

CARBON STAR OBSERVING CLUB

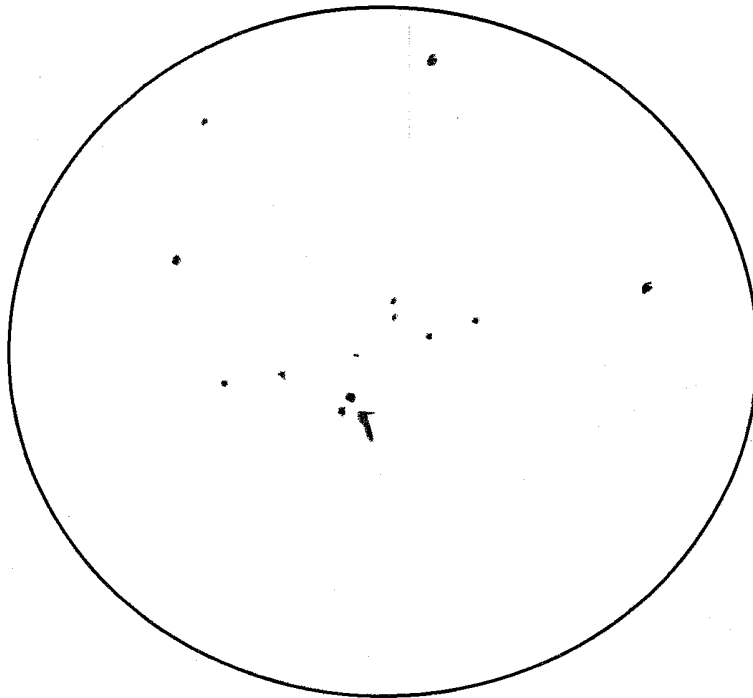
OBSERVER Brad Young OBJECT NAME W2 Cas NUMBER 1

DATE 12/27/10 TIME 3:10 UT OBSERVING SITE +36 N, 96 W

SEEING I (1) III IV V TRANSP (1) III IV V MOON AGE 7 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 (47) 60 75 121 150 250 475 COLOR 5



~ 0.5 m > than its partner 8.3

7.8 3541 ard

CARBON STAR OBSERVING CLUB

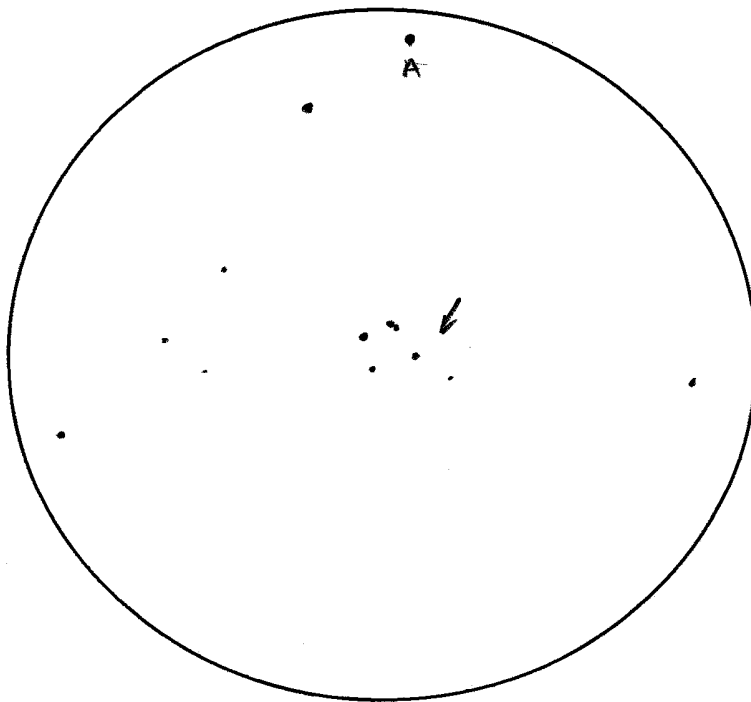
OBSERVER Brad Young OBJECT NAME SJ Md NUMBER 2

DATE 1/2/11 TIME 5:30 UT OBSERVING SITE +36 N, 96 W

SEEING (I) II III IV V TRANSP (I) II III IV V MOON AGE — days

INSTRUMENT (XT-12) ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 (75) 121 150 250 475 COLOR 5



$\theta_A = 8.1$

$\theta_{n5} = 13.5$

$\rightarrow 8.1$

3717 cyb

CARBON STAR OBSERVING CLUB

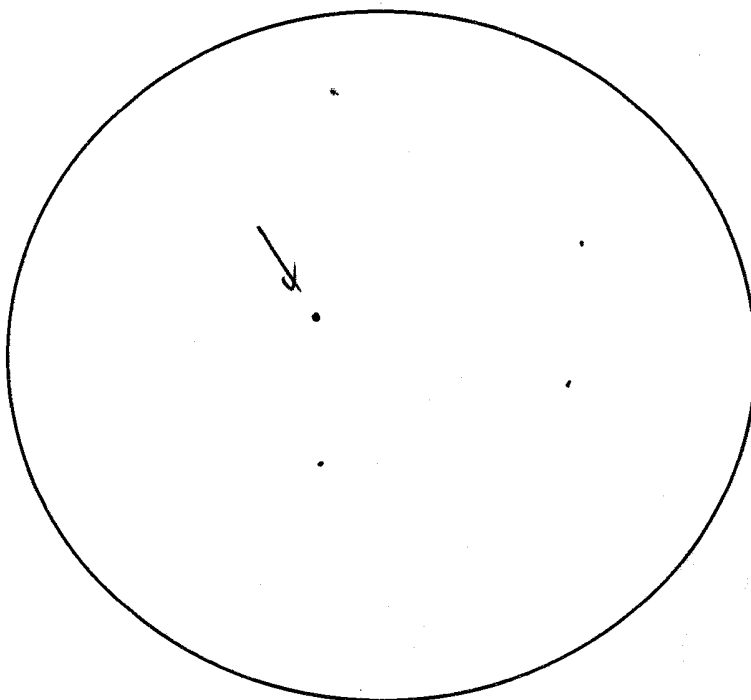
OBSERVER Brad Young OBJECT NAME SAO 109003 NUMBER 3

DATE 1/2/11 TIME 2:00 UT OBSERVING SITE +36 N, 96 W

SEEING ① II III IV V TRANSP ① II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 1



A ~ it → 8.1 Oh 5 + 8.8

A = TYC 0594-00970-1

NOT REPORTED

CARBON STAR OBSERVING CLUB

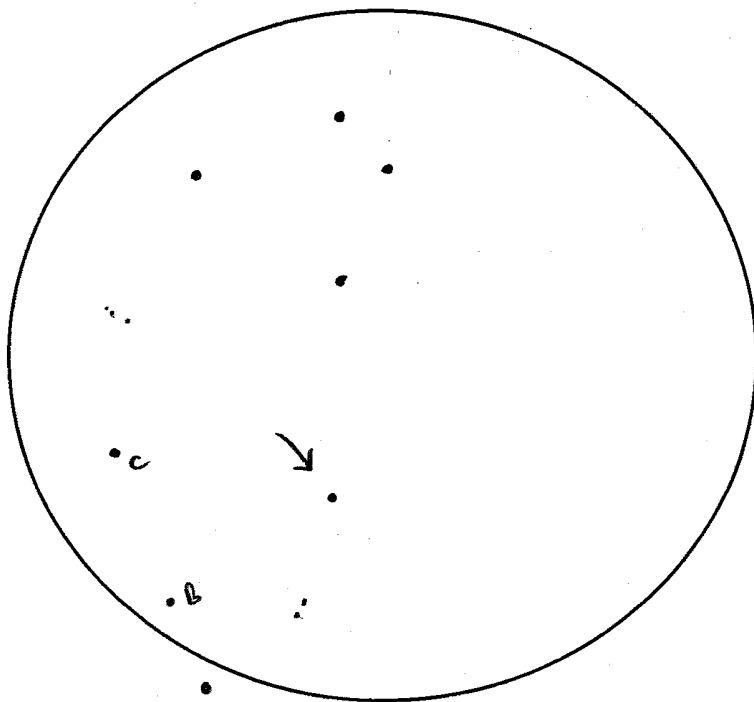
OBSERVER Brad Young OBJECT NAME VX And NUMBER 4

DATE 1/2/11 TIME 5:40 UT OBSERVING SITE +36 N, 96 W

SEEING 1 II III IV V TRANSP 1 II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 5



$B > 3C$

$B = 8.5$

3717cy1

$C = 9.4$

$\rightarrow 8.6$

CARBON STAR OBSERVING CLUB

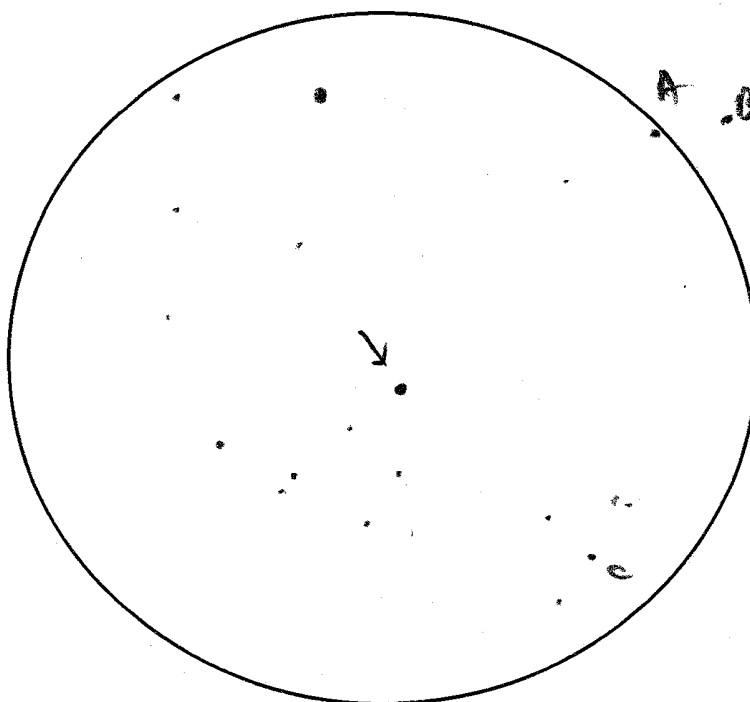
OBSERVER Brad Young OBJECT NAME AQ And NUMBER 5

DATE 1/3/11 TIME 3:10 UT OBSERVING SITE +36 N, 96 W

SEEING I III III IV V TRANSP III III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 3



x > 0.2 < A 3717dFx
A = 8.0
C = 8.9
B ~ 8.6
→ 8.3

CARBON STAR OBSERVING CLUB

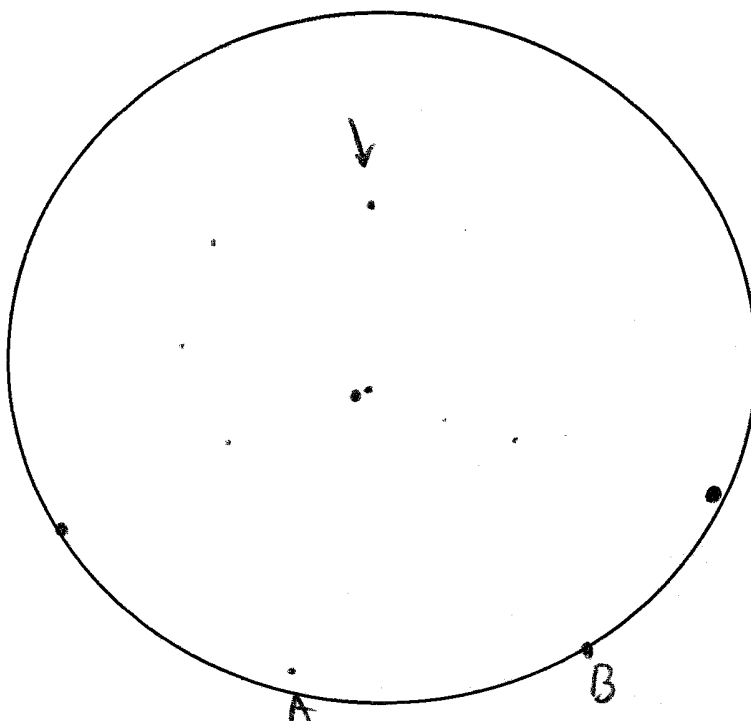
OBSERVER Brad Young OBJECT NAME NSV 15196 ^(And) NUMBER 6

DATE 1/3/11 TIME 3:30 UT OBSERVING SITE +36 N, 96 W

SEEING I III III IV V TRANSP I III III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 1



$A \xrightarrow{1} X \xrightarrow{2} B$

$A = 8.3$ TYC 1739-01565-1

$B = 9.2$ TYC 1740-00739-1

$\rightarrow 8.8$

NOT REPORTED

CARBON STAR OBSERVING CLUB

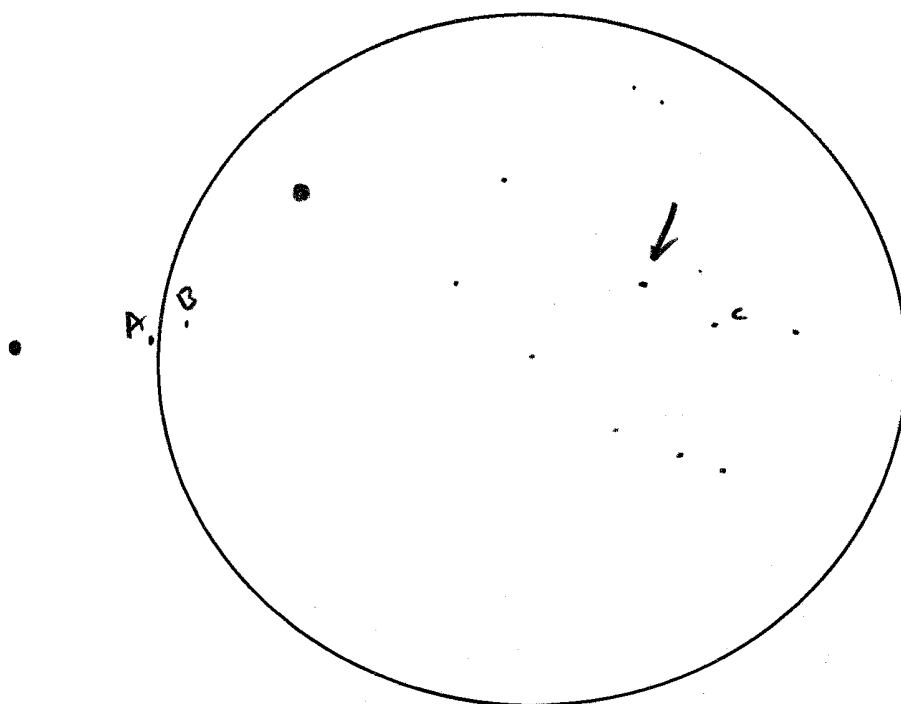
OBSERVER Brad Young OBJECT NAME W Cas NUMBER 7

DATE 1/30/11 TIME 2:55 UT OBSERVING SITE +36 N, 96 W

SEEING I (II) III IV V TRANSP I (II) III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 6



A > X > B > C

↑
also red

A = 8.2

⇒ 8.8

B = 9.5

C = 9.8

3724 sh

CARBON STAR OBSERVING CLUB

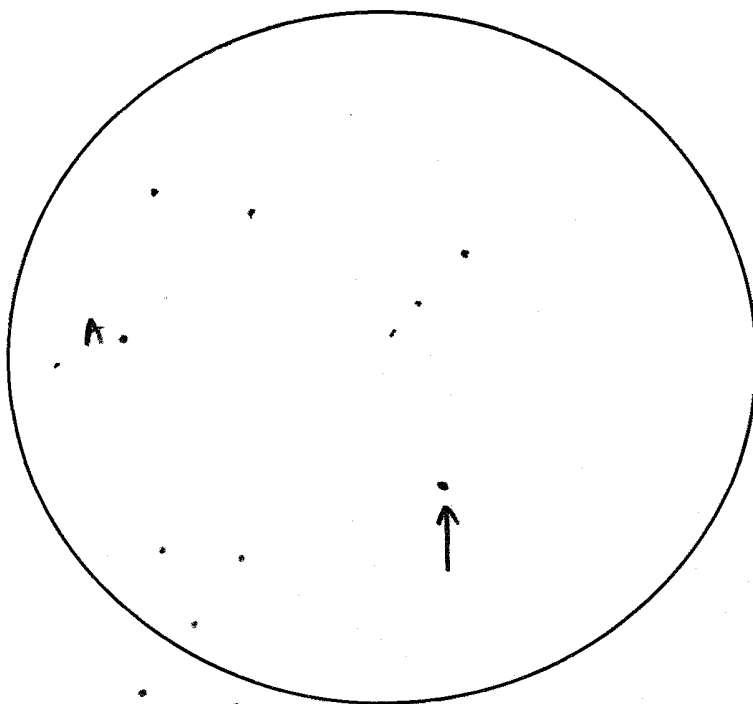
OBSERVER Brad Young OBJECT NAME 2Psc NUMBER 8

DATE 12/27/10 TIME 3:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 (47) 60 75 121 150 250 475 COLOR 3



$m = > A < f_s$ by ~~10~~

$f_s = 1610 + 2515$

not listed 7.8 5.8

AAVSO
TYC1750-00983-1 ~ 7.5

3541 arch

CARBON STAR OBSERVING CLUB

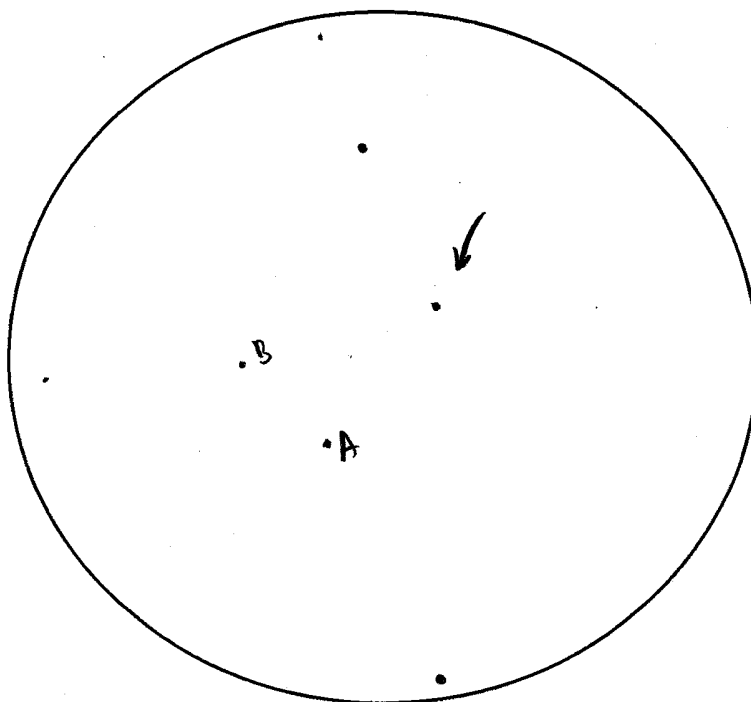
OBSERVER Brad Young OBJECT NAME V Ari NUMBER 9

DATE 1/30/11 TIME 2145 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 3



$A \approx B$

3724rp

$A = \text{TYC } 0634-00597-1$ 8.0

2415 + 12.3

$B = \text{TYC } 0634-00599-1$ 9.0

$\Rightarrow 8.2$

CARBON STAR OBSERVING CLUB

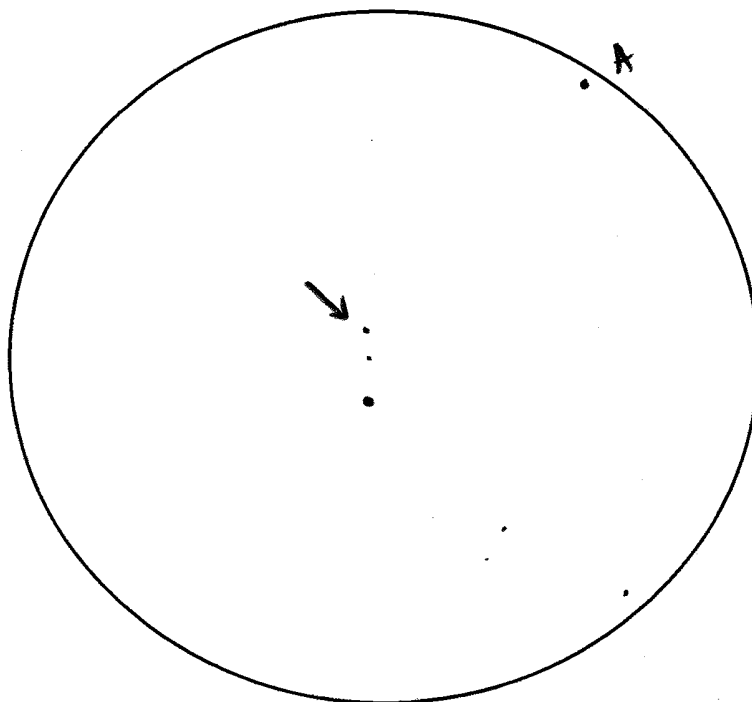
OBSERVER Brad Young OBJECT NAME SAO 129989 NUMBER 10

DATE 12/28/10 TIME 2:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4



g1 > A 2h35 -9.5 A = 8.4 TYC5285

~ 8.3 -00074 -1

3541 avi

VSX / AAVSO not recognized

CARBON STAR OBSERVING CLUB

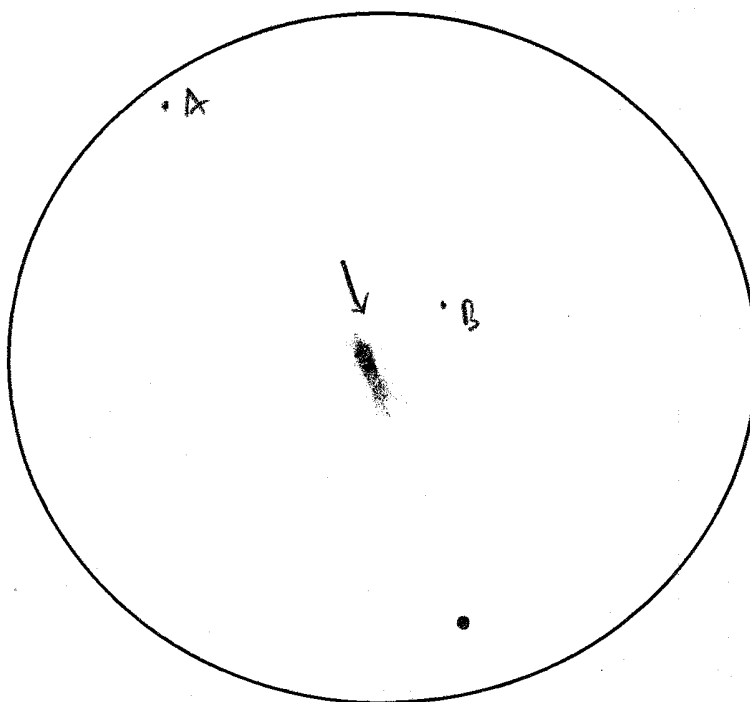
OBSERVER Brad Young OBJECT NAME UY AND NUMBER 11

DATE 1/2/11 TIME 5:45 UT OBSERVING SITE +36 N, 96 W

SEEING (1) II III IV V TRANSP (1) II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 10 mm

POWER 38 47 60 75 121 (50) 250 475 COLOR 3



$x < A$ $x > B$ $x \approx C$

$A = 7.6$

$2438 + 39$

$B = 7.8$

$C = ?$

$\rightarrow 7.7$

3717 cya

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME V623 CAS NUMBER 12

DATE 1/2/11 TIME 5:20 UT OBSERVING SITE +36 N, 96 W

SEEING 0 II III IV V TRANSP 0 I II III IV V MOON AGE — days

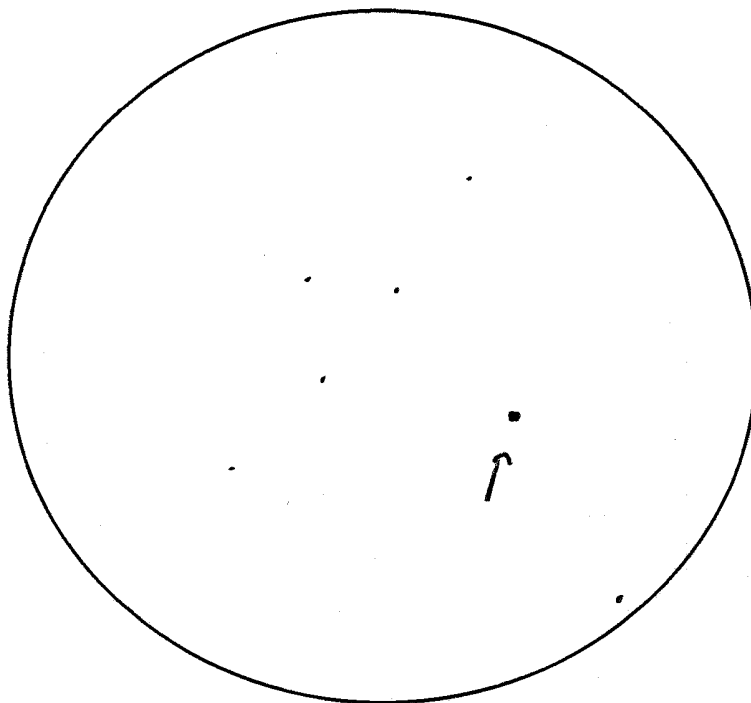
INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 121 150 250 475

COLOR NOT RECORDED -

• • A

NOT VERY RED



0.3 < A

3h 11 +58

A = TYC3714-00903-1 3717 CxM

8.8

→ 8.5

CARBON STAR OBSERVING CLUB

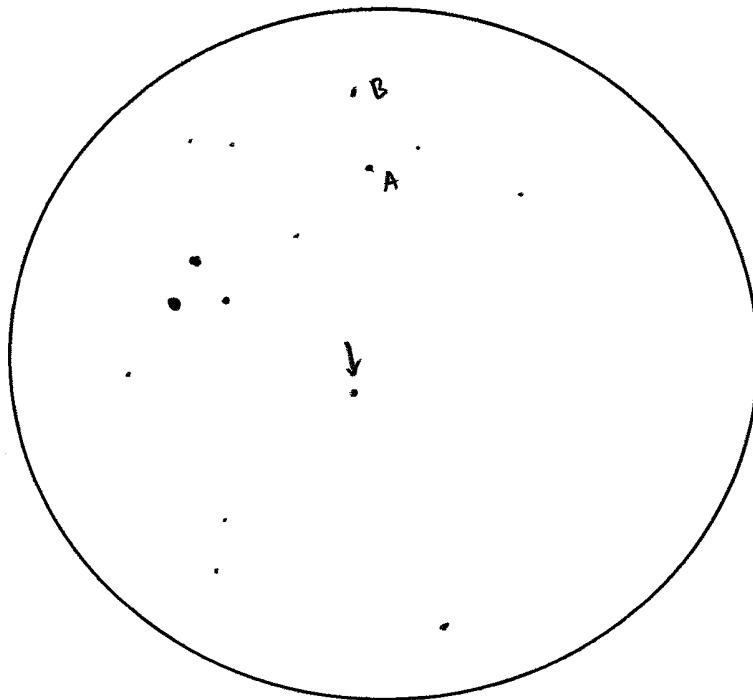
OBSERVER Brad Young OBJECT NAME γ Per NUMBER 13

DATE 1/30/14 TIME 3:20 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP II III IV V MOON AGE days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2X42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 1



$A > x > B$

$A = 10.2$

372460

$B = 10.5$

$\Rightarrow 10.4$

CARBON STAR OBSERVING CLUB

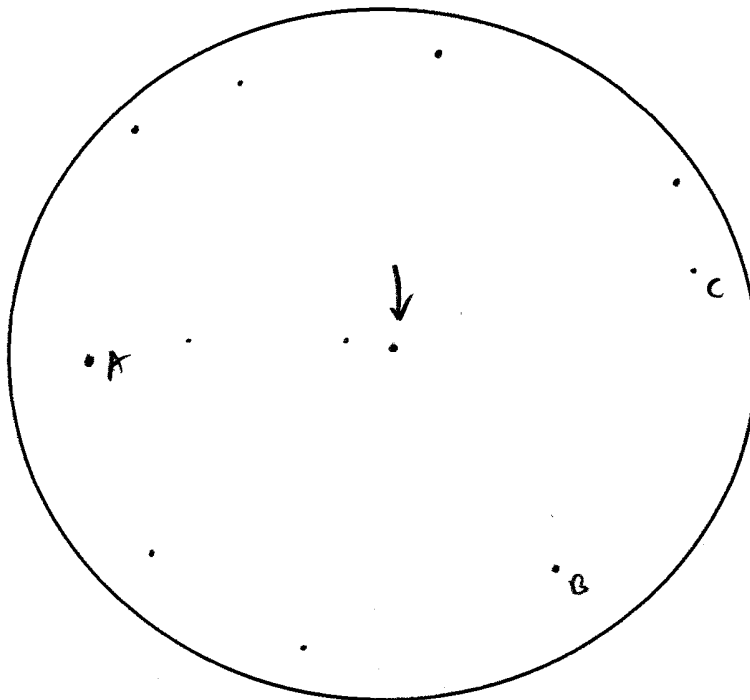
OBSERVER Brad Young OBJECT NAME V466 Per NUMBER 14

DATE 1/30/11 TIME 3:45 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 7



A > x = B > C

3641.5 + 51.5

A = 6.9 TYC-3338-01048-1 3724 + r

B = 8.0 TYC-3325-00137-1

C = 9.6 TYC-3325-00087-1

⇒ 8.0

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME V Cam NUMBER 15

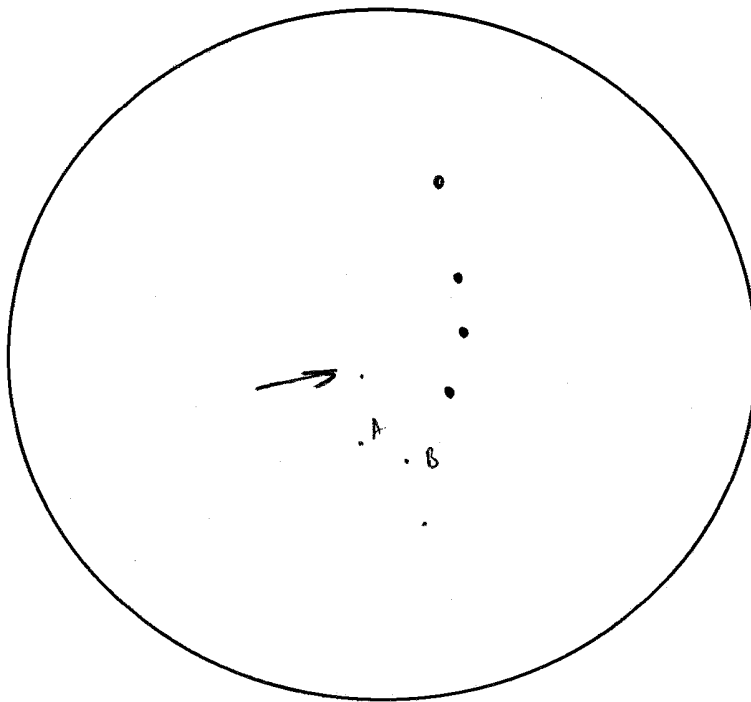
DATE 1/23/11 TIME 5:00 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP III IV V MOON AGE 17 days

INSTRUMENT XT-12 ETX-125 2x60 EYEPIECE — mm

POWER 38 47 60 75 121 150 250 475 COLOR 5

12



$\angle A, \angle B$

$A=74$ $B=NA$ 85 not seen

$\Rightarrow 8.1$ 37220ew

Great field to find it, and leads
to several more to follow.

CARBON STAR OBSERVING CLUB

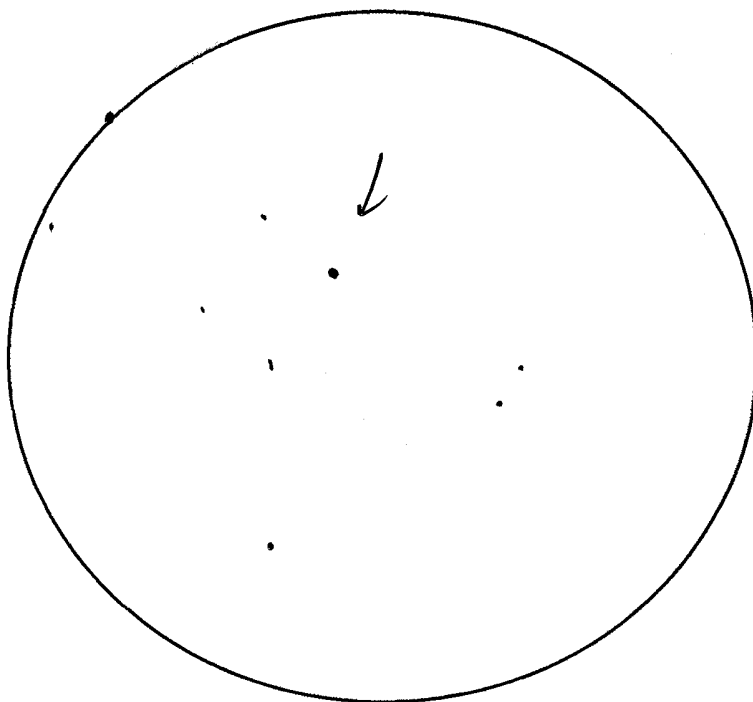
OBSERVER Brad Young OBJECT NAME U Cam NUMBER 15

DATE 3/18/11 TIME 3:15 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 14 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 9



↑ sl ← *thru*

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME UV Cam NUMBER 16

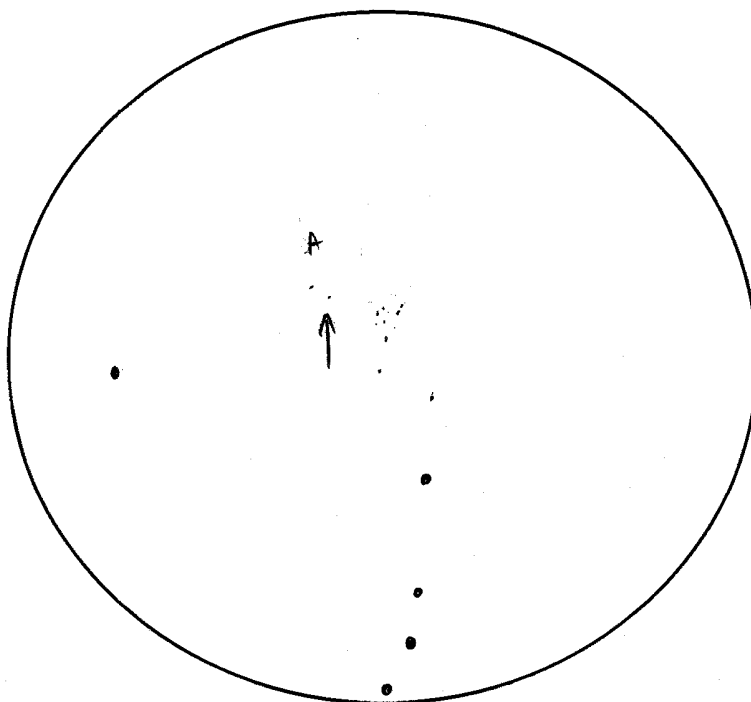
DATE 1/23/11 TIME 5:10UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 17 days

INSTRUMENT XT-12 ETX-125 12x60 EYEPIECE — mm

POWER 38 47 60 75 121 150 250 475 COLOR 2

(12)



sl > A

A = NSV 15889 = 7.7 per AAVSO

Same area. Note N1502 partially
resolved.

3722 of p

⇒ 7.6

Note - only "bright branch" off Kemble's
Cascade seen in 12x60's

CARBON STAR OBSERVING CLUB

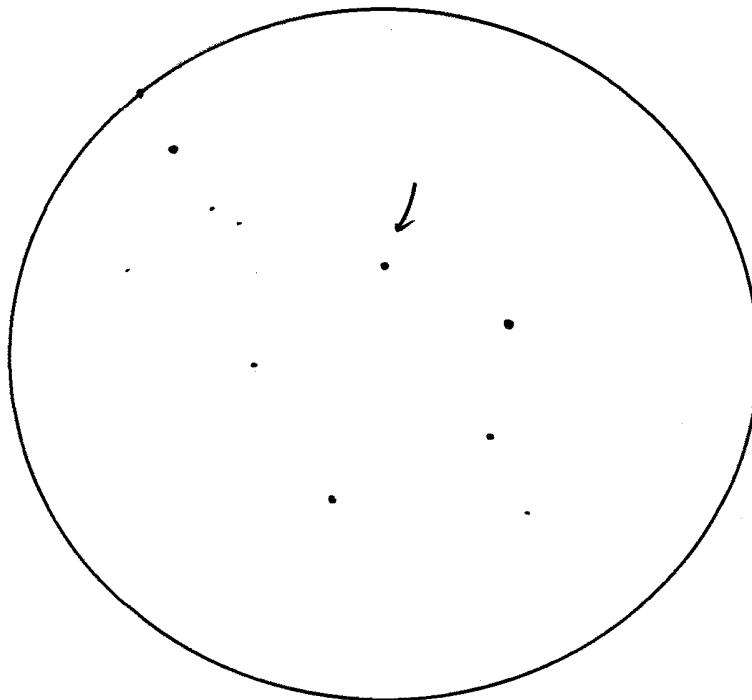
OBSERVER Brad Young OBJECT NAME VV Can NUMBER 16

DATE 3/18/11 TIME 3:25 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP II III IV V MOON AGE 14 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 6



CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME XL Cam NUMBER 17

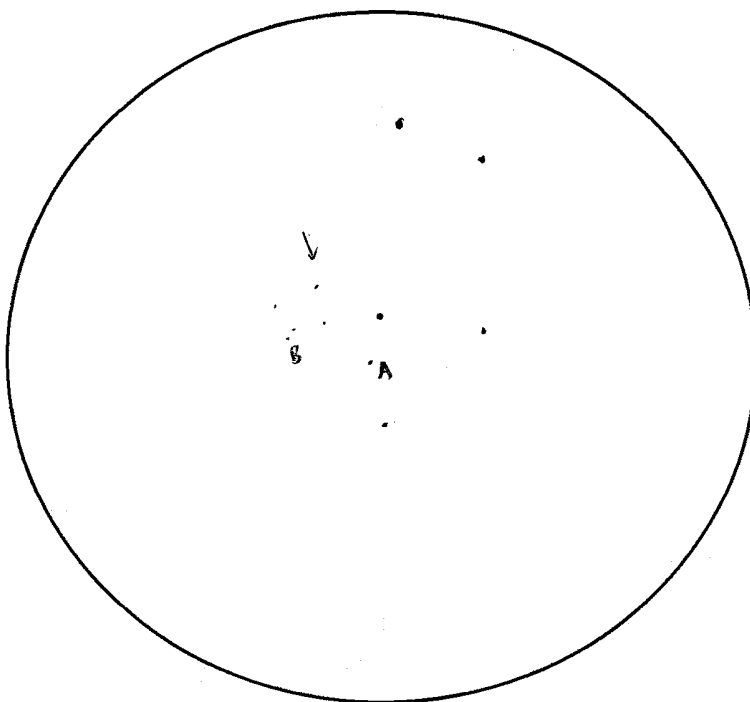
DATE 1/23/11 TIME 5:15 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 17 days

INSTRUMENT XT-12 ETX-125 12X60 EYEPIECE — mm

POWER 38 47 60 75 121 150 250 475 COLOR 3

12



$\angle A, > B$

$B = 79$

$A = NSV 15863 \quad 7.0 = 7.1$

$\Rightarrow 7.5$

$37220 f_q$

CARBON STAR OBSERVING CLUB

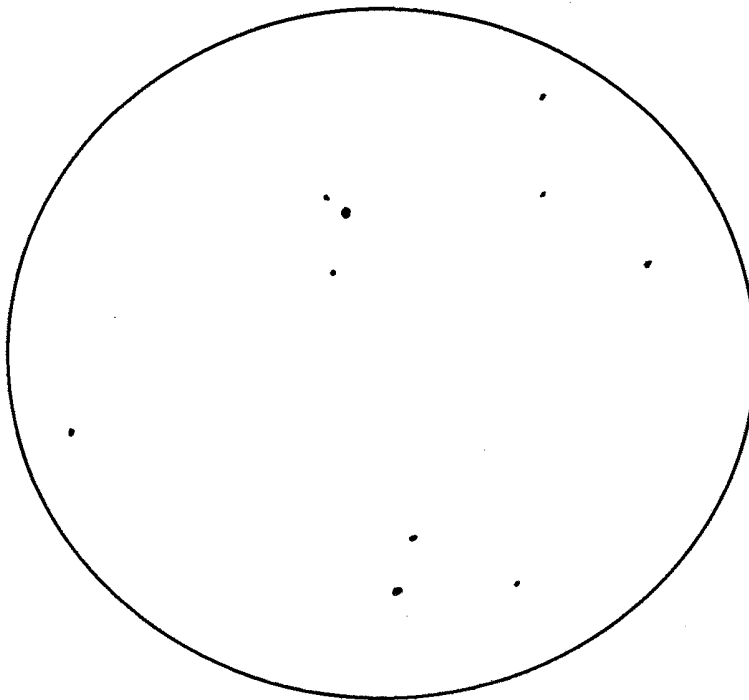
OBSERVER Brad Young OBJECT NAME XX Cam NUMBER 17

DATE 3/18/11 TIME 3:45 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 14 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 0



CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME ST Cam NUMBER 18

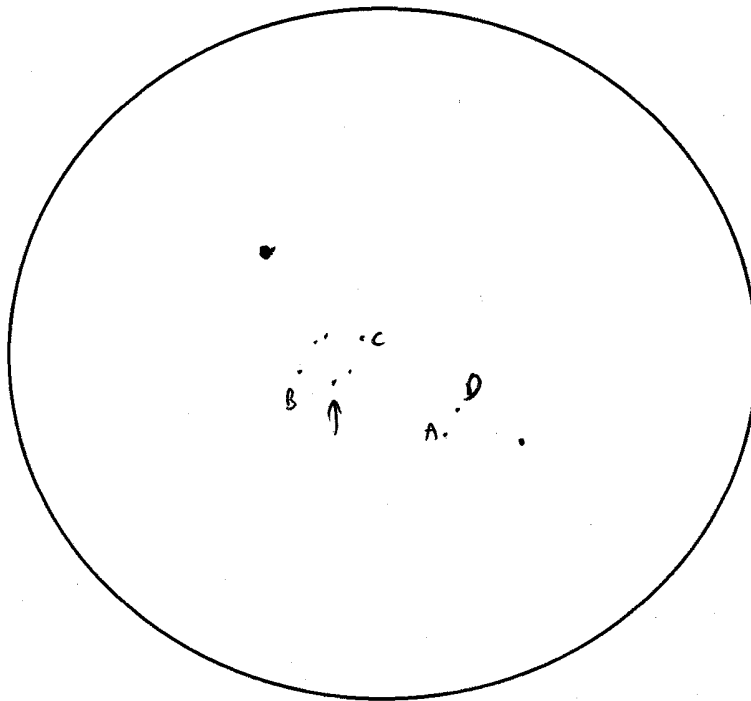
DATE 1/23/11 TIME 5:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 17 days

INSTRUMENT XT-12 ETX-125 12x60 EYEPIECE — mm

POWER 38 47 60 75 121 150 250 475 COLOR 7

(12)



$\angle A > B > C$

$D = 67$ From chart

$B = 70$

$\Rightarrow A = 71$ TYC4342-

01532-1

$C = 7.3$ TYC4342-00270-1

$\Rightarrow 7.1$

3722 of +

CARBON STAR OBSERVING CLUB

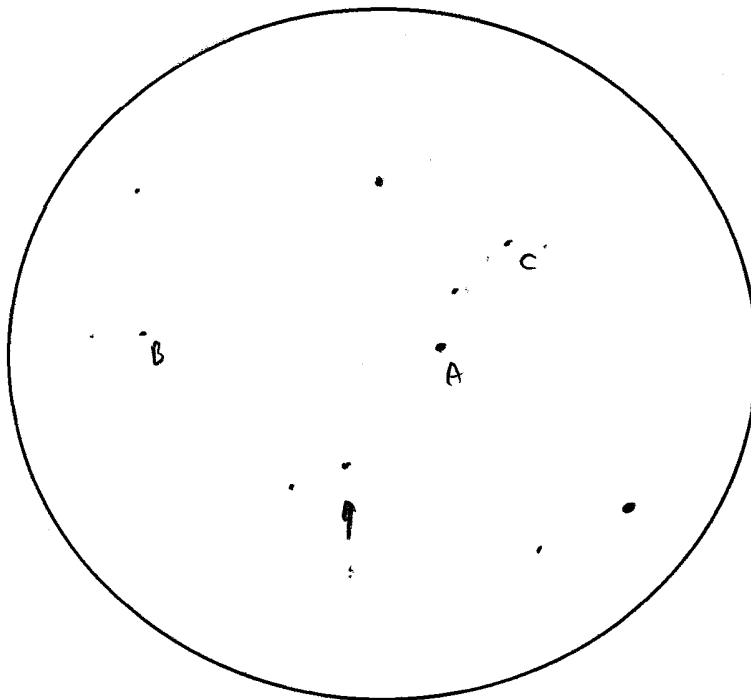
OBSERVER Brad Young OBJECT NAME TT Tau NUMBER 19

DATE 3/6/11 TIME 5:20 OUT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4

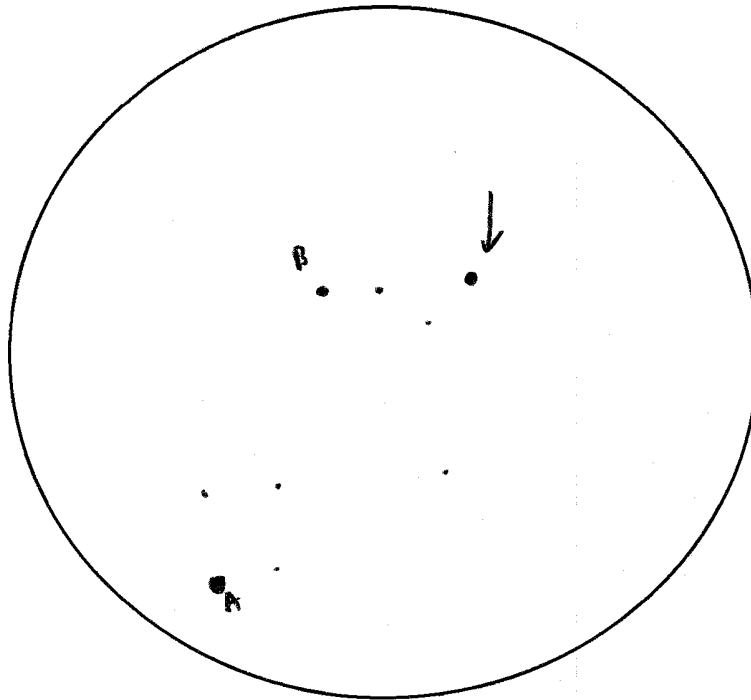


$\angle A = B > C$

NICE FIELD

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME Alcyon NUMBER 20
 DATE 12/27/10 TIME 4:10 UT OBSERVING SITE +36 N, 96 W
 SEEING I II III IV V TRANSP I II III IV V MOON AGE — days
 INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm
 POWER 38 47 60 75 121 150 250 475 COLOR 8



1.2 1
 $A > X > B$

3541 arw

6.2

7.4

$\Delta = 1.2$

$\Delta = 2.2$

~ 6.7

CARBON STAR OBSERVING CLUB

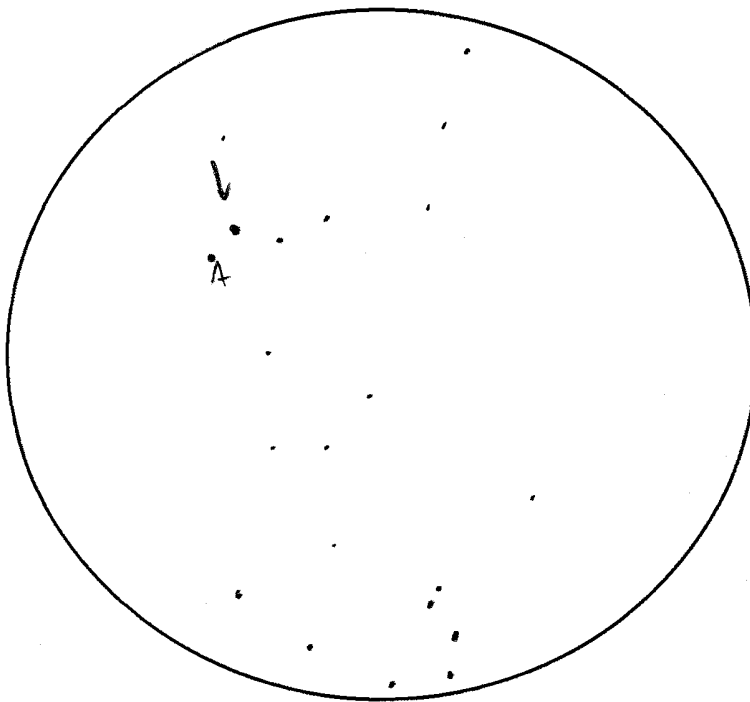
OBSERVER Brad Young OBJECT NAME QZ Ar NUMBER 21

DATE 3/6/11 TIME 5:00 UT OBSERVING SITE +36 N, 96 W

SEEING I 0 II III IV V TRANSP I 0 II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 ~~47~~ 60 75 121 150 250 475 COLOR 0!



>A by ~0.5 mag

IN ONE OF SEVERAL "CURLS" OF STARS IN

AREA, BT NO RED COLOR SEEN AT ALL.

CARBON STAR OBSERVING CLUB

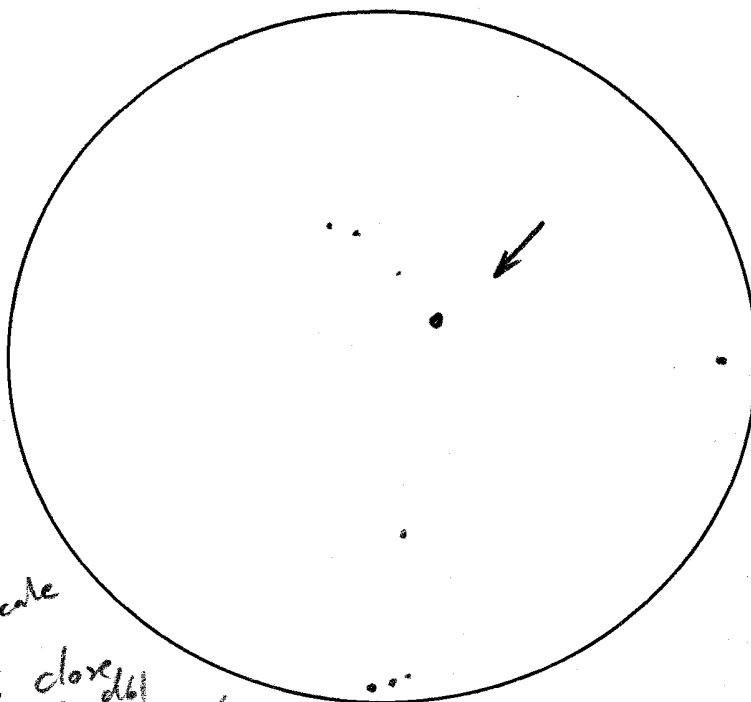
OBSERVER Brad Young OBJECT NAME W Ori NUMBER 22

DATE 12/27/10 TIME 4:20 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP III III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 6 mm

POWER 38 47 60 75 121 150 250 475 COLOR 7



= 1 on red scale
↓
the close dbl
A B
first elong.

$A \times \frac{1}{2} B$

3541 arc

4.5 6.0-6.15

$D = 1.7$

use 6.2

$\frac{1.7}{0.17}$

0.3 ~ 5.9

$\frac{1.7}{1.7}$
 $\frac{1.7}{2.89}$

CARBON STAR OBSERVING CLUB

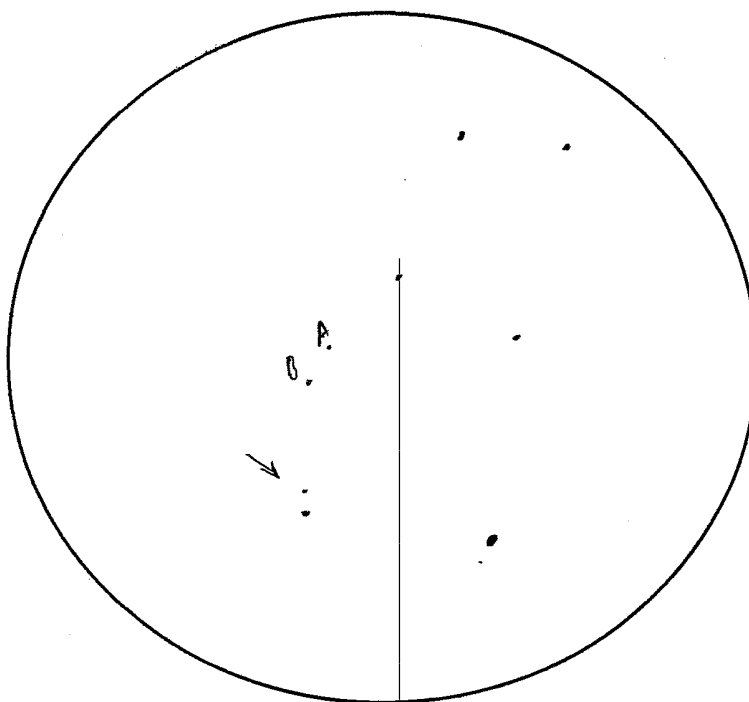
OBSERVER Brad Young OBJECT NAME TXA_w NUMBER 23

DATE 3/6/11 TIME 5:10 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 1



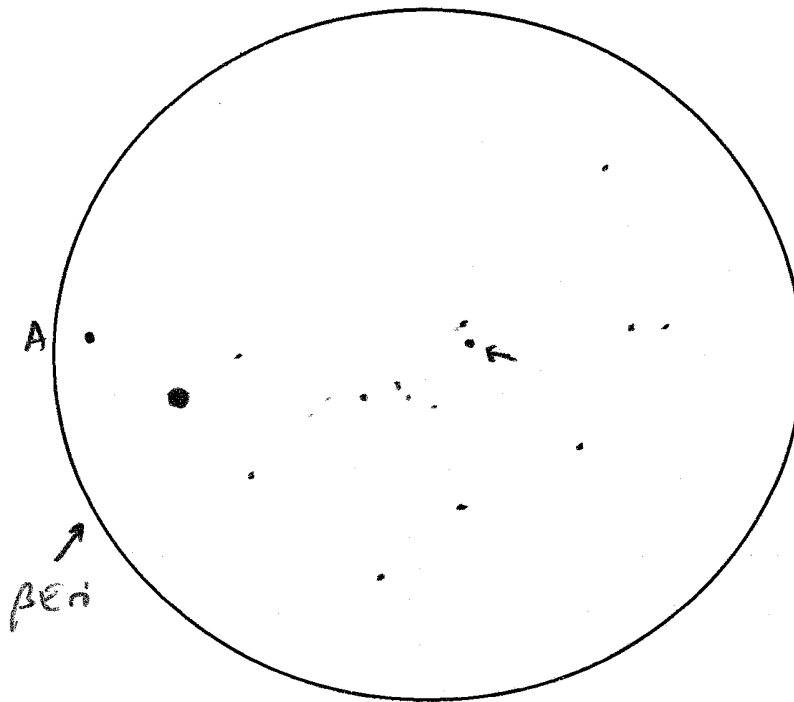
$\angle A \approx B$

EASY TO FIND NEAR μ AUR

JUST THE SLIGHTEST HINT OF TINT

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME Syrma NUMBER 24
DATE 12/27/10 TIME 4:45 UT OBSERVING SITE +36 N, 96 W
SEEING I II III IV V TRANSP I II III IV V MOON AGE — days
INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm
POWER 38 47 60 75 121 150 250 475 COLOR 3



> all etc. A & beta est 0.5 m > partner

8.5 3541 asi

CARBON STAR OBSERVING CLUB

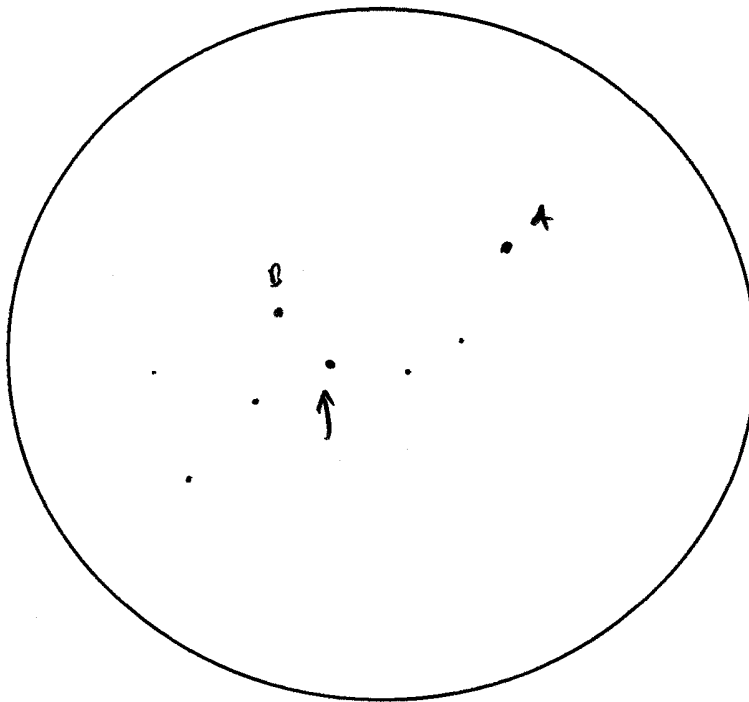
OBSERVER Brad Young OBJECT NAME UV Aur NUMBER 25

DATE 3/18/11 TIME 3:55 UT OBSERVING SITE +36 N, 96 W

SEEING I 0 II III IV V TRANSP I 0 II III IV V MOON AGE 14 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 5



A > X > B

CARBON STAR OBSERVING CLUB

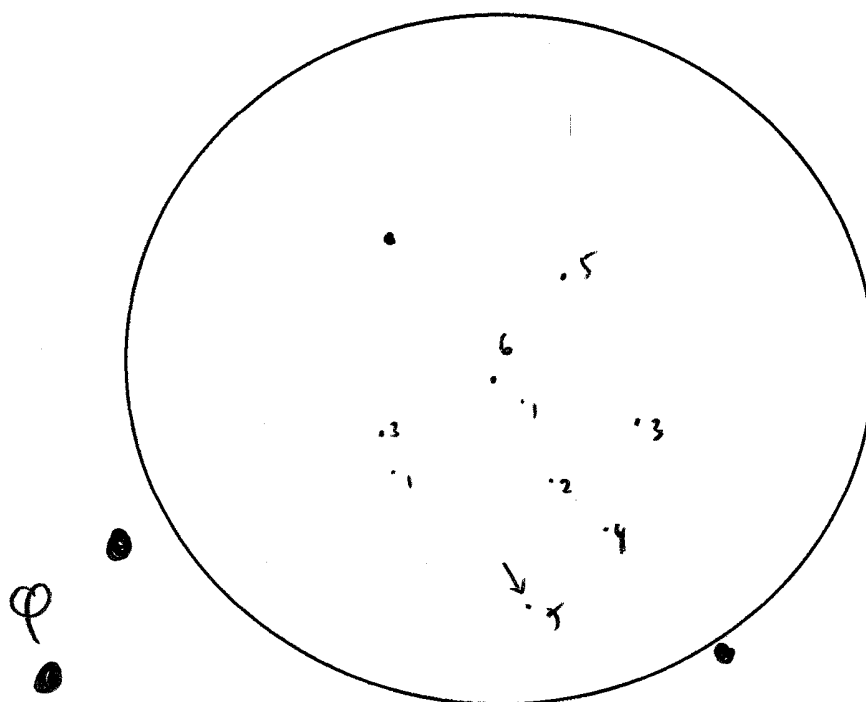
OBSERVER Brad Young OBJECT NAME S Aur NUMBER 26

DATE 3/18/11 TIME 4:15 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP III IV V MOON AGE 14 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 24x2 mm

POWER 38 47 60 75 121 150 250 475 COLOR NOTE



NOTE: NO SIGNIFICANT RED COLOR TO ANY

↓ = sl. hint of red

CARBON STAR OBSERVING CLUB

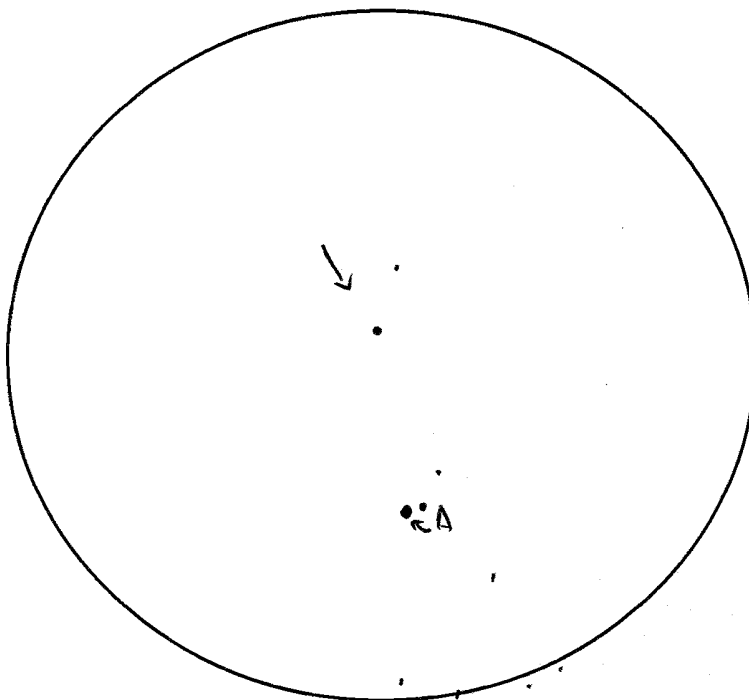
OBSERVER Brad Young OBJECT NAME RT 021 NUMBER 27

DATE 1/2/11 TIME 2:45 UT OBSERVING SITE +36 N, 96 W

SEEING (1) II III IV V TRANSP (1) II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 (75) 121 150 250 475 COLOR 3



B

A < 2x > B

A = 8.0

→ 8.1

B = 7.5 ≈ 8.5

3717 α j

CARBON STAR OBSERVING CLUB

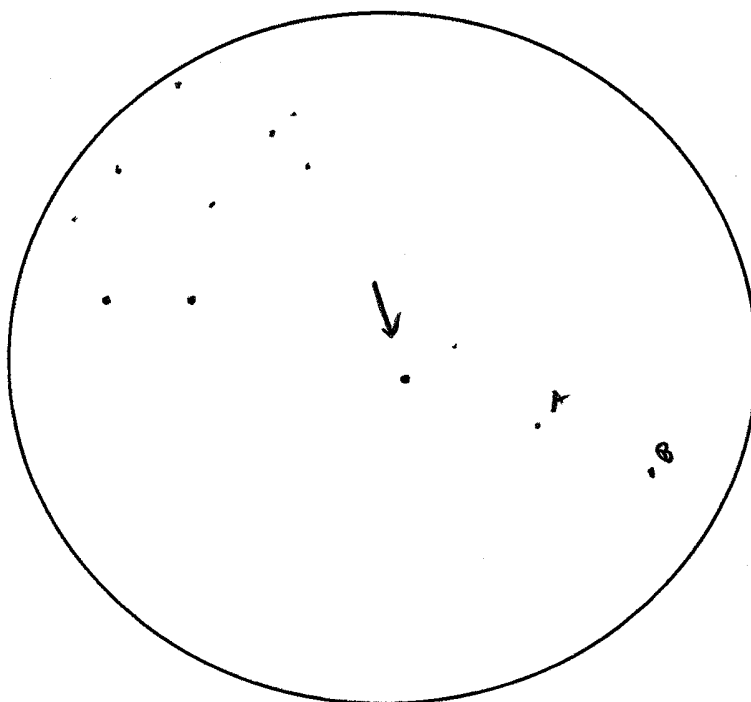
OBSERVER Brad Young OBJECT NAME S Cam NUMBER 28

DATE 1/30/11 TIME 4:00 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT KT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4



$B > X > A$

$A = 10.2$

$\Rightarrow 9.9$

$B = 9.6$

3724ve

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME TU Tau NUMBER 29

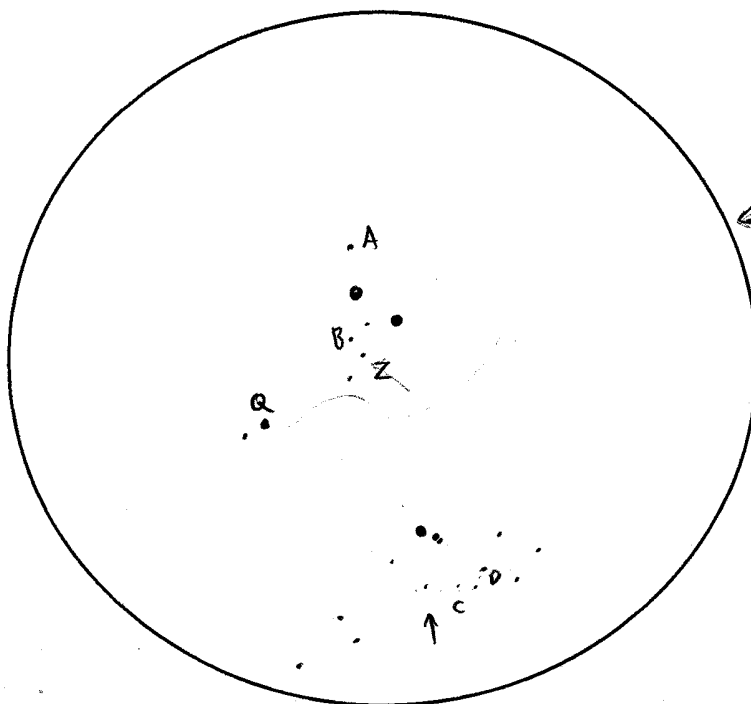
DATE 1/23/11 TIME 5:55 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 17 days

INSTRUMENT XT-12 ETX-125 12x60 EYEPIECE — mm

POWER 38 47 60 75 121 150 250 475 COLOR 2

12



Q = 139 Tau
Got started
on wrong
wide double!

• 5 Tau

$s1 > A, s1 < B$ for Z NOT 15

$TU > C, < D$

$D = 7.5$ $C = 8.3$

$C = TYC 1866-01194-1$

37220gc

$Z = TYC 1870-01884-1$

$\Rightarrow 7.9$

CI = 1.52 so red, but not Carbon

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME γ Tau NUMBER 30

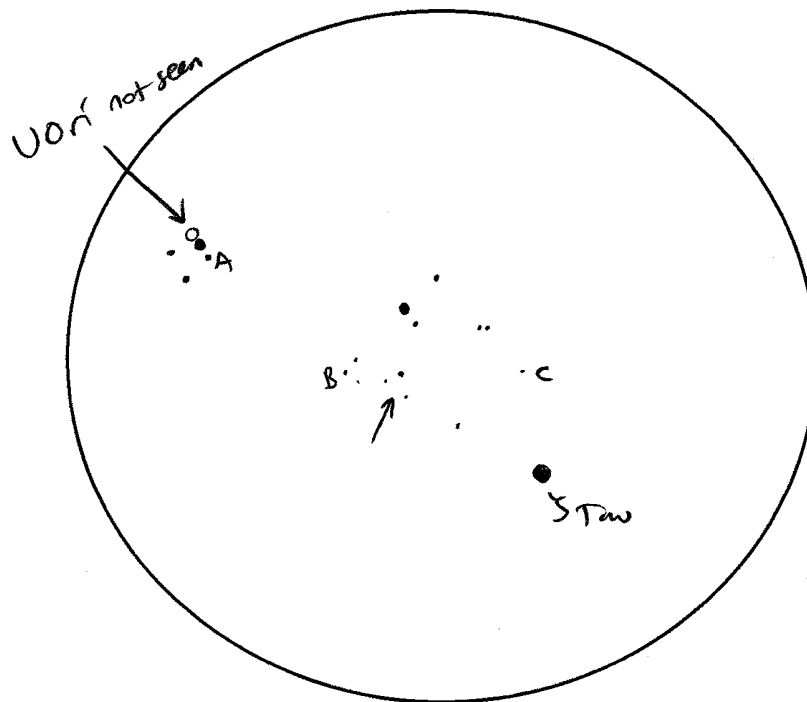
DATE 1/23/11 TIME 5:45 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 17 days

INSTRUMENT XT-12 ETX-125 12x60 EYEPIECE — mm

POWER 38 47 60 75 121 150 250 475 COLOR 4

(12)



$X > B < A$

$B = 76$ $A = 67$

$3722 \text{ of } x$

$\Rightarrow 7.1$

Report U Ori as $< C = 83$

$\Rightarrow < 8.3$

CARBON STAR OBSERVING CLUB

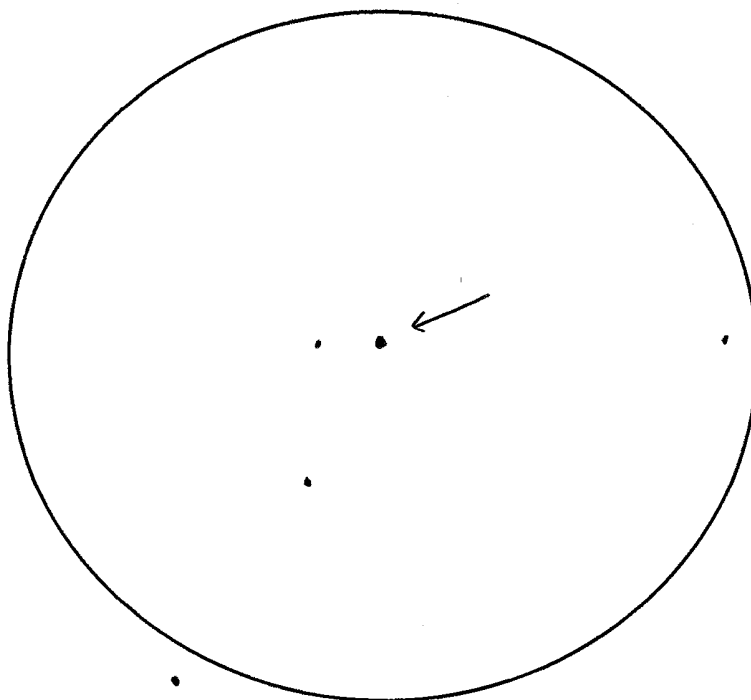
OBSERVER Brad Young OBJECT NAME FU A NUMBER 31

DATE 4/11/11 TIME 3:50 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 6 days

INSTRUMENT XT-12 ETX-125 _____ EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 3



Clouded or soon After.

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME TV Gem NUMBER 32

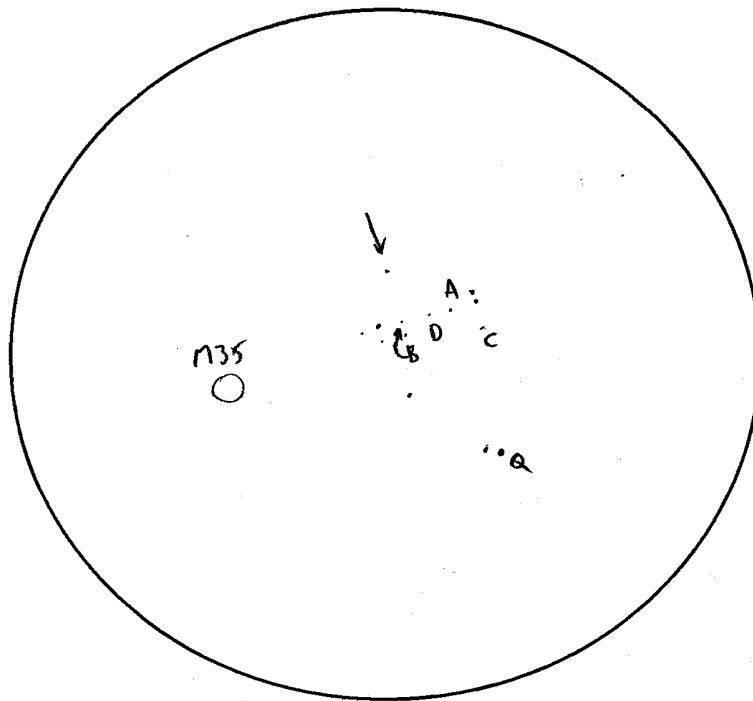
DATE 1/23/11 TIME 6:05 UT OBSERVING SITE +36 N, 96 W

SEEING I (II) III IV V TRANSP I (II) III IV V MOON AGE 17 days

INSTRUMENT XT-12 ETX-125 12x60 EYEPIECE — mm

POWER 38 47 60 75 121 150 250 475 COLOR 2

(12)



Q = B9 Tau

$X \approx 0, < A, < C, < B$ $C = 7.7$ TYC 1872-00353-1

$B = 8.2$ $A = 8.1$ TYC 1872-00505-1

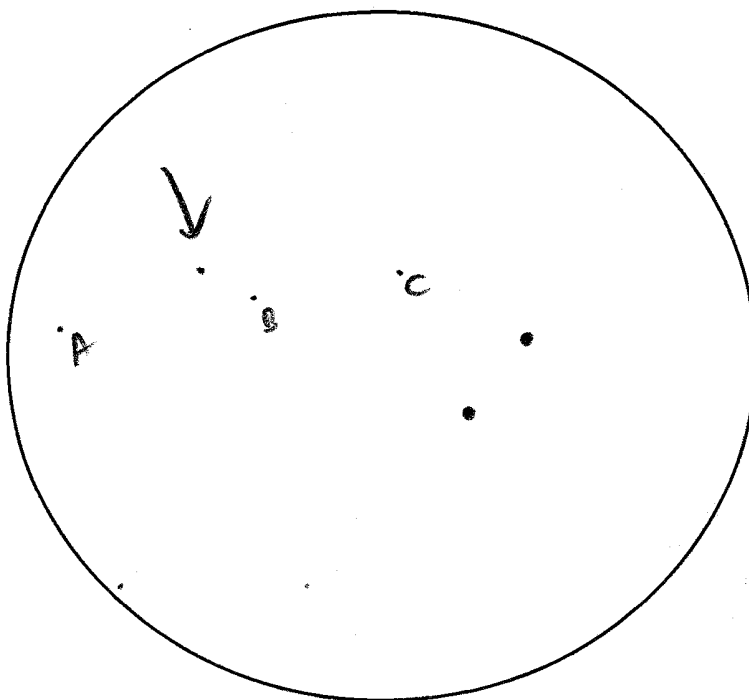
THIS IS A REVISIT 3722 Ogj

D NOT FOUND ON CHART, NOT ASTEROID

$\Rightarrow 8.3$

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME FU Mon NUMBER 33
 DATE 12/31/10 TIME 2:20 UT OBSERVING SITE +36 N, 96 W
 SEEING I II III IV V TRANS P III III IV V MOON AGE — days
 INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm
 POWER 38 47 60 75 121 150 250 475 COLOR 8



$s1 > A, > B \stackrel{20}{\times 2} > C$

A 9.3 TYC 0136-00207-1

→ B 9.9 TYC 0136-00049-1

→ C 9.2 TYC 0137-00199-1

→ 9.2 3541 crb

CARBON STAR OBSERVING CLUB

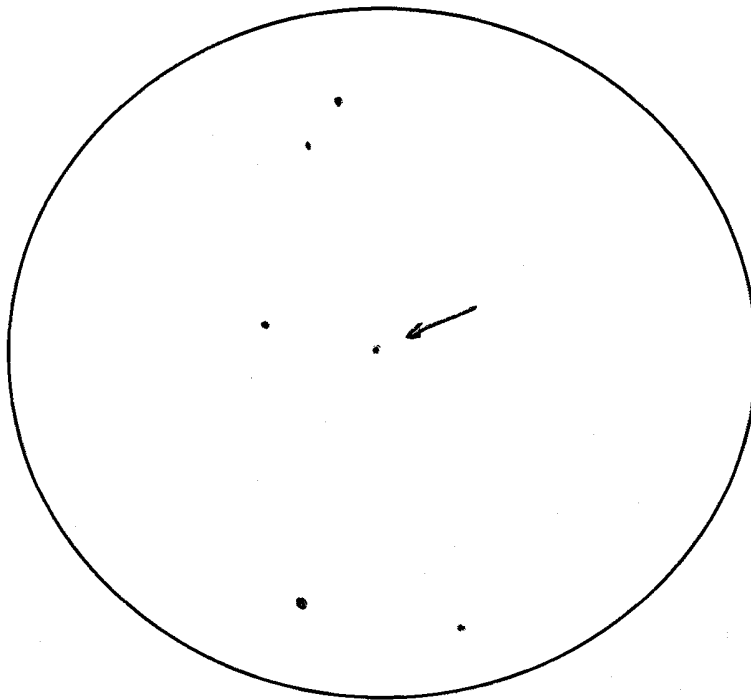
OBSERVER Brad Young OBJECT NAME V A W NUMBER 34

DATE 5/1/11 TIME 2:05 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

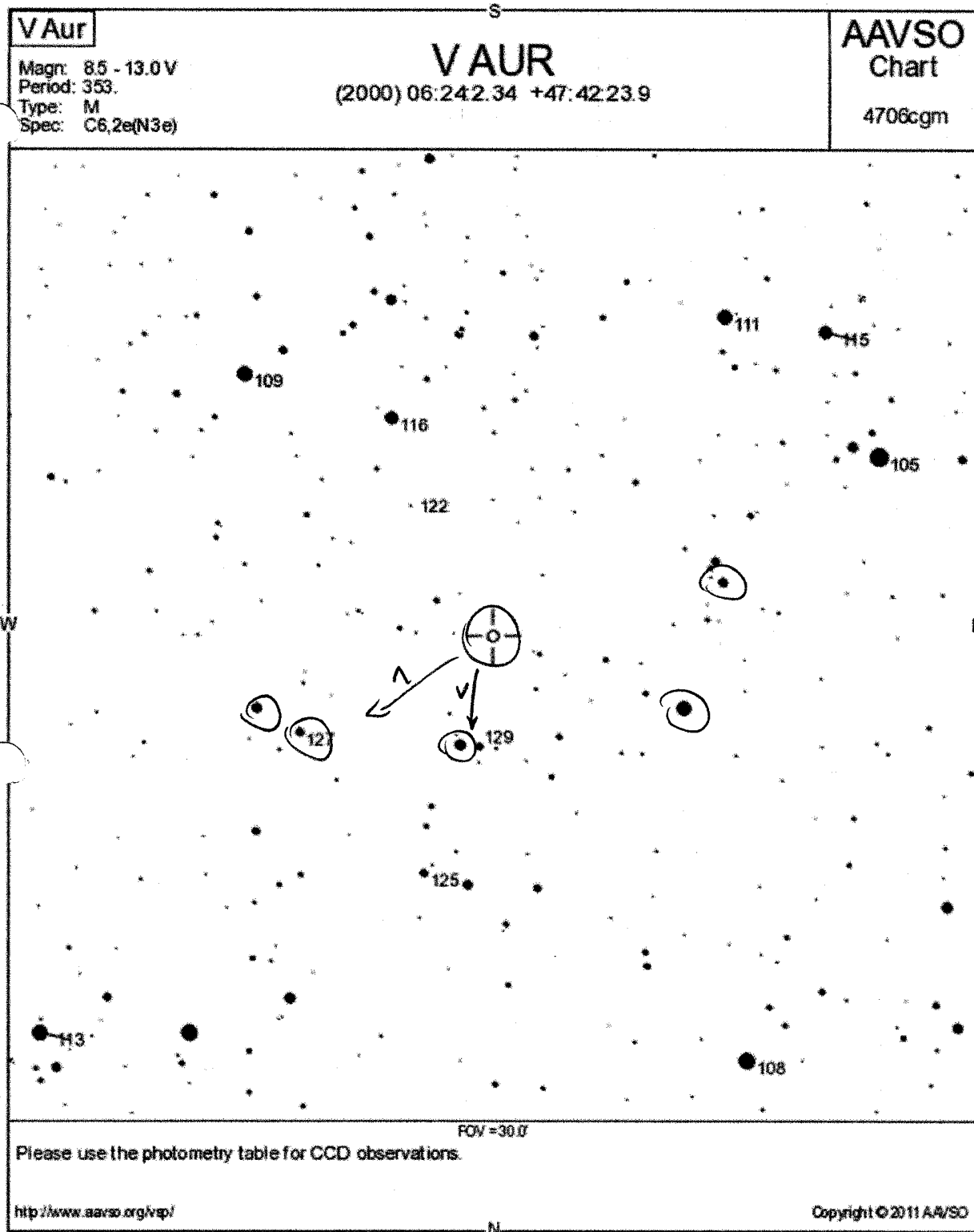
INSTRUMENT XT-12 ETX-125 EYEPIECE 10 mm

POWER 38 47 60 75 121 150 250 475 COLOR NOTE



COULDN'T MAKE OUT COLOR DUE TO

FADING - SEE NEXT PG.



CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME BLOX1 NUMBER 35

DATE 2/13/11 TIME 2:40 UT OBSERVING SITE +36 N, 96 W

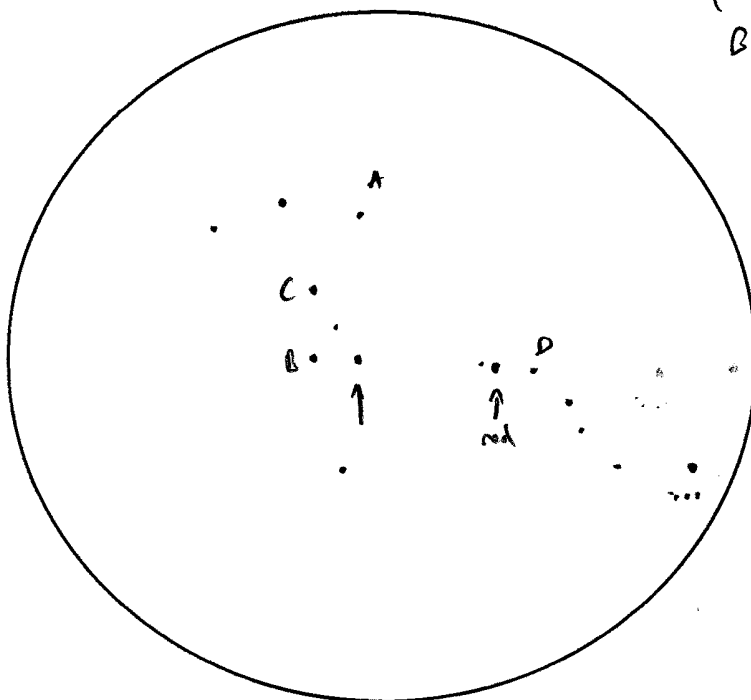
SEEING I II III IV V TRANSP I II III IV V MOON AGE 11 days

INSTRUMENT XT-12 ETX-125 12x60 EYEPIECE — mm

POWER 38 47 60 75 121 150 250 475 COLOR —

(12)

NOT NOTED
(MUST NOT HAVE
BEEN VERY RED!)



=A < B < C NO

CARBON STAR OBSERVING CLUB

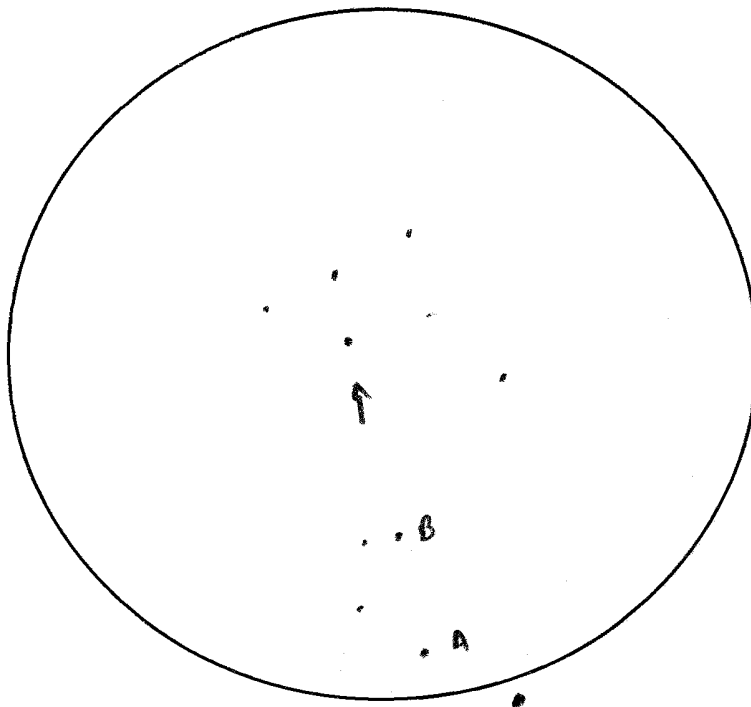
OBSERVER Brad Young OBJECT NAME BL 021 NUMBER 35

DATE 1/8/11 TIME 2:10 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 3 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4



NO!

TYC0744-

01192-1

CI=1.57

V=10

$A > x > B$

3717dge

6425+15

A=9.0 TYC1328-00295-1

B=9.3 TYC-0744-00301-1

→ 9.2

CARBON STAR OBSERVING CLUB

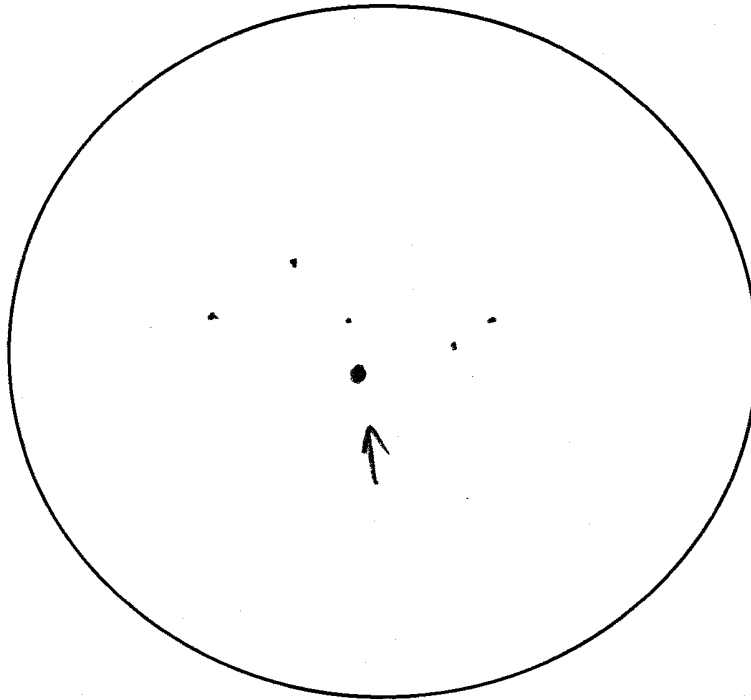
OBSERVER Brad Young OBJECT NAME UU Aur NUMBER 36

DATE 12/28/10 TIME 2:15 UT OBSERVING SITE +36 N, 96 W

SEEING I (II) III IV V TRANSP I (II) III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 _____ EYEPIECE 2x42mm

POWER 38 47 60 (75) 121 150 250 475 COLOR 6



$$0.5m < 1.45 \psi^3 = 517$$

~6.2

3541 aof

CARBON STAR OBSERVING CLUB

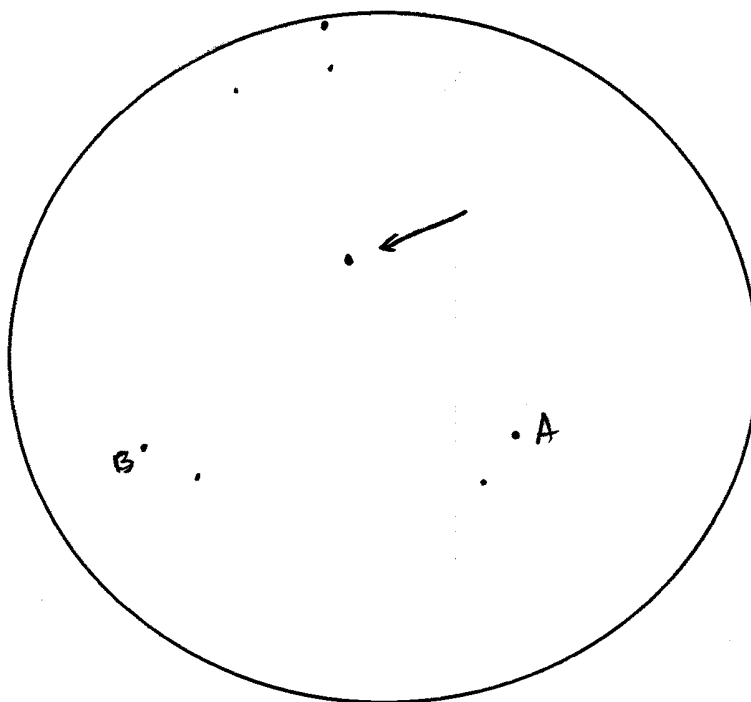
OBSERVER Brad Young OBJECT NAME ✓W Gem NUMBER 37

DATE 3/12/11 TIME 4:10 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 6 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 8



$B \rightarrow A \rightarrow X$

$A = 8.3$ TYC 2435-00280-1

Very deep red

$B = 8.9$ TYC 2435-00336-1

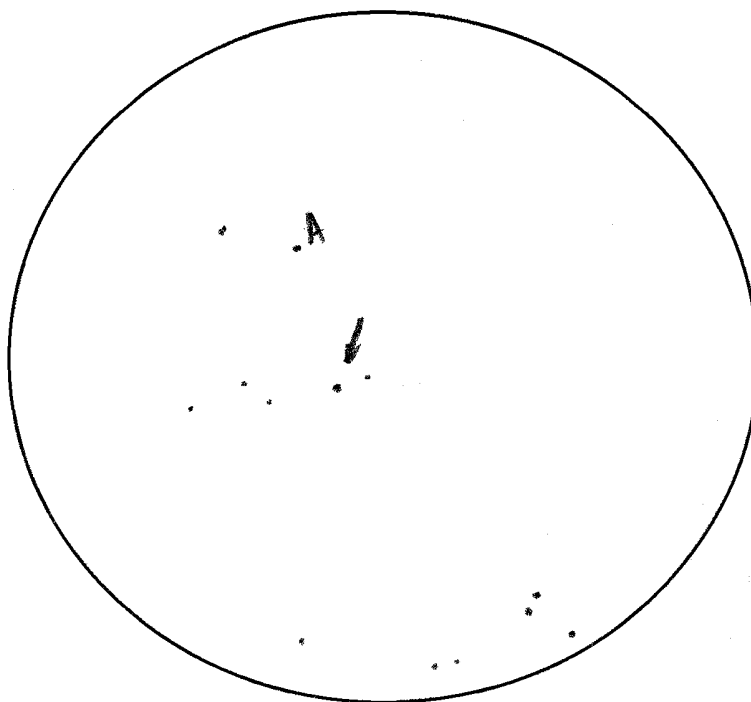
$X = 8.1$

Gh 43 +31.5

4329 ii

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME G4 Mon NUMBER 38
DATE 12/28/10 TIME 4:45 UT OBSERVING SITE +36 N, 96 W
SEEING I II III IV V TRANSP I II III IV V MOON AGE — days
INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm
POWER 38 47 60 75 121 150 250 475 COLOR 3



n = A (dbl - not split) 3841 aum
6h53-4.5
= 8.5 → 8.5
A = TYC 4809-02172-1

CARBON STAR OBSERVING CLUB

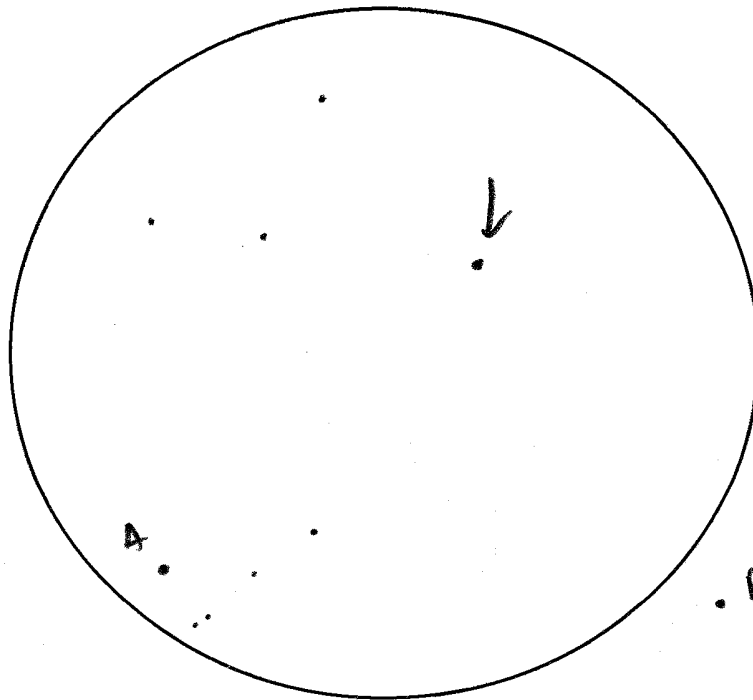
OBSERVER Brad Young OBJECT NAME RV Mon NUMBER 39

DATE 12/31/10 TIME 2:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 3



$s \leq A \leq B$

$A = 7.8$

3541 cre

$\rightarrow 8.0$

CARBON STAR OBSERVING CLUB

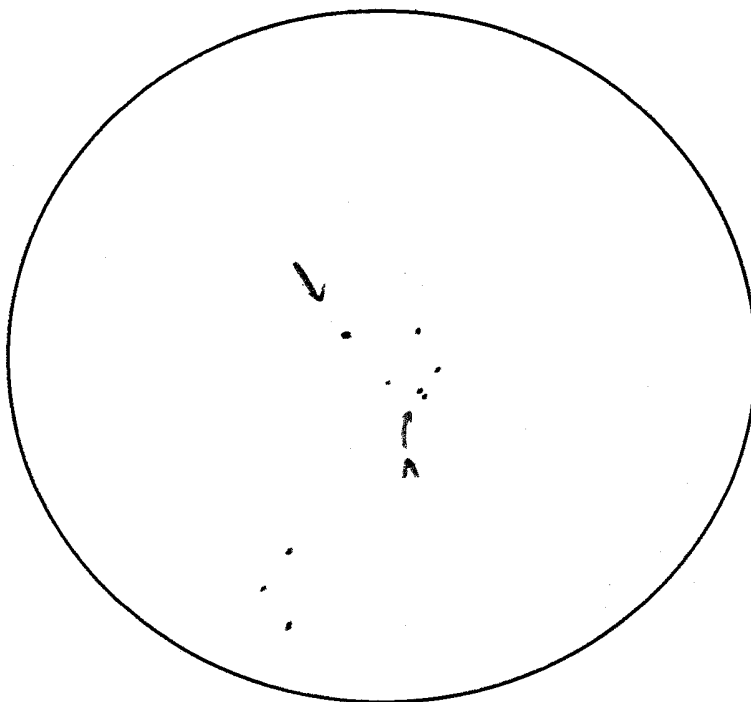
OBSERVER Brad Young OBJECT NAME V614 Mon NUMBER 40

DATE 12/28/10 TIME 4:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 3



$B = \text{PSH } 19\text{mm} \times 2 \times 2$ 3541 auk

7h01 -3.3

A = 9.4 TYC4818-00314-1

B = 6.6 17285 NSV $\Delta = 2.8$

2.8
0.3

1.8 4

→ 7.6

CARBON STAR OBSERVING CLUB

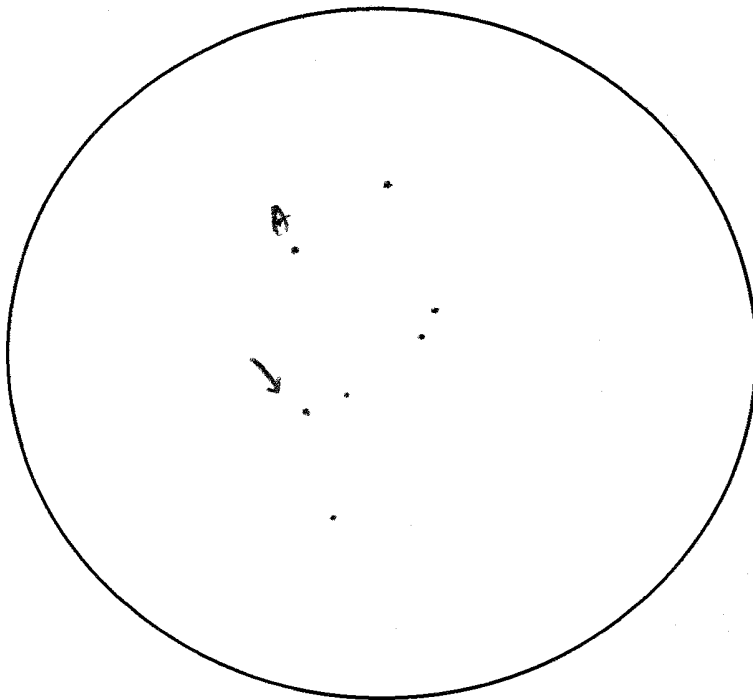
OBSERVER Brad Young OBJECT NAME Ry Mon NUMBER 41

DATE 12/28/10 TIME 5:25 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 7



MJD on way 2A 3541 ark
7h07 - 7.5
A = 8.7 Tyc 5381-00937-1
→ 8.7

CARBON STAR OBSERVING CLUB

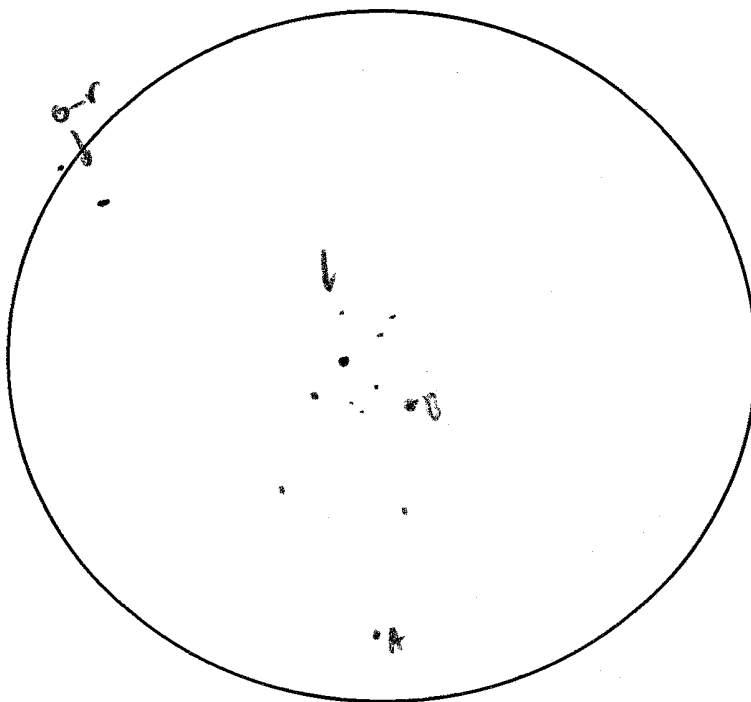
OBSERVER Brad Young OBJECT NAME WCMa NUMBER 42

DATE 12/28/10 TIME 5:10 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4



$x > A > B$

3541 avy

7.4 (AAV10)

7408 -11.9

$B = 7.7$ TMC5389-01385-1

$\rightarrow 7.6$

CARBON STAR OBSERVING CLUB

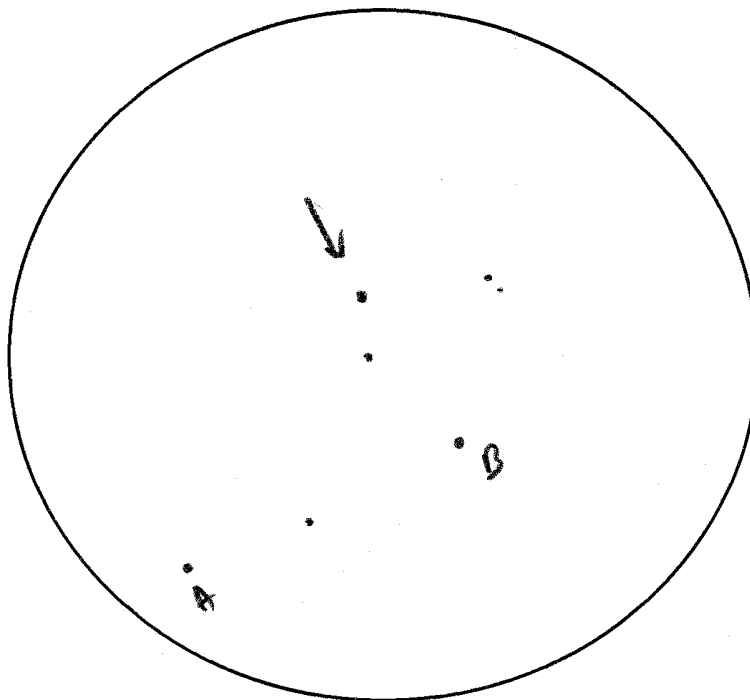
OBSERVER Brad Young OBJECT NAME RCM 1 NUMBER 43

DATE 1/8/11 TIME 2:45 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 3 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4



³
B > X > A

A = 9.8

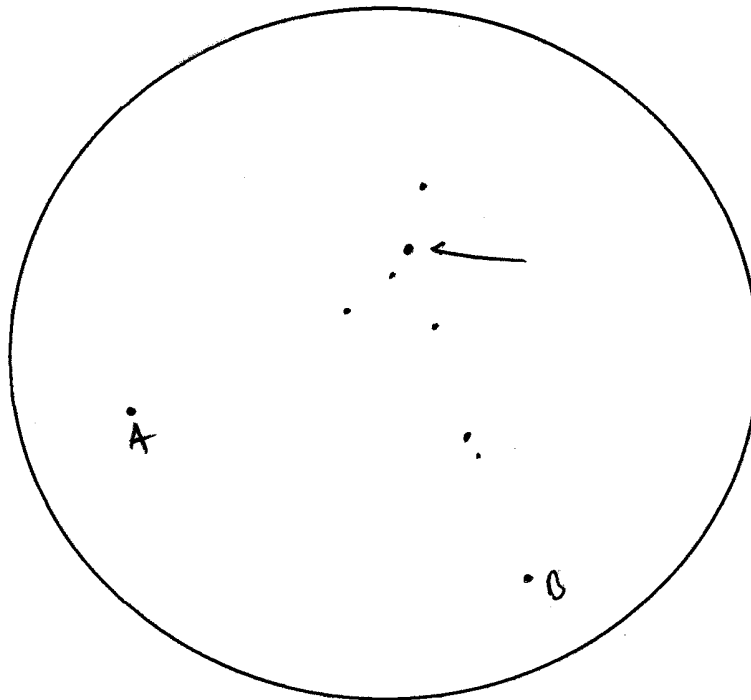
3717 dg v

B = 9.1

→ 9.5

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME β M Gem NUMBER 44
 DATE 3/12/11 TIME 3:55 UT OBSERVING SITE +36 N, 96 W
 SEEING I II III IV V TRANSP I II III IV V MOON AGE 6 days
 INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm
 POWER 38 47 60 75 121 150 250 475 COLOR 8



A $\rightarrow$ B $\rightarrow$ X 4329 io
A = TYC 1913-02231-1 = 9.3 7h21 +25
B = TYC 1913-01522-1 = 9.1
X = 8.9

CARBON STAR OBSERVING CLUB

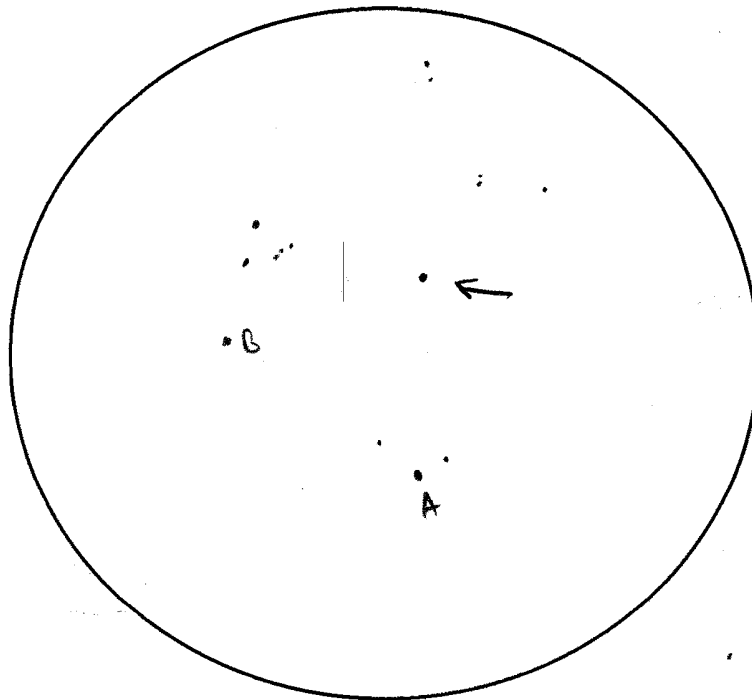
OBSERVER Brad Young OBJECT NAME W Cam NUMBER 45

DATE 5/7/11 TIME 21:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 4 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 2



³
A > X > B

4715 ies

D=87 A=81

X=8.5 ✓

CARBON STAR OBSERVING CLUB

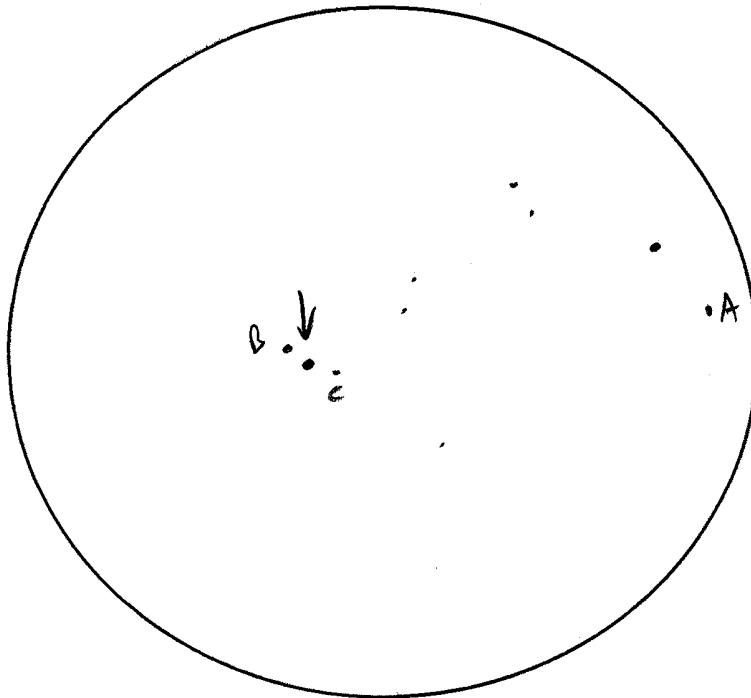
OBSERVER Brad Young OBJECT NAME NQ Gem NUMBER 46

DATE 3/12/11 TIME 3:45 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 6 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 7



$a < A > B$ $C = 10.8$

$A = \text{TYC } 1910-00447-1$ 7.8 $7432 + 24.5$

$B = 8.6$ $X = 7.9$

CHART 439 it

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME NQ Gem NUMBER 46

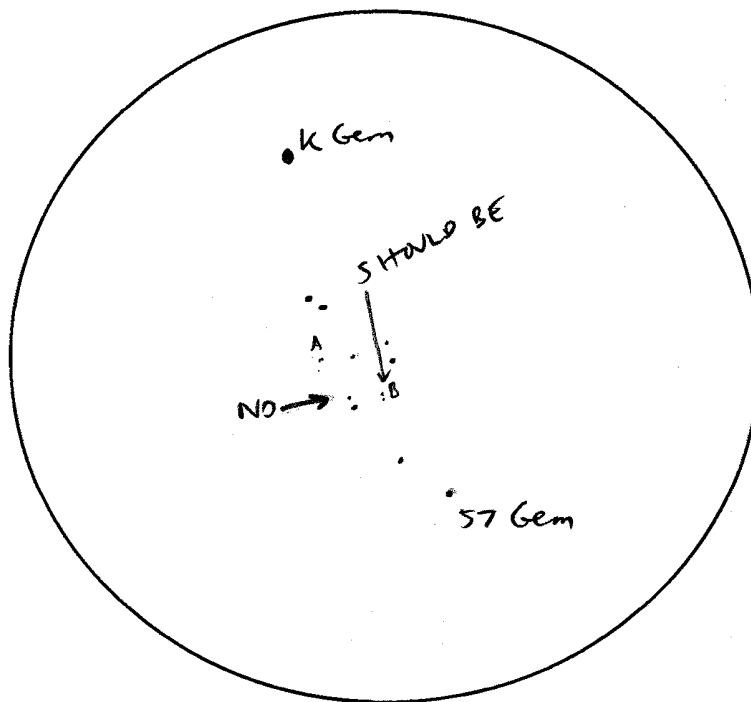
DATE 1/23/11 TIME 6:15 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 17 days

INSTRUMENT XT-12 ETX-125 12x60 EYEPIECE — mm

POWER 38 47 60 75 121 150 250 475 COLOR 1

12



$\sim A < B$

$A = 80$

Seen well, but almost no color

NOT CORRECT ONE - REVISIT

CARBON STAR OBSERVING CLUB

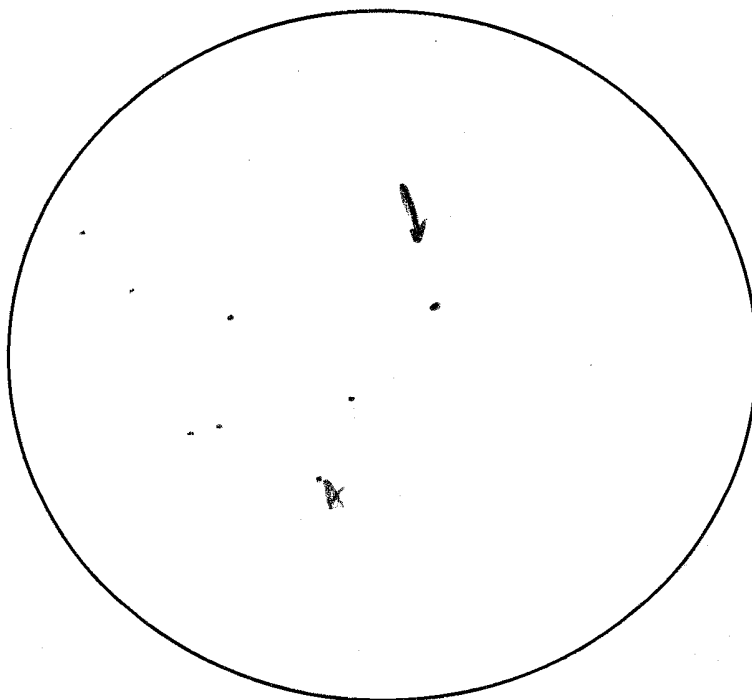
OBSERVER Brad Young OBJECT NAME RU 14 NUMBER 47

DATE 12/28/10 TIME 5:40 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-1 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 6



0.5 m > A

3541 av1

8h 07 - 22.9

A = 8.8 TYC 6555 - 00320 - 1

→ 8.3

CARBON STAR OBSERVING CLUB

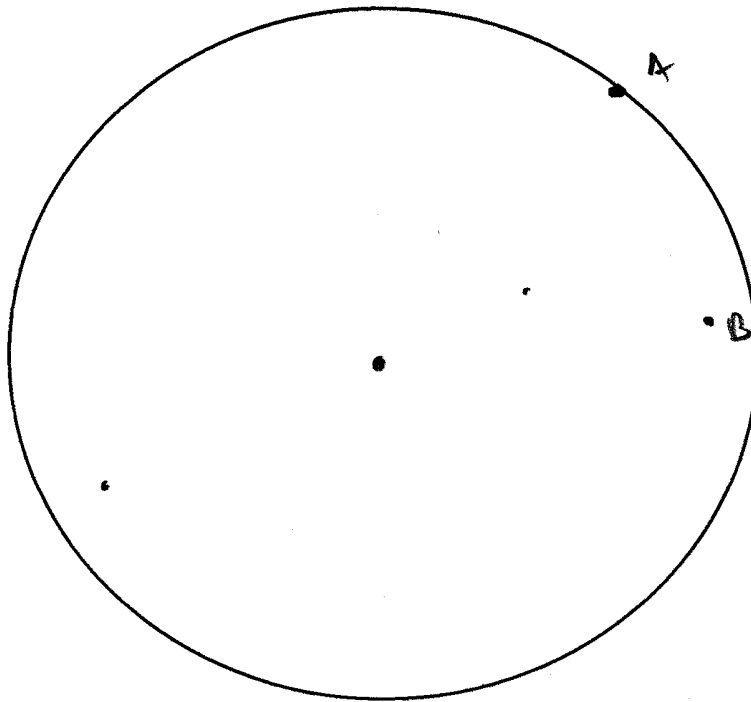
OBSERVER Brad Young OBJECT NAME X Cnc NUMBER 48

DATE 1/30/11 TIME 3:05 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 5



$A \rightarrow x \rightarrow B$

$A = 6.9$

$B = 7.2 \Rightarrow 7.0$

372455

CARBON STAR OBSERVING CLUB

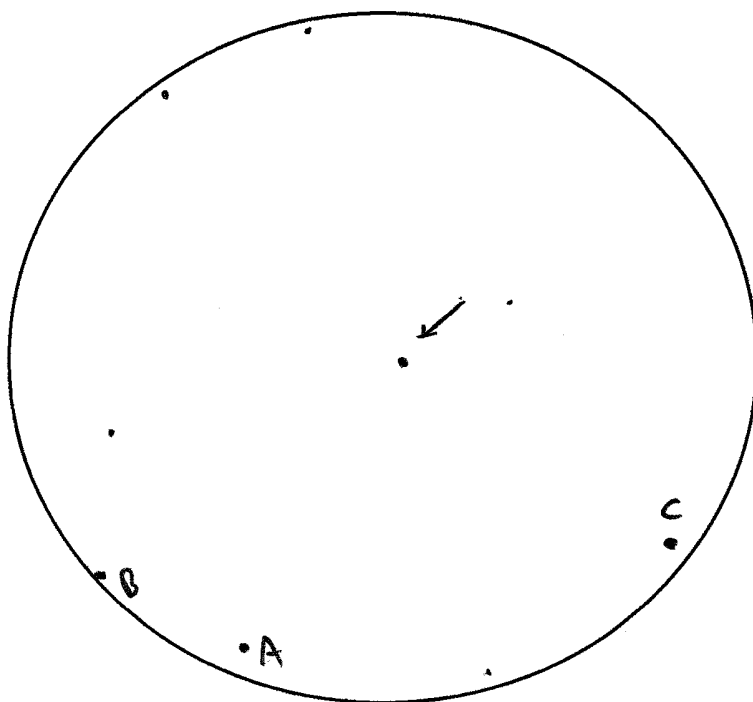
OBSERVER Brad Young OBJECT NAME TCnc NUMBER 49

DATE 1/30/11 TIME 3:10 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42x2 mm

POWER 38 47 60 75 121 150 250 475 COLOR 8



$C > A > B$

37245m

A = ~~8.2~~ 7.6

$\Rightarrow 7.5$

B = ~~6.7~~ ~~7.6~~ 8.3

C = ~~8.1~~ 6.7

OBSERVER Brad Young OBJECT NAME T, X Cnc NUMBER 49, 48

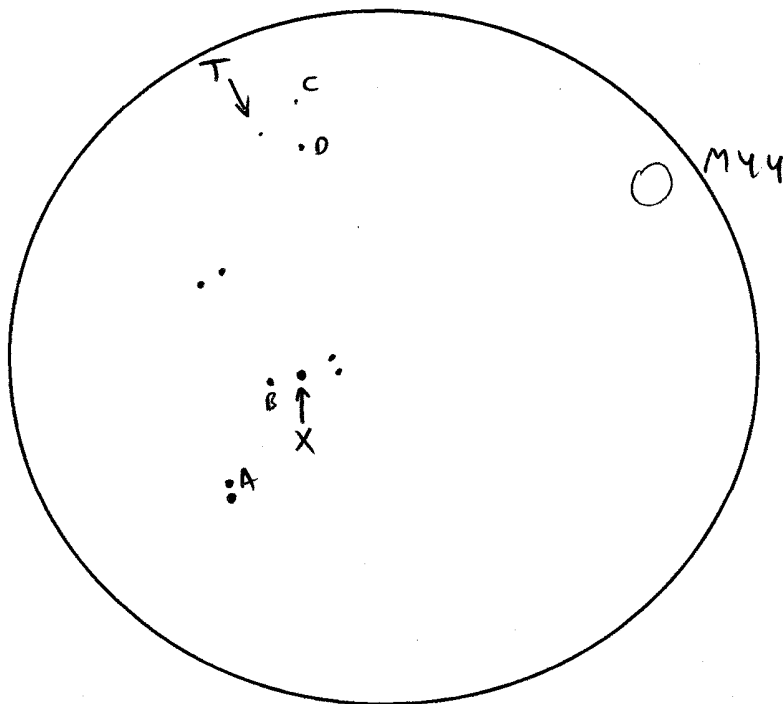
DATE 1/23/11 TIME 6:20 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 17 days

INSTRUMENT XT-12 ETX-125 12x60 EYEPIECE — mm

POWER 38 47 60 75 121 150 250 475 COLOR 8, 2

(12)



X < A, > B T > C, < D

X VIVID RED T JUST YELLOW-ORANGE

A=57 B=62 ⇒ 5.9

X Cnc = 3722 ohc

T Cnc = 3722 ohc

C=81 D=67 ⇒ 7.9

CARBON STAR OBSERVING CLUB

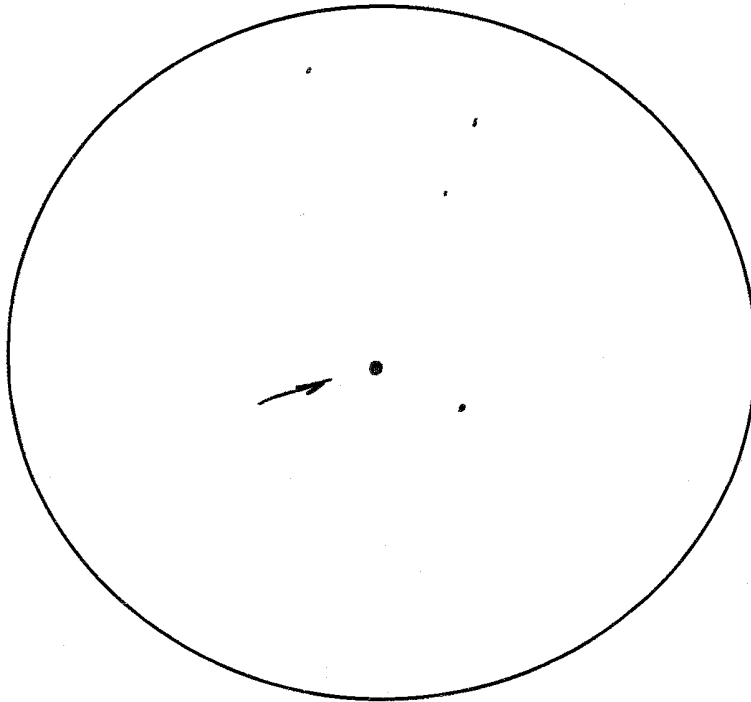
OBSERVER Brad Young OBJECT NAME Y Hya NUMBER 50

DATE 1/2/11 TIME 6:00 UT OBSERVING SITE +36 N, 96 W

SEEING (I) II III IV V TRANSP (I) II III IV V MOON AGE — days

INSTRUMENT (XT-12) ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 (75) 121 150 250 475 COLOR 7



↓ 2° N x 0.5m

3717cyz

A=7.5

→ 7.0

CARBON STAR OBSERVING CLUB

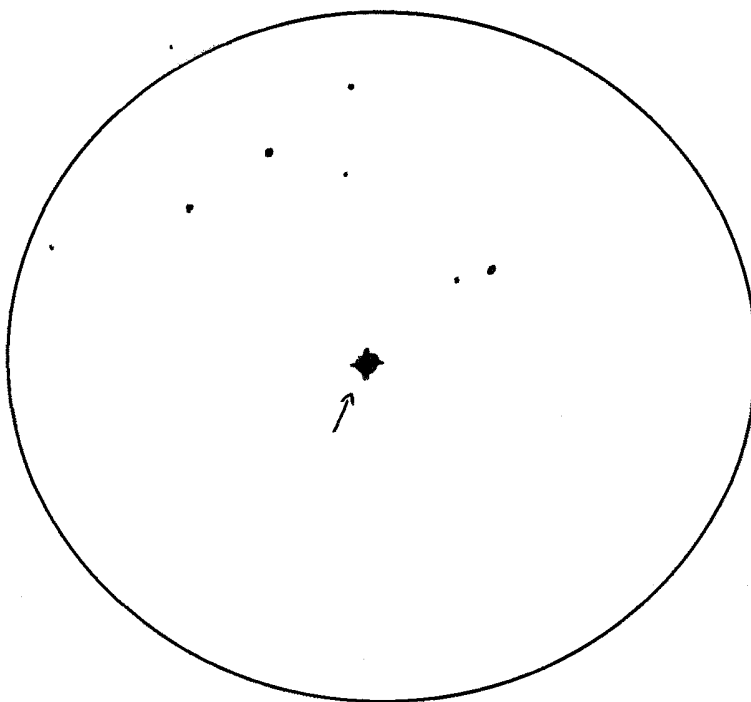
OBSERVER Brad Young OBJECT NAME U Hya NUMBER 51

DATE 3/12/11 TIME 5:25 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP III IV V MOON AGE 6 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 7



Brightest in area - easy in 12x60's

NO comparison stars selected, but

It was 25 mag

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME VY UMa NUMBER 52

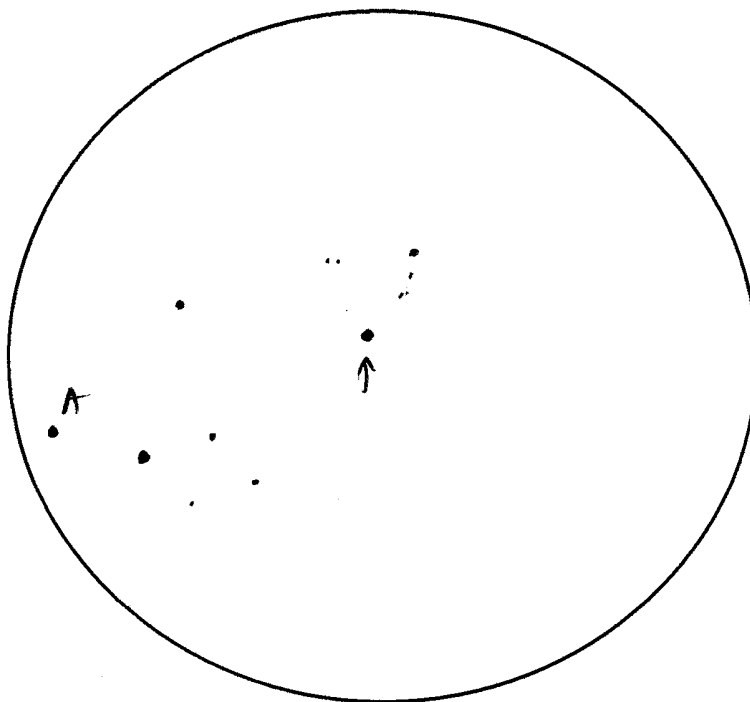
DATE 5/1/11 TIME 9:00 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 2 days

INSTRUMENT XT-12 ETX-125 12x60 EYEPIECE _____ mm

POWER 38 47 60 75 121 150 250 475 COLOR 3

12x



n = A

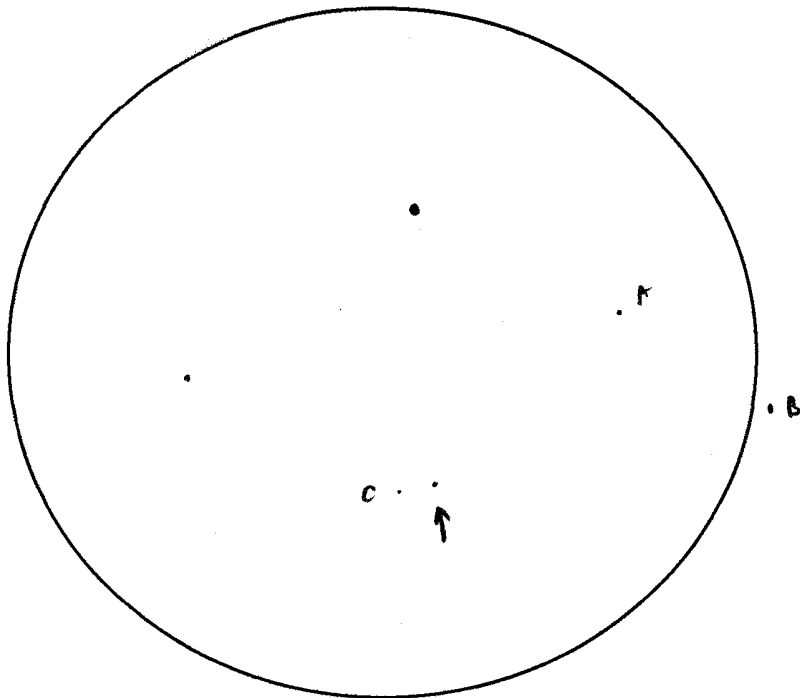
Chart 4715:16 ✓

A = 5.8

x = 5.9

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME Vitya NUMBER 53
 DATE 3/12/11 TIME 6:05 UT OBSERVING SITE +36 N, 96 W
 SEEING I II III IV V TRANSP I II III IV V MOON AGE 6 days
 INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm
 POWER 38 47 60 75 121 150 250 475 COLOR 9



$C^3 \times A^1$

$C = 10.7$

Near minimum

$A = 10.3$

$B = 10.2$

4329mc

$x = 10.4$

CARBON STAR OBSERVING CLUB

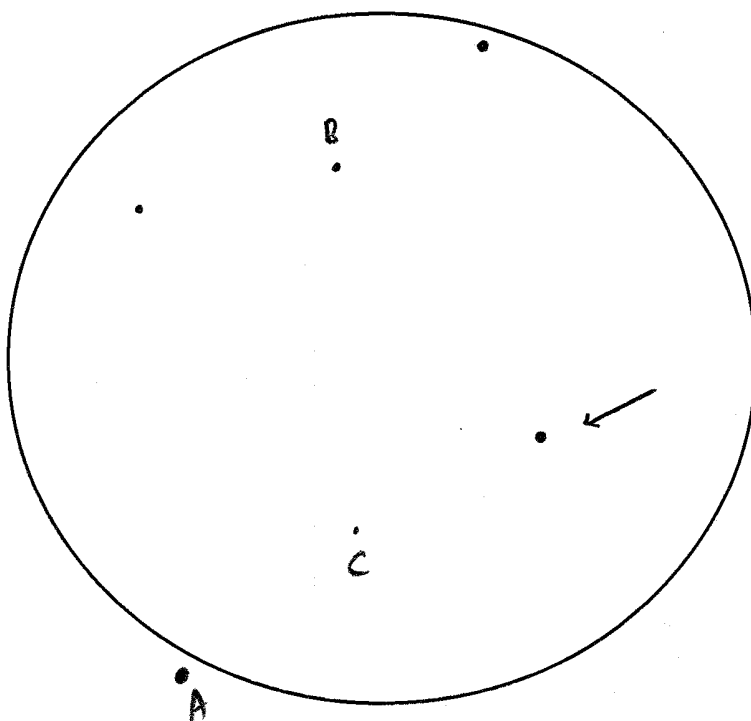
OBSERVER Brad Young OBJECT NAME SS Vir NUMBER 54

DATE 1/2/11 TIME 8:00 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 7



A > x > B

3717 czf

A = 8.7

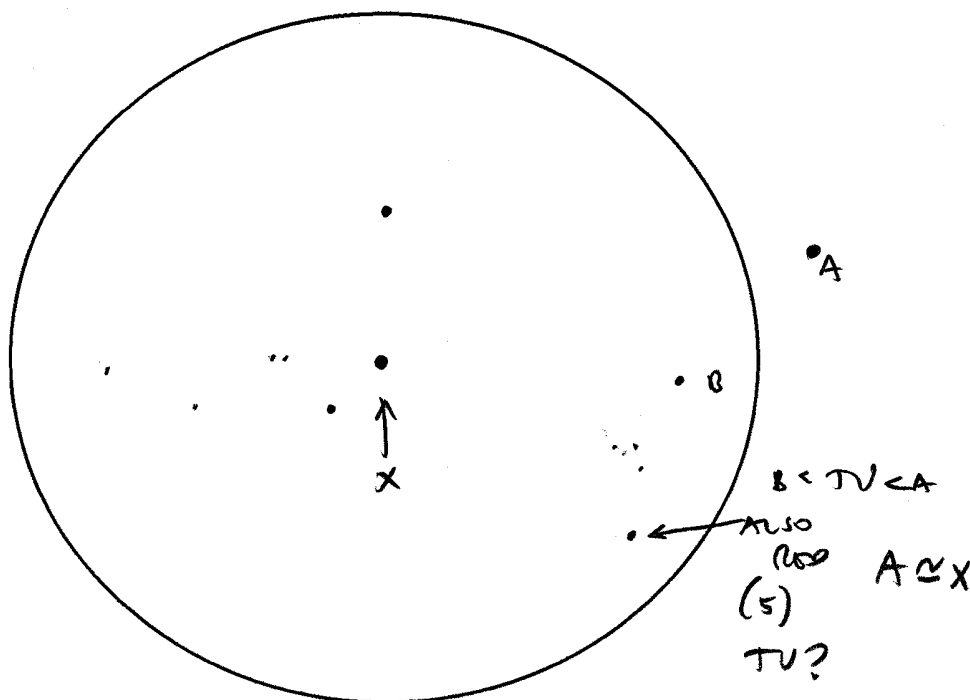
C = 9.6

B ~ 9.2

→ 9.0

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME YCVh NUMBER 55
 DATE 5/1/11 TIME 5:10 UT OBSERVING SITE +36 N, 96 W
 SEEING I II III IV V TRANSP III III IV V MOON AGE — days
 INSTRUMENT XT-12 ETX-125 12X60 EYEPIECE — mm
 POWER 38 47 60 75 121 150 250 475 COLOR 3



4715:fk
A = 5.6 X = 5.6 ✓

TV Chart = 4715:fk
56 → X → 61
X = 5.8 ✓

CARBON STAR OBSERVING CLUB

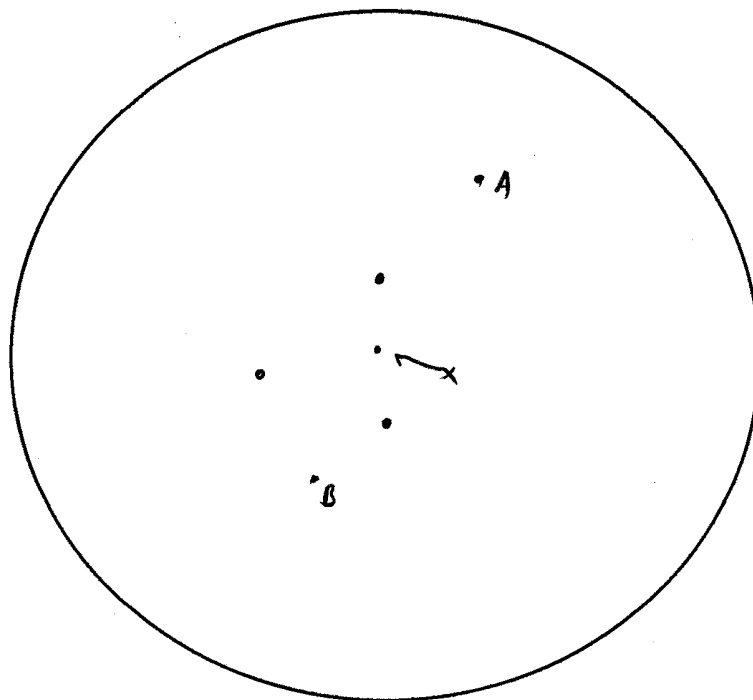
OBSERVER Brad Young OBJECT NAME 129 Pm NUMBER 56

DATE 5/1/11 TIME 3:45 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 4 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 8 (brownish)



129b

$A_{31} > B_{51} > x$

✓ 4775 ang

A not listed

$B = 6.5$

→ 6.7

CARBON STAR OBSERVING CLUB

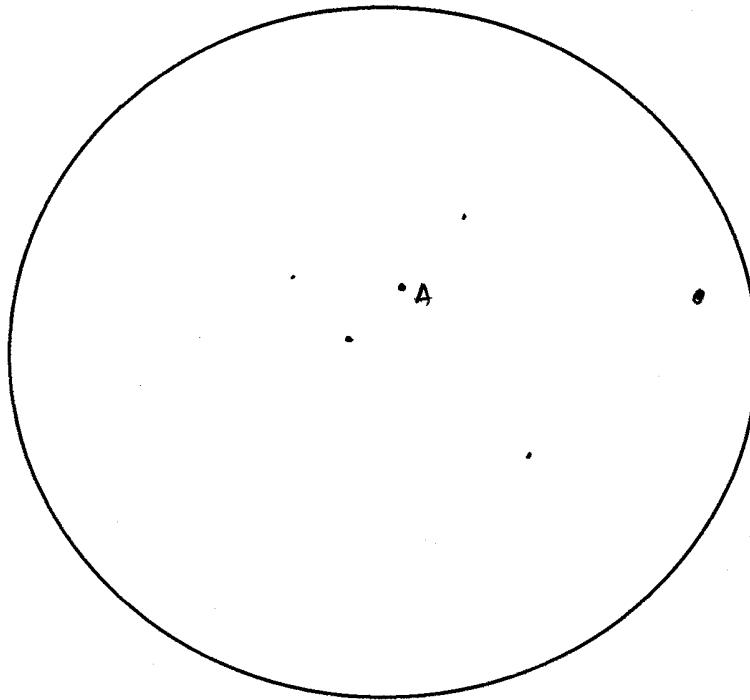
OBSERVER Brad Young OBJECT NAME SAO 157721 NUMBER 57 (vrr)

DATE 5/1/11 TIME 4:45 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER (38) 47 60 75 121 150 250 475 COLOR 2



13h06
-2007

sl. < A Not AAVSO - per VSX

CARBON STAR OBSERVING CLUB

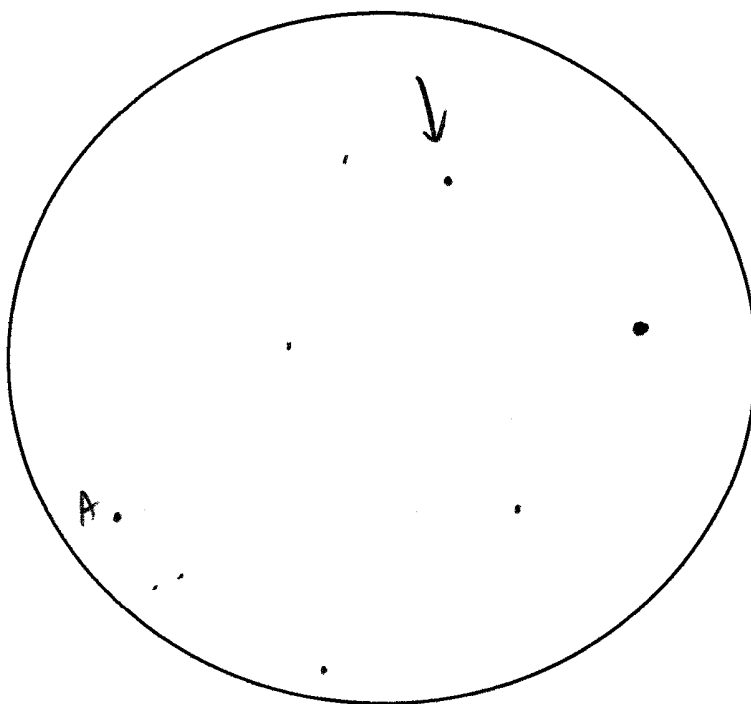
OBSERVER Brad Young OBJECT NAME V Cr B NUMBER 58

DATE 5/7/11 TIME 2:45 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 4 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 10 mm

POWER 38 47 60 75 121 150 250 475 COLOR 8



A = x

4715.6

A = 10.8

X = 10.8



CARBON STAR OBSERVING CLUB

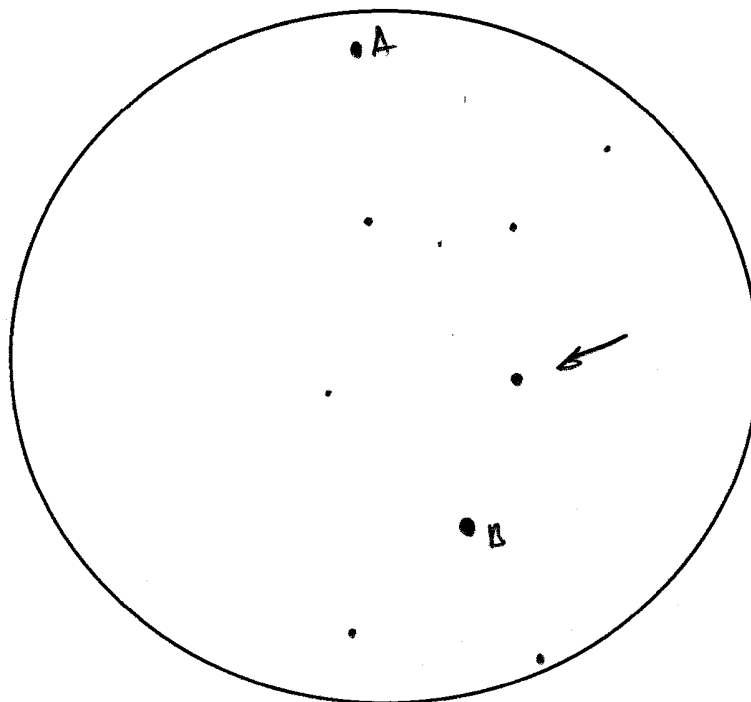
OBSERVER Brad Young OBJECT NAME RR Her NUMBER 59

DATE 5/7/11 TIME 2150 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 4 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 10 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4



$B^2 > X^3 > A$

4715 $\pm$ 5

93 102

9.7

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME V Oph NUMBER 60

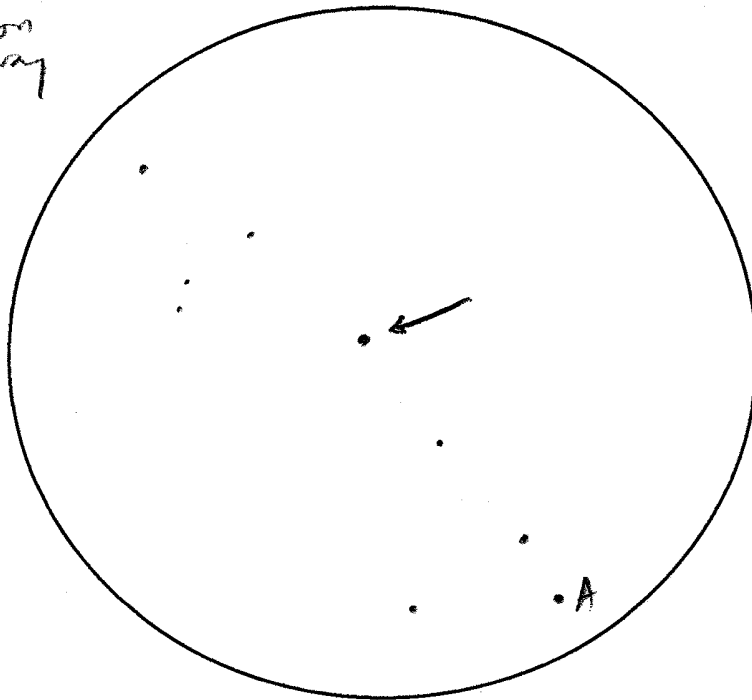
DATE 5/8/11 TIME 6:15 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 5 days

INSTRUMENT XT-12 ETX-125 _____ EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4

M107
on
way



$\alpha = A$
89

4715 ifv

8.9



CARBON STAR OBSERVING CLUB

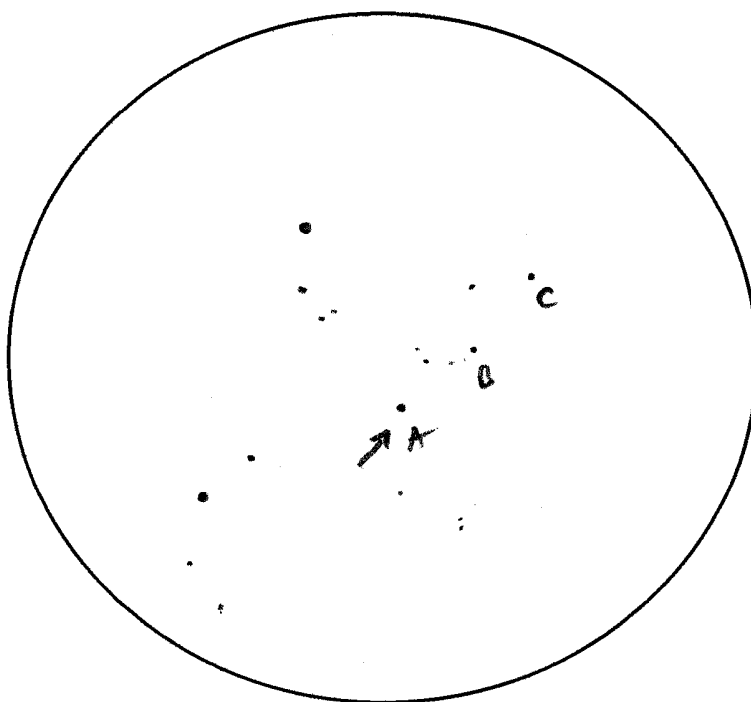
OBSERVER Brad Young OBJECT NAME SAO 46574 ^(Her) NUMBER 61

DATE 5/7/11 TIME 3:20 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 4 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 1



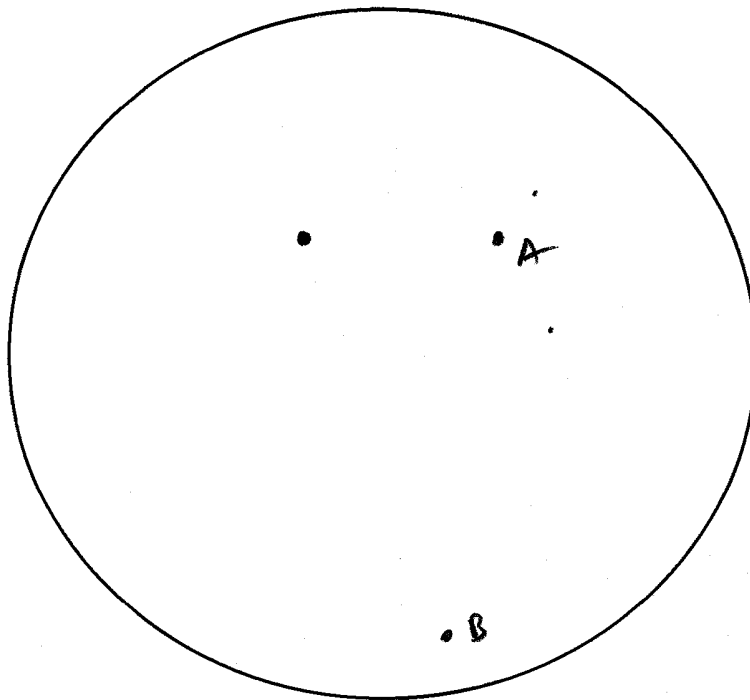
17M14
+4206

A>B>C

Nor AAVSO per VST

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME TW Oph NUMBER 62
DATE 5/29/11 TIME 8:00 UT OBSERVING SITE +36 N, 96 W
SEEING I II III IV V TRANSP I II III IV V MOON AGE — days
INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm
POWER 38 47 60 (75) 121 150 250 475 COLOR 6



$A < B < X$

49196.4

A=93 B=86

X=7.9 ✓

CARBON STAR OBSERVING CLUB

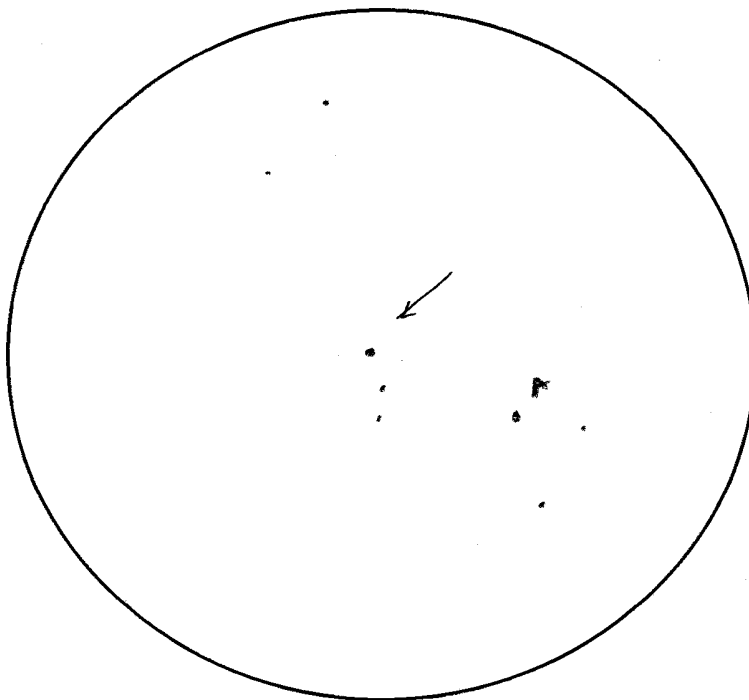
OBSERVER Brad Young OBJECT NAME SZ Sgr NUMBER 63

DATE 5/31/11 TIME 7:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE _____ days

INSTRUMENT XT-12 ETX-125 _____ EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4



X > A near 49196, k

no comp stars

CARBON STAR OBSERVING CLUB

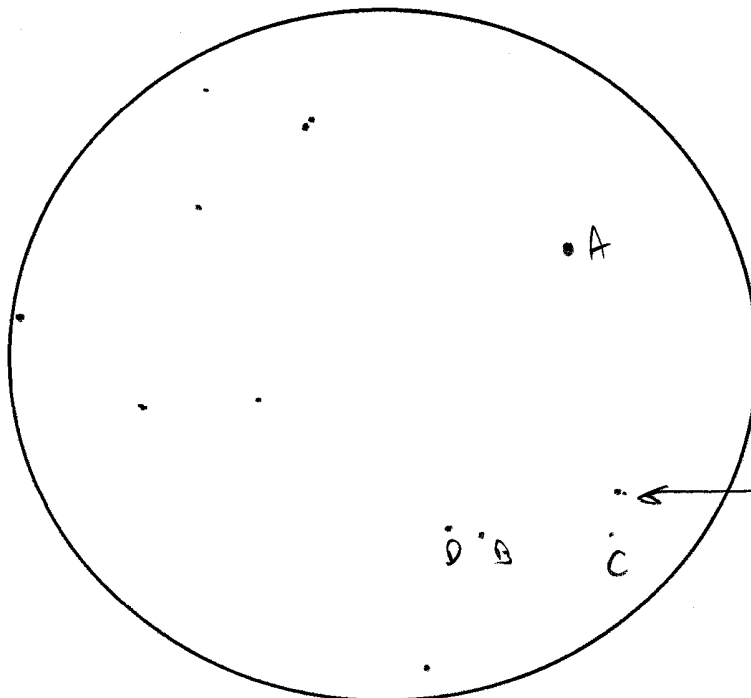
OBSERVER Brad Young OBJECT NAME T Dra NUMBER 64

DATE 5/7/11 TIME 3:25 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 3 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 10 mm

POWER 38 47 60 75 121 50 250 475 COLOR 2



As drawn $\approx$ 12.0

A = 100

47.5 kdn ✓

B = 115

C = 124

D = 121

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME Fo Ser NUMBER 65

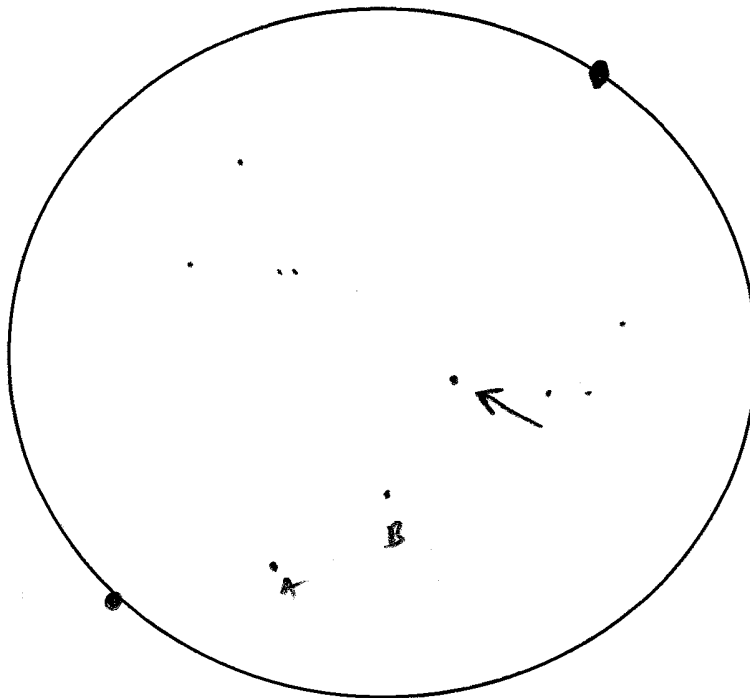
DATE 5/31/11 TIME 7:00 UT OBSERVING SITE +36 N, 96 W

SEEING I II III (IV) V TRANSP I (II) III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 _____ EYEPIECE 2x42 mm

POWER 38 47 60 (75) 121 150 250 475 COLOR 3

M17



⁴
x > A > B

49196ja

no comp stars

CARBON STAR OBSERVING CLUB

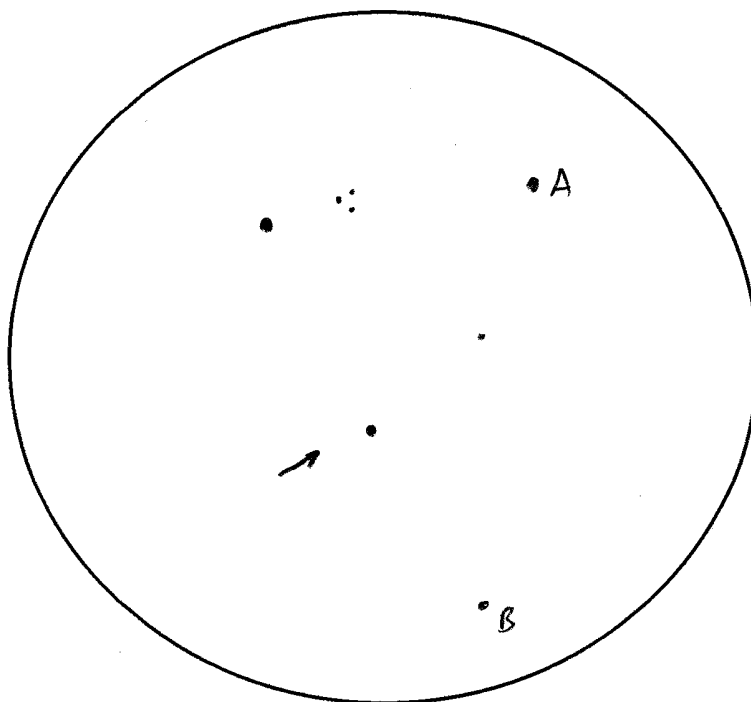
OBSERVER Brad Young OBJECT NAME AC Her NUMBER 66

DATE 5/8/11 TIME 5:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 5 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42mm

POWER 38 47 60 75 121 150 250 475 COLOR 0



A > x > B

4715 ifx

69

82

7.5



CARBON STAR OBSERVING CLUB

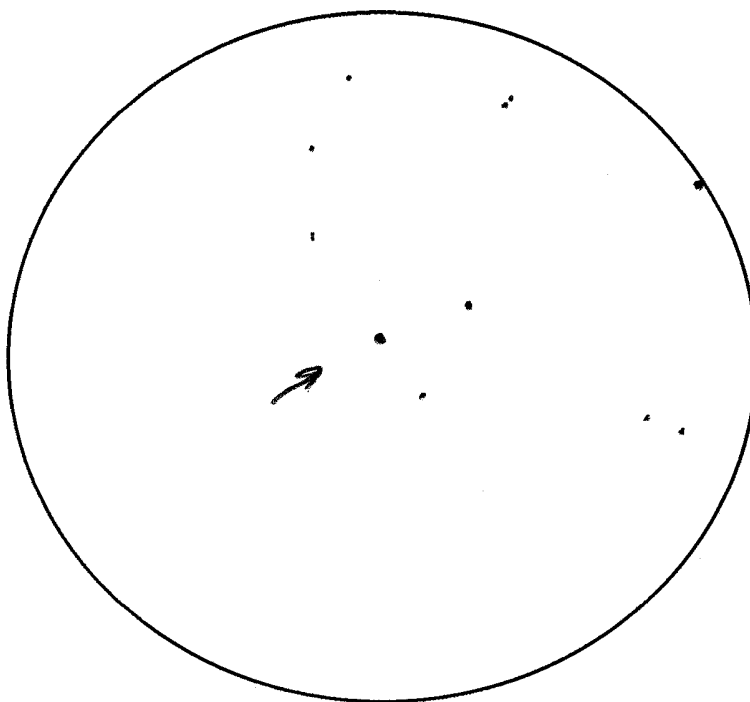
OBSERVER Brad Young OBJECT NAME T Lyr NUMBER 67

DATE 5/8/11 TIME 5:15 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 5 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 2



~9 mag but no comp stars

CARBON STAR OBSERVING CLUB

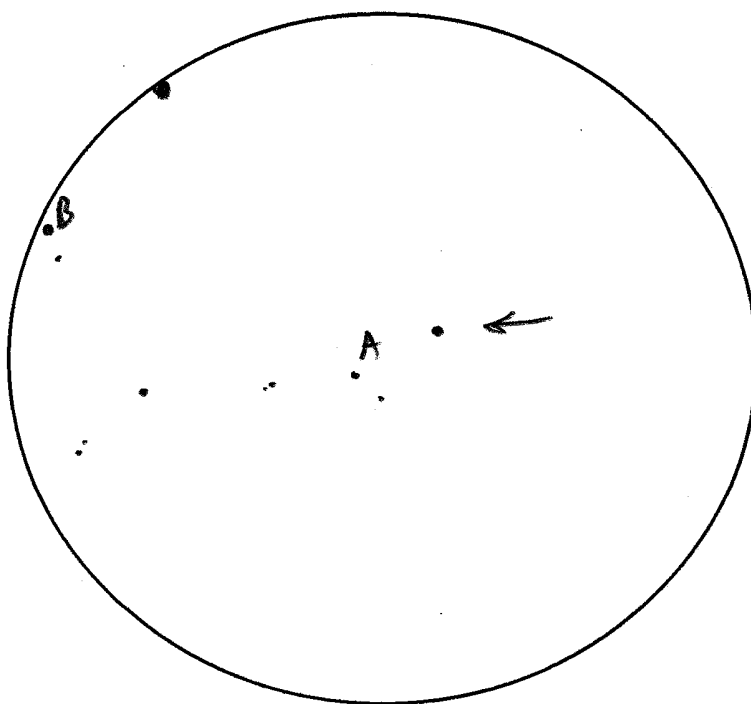
OBSERVER Brad Young OBJECT NAME HK Lyr NUMBER 68

DATE 5/8/11 TIME 5:45 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 5 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 5



$$A^3 < x < B^2$$

No comp. stars on 4715gc

CARBON STAR OBSERVING CLUB

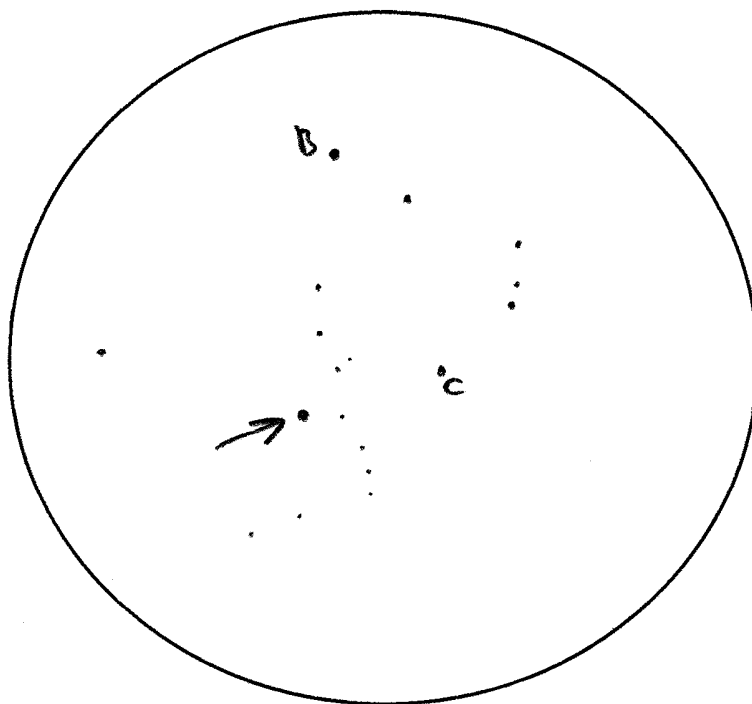
OBSERVER Brad Young OBJECT NAME SSC utm NUMBER 69

DATE 5/8/11 TIME 6:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 5 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4



sl < B x ¹/_A x ³/_c

70 73

2715 ign ✓

6.9

CARBON STAR OBSERVING CLUB

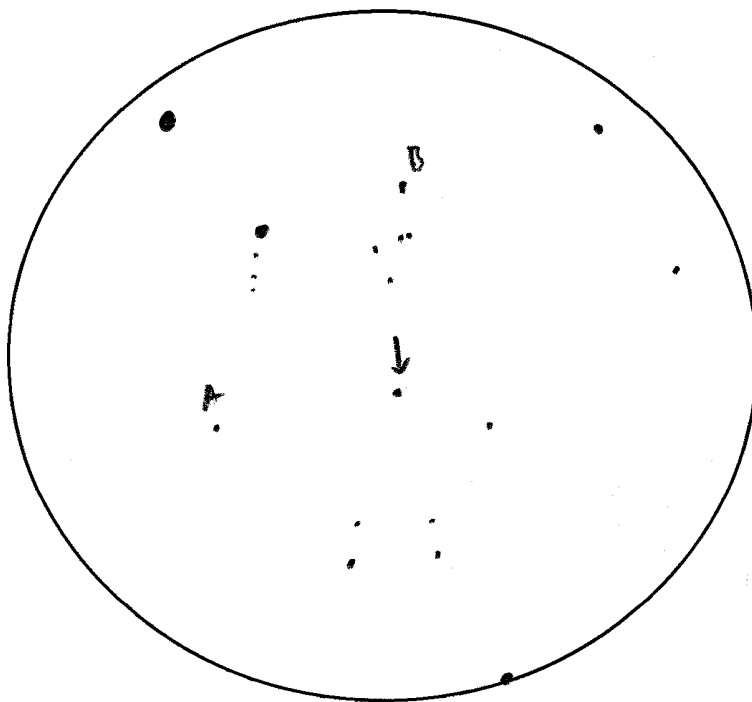
OBSERVER Brad Young OBJECT NAME UV A₉₁ NUMBER 70

DATE 6/4/11 TIME 3:40 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 3 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER (38) 47 60 75 121 150 250 475 COLOR 3



^{~90}
B > X > A ^{~90}

493/avx

no good

comp stars

~9.4

CARBON STAR OBSERVING CLUB

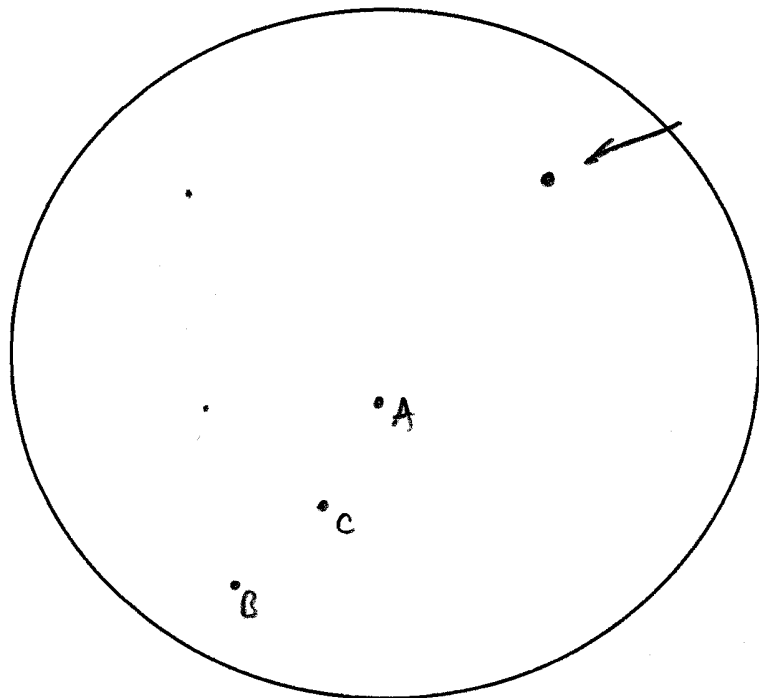
OBSERVER Brad Young OBJECT NAME ✓ Aγ1 NUMBER 71

DATE 5/8/11 TIME 6:40 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 5 days

INSTRUMENT XT-12 ETX-125 EYEPIECE _____ mm

POWER 38 47 60 75 121 150 250 475 COLOR 6



$$x > A > B$$

$$C = 80$$

4715 i_{gh}

$$69$$

$$B > C \approx 73$$

$$\Rightarrow \textcircled{6.6}$$



CARBON STAR OBSERVING CLUB

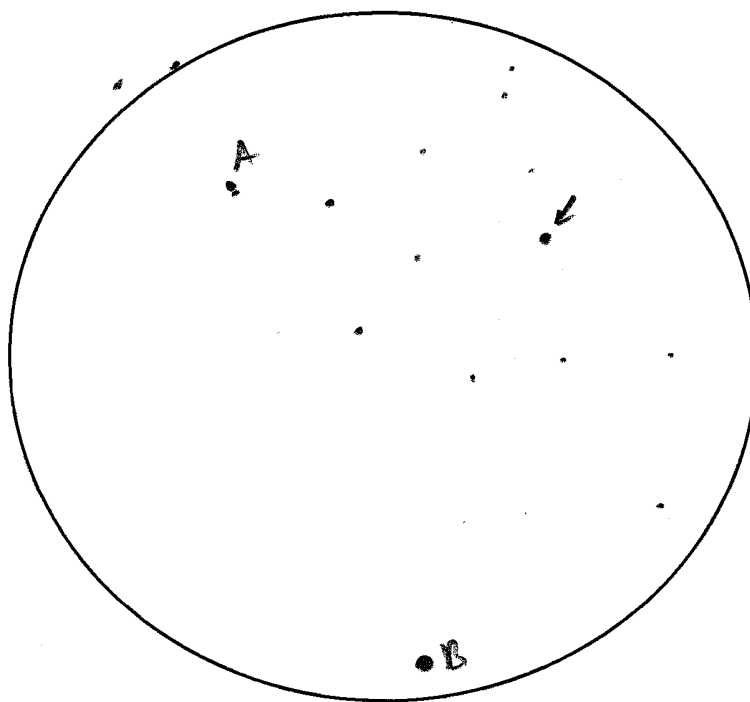
OBSERVER Brad Young OBJECT NAME V1942 Sgr NUMBER 72

DATE 5/29/11 TIME 3:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2X42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 1



$x^m < A < B = 6.1$

491961x

19419.1m -15.9

~6.7

✓

CARBON STAR OBSERVING CLUB

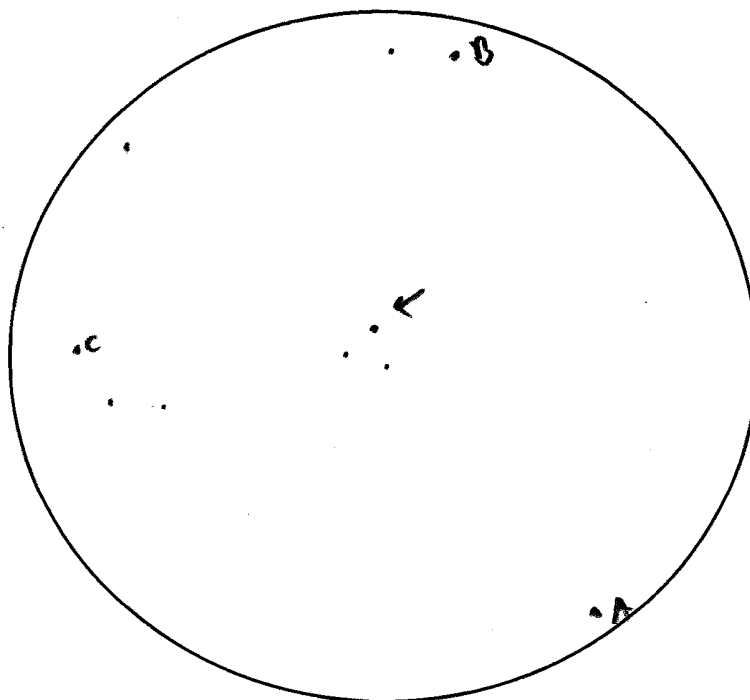
OBSERVER Brad Young OBJECT NAME U Lyr NUMBER 73

DATE 6/4/11 TIME 2:50 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP II III IV V MOON AGE 3 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 10 mm

POWER 38 47 60 75 121 150 250 475 COLOR 5



$B^3 \times A > C$

$B = 10.6$

4931 av

A ~ 11.0 from chart

$\Rightarrow 10.9$

CARBON STAR OBSERVING CLUB

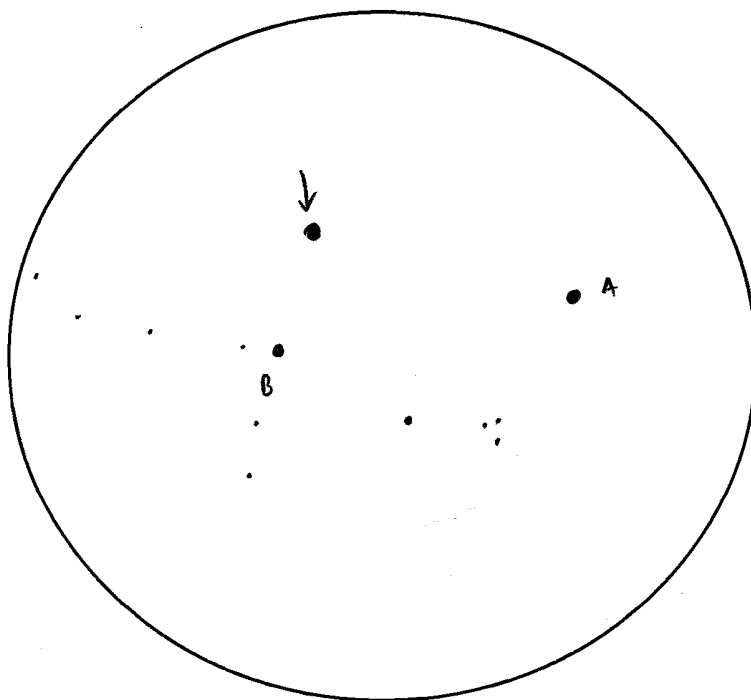
OBSERVER Brad Young OBJECT NAME UX Or NUMBER 74

DATE 5/8/11 TIME 6:50 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 5 days

INSTRUMENT XT-13 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 6



$\alpha > A > B$

No comp. stars on 4715gi

CARBON STAR OBSERVING CLUB

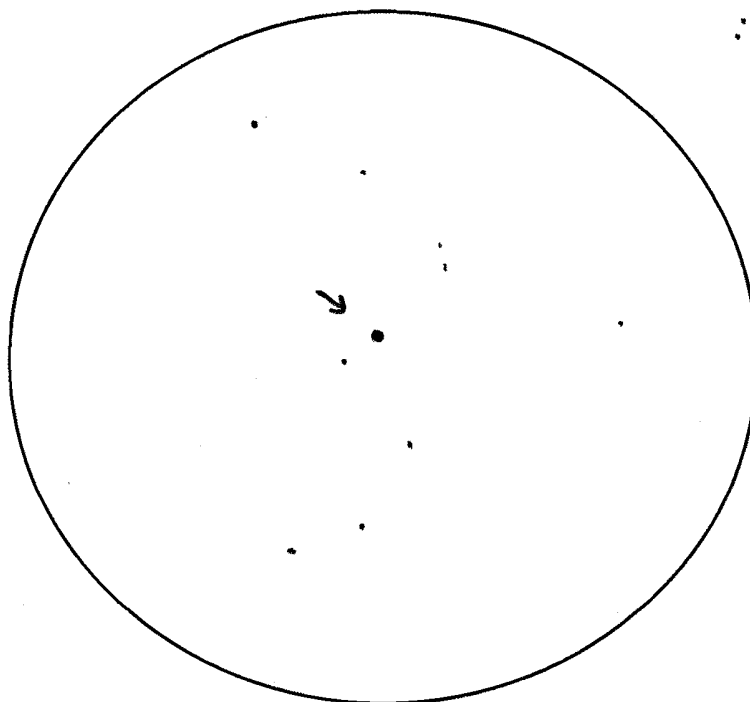
OBSERVER Brad Young OBJECT NAME NSV 11960 (A91) NUMBER 78

DATE 5/29/11 TIME 3:20 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 0



• x
• A
• B

$\alpha^1 > A > B^3$

4919612

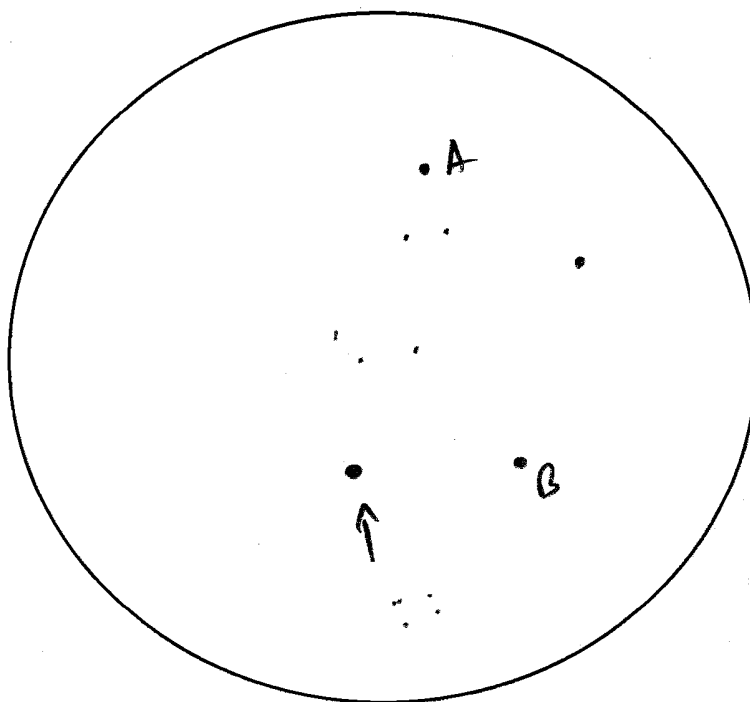
19h23.2 -10.7

no comp

Stars

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME AW Cyg NUMBER 76
 DATE 6/4/11 TIME 4:15 UT OBSERVING SITE +36 N, 96 W
 SEEING I II III IV V TRANSP I II III IV V MOON AGE 3 days
 INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm
 POWER 38 47 60 75 121 150 250 475 COLOR 2



72 76
 $\alpha > \theta > A$

~~493~~ awb

chart has
 different

position
 ~ 6.8

CARBON STAR OBSERVING CLUB

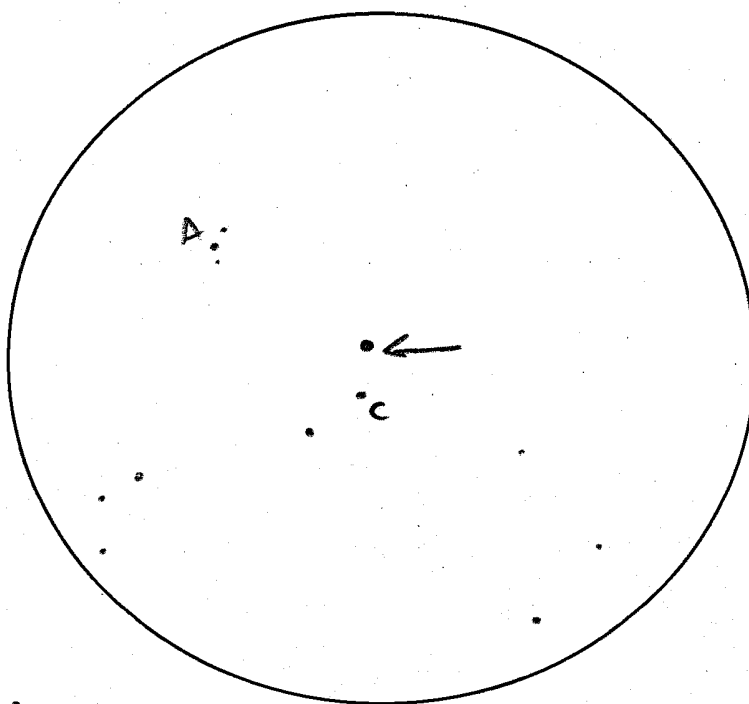
OBSERVER Brad Young OBJECT NAME AQ Ser NUMBER 77

DATE 6/4/11 TIME 5:55 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 3 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 3



$B > X > A$

$A > c$

4931 agw

no comp stars

CARBON STAR OBSERVING CLUB

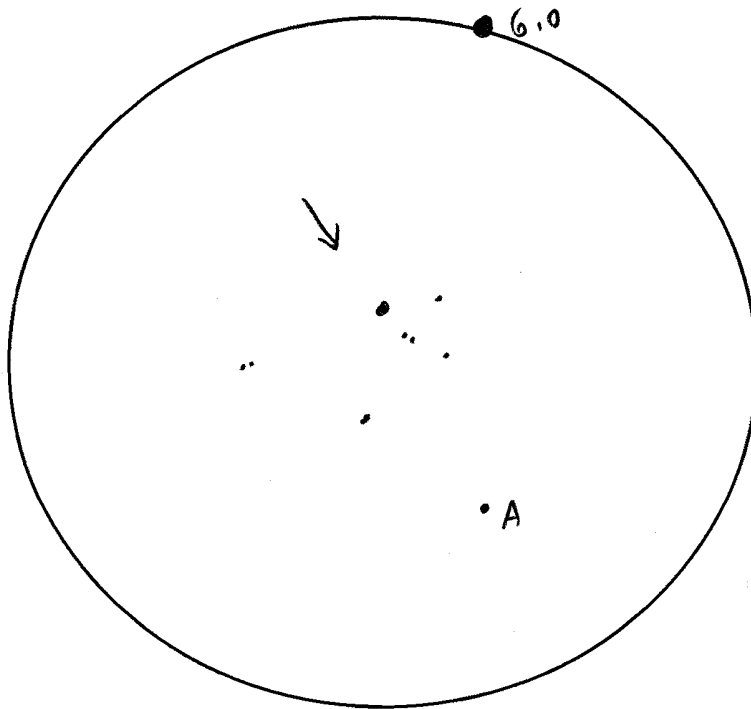
OBSERVER Brad Young OBJECT NAME TT Cy NUMBER 78

DATE 5/8/11 TIME 7:10 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 5 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 3



$X > A$ by 1 mag but < 6.0
70 $\Rightarrow$ 6.4
47.5 gl

CARBON STAR OBSERVING CLUB

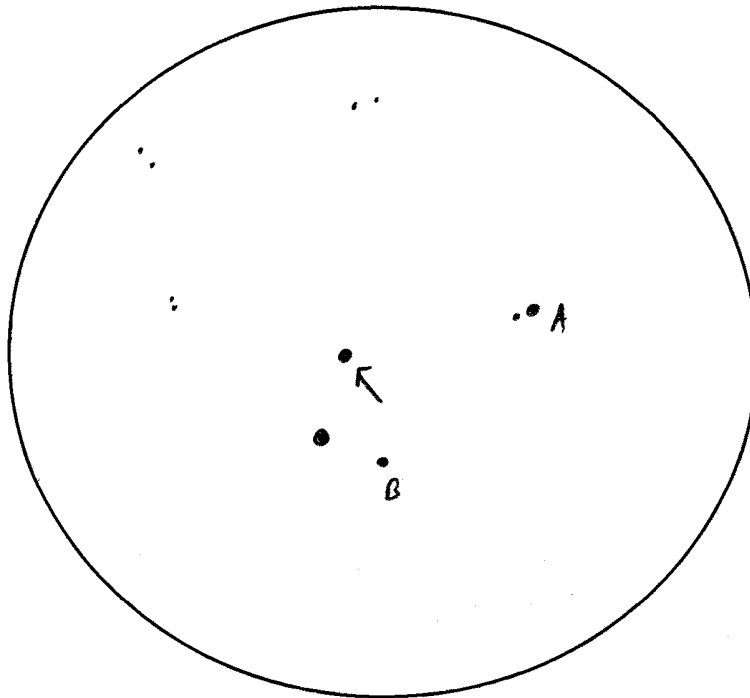
OBSERVER Brad Young OBJECT NAME Ant Cyg NUMBER 76

DATE 5/8/11 TIME 7:00 UT OBSERVING SITE +36 N, 96 W

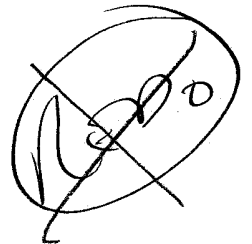
SEEING I II III IV V TRANSP I II III IV V MOON AGE 5 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 6



on the way



$A^3 \times B^2$

check clear

THIS IS AX Cyg - saw AN Cyg 6/4/11

NO COMP STARS

ON 4931600

CARBON STAR OBSERVING CLUB

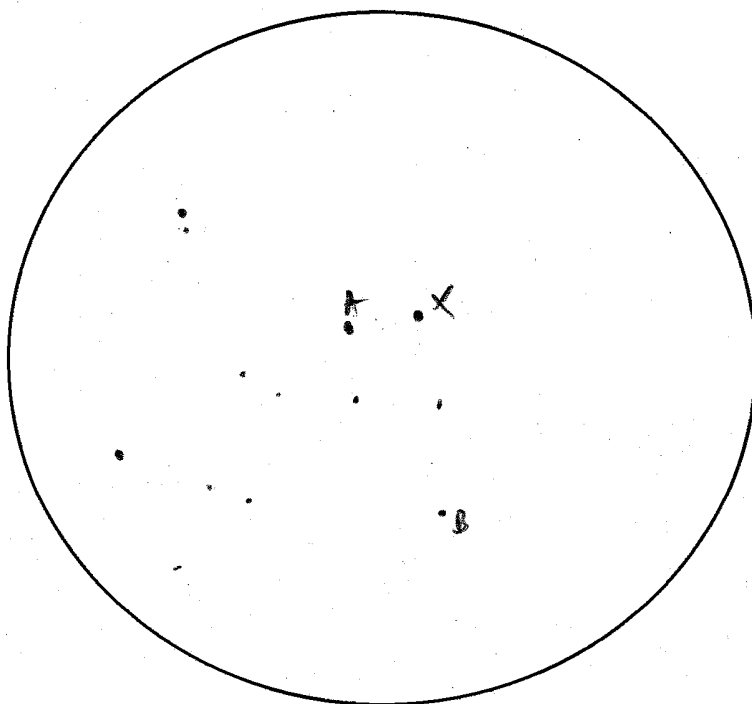
OBSERVER Brad Young OBJECT NAME V1469 Aql NUMBER 80

DATE 6/4/11 TIME 5:40 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 3 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 3



A > X > B

2001 +9.5

4931 aft

no comp stars

CARBON STAR OBSERVING CLUB

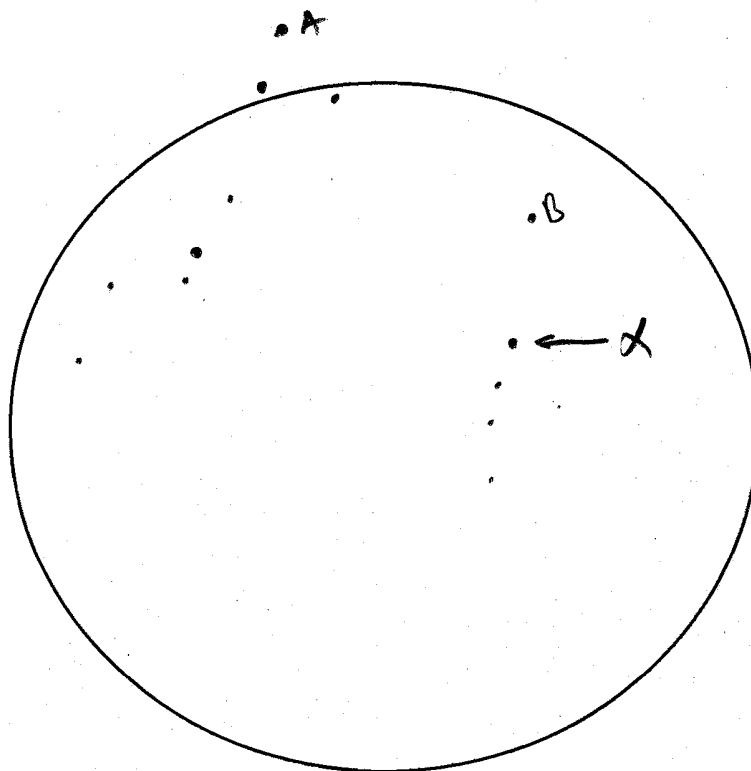
OBSERVER Brad Young OBJECT NAME BF Sge NUMBER 81

DATE 6/4/11 TIME 4:50 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 3 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 10 mm

POWER 38 47 60 75 121 160 250 475 COLOR 3



XMA

4931 dym

B listed 9.9

no good comp

Star

A ~ 10.0

~ 10.0

CARBON STAR OBSERVING CLUB

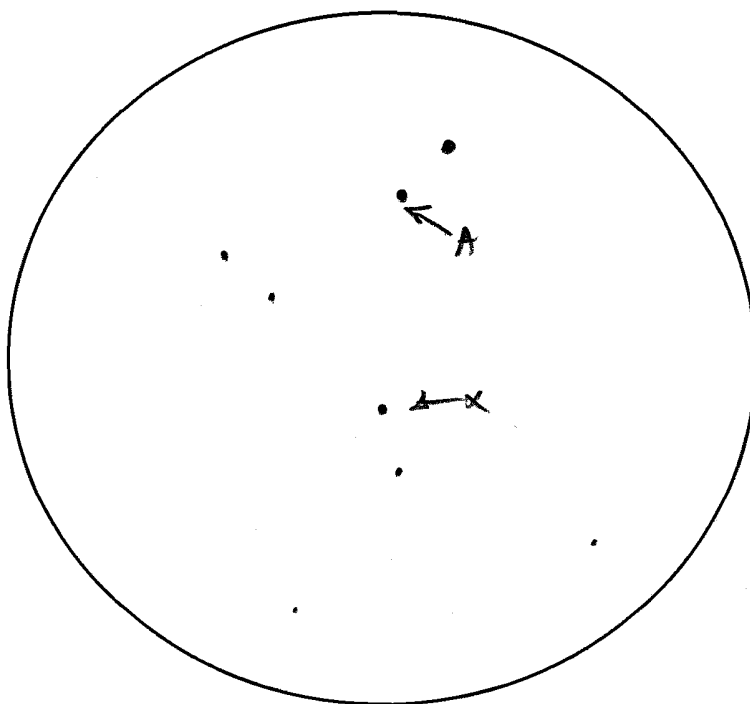
OBSERVER Brad Young OBJECT NAME X 5ge NUMBER 82

DATE 5/29/11 TIME 2:10 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 7



X = A

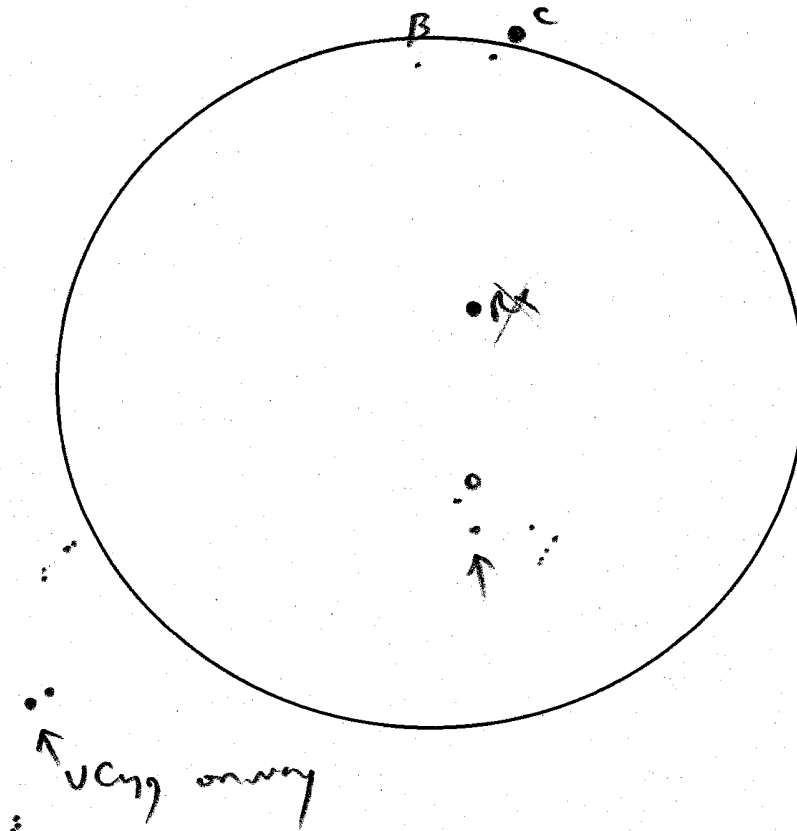
49196.7

A not listed by 284



CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME SV Cyg NUMBER 83
 DATE 6/4/11 TIME 6:55 UT OBSERVING SITE +36 N, 96 W
 SEEING I II III IV V TRANSP I II III IV V MOON AGE 3 days
 INSTRUMENT XT-12 ETX-125 EYEPIECE 24x2 mm
 POWER 38 47 60 75 121 150 250 475 COLOR 2



U ≈ A C = 4 752 ~7.5 4931920

• 0.2

• A ~ 7.5

$x^1 > B > 0^{98} \rightarrow 9.5$

$B < A < C$ (NOT A!)

CARBON STAR OBSERVING CLUB

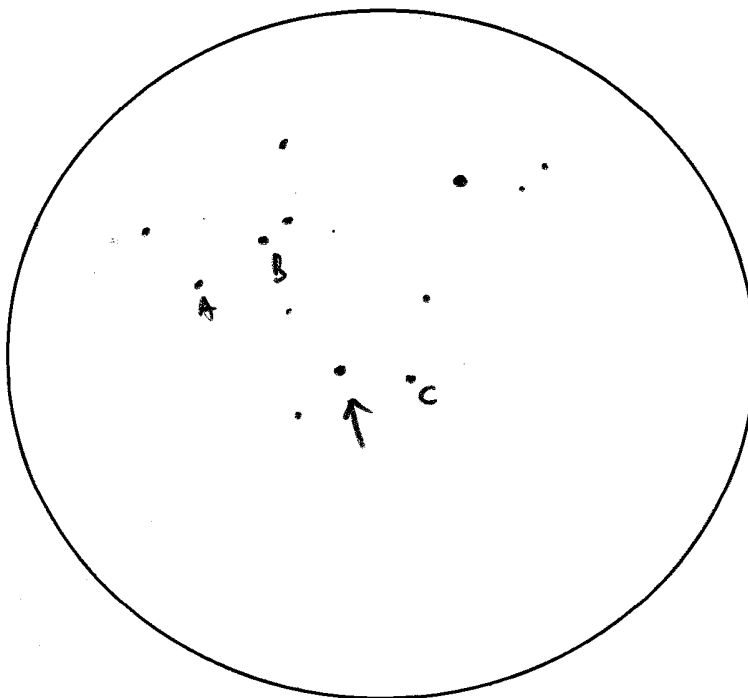
OBSERVER Brad Young OBJECT NAME R7 Cyg NUMBER 84

DATE 6/5/11 TIME 6:20 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 4 days

INSTRUMENT XT-12 ETX-125 _____ EYEPIECE 10 mm

POWER 38 47 60 75 121 150 250 475 COLOR 5



A > B = X > C

CHART 4936 Cyg

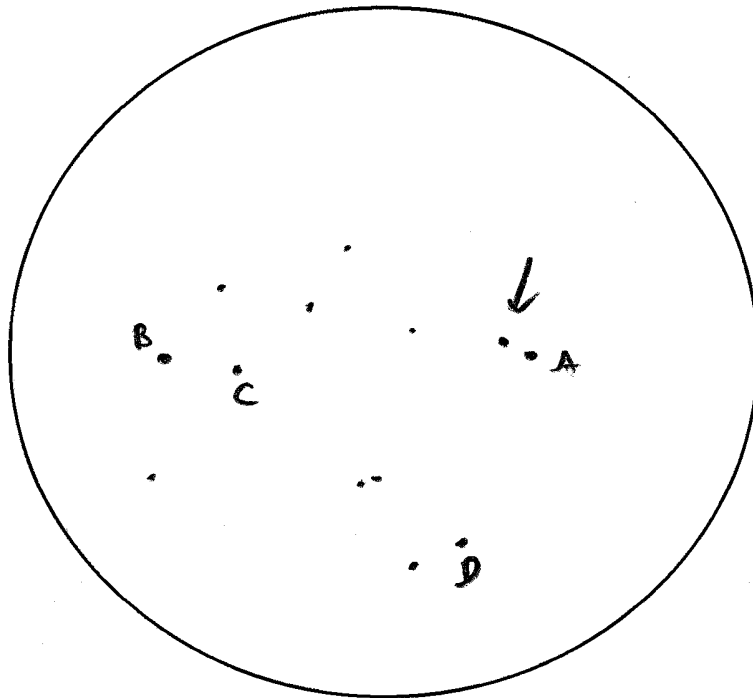
A = 91 B = 92

✓ C = ?

⇒ 9.2

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME RS Cyg NUMBER 85
 DATE 6/5/11 TIME 6:30 UT OBSERVING SITE +36 N, 96 W
 SEEING I (II) III IV V TRANSP I II (III) IV V MOON AGE 4 days
 INSTRUMENT (XT-12) ETX-125 EYEPIECE 42 mm
 POWER (38) 47 60 75 121 150 250 475 COLOR 7



$$X < A, < C > B \quad s1 > D$$

4936 Cyg

A = 7.1 / C = 7.2

✓ B = 8.0

D may be var.

⇒ 7.9

CARBON STAR OBSERVING CLUB

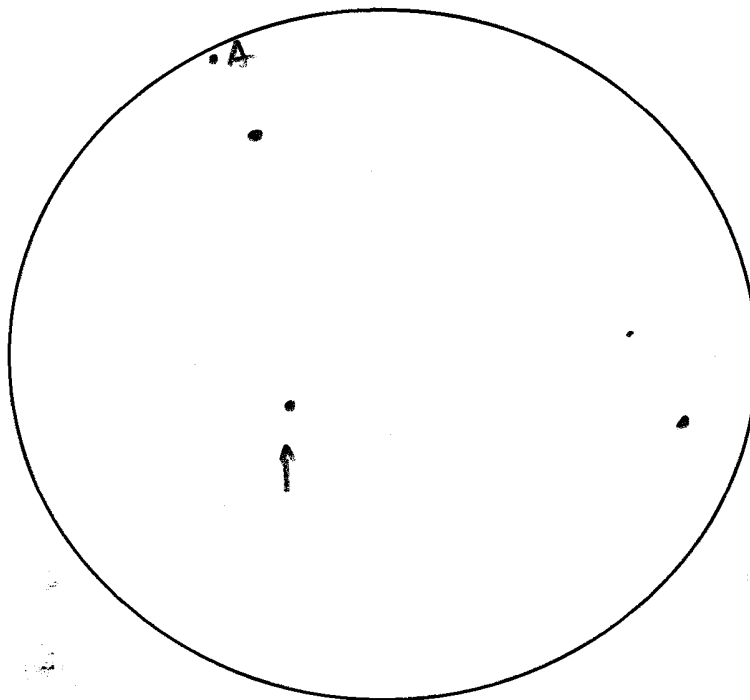
OBSERVER Brad Young OBJECT NAME RT Cap NUMBER 86

DATE 6/5/11 TIME 8:00 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 4 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 7



x2A

4936 dai

no comp stars

✓ A ≈ 8.0 from chart

≈ 8.0

CARBON STAR OBSERVING CLUB

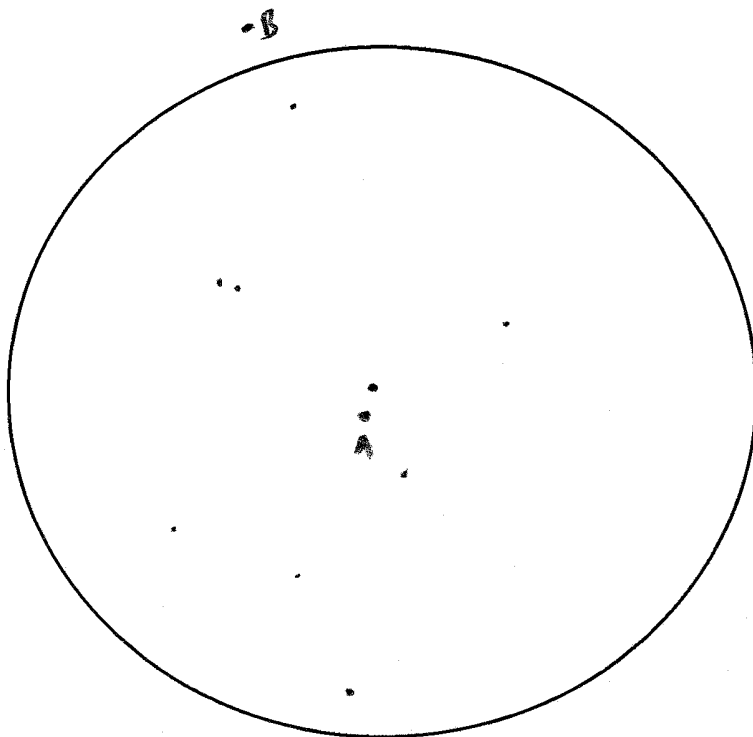
OBSERVER Brad Young OBJECT NAME V Cyg NUMBER 87

DATE 1/3/11 TIME 2:30 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 _____ EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 9*



* ACCENTUATED BY B-W F.S.

$A^3 B^1 \times$

26h 20 + 48

$A = 8.0$

3717 lez

$B = 8.2$

$\rightarrow 8.3$

CARBON STAR OBSERVING CLUB

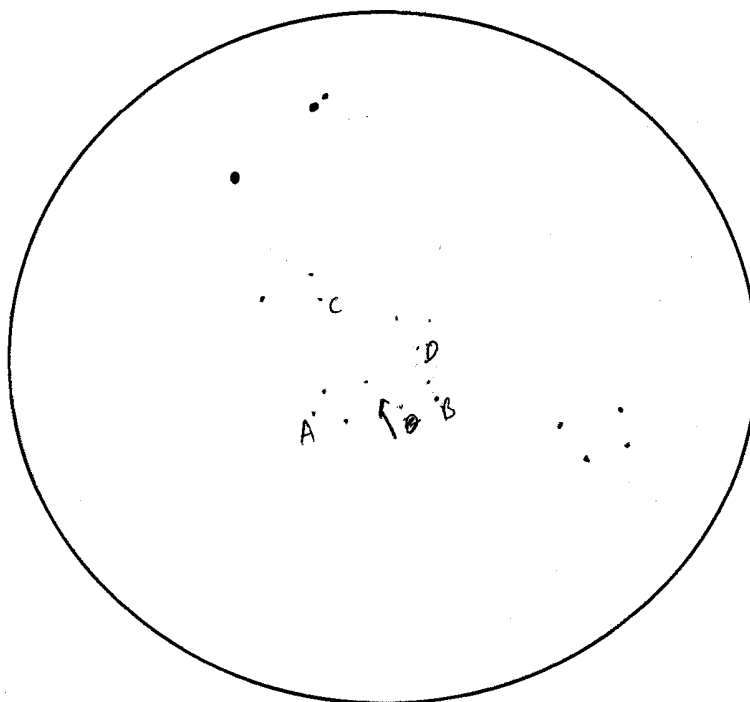
OBSERVER Brad Young OBJECT NAME V Cyg NUMBER 88

DATE 1/29/11 TIME 1:16 UT OBSERVING SITE 36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 2



MUCH EASIER FROM ACT OBSERVATORY

A=10.4

3724rk

B=10.6

=> 11.0

C=9.8

D=11.1

CARBON STAR OBSERVING CLUB

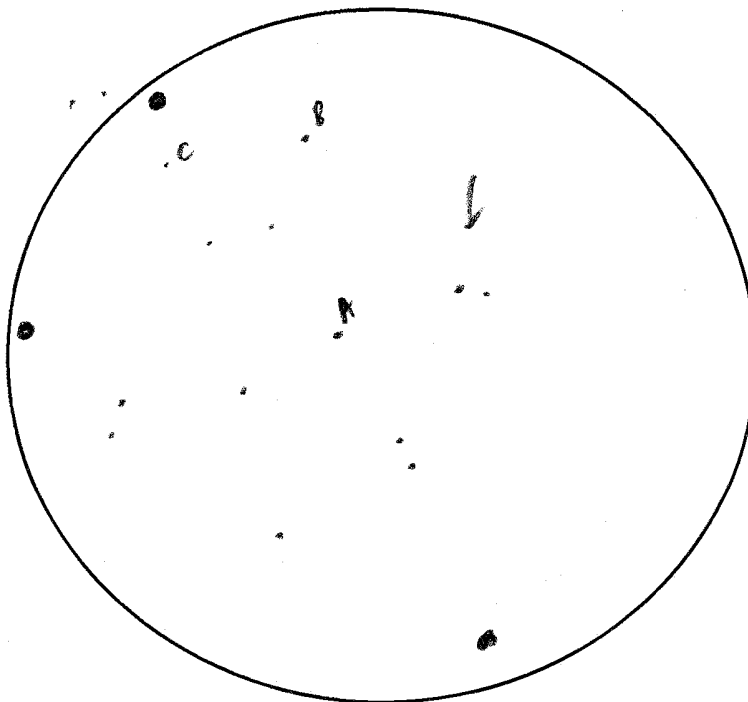
OBSERVER Brad Young OBJECT NAME CY CYGNI NUMBER 89

DATE 1/3/11 TIME 2:05 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE - days

INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 2



$x < A \approx B > C$

3717 CZO

$A = 8.7$

20h 47m 46s

$B = 8.8$

$C = 9.1$

$\rightarrow 8.8$

CARBON STAR OBSERVING CLUB

26449 +17.8

SAO 106576 (Del)

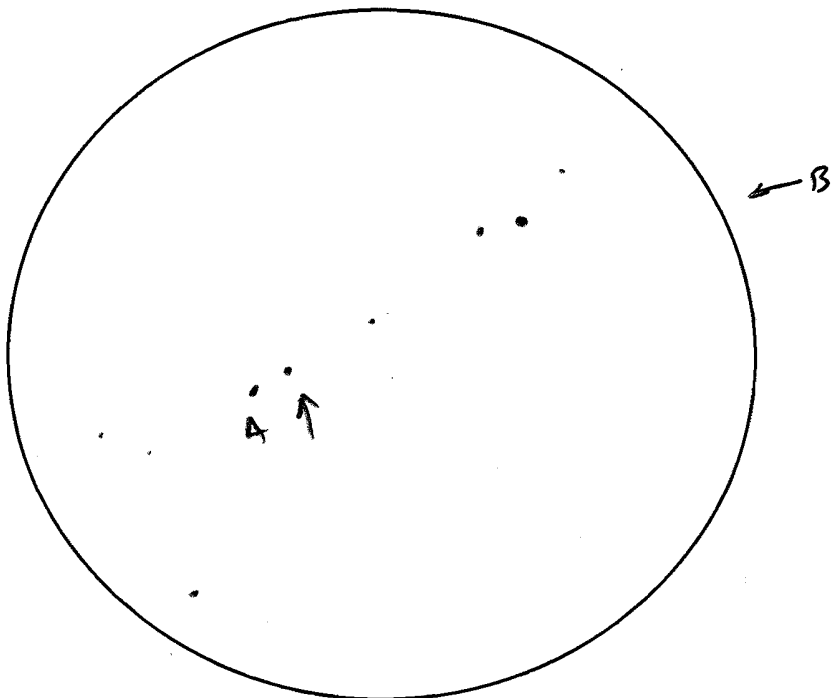
OBSERVER Brad Young OBJECT NAME ~~NSV 13571~~ NUMBER 90

DATE 6/5/11 TIME 6:40 UT OBSERVING SITE +36 N, 96 W

SEEING I (II) III IV V TRANSP I (II) III IV V MOON AGE 4 days

INSTRUMENT (XT-12) ETX-125 EYEPIECE 42 mm

POWER (38) 47 60 75 121 150 250 475 COLOR 1



A^{sl} X

~~No chart~~

4936 cz+

but no comp stars

exc. B=6.5

verifies x = target

CARBON STAR OBSERVING CLUB

21410+26.6

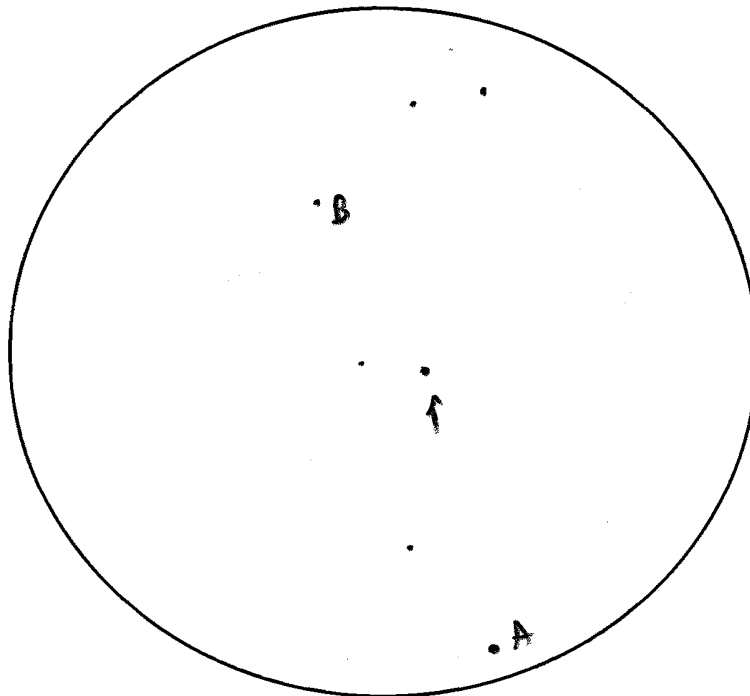
OBSERVER Brad Young OBJECT NAME 13571 (V01) NUMBER 91

DATE 6/5/11 TIME 6:50 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 4 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 1



$A > B$

4936 czy

verifies target

but no comp star

CARBON STAR OBSERVING CLUB

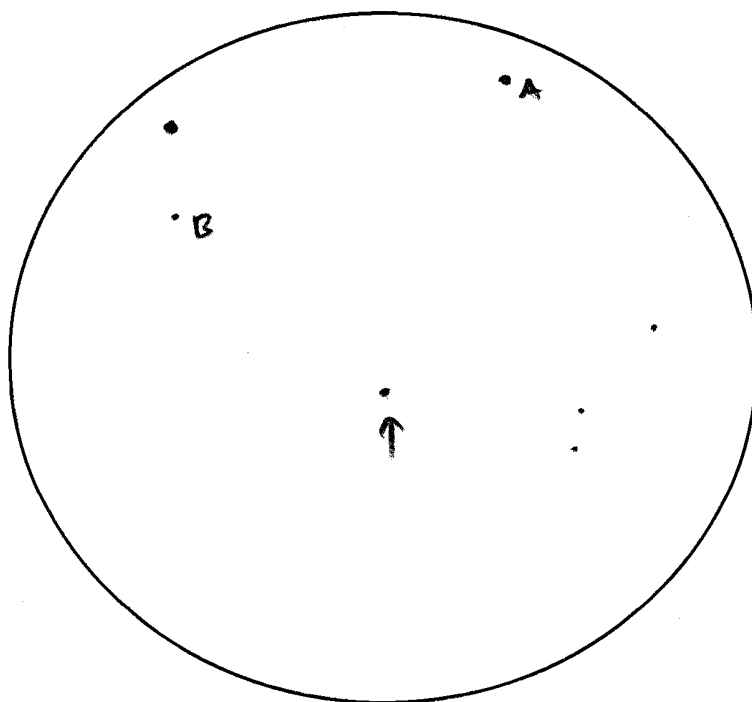
OBSERVER Brad Young OBJECT NAME S Cep NUMBER 92

DATE 6/5/11 TIME 7:10 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE 4 days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 8



$\mu > \times \approx B$

4936 days

No Comp stars

that I recorded

CARBON STAR OBSERVING CLUB

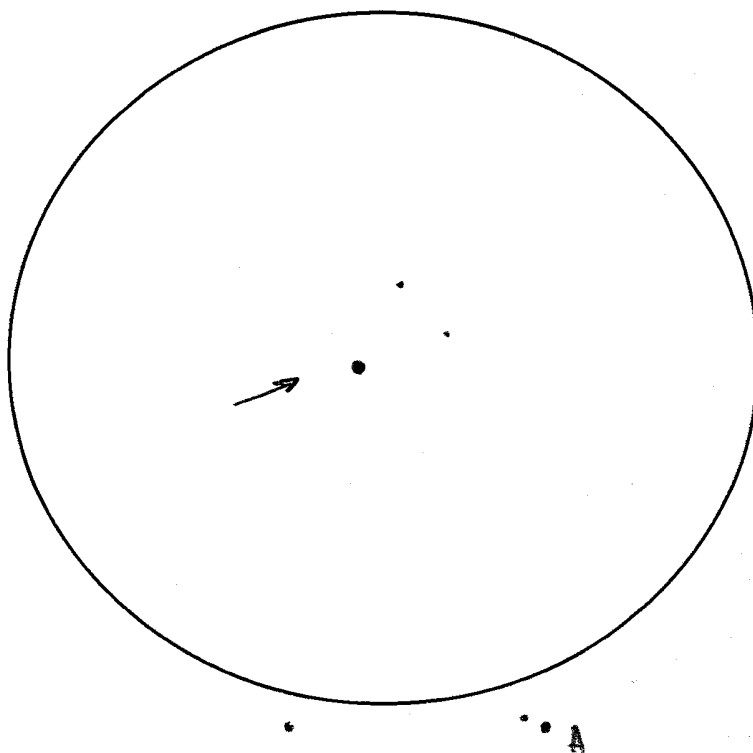
OBSERVER Brad Young OBJECT NAME V460 Cyg NUMBER 93

DATE 12/29/10 TIME 2:00 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT KT-12 ETX-125 EYEPIECE 2x42 mm

POWER 38 47 60 75 121 150 250 475 COLOR 2



$0.2 > A = 6.9$

3541 atc

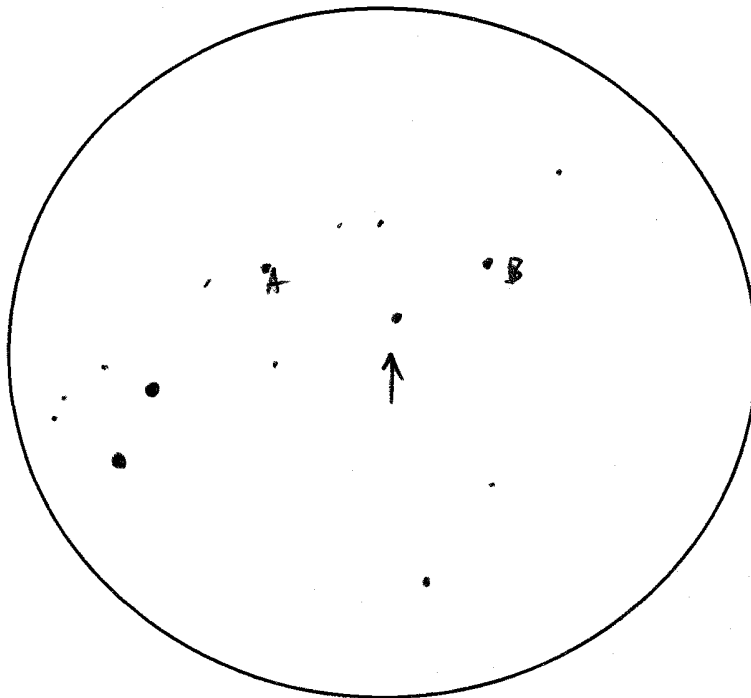
$21642 + 35.5$

$A = 5702725 - 00007 - 1$

~ 6.7

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME M Cys NUMBER 94
DATE 12/31/10 TIME 1:45 UT OBSERVING SITE +36 N, 96 W
SEEING I II III IV V TRANSP I II III IV V MOON AGE — days
INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm
POWER 38 47 60 75 121 150 250 475 COLOR 7



A < α < B

3541 crf ✓

21543 +38

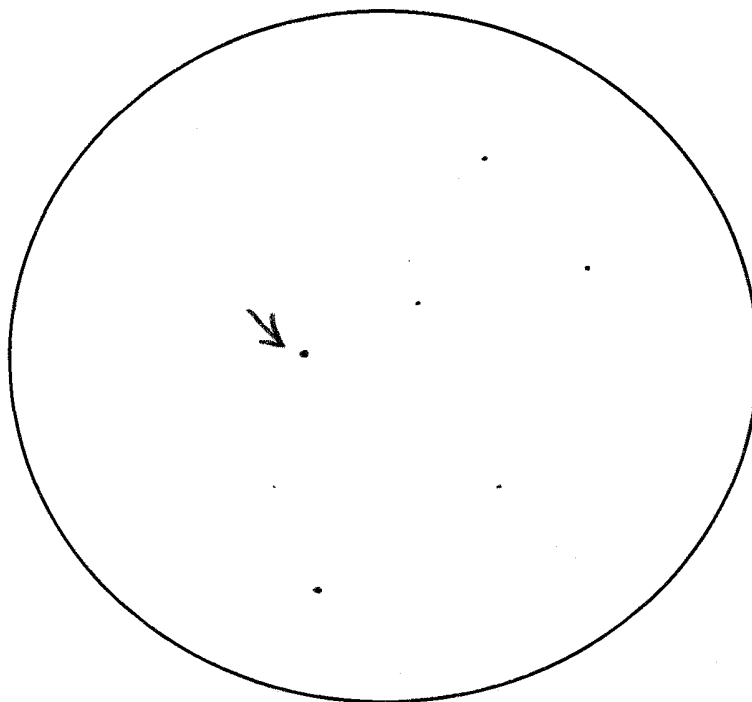
A 8.2 MYC 3184-01891-1

B 7.4 MYC 3184-00719-1

→ 7.7

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME Alx Peg NUMBER 95
DATE 12/31/10 TIME 1:25 UT OBSERVING SITE +36 N, 96 W
SEEING I II III IV V TRANSP I II III IV V MOON AGE — days
INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm
POWER 38 47 60 75 121 150 250 475 COLOR 3



$\approx A \approx 21.58 + 23.5$

3541 crg

$A = 8.5$ TYC 2203-02113-1

CARBON STAR OBSERVING CLUB

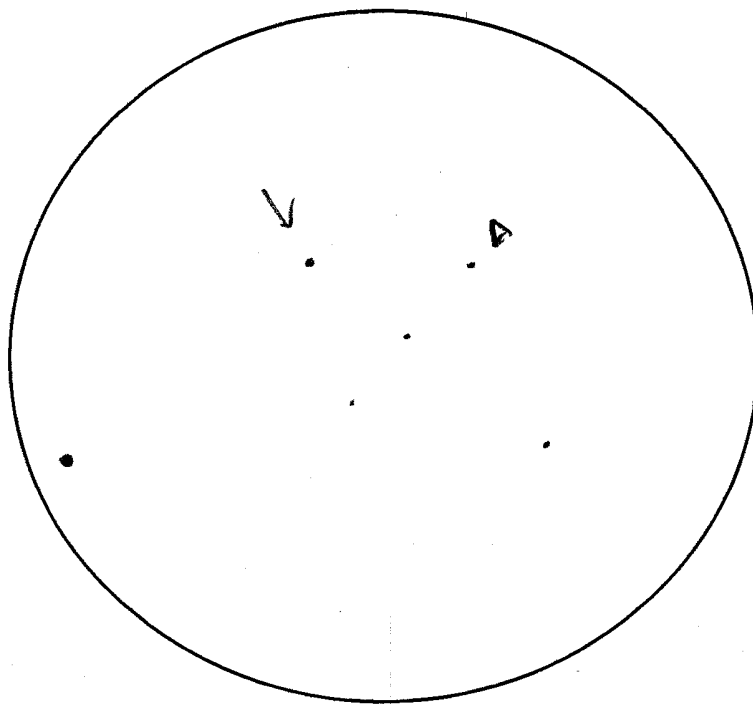
OBSERVER Brad Young OBJECT NAME R2 Peg NUMBER 96

DATE 12/28/10 TIME 1:40 UT OBSERVING SITE +36 N, 96 W

SEEING I 0 III IV V TRANSP 10 III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 10 mm

POWER 38 47 60 75 121 150 250 475 COLOR 1



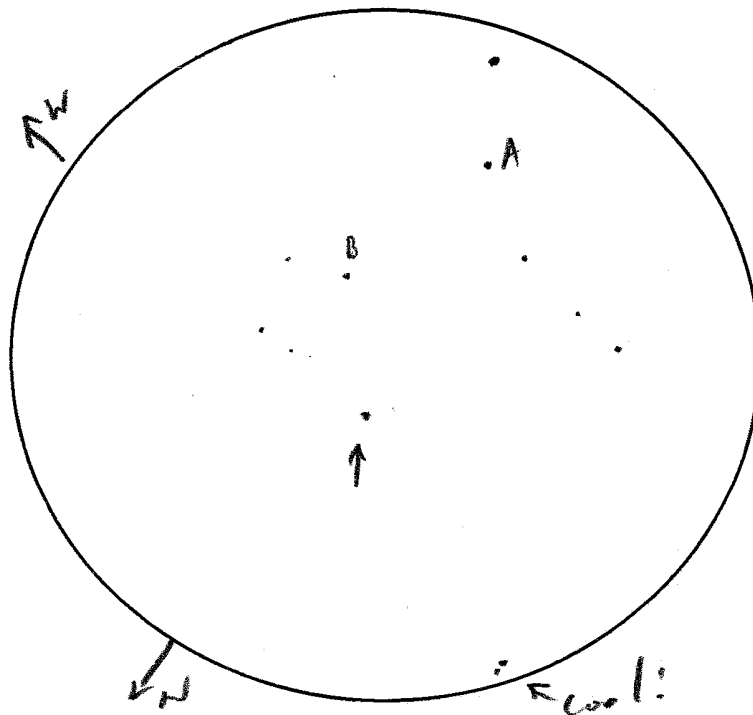
sl2A^{9.5}

3541 aso

~ 9.4

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME RU AQR NUMBER 97
 DATE 12/28/10 TIME 1:25 UT OBSERVING SITE +36 N, 96 W
 SEEING I II III IV V TRANSP I II III IV V MOON AGE — days
 INSTRUMENT XT-12 ETX-125 EYEPIECE 2x42 mm
 POWER 38 47 60 75 121 150 250 475 COLOR 2



⑨ = 12x
Del

A > x > B

3541 asj

8.7

10.2

23h 24 - 17.3

→ 9.5

CARBON STAR OBSERVING CLUB

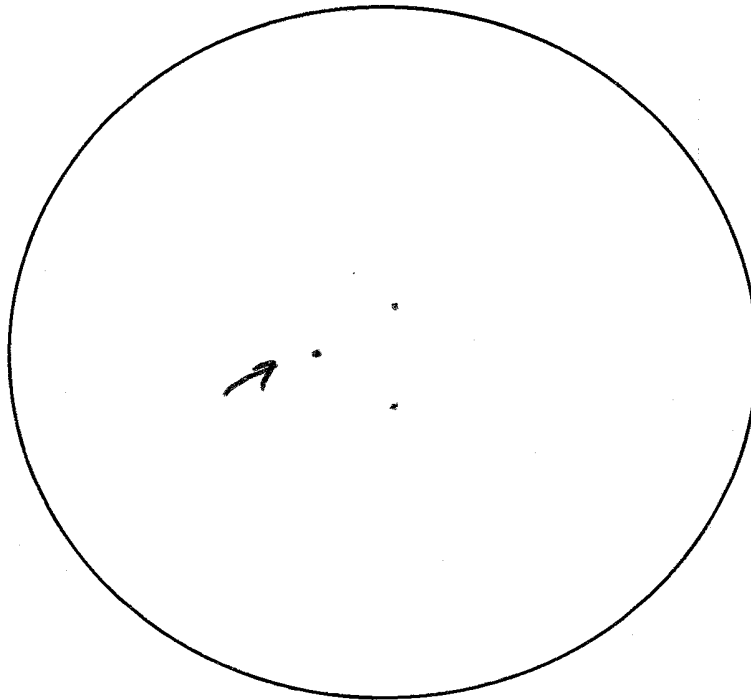
OBSERVER Brad Young OBJECT NAME ST AND NUMBER 98

DATE 1/3/11 TIME 2:55 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 10 mm

POWER 38 47 60 75 121 150 250 475 COLOR 4(?)



A2 X > B

317 dfo

A = 11.1

23439 + 36

B > 12

→ 11.5

CARBON STAR OBSERVING CLUB

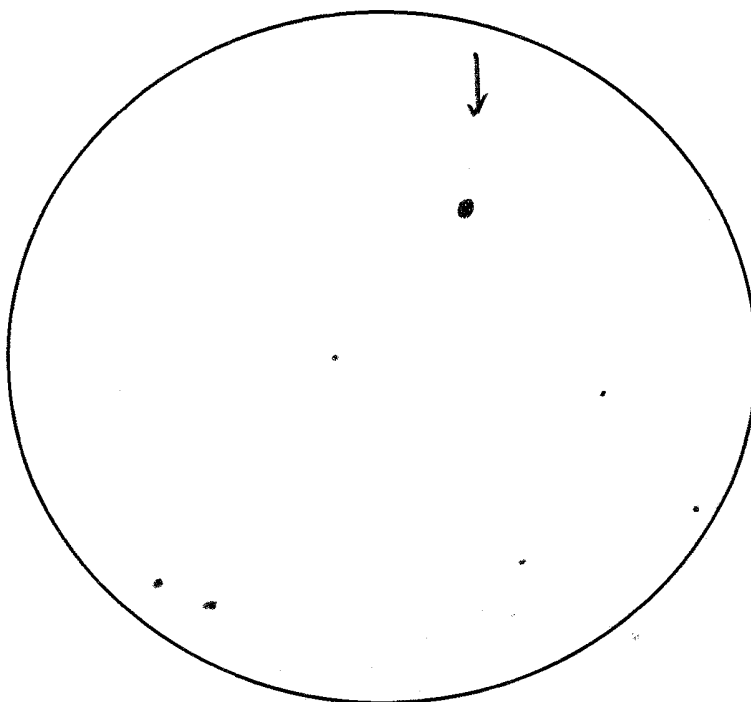
OBSERVER Brad Young OBJECT NAME TX Psc NUMBER 99

DATE 12/27/10 TIME 3:00 UT OBSERVING SITE +36 N, 96 W

SEEING I II III IV V TRANSP I II III IV V MOON AGE — days

INSTRUMENT XT-12 ETX-125 EYEPIECE 42 mm

POWER 38 (47) 60 75 121 150 250 475 COLOR 5 (arbitrary)*



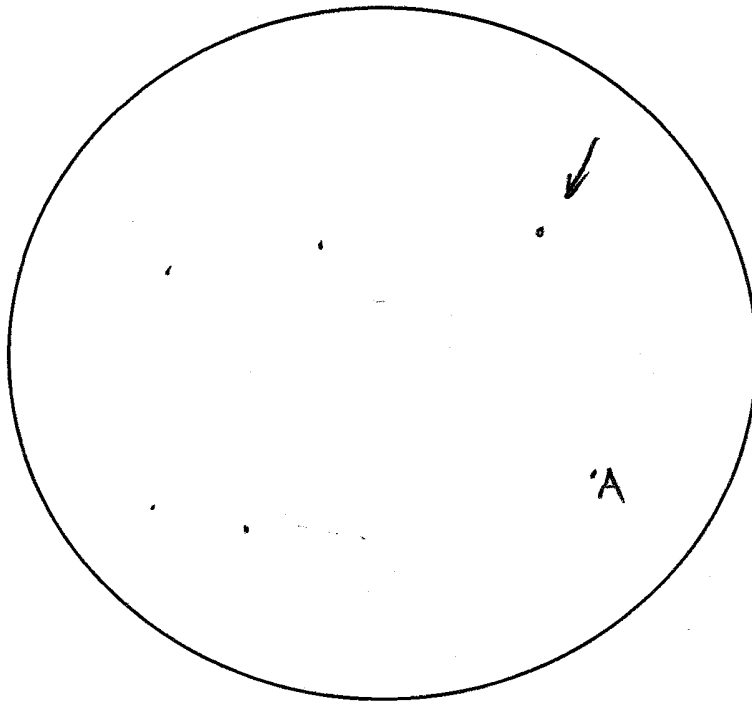
* SET COLOR SCALE AS TX Psc = STD "RED" COLOR

AT 5, REDDER $\rightarrow$ 10 LESS RED $\rightarrow$ 0

Mag $\sim$ 6 but forgot to get comparison stars.

CARBON STAR OBSERVING CLUB

OBSERVER Brad Young OBJECT NAME 5A0 128396 ^{PSC} NUMBER 100
DATE 1/2/11 TIME 1:40 UT OBSERVING SITE +36 N, 96 W
SEEING (I) II III IV V TRANSP (I) II III IV V MOON AGE days
INSTRUMENT (XT-12) ETX-125 EYEPIECE 2x42 mm
POWER 38 47 60 (75) 121 150 250 475 COLOR 1



~ 0.3m > A

23549 +6.4

A = 9.2

tyc 0593-00232-1

→ 8.9

NOR REPORTED