9	5.6	5.55	10	2.81
m	5.4	5.8	5.5	5.45	01	3.10
n	6.4	6.8	6.5	6.45	01	2.94
o			8.6	8.60	.a	1.65
p			8.6	8.60	.a	1.97

2:45

Tuesday May 20, 1919.

Juno - Expos. numbered fall to prec.

1:55

July 13, 1917.

Scale m

mf 805 - For comp. stars see plate cover.

g.m. ground time			Juno		Exp. 70		Star "b"		Diff
Exp. Length	Exp. no.	Sc 1 mean	Cur	Mag					
17 40 1/2	5	1	6.8	7.10	7.2	2.19	9.29	6.9 7.10 7.1	2.18
17 44	2	2	8.60	8.6		1.04	9.64	8.30 8.3	0.98
17 47 1/2	5	3	7.40	7.4		1.89	9.29	7.60 7.6	1.68
17 55	10	4	6.5	6.70	6.7	2.76	9.46	6.5 6.60 6.5	2.68
18 05	10	5	6.6	6.80	6.8	2.73	9.53	6.6 6.75 6.7	2.53
18 12 1/2	5	6	7.90	7.9		1.64	9.54	7.80 7.8	1.48
18 16	2	7	8.70	8.7		1.03	9.73	8.40 8.4	0.88
18 21 1/2	9	8	6.7	6.90	6.9	2.60	9.50	6.5 6.70 6.7	2.58
18 27	2	9	8.60	8.6	Ref.			8.40 8.4	0.88
18 30 1/2	5	10	7.70	7.7		1.88	9.58	7.50 7.5	1.78
18 38	10	11	6.8	6.95	6.9	2.60	9.55	6.6 6.75 6.7	2.53
18 44	2	12	8.80	8.8		1.02	9.82	8.10 8.1	1.18
18 47 1/2	5	13	7.80	7.8		1.67	9.47	7.70 7.7	1.58
18 52 1/2	5	14	8.30	8.3		1.40	9.70	7.90 7.9	1.38
			Star "a"		Star "c"				
			Diff						
1	6.5	6.70	6.7	2.28	1		7.6	2.00	
2	7.80	7.8	1.18		2		8.6	1.00	
3	6.7	6.90	6.9	2.08	3		7.8	1.80	
4	5.9	6.00	5.9	2.98	4	6.8	6.80	6.8	2.80
5	5.8	5.95	5.9	3.03	5	6.6	6.85	6.9	2.75
6	6.8	7.05	7.1	1.93	6	6.8			1.90
7	7.70	7.7	1.28		7		7.7		1.10
8	5.9	6.10	6.1	2.88	8	7.0	6.95	6.9	2.65
9	7.80	7.8	1.18		9		8.6		1.00
10	6.7	6.85	6.8	2.13	10		7.7		1.90
11	5.9	6.00	5.9	2.98	11	7.0	7.05	7.1	2.55
12	7.6	7.90	7.9	1.04	12	6.8			0.90
13	6.9	7.20	7.3	1.78	13		7.8		1.80
14	7.60	7.6	1.38		14		7.9		1.70

Full day May 20, 1919
 June - Expos numbered fall. to prec.

2:50

Scale 7. MF 805 continued - For comp. stars see plate cover.

<u>Star "d"</u>				<u>Star "e"</u>		
<u>Exp. No.</u>	<u>Sc1</u>	<u>Sc2</u>	<u>Diff.</u>	<u>Exp. No.</u>		<u>Diff.</u>
1		7.5	2.23	1	8.4	1.82
2		8.7	1.03	2	8.9	1.32
3		7.7	2.03	3	8.6	1.62
4	7.0 6.8	7.05	7.1	4	7.5	2.72
5	7.0 6.8	7.05	7.1	5	7.6	2.62
6		8.2	1.53	6	8.6	1.62
7		8.7	1.03	7	9.2	1.02
8	7.1 6.9	7.20	7.2 7.4	8	7.6	2.62
9		8.6	1.13	9	8.8	1.42
10		7.9	1.83	10	8.4	1.82
11	7.6 6.9	7.20	7.3	11	7.7	2.52
12	6.7	8.7	1.03	12	9.2	1.02
13		8.4 ³	1.43	13	8.6	1.62
14		8.4	1.33	14	8.8	1.42

3:00

MF 805 June

Mean mag. 9.55 26 09 26 09 02 01 18 05 " 03 00 27 05 15

110

Tuesday May 20, 1919

3:00 Juno. - Epps numbered fall. to pres.

Scale in MF 811 - July 22, 1917 - Comp. stars rec cover of MF 805

g ^m		mid time		Juno.				Star "b"					
g ^m		Epp Length	Epp No.	Sal	mean	Sc 2	Cur	Mag	Epp No.	Sal	Sc 2	Diff.	
18 58	4	1		6.7	7.80	7.8	1.41	9.21	1		7.8	1.48	
19 05	10	2		6.5	6.65	6.6	2.62	9.27	2	6.8	6.75	6.7	2.53
19 12 1/2	5	3				7.6	1.83	9.43	3			7.2	2.08
19 16	2	4				8.5	0.93	9.43	4			8.6	0.68
19 21 1/2	9	5		6.8	6.6	6.75	2.69	9.44	5	6.7	6.70	6.7	2.58
19 27	2	6				8.6	0.78	9.38	6			8.6	0.68
19 30 1/2	5	7				7.7	1.93	9.63	7			7.5	1.78
19 38	10	8		7.0	6.8	6.95	2.55	9.50	8	6.9	6.85	6.8	2.43
19 44	2	9				8.6	0.78	9.38	9			8.7	0.58
19 47 1/2	5	10				8.2	1.33	9.53	10			7.5	1.78
19 55	10	11		7.0	6.8	7.15	2.34	9.49	11	6.7	6.75	6.8	2.53
20 03	6	12				7.9	1.57	9.47	12			7.8	1.48
								5.16					

5.16 Sup. III

Star "a"	Diff.
1	7.6
2	5.9 6.15 6.2
3	7.3
4	6.1 7.9
5	5.9 6.15 6.2
6	7.0 8.3
7	6.8 7.10 7.2
8	6.1 5.9 6.10 6.1
9	8.3
10	6.7 7.5
11	6.3 6.75 6.8
12	6.9 7.25 7.4

Star "c"	Diff.
1	8.3
2	7.1 7.15 7.2
3	7.8
4	8.7
5	6.8 6.85 6.9
6	* 8
7	7.3
8	7.1 7.10 7.1
9	8.8
10	8.4
11	7.2
12	7.9

* Error of
unit.

3:15.

Tuesday May 20, 1919

3:15 Juno. - Exps. numbered fall. & prec.Scale for MF 811 ^{continued.} - July 22, 1917 → Comp. stars see cover of MF 805

Exp. No.	Star "d"	Star "d"	Diff.
1	.	8.5	1.23
2	.	7.6	2.13
3	.	7.9	1.83
4	.	8.7	1.03
5	6.9 6.7	7.05	2.68
6	.	8.9	0.83
7	.	7.7	2.03
8	7.1 6.9	7.25	2.48
9	.	8.7	1.03
10	.	8.5	1.23
11	.	7.7	2.03
12	.	8.4	1.33

Star "e"	Star "e"	Star "e"
1	.	8.7
2	.	8.1
3	.	8.6
4	.	9.3
5	.	7.7
6	.	9.3
7	.	8.6
8	.	7.9
9	.	9.4
10	.	8.8
11	.	7.9
12	.	8.7

MF 811 Juno

3:25

Mean Mag. 9.43

22 16 00 01 05 20 07 05 10 06 04

112

Wednesday May 21, 1919

Juno. - Exps. numbered fall. & prec.

11:00

Cloudy during last of exposure

Scale M MF 822 - July 26, 1917 - For comp. stars see cover of MF 805

g ^m		Exp. No.	Sec 1	mean	Sec 2	Cu.	mag.
17	31 1/2	3	1	6.2	8.6	Rej.	.
17	38	10	2	6.7	6.90	6.9	2.87 9.77
17	44	2	3	.	8.8	0.70	9.50
17	47 1/2	5	4	.	7.7	1.41	9.06
17	55	10	5	.	7.4	7.6	1.85 9.25
18	05	10	6	.	7.6	1.57	9.17
18	12 1/2	5	7	.	8.6	Rej.	.
18	16	2	8	Too	.	.	.
18	21 1/2	9	9	.	.	.	.
18	27	2	10	.	.	.	.
18	30 1/2	5	11	Diff	.	.	.
18	36 1/2	7	12	.	.	.	.

Star "f"		Sec 1	Sec 2	Diff
1	.	.	8.6	0.68
2	7.0	6.8	6.95	2.33
3	.	.	8.7	0.58
4	.	.	7.9	1.38
5	.	.	7.6	1.68
6	.	.	7.8	1.48
7	.	.	8.6	0.68
8	.	.	.	.
9	.	.	.	.
10	.	.	.	.
11	.	.	.	.
12	.	.	.	.

<u>Star "a"</u>			<u>Diff.</u>	1.75
1	.	7.9	1.08	
2	6.6 6.4	6.55 6.5	2.43	
3	.	8.4	0.58	
4	.	7.6	1.38	
5	6.9 6.7	6.85 6.8	2.13	
6	7.0 6.8	7.05 7.1	1.93	
7	.	8.6	0.38	
8	.	.	.	
9	.	.	.	
10	.	.	.	
11	.	.	.	
12	.	.	.	

Star "c"		Sec 1	Sec 2	Diff
1	7.1	.	8.6	1.00
2	6.9	7.20	7.3	2.40
3	.	.	8.8	0.80
4	.	.	8.3	1.30
5	.	.	7.8	1.80
6	.	.	8.1	1.50
7	.	.	8.8	0.80
8	.	.	.	.
9	.	.	.	.
10	.	.	.	.
11	.	.	.	.
12	.	.	.	.

11:15

Wednesday May 21, 1919

11:15 JuneScale of M7822 - continued Sec P112

<u>Star "d"</u>			
<u>Exp.</u> <u>no.</u>	<u>Sec 1</u>	<u>Sec 2</u>	<u>Diff.</u>
1		8.7	1.03
2		7.6	2.13
3		8.9	0.83
4		8.5	1.23
5		8.2	1.53
6		8.1	1.63
7		8.8	0.93
8			
9			
10			
11			
12			

<u>Star "e"</u>			
1		8.8	1.42
2		7.9	2.32
3		9.3	0.92
4		8.7	1.52
5		8.4	1.82
6		8.5	1.72
7		9.5	0.72
8			
9			
10			
11			
12			

M7822 June

11:20 mean mag. 9.35 " 42 15 29 10 18 " " " " "

Wednesday May 21, 1919
 Junc - Apps numbered foll. to pres.

11:20

Scale M MFS 24 - July 27, 1917 - For comp. stars see cover MFS 25

gm		Endp	App	Junc -		Star "b"		Star "c"	
h	m	sec	no.	Sc1	Sc2	Sc1	Sc2	Sc1	Sc2
17	57 1/2	5	1	7.1	2.30	9.40	7.0	6.9	6.9
18	05	10	2	4.8	4.95	4.9	4.8	4.90	4.8
18	12 1/2	5	3	5.8	5.95	5.9	5.7	5.85	5.8
18	16	2	4	7.3	2.00	9.30	7.5	7.5	7.5
18	21 1/2	9	5	4.9	5.00	4.9	4.9	5.00	4.9
18	27	2	6	7.6	1.92	9.52	7.6	7.6	7.6
18	30 1/2	5	7	5.8	5.95	5.9	5.7	5.85	5.8
18	38	10	8	4.8	5.05	5.1	4.8	4.85	4.7
18	44	2	9	7.6	1.91	9.51	7.4	7.4	7.4
18	47 1/2	5	10	5.9	6.15	6.2	5.8	5.95	5.9
18	55	10	11	5.1	5.30	5.3	4.9	4.90	4.9
19	05	10	12	5.2	5.30	5.2	4.9	5.00	4.9
19	11	2	13	7.7	1.75	9.45	7.4	7.4	7.4

Star "a" Diff

1	6.8	6.6	6.75	6.7	2.23
2	4.5	4.3	4.45	4.4	4.53
3	5.4	5.2	5.40	5.4	3.58
4	6.9	6.7	6.80	6.7	2.18
5	4.7	4.5	4.60	4.5	4.38
6	6.8	6.6	6.75	6.7	2.23
7	5.4	5.2	5.40	5.4	3.58
8	4.5	4.3	4.45	4.4	4.53
9	6.9	6.7	6.80	6.7	2.18
10	5.5	5.3	5.45	5.4	3.53
11	4.5	4.3	4.45	4.4	4.48
12	4.5	4.3	4.45	4.4	4.53
13	6.8	6.6	6.85	6.9	2.13

Star "c"

1	7.1	6.9	7.20	7.3	2.40
2	5.4	5.2	5.40	5.4	4.20
3	6.5	6.3	6.35	6.2	3.25
4	6.5	6.3	6.35	6.2	3.25
5	5.5	5.3	5.45	5.4	4.15
6	6.7	6.5	6.65	6.6	2.95
7	5.8	5.6	5.55	5.3	4.05
8	6.7	6.5	6.65	6.6	2.95
9	6.7	6.5	6.65	6.6	2.95
10	6.7	6.5	6.65	6.6	2.95
11	5.5	5.3	5.45	5.4	4.15
12	5.6	5.4	5.60	5.6	4.00
13	7.9	7.7	7.80	7.8	1.70

11:50

Wednesday May 21, 1919

Durs.

11:50

Scale m

MF 824-continued - see P.114

Exp	Star "d"		Diff.
No.	for	for	
1	.	7.6	2.13
2	5.9 5.7	5.75 5.6	3.98
3	6.6 6.4	6.65 6.7	3.08
4	.	7.7	2.03
5	6.0 5.8	5.95 5.9	3.78
6	.	7.7	2.03
7	6.9 6.7	6.85 6.8	2.88
8	5.8 5.6	5.70 5.6	4.03
9	.	7.9	1.83
10	6.9 6.7	6.85 6.8	2.88
11	5.9 5.7	5.80 5.7	3.93
12	5.9 5.7	5.80 5.7	3.93
13	.	8.2	1.53

MF 824 Jmo

Mean mag. 9.38 02 09 04 08 12 14 13 00 13 01 08 05 07

Star "e"			
1	.	7.8	2.42
2	6.6 6.4	6.60 6.6	3.62
3	.	7.6	2.62
4	.	8.3	1.92
5	6.7 6.5	6.65 6.6	3.57
6	.	8.3	1.92
7	.	7.4	2.82
8	6.7 6.5	6.70 6.7	3.52
9	.	8.5	1.72
10	.	7.6	2.62
11	6.7 6.5	6.75 6.8	3.47
12	6.7 6.5	6.75 6.8	3.47
13	.	8.6	1.62

12:00

116

Wednesday May 21, 1919

12:00

Juno - Exps numbered foll. to pres

Scale M

MF 829 - July 28 - 1917 For comp. stars see cover MF 805

Exp. no.
1
2
3

Juno
Ser 1 Ser 2

Exp.
no.

Only one exposure

		Ser 1	Ser 2	mean	cu.	mag.
	Juno.	5.7 ^{5.9}	5.7	5.80	2.58	9.38
10 ^m Exp.	a	4.9 ^{5.6}	4.9	5.00	Diff.	
mid sid	b	5.6 ^{5.8}	5.7	5.75	3.53	
time was	c	5.8 ^{6.0}	6.2	6.10	3.50	
1 st to 04 ^m	d	6.1 ^{6.3}	6.5	6.40	3.33	
	e	6.7 ^{6.9}	6.8	6.85	3.37	

MF 830 - July 30, 1917

Only one exposure of 12^m

		Ser 1	Ser 2	mean	cu.	mag.
mid sid	Juno.	6.8 ^{7.0}	6.8	6.90	2.39	9.29
time	a	6.4 ^{6.6}	6.6	6.60	Diff.	
1 st to 08 ^m	b	6.7 ^{6.9}	6.7	6.80	2.48	
	c	6.9 ^{7.1}	7.4	7.25	2.35	
	d	.	7.6	7.60	2.13	
	e	.	7.8	7.80	2.42	

12:05

Wednesday May 21, 1919

2:40 Jumo - Epps numbered fall & pres

5 Scale in MF 832 - July 30, 1917 - For comp stars sec, ^{cover} MF 805

Epps				Jumo		Star "X"		Diff.
no	mag	Sc 1	Sc 2	Cu	mag	Sc 1	Sc 2	
18 39	8	1	6.5 6.70	6.7	2.75 9.45	6.4	6.55 6.5	2.73
18 44	2	2		8.4	0.97 9.37		8.5	0.78
18 47 1/2	5	3		7.5	1.92 9.42	7.1	7.35 7.6	1.93
18 55	10	4	6.6 6.55	6.5	2.84 9.39	6.5	6.50 6.5	2.78
19 05	10	5	6.6 6.55	6.5	2.84 9.39	6.5	6.45 6.4	2.83
19 12 1/2	5	6		7.6	1.85 9.45		7.6	1.68
19 16	2	7		8.6	0.93 9.53		8.5	0.78
19 21 1/2	9	8	6.8 6.80	6.8	2.62 9.42	6.7	6.70 6.7	2.58
19 27	2	9		8.7	0.81 9.51		8.4	0.88
19 30 1/2	5	10		7.6	1.87 9.47		7.6	1.68
19 38	10	11	6.7 6.70	6.7	2.76 9.46	6.7	6.70 6.7	2.58
19 44	2	12		8.8	0.60 9.40		8.6	0.68

See bottom of page

Star "a"				Star "C"			
no	mag	Sc 1	Sc 2	no	mag	Sc 1	Sc 2
1	5.8	5.85	5.7	1	6.9	6.7	6.85 6.8
2	6.8		7.8	2			8.6
3	6.6	6.75	6.7	3	6.7		7.3
4	5.8	5.65	5.5	4	6.5	6.75	6.8
5	5.9	5.75	5.6	5	6.7	6.75	6.8
6	6.9	6.85	6.8	6			7.6
7	5.9		7.8	7			8.6
8	5.7	6.00	6.1	8	6.8	6.85	6.9
9	6.9		7.8	9			8.7
10	6.7	6.85	6.8	10			7.7
11	5.8	5.75	6.7	11	6.8	6.75	6.7
12			8.2	12			8.8

MF 832 Jumo

Mean mag. 9.44 01 07 02 05 05 01 09 02 07 03 02 04

118

Wednesday May 21, 1919

2:50

Lemo.

Scale M M7832 - continued see P. 117

Exp		Star "d"	
no		Sc1	Sc2 Diff.
1	.	7.1	2.53
2	.	8.9	0.83
3	.	8.4	1.33
4	7.0 6.8	7.20	7.4 2.53
5	7.0 6.8	7.25	7.5 2.48
6	.	7.9	1.83
7	.	8.9	0.83
8	.	7.7	2.03
9	.	9.3	0.43
10	.	7.8	1.93
11	7.0 6.8	7.10	7.2 2.63
12	.	9.7	0.03

Star "e"

1	.	7.9	2.32
2	.	9.2	1.02
3	.	8.6	1.62
4	.	7.8	2.42
5	.	7.8	2.42
6	.	8.7	1.52
7	.	9.3	0.92
8	.	8.1	2.12
9	.	9.3	0.92
10	.	8.8	1.42
11	.	7.8	2.42
12	.	9.7	0.52

2:55

Wednesday May 28, 1919

H.A. 0.18 W
Dec. - 11.2

119

alt. corr. - 1.0

2:00

Vista - Expts. numbered fall. to prec.

See M.D.A. 5:29

Scale in

MF 1134 - Oct. 20, 1917 - For comp. stars see plate covers of MF 1134.

h m	sec	Expt. No.	Star	h	m	sec	h	m	sec	Mag.	Diff.
14	49	2	1	8.6	8.60	8.6	1	8.1	8.15	8.2	-1.32
14	55	10	2	7.5	7.55	7.6	2	6.9	6.95	7.2	-0.15 6.80 ¹⁴ -0.12
15	05	10	3	7.7	7.65	7.6	3	7.4	7.05	7.2	-0.15 6.90 ⁰⁴ -0.22
15	12 1/2	5	4	8.5	8.50	8.5	4	7.6	7.7	7.9	-0.97
15	16	2	5	8.8	8.75	8.7	5	8.7	8.75	8.8	-1.92
15	21 1/2	9	6	7.8	7.75	7.7	6	7.3	7.35	7.4	-0.52
15	27	2	7	8.9	8.85	8.8	7	8.7	8.75	8.8	-1.92
15	30 1/2	5	8	8.5	8.50	8.5	8	7.9	7.85	7.8	-1.02
15	38	10	9	7.8	7.75	7.7	9	7.3	7.25	7.2	-0.14 7.11 ¹⁷ -0.42
15	44	2	10	9.2	9.25	9.2	10	8.8	8.80	8.8	-1.97
15	45 1/2	1	11	f.	f.		11				

Star "a"

Star "c"

2.81
4
6.94 mean

<u>Scr</u>	<u>Scr</u>					<u>Scr</u>	<u>Scr</u>				
Diff. g	Diff. h	mag.	Diff.			2	h	mag.	Diff.		
1	8.0	7.95	7.9	-1.38		1	8.3	8.25	8.2	-1.23	
2	6.5	6.55	6.6	-0.17	6.38 ¹⁷ +0.02	2	6.8	7.00	7.2	-0.15	6.85 ²⁷ +0.02
3	6.5	6.60	6.7	-0.17	6.43 ¹² -0.03	3	7.4	7.40	7.4	-0.14	7.26 ¹⁴ -0.38
4	7.7	7.65	7.6	-1.08		4	7.8	7.80	7.8	-0.78	
5	8.6	8.65	8.7	-2.08		5	8.7	8.75	8.8	-1.73	
6	6.9	6.85	6.8	-0.28		6	7.6	7.55	7.5	-0.53	
7	8.5	8.55	8.6	-1.98		7	8.8	8.80	8.8	-1.78	
8	7.8	7.80	7.8	-1.23		8	7.8	7.85	7.9	-0.83	
9	6.8	7.00	7.2	-0.15	6.85 ³⁰ -0.43	9	7.3	7.40	7.5	-0.14	7.26 ¹⁴ -0.38
10	8.8	8.80	8.8	-2.23		10	8.9	8.90	8.9	-1.88	
11	n.e.	n.e.				11					

Polar sequence

1.66
6.55 mean1.37
7.12 mean

Star No. 5 8.6 6.65 6.7 -0.16

8 8.38 35 8.4 -0.12
9 8.6 8.70 8.8 -0.13

3:00

120

3.35

Wednesday May 28, 1919

N.A. 126W Alt. Corr.
Dec. -11.2 -16

3:00

Vesta - Exp numbered fall to pres.

Scale m

m 1135 - Oct. 20, 1918 - For comp stars see
Cover of m 1134

Vesta

Star "C"

Sc 2 Sc

Sc Sc 2

g h

Diff. Diff. g h

Cu. mag. Diff.

gm mid time
Diff. Diff.
Exp. Length. Exp. No.

15 48 21	3	1	8.8	8.75	8.7
15 55 10	✓	2	7.7	7.70	7.7
16 05 10	3	3	8.8	8.80	8.8
16 12 1/2 5	4	4	8.5	8.50	8.5
16 16 2	5	5	9.3	9.25	9.2
16 21 1/2 9	6	6	8.7	8.05	7.9
16 27 2	7	7	9.3	9.30	9.3
16 30 1/2 5	8	8	8.7	8.65	8.6
16 38 10	9	9	7.7	7.80	7.9
16 44 2	10	10	9.3	9.25	9.2
16 47 1/2 5	11	11	8.7	8.65	8.6
16 55 10	12	12	7.9	7.85	7.8
17 3 1/2 7	13	13	9.4	9.35	9.3

1	8.5	8.55	8.6	-1.53
2	7.7	7.65	7.6	-0.65 7.00 ⁰² -0.63
3	7.8	7.75	7.7	-0.63 7.12 ¹⁴ -0.73
4	8.3	8.25	8.4	-1.23
5	8.8	8.80	8.8	-1.78
6	7.7	7.70	7.7	-0.68
7	8.8	9.00	9.2	-1.98
8	8.2	8.30	8.4	-1.28
9	7.3	7.50	7.7	-0.68 6.82 ¹⁶ -0.48
10	8.9	9.05	9.2	-2.03
11	8.5	8.50	8.5	-1.48
12	7.6	7.65	7.7	-0.65 7.00 ⁰² -0.63
13	8.9	9.10	9.3	-2.08

3.94

6.98 Mean

Polar Exposure

Star no.	Diff. Sc 2	Sc	Diff.
5	7.3	7.25	7.2 -0.76
8	8.6	8.65	8.7 -0.42
9	9.3	9.30	9.3 -0.47

Wednesday May 28, 1919

121

Vesta - Exps. numbered fall. to prel.

See M.D.A. 5:30

Scale M 2771135 - continued.

Star "b"					Star "c"				
Star "b"		Star "c"		Diff. Im	Star "b"		Star "c"		Diff. Im
Exp. No.	g	h	g		Exp. No.	g	h	g	
1	8.4	8.35	8.3	-1.52	1	8.2	8.00	7.8	-1.43
2	7.4	7.50	7.6	-0.68 6.82 ⁰⁶ -0.67	2	6.9	7.15	7.4	-0.74 6.41 ²³ -0.58
3	7.4	7.50	7.6	-0.68 6.82 ⁰⁶ -0.67	3	6.9	7.15	7.4	-0.74 6.41 ²³ -0.58
4	7.8	8.05	8.3	-1.22	4	7.7	7.95	8.2	-1.48
5	8.6	8.75	8.9	-1.92	5	8.2	8.40	8.6	-1.83
6	7.6	7.60	7.6	-0.77	6	7.4	7.50	7.6	-0.93
7	8.9	8.90	8.9	-2.07	7	8.4	8.55	8.9	-2.08
8	8.2	8.35	8.5	-1.52	8	7.7	7.95	8.2	-1.48
9	7.5	7.55	7.6	-0.67 6.88 ⁰⁰ -0.72	9	7.4	7.55	7.7	-0.67 6.88 ²⁴ -0.98
10	8.9	8.90	8.9	-2.07	10	8.6	8.75	8.9	-2.18
11	8.4	8.15	7.9	-1.32	11	7.7	7.95	8.2	-1.48
12	7.6	7.65	7.7	-0.66 7.00 ¹² -0.82	12	7.4	7.55	7.7	-0.67 6.88 ²⁴ -0.98
13	8.9	8.90	8.9	-2.07	13	8.9	8.90	8.9	-2.43
				3.52 6.88 mean					2.58 6.64 mean

3.45

122

3.45

Wednesday May 28-1919

H.A. 0.28 W Alt. Con.
Dec. -11.2 -10Vesta - Lopp numbered fall to pres.
Plate slightly fogged

Scale m.

MF 1220 - Nov. 3, 1917 - Comp. stars see cover

MF 1134

gm. 9. mid. mid.	Diff. Lm.	Vesta			Diff. Lm.	Star "a"			Cu. mag.	Diff.
		g	h	h		g	h	h		
13 49 1/2	1	7	7	7	1	7	7	7		
13 55	10	8.6	8.55	8.5	2	7.8	7.80	7.8	-1.31	6.49 ³⁸ -1.23
14 05	10	8.5	8.50	8.5	3	7.9	7.90	7.9	-1.30	6.60 ²⁷ -1.33
14 12 1/2	5	8.9	9.00	9.1	4	8.6	8.60	8.6		-2.03
14 16	2	7	7	7	5	9.1	9.20	9.3		-2.63
14 21 1/2	9	8.7	8.70	8.7	6	7.7	8.30	8.4, 8.2		-1.73
14 27	2	7	7	7	7	7		9.5		-2.93
14 30 1/2	5	8.9	8.90	8.9	8	8.6	8.60	8.6		-2.03
14 38	10	8.7	8.75	8.8	9	8.3	8.35	8.4	-1.26	7.09 ²² -1.78
14 44	2	7	7	7	10	7		7		
14 47 1/2	5	8.7	9.1	9.15	11	8.7	8.75	8.8		-2.18
14 55	10	8.7	8.65	8.6	12	8.5	8.55	8.6	-1.24	7.81 ⁴⁴ -1.98
15 0 1/2	1	7	7	7	13	7		7		

34.9
6.87 mean
6.87

Palare Exposure

Star no.	g	h	h	Diff.
5	7.8	7.80	7.8	-1.31
8	7.8	9.40	9.5	-1.17
9	7	7	7	

Wednesday May 28, 1919

123

Uta - Eup numbered foll & pres

See M.D.A. 5:31

Locality M.F. 1220 - continued

Star "b"				Star "c"			
ser	ser			ser	ser		
g	h			g	h		
Diff				Diff			
Eup No.				Eup No.			
1	7	7		1	7	7	
2	8.3	8.40	8.5	2	8.6	8.50	8.4
3	8.3	8.35	8.4	3	8.4	8.45	8.5
4	8.8	8.80	8.8	4	8.8	8.80	8.8
5	9.5	9.45	9.4	5	9.5	9.40	9.3
6	8.2	8.40	8.6	6	8.5	8.50	8.5
7	9.5	9.50	9.5	7	9.4	9.45	9.5
8	8.6	8.70	8.8	8	8.8	8.80	8.8
9	8.4	8.45	8.5	9	8.5	8.60	8.7
10	9.6	9.50	9.4	10	9.5	9.50	9.5
11	8.8	8.80	8.8	11	8.9	8.90	8.9
12	7.7	8.00	8.3	12	8.7	8.65	8.6
13	7	7		13	7	7	

H.10
L.2 H.

124

Saturday May 31, 1919
Cephei for Asteroids.

12:45Bellona

✓ Q 39651 May 19, 1919

Not found -

Spent about 45 min.

superposing on Q 17030
the other day.

The position for this
 plate was extrapolated
 about two weeks, and
 in addition the asteroid
 has been growing fainter.

1:00Chaldea.

✓ Q 39652 } May 19, 1919
 ✓ Q 39653 }

Super. on Q 17567 not
 found - probably faint.

1:20Parthenope

✓ MC 15920 May 19, 1919

Found by super. on
 MC 14771.

1:35

Monday June 9, 1919

12:20

Legoria (1916) For mags. of comp. stars.
Comp. star plate is MP 313
measured for mag of asteroid in
P. 4:193-205

Scale 71AC 16956

<u>Comp. Stars</u>			<u>From 92 K.</u>		<u>From Carte.</u>	
<u>LC</u>	<u>LC</u>	<u>Mean</u>	<u>Cv.</u>	<u>Mag.</u>	<u>Cv.</u>	<u>Mag.</u>
a	8.6	8.5	8.55	2.18	1.83	10.38
b	8.8	8.8	8.80	2.22	1.92	10.72
c	9.5	9.6	9.55	2.34	2.34	11.89

<u>LC</u>	<u>92 K</u>	<u>LC</u>	<u>Mags used are in Bk 7:95</u>	
4	7.7	7.8	7.75	2.17
5	8.5	8.6	8.55	2.11
6	8.9	8.7	8.80	2.21
7	8.9	9.1	9.00	2.45
8	9.4 9.4 (faint)	9.5	9.45	2.17
9	9.7	9.6	9.65	2.40

<u>LC</u>	<u>LC</u>	<u>LC</u>	<u>Diff</u>	<u>Carte 1^h 00^m - 2.5 - mags. used are in Bk 32: 122</u>	
4	8.5	8.4	8.45	1.75	
5	8.7	8.7	8.70	1.92	
6	8.9	8.9	8.90	1.92	
7	9.4	9.2	9.30	2.12	
8	9.7	9.8	9.75	2.51	
9	9.8	9.9	9.85	2.41	

12:35

126

Monday June 9, 1919

1:50

Egeria (1916) Tow Maps of Comp. Stars
See note top of p. 125.

Scale 77

Adm 12667

<u>Comp. Stars</u>			<u>From 92K</u>		<u>From Carte</u>		
	<u>Sc</u> C	<u>Sc C</u>	<u>Mean</u>	<u>Cu.</u>	<u>Mag.</u>	<u>Cu.</u>	<u>Mag.</u>
a	8.6	8.7	8.65	2.18	10.83	1.95	10.60
b	9.3	9.0	9.15	2.12	11.27	2.24	11.39
c	9.9	9.9	9.90	2.09	11.99	2.54	12.44

<u>92K & C</u>			<u>Diff.</u>
4	7.5 7.9	7.6	7.55 2.37
5	.	8.6	8.60 2.06
6	.	8.9	8.90 2.11
7	.	9.2	9.20 2.25
8	9.6	9.6	9.60 2.02
9	.	9.9	9.90 2.15

<u>Carte 1st - 2.5</u>			<u>Diff.</u>
<u>Sc</u>	<u>C</u>	<u>Mean</u>	
4	8.4	8.5	8.45 1.75
5	8.7	8.6	8.65 1.97
6	8.8	8.7	8.75 2.07
7	9.2	9.1	9.15 2.27
8	9.7	9.8	9.75 2.51
9	9.8	9.9	9.85 2.41

2:05

Monday June 9, 1919

2:05Egeria (1916) For Magns of Comp stars
See note p. 125Scale 7AC 19381

<u>Comp Stars.</u>			<u>From 92K Mag.</u>		<u>From Carte</u>	
<u>ScC</u>	<u>ScC</u>	<u>Mean</u>	<u>Cu.</u>		<u>Cu.</u>	<u>Mag.</u>
a 8.7	8.6	8.65	2.37	11.02	2.04	10.69
b 8.8	8.8	8.80	2.34	11.14	2.08	10.88 11
c 9.7	9.8	9.75	2.25	12.00	2.37	12.12

<u>Sc 92K Sc</u>			<u>Diff.</u>
4 ^{7.2} 7.6	7.3	7.25	2.67
5 .	8.5		2.16
6 .	8.6		2.41
7 .	8.9		2.55
8 .	9.5		2.12
9 .	9.8		2.25

Carte 1h -2.5

<u>ScC</u>	<u>ScC</u>		<u>Diff.</u>
4 8.2	8.3	8.25	1.95
5 8.6	8.6	8.60	2.02
6 8.8	8.7	8.75	2.07
7 9.3	9.2	9.25	2.17
8 9.7	9.8	9.75	2.51
9 9.9	9.9	9.90	2.36

2:25

128

Monday June 9, 1919

2:25

Egeria (1916) For Maps of Comp. Stars.
See note #125Scale NRM 13658

<u>Comp. Stars.</u>			<u>From</u> <u>92K.</u>		<u>From</u> <u>Carte</u>		
<u>h.c.</u>	<u>h.c.</u>	<u>mean.</u>	<u>Cu.</u>	<u>Mag.</u>	<u>Cu.</u>	<u>Mag.</u>	
a	8.8	8.8	8.80	2.18	10.98	1.98	10.73
b	9.3	9.2	9.25	2.17	11.42	2.02	11.27
c	9.9	9.9	9.90	2.18	12.08	2.16	12.06

<u>1892 K. h.c.</u>		<u>Diff.</u>	
<u>h.c.</u>	<u>h.c.</u>		
4	7.9	7.55	2.37
5	8.7		1.96
6	8.8		2.21
7	9.3		2.15
8	9.5		2.12
9	9.8		2.25

<u>Carte 1^h -2.5</u>		<u>Diff.</u>	
<u>h.c.</u>	<u>h.c.</u>		
4	8.4	8.40	1.80
5	8.7	8.70	1.92
6	8.8	8.80	2.02
7	9.6	9.55	1.87
8	9.8	9.85	2.41
9	f	f	

2:40

Monday June 9, 1919

Kalliope (1916) For mag. of Comp. Stars.
 Comp. star plate in MF 320
 meas. for mag. of asteroid are
 in P. 4: 181-192.

2:40

Scale 7AM 11452.Comp. Stars

	<u>Sc C</u>	<u>Sc C</u>		<u>Cu.</u>	<u>Mag.</u>
a	7.9	8.1	8.00	1.96	9.96
b	8.6	8.6	8.60	2.10	10.70
c	8.8	8.9	8.85	2.16	11.01

mag. used are the Weighted means
 adopted Jan. 27, 1917 see Pk 7:120

117 K

				<u>Diff.</u>
4	8.3	8.5	8.40	2.00
5	8.8	8.7	8.75	2.20
6	9.5	9.5	9.50	2.24
7	9.8	9.7	9.75	2.39

AM 13578Comp. Stars

	<u>Sc C</u>	<u>Sc C</u>		<u>Cu.</u>	<u>Mag.</u>
a	8.0	7.9	7.95	1.97	9.92
b	8.5	8.4	8.45	2.03	10.48
c	8.9	8.8	8.85	2.10	10.95

117 K

				<u>Diff.</u>
4	8.3	8.4	8.35	2.05
5	8.8	8.9	8.85	2.10
6	9.5	9.4	9.45	2.29
7	9.8	9.8	9.80	2.34

2:55

130

2:55

Scale M

Monday June 9, 1919

Kalliope (1916) For Traps. of Comp. Stars.
See Note p. 129

MC Series 855

MC 13803 - Pole

Primary.				Diff. Stars				
①	Sc 1	Sc 2	mean ①+②	Diff.	q (Sc 2)	h (Sc 2)	mean ①+②	Diff.
11	4.9	4.85	4.78	4.77	8.8	8.80	8.8	8.78 0.77
12	5.1	5.15	5.08	4.78	8.9	8.90	8.9	8.88 0.98
13	5.8	5.85	5.78	4.52	9.4	9.45	9.5	9.55 0.75
14	6.1	6.05	5.92	4.73	9.8	9.75	9.7	9.82 0.83
15	6.9	6.85	6.80	4.28	.	.	.	.
16	7.0	6.95	6.95	4.45	.	.	.	.
17	.	7.6	7.55	4.08	.	.	.	.
18	.	7.7	7.70	4.36	.	.	.	.

Alt. Corr - 0.04 MC 13804 0h 50m - 7.05

Prim.		Cu. mag.		Diff. Stars		Cu. mag.	
a	5.8	5.95	5.9	4.60	10.55	9.5	9.65 9.8 0.83 10.48
b	6.1	6.10	6.1	4.57	10.67	9.8	9.90 10.0 0.80 10.70
c	6.6	6.80	6.8	4.42	11.22	n.a.	n.a.

MC 13809 - Pole

Primary				Diff. Star		
(2)						
11	4.7 4.5	4.70	4.7	8.7	8.75	8.8
12	5.1 4.9	5.00	4.9	8.8	8.85	8.9
13	5.7 5.5	5.70	5.7	9.6	9.65	9.7
14	5.8 5.6	5.80	5.8	9.9	9.90	9.9
15	6.8 6.6	6.75	6.7			
16	7.0 6.8	6.95	6.9			
17		7.5				
18		7.7				

3:20

Monday June 9, 1919
Exam. for Asteroids.

4:15

David.

✓ MC 15921 May 19, 1919
 ✓ MC 15922 May 19, 1919
 ✓ MC 15923 May 23, 1919

Found by super. MC 15921 on
 MC 15923.

Cursory exam. Shows no variation.

4:35

4:45

Chaldea.

✓ MC 15924 May 23, 1919
 ✓ 15925 May 23, 1919

Plates slightly out in
 Dec. + R.A.

Not found - Super. on
 MC 15745

5:10

132

Thursday June 12, 1919

Lactitia (1916) For mags. of comp. stars.
 Comp. star plate is D392.69
 meas. for mag. of asteroid in
 R. 5:31-40.

2:05

Scale 71

AC 10520.

Comp Stars

	Sc C	Sc C	Cu. Mag.
--	------	------	----------

a	7.8	7.9	7.85 1.67 9.72
b	8.9	9.2	9.05 1.57 10.62
c	8.8	8.9	8.85 1.53 10.38

Comp. stars for Nysa
 Comp. star plate is
 MF694

meas. for mag. of Nysa
 in R 5:72-75

Carte 12^h +5.0

	Sc C	Sc C	Diff.
3	7.6	7.5	7.55 1.66
4	7.8	7.9	7.85 1.93
5	8.7	8.8	8.75 1.93
6	9.4	9.3	9.35 1.44
7	9.8	9.8	9.80 1.21
8	p.	p.	.

	Sc C	Sc C	Cu. Mag.
a	8.6	8.55 8.5	1.71 10.26
b	8.8	8.80 8.8	1.64 10.44
c	9.5	9.40 9.3	1.43 10.83

AC 18509

Comp Stars.

	Sc C	Sc C	Cu. Mag.
--	------	------	----------

a	7.6	7.7	7.65 2.36 10.81
b	8.6	8.7	8.65 2.13 10.78
c	8.7	8.7	8.70 2.11 10.81

Comp. Stars for Nysa

	Sc C	Sc C	Cu. Mag.
a	7.9	7.90 7.9	2.30 10.20
b	8.5	8.50 8.5	2.00 10.50
c	8.9	8.90 8.9	2.08 10.98

Carte 12^h +5.0

	Sc C	Sc C	Diff.
3	6.7	6.7	6.70 2.51
4	7.3	7.4	7.35 2.43
5	8.5	8.6	8.55 2.13
6	8.6	8.8	8.70 2.09
7	8.8	9.2	9.00 2.01
8	9.6	9.6	9.60 2.05

2:35

Thursday June 12, 1919
 Lactitia (1916) Far mags. of comp. stars.
 See note p. 132

2:35

Scale 7

AC 19611

Comp. Stars.

	<u>Sc</u>	<u>C</u>	<u>Sc</u>	<u>C</u>	<u>Cu.</u>	<u>Mag.</u>
a	7.6	7.60	7.6	2.35	9.95	
b	8.6	8.65	8.7	2.11	10.76	
c	8.8	8.80	8.8	2.10	10.90	

Carte 12^h +5.0

	<u>Sc</u>	<u>C</u>	<u>Sc</u>	<u>C</u>	<u>Diff</u>
3	6.	7.6	7.5	6.8	2.46
4	7.	3	7.35	7.4	2.49
5	8.6	8.60	8.6		2.08
6	8.8	8.80	8.8		1.99
7	8.8	8.85	8.9		2.16
8	9.6	9.60	9.6		2.05

AC 19819

Comp. Stars.

	<u>Sc</u>	<u>Sc</u>	<u>Cu.</u>	<u>Mag.</u>
a	6.8	6.75	6.7	2.57 9.32
b	8.5	8.40	8.3	2.23 10.63
c	8.6	8.60	8.6	2.20 10.80

Carte 12^h +5.0

	<u>Sc</u>	<u>C</u>	<u>Sc</u>	<u>C</u>	<u>Diff</u>
3	6.8	6.75	6.6	2.51	
4	7.2	7.15	7.1	2.63	
5	8.4	8.45	8.5	2.23	
6	8.6	8.65	8.7	2.14	
7	8.9	8.90	8.9	2.11	
8	9.4	9.40	9.4	2.25	

2:55

134

2:55Scale 7

Thursday June 12, 1919

Nysa - (1917) For image of Comp. stars.
 Comp. star plate is mf 694
 measures for mag. of asteroid in
 R5: 72-75

Comp. stars measured also with Cart.
 region See P. 132.

AC 19718.Comp Stars

	<u>Ac</u>	<u>cc</u>	<u>Cc</u>	<u>mag.</u>
a	7.5	7.50	7.5	2.43 9.93
b	8.3	8.25	8.2	2.33 10.58
c	8.9	8.90	8.9	2.27 11.17

9 Virginis mags. from Bk. 9:132.

	<u>ac</u>	<u>cc</u>	<u>C</u>	<u>Diff.</u>
w	7.3	7.20	7.1	2.54
o	8.1	7.95	7.8	2.22
p	8.6	8.60	8.6	2.25
q	9.2	9.15	9.1	1.97
r	8.9	8.90	8.9	2.38
s	8.9	8.90	8.9	2.98
t	9.7	9.70	9.7	2.23

3:05

Thursday June 12, 1919

Mysa (1917) see P. 132 + 134

3:05

Scale NQC 212 19Comp. stars

	<u>sc</u>	<u>sc</u>	<u>cu.</u>	<u>mag.</u>
Q	8.7	8.65	8.6	1.64 10.29
A	8.8	8.75	8.7	1.67 10.42
C	9.5	9.50	9.5	1.78 11.28

R Virginis

mags. from Bk. 9:132

	<u>sc</u>	<u>sc</u>	<u>Diff.</u>
n	7.9	8.00	8.1 1.74
o	8.6	8.65	8.7 1.52
p	9.3	9.25	9.2 1.60
q	9.6	9.65	9.7 1.47
r	9.4	9.45	9.5 1.83
s	9.6	9.60	9.6 2.28
t	9.9	9.90	9.9 2.03

3:10

136

11:50

Scale N.

Tuesday June 17, 1919

Nemaura (1916) For mag. of Comp. Stars.
 Comp. star plate is J 39214.
 meas. for mag. of asteroid in
 R. 5: 41-51

AM 10420Comp. Stars

	<u>Sc B</u>	<u>Sc C</u>	<u>Cu.</u>	<u>Mag.</u>
a	6.4 6.8	6.5 6.5	6.45 2.33	8.78
f	7.7	7.4	7.35 2.31	9.66
c	.	8.4	8.40 2.33	10.73

Carte 9^h - 2.5

	<u>Sc B</u>	<u>Sc C</u>	<u>Cu.</u>	<u>Diff.</u>	<u>Mag. used in Bk. 32:126</u>
1	5.6 5.2	5.3	5.25	2.46	
2	6.4	6.4	6.40	2.23	
3	6.8	6.8	6.80	2.36	
4	Too close to another star.				.
5	.	8.1	8.10	2.27	
6	.	8.7	8.70	2.43	

AM 13839Comp. Stars

	<u>Sc B</u>	<u>Sc C</u>	<u>Cu.</u>	<u>Mag.</u>
a	7.0 7.4	6.9	6.95 2.50	9.45
b	7.5	7.8	7.65 2.30	9.95
c	8.	8.7	8.70 1.93	10.63

Carte 9^h - 2.5

	<u>Sc B</u>	<u>Sc C</u>	<u>Cu.</u>	<u>Diff.</u>
1	5.3 4.9	4.8	4.85	2.86
2	6.0	5.9	5.95	2.68
3	6.2	6.4	6.30	2.86
4	.	.	.	.
5	8.5	8.5	8.50	1.87
6	8.	9.3	9.30	1.83

12:05

Tuesday June 17, 1919

Damausa (1916) see Note p 136.

12:05

Scale $\frac{m}{x}$

AC 18591

Comp. Stars

	Sc 1	Sc 2	Cu.	Mag.
a	^{6.6} 5.6 6.4	6.6	6.60 1.67	8.27
b		7.5	7.50 2.00	9.50
c		7.9	7.90 2.15	10.05

Carte 9^h + 10.5

	Sc 1	Sc 2	Diff.
1	^{6.7} 6.5	6.6	6.65 1.71
2	^{7.0} 6.8	7.1	7.05 1.75
3		7.6	2.03
4		7.8	1.86
5		7.6	2.42
6		8.6	2.35
7		8.7	2.65

AC 19777

Comp. Stars

	Sc 1	Sc 2	Cu.	Mag.
a	^{6.1} 5.9	6.2	6.15 2.17	8.32
b	^{7.1} 6.9	6.9	7.00 2.24	9.24
c		7.8	7.80 2.35	10.15

Carte 9^h + 10.5

	Sc 1	Sc 2	Diff.
1	^{6.1} 5.9	5.9	6.00 2.36
2	^{6.8} 6.6	6.8	6.80 2.00
3	^{7.1} 6.9	7.4	7.25 2.38
4		7.5	2.16
5		7.6	2.42
6		8.5	2.40
7		8.7	2.65

12:20

Wednesday June 18, 1919

Klio (1916) For mags. of comp. stars,
comp. star plate is MF 261
mags. for mags. of asteroid in
P. 4: 206-212.

Scale in mags. 429

MC 13406 - Pole.

	Sc1	Sc2	mean ①	mean ①+②	Diff.
12	5.1 4.9	5.3	5.20	5.10	4.76
13	5.6 5.9	6.1	6.10	5.98	4.32
14	6.6 6.4	6.5	6.55	6.42	4.23
15	7.0 6.8	6.9	6.95	6.88	4.20
16	.	7.6	7.60	7.38	4.02
17	.	7.8	7.80	7.70	3.93
18	.	7.9	7.90	7.90	4.16

alt. corr. +0.18 MC 13410 - Klio no diff. in mags. for comp. stars.

	Sc1	Sc2	Cu.	mag.
a	5.9	6.1	6.10	4.34
b	.	7.8	7.80	4.01
c	.	8.1	8.10	3.98

MC 13411 - Pole.

	Sc1	Sc2	mean ②
12	5.1 4.9	4.9	5.00
13	5.9 5.9	5.8	5.85
14	6.4 6.4	6.2	6.30
15	6.9 6.7	6.7	6.80
16	7.6 7.6	7.2	7.15
17	.	7.6	7.60
18	.	7.9	7.90

Wednesday June 18, 1919
 Klio (1916) see note 8138.

Scale m

MC Series 876.

MC 14108 - Pole

	<u>Sc 1</u>	<u>Sc 2</u>	<u>mean</u>	<u>mean</u> <u>of</u> <u>(1 & 2)</u>	<u>Diff.</u>
12	4.9 4.7	4.6	4.75	4.72	5.14
13	5.7 5.5	5.5	5.60	5.38	4.92
14	5.7 5.5	5.6	5.65	5.70	4.95
15	6.7 6.5	6.6	6.65	6.38	4.70
16	6.8 6.6	6.5	6.65	6.68	4.72
17	7.1 6.9	7.2	7.15	7.18	4.48 ⁵
18	.	7.9	7.90	7.85	4.21

act. corr. +0.18 MC 14112 - Klio 210 diff. from comp stars.

Comp. Stars.

	<u>Sc 1</u>	<u>Sc 2</u>	<u>mean</u>	<u>cu. mag.</u>
a	5.8 5.6	5.7	5.75	4.87 10.62
b	6.7 6.7	7.3	7.20	4.45 11.65
c	.	7.9	7.90	4.20 12.10

MC 14113 - Pole

	<u>Sc 1</u>	<u>Sc 2</u>	<u>mean</u>
12	4.7 4.5	4.7	4.70
13	5.1 4.9	5.2	5.15
14	5.8 5.6	5.7	5.75
15	6.1 5.9	6.2	6.15
16	6.7 6.5	6.7	6.70
17	7.1 6.9	7.3	7.20
18	.	7.8	7.80

Thursday June 19, 1919

Suleika (1916) For mags. of Comp. stars.
 Comp. star plate is MF 346.
 Meas. for mag. of asteroid in
 R. 4:173-179.

Scale m

MC Series 880

MC 14160 - Pole

	Sc 1	Sc 2	Mean	Diff.		Diff. Sc 1	h	Mean	Diff.
	3.1	mean	0+2			①		②	
10	2.9	3.10 B	3.10	5.92	7.7	7.75	7.8	7.75	1.27
11	3.9	3.90 B	4.00	5.55	8.6	8.45	8.3	8.42	1.13
12	4.1	4.10 B	4.18	5.68	8.7	8.65	8.6	8.62	1.24
13	4.9	4.85 4.8	4.85	5.45	8.8	8.80	8.8	8.75	1.55
14	5.3	5.40 5.5	5.50	5.15	8.9	9.05	9.2	9.20	1.45
15	6.0	5.85 5.7	5.90	5.18	9.4	9.50	9.6	9.48	1.60
16	6.1	6.20 6.3	6.18	5.22	9.7	9.75	9.8	9.68	1.72
17	6.9	6.80 6.7	6.88	4.75	9.8	9.85	9.9	9.85	1.78
18	7.0	7.10 7.2	7.12	4.94					

alt. Corr. +0.14

MC 14161 - Comp stars

	Sc 1	Sc 2	Cur	Mag.		Diff. Sc 1	h	Cur	Mag.
a	4.3	4.40 4.5	5.55	9.95	8.6	8.65	8.7	1.30	9.95
b	5.1	5.10 5.1	5.37	10.47	9.2	9.30	9.4	1.54	10.84
c	6.9	6.90 6.9	4.90	11.80	n.a.		n.a.		

MC 14160 - Pole

(Second pole plate
 MC 14165 out of focus)

	Sc 1	Sc 2		Diff. Sc 1	h
	②			②	
10	3.1	3.10 B		7.8	7.75 7.7
11	4.1	4.10 B		8.4	8.40 8.4
12	4.1	4.25 4.4		8.6	8.60 8.6
13	4.8	4.85 4.9		8.7	8.70 8.7
14	5.6	5.60 5.6		9.3	9.35 9.4
15	6.0	5.95 5.9		9.5	9.45 9.4
16	6.1	6.15 6.2		9.6	9.60 9.6
17	7.0	6.95 6.9			
18	7.1	7.15 7.2			

Saturday June 21, 1919

1914 VB (1916) Tow mag. of comp. stars
comp. star plate is mf 170
mess. for mag. of asteroid in

Scale m

MC Series 823

R# 5:10-19.

MC 13339 - Pale

	Sc 1	Sc 2	Mean	Diff
10	3.9	3.90	4.10	4.92
11	4.8	4.80	4.98	4.57
12	5.5	5.50	5.48	4.38
13	5.6	6.00	5.98	4.32
14	6.7	6.70	6.68	4.03
15	6.7	7.00	6.98	4.10
16	.	7.2	7.30	4.10
17	.	7.6	7.65	3.98
18	.	7.8	7.85	4.21

Alt. Corr. +0.11 MC 13342 - Comp. stars - Diff. in. to faint.

	Sc 1	Sc 2	Cu.	Mag.
a	5.6	5.50	4.44	9.94
b	6.4	6.45	4.17	10.62
c	6.8	6.85	4.10	10.95

MC 13345 - Pale.

	Sc 1	Sc 2	@
10	4.3	.	4.30
11	5.1	5.2	5.15
12	5.4	5.5	5.45
13	5.8	5.9	5.95
14	6.5	6.6	6.55
15	7.0	6.9	6.95
16	.	7.4	7.40
17	.	7.7	7.70
18	.	7.9	7.90

MC Series 825

Scale in mc Series 825 See note P. 141.

MC13357 - Pale

La 4.0 ① La 2 Years Diff.
① ②

10	3.8	4.00	3.90	5.12
----	-----	------	------	------

11 ^{5.0} 4.8, 4.95 4.9 4.92 4.63

12 4.9⁵¹ 5.15 5.2 5.22 4.64

13 5.6^{3.8} 5.75 5.7 5.75 4.55

14 ^{6.6} 6.4 6.55 6.5 6.28 4.37

15 6.6 6.80 6.8 6.80 1.2.4

16 6.9 700 6.9 6.95 4 4 5

17	7.5	75548	0.0
----	-----	-------	-----

1.8	7.9	790	4.1
-----	-----	-----	-----

Alt. Corr. +0.11 M C 13360 - Comp stars - Diff. line too faint.

Se1 Se2 Cu Mag.

a 4.9^{0.1} 5.15 5.2 ✓ 4.65 9.80

b $5\frac{6}{8}$ 6.15 6.2 4.42 10.57

c 6.6 6.75 6.7 4.31 11.06

MC 13362 - File

Sc 1, 2, 3

10 $\overline{3.6}^{38}$ 3.80

1) $\overset{5.0}{4.8} \quad 4.90 \quad 4.8$

12 $\begin{array}{r} 5.3 \\ 5.3 \\ \hline 5305.3 \end{array}$

13 ^{5.8} 5.6 5.75 5.7

14 5.^{6.1}9 6.00 5.¹9

6.9
6.7 6.80 6.7

16 6.8 6.9 6.8

17 76

1.5 7.0

Tuesday June 24, 1919.

143

Exam. for Asteroids.

Alceste MC 14758 ^{app. 5.1918} - Found + marked by ✓
super. on MC 14757 ✓

Thursday June 26, 1919
Exam. for Asteroids.

Cybele -

MC

15926

May 25, 1919

✓

15927

May 25, 1919

✓

15933

May 30, 1919

✓

15966

June 19, 1919

✓

15967

June 19, 1919

✓

~~Comment~~ Not found by
 super. on MC 10878.
 Asteroid probably
 faint. Visual mag.
 given as 10.4

Friday July 4, 1919.
 Exam. for Asteroids.

Parthenope

✓ MC 15930 May 27, 1919
 ✓ 15931 May 27, 1919 - cannot
 identify plate
 not found
 Super. MC 15930 on 15920

Pomona

✓ MC 15932 May 30, 1919

not found by trial.
 no suitable plate available
 for super.

Saturday Aug. 2, 1919.

Kalliope - Re-measure - see also RH:181-192

Scale m

MF 320 - Nov. 15, 1916 - Epps numbered as marked on plate.

Eff.	Sc 2	Sc 2	Cu.	mag.
1	9.2	9.15	9.1	1.57 10.72
2	n.a.			
3	9.5	9.45	9.4	1.32 10.77
4	8.8	8.75	8.7	1.77 10.52
5	8.8	8.70	8.6	1.64 10.34
6	9.2	9.30	9.4	0.97 10.27
7	n.a.			2.62
8	n.a.			

Mean mag. 10.52 20" 25.00 18.25 " "

Star "a"	Sc 2	Sc 2	Diff.
1	8.6	8.60	8.6 1.34
2			
3	8.8	8.80	8.8 1.14
4	8.5	8.50	8.5 1.44
5	8.6	8.55	8.5 1.39
6	9.1	9.10	9.1 0.84
7			
8			

Star "c"	Sc 2	Sc 2	Diff.
1	9.5	9.50	9.5 1.58
2			
3	9.7	9.75	9.8 1.33
4	9.2	9.20	9.2 1.88
5	9.3	9.30	9.3 1.78
6	9.8	9.80	9.8 1.28
7			
8			

Star "d"	Sc 2	Sc 2	Diff.
1	8.9	8.90	8.9 1.72
2			
3	9.1	9.15	9.2 1.47
4	8.7	8.65	8.6 1.97
5	8.8	8.75	8.7 1.87
6	9.5	9.55	9.6 1.07
7			
8			

pp146-151
Reduced by M.D.L.
Nov. 25, 1919

Saturday Aug. 2, 1919

Kalliope - Re-measures - See also P. 4:181-192

Scale M. 321 - Nov. 18, 1916 - Exps. numbered as marked on plate.

Exp. No.	<u>Kalliope</u>					Exp. No.	<u>Star "b"</u>				
	Sc 2	Sc 2	Cur.	Mag.			Sc 2	Sc 2	Diff.		
1	8.7	8.65	8.6	1.92	10.57	1	8.6	8.60	8.6	2.02	
2	.	.	.	.	.	2	.	.	.	.	.
3	9.1	9.10	9.1	1.46	10.56	3	8.9	8.90	8.9	1.72	
4	8.6	8.65	8.5	2.20	10.75	4	8.4	8.45	8.5	2.17	
5	8.7	8.65	8.6	2.23	10.88	5	8.4	8.45	8.5	2.17	
6	8.9	8.90	8.9	1.56	10.46	6	8.9	8.90	8.9	1.72	
7	.	.	.	.	.	7	.	.	.	.	.
8	8.5	8.50	8.5	2.25	10.75	8	8.4	8.50	8.6	2.12	
9	9.3	9.30	9.3	1.72	11.02	9	8.9	8.90	8.9	1.72	
10	.	.	.	mean mag. 10.71	4.99	10	.	.	.	.	.

<u>Star "a"</u>					<u>Star "c"</u>				
Sc 2	Sc 2	Diff.			Sc 2	Sc 2	Diff.		
1	8.2	8.15	8.1	1.79	1	9.2	9.15	9.1	1.93
2	.	.	.	.	2	.	.	.	.
3	8.7	8.75	8.8	1.19	3	9.7	9.65	9.6	1.43
4	7.9	7.90	7.9	2.04	4	8.8	8.80	8.8	2.28
5	7.9	7.90	7.9	2.04	5	8.8	8.80	8.8	2.28
6	8.7	8.70	8.7	1.24	6	9.3	9.25	9.2	1.83
7	9.4	9.4	.	0.54	7	.	.	.	.
8	7.9	7.95	8.0	1.99	8	8.7	8.65	8.6	2.43
9	8.7	8.75	8.8	1.19	9	9.4	9.35	9.3	1.73
10	.	.	.	.	10	.	.	.	.

Monday Aug. 4, 1919

Kalliope - Pezencures - See also P. 4:181-192

Scale M

MF 322 - Nov. 18, 1916 - Exps. numbered as marked on plate.

Exps. no.	Kalliope			Diff.	Cu.	Mag.	Exps. no.	Star "b"			Diff.
	Sc 2	Sc 2	Sc 2					Sc 2	Sc 2	Sc 2	
1	.	.	.				1	.	.	.	
2	8.8	8.75	8.7	1.19	.	.	2	8.6	8.60	8.6	2.02 1.94
3	9.7	9.65	9.6	0.29	.	.	3	9.2	9.25	9.3	1.37 0.69
4	8.4	8.45	8.5	1.49	.	.	4	7.9	7.90	7.9	2.72 2.04
5	9.5	9.45	9.4	0.49	1.17	10.62	5	9.5	9.45	9.4	1.17 0.49
6	8.7	8.75	8.8	1.19	.	.	6	8.6	8.65	8.7	1.97 1.29
7	7.9	7.90	7.9	2.04	.	.	7	7.7	7.75	7.8	2.87 2.19
8	8.1	8.10	8.1	1.84	2.53	10.63	8	7.8	7.85	7.9	2.77 2.09
9	8.8	8.80	8.8	1.14	2.28	11.08	9	8.5	8.55	8.6	2.07 1.39
10	9.1	9.15	9.2	0.79	1.50	10.65	10	8.9	8.90	8.9	1.72 1.04
11	7.9	7.95	8.0	1.99	2.50	10.45	11	7.9	7.85	7.8	2.77
12	8.9	8.90	8.9	1.04	2.18	11.08	12	8.8	8.75	8.7	1.87
Star "a"						mean mag. 10.75 " " " " 12 12 33 10 20 33	Star "c"				
	Sc 2	Sc 2	Sc 2	Diff.				Sc 2	Sc 2	Sc 2	
1	.	.	.				1	.	.	.	
2	8.5	8.45	8.4	1.49			2	Plate expended			
3	9.2	9.05	8.9	0.89			3	Exps. 2-7 come on crack.			
4	7.7	7.75	7.8	2.19			4				
5	8.9	8.90	8.9	1.04			5				
6	8.4	8.30	8.2	1.64			6				
7	7.7	7.70	7.7	2.24			7				
8	7.6	7.65	7.7	2.29			8	8.6	8.65	8.5	2.53
9	8.2	8.20	8.2	1.74			9	8.9	8.80	8.7	2.28
10	8.8	8.85	8.9	1.09			10	9.6	9.50	9.4	1.58
11	7.7	7.75	7.8	2.19			11	8.6	8.55	8.5	2.53
12	8.6	8.65	8.7	1.29			12	8.9	8.90	8.9	2.18

Tuesday Aug. 5, 1919

Kalliope - Re-measures - See also P. 4:181-192

Scale 24

MF 323 - Apr. 18, 1916 - Eclipses numbered as marked on ^{plate}

Exp. No.	Kalliope				Exp. No.	Star "b"				
	Sc 2	Sc 2	cu.	Mag.		Sc 2	Sc 2	Diff.		
1	8.5	8.55	8.6	2.17	10.72	1	8.6	8.60	8.6	2.02
2	8.8	8.80	8.8	1.82	10.62	2	8.8	8.80	8.8	1.82
3	9.6	9.60	9.6	.	.	3	9.2	9.25	9.3	1.37
4	8.4	8.40	8.4	2.50	10.90	4	8.3	8.20	8.1	2.42
5	9.6	9.60	9.6	.	.	5	9.4	9.35	9.3	1.27
6	8.7	8.65	8.6	2.08	10.73	6	8.5	8.55	8.6	2.07
7	8.2	8.15	8.1	2.60	10.75	7	7.9	7.85	7.8	2.77
8	8.3	8.25	8.2	2.58	10.83	8	7.8	7.80	7.8	2.82
9	8.7	8.65	8.6	2.08	10.73	9	8.6	8.60	8.6	2.02
10	9.3	9.30	9.3	1.32	10.62	10	9.3	9.30	9.3	1.32
11	8.4	8.35	8.3	2.52	10.87	11	7.9	7.90	7.9	2.72

Star "a"

Mean mag. 10.75
0.2 1.3 " 1.5 " 0.2 0.8 0.2 1.2 1.2

	<u>Sc 2</u>	<u>Sc 2</u>	Diff.	
1	7.9	7.90	7.9	2.04
2	8.6	8.55	8.5	1.39
3	8.9	9.00	9.1	0.94
4	7.8	7.80	7.8	2.14
5	8.9	9.00	9.1	0.94
6	8.1	8.15	8.2	1.79
7	7.6	7.60	7.6	2.34
8	7.6	7.60	7.6	2.34
9	7.9	8.00	8.1	1.94
10	8.8	8.80	8.8	1.14
11	7.7	7.70	7.7	2.24

Star "c"

	<u>Sc 2</u>	<u>Sc 2</u>		
1	8.7	8.75	8.8	2.33
2	8.9	9.00	9.1	2.08
3	f.		f.	
4	8.5	8.50	8.5	2.58
5	f.		f.	
6	8.9	8.90	8.9	2.18
7	8.5	8.45	8.4	2.63
8	8.6	8.50	8.4	2.58
9	8.9	8.85	8.8	2.23
10	9.6	9.60	9.6	1.48
11	8.5	8.55	8.6	2.53

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Tuesday Aug 5, 1919
 Kalliope - Pe-measures - See also P. 4: 181-192

Scale M M.F. 324 - Nov. 18, 1916 - Elips. numbered as
 marked on plate

Elips. no.	Sc 2	Sc 2	Elips. no.	Sc 2	Sc 2	Elips. no.	Sc 2	Sc 2	Elips. no.	Sc 2	Sc 2
1			1			1			1		
2	8.9	8.90	2	8.8	8.75	2	8.8	8.75	2	8.7	8.7
3	9.8	9.80	3	9.5	9.40	3	9.5	9.40	3	9.3	9.3
4	8.6	8.60	4	8.3	8.10	4	8.3	8.10	4	7.9	7.9
5	8.9	8.90	5	8.7	8.65	5	8.7	8.65	5	8.6	8.6
6	9.7	9.75	6	9.5	9.35	6	9.5	9.35	6	9.2	9.2
7	8.7	8.65	7	7.9	7.90	7	7.9	7.90	7	7.9	7.9
8	9.8	9.85	8	9.2	9.05	8	9.2	9.05	8	8.9	8.9
9	8.8	8.80	9	8.7	8.55	9	8.7	8.55	9	8.4	8.4
10	8.4	8.35	10	7.9	7.80	10	7.9	7.80	10	7.7	7.7
11	8.5	8.45	11	7.9	7.85	11	7.9	7.85	11	7.8	7.8
12	8.8	8.85	12	8.4	8.35	12	8.4	8.35	12	8.3	8.3
13	9.7	9.70	13	8.9	8.85	13	8.9	8.85	13	8.8	8.8

Star "a"

mean mag. 10.87
 "40" 05 12 04 26 - 05 10 4 10 - 10

Sc 2	Sc 2	Diff.
1		
2	8.7	8.9
3	9.3	9.4
4	7.9	8.4
5	8.6	8.7
6	9.1	9.1
7	7.8	8.4
8	8.9	9.2
9	8.4	8.7
10	7.8	8.3
11	7.7	8.3
12	8.5	
13	8.8	

Star "c"

Sc 2	Sc 2	Diff.
1		
2	9.5	9.45
3	f.	f.
4	8.7	8.75
5	9.1	9.15
6	9.9	9.90
7	8.6	8.60
8	f.	f.
9	8.9	8.90
10	8.6	8.60
11	8.5	8.55
12	8.9	8.90
13	8.8	8.85

Tuesday Aug. 5, 1919
 Kalliope - Re-measures - See Also P4:181-192
 M F 325 - Nov. 18, 1916 - Expos. numbered as
 marked on plate.

Scale M

App. No.	Kalliope				Star "b"			
	Scr	Scr	Am. Diff.	Mag.	Scr	Scr	Diff.	
1	8.9	8.90	8.9	1.65	10.55	1	8.8 8.80	8.8 1.82
2	9.1	9.15	9.2	1.30	10.45	2	9.1 9.10	8.9 9.1 1.52
3	f	f	.	.	.	3	9.7 9.4	f. 0.92
4	8.6	8.65	8.7	2.15	10.80	4	8.5 8.50	8.4 8.5 2.12
5	9.1	9.00	8.9	1.69	10.69	5	8.9 8.90	8.7 8.9 1.72
6	f	f	.	.	.	6	9.4 9.35	9.1 9.3 1.27
7	8.8	8.75	8.7	2.43	11.18	7	8.3 8.30	8.4 8.3 2.32
8	9.8	9.80	9.8	1.28	11.08	8	9.5 9.40	9.2 9.3 1.22
9	8.9	8.90	8.9	1.82	10.72	9	8.7 8.75	8.7 8.8 1.87
10	8.7	8.60	8.5	2.33	10.93	10	8.1 8.20	8.3 8.3 2.42
11	8.7	8.65	8.6	2.22	10.87	11	8.2 8.30	8.3 8.4 2.32
					2.27			

Star "a"

Mean Mag. 10.81
 26.36 " 0.12 " 27.27 0.12 0.6

	Scr	Scr	Diff	
1	8.7	8.70	8.7	1.24
2	8.8	8.85	8.9	1.09
3	9.4	9.40	9.4	0.54
4	7.9	8.15	8.4	1.79
5	8.7	8.70	8.7	1.24
6	9.0	9.05	9.1	0.89
7	7.8	8.10	8.4	1.84
8	8.9	9.05	9.2	0.89
9	8.5	8.60	8.7	1.34
10	7.9	8.10	8.3	1.84
11	7.9	8.10	8.3	1.84

Star "c"

	<u>Scr</u>	<u>Scr</u>		
1	9.2	9.25	9.3	1.83
2	9.8	9.85	9.9	1.23
3	f		f	
4	8.8	8.80	8.8	2.28
5	9.2	9.20	9.2	1.88
6	9.9	9.90	9.9	1.18
7	8.7	8.70	8.7	2.38
8	9.8	9.80	9.8	1.28
9	9.3	9.10	8.9	1.98
10	8.7	8.70	8.7	2.38
11	8.8	8.80	8.8	2.28

1918phae.proj..705B